

# MSDC Ref: DM/26/0238 – LVS Hassocks, Sayers Common: National Highways Response Note

Ref: DS/OT/ITS19984-017  
Date: 31 March 2026

## SECTION 1 Introduction

- 1.1 This Technical Note has been prepared to address comments raised by National Highways in their response to the Transport Assessment submitted as part of the hybrid planning application for the development of a new SEN School and up to 210 dwellings on Land at LVS Hassocks, Sayers Common (ref: DM/26/0238).
- 1.2 The comments raised by National Highways have been grouped into nine categories as follows:
- 1 DfT Circular 01/2022
  - 2 Existing Traffic Data
  - 3 Trip Generation – LVS School
  - 4 Trip Distribution / Assignment
  - 5 Committed Development
  - 6 TEMPro
  - 7 Traffic Flow Diagrams
  - 8 Junction Modelling
  - 9 Travel Plan
- 1.3 The TAA responds to queries raised by National Highways in turn in each category.

## SECTION 2 DfT Circular 01/2022

- 2.1 The DfT Circular 01 / 2022 explains NH's approach to engaging with the planning system. Its guidance reflects the move towards vision led assessments of traffic impact, which:

***“Expects development promoters to enable a reduction in the need to travel by private car and prioritise sustainable transport opportunities ahead of capacity enhancements and new connections on the SRN. For residential-led developments, due consideration should be given to home and street layouts, broadband infrastructure, safe and secure cycle parking, and access to local amenities”***

[National Highways Policy Paper “Strategic Road Network and the Delivery of Sustainable Development”](#)

- 2.2 This document goes into further detail in examining the issues NH consider when reviewing planning application. It sets out the evidence sought by NH and reiterates the vision-led approach, requesting that planning applications include a proposed methodology for a vision led approach (*ref: paragraph 82, bullet 2*).
- 2.3 The technical work and traffic impact assessment undertaken for the proposed development has adopted the principles of a vision-led assessment methodology and is in accordance with the principles of the DfT 01/2022 Circular. Section 8 of the Transport Assessment (*ref: ITS19984-007D*) sets out the methodology used in the vision-led assessment.
- 2.4 The proposed development site forms part of the Sayers Common DPSC3-7 allocations in the Submission Draft Mid Sussex Local Plan (SDLP) . A two-part strategy has been developed to enhance and introduce sustainable travel infrastructure to achieve the vision for the site, both as a standalone development site and as part of the wider allocation. Measures of mitigation to achieve the vision is set out in paragraph 9.1.15 of the Transport Assessment.
- 2.5 A Transport Infrastructure Management Group (TIMG)<sup>1</sup> has been established to deliver the MSDC ‘Monitor and Manage’ strategy that supports the SDLP, and financial contributions to the measures identified within the MSDC Infrastructure Delivery Plan are to be agreed and secured via Section 106 Agreement to fund measures required to achieve the transport vision for the District.

## SECTION 3 Existing Traffic Data

- 3.1 The manual classified count (MCC) surveys undertaken on Thursday 05 June 2025 and were undertaken alongside queue length surveys in one-minute intervals. The queue length surveys are provided in **Appendix A**.

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<sup>1</sup> [t16-transport-infrastructure-management-group-terms-of-reference.pdf](#)

## SECTION 4 LVS Traffic Generation

- 4.1 The LVS SEN School currently accommodates 90 pupils with a permitted capacity of 100. At the time of the traffic surveys, the school was operational and will continue to be operational until such a time that a replacement facility is construction. The traffic generation associated with the LVS SEN School is therefore existing and has been captured within the baseline traffic surveys.
- 4.2 For the purposes of robustness, the updated traffic impact assessment and junction modelling, presented in Section 7 of this note, has assumed full capacity of 100 pupils at the school. Therefore, an additional 10 arrival trips and 10 departure trips to the school have been added in the morning peak.
- 4.3 The school day finishes at 15:00 and therefore all pupils will have left the school premises by the evening peak period. No additional trips have been added to the evening peak period traffic flows.

## SECTION 5 Trip Distribution / Assignment

### 5.1 Journey to Work Data

- 5.2 The comments regarding the proposed trip distribution and assignment are acknowledged. Based on the recommendation provided by National Highways, a standard 'journey to work' methodology has been adopted for the proposed development.

- 5.3 The journey to work trip distribution methodology is included as **Appendix B**.

### 5.4 Key Destinations

- 5.4.1 The key work destinations for residents of the Mid Sussex 016 MSOA are set out in **Table 5.1** below.

**Table 5.1: Key workplace destinations for residents of Mid Sussex 016**

| Workplace Destination | Percentage of Total (%) |
|-----------------------|-------------------------|
| Balcombe              | 2.6%                    |
| Brighton              | 18.4%                   |
| Burgess Hill          | 11.0%                   |
| Crawley               | 7.3%                    |
| Crawley Down          | 0.9%                    |
| Gatwick               | 3.3%                    |
| Hassocks              | 3.8%                    |
| Haywards Heath        | 9.8%                    |
| Horsham               | 7.6%                    |
| Lewes                 | 5.0%                    |

| Workplace Destination | Percentage of Total (%) |
|-----------------------|-------------------------|
| London                | 4.6%                    |
| Mole Valley           | 2.5%                    |
| Sayers Common         | 10.5%                   |
| Tandridge             | 0.5%                    |
| Other                 | 12.1%                   |
| <b>TOTAL</b>          | <b>100%</b>             |

Source: Nomis / Census 2011

- 5.5 The traffic distribution from the site access to route to the above destinations for work is summarised below in **Table 5.2**.

**Table 5.2: Trip Distribution Model**

| Route                       | Percentage of trips (%) |
|-----------------------------|-------------------------|
| B2118 N                     | 60%                     |
| B2118 S                     | 40%                     |
| Albourne Road / High Street | 2%                      |
| B2118 N                     | 58%                     |
| Mill Lane                   | 2%                      |
| A23 N                       | 45%                     |
| A2300                       | 14%                     |

Source: Nomis / Census 2011 / Consultant's Calculations

## SECTION 6 Committed Development

- 6.1 Following discussions with WSCC it has been advised that no committed development sites were required to be considered as part of the traffic impact assessment for the site. This has been confirmed in the WSCC response to the planning application (ref: *DM/26/0238*). The WSCC response is included as **Appendix C** to this note.
- 6.2 No alternative assumptions have been applied to the TEMPro growth factors discussed in Section 6 of this note.

- 6.3 It should also be noted that the site forms part of the DPSC 3-7 Sayers Common allocations within the SDLP. This Plan has been supported by a comprehensive Transport Study<sup>2</sup> that considers the cumulative impacts of planned growth. National Highways has been a consultee to this process. Measures of mitigating the cumulative impacts of planned growth have been identified and captured through the MSDC Infrastructure Delivery Plan – this includes works to the A23 identified through the ‘Merge and Diverge’ assessment. Proportional financial contributions are to be agreed and secured through Section 106 Agreement.

## SECTION 7      TEMPro

- 7.1 The TEMPro growth factors have been updated based on the use of a ‘trunk road type’ as requested by National Highways for the Mid Sussex 016 MSOA. The following TEMPro growth factors have been utilised:
- Morning Peak – 1.0734
  - Evening Peak – 1.0739
- 7.2 The growth factors have been applied to the 2025 baseline traffic flow data to calculate a 2031 baseline scenario.

## SECTION 8      Traffic Flow Diagrams

- 8.1 The traffic flow diagram titles have been updated to reflect a 2025 baseline year.
- 8.2 The traffic flow diagrams have been reviewed and correctly show the number of HGVs compared against the survey data.

## SECTION 9      Junction Modelling

### Typical Traffic Conditions

- 9.1 The typical traffic conditions for the following two junctions during the morning (left) and evening (right) peak period is shown below in **Image 9.1**. During the morning peak period, greater levels of queueing is observed along the A2300 (S) slip road onto the A23 and moderate queueing along the A2300 (N) of the A2300 / Hickstead Lane Roundabout.

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<sup>2</sup> [t9-transport-study-scenario-6.pdf](#)

**Image 9.1: Typical Traffic – Google Maps.**



Source: Google Maps

### **A2300 / Hickstead Lane Roundabout**

- 9.2 A geometric measurement drawing is included as **Appendix D** to this note and the Junctions 11 model has been updated based on the geometric parameters shown. The Junctions 11 model has been updated to input in vehicles in accordance with the traffic flow diagrams. The baseline morning and evening peak period scenario has correctly been labelled as '2024 baseline'.
- 9.3 A comparison has been undertaken between the recorded queue length survey and the 2024 Baseline Junctions 11 outputs, shown in **Table 9.1**.

**Table 9.1: Baseline Queue Comparison (Uncalibrated).**

| Junction                                 | Arm Description | AM Peak        |                |            | PM Peak        |                |            |
|------------------------------------------|-----------------|----------------|----------------|------------|----------------|----------------|------------|
|                                          |                 | Observed Queue | Modelled Queue | Difference | Observed Queue | Modelled Queue | Difference |
| <b>A2300 / Hickstead Lane Roundabout</b> | A2300 (E)       | 1              | 7              | +6         | 0              | 4              | +4         |
|                                          | A2300 (S)       | 23             | 32             | +9         | 6              | 6              | 0          |
|                                          | Hickstead Lane  | 1              | 1              | 0          | 1              | 1              | 0          |
|                                          | A2300 (N)       | 0              | 0              | 0          | 0              | 1              | +1         |

Source: Traffic Surveys / Junctions 11

9.4 The comparison between observed and modelled queues has identified that the junction capacity models are not representative of the typical queuing conditions at the roundabout, with the Junctions 11 model overestimating the queues recorded. The model has therefore been calibrated through direct intercept adjustments for the A2300 Eastern and Southern arms.

9.5 **Table 9.2** presents the baseline queue comparison following the calibration of queues in Junctions 11 through direct intercept adjustments in order for the model to match those of the observed. The calibrated model now reflects the typical conditions at the respective roundabout. Day-to-day fluctuations in traffic levels and queuing is commonplace at junctions with a reasonable tolerance in traffic volumes and queuing being allowed for. Additionally, there may be instances where a higher tolerance may still be acceptable, particularly on a congested network.

**Table 9.2: Baseline Queue Comparison (Calibrated).**

| Junction                                 | Arm Description | AM Peak        |                |            | PM Peak        |                |            |
|------------------------------------------|-----------------|----------------|----------------|------------|----------------|----------------|------------|
|                                          |                 | Observed Queue | Modelled Queue | Difference | Observed Queue | Modelled Queue | Difference |
| <b>A2300 / Hickstead Lane Roundabout</b> | A2300 (E)       | 1              | 1              | 0          | 0              | 1              | +1         |
|                                          | A2300 (S)       | 23             | 25             | +2         | 8              | 5              | +3         |
|                                          | Hickstead Lane  | 1              | 1              | 0          | 1              | 1              | 0          |
|                                          | A2300 (N)       | 0              | 0              | 0          | 0              | 1              | +1         |

Source: Traffic Surveys / Junctions 11

9.6 The calibrated Junctions 11 model has been re-run with the results presented in **Table 9.3**. The full Junctions 11 output is included as **Appendix E**.

**Table 9.3: A2300 / Hickstead Lane Roundabout (Calibrated).**

| Arm                                | Morning Peak Hour |             |           | Evening Peak Hour |             |           |
|------------------------------------|-------------------|-------------|-----------|-------------------|-------------|-----------|
|                                    | RFC               | Queue (veh) | Delay (s) | RFC               | Queue (veh) | Delay (s) |
| <b>2024 Observed Traffic Flows</b> |                   |             |           |                   |             |           |
| A2300 (E)                          | 0.51              | 1           | 4         | 0.45              | 1           | 4         |
| A2300 (S)                          | 1.05              | 25          | 149       | 0.84              | 5           | 35        |
| Hickstead Lane                     | 0.23              | 1           | 10        | 0.08              | 1           | 7         |
| A2300 (N)                          | 0.04              | 0           | 5         | 0.05              | 1           | 4         |
| <b>2031 Future Base</b>            |                   |             |           |                   |             |           |
| A2300 (E)                          | 0.55              | 2           | 4         | 0.48              | 1           | 4         |
| A2300 (S)                          | 1.21              | 61          | 326       | 0.96              | 12          | 77        |

|                                | Morning Peak Hour |    |     | Evening Peak Hour |    |    |
|--------------------------------|-------------------|----|-----|-------------------|----|----|
| Hickstead Lane                 | 0.26              | 1  | 10  | 0.10              | 1  | 7  |
| A2300 (N)                      | 0.04              | 0  | 5   | 0.05              | 1  | 5  |
| 2031 Future Base + Development |                   |    |     |                   |    |    |
| A2300 (E)                      | 0.55              | 2  | 4   | 0.48              | 1  | 4  |
| A2300 (S)                      | 1.25              | 70 | 370 | 0.97              | 13 | 82 |
| Hickstead Lane                 | 0.26              | 1  | 10  | 0.10              | 1  | 8  |
| A2300 (N)                      | 0.04              | 0  | 5   | 0.05              | 1  | 5  |

Source: Junctions 11

- 9.7 The results demonstrates that the A2300 (S) arm of the junction is over capacity with a maximum RFC of 1.21 equating to a queue of 25 vehicles in the base scenario. During the future year scenario, the RFC increases to 1.25, equating to a queue of 61 vehicles. The addition of development traffic will result in an increase of 9 vehicles in the morning peak period and 1 in the afternoon peak period, which represents a minor increase in traffic at the junction.

#### A23 / B2119 Merge / Diverge

- 9.8 A geometric measurement drawing is included as **Appendix D** to this note and the Junctions 11 model has been updated based on the geometric parameters shown. The Junctions 11 model has been updated to input in vehicles in accordance with the traffic flow diagrams. The baseline morning and evening peak period scenario has correctly been labelled as '2024 baseline'.

**Table 9.4: Baseline Queue Comparison (Uncalibrated)**

| Junction                           | Arm Description | AM Peak        |                |            | PM Peak        |                |            |
|------------------------------------|-----------------|----------------|----------------|------------|----------------|----------------|------------|
|                                    |                 | Observed Queue | Modelled Queue | Difference | Observed Queue | Modelled Queue | Difference |
| <b>A23 / B2199 Merge / Diverge</b> | A23 Off-Slip    | 6              | 125            | +119       | 4              | 40             | +36        |
|                                    | A2300 (E)       | 2              | 3              | +1         | 2              | 2              | 0          |
|                                    | Shell Access    | 2              | 1              | -1         | 2              | 1              | -1         |
|                                    | A2300 (W)       | 1              | 2              | +1         | 1              | 1              | 0          |

Source: Traffic Surveys / Junctions 11

- 9.8.1 The comparison between observed and modelled queues has identified that the junction capacity models are not representative of the typical queuing conditions at the roundabout. The model has been calibrated through direct intercept adjustments for the A23 Off-Slip arm. The full Junctions 11 output is included as **Appendix E**.

9.8.2 **Table 9.5** presents the calibrated junction capacity model with modelled queues match those of the observed.

**Table 9.5: Baseline Queue Comparison (Calibrated)**

| Junction                           | Arm Description | AM Peak        |                |            | PM Peak        |                |            |
|------------------------------------|-----------------|----------------|----------------|------------|----------------|----------------|------------|
|                                    |                 | Observed Queue | Modelled Queue | Difference | Observed Queue | Modelled Queue | Difference |
| <b>A23 / B2199 Merge / Diverge</b> | A23 Off-Slip    | 6              | 6              | 0          | 3              | 3              | 0          |
|                                    | A2300 (E)       | 2              | 3              | +1         | 2              | 2              | 0          |
|                                    | Shell Access    | 1              | 1              | 0          | 1              | 1              | 0          |
|                                    | A2300 (W)       | 2              | 2              | 0          | 1              | 1              | 0          |

Source: Traffic Surveys / Junctions 11

**Table 9.6: A23 / B2119 Merge / Diverge (Calibrated)**

| Arm                                   | Morning Peak Hour |             |           | Evening Peak Hour |             |           |
|---------------------------------------|-------------------|-------------|-----------|-------------------|-------------|-----------|
|                                       | RFC               | Queue (veh) | Delay (s) | RFC               | Queue (veh) | Delay (s) |
| <b>2024 Observed Traffic Flows</b>    |                   |             |           |                   |             |           |
| A23 Off-Slip                          | 0.86              | 6           | 23        | 0.71              | 3           | 11        |
| A2300 (E)                             | 0.71              | 3           | 6         | 0.65              | 2           | 5         |
| Shell Access                          | 0.25              | 1           | 7         | 0.25              | 1           | 6         |
| A2300 (W)                             | 0.56              | 2           | 7         | 0.47              | 1           | 6         |
| <b>2031 Future Base</b>               |                   |             |           |                   |             |           |
| A23 Off-Slip                          | 0.94              | 12          | 45        | 0.78              | 4           | 14        |
| A2300 (E)                             | 0.76              | 4           | 8         | 0.70              | 3           | 6         |
| Shell Access                          | 0.29              | 1           | 8         | 0.29              | 1           | 7         |
| A2300 (W)                             | 0.60              | 2           | 8         | 0.51              | 1           | 6         |
| <b>2031 Future Base + Development</b> |                   |             |           |                   |             |           |
| A23 Off-Slip                          | 0.95              | 12          | 48        | 0.78              | 4           | 14        |
| A2300 (E)                             | 0.77              | 4           | 8         | 0.71              | 3           | 6         |
| Shell Access                          | 0.30              | 1           | 8         | 0.29              | 1           | 7         |
| A2300 (W)                             | 0.62              | 2           | 8         | 0.51              | 2           | 6         |

Source: Junctions 11

9.8.3 The above results in **Table 9.6** demonstrates that the A23 Off-Slip arm of the junction is approaching capacity in the morning peak period with a maximum RFC of 0.94 in the baseline scenario. The addition of development traffic will result in a negligible increase in queuing and delay at the junction.

9.8.4 The soft copy Junctions 11 files for the following two junctions have been provided separately to National Highways via email<sup>3</sup>.

9.8.5 Video records of the surveys have been requested from the data collection company; however, it is not possible for these to be provided as they have been deleted in accordance with GDPR guidelines.

## 9.9 Infrastructure Delivery Plan

9.9.1 Mid Sussex District Council (MSDC) commissioned SYSTRA to build a strategic highway model, known as the Mid Sussex Strategic Highway Model (MSSHM), to underpin the Mid Sussex Transport Study (MSTS) and test the impact of planned development in the SDLP on the strategic and local highway network. The Transport Study results have identified a range of mitigation measures that have been incorporated into an Infrastructure Delivery Plan (IDP) for which proportional contributions are being secured from development sites.

9.9.2 The IDP is an essential part in the preparation of the District Plan and has been prepared in partnership with the various infrastructure providers, including NH. It sets out the key infrastructure that will be required to support the objectives, spatial strategy and the delivery of the District Plan over the Plan period to 2040, identify where and when the infrastructure is required, who is responsible for delivering it, the cost of provision and how these costs are expected to be funded.

9.9.3 Infrastructure to mitigate the impact of new developments will primarily be funded through S106 planning obligations, S278 highway agreements and planning conditions.

9.9.4 One large and four smaller site allocations are proposed at Sayers Common in the SDLP, summarised below, to deliver sustainable communities which will benefit and contribute to improving sustainability within the settlement.

**Table 9.7: Sayers Common Site Allocations.**

| Policy Ref | Site                                          | Dwellings (allocated) | Dwellings (applied for)        |
|------------|-----------------------------------------------|-----------------------|--------------------------------|
| DPSC3      | Land to the south of Reeds Lane               | 1,850                 | No application at current time |
| DPSC4      | Land at Chesapeake and Meadow View, Reed Lane | 33                    | 27                             |
| DPSC5      | Land at Coombe Farm, London Road              | 210                   | 210                            |

<sup>3</sup> j11 files issued to [planningse@nationalhighways.co.uk](mailto:planningse@nationalhighways.co.uk) – 31<sup>st</sup> March 2026

| Policy Ref | Site                                                  | Dwellings (allocated) | Dwellings (applied for) |
|------------|-------------------------------------------------------|-----------------------|-------------------------|
| DPSC6      | Land to the west of Kings Business Centre, Reeds Lane | 100                   | 80                      |
| DPSC7      | Land south of LVS Hassock, London Road                | 200                   | 210                     |

9.9.5 The site allocations have been identified to contribute towards the following transport infrastructure scheme:

- Capacity improvements to the A23 / A2300 Hickstead Lane interchange.

9.9.6 Therefore, the proposed development will provide S106 contributions towards a strategic improvement scheme at the A23 / A2300 interchange which will result in an improved junction performance, compared to the modelling results presented in this Note.

## 9.10 A23 Merge / Diverge Study

9.10.1 The main strategic route through Mid Sussex is the A23 which leads into the M23 to the north outside of the district boundary.

9.10.2 SYSTRA have been commissioned by MSDC to develop the transport evidence base to support the development of the Mid Sussex District Plan. A merge and diverge assessment exercise has been undertaken to assess the impact of the targeted growth in the District Plan on the Strategic Road Network. The assessments identify how the traffic growth forecasts impact the merge/ diverge and mainline layout type requirements in accordance with Design Manual for Roads and Bridges (DMRB) CD 122 Geometric design of grade separated junctions.

9.10.3 The study identifies mitigation measures required to ensure that the highway mitigation package to support the District Plan so no impacts remain which would be considered “severe” in terms of the definition set out within NPPF.

9.10.4 A total of 14 junctions were taken forward for merge / diverge assessment. The following five slip road merges / diverges trigger an upgrade between the flows assessed for the Reference Case compared to Scenario 6m2:

- A23 / B2115 – Southbound On-Slip Merge
- A23 / A272 – Northbound Off-Slip Diverge
- A23 / A272 Southbound On-Slip Merge

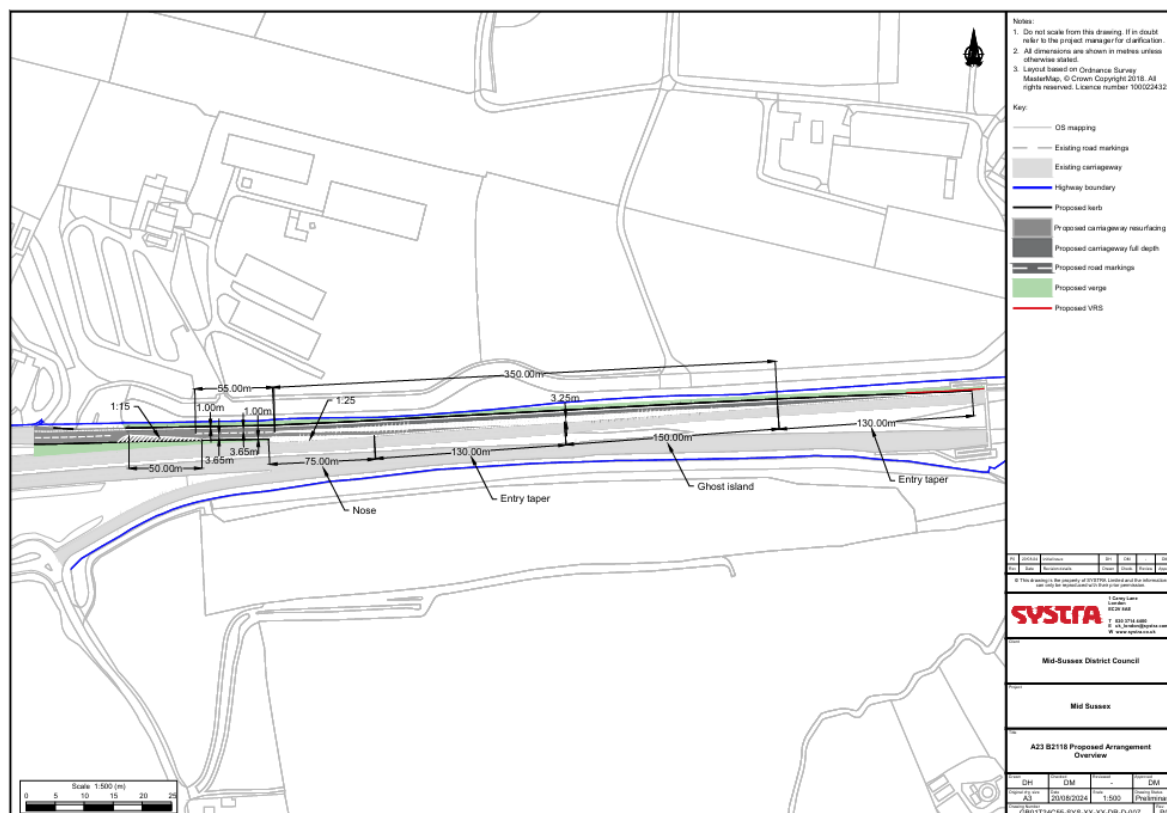
- A23 / B2218 Northbound On-Slip Merge (proximity to Sayers Common)
- A23 / B2217 – Southbound On-Slip Merge

### A23 / B2218 Northbound On-Slip Merge

9.10.5 The A23 B2118 northbound on slip has limited highway boundary space available beyond the edge of the existing slip road (approximately 5m in width). Further to this approximately 420m north of the merge, there is an existing pedestrian footbridge in close proximity to the carriageway. There is sufficient space within the existing extents of the highway boundary in order to provide a ghost island merge due to the existing auxiliary lane. Further to this, the additional entry of the ghost island can be provided on the inside of the existing slip road minimizing the need for additional highway space. The required length of the ghost island merge can also be accommodated without impacting the structure to the north.

9.10.6 A proposed ghost island merge drawing has been prepared to form part of the mitigation package to support the District Plan growth, as illustrated in **Image 9.2**.

**Image 9.2: A23 / B2218 Northbound On-Slip – Proposed Improvement.**



9.11 Developments in Sayers Common will provide proportionate contributions towards the proposed improvement scheme.

## SECTION 10 Travel Plan

- 10.1 The comments raised in relation to the Travel Plan have been updated, with the amended Travel Plan provided at **Appendix F**.

## SECTION 11 Summary

### Overview

- 11.1 This Technical Note has been prepared to address comments raised by National Highways (NH) in relation to an hybrid planning application for up to 210 new homes on Land at LVS Hassocks, Sayers Common.

### Traffic Distribution / Assignment

- 11.2 The development traffic distribution has been updated based on a journey to work distribution for all trips.
- 11.3 Traffic flow diagrams have been updated to illustrate the updated trip distribution / assignment and total traffic.

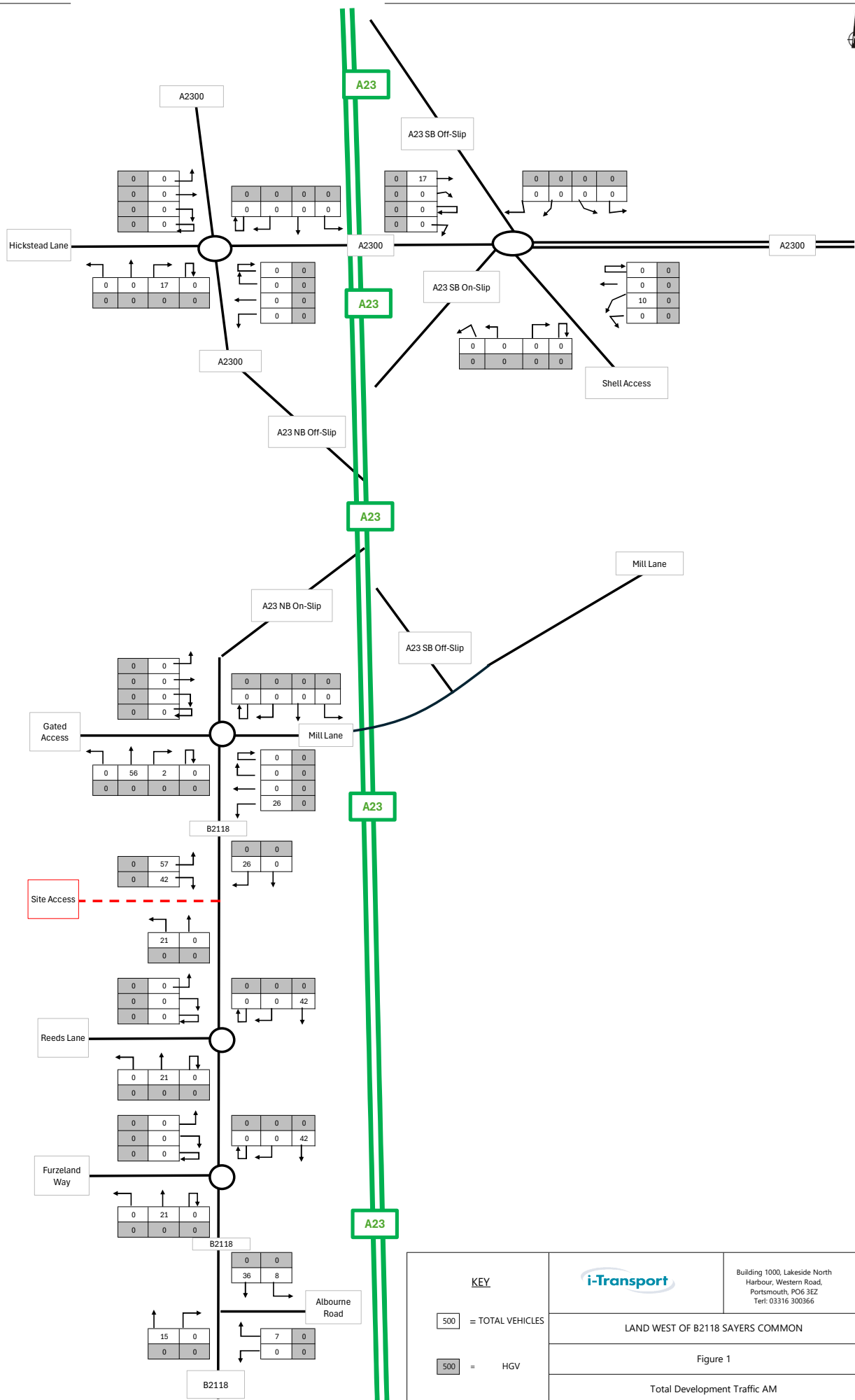
### Junction Modelling

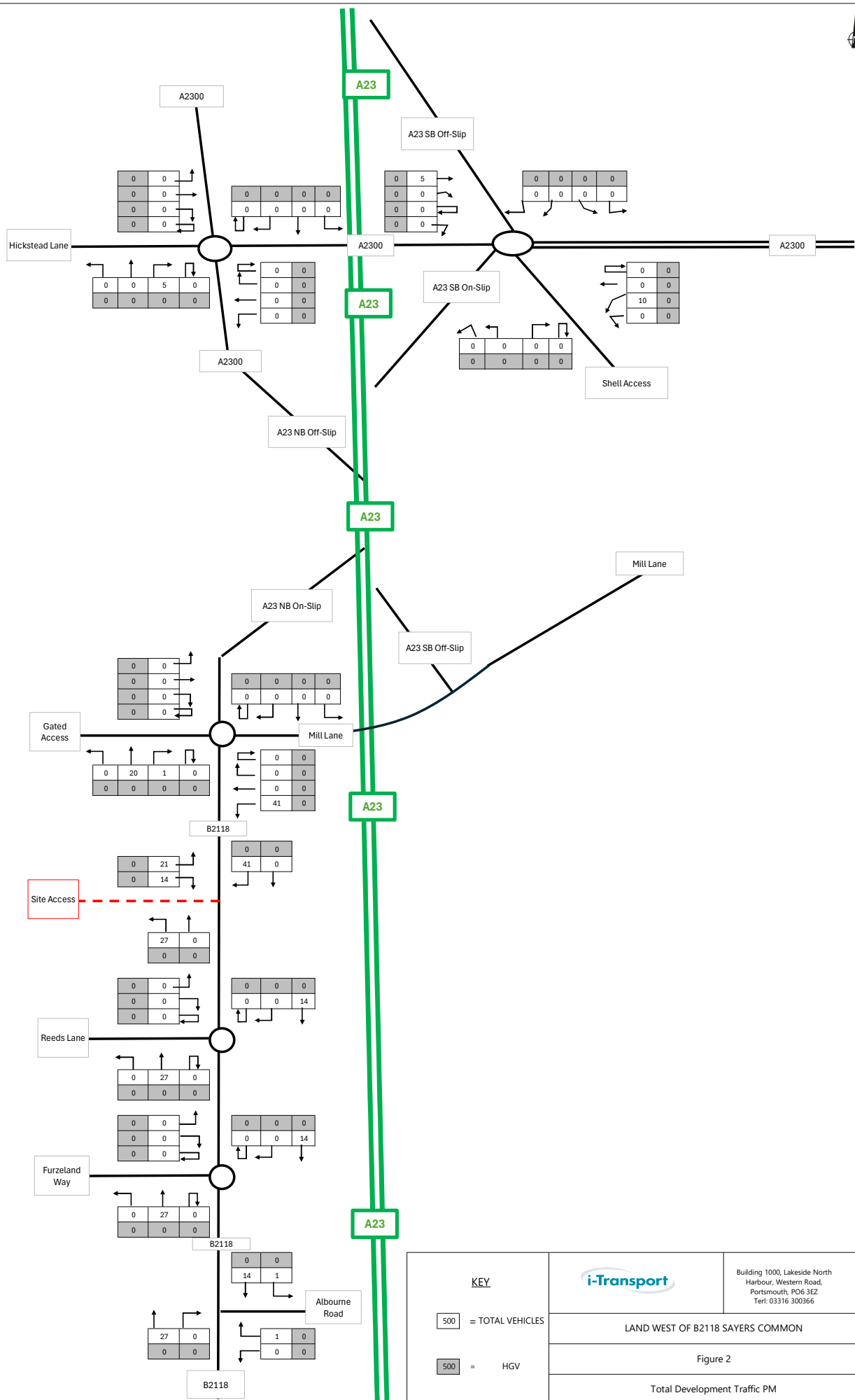
- 11.4 The junction capacity models have been calibrated to ensure that the observed queues have been reflected accurately within the junction models.
- 11.5 The junction capacity models have been re-run to account for the amended trip distribution and geometric parameters. The capacity models have been calibrated to ensure the baseline models match observed queuing conditions.
- 11.6 Work undertaken as part of the IDP and A23 Merge / Diverge study for the SDLP has identified strategic mitigation / improvement schemes at both the A23 / A2300 interchange and A23 / B2218 Northbound On-Slip which the proposed development will provide a proportionate contribution towards.

### Summary

- 11.7 The proposed development will result in a negligible impact on the capacity of the strategic road network, following a robust junction modelling assessment.
- 11.8 The impact of the proposed development falls far short of *severe* (ref: paragraph 116 of the National Planning Policy Framework) and there are no highway reasons as to why the development should be refused.

- 11.9 Schemes of mitigation have been identified, both as a standalone application and as part of the cumulative impact of development associated with planned growth set out in the SDLP. Direct improvement schemes have been identified to achieve the transport vision in addition to financial contributions towards improvements identified in the MSDC Infrastructure Delivery Plan, all of which are to be secured through Section 106 Agreement.





KEY

500 = TOTAL VEHICLES

500 = HGV

i-Transport

Building 1000, Lakeside North  
Harbour, Western Road,  
Portsmouth, PO6 3EZ  
Tel: 03316 300366

LAND WEST OF B2118 SAYERS COMMON

Figure 2

Total Development Traffic PM

## **APPENDIX A.** TRAFFIC SURVEY QUEUE LENGTH DATA

| TIME        | 2a | 2b | 2c | 2d | 2e | 2f | 2g | 2h |
|-------------|----|----|----|----|----|----|----|----|
| 0630 - 0631 | 0  | 0  | 1  | 2  | 1  | 0  | 0  | 2  |
| 0631 - 0632 | 0  | 1  | 0  | 1  | 1  | 0  | 0  | 2  |
| 0632 - 0633 | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 2  |
| 0633 - 0634 | 1  | 0  | 0  | 1  | 1  | 0  | 0  | 2  |
| 0634 - 0635 | 1  | 0  | 1  | 1  | 3  | 0  | 0  | 0  |
| 0635 - 0636 | 0  | 0  | 1  | 3  | 2  | 0  | 0  | 2  |
| 0636 - 0637 | 2  | 0  | 1  | 1  | 0  | 0  | 0  | 1  |
| 0637 - 0638 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 4  |
| 0638 - 0639 | 1  | 0  | 0  | 1  | 0  | 0  | 0  | 3  |
| 0639 - 0640 | 3  | 0  | 0  | 1  | 0  | 0  | 0  | 1  |
| 0640 - 0641 | 1  | 0  | 0  | 1  | 0  | 0  | 0  | 1  |
| 0641 - 0642 | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 1  |
| 0642 - 0643 | 0  | 0  | 0  | 2  | 1  | 0  | 0  | 0  |
| 0643 - 0644 | 1  | 1  | 0  | 1  | 0  | 0  | 0  | 2  |
| 0644 - 0645 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  |
| 0645 - 0646 | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 1  |
| 0646 - 0647 | 0  | 0  | 1  | 2  | 0  | 0  | 0  | 1  |
| 0647 - 0648 | 1  | 0  | 0  | 1  | 0  | 0  | 0  | 1  |
| 0648 - 0649 | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 1  |
| 0649 - 0650 | 0  | 3  | 1  | 1  | 1  | 0  | 0  | 2  |
| 0650 - 0651 | 6  | 0  | 0  | 2  | 0  | 0  | 0  | 1  |
| 0651 - 0652 | 5  | 2  | 1  | 1  | 2  | 0  | 0  | 1  |
| 0652 - 0653 | 2  | 0  | 0  | 0  | 0  | 0  | 0  | 2  |
| 0653 - 0654 | 3  | 0  | 0  | 0  | 2  | 0  | 0  | 2  |
| 0654 - 0655 | 1  | 0  | 4  | 0  | 3  | 0  | 0  | 4  |
| 0655 - 0656 | 3  | 0  | 1  | 1  | 0  | 0  | 0  | 4  |
| 0656 - 0657 | 4  | 1  | 1  | 1  | 0  | 0  | 0  | 2  |
| 0657 - 0658 | 2  | 1  | 2  | 2  | 2  | 0  | 0  | 2  |
| 0658 - 0659 | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 1  |
| 0659 - 0700 | 1  | 0  | 0  | 0  | 3  | 0  | 0  | 2  |
| 0700 - 0701 | 1  | 1  | 0  | 3  | 0  | 0  | 0  | 2  |
| 0701 - 0702 | 1  | 1  | 0  | 0  | 2  | 0  | 0  | 4  |
| 0702 - 0703 | 1  | 0  | 0  | 1  | 3  | 0  | 0  | 1  |
| 0703 - 0704 | 0  | 0  | 0  | 1  | 3  | 0  | 0  | 2  |
| 0704 - 0705 | 0  | 0  | 1  | 1  | 1  | 0  | 0  | 2  |
| 0705 - 0706 | 1  | 0  | 1  | 0  | 1  | 0  | 0  | 1  |
| 0706 - 0707 | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 2  |
| 0707 - 0708 | 5  | 0  | 0  | 1  | 1  | 0  | 0  | 1  |
| 0708 - 0709 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  |
| 0709 - 0710 | 3  | 0  | 1  | 1  | 2  | 0  | 0  | 2  |
| 0710 - 0711 | 4  | 0  | 1  | 3  | 2  | 0  | 0  | 1  |
| 0711 - 0712 | 3  | 0  | 0  | 2  | 1  | 0  | 0  | 2  |
| 0712 - 0713 | 5  | 0  | 0  | 1  | 2  | 0  | 0  | 3  |
| 0713 - 0714 | 4  | 1  | 1  | 1  | 1  | 0  | 0  | 1  |
| 0714 - 0715 | 1  | 1  | 0  | 0  | 0  | 0  | 0  | 1  |
| 0715 - 0716 | 2  | 1  | 1  | 3  | 1  | 0  | 0  | 3  |
| 0716 - 0717 | 4  | 1  | 0  | 0  | 2  | 0  | 0  | 2  |
| 0717 - 0718 | 6  | 1  | 1  | 3  | 1  | 0  | 0  | 2  |
| 0718 - 0719 | 2  | 0  | 1  | 1  | 1  | 0  | 0  | 10 |
| 0719 - 0720 | 4  | 0  | 0  | 0  | 1  | 0  | 0  | 12 |
| 0720 - 0721 | 5  | 0  | 2  | 2  | 1  | 0  | 0  | 13 |
| 0721 - 0722 | 1  | 0  | 0  | 0  | 1  | 0  | 0  | 12 |
| 0722 - 0723 | 6  | 2  | 1  | 2  | 1  | 0  | 0  | 14 |
| 0723 - 0724 | 5  | 1  | 1  | 2  | 1  | 0  | 0  | 10 |
| 0724 - 0725 | 4  | 1  | 0  | 1  | 2  | 0  | 0  | 11 |
| 0725 - 0726 | 3  | 0  | 0  | 3  | 2  | 0  | 0  | 14 |
| 0726 - 0727 | 3  | 1  | 0  | 1  | 2  | 0  | 0  | 18 |
| 0727 - 0728 | 3  | 1  | 0  | 0  | 5  | 0  | 0  | 18 |
| 0728 - 0729 | 3  | 0  | 0  | 0  | 5  | 0  | 0  | 20 |

|                |      |      |      |      |      |      |      |       |
|----------------|------|------|------|------|------|------|------|-------|
| 0729 - 0730    | 7    | 1    | 2    | 2    | 2    | 0    | 0    | 20    |
| Hourly Average | 2.10 | 0.38 | 0.48 | 1.03 | 1.22 | 0.00 | 0.00 | 4.27  |
| 0730 - 0731    | 11   | 1    | 0    | 2    | 1    | 0    | 0    | 20    |
| 0731 - 0732    | 9    | 1    | 1    | 2    | 1    | 0    | 0    | 19    |
| 0732 - 0733    | 2    | 2    | 0    | 0    | 5    | 0    | 0    | 15    |
| 0733 - 0734    | 3    | 0    | 2    | 1    | 0    | 0    | 0    | 16    |
| 0734 - 0735    | 6    | 1    | 0    | 2    | 0    | 0    | 0    | 7     |
| 0735 - 0736    | 12   | 1    | 1    | 1    | 1    | 0    | 0    | 6     |
| 0736 - 0737    | 13   | 2    | 1    | 2    | 3    | 0    | 0    | 2     |
| 0737 - 0738    | 5    | 0    | 2    | 4    | 2    | 0    | 0    | 2     |
| 0738 - 0739    | 10   | 1    | 2    | 1    | 2    | 0    | 0    | 2     |
| 0739 - 0740    | 4    | 0    | 0    | 1    | 1    | 0    | 0    | 1     |
| 0740 - 0741    | 3    | 0    | 1    | 1    | 1    | 0    | 0    | 5     |
| 0741 - 0742    | 6    | 1    | 1    | 3    | 1    | 0    | 0    | 8     |
| 0742 - 0743    | 3    | 1    | 1    | 3    | 0    | 0    | 0    | 4     |
| 0743 - 0744    | 7    | 0    | 1    | 3    | 0    | 0    | 0    | 2     |
| 0744 - 0745    | 5    | 1    | 0    | 3    | 1    | 0    | 0    | 15    |
| 0745 - 0746    | 5    | 2    | 1    | 5    | 2    | 0    | 0    | 15    |
| 0746 - 0747    | 8    | 1    | 0    | 0    | 0    | 0    | 0    | 12    |
| 0747 - 0748    | 6    | 0    | 0    | 1    | 3    | 0    | 0    | 20    |
| 0748 - 0749    | 8    | 2    | 0    | 1    | 3    | 0    | 0    | 20    |
| 0749 - 0750    | 12   | 3    | 0    | 1    | 1    | 0    | 0    | 21    |
| 0750 - 0751    | 13   | 2    | 2    | 3    | 1    | 0    | 0    | 21    |
| 0751 - 0752    | 16   | 1    | 2    | 3    | 1    | 0    | 0    | 22    |
| 0752 - 0753    | 8    | 1    | 3    | 0    | 0    | 0    | 0    | 22    |
| 0753 - 0754    | 10   | 4    | 0    | 2    | 2    | 0    | 0    | 21    |
| 0754 - 0755    | 8    | 5    | 1    | 3    | 2    | 0    | 0    | 20    |
| 0755 - 0756    | 8    | 3    | 0    | 0    | 1    | 0    | 0    | 21    |
| 0756 - 0757    | 7    | 2    | 2    | 4    | 2    | 0    | 0    | 22    |
| 0757 - 0758    | 8    | 3    | 2    | 6    | 0    | 0    | 0    | 22    |
| 0758 - 0759    | 6    | 1    | 2    | 5    | 2    | 0    | 0    | 24    |
| 0759 - 0800    | 9    | 2    | 2    | 1    | 1    | 0    | 0    | 23    |
| 0800 - 0801    | 15   | 2    | 1    | 1    | 5    | 1    | 0    | 22    |
| 0801 - 0802    | 12   | 1    | 1    | 1    | 2    | 0    | 0    | 23    |
| 0802 - 0803    | 14   | 2    | 2    | 2    | 0    | 0    | 0    | 23    |
| 0803 - 0804    | 11   | 2    | 0    | 1    | 1    | 6    | 0    | 23    |
| 0804 - 0805    | 2    | 1    | 1    | 1    | 1    | 0    | 0    | 23    |
| 0805 - 0806    | 4    | 2    | 0    | 0    | 2    | 0    | 0    | 23    |
| 0806 - 0807    | 3    | 1    | 2    | 1    | 0    | 1    | 0    | 23    |
| 0807 - 0808    | 7    | 2    | 2    | 2    | 1    | 0    | 0    | 22    |
| 0808 - 0809    | 7    | 2    | 0    | 0    | 3    | 0    | 0    | 23    |
| 0809 - 0810    | 3    | 1    | 0    | 0    | 2    | 0    | 0    | 23    |
| 0810 - 0811    | 7    | 1    | 2    | 3    | 1    | 1    | 0    | 23    |
| 0811 - 0812    | 4    | 1    | 2    | 2    | 1    | 0    | 0    | 23    |
| 0812 - 0813    | 5    | 1    | 2    | 2    | 0    | 0    | 0    | 22    |
| 0813 - 0814    | 2    | 2    | 2    | 4    | 2    | 0    | 0    | 23    |
| 0814 - 0815    | 1    | 2    | 1    | 3    | 2    | 0    | 0    | 23    |
| 0815 - 0816    | 0    | 0    | 1    | 1    | 2    | 0    | 0    | 19    |
| 0816 - 0817    | 4    | 1    | 1    | 1    | 0    | 0    | 0    | 20    |
| 0817 - 0818    | 5    | 1    | 0    | 0    | 2    | 0    | 0    | 18    |
| 0818 - 0819    | 7    | 1    | 2    | 2    | 3    | 0    | 0    | 19    |
| 0819 - 0820    | 8    | 0    | 1    | 1    | 0    | 0    | 0    | 14    |
| 0820 - 0821    | 4    | 2    | 1    | 3    | 1    | 0    | 0    | 17    |
| 0821 - 0822    | 5    | 0    | 0    | 1    | 1    | 0    | 0    | 15    |
| 0822 - 0823    | 5    | 0    | 1    | 3    | 1    | 0    | 0    | 10    |
| 0823 - 0824    | 3    | 3    | 1    | 2    | 1    | 0    | 0    | 15    |
| 0824 - 0825    | 4    | 1    | 0    | 2    | 7    | 0    | 0    | 15    |
| 0825 - 0826    | 2    | 0    | 1    | 0    | 0    | 3    | 0    | 12    |
| 0826 - 0827    | 4    | 1    | 1    | 4    | 1    | 0    | 0    | 8     |
| 0827 - 0828    | 1    | 0    | 1    | 1    | 2    | 0    | 0    | 10    |
| 0828 - 0829    | 2    | 0    | 0    | 1    | 1    | 0    | 0    | 15    |
| 0829 - 0830    | 2    | 1    | 0    | 0    | 0    | 0    | 0    | 9     |
| Hourly Average | 6.40 | 1.30 | 0.98 | 1.82 | 1.42 | 0.20 | 0.00 | 16.47 |
| 0830 - 0831    | 2    | 1    | 0    | 1    | 0    | 1    | 0    | 7     |
| 0831 - 0832    | 3    | 0    | 1    | 0    | 1    | 0    | 0    | 2     |
| 0832 - 0833    | 2    | 2    | 0    | 1    | 3    | 0    | 0    | 2     |
| 0833 - 0834    | 6    | 1    | 0    | 3    | 2    | 0    | 0    | 8     |
| 0834 - 0835    | 4    | 0    | 0    | 3    | 2    | 0    | 0    | 7     |
| 0835 - 0836    | 2    | 1    | 0    | 0    | 2    | 0    | 0    | 16    |
| 0836 - 0837    | 2    | 0    | 0    | 1    | 1    | 0    | 0    | 16    |
| 0837 - 0838    | 2    | 1    | 1    | 1    | 3    | 0    | 0    | 12    |
| 0838 - 0839    | 2    | 1    | 0    | 0    | 2    | 0    | 0    | 4     |
| 0839 - 0840    | 3    | 0    | 0    | 3    | 1    | 0    | 0    | 2     |
| 0840 - 0841    | 2    | 0    | 0    | 1    | 3    | 0    | 0    | 12    |
| 0841 - 0842    | 4    | 0    | 0    | 0    | 1    | 0    | 0    | 11    |
| 0842 - 0843    | 9    | 2    | 0    | 0    | 0    | 1    | 0    | 8     |
| 0843 - 0844    | 11   | 2    | 1    | 2    | 1    | 0    | 0    | 6     |
| 0844 - 0845    | 3    | 1    | 1    | 1    | 1    | 0    | 0    | 9     |
| 0845 - 0846    | 4    | 1    | 3    | 1    | 4    | 0    | 0    | 15    |
| 0846 - 0847    | 4    | 0    | 1    | 0    | 6    | 0    | 0    | 18    |
| 0847 - 0848    | 5    | 1    | 1    | 5    | 3    | 0    | 0    | 15    |
| 0848 - 0849    | 5    | 0    | 0    | 0    | 3    | 0    | 0    | 20    |
| 0849 - 0850    | 3    | 0    | 0    | 0    | 1    | 0    | 0    | 16    |
| 0850 - 0851    | 2    | 0    | 0    | 0    | 1    | 0    | 0    | 18    |
| 0851 - 0852    | 4    | 1    | 1    | 0    | 2    | 0    | 0    | 3     |
| 0852 - 0853    | 11   | 2    | 1    | 0    | 1    | 0    | 0    | 4     |
| 0853 - 0854    | 8    | 1    | 2    | 3    | 2    | 0    | 0    | 1     |

|                |      |      |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|------|------|
| 0854 - 0855    | 4    | 1    | 0    | 0    | 2    | 0    | 0    | 2    |
| 0855 - 0856    | 1    | 0    | 0    | 0    | 3    | 0    | 0    | 3    |
| 0856 - 0857    | 4    | 1    | 1    | 3    | 2    | 0    | 0    | 3    |
| 0857 - 0858    | 4    | 0    | 0    | 0    | 1    | 0    | 0    | 6    |
| 0858 - 0859    | 3    | 0    | 1    | 2    | 0    | 0    | 0    | 1    |
| 0859 - 0900    | 2    | 1    | 5    | 1    | 1    | 0    | 0    | 6    |
| 0900 - 0901    | 1    | 1    | 1    | 0    | 1    | 0    | 0    | 1    |
| 0901 - 0902    | 5    | 1    | 0    | 2    | 1    | 0    | 0    | 3    |
| 0902 - 0903    | 3    | 0    | 1    | 0    | 0    | 0    | 0    | 8    |
| 0903 - 0904    | 6    | 2    | 0    | 0    | 1    | 0    | 0    | 2    |
| 0904 - 0905    | 4    | 1    | 1    | 0    | 2    | 0    | 0    | 4    |
| 0905 - 0906    | 3    | 2    | 0    | 0    | 1    | 0    | 0    | 3    |
| 0906 - 0907    | 3    | 0    | 1    | 0    | 0    | 0    | 0    | 1    |
| 0907 - 0908    | 5    | 0    | 0    | 0    | 0    | 0    | 0    | 4    |
| 0908 - 0909    | 3    | 0    | 0    | 1    | 2    | 0    | 0    | 5    |
| 0909 - 0910    | 2    | 1    | 0    | 0    | 1    | 0    | 0    | 3    |
| 0910 - 0911    | 4    | 0    | 2    | 1    | 1    | 0    | 0    | 1    |
| 0911 - 0912    | 3    | 1    | 1    | 0    | 2    | 0    | 0    | 4    |
| 0912 - 0913    | 3    | 0    | 0    | 1    | 1    | 0    | 0    | 7    |
| 0913 - 0914    | 3    | 0    | 0    | 3    | 0    | 0    | 0    | 8    |
| 0914 - 0915    | 3    | 0    | 3    | 2    | 1    | 0    | 0    | 3    |
| 0915 - 0916    | 7    | 1    | 2    | 0    | 1    | 0    | 0    | 2    |
| 0916 - 0917    | 4    | 0    | 0    | 0    | 0    | 0    | 0    | 2    |
| 0917 - 0918    | 3    | 1    | 0    | 0    | 2    | 0    | 0    | 2    |
| 0918 - 0919    | 5    | 1    | 0    | 2    | 1    | 0    | 0    | 4    |
| 0919 - 0920    | 4    | 1    | 1    | 2    | 2    | 0    | 0    | 6    |
| 0920 - 0921    | 2    | 1    | 0    | 0    | 1    | 0    | 0    | 4    |
| 0921 - 0922    | 1    | 0    | 0    | 0    | 0    | 1    | 0    | 5    |
| 0922 - 0923    | 5    | 0    | 0    | 4    | 0    | 0    | 0    | 7    |
| 0923 - 0924    | 3    | 1    | 2    | 0    | 0    | 0    | 0    | 6    |
| 0924 - 0925    | 2    | 1    | 2    | 1    | 0    | 0    | 0    | 1    |
| 0925 - 0926    | 3    | 0    | 1    | 1    | 0    | 0    | 0    | 6    |
| 0926 - 0927    | 5    | 0    | 0    | 1    | 1    | 0    | 0    | 5    |
| 0927 - 0928    | 1    | 0    | 0    | 0    | 2    | 1    | 0    | 0    |
| 0928 - 0929    | 7    | 1    | 0    | 0    | 1    | 0    | 0    | 3    |
| 0929 - 0930    | 2    | 1    | 2    | 2    | 2    | 0    | 0    | 5    |
| Hourly Average | 3.77 | 0.65 | 0.67 | 0.92 | 1.37 | 0.07 | 0.00 | 6.13 |
| Session Total  | 4.09 | 0.78 | 0.71 | 1.26 | 1.33 | 0.09 | 0.00 | 8.96 |

## **APPENDIX B. TRIP DISTRIBUTION**

| Broad Destination | Car Mode Split | Proportion by Car | Proportion by Route | Proportion on Route | Route 1 | Route 2                     | Route 3 | Route 4 |
|-------------------|----------------|-------------------|---------------------|---------------------|---------|-----------------------------|---------|---------|
| Balcombe          | 89%            | 3%                | 100%                | 3%                  | B2118 N | B2118 N                     | A23 N   | /       |
| Brighton          | 81%            | 18%               | 100%                | 18%                 | B2118 S | /                           | /       | /       |
| Burgess Hill      | 77%            | 11%               | 100%                | 11%                 | B2118 N | B2118 N                     | A23 N   | A2300   |
| Crawley           | 92%            | 7%                | 100%                | 7%                  | B2118 N | B2118 N                     | A23 N   | /       |
| Crawley Down      | 63%            | 1%                | 100%                | 1%                  | B2118 N | B2118 N                     | A23 N   | /       |
| Gatwick           | 83%            | 3%                | 100%                | 3%                  | B2118 N | B2118 N                     | A23 N   | /       |
| Hassocks          | 64%            | 4%                | 50%                 | 2%                  | B2118 N | Mill Lane                   | /       | /       |
|                   |                |                   | 50%                 | 2%                  | B2118 S | Albourne Road / High Street | /       | /       |
| Haywards Heath    | 82%            | 10%               | 100%                | 10%                 | B2118 N | B2118 N                     | A23 N   | /       |
| Horsham           | 90%            | 8%                | 100%                | 8%                  | B2118 N | B2118 N                     | A23 N   | /       |
| Lewes             | 89%            | 5%                | 50%                 | 3%                  | B2118 S | /                           | /       | /       |
|                   |                |                   | 50%                 | 3%                  | B2118 N | B2118 N                     | A23 N   | A2300   |
| London            | 28%            | 5%                | 100%                | 5%                  | B2118 N | B2118 N                     | /       | /       |
| Mole Valley       | 90%            | 2%                | 100%                | 2%                  | B2118 N | B2118 N                     | /       | /       |
| Other East        | 89%            | 2%                | 100%                | 2%                  | B2118 N | B2118 N                     | /       | /       |
| Other North       | 77%            | 0%                | 100%                | 0%                  | B2118 N | B2118 N                     | /       | /       |
| Other North East  | 75%            | 0%                | 100%                | 0%                  | B2118 N | B2118 N                     | /       | /       |
| Other North West  | 91%            | 1%                | 100%                | 1%                  | B2118 N | B2118 N                     | /       | /       |
| Other South East  | 84%            | 1%                | 100%                | 1%                  | B2118 S | /                           | /       | /       |
| Other South West  | 91%            | 6%                | 100%                | 6%                  | B2118 S | /                           | /       | /       |
| Other West        | 86%            | 1%                | 100%                | 1%                  | B2118 N | B2118 N                     | /       | /       |
| Sayers Common     | 56%            | 11%               | 100%                | 11%                 | B2118 S | /                           | /       | /       |
| Tandridge         | 85%            | 1%                | 100%                | 1%                  | B2118 N | B2118 N                     | /       | /       |
| <b>TOTAL</b>      |                | <b>100%</b>       |                     |                     |         |                             |         |         |

| Route 1        | Proportion of Cars | 43%        |
|----------------|--------------------|------------|
| <b>B2118 N</b> | 60%                | 26%        |
| <b>B2118 S</b> | 40%                | 17%        |
| <b>Total</b>   |                    | <b>43%</b> |

| Route 2                            | Proportion of Cars | 43%        |
|------------------------------------|--------------------|------------|
| <b>Albourne Road / High Street</b> | 2%                 | 1%         |
| <b>B2118 N</b>                     | 58%                | 25%        |
| <b>Mill Lane</b>                   | 2%                 | 1%         |
| <b>/</b>                           | 38%                | 16%        |
| <b>Total</b>                       |                    | <b>43%</b> |

| Route 3      | Proportion of Cars | 43%        |
|--------------|--------------------|------------|
| <b>A23 N</b> | 45%                | 19%        |
| <b>/</b>     | 55%                | 24%        |
| <b>Total</b> |                    | <b>43%</b> |

| Route 4      | Proportion of Cars | 43%        |
|--------------|--------------------|------------|
| <b>A2300</b> | 14%                | 6%         |
| <b>/</b>     | 86%                | 37%        |
| <b>Total</b> |                    | <b>43%</b> |

|          |          |                        |
|----------|----------|------------------------|
| <b>/</b> | <b>=</b> | <b>Lost in Network</b> |
|----------|----------|------------------------|

## **APPENDIX C. WSCC PLANNING APPLICATION RESPONSE**

## WEST SUSSEX COUNTY COUNCIL CONSULTATION

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>TO:</b>                 | Mid Sussex District Council<br>FAO: Stuart Malcolm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>FROM:</b>               | Stephen Gee WSCC – Highways Authority                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>DATE:</b>               | 2 March 2026                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>LOCATION:</b>           | L V S Hassocks<br>London Road<br>Hassocks<br>BN6 9HT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>SUBJECT:</b>            | DM/26/0238<br><br>Hybrid application that seeks consent for separate and severable elements comprising: Demolition of all existing buildings bar the chapel, to retained for use within Use Class F and: a) Full planning permission for the development of the north western part of the Land at LVS Hassocks so as to accommodate a new SEN School with associated access from London Road, car parking, landscaping and drainage works; and b) Outline planning permission ( Appearance, Landscaping, Layout and Scale Reserved) for the development of the rest of the land at LVS Hassocks so as to accommodate up to 210 dwellinghouses (including 30% affordable housing) with associated access, car parking, landscaping, play areas, informal outdoor space and drainage works. |
| <b>DATE OF SITE VISIT:</b> | 9/2/2026                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>RECOMMENDATION:</b>     | More Information / Modification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

The application is in hybrid form and seeks full planning permission for a replacement SEN school and associated access from London Road and outline permission for upto 210 dwellings at LVS Hassocks, London Road, Sayers Common.

Pre application discussion were undertaken with the applicant and transport consultant in June 2025.

The site is identified as an allocation within the MSDC regulation 19 submission draft local plan (2021-2039). The wider Sayers Common allocations would deliver 2,500 dwellings and a number of facilities including primary and secondary school, retail and community buildings and employment space to be located within DPSC5.

The site specific policies relating to transport are:

1. Demonstrate a coordinated approach and collaboration with other housing allocations in the Plan within Sayers Common to deliver high quality placemaking which supports the 20-minute neighbourhood principles, with direct enhanced active/ sustainable travel connections, and includes enabling the viability of new public transport services.
2. Prioritise pedestrian and cycle access throughout the development and integrate and enhance the existing PRow which crosses the site.
3. Provide any necessary upgrades to the existing access onto B2118.

#### Vehicular Access

The site currently benefits from an existing priority access onto the B2218 which is gated. A second access is located 60 metres northeast of this and provides access to two cottages used for operational and staffing requirements of the school and forms bridleway 9hU.

The existing site access will be moved northwards by approximately 10m. Visibility splays of 2.4x 54m and 55.2m can be provided in accordance with manual streets parameters for 85th percentile speeds of 35.2 mph southbound and 35.7 mph northbound. A 5.5m wide carriageway with 8m kerb radii and 2m footways would be provided. Swept path analysis has been undertaken and shows that a refuse vehicle would over run the centre line when entering and exiting the site however given the limited nature of the movement would not result in a concern for the highway authority. A stage one road safety audit has been undertaken which didn't not identify any issues with the access. Further comments on the access and the interaction with the offsite shared use route are provided below.

#### Sustainability

At present there are very limited facilities within Sayers Common. These include a small village shop with limited opening hours (7.30-18.00), a public house and some business and industrial parks. There is no primary school in the village with the nearest current provision in Albourne to the south and secondary education provided either in Hassocks or Burgess Hill.

#### Vision

The application has provided the following vision:

"The development at the Land at LVS Hassocks will create high-quality and connected new homes which provide, utilise and seek to improve on and off-site Active Travel infrastructure to make a place

in which the use of sustainable modes of transport is prioritised to be the natural choice for future residents. The site will integrate seamlessly with the replacement school and, the surrounding area; providing connections and improved routes to local facilities as well as the surrounding countryside.”

## Sustainable Transport

The application site currently benefits from the following provision:

### Pedestrians

A footway is provided along the site frontage and provides a continuous footway to link to the existing built up area. On the eastern side of the carriageway along London Road the footway begins at the southbound bus stop (with alternative provision along Oakhurst).

### Cyclists

The B2118 is a signed on road cycle route however there are no dedicated facilities.

### Public Transport

The nearest bus stops are located approx. 100m away from the site. These stops are served by the 100 service (hourly on Mondays to Saturdays serving Burgess Hill, Storrington, Pulborough, Billingshurst and Horsham) and the 273 service (hourly Monday to Sunday serving Brighton and Crawley) and a school bus service also operates to Downlands School in Hassocks.

Both stops benefit from flag poles and shelters.

The applicant proposes the following offsite improvements.:

- Widening of the existing footway on the B2218 north of the site access to the Mill Lane Roundabout to provide a 3m wide shared use route. – Concerns are raised about the southern start point of the facility, cyclists joining the shared use route would immediately be required to wait for any vehicles exiting the site, no provision is provided for cyclists to rejoin the carriageway along the spine road. Given the shared use route is to cross the site access it should be possible to provide pedestrian and cycle priority across the site access in line with LTN1/20 guidance.  
It would also be beneficial to consider a more southerly start point to connect the off road provision.  
At the northern extent consideration should be provided as to how cyclists would rejoin the carriageway / join the route.
- Provision of an uncontrolled crossing and new shared use route on the western section of the B2218 to tie into the existing footway adjacent to the southbound bus stop.
- Provision of tactile paving at the junction of the B2218/Oakhurst
- Provision of RTPI and bus border kerbs at the closest bus stops – RTPI displays would be secured by a S106 contribution.
- A financial contribution, to enable the enhancements of the local bus service. – further details of the contributions, service enhancements and timeframes for delivery are requested.

A stage 1 RSA has been undertaken on the offsite works and designers' response provided, commentary will be provided once the issues identified in the above have been addressed.

An ATE toolkit assessment has been provided.

The LHA do not agree with appraisers' commentary, provided especially with regard to the pedestrian access to local amenities and cycling accessibility. Additional facilities and routes are anticipated to come forward with the wider Sayers Common allocations. Until such time these facilities and sustainable transport options are provided the development is likely to result in a car dominated development. No assessment has been made of the routes and their suitability for all users to the facilities located outside of Sayers Common.

## PROW

At present vehicles waiting to access the school queue along the PROW, the proposals would remove this obstruction.

A new route is proposed within the site providing connectivity between the Bridleway 9HU and Footpath 10HU, this would be within the blue line area of the application and details could be secured via condition.

## Spine Road

The spine road forms part of the full application and will provide a 5.5m wide carriageway, clarification should be provided to as what elements of the spine road are included within the red line including details of its crossing point- bridleway as a minimum required for the full application.

No junctions are shown on the plan of the spine road that could serve the residential parcels and on the site layout plan raised tables are shown. The applicant and LPA should consider how these can be secured. The submitted documents indicate that "the internal layout of the site has been designed to encourage low vehicle speeds to promote and facilitate cycling within the site." The alignment of the spine road without the measures identified above would not reflect this statement.

## School Layout

The school layout has been designed to internalise the movement and parking requirement. At present the school can accommodate 100 pupils, the new school would provide the same provision.

A total of 69 car parking spaces are proposed to serve the site based it on its operational needs. 10 cycle parking spaces are to be provided for staff and visitors; the provision will be monitored via the school travel plan. The drop off loop would provide capacity for pupils to be dropped off and escorted

into the school. In the unlikely event the provision is insufficient for waiting vehicles (or arriving early prior to the gates opening as is the existing situation) the impacts would result in queueing on the spine road but would unlikely effect the operation of the local highway network.

Swept path analysis has been provided for the internal layout and shows acceptable movements by an estate car, fire tender and refuse vehicle.

### Development Impact

The cumulative impacts of the local plan allocations have been modelled within the local plan transport study, and a set of interventions developed accordingly the application sites will need to make proportional contributions to the mitigation identified.

### Trip Generation

The applicant has utilised the Trics database to establish trip generation potential of the site the parameters that have been utilised are acceptable. The residential element of the site has been calculated based upon the provision of 224 dwellings whilst the application is for upto 210. The residential element is anticipated to generate 106 AM peak two-way vehicle trips and 103 PM peak two-way vehicle trips with a total daily two-way trips of 905.

A vision based scenario has been provided with a 10% reduction on vehicle trip rates (95 AM peak and 93 PM peak trips.)

The school capacity would remain at 100 pupils and as such the potential number of trips generated by the development would already be consented, it is understood that the school is currently operating with 90 pupils, given the increased number of residential units included in the assessment then no concerns are raised over the issue.

### Trip Distribution

Trips have been distributed according to gravity model, given the lack of local facilities it is noted that National Highways have requested a change from a P/T2 to a P/T model. The impact of this is to route trips to larger destinations further afield (primarily Crawley and Brighton over more local destinations such as Burgess Hill and Hassocks)

The effect of the change is minimal within the study area when compared to those figures agreed as part of the pre application discussions.

### Junction Modelling

Junction counts were undertaken on Thursday the 5th of June 2025 to provide the baseline of traffic conditions on the local highway network. TEMPRO has been utilised to growth traffic flows to a 2031 level. As advised within the pre application advice no committed development has been included within the assessment, however, since this has been provided applications have been submitted on other proposed allocations within Sayers Common. The standard approach would be for all applications to consider the cumulative impacts.

The Highway Authority have considered information provided within other Transport Assessments that highlight the operation of the local junctions and subject to the proportional contributions being secured would be acceptable.

Should the junction modelling be considered at face value it details that all junctions would operate within capacity in a 2031 scenario.

- 1- Site Access
- 2- B2118 / Mill Lane roundabout.
- 3- A2300 interchange.
- 4- A23 / B2118 merge / diverge.
- 5- B2218 / Reeds Lane roundabout.
- 6- B2118 / Furzeland Way mini-roundabout.
- 7- B2118 / Aldbourne Road signalised junction

### Contributions

The transport assessment identifies that this site will make proportional contributions towards facilitating an off carriageway cycle route between the B2218 and the B2300 as well as other schemes identified within the MSDC transport study and infrastructure delivery plan. Whilst in principle the proportionate contribution would be acceptable, sufficient flexibility would be needed within the legal agreements to ensure schemes can be delivered at an early stage of developments. The proposed approach taking proportional contributions from each site towards individual schemes could delay delivery until the final allocation sites meets the trigger points for payments. Without early delivery of sustainable transport schemes car dominated travel behaviour would be ingrained in future residents.

### Residential Layout

Whilst the layout of the residential element would be a reserved matter, swept path analysis has been provided for an indicative layout and shows that suitable servicing by a fire tender and refuse vehicle could be achieved.

Parking and cycle parking provision would be provided to accord with WSCC guidance. Further information would be required on the old chapel community facility and any parking requirements it may have.

### School Travel Plan

A travel plan that focuses on staff travel has been provided. Given the nature of the school the approach is acceptable.

### Residential Travel Plan

A framework travel plan has been prepared, the plan should accord with the WSCC travel plan guidance and include the provision of travel plan vouchers on first occupation.

#### Car Club

The applicant has engaged with Enterprise Car Club and will fund the introduction of a car club within the site.

#### Trip Monitoring Strategy

No details have been provided on remedial measures should the development not meet its vision.

#### Conclusion

Further information / modification is requested upon:

Consideration of cycle priority across the site access;

Consideration of how cyclist on the shared use route would enter the spine road;

Consideration of the start and end points of the shared use cycle way;

Further details of the enhancements to the local bus services;

Information on the spine road, including consideration of the bridleway crossing and details of how future amendments such as raised table/surfacing/junctions are secured.

Junction Modelling – The application would benefit from a comparison or signposting to the results of other applications that have considered the cumulative impact.

Revision to Residential Travel Plan to reflect WSCC guidance

Provision of a trip monitoring strategy and identification of remedial measures.

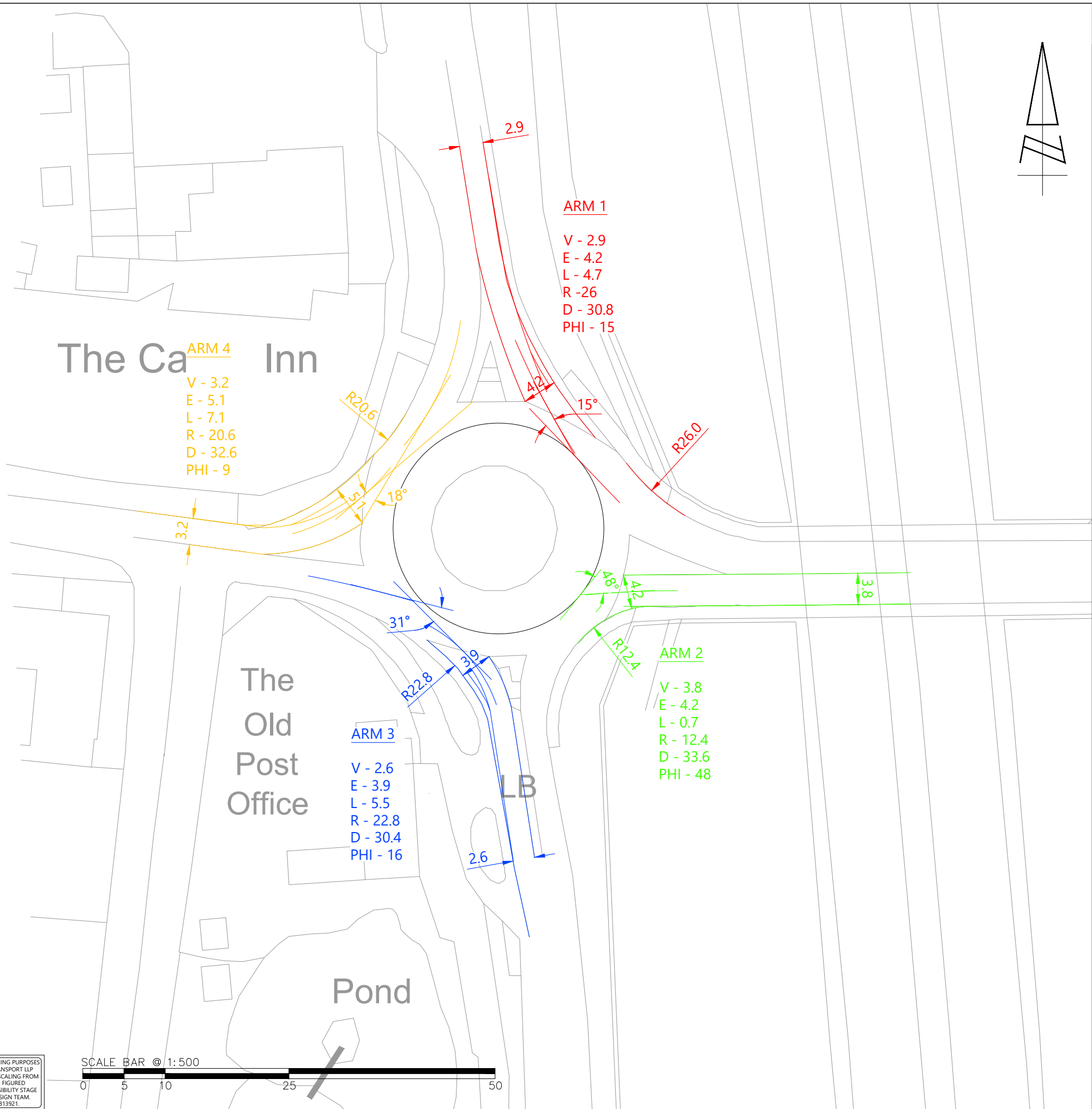
**Stephen Gee**

**West Sussex County Council – Planning Services**

## **APPENDIX D. JUNCTION GEOMETRY DRAWINGS**

S:\Projects\19000 Series\19984ITS - Land West of B2118 Sayers Common\Tech\Acad\I-Transport Drawings\Working Drawings\GEOM\ITS19984-GEOM-003.dwg

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| REV | DATE | BY | DESCRIPTION | CHK | APD |
|-----|------|----|-------------|-----|-----|
|     |      |    |             |     |     |

STATUS: FOR INFORMATION

**i-Transport**

Lakeside North Harbour, Building 1000, Lakeside North Harbour Western Road, Portsmouth, Hampshire, PO6 3EZ  
Tel: 03316 300366  
www.i-transport.co.uk

TITLE: A2300/HICKSTEAD LANE ROUNDABOUT  
GEOMETRY MEASUREMENTS

PROJECT: LAND WEST OF B2118, SAYERS COMMON

CLIENT: WATES DEVELOPMENT

|                      |                   |                |
|----------------------|-------------------|----------------|
| DRAWN: TC            | CHECKED: OT       | APPROVED: DS   |
| PROJECT No: ITS19984 | SCALE @ A3: 1:500 | DATE: 12.03.26 |

|                               |        |
|-------------------------------|--------|
| DRAWING No: ITS19984-GEOM-003 | REV: - |
|-------------------------------|--------|



## **APPENDIX E. JUNCTIONS 11 OUTPUTS**

| Junctions 11                                                                                                                                                     |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|--|--|
| ARCADY 11 - Roundabout Module                                                                                                                                    |  |  |  |  |  |  |  |  |  |  |  |
| Version: 11.1.1.2424                                                                                                                                             |  |  |  |  |  |  |  |  |  |  |  |
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| +44 (0)1344 379777 software@trl.co.uk trlsoftware.com                                                                                                            |  |  |  |  |  |  |  |  |  |  |  |
| The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution |  |  |  |  |  |  |  |  |  |  |  |

Filename: A23\_B2119\_Merge\_Diverge (calibrated).j11

Path: S:\Projects\19000 Series\19984ITS - Land West of B2118 Sayers Common\Tech\Junction Assessments\Arcady\National Highways Response\A23\_B2119 Merge\_Diverge

Report generation date: 17/03/2026 13:21:42

- »D1 - 2024 | Base Flows | AM
- »D2 - 2024 | Base Flows | PM
- »D5 - 2031 | Future Year | AM
- »D6 - 2031 | Future Year | PM
- »D9 - 2031 | 'With Development' | AM
- »D10 - 2031 | 'With Development' | PM

### Summary of junction performance

|              | AM                        |             |           |      |     |                    | PM     |             |           |      |     |                    |
|--------------|---------------------------|-------------|-----------|------|-----|--------------------|--------|-------------|-----------|------|-----|--------------------|
|              | Set ID                    | Queue (Veh) | Delay (s) | RFC  | LOS | Junction Delay (s) | Set ID | Queue (Veh) | Delay (s) | RFC  | LOS | Junction Delay (s) |
|              | 2024 - Base Flows         |             |           |      |     |                    |        |             |           |      |     |                    |
| A23 Off-Slip | D1                        | 5.5         | 22.65     | 0.86 | C   | 11.45              | D2     | 2.4         | 10.76     | 0.71 | B   | 7.06               |
| A2300 (East) |                           | 2.4         | 6.44      | 0.71 | A   |                    |        | 1.8         | 5.33      | 0.65 | A   |                    |
| Shell Access |                           | 0.3         | 6.96      | 0.25 | A   |                    |        | 0.3         | 6.43      | 0.25 | A   |                    |
| A2300 (West) |                           | 1.3         | 6.86      | 0.56 | A   |                    |        | 0.9         | 5.71      | 0.47 | A   |                    |
|              | 2031 - Future Year        |             |           |      |     |                    |        |             |           |      |     |                    |
| A23 Off-Slip | D5                        | 11.4        | 44.74     | 0.94 | E   | 19.00              | D6     | 3.4         | 14.34     | 0.78 | B   | 8.67               |
| A2300 (East) |                           | 3.1         | 7.95      | 0.76 | A   |                    |        | 2.3         | 6.26      | 0.70 | A   |                    |
| Shell Access |                           | 0.4         | 8.14      | 0.29 | A   |                    |        | 0.4         | 7.37      | 0.29 | A   |                    |
| A2300 (West) |                           | 1.5         | 7.63      | 0.60 | A   |                    |        | 1.0         | 6.16      | 0.51 | A   |                    |
|              | 2031 - 'With Development' |             |           |      |     |                    |        |             |           |      |     |                    |
| A23 Off-Slip | D9                        | 12.3        | 48.24     | 0.95 | E   | 20.10              | D10    | 3.5         | 14.49     | 0.78 | B   | 8.77               |
| A2300 (East) |                           | 3.2         | 8.14      | 0.77 | A   |                    |        | 2.4         | 6.38      | 0.71 | A   |                    |
| Shell Access |                           | 0.4         | 8.26      | 0.30 | A   |                    |        | 0.4         | 7.47      | 0.29 | A   |                    |
| A2300 (West) |                           | 1.6         | 7.94      | 0.62 | A   |                    |        | 1.1         | 6.21      | 0.51 | 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

|                    |                                       |
|--------------------|---------------------------------------|
| <b>Title</b>       | A2300 / A23 Slip Roads / Shell Access |
| <b>Location</b>    | Sayers Common                         |
| <b>Site number</b> |                                       |
| <b>Date</b>        | 15/07/2025                            |
| <b>Version</b>     |                                       |
| <b>Status</b>      | Existing                              |
| <b>Identifier</b>  |                                       |
| <b>Client</b>      | Wates Developments Ltd                |
| <b>Jobnumber</b>   | ITS19984                              |
| <b>Enumerator</b>  | DM                                    |
| <b>Description</b> |                                       |

## Units

| Distance units | Speed units | Traffic units input | Traffic units results | Flow units | Average delay units | Total delay units | Rate of delay units |
|----------------|-------------|---------------------|-----------------------|------------|---------------------|-------------------|---------------------|
| m              | kph         | 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 simulation for HCM roundabouts | Use iterations for HCM roundabouts |
|--------------------|-----------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------|---------------|-----------------------------|-----------------------|------------------------------------|------------------------------------|
| 5.75               |                             |                                   |                                   |                                   |                             | 0.85          | 36.00                       | 20.00                 |                                    |                                    |

## Demand Set Summary

| ID  | Year           | Scenario           | Time period | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically | Relationship type | Relationship |
|-----|----------------|--------------------|-------------|----------------------|--------------------|---------------------|---------------------------|-------------------|-------------------|--------------|
| D1  | 2024           | Base Flows         | AM          | ONE HOUR             | 07:45              | 09:15               | 15                        | ✓                 |                   |              |
| D2  | 2024           | Base Flows         | PM          | ONE HOUR             | 16:15              | 17:45               | 15                        | ✓                 |                   |              |
| D3  | 2025           | Observed           | AM          | ONE HOUR             | 07:45              | 09:15               | 15                        |                   |                   |              |
| D4  | 2025           | Observed           | PM          | ONE HOUR             | 16:15              | 17:45               | 15                        |                   |                   |              |
| D5  | 2031           | Future Year        | AM          | ONE HOUR             | 07:45              | 09:15               | 15                        | ✓                 | Simple            | D1*G5        |
| D6  | 2031           | Future Year        | PM          | ONE HOUR             | 16:15              | 17:45               | 15                        | ✓                 | Simple            | D2*G6        |
| D7  | Development AM | Base               | AM          | ONE HOUR             | 07:45              | 09:15               | 15                        |                   |                   |              |
| D8  | Development PM | Base               | PM          | ONE HOUR             | 16:15              | 17:45               | 15                        |                   |                   |              |
| D9  | 2031           | 'With Development' | AM          | ONE HOUR             | 07:45              | 09:15               | 15                        | ✓                 | Simple            | D5+D7        |
| D10 | 2031           | 'With Development' | PM          | ONE HOUR             | 16:15              | 17:45               | 15                        | ✓                 | Simple            | D6+D8        |

## Growth Factors

| ID | Description | Use TEMPRO | Growth Factor |
|----|-------------|------------|---------------|
| G1 | 2024-2025   |            | 1.0155        |
| G2 | 2024-2025   |            | 1.0155        |
| G3 | 2025-2030   |            | 1.0575        |
| G4 | 2025-2030   |            | 1.0580        |
| G5 | AM 24-31    |            | 1.0734        |
| G6 | PM 24-31    |            | 1.0740        |

Growth factors are only active if a Demand Set references them in a Relationship.

## Analysis Set Details

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

# D1 - 2024 | Base Flows | AM

## Data Errors and Warnings

| Severity | Area                    | Item                                | Description                                                        |
|----------|-------------------------|-------------------------------------|--------------------------------------------------------------------|
| Warning  | Demand Set Relationship | D9 - 2031   'With Development'   AM | Demand Set relationships are chained. This may slow down the file. |

## Junction Network

### Junctions

| Junction | Name                                  | Junction type       | Arm order     | Junction Delay (s) | Junction LOS |
|----------|---------------------------------------|---------------------|---------------|--------------------|--------------|
| 1        | A2300 / A23 Slip Roads / Shell Access | Standard Roundabout | 1, 2, 3, 4, 5 | 11.45              | B            |

### Junction Network

| Driving side | Lighting       | Network delay (s) | Network LOS |
|--------------|----------------|-------------------|-------------|
| Left         | Normal/unknown | 11.45             | B           |

## Arms

### Arms

| Arm | Name           | Description | No give-way line |
|-----|----------------|-------------|------------------|
| 1   | A23 Off-Slip   |             |                  |
| 2   | A2300 (East)   |             |                  |
| 3   | Shell Access   |             |                  |
| 4   | A23 SB On-Slip |             |                  |
| 5   | A2300 (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 |
|----------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|------------|-----------|
| A23 Off-Slip   | 3.80                             | 4.90                | 1.3                             | 12.7                 | 47.6                              | 54.0                               | ✓          |           |
| A2300 (East)   | 7.30                             | 7.30                | 0.0                             | 15.0                 | 50.6                              | 42.0                               |            |           |
| Shell Access   | 4.90                             | 4.90                | 0.0                             | 22.0                 | 40.1                              | 8.0                                |            |           |
| A23 SB On-Slip |                                  |                     |                                 |                      |                                   |                                    |            | ✓         |
| A2300 (West)   | 3.70                             | 5.40                | 3.2                             | 21.5                 | 49.4                              | 39.0                               |            |           |

### Slope / Intercept / Capacity

#### Arm Intercept Adjustments

| Arm            | Type   | Reason | Direct intercept adjustment (PCU/hr) |
|----------------|--------|--------|--------------------------------------|
| A23 Off-Slip   | Direct |        | 400                                  |
| A2300 (East)   | None   |        |                                      |
| Shell Access   | None   |        |                                      |
| A23 SB On-Slip |        |        |                                      |
| A2300 (West)   | None   |        |                                      |

### Roundabout Slope and Intercept used in model

| Arm            | Final slope | Final intercept (PCU/hr) |
|----------------|-------------|--------------------------|
| A23 Off-Slip   | 0.471       | 1503                     |
| A2300 (East)   | 0.662       | 2084                     |
| Shell Access   | 0.647       | 1605                     |
| A23 SB On-Slip |             |                          |
| A2300 (West)   | 0.522       | 1275                     |

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

## Traffic Demand

### Demand Set Details

| ID | Year | Scenario   | Time period | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|------|------------|-------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D1 | 2024 | Base Flows | AM          | 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 (%) |
|----------------|------------|--------------|--------------|-------------------------|--------------------|
| A23 Off-Slip   |            | ONE HOUR     | ✓            | 829                     | 100.000            |
| A2300 (East)   |            | ONE HOUR     | ✓            | 1212                    | 100.000            |
| Shell Access   |            | ONE HOUR     | ✓            | 155                     | 100.000            |
| A23 SB On-Slip |            |              |              |                         |                    |
| A2300 (West)   |            | ONE HOUR     | ✓            | 603                     | 100.000            |

## Origin-Destination Data

### Demand (Veh/hr)

|      | To             |              |              |              |                |              |
|------|----------------|--------------|--------------|--------------|----------------|--------------|
|      |                | A23 Off-Slip | A2300 (East) | Shell Access | A23 SB On-Slip | A2300 (West) |
| From | A23 Off-Slip   | 0            | 722          | 50           | 7              | 50           |
|      | A2300 (East)   | 0            | 55           | 84           | 347            | 726          |
|      | Shell Access   | 0            | 47           | 0            | 50             | 58           |
|      | A23 SB On-Slip | 0            | 0            | 0            | 0              | 0            |
|      | A2300 (West)   | 0            | 541          | 42           | 20             | 0            |
|      |                |              |              |              |                |              |

## Vehicle Mix

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

### Heavy Vehicle %

|      | To             |              |              |              |                |              |
|------|----------------|--------------|--------------|--------------|----------------|--------------|
|      |                | A23 Off-Slip | A2300 (East) | Shell Access | A23 SB On-Slip | A2300 (West) |
| From | A23 Off-Slip   | 0            | 6            | 0            | 0              | 10           |
|      | A2300 (East)   | 0            | 4            | 2            | 2              | 4            |
|      | Shell Access   | 0            | 0            | 0            | 2              | 9            |
|      | A23 SB On-Slip | 0            | 0            | 0            | 0              | 0            |
|      | A2300 (West)   | 0            | 2            | 7            | 0              | 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) |
|----------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| A23 Off-Slip   | 0.86    | 22.65         | 5.5             | C       | 761                     | 1141                          |
| A2300 (East)   | 0.71    | 6.44          | 2.4             | A       | 1112                    | 1668                          |
| Shell Access   | 0.25    | 6.96          | 0.3             | A       | 142                     | 213                           |
| A23 SB On-Slip |         |               |                 |         |                         |                               |
| A2300 (West)   | 0.56    | 6.86          | 1.3             | A       | 553                     | 830                           |

### 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A23 Off-Slip   | 624                   | 156                     | 528                       | 1180              | 0.529 | 620                 | 0                               | 0.0               | 1.1             | 6.378     | A                             |
| A2300 (East)   | 912                   | 228                     | 126                       | 1933              | 0.472 | 909                 | 1021                            | 0.0               | 0.9             | 3.505     | A                             |
| Shell Access   | 117                   | 29                      | 903                       | 961               | 0.121 | 116                 | 132                             | 0.0               | 0.1             | 4.260     | A                             |
| A23 SB On-Slip |                       |                         | 702                       |                   |       |                     | 318                             |                   |                 |           |                               |
| A2300 (West)   | 454                   | 113                     | 76                        | 1207              | 0.376 | 452                 | 625                             | 0.0               | 0.6             | 4.736     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A23 Off-Slip   | 745                   | 186                     | 633                       | 1132              | 0.658 | 742                 | 0                               | 1.1               | 1.9             | 9.158     | A                             |
| A2300 (East)   | 1090                  | 272                     | 151                       | 1916              | 0.569 | 1088                | 1224                            | 0.9               | 1.3             | 4.339     | A                             |
| Shell Access   | 139                   | 35                      | 1081                      | 846               | 0.165 | 139                 | 158                             | 0.1               | 0.2             | 5.093     | A                             |
| A23 SB On-Slip |                       |                         | 840                       |                   |       |                     | 381                             |                   |                 |           |                               |
| A2300 (West)   | 542                   | 136                     | 92                        | 1199              | 0.452 | 541                 | 748                             | 0.6               | 0.8             | 5.465     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A23 Off-Slip   | 913                   | 228                     | 774                       | 1068              | 0.855 | 900                 | 0                               | 1.9               | 5.1             | 20.043    | C                             |
| A2300 (East)   | 1334                  | 334                     | 184                       | 1894              | 0.705 | 1330                | 1490                            | 1.3               | 2.3             | 6.341     | A                             |
| Shell Access   | 171                   | 43                      | 1322                      | 691               | 0.247 | 170                 | 193                             | 0.2               | 0.3             | 6.905     | A                             |
| A23 SB On-Slip |                       |                         | 1027                      |                   |       |                     | 465                             |                   |                 |           |                               |
| A2300 (West)   | 664                   | 166                     | 112                       | 1189              | 0.559 | 662                 | 915                             | 0.8               | 1.2             | 6.818     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A23 Off-Slip   | 913                   | 228                     | 776                       | 1067              | 0.856 | 911                 | 0                               | 5.1               | 5.5             | 22.650    | C                             |
| A2300 (East)   | 1334                  | 334                     | 186                       | 1893              | 0.705 | 1334                | 1502                            | 2.3               | 2.4             | 6.442     | A                             |
| Shell Access   | 171                   | 43                      | 1327                      | 688               | 0.248 | 171                 | 194                             | 0.3               | 0.3             | 6.958     | A                             |
| A23 SB On-Slip |                       |                         | 1030                      |                   |       |                     | 467                             |                   |                 |           |                               |
| A2300 (West)   | 664                   | 166                     | 112                       | 1188              | 0.559 | 664                 | 918                             | 1.2               | 1.3             | 6.863     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A23 Off-Slip   | 745                   | 186                     | 636                       | 1131              | 0.659 | 759                 | 0                               | 5.5               | 2.0             | 10.027    | B                             |
| A2300 (East)   | 1090                  | 272                     | 154                       | 1914              | 0.569 | 1094                | 1241                            | 2.4               | 1.3             | 4.408     | A                             |
| Shell Access   | 139                   | 35                      | 1088                      | 842               | 0.166 | 140                 | 159                             | 0.3               | 0.2             | 5.133     | A                             |
| A23 SB On-Slip |                       |                         | 845                       |                   |       |                     | 383                             |                   |                 |           |                               |
| A2300 (West)   | 542                   | 136                     | 92                        | 1199              | 0.452 | 544                 | 753                             | 1.3               | 0.8             | 5.508     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A23 Off-Slip   | 624                   | 156                     | 532                       | 1178              | 0.530 | 628                 | 0                               | 2.0               | 1.1             | 6.577     | A                             |
| A2300 (East)   | 912                   | 228                     | 128                       | 1932              | 0.472 | 914                 | 1032                            | 1.3               | 0.9             | 3.543     | A                             |
| Shell Access   | 117                   | 29                      | 909                       | 957               | 0.122 | 117                 | 133                             | 0.2               | 0.1             | 4.286     | A                             |
| A23 SB On-Slip |                       |                         | 706                       |                   |       |                     | 320                             |                   |                 |           |                               |
| A2300 (West)   | 454                   | 113                     | 77                        | 1207              | 0.376 | 455                 | 629                             | 0.8               | 0.6             | 4.793     | A                             |

# D2 - 2024 | Base Flows | PM

## Data Errors and Warnings

| Severity | Area                    | Item                                | Description                                                        |
|----------|-------------------------|-------------------------------------|--------------------------------------------------------------------|
| Warning  | Demand Set Relationship | D9 - 2031   'With Development'   AM | Demand Set relationships are chained. This may slow down the file. |

## Junction Network

### Junctions

| Junction | Name                                  | Junction type       | Arm order     | Junction Delay (s) | Junction LOS |
|----------|---------------------------------------|---------------------|---------------|--------------------|--------------|
| 1        | A2300 / A23 Slip Roads / Shell Access | Standard Roundabout | 1, 2, 3, 4, 5 | 7.06               | A            |

### Junction Network

| Driving side | Lighting       | Network delay (s) | Network LOS |
|--------------|----------------|-------------------|-------------|
| Left         | Normal/unknown | 7.06              | A           |

## Traffic Demand

### Demand Set Details

| ID | Year | Scenario   | Time period | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|------|------------|-------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D2 | 2024 | Base Flows | PM          | ONE HOUR             | 16:15              | 17:45               | 15                        | ✓                 |

### Demand overview (Traffic)

| Arm            | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|----------------|------------|--------------|--------------|-------------------------|--------------------|
| A23 Off-Slip   |            | ONE HOUR     | ✓            | 750                     | 100.000            |
| A2300 (East)   |            | ONE HOUR     | ✓            | 1133                    | 100.000            |
| Shell Access   |            | ONE HOUR     | ✓            | 166                     | 100.000            |
| A23 SB On-Slip |            |              |              |                         |                    |
| A2300 (West)   |            | ONE HOUR     | ✓            | 515                     | 100.000            |

## Origin-Destination Data

### Demand (Veh/hr)

|      | To             |              |              |              |                |              |
|------|----------------|--------------|--------------|--------------|----------------|--------------|
|      |                | A23 Off-Slip | A2300 (East) | Shell Access | A23 SB On-Slip | A2300 (West) |
| From | A23 Off-Slip   | 0            | 660          | 52           | 3              | 35           |
|      | A2300 (East)   | 0            | 23           | 66           | 410            | 634          |
|      | Shell Access   | 0            | 63           | 0            | 43             | 60           |
|      | A23 SB On-Slip | 0            | 0            | 0            | 0              | 0            |
|      | A2300 (West)   | 0            | 447          | 47           | 21             | 0            |

## Vehicle Mix

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

### Heavy Vehicle %

|      | To             |              |              |              |                |              |
|------|----------------|--------------|--------------|--------------|----------------|--------------|
|      |                | A23 Off-Slip | A2300 (East) | Shell Access | A23 SB On-Slip | A2300 (West) |
| From | A23 Off-Slip   | 0            | 1            | 8            | 0              | 12           |
|      | A2300 (East)   | 0            | 9            | 2            | 0              | 3            |
|      | Shell Access   | 0            | 6            | 0            | 2              | 8            |
|      | A23 SB On-Slip | 5            | 5            | 0            | 0              | 0            |
|      | A2300 (West)   | 1            | 2            | 4            | 0              | 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) |
|----------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| A23 Off-Slip   | 0.71    | 10.76         | 2.4             | B       | 688                     | 1032                          |
| A2300 (East)   | 0.65    | 5.33          | 1.8             | A       | 1040                    | 1559                          |
| Shell Access   | 0.25    | 6.43          | 0.3             | A       | 152                     | 228                           |
| A23 SB On-Slip |         |               |                 |         |                         |                               |
| A2300 (West)   | 0.47    | 5.71          | 0.9             | A       | 473                     | 709                           |

### Main Results for each time segment

#### 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A23 Off-Slip   | 565                   | 141                     | 450                       | 1260              | 0.448 | 561                 | 0                               | 0.0               | 0.8             | 5.131     | A                             |
| A2300 (East)   | 853                   | 213                     | 118                       | 1962              | 0.435 | 850                 | 893                             | 0.0               | 0.8             | 3.231     | A                             |
| Shell Access   | 125                   | 31                      | 845                       | 990               | 0.126 | 124                 | 124                             | 0.0               | 0.1             | 4.158     | A                             |
| A23 SB On-Slip |                       |                         | 611                       |                   |       |                     | 358                             |                   |                 |           |                               |
| A2300 (West)   | 388                   | 97                      | 64                        | 1214              | 0.319 | 386                 | 547                             | 0.0               | 0.5             | 4.338     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A23 Off-Slip   | 674                   | 169                     | 540                       | 1217              | 0.554 | 673                 | 0                               | 0.8               | 1.2             | 6.587     | A                             |
| A2300 (East)   | 1019                  | 255                     | 142                       | 1945              | 0.524 | 1017                | 1070                            | 0.8               | 1.1             | 3.873     | A                             |
| Shell Access   | 149                   | 37                      | 1011                      | 885               | 0.169 | 149                 | 148                             | 0.1               | 0.2             | 4.887     | A                             |
| A23 SB On-Slip |                       |                         | 732                       |                   |       |                     | 428                             |                   |                 |           |                               |
| A2300 (West)   | 463                   | 116                     | 77                        | 1207              | 0.384 | 462                 | 654                             | 0.5               | 0.6             | 4.830     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A23 Off-Slip   | 826                   | 206                     | 660                       | 1160              | 0.712 | 821                 | 0                               | 1.2               | 2.4             | 10.478    | B                             |
| A2300 (East)   | 1247                  | 312                     | 173                       | 1924              | 0.648 | 1245                | 1308                            | 1.1               | 1.8             | 5.279     | A                             |
| Shell Access   | 183                   | 46                      | 1237                      | 744               | 0.246 | 182                 | 181                             | 0.2               | 0.3             | 6.402     | A                             |
| A23 SB On-Slip |                       |                         | 895                       |                   |       |                     | 524                             |                   |                 |           |                               |
| A2300 (West)   | 567                   | 142                     | 94                        | 1198              | 0.474 | 566                 | 801                             | 0.6               | 0.9             | 5.691     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A23 Off-Slip   | 826                   | 206                     | 662                       | 1159              | 0.712 | 826                 | 0                               | 2.4               | 2.4             | 10.763    | B                             |
| A2300 (East)   | 1247                  | 312                     | 174                       | 1923              | 0.649 | 1247                | 1313                            | 1.8               | 1.8             | 5.327     | A                             |
| Shell Access   | 183                   | 46                      | 1240                      | 742               | 0.246 | 183                 | 182                             | 0.3               | 0.3             | 6.433     | A                             |
| A23 SB On-Slip |                       |                         | 897                       |                   |       |                     | 525                             |                   |                 |           |                               |
| A2300 (West)   | 567                   | 142                     | 95                        | 1197              | 0.474 | 567                 | 803                             | 0.9               | 0.9             | 5.710     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A23 Off-Slip   | 674                   | 169                     | 542                       | 1217              | 0.554 | 679                 | 0                               | 2.4               | 1.3             | 6.751     | A                             |
| A2300 (East)   | 1019                  | 255                     | 143                       | 1945              | 0.524 | 1021                | 1078                            | 1.8               | 1.1             | 3.912     | A                             |
| Shell Access   | 149                   | 37                      | 1015                      | 883               | 0.169 | 150                 | 149                             | 0.3               | 0.2             | 4.915     | A                             |
| A23 SB On-Slip |                       |                         | 735                       |                   |       |                     | 430                             |                   |                 |           |                               |
| A2300 (West)   | 463                   | 116                     | 78                        | 1207              | 0.384 | 464                 | 657                             | 0.9               | 0.6             | 4.853     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A23 Off-Slip   | 565                   | 141                     | 453                       | 1258              | 0.449 | 566                 | 0                               | 1.3               | 0.8             | 5.216     | A                             |
| A2300 (East)   | 853                   | 213                     | 119                       | 1961              | 0.435 | 854                 | 900                             | 1.1               | 0.8             | 3.258     | A                             |
| Shell Access   | 125                   | 31                      | 849                       | 987               | 0.127 | 125                 | 124                             | 0.2               | 0.1             | 4.180     | A                             |
| A23 SB On-Slip |                       |                         | 615                       |                   |       |                     | 360                             |                   |                 |           |                               |
| A2300 (West)   | 388                   | 97                      | 65                        | 1214              | 0.319 | 388                 | 550                             | 0.6               | 0.5             | 4.364     | A                             |

# D5 - 2031 | Future Year | AM

## Data Errors and Warnings

| Severity | Area                    | Item                                | Description                                                        |
|----------|-------------------------|-------------------------------------|--------------------------------------------------------------------|
| Warning  | Demand Set Relationship | D9 - 2031   'With Development'   AM | Demand Set relationships are chained. This may slow down the file. |

## Junction Network

### Junctions

| Junction | Name                                  | Junction type       | Arm order     | Junction Delay (s) | Junction LOS |
|----------|---------------------------------------|---------------------|---------------|--------------------|--------------|
| 1        | A2300 / A23 Slip Roads / Shell Access | Standard Roundabout | 1, 2, 3, 4, 5 | 19.00              | C            |

### Junction Network

| Driving side | Lighting       | Network delay (s) | Network LOS |
|--------------|----------------|-------------------|-------------|
| Left         | Normal/unknown | 19.00             | C           |

## Traffic Demand

### Demand Set Details

| ID | Year | Scenario    | Time period | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically | Relationship type | Relationship |
|----|------|-------------|-------------|----------------------|--------------------|---------------------|---------------------------|-------------------|-------------------|--------------|
| D5 | 2031 | Future Year | AM          | ONE HOUR             | 07:45              | 09:15               | 15                        | ✓                 | Simple            | D1*G5        |

### Demand overview (Traffic)

| Arm            | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|----------------|------------|--------------|--------------|-------------------------|--------------------|
| A23 Off-Slip   |            | ONE HOUR     | ✓            | 890                     | 100.000            |
| A2300 (East)   |            | ONE HOUR     | ✓            | 1301                    | 100.000            |
| Shell Access   |            | ONE HOUR     | ✓            | 166                     | 100.000            |
| A23 SB On-Slip |            |              |              |                         |                    |
| A2300 (West)   |            | ONE HOUR     | ✓            | 647                     | 100.000            |

## Origin-Destination Data

### Demand (Veh/hr)

|      | To             |              |              |              |                |              |
|------|----------------|--------------|--------------|--------------|----------------|--------------|
|      |                | A23 Off-Slip | A2300 (East) | Shell Access | A23 SB On-Slip | A2300 (West) |
| From | A23 Off-Slip   | 0            | 775          | 54           | 8              | 54           |
|      | A2300 (East)   | 0            | 59           | 90           | 372            | 779          |
|      | Shell Access   | 0            | 50           | 0            | 54             | 62           |
|      | A23 SB On-Slip | 0            | 0            | 0            | 0              | 0            |
|      | A2300 (West)   | 0            | 581          | 45           | 21             | 0            |

## Vehicle Mix

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

### Heavy Vehicle %

|      | To             |              |              |              |                |              |
|------|----------------|--------------|--------------|--------------|----------------|--------------|
|      |                | A23 Off-Slip | A2300 (East) | Shell Access | A23 SB On-Slip | A2300 (West) |
| From | A23 Off-Slip   | 0            | 6            | 0            | 0              | 10           |
|      | A2300 (East)   | 0            | 4            | 2            | 2              | 4            |
|      | Shell Access   | 0            | 0            | 0            | 2              | 9            |
|      | A23 SB On-Slip | 0            | 0            | 0            | 0              | 0            |
|      | A2300 (West)   | 0            | 2            | 7            | 0              | 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) |
|----------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| A23 Off-Slip   | 0.94    | 44.74         | 11.4            | E       | 817                     | 1225                          |
| A2300 (East)   | 0.76    | 7.95          | 3.1             | A       | 1194                    | 1791                          |
| Shell Access   | 0.29    | 8.14          | 0.4             | A       | 153                     | 229                           |
| A23 SB On-Slip |         |               |                 |         |                         |                               |
| A2300 (West)   | 0.60    | 7.63          | 1.5             | A       | 594                     | 891                           |

### 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A23 Off-Slip   | 670                   | 167                     | 567                       | 1162              | 0.576 | 665                 | 0                               | 0.0               | 1.3             | 7.159     | A                             |
| A2300 (East)   | 979                   | 245                     | 136                       | 1926              | 0.508 | 975                 | 1096                            | 0.0               | 1.0             | 3.770     | A                             |
| Shell Access   | 125                   | 31                      | 969                       | 918               | 0.136 | 125                 | 141                             | 0.0               | 0.2             | 4.531     | A                             |
| A23 SB On-Slip |                       |                         | 753                       |                   |       |                     | 341                             |                   |                 |           |                               |
| A2300 (West)   | 487                   | 122                     | 82                        | 1204              | 0.405 | 485                 | 671                             | 0.0               | 0.7             | 4.986     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A23 Off-Slip   | 800                   | 200                     | 679                       | 1111              | 0.720 | 795                 | 0                               | 1.3               | 2.5             | 11.242    | B                             |
| A2300 (East)   | 1170                  | 292                     | 162                       | 1908              | 0.613 | 1167                | 1312                            | 1.0               | 1.6             | 4.844     | A                             |
| Shell Access   | 150                   | 37                      | 1160                      | 795               | 0.188 | 149                 | 169                             | 0.2               | 0.2             | 5.573     | A                             |
| A23 SB On-Slip |                       |                         | 901                       |                   |       |                     | 408                             |                   |                 |           |                               |
| A2300 (West)   | 582                   | 145                     | 98                        | 1196              | 0.487 | 581                 | 803                             | 0.7               | 0.9             | 5.846     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A23 Off-Slip   | 980                   | 245                     | 831                       | 1042              | 0.940 | 951                 | 0                               | 2.5               | 9.5             | 32.648    | D                             |
| A2300 (East)   | 1432                  | 358                     | 196                       | 1886              | 0.759 | 1426                | 1586                            | 1.6               | 3.1             | 7.732     | A                             |
| Shell Access   | 183                   | 46                      | 1417                      | 630               | 0.291 | 182                 | 206                             | 0.2               | 0.4             | 8.020     | A                             |
| A23 SB On-Slip |                       |                         | 1100                      |                   |       |                     | 499                             |                   |                 |           |                               |
| A2300 (West)   | 713                   | 178                     | 120                       | 1184              | 0.602 | 710                 | 980                             | 0.9               | 1.5             | 7.563     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A23 Off-Slip   | 980                   | 245                     | 833                       | 1041              | 0.941 | 972                 | 0                               | 9.5               | 11.4            | 44.743    | E                             |
| A2300 (East)   | 1432                  | 358                     | 199                       | 1884              | 0.760 | 1432                | 1607                            | 3.1               | 3.1             | 7.953     | A                             |
| Shell Access   | 183                   | 46                      | 1423                      | 626               | 0.293 | 183                 | 208                             | 0.4               | 0.4             | 8.137     | A                             |
| A23 SB On-Slip |                       |                         | 1106                      |                   |       |                     | 501                             |                   |                 |           |                               |
| A2300 (West)   | 713                   | 178                     | 121                       | 1184              | 0.602 | 713                 | 985                             | 1.5               | 1.5             | 7.632     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A23 Off-Slip   | 800                   | 200                     | 683                       | 1109              | 0.721 | 835                 | 0                               | 11.4              | 2.7             | 14.624    | B                             |
| A2300 (East)   | 1170                  | 292                     | 168                       | 1905              | 0.614 | 1176                | 1350                            | 3.1               | 1.6             | 4.975     | A                             |
| Shell Access   | 150                   | 37                      | 1171                      | 788               | 0.190 | 150                 | 172                             | 0.4               | 0.2             | 5.648     | A                             |
| A23 SB On-Slip |                       |                         | 910                       |                   |       |                     | 411                             |                   |                 |           |                               |
| A2300 (West)   | 582                   | 145                     | 99                        | 1195              | 0.487 | 584                 | 811                             | 1.5               | 1.0             | 5.911     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A23 Off-Slip   | 670                   | 167                     | 571                       | 1160              | 0.577 | 675                 | 0                               | 2.7               | 1.4             | 7.501     | A                             |
| A2300 (East)   | 979                   | 245                     | 137                       | 1925              | 0.509 | 982                 | 1109                            | 1.6               | 1.0             | 3.823     | A                             |
| Shell Access   | 125                   | 31                      | 976                       | 914               | 0.137 | 126                 | 143                             | 0.2               | 0.2             | 4.569     | A                             |
| A23 SB On-Slip |                       |                         | 758                       |                   |       |                     | 343                             |                   |                 |           |                               |
| A2300 (West)   | 487                   | 122                     | 83                        | 1204              | 0.405 | 488                 | 676                             | 1.0               | 0.7             | 5.041     | A                             |

# D6 - 2031 | Future Year | PM

## Data Errors and Warnings

| Severity | Area                    | Item                                | Description                                                        |
|----------|-------------------------|-------------------------------------|--------------------------------------------------------------------|
| Warning  | Demand Set Relationship | D9 - 2031   'With Development'   AM | Demand Set relationships are chained. This may slow down the file. |

## Junction Network

### Junctions

| Junction | Name                                  | Junction type       | Arm order     | Junction Delay (s) | Junction LOS |
|----------|---------------------------------------|---------------------|---------------|--------------------|--------------|
| 1        | A2300 / A23 Slip Roads / Shell Access | Standard Roundabout | 1, 2, 3, 4, 5 | 8.67               | A            |

### Junction Network

| Driving side | Lighting       | Network delay (s) | Network LOS |
|--------------|----------------|-------------------|-------------|
| Left         | Normal/unknown | 8.67              | A           |

## Traffic Demand

### Demand Set Details

| ID | Year | Scenario    | Time period | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically | Relationship type | Relationship |
|----|------|-------------|-------------|----------------------|--------------------|---------------------|---------------------------|-------------------|-------------------|--------------|
| D6 | 2031 | Future Year | PM          | ONE HOUR             | 16:15              | 17:45               | 15                        | ✓                 | Simple            | D2*G6        |

### Demand overview (Traffic)

| Arm            | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|----------------|------------|--------------|--------------|-------------------------|--------------------|
| A23 Off-Slip   |            | ONE HOUR     | ✓            | 806                     | 100.000            |
| A2300 (East)   |            | ONE HOUR     | ✓            | 1217                    | 100.000            |
| Shell Access   |            | ONE HOUR     | ✓            | 178                     | 100.000            |
| A23 SB On-Slip |            |              |              |                         |                    |
| A2300 (West)   |            | ONE HOUR     | ✓            | 553                     | 100.000            |

## Origin-Destination Data

### Demand (Veh/hr)

|      | To             |              |              |              |                |              |
|------|----------------|--------------|--------------|--------------|----------------|--------------|
|      |                | A23 Off-Slip | A2300 (East) | Shell Access | A23 SB On-Slip | A2300 (West) |
| From | A23 Off-Slip   | 0            | 709          | 56           | 3              | 38           |
|      | A2300 (East)   | 0            | 25           | 71           | 440            | 681          |
|      | Shell Access   | 0            | 68           | 0            | 46             | 64           |
|      | A23 SB On-Slip | 0            | 0            | 0            | 0              | 0            |
|      | A2300 (West)   | 0            | 480          | 50           | 23             | 0            |

## Vehicle Mix

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

### Heavy Vehicle %

|      | To             |              |              |              |                |              |
|------|----------------|--------------|--------------|--------------|----------------|--------------|
|      |                | A23 Off-Slip | A2300 (East) | Shell Access | A23 SB On-Slip | A2300 (West) |
| From | A23 Off-Slip   | 0            | 1            | 8            | 0              | 12           |
|      | A2300 (East)   | 0            | 9            | 2            | 0              | 3            |
|      | Shell Access   | 0            | 6            | 0            | 2              | 8            |
|      | A23 SB On-Slip | 0            | 0            | 0            | 0              | 0            |
|      | A2300 (West)   | 0            | 2            | 4            | 0              | 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) |
|----------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| A23 Off-Slip   | 0.78    | 14.34         | 3.4             | B       | 739                     | 1109                          |
| A2300 (East)   | 0.70    | 6.26          | 2.3             | A       | 1117                    | 1675                          |
| Shell Access   | 0.29    | 7.37          | 0.4             | A       | 164                     | 245                           |
| A23 SB On-Slip |         |               |                 |         |                         |                               |
| A2300 (West)   | 0.51    | 6.16          | 1.0             | A       | 508                     | 761                           |

### Main Results for each time segment

#### 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A23 Off-Slip   | 606                   | 152                     | 484                       | 1244              | 0.487 | 603                 | 0                               | 0.0               | 0.9             | 5.581     | A                             |
| A2300 (East)   | 916                   | 229                     | 127                       | 1956              | 0.468 | 913                 | 959                             | 0.0               | 0.9             | 3.440     | A                             |
| Shell Access   | 134                   | 34                      | 907                       | 951               | 0.141 | 134                 | 133                             | 0.0               | 0.2             | 4.402     | A                             |
| A23 SB On-Slip |                       |                         | 656                       |                   |       |                     | 384                             |                   |                 |           |                               |
| A2300 (West)   | 416                   | 104                     | 69                        | 1211              | 0.344 | 414                 | 587                             | 0.0               | 0.5             | 4.505     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A23 Off-Slip   | 724                   | 181                     | 579                       | 1199              | 0.604 | 722                 | 0                               | 0.9               | 1.5             | 7.516     | A                             |
| A2300 (East)   | 1094                  | 273                     | 152                       | 1938              | 0.564 | 1092                | 1149                            | 0.9               | 1.3             | 4.248     | A                             |
| Shell Access   | 160                   | 40                      | 1085                      | 839               | 0.191 | 160                 | 159                             | 0.2               | 0.2             | 5.300     | A                             |
| A23 SB On-Slip |                       |                         | 786                       |                   |       |                     | 460                             |                   |                 |           |                               |
| A2300 (West)   | 497                   | 124                     | 83                        | 1204              | 0.413 | 497                 | 703                             | 0.5               | 0.7             | 5.084     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A23 Off-Slip   | 887                   | 222                     | 709                       | 1137              | 0.780 | 880                 | 0                               | 1.5               | 3.3             | 13.606    | B                             |
| A2300 (East)   | 1340                  | 335                     | 186                       | 1915              | 0.700 | 1336                | 1403                            | 1.3               | 2.3             | 6.172     | A                             |
| Shell Access   | 196                   | 49                      | 1327                      | 687               | 0.286 | 196                 | 194                             | 0.2               | 0.4             | 7.311     | A                             |
| A23 SB On-Slip |                       |                         | 961                       |                   |       |                     | 562                             |                   |                 |           |                               |
| A2300 (West)   | 609                   | 152                     | 101                       | 1194              | 0.510 | 608                 | 859                             | 0.7               | 1.0             | 6.129     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A23 Off-Slip   | 887                   | 222                     | 711                       | 1136              | 0.781 | 886                 | 0                               | 3.3               | 3.4             | 14.341    | B                             |
| A2300 (East)   | 1340                  | 335                     | 187                       | 1914              | 0.700 | 1340                | 1410                            | 2.3               | 2.3             | 6.262     | A                             |
| Shell Access   | 196                   | 49                      | 1331                      | 685               | 0.287 | 196                 | 195                             | 0.4               | 0.4             | 7.367     | A                             |
| A23 SB On-Slip |                       |                         | 964                       |                   |       |                     | 564                             |                   |                 |           |                               |
| A2300 (West)   | 609                   | 152                     | 102                       | 1194              | 0.510 | 609                 | 862                             | 1.0               | 1.0             | 6.157     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A23 Off-Slip   | 724                   | 181                     | 582                       | 1197              | 0.605 | 732                 | 0                               | 3.4               | 1.6             | 7.850     | A                             |
| A2300 (East)   | 1094                  | 273                     | 154                       | 1937              | 0.565 | 1098                | 1160                            | 2.3               | 1.3             | 4.309     | A                             |
| Shell Access   | 160                   | 40                      | 1091                      | 835               | 0.192 | 161                 | 160                             | 0.4               | 0.2             | 5.346     | A                             |
| A23 SB On-Slip |                       |                         | 790                       |                   |       |                     | 462                             |                   |                 |           |                               |
| A2300 (West)   | 497                   | 124                     | 83                        | 1204              | 0.413 | 499                 | 707                             | 1.0               | 0.7             | 5.116     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A23 Off-Slip   | 606                   | 152                     | 487                       | 1243              | 0.488 | 609                 | 0                               | 1.6               | 1.0             | 5.701     | A                             |
| A2300 (East)   | 916                   | 229                     | 128                       | 1955              | 0.469 | 918                 | 967                             | 1.3               | 0.9             | 3.479     | A                             |
| Shell Access   | 134                   | 34                      | 912                       | 947               | 0.142 | 135                 | 134                             | 0.2               | 0.2             | 4.432     | A                             |
| A23 SB On-Slip |                       |                         | 660                       |                   |       |                     | 386                             |                   |                 |           |                               |
| A2300 (West)   | 416                   | 104                     | 70                        | 1211              | 0.344 | 417                 | 591                             | 0.7               | 0.5             | 4.538     | A                             |

# D9 - 2031 | 'With Development' | AM

## Data Errors and Warnings

| Severity | Area                    | Item                                | Description                                                        |
|----------|-------------------------|-------------------------------------|--------------------------------------------------------------------|
| Warning  | Demand Set Relationship | D9 - 2031   'With Development'   AM | Demand Set relationships are chained. This may slow down the file. |

## Junction Network

### Junctions

| Junction | Name                                  | Junction type       | Arm order     | Junction Delay (s) | Junction LOS |
|----------|---------------------------------------|---------------------|---------------|--------------------|--------------|
| 1        | A2300 / A23 Slip Roads / Shell Access | Standard Roundabout | 1, 2, 3, 4, 5 | 20.10              | C            |

### Junction Network

| Driving side | Lighting       | Network delay (s) | Network LOS |
|--------------|----------------|-------------------|-------------|
| Left         | Normal/unknown | 20.10             | C           |

## Traffic Demand

### Demand Set Details

| ID | Year | Scenario           | Time period | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically | Relationship type | Relationship |
|----|------|--------------------|-------------|----------------------|--------------------|---------------------|---------------------------|-------------------|-------------------|--------------|
| D9 | 2031 | 'With Development' | AM          | ONE HOUR             | 07:45              | 09:15               | 15                        | ✓                 | Simple            | D5+D7        |

### Demand overview (Traffic)

| Arm            | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|----------------|------------|--------------|--------------|-------------------------|--------------------|
| A23 Off-Slip   |            | ONE HOUR     | ✓            | 890                     | 100.000            |
| A2300 (East)   |            | ONE HOUR     | ✓            | 1311                    | 100.000            |
| Shell Access   |            | ONE HOUR     | ✓            | 166                     | 100.000            |
| A23 SB On-Slip |            |              |              |                         |                    |
| A2300 (West)   |            | ONE HOUR     | ✓            | 664                     | 100.000            |

## Origin-Destination Data

### Demand (Veh/hr)

|      | To             |              |              |              |                |              |
|------|----------------|--------------|--------------|--------------|----------------|--------------|
|      |                | A23 Off-Slip | A2300 (East) | Shell Access | A23 SB On-Slip | A2300 (West) |
| From | A23 Off-Slip   | 0            | 775          | 54           | 8              | 54           |
|      | A2300 (East)   | 0            | 59           | 90           | 382            | 779          |
|      | Shell Access   | 0            | 50           | 0            | 54             | 62           |
|      | A23 SB On-Slip | 0            | 0            | 0            | 0              | 0            |
|      | A2300 (West)   | 0            | 598          | 45           | 21             | 0            |

## Vehicle Mix

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

### Heavy Vehicle %

|      | To             |              |              |              |                |              |
|------|----------------|--------------|--------------|--------------|----------------|--------------|
|      |                | A23 Off-Slip | A2300 (East) | Shell Access | A23 SB On-Slip | A2300 (West) |
| From | A23 Off-Slip   | 0            | 6            | 0            | 0              | 10           |
|      | A2300 (East)   | 0            | 4            | 2            | 2              | 4            |
|      | Shell Access   | 0            | 0            | 0            | 2              | 9            |
|      | A23 SB On-Slip | 0            | 0            | 0            | 0              | 0            |
|      | A2300 (West)   | 0            | 2            | 7            | 0              | 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) |
|----------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| A23 Off-Slip   | 0.95    | 48.24         | 12.3            | E       | 817                     | 1225                          |
| A2300 (East)   | 0.77    | 8.14          | 3.2             | A       | 1203                    | 1804                          |
| Shell Access   | 0.30    | 8.26          | 0.4             | A       | 153                     | 229                           |
| A23 SB On-Slip |         |               |                 |         |                         |                               |
| A2300 (West)   | 0.62    | 7.94          | 1.6             | A       | 610                     | 914                           |

### 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A23 Off-Slip   | 670                   | 167                     | 579                       | 1157              | 0.579 | 665                 | 0                               | 0.0               | 1.4             | 7.239     | A                             |
| A2300 (East)   | 987                   | 247                     | 136                       | 1927              | 0.512 | 983                 | 1108                            | 0.0               | 1.0             | 3.796     | A                             |
| Shell Access   | 125                   | 31                      | 977                       | 913               | 0.137 | 125                 | 141                             | 0.0               | 0.2             | 4.560     | A                             |
| A23 SB On-Slip |                       |                         | 753                       |                   |       |                     | 349                             |                   |                 |           |                               |
| A2300 (West)   | 500                   | 125                     | 82                        | 1205              | 0.415 | 497                 | 671                             | 0.0               | 0.7             | 5.068     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A23 Off-Slip   | 800                   | 200                     | 694                       | 1104              | 0.724 | 795                 | 0                               | 1.4               | 2.5             | 11.476    | B                             |
| A2300 (East)   | 1179                  | 295                     | 162                       | 1909              | 0.617 | 1176                | 1327                            | 1.0               | 1.6             | 4.899     | A                             |
| Shell Access   | 150                   | 37                      | 1169                      | 789               | 0.189 | 149                 | 169                             | 0.2               | 0.2             | 5.621     | A                             |
| A23 SB On-Slip |                       |                         | 901                       |                   |       |                     | 417                             |                   |                 |           |                               |
| A2300 (West)   | 597                   | 149                     | 98                        | 1196              | 0.499 | 596                 | 803                             | 0.7               | 1.0             | 5.986     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A23 Off-Slip   | 980                   | 245                     | 849                       | 1034              | 0.948 | 949                 | 0                               | 2.5               | 10.1            | 34.328    | D                             |
| A2300 (East)   | 1443                  | 361                     | 196                       | 1887              | 0.765 | 1437                | 1603                            | 1.6               | 3.1             | 7.900     | A                             |
| Shell Access   | 183                   | 46                      | 1427                      | 623               | 0.294 | 182                 | 206                             | 0.2               | 0.4             | 8.152     | A                             |
| A23 SB On-Slip |                       |                         | 1100                      |                   |       |                     | 510                             |                   |                 |           |                               |
| A2300 (West)   | 731                   | 183                     | 120                       | 1185              | 0.617 | 729                 | 980                             | 1.0               | 1.6             | 7.854     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A23 Off-Slip   | 980                   | 245                     | 852                       | 1033              | 0.949 | 971                 | 0                               | 10.1              | 12.3            | 48.244    | E                             |
| A2300 (East)   | 1443                  | 361                     | 199                       | 1885              | 0.766 | 1443                | 1624                            | 3.1               | 3.2             | 8.140     | A                             |
| Shell Access   | 183                   | 46                      | 1434                      | 619               | 0.296 | 183                 | 207                             | 0.4               | 0.4             | 8.264     | A                             |
| A23 SB On-Slip |                       |                         | 1105                      |                   |       |                     | 512                             |                   |                 |           |                               |
| A2300 (West)   | 731                   | 183                     | 121                       | 1185              | 0.617 | 731                 | 985                             | 1.6               | 1.6             | 7.935     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A23 Off-Slip   | 800                   | 200                     | 698                       | 1102              | 0.726 | 838                 | 0                               | 12.3              | 2.8             | 15.418    | C                             |
| A2300 (East)   | 1179                  | 295                     | 168                       | 1905              | 0.619 | 1185                | 1368                            | 3.2               | 1.6             | 5.040     | A                             |
| Shell Access   | 150                   | 37                      | 1180                      | 782               | 0.191 | 150                 | 173                             | 0.4               | 0.2             | 5.704     | A                             |
| A23 SB On-Slip |                       |                         | 910                       |                   |       |                     | 421                             |                   |                 |           |                               |
| A2300 (West)   | 597                   | 149                     | 99                        | 1196              | 0.499 | 599                 | 811                             | 1.6               | 1.0             | 6.060     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A23 Off-Slip   | 670                   | 167                     | 584                       | 1155              | 0.580 | 675                 | 0                               | 2.8               | 1.4             | 7.598     | A                             |
| A2300 (East)   | 987                   | 247                     | 137                       | 1926              | 0.513 | 989                 | 1122                            | 1.6               | 1.1             | 3.855     | A                             |
| Shell Access   | 125                   | 31                      | 984                       | 909               | 0.138 | 126                 | 143                             | 0.2               | 0.2             | 4.597     | A                             |
| A23 SB On-Slip |                       |                         | 758                       |                   |       |                     | 351                             |                   |                 |           |                               |
| A2300 (West)   | 500                   | 125                     | 83                        | 1204              | 0.415 | 501                 | 676                             | 1.0               | 0.7             | 5.129     | A                             |

# D10 - 2031 | 'With Development' | PM

## Data Errors and Warnings

| Severity | Area                    | Item                                | Description                                                        |
|----------|-------------------------|-------------------------------------|--------------------------------------------------------------------|
| Warning  | Demand Set Relationship | D9 - 2031   'With Development'   AM | Demand Set relationships are chained. This may slow down the file. |

## Junction Network

### Junctions

| Junction | Name                                  | Junction type       | Arm order     | Junction Delay (s) | Junction LOS |
|----------|---------------------------------------|---------------------|---------------|--------------------|--------------|
| 1        | A2300 / A23 Slip Roads / Shell Access | Standard Roundabout | 1, 2, 3, 4, 5 | 8.77               | A            |

### Junction Network

| Driving side | Lighting       | Network delay (s) | Network LOS |
|--------------|----------------|-------------------|-------------|
| Left         | Normal/unknown | 8.77              | A           |

## Traffic Demand

### Demand Set Details

| ID  | Year | Scenario           | Time period | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically | Relationship type | Relationship |
|-----|------|--------------------|-------------|----------------------|--------------------|---------------------|---------------------------|-------------------|-------------------|--------------|
| D10 | 2031 | 'With Development' | PM          | ONE HOUR             | 16:15              | 17:45               | 15                        | ✓                 | Simple            | D6+D8        |

### Demand overview (Traffic)

| Arm            | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|----------------|------------|--------------|--------------|-------------------------|--------------------|
| A23 Off-Slip   |            | ONE HOUR     | ✓            | 806                     | 100.000            |
| A2300 (East)   |            | ONE HOUR     | ✓            | 1227                    | 100.000            |
| Shell Access   |            | ONE HOUR     | ✓            | 178                     | 100.000            |
| A23 SB On-Slip |            |              |              |                         |                    |
| A2300 (West)   |            | ONE HOUR     | ✓            | 558                     | 100.000            |

## Origin-Destination Data

### Demand (Veh/hr)

|      | To             |              |              |              |                |              |
|------|----------------|--------------|--------------|--------------|----------------|--------------|
|      |                | A23 Off-Slip | A2300 (East) | Shell Access | A23 SB On-Slip | A2300 (West) |
| From | A23 Off-Slip   | 0            | 709          | 56           | 3              | 38           |
|      | A2300 (East)   | 0            | 25           | 71           | 450            | 681          |
|      | Shell Access   | 0            | 68           | 0            | 46             | 64           |
|      | A23 SB On-Slip | 0            | 0            | 0            | 0              | 0            |
|      | A2300 (West)   | 0            | 485          | 50           | 23             | 0            |

## Vehicle Mix

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

### Heavy Vehicle %

|      | To             |              |              |              |                |              |
|------|----------------|--------------|--------------|--------------|----------------|--------------|
|      |                | A23 Off-Slip | A2300 (East) | Shell Access | A23 SB On-Slip | A2300 (West) |
| From | A23 Off-Slip   | 0            | 1            | 8            | 0              | 12           |
|      | A2300 (East)   | 0            | 9            | 2            | 0              | 3            |
|      | Shell Access   | 0            | 6            | 0            | 2              | 8            |
|      | A23 SB On-Slip | 0            | 0            | 0            | 0              | 0            |
|      | A2300 (West)   | 0            | 2            | 4            | 0              | 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) |
|----------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| A23 Off-Slip   | 0.78    | 14.49         | 3.5             | B       | 739                     | 1109                          |
| A2300 (East)   | 0.71    | 6.38          | 2.4             | A       | 1126                    | 1689                          |
| Shell Access   | 0.29    | 7.47          | 0.4             | A       | 164                     | 245                           |
| A23 SB On-Slip |         |               |                 |         |                         |                               |
| A2300 (West)   | 0.51    | 6.21          | 1.1             | A       | 512                     | 768                           |

### Main Results for each time segment

#### 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A23 Off-Slip   | 606                   | 152                     | 487                       | 1242              | 0.488 | 603                 | 0                               | 0.0               | 0.9             | 5.596     | A                             |
| A2300 (East)   | 924                   | 231                     | 127                       | 1956              | 0.472 | 920                 | 963                             | 0.0               | 0.9             | 3.464     | A                             |
| Shell Access   | 134                   | 34                      | 914                       | 946               | 0.142 | 134                 | 133                             | 0.0               | 0.2             | 4.427     | A                             |
| A23 SB On-Slip |                       |                         | 656                       |                   |       |                     | 392                             |                   |                 |           |                               |
| A2300 (West)   | 420                   | 105                     | 69                        | 1212              | 0.347 | 418                 | 587                             | 0.0               | 0.5             | 4.525     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A23 Off-Slip   | 724                   | 181                     | 584                       | 1196              | 0.605 | 722                 | 0                               | 0.9               | 1.5             | 7.548     | A                             |
| A2300 (East)   | 1103                  | 276                     | 152                       | 1938              | 0.569 | 1101                | 1154                            | 0.9               | 1.3             | 4.291     | A                             |
| Shell Access   | 160                   | 40                      | 1094                      | 833               | 0.192 | 160                 | 159                             | 0.2               | 0.2             | 5.344     | A                             |
| A23 SB On-Slip |                       |                         | 786                       |                   |       |                     | 469                             |                   |                 |           |                               |
| A2300 (West)   | 502                   | 125                     | 83                        | 1204              | 0.417 | 501                 | 703                             | 0.5               | 0.7             | 5.115     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A23 Off-Slip   | 887                   | 222                     | 714                       | 1134              | 0.782 | 879                 | 0                               | 1.5               | 3.4             | 13.728    | B                             |
| A2300 (East)   | 1351                  | 338                     | 186                       | 1915              | 0.705 | 1347                | 1408                            | 1.3               | 2.3             | 6.284     | A                             |
| Shell Access   | 196                   | 49                      | 1338                      | 681               | 0.288 | 196                 | 194                             | 0.2               | 0.4             | 7.412     | A                             |
| A23 SB On-Slip |                       |                         | 961                       |                   |       |                     | 573                             |                   |                 |           |                               |
| A2300 (West)   | 614                   | 154                     | 101                       | 1194              | 0.515 | 613                 | 859                             | 0.7               | 1.0             | 6.182     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A23 Off-Slip   | 887                   | 222                     | 716                       | 1134              | 0.782 | 886                 | 0                               | 3.4               | 3.5             | 14.486    | B                             |
| A2300 (East)   | 1351                  | 338                     | 187                       | 1915              | 0.706 | 1351                | 1416                            | 2.3               | 2.4             | 6.381     | A                             |
| Shell Access   | 196                   | 49                      | 1342                      | 678               | 0.289 | 196                 | 195                             | 0.4               | 0.4             | 7.470     | A                             |
| A23 SB On-Slip |                       |                         | 964                       |                   |       |                     | 575                             |                   |                 |           |                               |
| A2300 (West)   | 614                   | 154                     | 102                       | 1194              | 0.515 | 614                 | 862                             | 1.0               | 1.1             | 6.213     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A23 Off-Slip   | 724                   | 181                     | 586                       | 1195              | 0.606 | 732                 | 0                               | 3.5               | 1.6             | 7.887     | A                             |
| A2300 (East)   | 1103                  | 276                     | 154                       | 1937              | 0.569 | 1107                | 1165                            | 2.4               | 1.3             | 4.357     | A                             |
| Shell Access   | 160                   | 40                      | 1100                      | 830               | 0.193 | 161                 | 160                             | 0.4               | 0.2             | 5.391     | A                             |
| A23 SB On-Slip |                       |                         | 790                       |                   |       |                     | 471                             |                   |                 |           |                               |
| A2300 (West)   | 502                   | 125                     | 83                        | 1204              | 0.417 | 503                 | 707                             | 1.1               | 0.7             | 5.146     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A23 Off-Slip   | 606                   | 152                     | 491                       | 1241              | 0.489 | 609                 | 0                               | 1.6               | 1.0             | 5.717     | A                             |
| A2300 (East)   | 924                   | 231                     | 128                       | 1955              | 0.472 | 925                 | 971                             | 1.3               | 0.9             | 3.503     | A                             |
| Shell Access   | 134                   | 34                      | 920                       | 943               | 0.142 | 135                 | 134                             | 0.2               | 0.2             | 4.456     | A                             |
| A23 SB On-Slip |                       |                         | 660                       |                   |       |                     | 394                             |                   |                 |           |                               |
| A2300 (West)   | 420                   | 105                     | 70                        | 1211              | 0.347 | 421                 | 591                             | 0.7               | 0.5             | 4.560     | A                             |

| Junctions 11                                                                                                                                                     |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|--|--|
| ARCADY 11 - Roundabout Module                                                                                                                                    |  |  |  |  |  |  |  |  |  |  |  |
| Version: 11.1.1.2424                                                                                                                                             |  |  |  |  |  |  |  |  |  |  |  |
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Filename: A2300\_Hickstead Lane (calibrated).j11

Path: S:\Projects\19000 Series\19984ITS - Land West of B2118 Sayers Common\Tech\Junction Assessments\Arcady\National Highways Response\A2300\_Hickstead Lane

Report generation date: 17/03/2026 13:18:42

- »D1 - 2024 | Base Flows | AM
- »D2 - 2024 | Base Flows | PM
- »D5 - 2031 | Future Year | AM
- »D6 - 2031 | Future Year | PM
- »D9 - 2031 | 'With Development' | AM
- »D10 - 2031 | 'With Development' | PM

### Summary of junction performance

|                | AM                        |             |           |      |     |                    | PM     |             |           |      |     |                    |
|----------------|---------------------------|-------------|-----------|------|-----|--------------------|--------|-------------|-----------|------|-----|--------------------|
|                | Set ID                    | Queue (Veh) | Delay (s) | RFC  | LOS | Junction Delay (s) | Set ID | Queue (Veh) | Delay (s) | RFC  | LOS | Junction Delay (s) |
|                | 2024 - Base Flows         |             |           |      |     |                    |        |             |           |      |     |                    |
| A2300 (E)      | D1                        | 1.0         | 4.09      | 0.51 | A   | 54.95              | D2     | 0.8         | 3.60      | 0.45 | A   | 15.36              |
| A2300 (S)      |                           | 25.0        | 148.66    | 1.05 | F   |                    |        | 4.8         | 35.42     | 0.84 | E   |                    |
| Hickstead Lane |                           | 0.3         | 9.57      | 0.23 | A   |                    |        | 0.1         | 6.68      | 0.08 | A   |                    |
| A2300 (N)      |                           | 0.0         | 4.62      | 0.04 | A   |                    |        | 0.1         | 4.47      | 0.05 | A   |                    |
|                | 2031 - Future Year        |             |           |      |     |                    |        |             |           |      |     |                    |
| A2300 (E)      | D5                        | 1.2         | 4.43      | 0.55 | A   | 117.23             | D6     | 0.9         | 3.83      | 0.48 | A   | 30.72              |
| A2300 (S)      |                           | 60.3        | 326.33    | 1.21 | F   |                    |        | 11.4        | 77.03     | 0.96 | F   |                    |
| Hickstead Lane |                           | 0.4         | 10.39     | 0.26 | B   |                    |        | 0.1         | 7.43      | 0.10 | A   |                    |
| A2300 (N)      |                           | 0.0         | 4.76      | 0.04 | A   |                    |        | 0.1         | 4.59      | 0.05 | A   |                    |
|                | 2031 - 'With Development' |             |           |      |     |                    |        |             |           |      |     |                    |
| A2300 (E)      | D9                        | 1.2         | 4.43      | 0.55 | A   | 134.93             | D10    | 0.9         | 3.83      | 0.48 | A   | 32.80              |
| A2300 (S)      |                           | 69.5        | 370.14    | 1.25 | F   |                    |        | 12.4        | 82.26     | 0.97 | F   |                    |
| Hickstead Lane |                           | 0.4         | 10.40     | 0.26 | B   |                    |        | 0.1         | 7.46      | 0.10 | A   |                    |
| A2300 (N)      |                           | 0.0         | 4.77      | 0.04 | A   |                    |        | 0.1         | 4.61      | 0.05 | 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       | A2300 / Hickstead Lane |
| Location    | Sayers Common          |
| Site number |                        |
| Date        | 15/07/2025             |
| Version     |                        |
| Status      | Existing               |
| Identifier  |                        |
| Client      | Wates Developments Ltd |
| Jobnumber   | ITS19984               |
| Enumerator  | DM                     |
| 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 simulation for HCM roundabouts | Use iterations for HCM roundabouts |
|--------------------|-----------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------|---------------|-----------------------------|-----------------------|------------------------------------|------------------------------------|
| 5.75               |                             |                                   |                                   |                                   |                             | 0.85          | 36.00                       | 20.00                 |                                    |                                    |

## Demand Set Summary

| ID  | Year           | Scenario           | Time period | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically | Relationship type | Relationship |
|-----|----------------|--------------------|-------------|----------------------|--------------------|---------------------|---------------------------|-------------------|-------------------|--------------|
| D1  | 2024           | Base Flows         | AM          | ONE HOUR             | 07:45              | 09:15               | 15                        | ✓                 |                   |              |
| D2  | 2024           | Base Flows         | PM          | ONE HOUR             | 16:15              | 17:45               | 15                        | ✓                 |                   |              |
| D3  | 2025           | Observed           | AM          | ONE HOUR             | 07:45              | 09:15               | 15                        |                   |                   |              |
| D4  | 2025           | Observed           | PM          | ONE HOUR             | 16:15              | 17:45               | 15                        |                   |                   |              |
| D5  | 2031           | Future Year        | AM          | ONE HOUR             | 07:45              | 09:15               | 15                        | ✓                 | Simple            | D1*G5        |
| D6  | 2031           | Future Year        | PM          | ONE HOUR             | 16:15              | 17:45               | 15                        | ✓                 | Simple            | D2*G6        |
| D7  | Development AM | Base               | AM          | ONE HOUR             | 07:45              | 09:15               | 15                        |                   |                   |              |
| D8  | Development PM | Base               | PM          | ONE HOUR             | 16:15              | 17:45               | 15                        |                   |                   |              |
| D9  | 2031           | 'With Development' | AM          | ONE HOUR             | 07:45              | 09:15               | 15                        | ✓                 | Simple            | D5+D7        |
| D10 | 2031           | 'With Development' | PM          | ONE HOUR             | 16:15              | 17:45               | 15                        | ✓                 | Simple            | D6+D8        |

## Growth Factors

| ID | Description | Use TEMPRO | Growth Factor |
|----|-------------|------------|---------------|
| G1 | 2024-2025   |            | 1.0155        |
| G2 | 2024-2025   |            | 1.0155        |
| G3 | 2025-2030   |            | 1.0575        |
| G4 | 2025-2030   |            | 1.0580        |
| G5 | AM 24-31    |            | 1.0734        |
| G6 | PM 24-31    |            | 1.0740        |

Growth factors are only active if a Demand Set references them in a Relationship.

## Analysis Set Details

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

# D1 - 2024 | Base Flows | AM

## Data Errors and Warnings

| Severity | Area                    | Item                                | Description                                                        |
|----------|-------------------------|-------------------------------------|--------------------------------------------------------------------|
| Warning  | Demand Set Relationship | D9 - 2031   'With Development'   AM | Demand Set relationships are chained. This may slow down the file. |

## Junction Network

### Junctions

| Junction | Name                   | Junction type       | Arm order  | Junction Delay (s) | Junction LOS |
|----------|------------------------|---------------------|------------|--------------------|--------------|
| 1        | A2300 / Hickstead Lane | Standard Roundabout | 1, 2, 3, 4 | 54.95              | F            |

### Junction Network

| Driving side | Lighting       | Network delay (s) | Network LOS |
|--------------|----------------|-------------------|-------------|
| Left         | Normal/unknown | 54.95             | F           |

## Arms

### Arms

| Arm | Name           | Description | No give-way line |
|-----|----------------|-------------|------------------|
| 1   | A2300 (E)      |             |                  |
| 2   | A2300 (S)      |             |                  |
| 3   | Hickstead Lane |             |                  |
| 4   | A2300 (N)      |             |                  |

### 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 |
|----------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|------------|-----------|
| A2300 (E)      | 3.80                             | 4.20                | 0.7                             | 12.4                 | 33.6                              | 48.0                               |            |           |
| A2300 (S)      | 2.60                             | 3.90                | 5.5                             | 22.8                 | 30.4                              | 16.0                               |            |           |
| Hickstead Lane | 3.20                             | 5.10                | 7.1                             | 20.6                 | 32.6                              | 9.0                                |            |           |
| A2300 (N)      | 2.90                             | 4.20                | 4.7                             | 26.0                 | 30.8                              | 15.0                               |            |           |

### Slope / Intercept / Capacity

#### Arm Intercept Adjustments

| Arm            | Type   | Reason | Direct intercept adjustment (PCU/hr) |
|----------------|--------|--------|--------------------------------------|
| A2300 (E)      | Direct |        | 800                                  |
| A2300 (S)      | Direct |        | 24                                   |
| Hickstead Lane | None   |        |                                      |
| A2300 (N)      | None   |        |                                      |

#### Roundabout Slope and Intercept used in model

| Arm            | Final slope | Final intercept (PCU/hr) |
|----------------|-------------|--------------------------|
| A2300 (E)      | 0.500       | 1884                     |
| A2300 (S)      | 0.545       | 1091                     |
| Hickstead Lane | 0.612       | 1375                     |
| A2300 (N)      | 0.566       | 1157                     |

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

## Traffic Demand

### Demand Set Details

| ID | Year | Scenario   | Time period | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|------|------------|-------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D1 | 2024 | Base Flows | AM          | 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 (%) |
|----------------|------------|--------------|--------------|-------------------------|--------------------|
| A2300 (E)      |            | ONE HOUR     | ✓            | 834                     | 100.000            |
| A2300 (S)      |            | ONE HOUR     | ✓            | 528                     | 100.000            |
| Hickstead Lane |            | ONE HOUR     | ✓            | 104                     | 100.000            |
| A2300 (N)      |            | ONE HOUR     | ✓            | 26                      | 100.000            |

## Origin-Destination Data

### Demand (Veh/hr)

|      | To             |           |           |                |           |
|------|----------------|-----------|-----------|----------------|-----------|
|      |                | A2300 (E) | A2300 (S) | Hickstead Lane | A2300 (N) |
| From | A2300 (E)      | 0         | 0         | 68             | 766       |
|      | A2300 (S)      | 497       | 0         | 8              | 23        |
|      | Hickstead Lane | 83        | 0         | 0              | 21        |
|      | A2300 (N)      | 22        | 0         | 4              | 0         |

## Vehicle Mix

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

### Heavy Vehicle %

|      | To             |           |           |                |           |
|------|----------------|-----------|-----------|----------------|-----------|
|      |                | A2300 (E) | A2300 (S) | Hickstead Lane | A2300 (N) |
| From | A2300 (E)      | 0         | 0         | 1              | 5         |
|      | A2300 (S)      | 2         | 0         | 0              | 4         |
|      | Hickstead Lane | 2         | 0         | 0              | 0         |
|      | A2300 (N)      | 0         | 0         | 0              | 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) |
|----------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| A2300 (E)      | 0.51    | 4.09          | 1.0             | A       | 765                     | 1148                          |
| A2300 (S)      | 1.05    | 148.66        | 25.0            | F       | 485                     | 727                           |
| Hickstead Lane | 0.23    | 9.57          | 0.3             | A       | 95                      | 143                           |
| A2300 (N)      | 0.04    | 4.62          | 0.0             | A       | 24                      | 36                            |

## 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A2300 (E)      | 628                   | 157                     | 3                         | 1798              | 0.349 | 626                 | 448                             | 0.0               | 0.5             | 3.065     | A                             |
| A2300 (S)      | 398                   | 99                      | 629                       | 718               | 0.554 | 393                 | 0                               | 0.0               | 1.2             | 10.913    | B                             |
| Hickstead Lane | 78                    | 20                      | 961                       | 752               | 0.104 | 78                  | 60                              | 0.0               | 0.1             | 5.335     | A                             |
| A2300 (N)      | 20                    | 5                       | 432                       | 907               | 0.022 | 19                  | 608                             | 0.0               | 0.0             | 4.054     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A2300 (E)      | 750                   | 187                     | 4                         | 1798              | 0.417 | 749                 | 536                             | 0.5               | 0.7             | 3.430     | A                             |
| A2300 (S)      | 475                   | 119                     | 753                       | 649               | 0.732 | 469                 | 0                               | 1.2               | 2.5             | 19.511    | C                             |
| Hickstead Lane | 93                    | 23                      | 1150                      | 634               | 0.147 | 93                  | 72                              | 0.1               | 0.2             | 6.652     | A                             |
| A2300 (N)      | 23                    | 6                       | 516                       | 859               | 0.027 | 23                  | 727                             | 0.0               | 0.0             | 4.309     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A2300 (E)      | 918                   | 230                     | 4                         | 1798              | 0.511 | 917                 | 612                             | 0.7               | 1.0             | 4.082     | A                             |
| A2300 (S)      | 581                   | 145                     | 921                       | 554               | 1.049 | 528                 | 0                               | 2.5               | 15.8            | 80.910    | F                             |
| Hickstead Lane | 115                   | 29                      | 1362                      | 501               | 0.229 | 114                 | 87                              | 0.2               | 0.3             | 9.291     | A                             |
| A2300 (N)      | 29                    | 7                       | 588                       | 817               | 0.035 | 29                  | 888                             | 0.0               | 0.0             | 4.564     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A2300 (E)      | 918                   | 230                     | 4                         | 1798              | 0.511 | 918                 | 628                             | 1.0               | 1.0             | 4.093     | A                             |
| A2300 (S)      | 581                   | 145                     | 923                       | 554               | 1.050 | 545                 | 0                               | 15.8              | 25.0            | 148.656   | F                             |
| Hickstead Lane | 115                   | 29                      | 1380                      | 490               | 0.233 | 114                 | 88                              | 0.3               | 0.3             | 9.574     | A                             |
| A2300 (N)      | 29                    | 7                       | 604                       | 808               | 0.035 | 29                  | 890                             | 0.0               | 0.0             | 4.617     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A2300 (E)      | 750                   | 187                     | 4                         | 1798              | 0.417 | 751                 | 624                             | 1.0               | 0.7             | 3.441     | A                             |
| A2300 (S)      | 475                   | 119                     | 755                       | 648               | 0.733 | 562                 | 0                               | 25.0              | 3.1             | 63.672    | F                             |
| Hickstead Lane | 93                    | 23                      | 1243                      | 577               | 0.162 | 94                  | 73                              | 0.3               | 0.2             | 7.463     | A                             |
| A2300 (N)      | 23                    | 6                       | 604                       | 808               | 0.029 | 23                  | 733                             | 0.0               | 0.0             | 4.589     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A2300 (E)      | 628                   | 157                     | 3                         | 1798              | 0.349 | 629                 | 460                             | 0.7               | 0.5             | 3.081     | A                             |
| A2300 (S)      | 398                   | 99                      | 632                       | 716               | 0.555 | 405                 | 0                               | 3.1               | 1.3             | 11.821    | B                             |
| Hickstead Lane | 78                    | 20                      | 976                       | 743               | 0.105 | 79                  | 60                              | 0.2               | 0.1             | 5.421     | A                             |
| A2300 (N)      | 20                    | 5                       | 444                       | 900               | 0.022 | 20                  | 611                             | 0.0               | 0.0             | 4.086     | A                             |

# D2 - 2024 | Base Flows | PM

## Data Errors and Warnings

| Severity | Area                    | Item                                | Description                                                        |
|----------|-------------------------|-------------------------------------|--------------------------------------------------------------------|
| Warning  | Demand Set Relationship | D9 - 2031   'With Development'   AM | Demand Set relationships are chained. This may slow down the file. |

## Junction Network

### Junctions

| Junction | Name                   | Junction type       | Arm order  | Junction Delay (s) | Junction LOS |
|----------|------------------------|---------------------|------------|--------------------|--------------|
| 1        | A2300 / Hickstead Lane | Standard Roundabout | 1, 2, 3, 4 | 15.36              | C            |

### Junction Network

| Driving side | Lighting       | Network delay (s) | Network LOS |
|--------------|----------------|-------------------|-------------|
| Left         | Normal/unknown | 15.36             | C           |

## Traffic Demand

### Demand Set Details

| ID | Year | Scenario   | Time period | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|------|------------|-------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D2 | 2024 | Base Flows | PM          | ONE HOUR             | 16:15              | 17:45               | 15                        | ✓                 |

### Demand overview (Traffic)

| Arm            | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|----------------|------------|--------------|--------------|-------------------------|--------------------|
| A2300 (E)      |            | ONE HOUR     | ✓            | 729                     | 100.000            |
| A2300 (S)      |            | ONE HOUR     | ✓            | 474                     | 100.000            |
| Hickstead Lane |            | ONE HOUR     | ✓            | 44                      | 100.000            |
| A2300 (N)      |            | ONE HOUR     | ✓            | 38                      | 100.000            |

## Origin-Destination Data

### Demand (Veh/hr)

|      | To             |           |           |                |           |
|------|----------------|-----------|-----------|----------------|-----------|
|      |                | A2300 (E) | A2300 (S) | Hickstead Lane | A2300 (N) |
| From | A2300 (E)      | 0         | 3         | 82             | 644       |
|      | A2300 (S)      | 452       | 0         | 12             | 10        |
|      | Hickstead Lane | 36        | 1         | 0              | 7         |
|      | A2300 (N)      | 34        | 0         | 4              | 0         |

## Vehicle Mix

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

### Heavy Vehicle %

| From | To             |           |           |                |           |
|------|----------------|-----------|-----------|----------------|-----------|
|      |                | A2300 (E) | A2300 (S) | Hickstead Lane | A2300 (N) |
|      | A2300 (E)      | 0         | 0         | 0              | 5         |
|      | A2300 (S)      | 2         | 0         | 8              | 20        |
|      | Hickstead Lane | 3         | 0         | 0              | 0         |
|      | A2300 (N)      | 0         | 0         | 0              | 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) |
|----------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| A2300 (E)      | 0.45    | 3.60          | 0.8             | A       | 669                     | 1003                          |
| A2300 (S)      | 0.84    | 35.42         | 4.8             | E       | 435                     | 652                           |
| Hickstead Lane | 0.08    | 6.68          | 0.1             | A       | 40                      | 61                            |
| A2300 (N)      | 0.05    | 4.47          | 0.1             | A       | 35                      | 52                            |

### Main Results for each time segment

#### 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A2300 (E)      | 549                   | 137                     | 4                         | 1802              | 0.305 | 547                 | 389                             | 0.0               | 0.4             | 2.864     | A                             |
| A2300 (S)      | 357                   | 89                      | 548                       | 760               | 0.469 | 353                 | 3                               | 0.0               | 0.9             | 8.774     | A                             |
| Hickstead Lane | 33                    | 8                       | 828                       | 828               | 0.040 | 33                  | 73                              | 0.0               | 0.0             | 4.524     | A                             |
| A2300 (N)      | 29                    | 7                       | 365                       | 946               | 0.030 | 28                  | 496                             | 0.0               | 0.0             | 3.923     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A2300 (E)      | 655                   | 164                     | 4                         | 1802              | 0.364 | 655                 | 467                             | 0.4               | 0.6             | 3.136     | A                             |
| A2300 (S)      | 426                   | 107                     | 656                       | 700               | 0.608 | 424                 | 4                               | 0.9               | 1.5             | 12.883    | B                             |
| Hickstead Lane | 40                    | 10                      | 991                       | 727               | 0.054 | 39                  | 88                              | 0.0               | 0.1             | 5.237     | A                             |
| A2300 (N)      | 34                    | 9                       | 437                       | 904               | 0.038 | 34                  | 594                             | 0.0               | 0.0             | 4.137     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A2300 (E)      | 803                   | 201                     | 5                         | 1802              | 0.446 | 802                 | 563                             | 0.6               | 0.8             | 3.597     | A                             |
| A2300 (S)      | 522                   | 130                     | 803                       | 619               | 0.843 | 510                 | 4                               | 1.5               | 4.4             | 30.345    | D                             |
| Hickstead Lane | 48                    | 12                      | 1205                      | 594               | 0.082 | 48                  | 107                             | 0.1               | 0.1             | 6.596     | A                             |
| A2300 (N)      | 42                    | 10                      | 527                       | 852               | 0.049 | 42                  | 727                             | 0.0               | 0.1             | 4.441     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A2300 (E)      | 803                   | 201                     | 6                         | 1802              | 0.446 | 803                 | 573                             | 0.8               | 0.8             | 3.603     | A                             |
| A2300 (S)      | 522                   | 130                     | 804                       | 618               | 0.844 | 520                 | 4                               | 4.4               | 4.8             | 35.421    | E                             |
| Hickstead Lane | 48                    | 12                      | 1216                      | 587               | 0.082 | 48                  | 108                             | 0.1               | 0.1             | 6.679     | A                             |
| A2300 (N)      | 42                    | 10                      | 537                       | 847               | 0.049 | 42                  | 728                             | 0.1               | 0.1             | 4.472     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A2300 (E)      | 655                   | 164                     | 5                         | 1802              | 0.364 | 656                 | 482                             | 0.8               | 0.6             | 3.143     | A                             |
| A2300 (S)      | 426                   | 107                     | 657                       | 700               | 0.609 | 439                 | 4                               | 4.8               | 1.6             | 14.438    | B                             |
| Hickstead Lane | 40                    | 10                      | 1008                      | 717               | 0.055 | 40                  | 89                              | 0.1               | 0.1             | 5.318     | A                             |
| A2300 (N)      | 34                    | 9                       | 452                       | 896               | 0.038 | 34                  | 595                             | 0.1               | 0.0             | 4.179     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A2300 (E)      | 549                   | 137                     | 4                         | 1802              | 0.305 | 549                 | 396                             | 0.6               | 0.4             | 2.875     | A                             |
| A2300 (S)      | 357                   | 89                      | 550                       | 759               | 0.470 | 360                 | 3                               | 1.6               | 0.9             | 9.077     | A                             |
| Hickstead Lane | 33                    | 8                       | 836                       | 823               | 0.040 | 33                  | 74                              | 0.1               | 0.0             | 4.556     | A                             |
| A2300 (N)      | 29                    | 7                       | 371                       | 942               | 0.030 | 29                  | 498                             | 0.0               | 0.0             | 3.939     | A                             |

# D5 - 2031 | Future Year | AM

## Data Errors and Warnings

| Severity | Area                    | Item                                | Description                                                        |
|----------|-------------------------|-------------------------------------|--------------------------------------------------------------------|
| Warning  | Demand Set Relationship | D9 - 2031   'With Development'   AM | Demand Set relationships are chained. This may slow down the file. |

## Junction Network

### Junctions

| Junction | Name                   | Junction type       | Arm order  | Junction Delay (s) | Junction LOS |
|----------|------------------------|---------------------|------------|--------------------|--------------|
| 1        | A2300 / Hickstead Lane | Standard Roundabout | 1, 2, 3, 4 | 117.23             | F            |

### Junction Network

| Driving side | Lighting       | Network delay (s) | Network LOS |
|--------------|----------------|-------------------|-------------|
| Left         | Normal/unknown | 117.23            | F           |

## Traffic Demand

### Demand Set Details

| ID | Year | Scenario    | Time period | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically | Relationship type | Relationship |
|----|------|-------------|-------------|----------------------|--------------------|---------------------|---------------------------|-------------------|-------------------|--------------|
| D5 | 2031 | Future Year | AM          | ONE HOUR             | 07:45              | 09:15               | 15                        | ✓                 | Simple            | D1*G5        |

### Demand overview (Traffic)

| Arm            | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|----------------|------------|--------------|--------------|-------------------------|--------------------|
| A2300 (E)      |            | ONE HOUR     | ✓            | 895                     | 100.000            |
| A2300 (S)      |            | ONE HOUR     | ✓            | 567                     | 100.000            |
| Hickstead Lane |            | ONE HOUR     | ✓            | 112                     | 100.000            |
| A2300 (N)      |            | ONE HOUR     | ✓            | 28                      | 100.000            |

## Origin-Destination Data

### Demand (Veh/hr)

|      | To             |           |           |                |           |
|------|----------------|-----------|-----------|----------------|-----------|
|      |                | A2300 (E) | A2300 (S) | Hickstead Lane | A2300 (N) |
| From | A2300 (E)      | 0         | 0         | 73             | 822       |
|      | A2300 (S)      | 533       | 0         | 9              | 25        |
|      | Hickstead Lane | 89        | 0         | 0              | 23        |
|      | A2300 (N)      | 24        | 0         | 4              | 0         |

## Vehicle Mix

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

### Heavy Vehicle %

| From | To             |           |           |                |           |
|------|----------------|-----------|-----------|----------------|-----------|
|      |                | A2300 (E) | A2300 (S) | Hickstead Lane | A2300 (N) |
|      | A2300 (E)      | 0         | 0         | 1              | 5         |
|      | A2300 (S)      | 2         | 0         | 0              | 4         |
|      | Hickstead Lane | 2         | 0         | 0              | 0         |
|      | A2300 (N)      | 0         | 0         | 0              | 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) |
|----------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| A2300 (E)      | 0.55    | 4.43          | 1.2             | A       | 821                     | 1232                          |
| A2300 (S)      | 1.21    | 326.33        | 60.3            | F       | 520                     | 780                           |
| Hickstead Lane | 0.26    | 10.39         | 0.4             | B       | 102                     | 154                           |
| A2300 (N)      | 0.04    | 4.76          | 0.0             | A       | 26                      | 38                            |

### 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A2300 (E)      | 674                   | 168                     | 3                         | 1798              | 0.375 | 672                 | 480                             | 0.0               | 0.6             | 3.188     | A                             |
| A2300 (S)      | 427                   | 107                     | 675                       | 692               | 0.616 | 420                 | 0                               | 0.0               | 1.5             | 12.975    | B                             |
| Hickstead Lane | 84                    | 21                      | 1031                      | 709               | 0.119 | 84                  | 64                              | 0.0               | 0.1             | 5.753     | A                             |
| A2300 (N)      | 21                    | 5                       | 462                       | 890               | 0.024 | 21                  | 652                             | 0.0               | 0.0             | 4.143     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A2300 (E)      | 805                   | 201                     | 4                         | 1798              | 0.448 | 804                 | 571                             | 0.6               | 0.8             | 3.618     | A                             |
| A2300 (S)      | 510                   | 127                     | 808                       | 618               | 0.825 | 500                 | 0                               | 1.5               | 4.0             | 28.362    | D                             |
| Hickstead Lane | 100                   | 25                      | 1231                      | 584               | 0.172 | 100                 | 77                              | 0.1               | 0.2             | 7.435     | A                             |
| A2300 (N)      | 25                    | 6                       | 550                       | 839               | 0.030 | 25                  | 780                             | 0.0               | 0.0             | 4.422     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A2300 (E)      | 986                   | 246                     | 5                         | 1797              | 0.548 | 984                 | 602                             | 0.8               | 1.2             | 4.416     | A                             |
| A2300 (S)      | 624                   | 156                     | 989                       | 517               | 1.208 | 508                 | 0                               | 4.0               | 33.0            | 149.301   | F                             |
| Hickstead Lane | 123                   | 31                      | 1404                      | 474               | 0.259 | 122                 | 93                              | 0.2               | 0.3             | 10.215    | B                             |
| A2300 (N)      | 31                    | 8                       | 576                       | 824               | 0.037 | 31                  | 951                             | 0.0               | 0.0             | 4.536     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A2300 (E)      | 986                   | 246                     | 5                         | 1797              | 0.548 | 986                 | 609                             | 1.2               | 1.2             | 4.434     | A                             |
| A2300 (S)      | 624                   | 156                     | 990                       | 516               | 1.210 | 515                 | 0                               | 33.0              | 60.3            | 326.333   | F                             |
| Hickstead Lane | 123                   | 31                      | 1412                      | 469               | 0.262 | 123                 | 93                              | 0.3               | 0.4             | 10.388    | B                             |
| A2300 (N)      | 31                    | 8                       | 583                       | 820               | 0.037 | 31                  | 952                             | 0.0               | 0.0             | 4.558     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A2300 (E)      | 805                   | 201                     | 4                         | 1798              | 0.448 | 806                 | 673                             | 1.2               | 0.8             | 3.635     | A                             |
| A2300 (S)      | 510                   | 127                     | 810                       | 617               | 0.826 | 606                 | 0                               | 60.3              | 36.0            | 285.553   | F                             |
| Hickstead Lane | 100                   | 25                      | 1338                      | 518               | 0.194 | 101                 | 79                              | 0.4               | 0.2             | 8.639     | A                             |
| A2300 (N)      | 25                    | 6                       | 651                       | 781               | 0.032 | 25                  | 787                             | 0.0               | 0.0             | 4.763     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A2300 (E)      | 674                   | 168                     | 3                         | 1798              | 0.375 | 675                 | 616                             | 0.8               | 0.6             | 3.208     | A                             |
| A2300 (S)      | 427                   | 107                     | 678                       | 690               | 0.618 | 564                 | 0                               | 36.0              | 1.7             | 60.247    | F                             |
| Hickstead Lane | 84                    | 21                      | 1175                      | 620               | 0.136 | 84                  | 67                              | 0.2               | 0.2             | 6.724     | A                             |
| A2300 (N)      | 21                    | 5                       | 598                       | 811               | 0.026 | 21                  | 661                             | 0.0               | 0.0             | 4.554     | A                             |

# D6 - 2031 | Future Year | PM

## Data Errors and Warnings

| Severity | Area                    | Item                                | Description                                                        |
|----------|-------------------------|-------------------------------------|--------------------------------------------------------------------|
| Warning  | Demand Set Relationship | D9 - 2031   'With Development'   AM | Demand Set relationships are chained. This may slow down the file. |

## Junction Network

### Junctions

| Junction | Name                   | Junction type       | Arm order  | Junction Delay (s) | Junction LOS |
|----------|------------------------|---------------------|------------|--------------------|--------------|
| 1        | A2300 / Hickstead Lane | Standard Roundabout | 1, 2, 3, 4 | 30.72              | D            |

### Junction Network

| Driving side | Lighting       | Network delay (s) | Network LOS |
|--------------|----------------|-------------------|-------------|
| Left         | Normal/unknown | 30.72             | D           |

## Traffic Demand

### Demand Set Details

| ID | Year | Scenario    | Time period | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically | Relationship type | Relationship |
|----|------|-------------|-------------|----------------------|--------------------|---------------------|---------------------------|-------------------|-------------------|--------------|
| D6 | 2031 | Future Year | PM          | ONE HOUR             | 16:15              | 17:45               | 15                        | ✓                 | Simple            | D2*G6        |

### Demand overview (Traffic)

| Arm            | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|----------------|------------|--------------|--------------|-------------------------|--------------------|
| A2300 (E)      |            | ONE HOUR     | ✓            | 783                     | 100.000            |
| A2300 (S)      |            | ONE HOUR     | ✓            | 509                     | 100.000            |
| Hickstead Lane |            | ONE HOUR     | ✓            | 47                      | 100.000            |
| A2300 (N)      |            | ONE HOUR     | ✓            | 41                      | 100.000            |

## Origin-Destination Data

### Demand (Veh/hr)

|      | To             |           |           |                |           |
|------|----------------|-----------|-----------|----------------|-----------|
|      |                | A2300 (E) | A2300 (S) | Hickstead Lane | A2300 (N) |
| From | A2300 (E)      | 0         | 3         | 88             | 692       |
|      | A2300 (S)      | 485       | 0         | 13             | 11        |
|      | Hickstead Lane | 39        | 1         | 0              | 8         |
|      | A2300 (N)      | 37        | 0         | 4              | 0         |

## Vehicle Mix

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

### Heavy Vehicle %

| From | To             |           |           |                |           |
|------|----------------|-----------|-----------|----------------|-----------|
|      |                | A2300 (E) | A2300 (S) | Hickstead Lane | A2300 (N) |
|      | A2300 (E)      | 0         | 0         | 0              | 5         |
|      | A2300 (S)      | 2         | 0         | 8              | 20        |
|      | Hickstead Lane | 3         | 0         | 0              | 0         |
|      | A2300 (N)      | 0         | 0         | 0              | 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) |
|----------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| A2300 (E)      | 0.48    | 3.83          | 0.9             | A       | 718                     | 1078                          |
| A2300 (S)      | 0.96    | 77.03         | 11.4            | F       | 467                     | 701                           |
| Hickstead Lane | 0.10    | 7.43          | 0.1             | A       | 43                      | 65                            |
| A2300 (N)      | 0.05    | 4.59          | 0.1             | A       | 37                      | 56                            |

### Main Results for each time segment

#### 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A2300 (E)      | 589                   | 147                     | 4                         | 1802              | 0.327 | 588                 | 418                             | 0.0               | 0.5             | 2.958     | A                             |
| A2300 (S)      | 383                   | 96                      | 588                       | 738               | 0.519 | 379                 | 3                               | 0.0               | 1.1             | 9.921     | A                             |
| Hickstead Lane | 36                    | 9                       | 888                       | 791               | 0.045 | 35                  | 79                              | 0.0               | 0.0             | 4.765     | A                             |
| A2300 (N)      | 31                    | 8                       | 391                       | 931               | 0.033 | 31                  | 533                             | 0.0               | 0.0             | 3.999     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A2300 (E)      | 704                   | 176                     | 5                         | 1802              | 0.391 | 703                 | 500                             | 0.5               | 0.6             | 3.275     | A                             |
| A2300 (S)      | 458                   | 114                     | 704                       | 674               | 0.679 | 454                 | 4                               | 1.1               | 2.0             | 16.105    | C                             |
| Hickstead Lane | 42                    | 11                      | 1064                      | 682               | 0.062 | 42                  | 94                              | 0.0               | 0.1             | 5.628     | A                             |
| A2300 (N)      | 37                    | 9                       | 468                       | 886               | 0.041 | 37                  | 638                             | 0.0               | 0.0             | 4.237     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A2300 (E)      | 862                   | 216                     | 6                         | 1801              | 0.479 | 861                 | 591                             | 0.6               | 0.9             | 3.822     | A                             |
| A2300 (S)      | 561                   | 140                     | 862                       | 586               | 0.957 | 533                 | 5                               | 2.0               | 8.9             | 52.091    | F                             |
| Hickstead Lane | 52                    | 13                      | 1280                      | 547               | 0.095 | 52                  | 115                             | 0.1               | 0.1             | 7.262     | A                             |
| A2300 (N)      | 45                    | 11                      | 552                       | 838               | 0.054 | 45                  | 780                             | 0.0               | 0.1             | 4.539     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A2300 (E)      | 862                   | 216                     | 6                         | 1801              | 0.479 | 862                 | 608                             | 0.9               | 0.9             | 3.831     | A                             |
| A2300 (S)      | 561                   | 140                     | 863                       | 585               | 0.958 | 550                 | 5                               | 8.9               | 11.4            | 77.031    | F                             |
| Hickstead Lane | 52                    | 13                      | 1298                      | 537               | 0.097 | 52                  | 116                             | 0.1               | 0.1             | 7.429     | A                             |
| A2300 (N)      | 45                    | 11                      | 569                       | 828               | 0.054 | 45                  | 781                             | 0.1               | 0.1             | 4.595     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A2300 (E)      | 704                   | 176                     | 5                         | 1802              | 0.391 | 705                 | 539                             | 0.9               | 0.6             | 3.284     | A                             |
| A2300 (S)      | 458                   | 114                     | 706                       | 673               | 0.680 | 494                 | 4                               | 11.4              | 2.3             | 23.787    | C                             |
| Hickstead Lane | 42                    | 11                      | 1104                      | 657               | 0.065 | 43                  | 96                              | 0.1               | 0.1             | 5.860     | A                             |
| A2300 (N)      | 37                    | 9                       | 507                       | 864               | 0.042 | 37                  | 640                             | 0.1               | 0.0             | 4.354     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A2300 (E)      | 589                   | 147                     | 4                         | 1802              | 0.327 | 590                 | 427                             | 0.6               | 0.5             | 2.973     | A                             |
| A2300 (S)      | 383                   | 96                      | 591                       | 736               | 0.520 | 388                 | 3                               | 2.3               | 1.1             | 10.459    | B                             |
| Hickstead Lane | 36                    | 9                       | 899                       | 784               | 0.045 | 36                  | 79                              | 0.1               | 0.0             | 4.812     | A                             |
| A2300 (N)      | 31                    | 8                       | 400                       | 926               | 0.033 | 31                  | 535                             | 0.0               | 0.0             | 4.024     | A                             |

# D9 - 2031 | 'With Development' | AM

## Data Errors and Warnings

| Severity | Area                    | Item                                | Description                                                        |
|----------|-------------------------|-------------------------------------|--------------------------------------------------------------------|
| Warning  | Demand Set Relationship | D9 - 2031   'With Development'   AM | Demand Set relationships are chained. This may slow down the file. |

## Junction Network

### Junctions

| Junction | Name                   | Junction type       | Arm order  | Junction Delay (s) | Junction LOS |
|----------|------------------------|---------------------|------------|--------------------|--------------|
| 1        | A2300 / Hickstead Lane | Standard Roundabout | 1, 2, 3, 4 | 134.93             | F            |

### Junction Network

| Driving side | Lighting       | Network delay (s) | Network LOS |
|--------------|----------------|-------------------|-------------|
| Left         | Normal/unknown | 134.93            | F           |

## Traffic Demand

### Demand Set Details

| ID | Year | Scenario           | Time period | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically | Relationship type | Relationship |
|----|------|--------------------|-------------|----------------------|--------------------|---------------------|---------------------------|-------------------|-------------------|--------------|
| D9 | 2031 | 'With Development' | AM          | ONE HOUR             | 07:45              | 09:15               | 15                        | ✓                 | Simple            | D5+D7        |

### Demand overview (Traffic)

| Arm            | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|----------------|------------|--------------|--------------|-------------------------|--------------------|
| A2300 (E)      |            | ONE HOUR     | ✓            | 895                     | 100.000            |
| A2300 (S)      |            | ONE HOUR     | ✓            | 584                     | 100.000            |
| Hickstead Lane |            | ONE HOUR     | ✓            | 112                     | 100.000            |
| A2300 (N)      |            | ONE HOUR     | ✓            | 28                      | 100.000            |

## Origin-Destination Data

### Demand (Veh/hr)

|      | To             |           |           |                |           |
|------|----------------|-----------|-----------|----------------|-----------|
|      |                | A2300 (E) | A2300 (S) | Hickstead Lane | A2300 (N) |
| From | A2300 (E)      | 0         | 0         | 73             | 822       |
|      | A2300 (S)      | 550       | 0         | 9              | 25        |
|      | Hickstead Lane | 89        | 0         | 0              | 23        |
|      | A2300 (N)      | 24        | 0         | 4              | 0         |

## Vehicle Mix

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

### Heavy Vehicle %

| From | To             |           |           |                |           |
|------|----------------|-----------|-----------|----------------|-----------|
|      |                | A2300 (E) | A2300 (S) | Hickstead Lane | A2300 (N) |
|      | A2300 (E)      | 0         | 0         | 1              | 5         |
|      | A2300 (S)      | 2         | 0         | 0              | 4         |
|      | Hickstead Lane | 2         | 0         | 0              | 0         |
|      | A2300 (N)      | 0         | 0         | 0              | 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) |
|----------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| A2300 (E)      | 0.55    | 4.43          | 1.2             | A       | 821                     | 1232                          |
| A2300 (S)      | 1.25    | 370.14        | 69.5            | F       | 536                     | 803                           |
| Hickstead Lane | 0.26    | 10.40         | 0.4             | B       | 102                     | 154                           |
| A2300 (N)      | 0.04    | 4.77          | 0.0             | A       | 26                      | 38                            |

### 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A2300 (E)      | 674                   | 168                     | 3                         | 1798              | 0.375 | 672                 | 492                             | 0.0               | 0.6             | 3.188     | A                             |
| A2300 (S)      | 439                   | 110                     | 675                       | 693               | 0.635 | 433                 | 0                               | 0.0               | 1.7             | 13.535    | B                             |
| Hickstead Lane | 84                    | 21                      | 1043                      | 701               | 0.120 | 84                  | 64                              | 0.0               | 0.1             | 5.822     | A                             |
| A2300 (N)      | 21                    | 5                       | 475                       | 883               | 0.024 | 21                  | 652                             | 0.0               | 0.0             | 4.177     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A2300 (E)      | 805                   | 201                     | 4                         | 1798              | 0.448 | 804                 | 585                             | 0.6               | 0.8             | 3.618     | A                             |
| A2300 (S)      | 525                   | 131                     | 808                       | 618               | 0.849 | 513                 | 0                               | 1.7               | 4.6             | 31.280    | D                             |
| Hickstead Lane | 100                   | 25                      | 1244                      | 576               | 0.174 | 100                 | 77                              | 0.1               | 0.2             | 7.561     | A                             |
| A2300 (N)      | 25                    | 6                       | 564                       | 831               | 0.030 | 25                  | 780                             | 0.0               | 0.0             | 4.464     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A2300 (E)      | 986                   | 246                     | 5                         | 1797              | 0.548 | 984                 | 605                             | 0.8               | 1.2             | 4.416     | A                             |
| A2300 (S)      | 643                   | 161                     | 989                       | 517               | 1.243 | 510                 | 0                               | 4.6               | 37.7            | 167.044   | F                             |
| Hickstead Lane | 123                   | 31                      | 1407                      | 473               | 0.260 | 122                 | 92                              | 0.2               | 0.3             | 10.251    | B                             |
| A2300 (N)      | 31                    | 8                       | 579                       | 823               | 0.037 | 31                  | 950                             | 0.0               | 0.0             | 4.544     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A2300 (E)      | 986                   | 246                     | 5                         | 1797              | 0.548 | 986                 | 610                             | 1.2               | 1.2             | 4.434     | A                             |
| A2300 (S)      | 643                   | 161                     | 990                       | 516               | 1.245 | 515                 | 0                               | 37.7              | 69.5            | 370.135   | F                             |
| Hickstead Lane | 123                   | 31                      | 1413                      | 469               | 0.262 | 123                 | 93                              | 0.3               | 0.4             | 10.398    | B                             |
| A2300 (N)      | 31                    | 8                       | 584                       | 820               | 0.037 | 31                  | 952                             | 0.0               | 0.0             | 4.562     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A2300 (E)      | 805                   | 201                     | 4                         | 1798              | 0.448 | 806                 | 675                             | 1.2               | 0.8             | 3.638     | A                             |
| A2300 (S)      | 525                   | 131                     | 810                       | 617               | 0.851 | 608                 | 0                               | 69.5              | 48.7            | 346.147   | F                             |
| Hickstead Lane | 100                   | 25                      | 1340                      | 517               | 0.194 | 101                 | 79                              | 0.4               | 0.2             | 8.661     | A                             |
| A2300 (N)      | 25                    | 6                       | 654                       | 779               | 0.032 | 25                  | 787                             | 0.0               | 0.0             | 4.773     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A2300 (E)      | 674                   | 168                     | 3                         | 1798              | 0.375 | 675                 | 676                             | 0.8               | 0.6             | 3.208     | A                             |
| A2300 (S)      | 439                   | 110                     | 678                       | 691               | 0.636 | 626                 | 0                               | 48.7              | 2.0             | 115.558   | F                             |
| Hickstead Lane | 84                    | 21                      | 1237                      | 582               | 0.144 | 84                  | 67                              | 0.2               | 0.2             | 7.235     | A                             |
| A2300 (N)      | 21                    | 5                       | 658                       | 777               | 0.027 | 21                  | 663                             | 0.0               | 0.0             | 4.760     | A                             |

# D10 - 2031 | 'With Development' | PM

## Data Errors and Warnings

| Severity | Area                    | Item                                | Description                                                        |
|----------|-------------------------|-------------------------------------|--------------------------------------------------------------------|
| Warning  | Demand Set Relationship | D9 - 2031   'With Development'   AM | Demand Set relationships are chained. This may slow down the file. |

## Junction Network

### Junctions

| Junction | Name                   | Junction type       | Arm order  | Junction Delay (s) | Junction LOS |
|----------|------------------------|---------------------|------------|--------------------|--------------|
| 1        | A2300 / Hickstead Lane | Standard Roundabout | 1, 2, 3, 4 | 32.80              | D            |

### Junction Network

| Driving side | Lighting       | Network delay (s) | Network LOS |
|--------------|----------------|-------------------|-------------|
| Left         | Normal/unknown | 32.80             | D           |

## Traffic Demand

### Demand Set Details

| ID  | Year | Scenario           | Time period | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically | Relationship type | Relationship |
|-----|------|--------------------|-------------|----------------------|--------------------|---------------------|---------------------------|-------------------|-------------------|--------------|
| D10 | 2031 | 'With Development' | PM          | ONE HOUR             | 16:15              | 17:45               | 15                        | ✓                 | Simple            | D6+D8        |

### Demand overview (Traffic)

| Arm            | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|----------------|------------|--------------|--------------|-------------------------|--------------------|
| A2300 (E)      |            | ONE HOUR     | ✓            | 783                     | 100.000            |
| A2300 (S)      |            | ONE HOUR     | ✓            | 514                     | 100.000            |
| Hickstead Lane |            | ONE HOUR     | ✓            | 47                      | 100.000            |
| A2300 (N)      |            | ONE HOUR     | ✓            | 41                      | 100.000            |

## Origin-Destination Data

### Demand (Veh/hr)

|      | To             |           |           |                |           |
|------|----------------|-----------|-----------|----------------|-----------|
|      |                | A2300 (E) | A2300 (S) | Hickstead Lane | A2300 (N) |
| From | A2300 (E)      | 0         | 3         | 88             | 692       |
|      | A2300 (S)      | 490       | 0         | 13             | 11        |
|      | Hickstead Lane | 39        | 1         | 0              | 8         |
|      | A2300 (N)      | 37        | 0         | 4              | 0         |

## Vehicle Mix

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

### Heavy Vehicle %

| From | To             |           |           |                |           |
|------|----------------|-----------|-----------|----------------|-----------|
|      |                | A2300 (E) | A2300 (S) | Hickstead Lane | A2300 (N) |
|      | A2300 (E)      | 0         | 0         | 0              | 5         |
|      | A2300 (S)      | 2         | 0         | 8              | 20        |
|      | Hickstead Lane | 3         | 0         | 0              | 0         |
|      | A2300 (N)      | 0         | 0         | 0              | 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) |
|----------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| A2300 (E)      | 0.48    | 3.83          | 0.9             | A       | 718                     | 1078                          |
| A2300 (S)      | 0.97    | 82.26         | 12.4            | F       | 472                     | 708                           |
| Hickstead Lane | 0.10    | 7.46          | 0.1             | A       | 43                      | 65                            |
| A2300 (N)      | 0.05    | 4.61          | 0.1             | A       | 37                      | 56                            |

### Main Results for each time segment

#### 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A2300 (E)      | 589                   | 147                     | 4                         | 1802              | 0.327 | 588                 | 421                             | 0.0               | 0.5             | 2.958     | A                             |
| A2300 (S)      | 387                   | 97                      | 588                       | 738               | 0.524 | 383                 | 3                               | 0.0               | 1.1             | 10.008    | B                             |
| Hickstead Lane | 36                    | 9                       | 892                       | 788               | 0.045 | 35                  | 79                              | 0.0               | 0.0             | 4.779     | A                             |
| A2300 (N)      | 31                    | 8                       | 395                       | 929               | 0.033 | 31                  | 533                             | 0.0               | 0.0             | 4.009     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A2300 (E)      | 704                   | 176                     | 5                         | 1802              | 0.391 | 703                 | 505                             | 0.5               | 0.6             | 3.275     | A                             |
| A2300 (S)      | 462                   | 116                     | 704                       | 674               | 0.686 | 458                 | 4                               | 1.1               | 2.1             | 16.401    | C                             |
| Hickstead Lane | 42                    | 11                      | 1068                      | 679               | 0.063 | 42                  | 94                              | 0.0               | 0.1             | 5.651     | A                             |
| A2300 (N)      | 37                    | 9                       | 473                       | 884               | 0.042 | 37                  | 638                             | 0.0               | 0.0             | 4.250     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A2300 (E)      | 862                   | 216                     | 6                         | 1801              | 0.479 | 861                 | 594                             | 0.6               | 0.9             | 3.822     | A                             |
| A2300 (S)      | 566                   | 142                     | 862                       | 586               | 0.966 | 536                 | 5                               | 2.1               | 9.5             | 54.347    | F                             |
| Hickstead Lane | 52                    | 13                      | 1284                      | 545               | 0.095 | 52                  | 115                             | 0.1               | 0.1             | 7.292     | A                             |
| A2300 (N)      | 45                    | 11                      | 555                       | 836               | 0.054 | 45                  | 780                             | 0.0               | 0.1             | 4.550     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A2300 (E)      | 862                   | 216                     | 6                         | 1801              | 0.479 | 862                 | 612                             | 0.9               | 0.9             | 3.831     | A                             |
| A2300 (S)      | 566                   | 142                     | 863                       | 585               | 0.967 | 554                 | 5                               | 9.5               | 12.4            | 82.259    | F                             |
| Hickstead Lane | 52                    | 13                      | 1302                      | 534               | 0.097 | 52                  | 116                             | 0.1               | 0.1             | 7.465     | A                             |
| A2300 (N)      | 45                    | 11                      | 573                       | 826               | 0.054 | 45                  | 781                             | 0.1               | 0.1             | 4.608     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A2300 (E)      | 704                   | 176                     | 5                         | 1802              | 0.391 | 705                 | 547                             | 0.9               | 0.6             | 3.286     | A                             |
| A2300 (S)      | 462                   | 116                     | 706                       | 673               | 0.687 | 502                 | 4                               | 12.4              | 2.3             | 25.419    | D                             |
| Hickstead Lane | 42                    | 11                      | 1112                      | 652               | 0.065 | 43                  | 96                              | 0.1               | 0.1             | 5.906     | A                             |
| A2300 (N)      | 37                    | 9                       | 515                       | 859               | 0.043 | 37                  | 640                             | 0.1               | 0.0             | 4.378     | 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 |
|----------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A2300 (E)      | 589                   | 147                     | 4                         | 1802              | 0.327 | 590                 | 431                             | 0.6               | 0.5             | 2.973     | A                             |
| A2300 (S)      | 387                   | 97                      | 591                       | 737               | 0.525 | 392                 | 3                               | 2.3               | 1.1             | 10.582    | B                             |
| Hickstead Lane | 36                    | 9                       | 903                       | 782               | 0.046 | 36                  | 79                              | 0.1               | 0.0             | 4.826     | A                             |
| A2300 (N)      | 31                    | 8                       | 404                       | 923               | 0.033 | 31                  | 535                             | 0.0               | 0.0             | 4.034     | A                             |

## **APPENDIX F. TRAVEL PLAN**



# Land at LVS Hassocks, London Road, Sayers Common Framework Residential Travel Plan

Client: Wates Developments and the Licensed Trade  
Charity

i-Transport Ref: DS/OT/DGo/ITS19984-009C

Date: 27 March 2026

# Land at LVS Hassocks, London Road, Sayers Common Framework Residential Travel Plan

Client: Wates Developments and the Licensed Trade  
Charity

i-Transport Ref: DS/OT/DGo/ITS19984-009C

Date: 27 March 2026

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# Quality Management

| Report No.    | Comments                       | Date             | Author | Authorised |
|---------------|--------------------------------|------------------|--------|------------|
| ITS19984-009  | Working Draft                  | 11 December 2025 | DGo    | DS         |
| ITS19984-009A | Draft                          | 12 December 2025 | DGo    | DS         |
| ITS19984-009B | Planning Issue                 | 22 December 2025 | DGo    | DS         |
| ITS19984-009C | Figure Amendments              | 22 January 2026  | DGo    | DS         |
| ITS19984-009C | Revision following NH Comments | 27 March 2026    | DGo    | DS         |

File Ref: S:\Projects\19000 Series\19984ITS - Land West of B2118 Sayers Common\Admin\Report and Tech Notes\009 Residential Travel Plan\ITS19984-009D Framework Residential Travel Plan.docx

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---

## SECTION 1 Introduction

### 1.1 Overview

- 1.1.1 i-Transport LLP has been appointed by Wates Developments and the Licensed Trade Charity to prepare a Framework Travel Plan (FTP) in respect of a proposed residential development on land situated to the northwest of Sayers Common.

### 1.2 Compliance with Planning Policy DPSC7

- 1.2.1 The site is a draft allocation in the Submission Draft Mid Sussex District Council Local Plan (2021 – 2039). The site (ref: *DPSC7: Land at LVS Hassocks*) has been identified for the relocation of the existing SEN school and to provide 200 new homes on the site.
- 1.2.2 The Draft Submission Local Plan identifies the following site-specific transport policies:
- i Demonstrate a coordinated approach and collaboration with other housing allocations in the Plan within Sayers Common to deliver high quality placemaking, which supports the 20-minute neighbourhood principles, with direct enhanced active/ sustainable travel connections, and includes enabling the viability of new public transport services.
  - ii Prioritise pedestrian and cycle access throughout the development and integrate and enhance the existing PRow which crosses the site.
  - iii Provide any necessary upgrades to the existing access onto B2118.
  - iv Provide financial contributions towards the provision of sustainable transport including improvements at Hassocks Station.
- 1.2.3 The development proposes off-site active travel infrastructure upgrades to the B2218 to ensure sustainable modes of travel are prioritised as well as providing financial contributions in adherence with Policy DPSC7 to support wider sustainable transport initiatives. This will not only benefit future residents of the development but will also support a coordinated approach with other housing allocations within Sayers Common.

1.2.4 Additionally, in collaboration with the other allocated sites, the applicant will provide a proportionate contribution towards facilitating an off-carriageway cycle route between the B2218 and the A2300, improving off-carriageway cycling between Sayers Common and Burgess Hill, as well as other schemes of improvement identified by the MSDC Transport Study and ongoing work to develop a Infrastructure Delivery Plan, to be agreed through a Section 106 Agreement associated with the development proposals.

1.2.5 The Applicant is submitting a hybrid planning application with separate and severable elements comprising:

***Demolition of all existing buildings bar the chapel, to retained for use within Use Class F and:***

***a) Full planning permission for the development of the north western part of the Land at LVS Hassocks so as to accommodate a new SEN School with associated access from London Road, car parking, landscaping and drainage works; and***

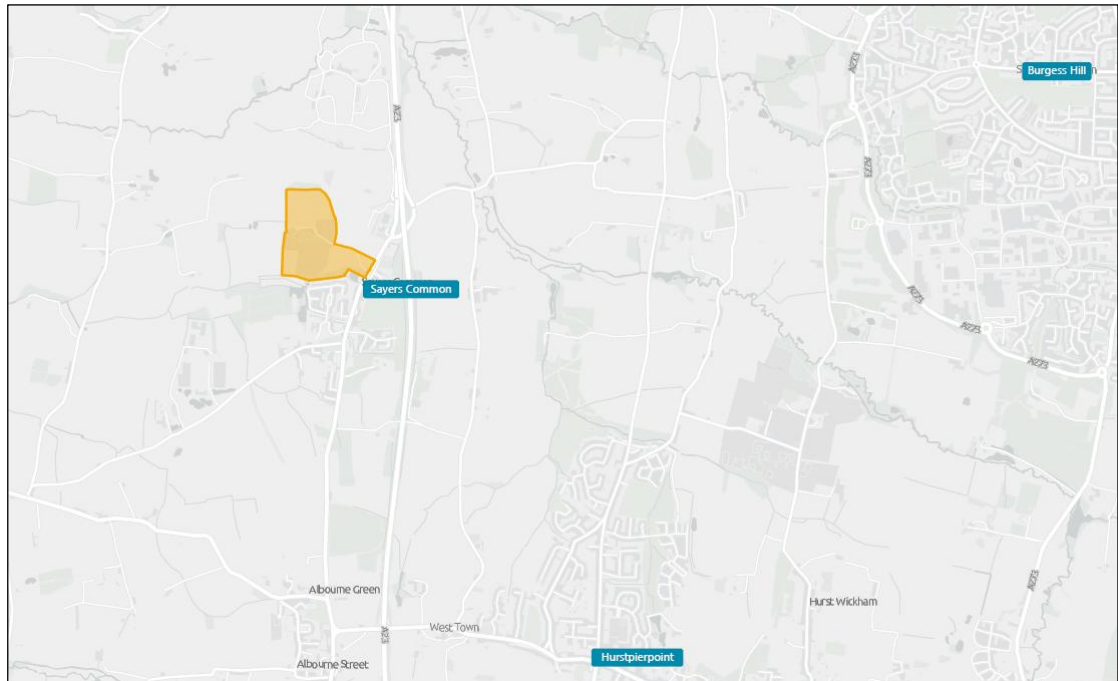
***b) Outline planning permission (Appearance, Landscaping, Layout and Scale Reserved) for the development of the rest of the land at LVS Hassocks so as to accommodate up to 210 dwellinghouses (including affordable housing) with associated access, car parking, landscaping, play areas, informal outdoor space and drainage works***

1.2.6 Outline planning permission is being sought for the residential element of the scheme with full planning permission for the LVS School. A separate School Travel Plan (ref: ITS19984-13) has been prepared for the LVS School.

1.2.7 The primary purpose of this Travel Plan is to set out measures for the effective promotion and delivery of sustainable transport initiatives such as walking, cycling, public transport, EV use and to reduce the demand for travel by private car use.

1.2.8 The site is located to the Northwest of Sayers Common, off the B2118, as shown in **Figure 1** extracted as **Image 1.1**.

**Image 1.1: Site Location**



Source: Figure 1

**1.2.9** This Travel Plan is designed to improve awareness of the opportunities to reduce car usage (particularly single occupancy journeys) via the promotion of various means such as car sharing, walking, cycling and use of public transport. The Travel Plan will be promoted amongst the residents of the development.

### **1.3 Scope of the Travel Plan**

**1.3.1** This Travel Plan details the following:

- **Section 2** - Context of Development and Relevant Policy
- **Section 3** – Site Assessment
- **Section 4** – Aims and Objectives
- **Section 5** - Travel Plan Measures
- **Section 6** – Travel Plan Targets
- **Section 7** – Travel Plan Marketing and Communication
- **Section 8** – Travel Plan Monitoring and Review
- **Section 9** – Action Plan

## SECTION 2 Relevant Transport Policy

### 2.1 National Policy

2.1.1 The NPPF (updated in December 2024) sets out the relevant policy background for the development of Travel Plans.

2.1.2 Section 9 of the NPPF outlines that development proposals prioritise and promote sustainable modes of transport (taking account of the type of development and its location). A key tool to facilitate this will be a Travel Plan, which is required to support all developments that generate significant amounts of movement. The sustainable travel objectives include the need to reduce the use of private cars (particularly for single occupancy journeys) and measures to promote sustainable alternatives including increased walking, cycling and public transport use.

2.1.3 The web-based National Planning Practice Guidance (NPPG), which was released on 6 March 2014, brings together planning guidance for England across all disciplines in an accessible way. It also provides a clear link between guidance and the aims and objectives of the NPPF. The NPPG sets out the importance and requirements for Travel Plans and states:

***“The primary purpose of a Travel Plan is to identify opportunities for the effective promotion and delivery of sustainable transport initiatives e.g. walking, cycling, public transport and tele-commuting, in connection with both proposed and existing developments and through this to thereby reduce the demand for travel by less sustainable modes.”***

#### DfT Circular 01/2022

2.1.4 The Department for Transport (DfT) Circular 01/2022 explains National Highways (NH) approach to engaging with the planning system. Its guidance reflects with the move towards vision led assessments to development.

2.1.5 Guidance comments on the importance of Travel Plans in that:

- ***“Travel plans are an effective means of incentivising the use of sustainable modes of transport.”***
- ***“Development promoters must put forward clear targets and commitments to manage down the traffic impact of development and maximise the accessibility of and within sites by walking, wheeling, cycling, public transport and shared travel.”***
- ***“Targets for achieving a modal shift to sustainable transport will need to be subject to sustained monitoring and management by an appointed travel plan coordinator.”***

## 2.2 Local Policy

### West Sussex County Council (WSCC)

2.2.1 The WSCC Local Transport Plan 4 was published in April 2022 and sets out a long-term strategy and implementation plan for making improvements to the transport system throughout the county over the next 20 years.

2.2.2 The strategy is to provide improvements to the transport system to tackle the identified transport issues as and when funding becomes available. To ensure that the regeneration aspirations of the plan are delivered, and the identified transport issues are addressed, they will ensure that all new schemes and developments contribute, and support, in some way to the following:

- ***Increasing use of sustainable modes of transport***
- ***Improving network efficiency in order to improve journey times and air quality***
- ***Improving safety for all road users***
- ***Facilitating the introduction of on-street electric vehicle charging infrastructure***
- ***Improving active travel facilities within existing communities and between towns***

2.2.3 This FTP has been prepared in accordance with the strategies set out in the Local Transport Plan.

### Mid-Sussex District Plan 2014-2031 (March 2018)

2.2.4 The Mid Sussex District Plan (MSDP) covers the period between 2014 and 2031 and was adopted in March 2018.

2.2.5 Policy DP21 of the Mid Sussex District Local Plan (2014-2031) states:

***“Development which generates significant amounts of movements is supported by a Transport Assessment / Statement and a Travel Plan that is effective and demonstrably deliverable including setting out how schemes will be funded...”***

2.2.6 Policy DP21 also states that the Plan aims to:

***“Create sustainable communities, which includes a sustainable local transport network and ease of access to local services and facilities.”***

### **Mid Sussex District Plan (2021 – 2039) Submission Draft (Regulation)**

- 2.2.7 Policy DPT1 of the Submission plan requires development to meet a series of objectives in relation to Placemaking and Connectivity. Objective 1 requires that development likely to generate significant amounts of movement and / or have a significant impact on the transport network shall provide a Transport Assessment, Sustainable Travel Strategy and a Travel Plan to identify appropriate mitigation and demonstrate how development will be accompanied by the necessary sustainable infrastructure to support it and to accord with the requirements of the NPPF.
- 2.2.8 Similarly, Objective 3 requires that developments generating significant amounts of movement must provide a Travel Plan and undertake and report regular monitoring of travel movements by all modes to enable enforcement of agreed travel plan actions and targets.

### **Mid Sussex Position Statement (December 2025)**

- 2.2.9 Principle 5 – Transport requires any developments which create a significant amount of traffic to be supported by a travel plan. Approved developments will be required to undertake and promptly report their monitoring to achieve success of the vision-led approach to spatial planning.

### **Hurstpierpoint and Sayers Common Neighbourhood Plan**

- 2.2.10 Policy HurstH6 requires residential development to be supported by Travel Plans to mitigate cumulative impact and to ensure provision of any necessary off-site transport infrastructure.

## **2.3 Travel Plan Benefits**

- 2.3.1 A Travel Plan can bring a number of benefits to a new development for future residents and users of the site, as well as the wider community. Benefits are expected to include:
- Improved health and fitness through increased levels of walking and cycling.
  - Increased flexibility offered through wider travel choices
  - The social aspects of sharing transport with others
  - Reduced traffic impacts.

## **2.4 Proposed Development**

- 2.4.1 The site is located in the village of Sayers Common, within the administrative boundary of Mid Sussex, circa 8km west of Burgess Hill. The site is accessed from the B2118 London Road.

- 2.4.2 Access onto the B2118 London Road will be via a simple priority junction. Further details of the access arrangements are set out in the associated Transport Assessment (*Ref: ITS19984-007*) and in drawing **ITS19984-GA-009G**.
- 2.4.3 At the site access, 2.0m footways will provide a pedestrian connection onto existing footways along the B2118 London Road alongside dropped kerbs and tactile paving.
- 2.4.4 The internal layout of the site has been designed to encourage low vehicle speeds to promote and facilitate cycling within the site.
- 2.4.5 A number of off-site improvements are included as part of the development proposal to facilitate increased walking and cycling alongside the improvement of bus stops. The off-site improvements are set out in Section 5 and on drawing **ITS19984-GA-034B**.

## SECTION 3 Existing Conditions

### 3.1 Introduction

- 3.1.1 One of the key objectives of the Travel Plan is to encourage the use of sustainable travel modes. The Transport Assessment which accompanies the planning application provides a full assessment of existing conditions in the vicinity of the site and proposed transport mitigation measures. This section of the Travel Plan provides a summary and should be read in conjunction with the Transport Assessment.

### 3.2 Walking and Cycling

- 3.2.1 The following headings provide an overview of the existing infrastructure in place to accommodate pedestrian trips.

#### Walking

- 3.2.2 There are footways along either side of the B2118 that provide the main walking route between the site and Sayers Common. They are street-lit and connect the B2118 with Reeds Lane, Berrylands Lane and Mill Lane.

#### Public Rights of Way (PRoW)

- 3.2.3 The existing PRoWs within the vicinity of the site are illustrated in **Image 3.1**. Public Rights of Way (PRoW) within the vicinity of the site increase walking permeability from the site.

**Image 3.1: Public Rights of Way Map**



Source: West Sussex County Council – **blue dot indicates the site.**

- 3.2.4 Footpath 27Hu provides a connection underneath the A23 and provides recreational walking routes towards Hurstpierpoint and Burgess Hill to the east. The footpath can be accessed from Berrylands Farm and connects with Footpath 24Hu.
- 3.2.5 Bridleway 9Hu routes through the existing northern access and along the northern edge of the site and continues west onto Twineham Lane.

### Cycling

- 3.2.6 Cycle travel is appropriate on many of the surrounding roads, given the sign posted speed limits and road characteristics.
- 3.2.7 The development proposal seeks to deliver an enhancement to the existing footways north of the site to provide a 3.0m wide shared use footway / cycleway (ref: ITS19984-GA-034B) to encourage travel by cycling.
- 3.2.8 The bridleway that serves as the current access road into the site will be retained as part of the development proposals and enhanced through the removal of vehicular traffic associated with the school, with access to the school being provided along the main spine road. This will create an attractive route for walking and cycling trips.

### 3.3 Public Transport

#### Rail

3.3.1 Hassocks Railway Station is located 6.3km south east of the development. The station can be accessed via a 22-minute cycle, with 154 stands and racks for cycle storage at the station. Bus route 273 serves Hassocks railway station with an average journey time of 13-minutes. The station providing frequent services to key destinations including Central London, Brighton, and Gatwick Airport.

3.3.2 Burgess Hill Station is located c.6km east of the development. There are 64 cycle storage spaces and 141 car parking spaces, with the station providing frequent services to key destinations including Central London, Brighton and Gatwick Airport.

#### Bus

3.3.3 The nearest bus stops to the site are located along the B2118. The southbound stop is located adjacent to Sayers Common Village Hall, a 2-minute walk from the site. Northbound services can be accessed from the stop located adjacent to the southeastern corner of the site. Both stops provide a wooden seated shelter with a flagpole and timetabled information.

3.3.4 The development proposals seek to upgrade these bus stops to provide border kerbs for ease of access / egress from the bus as well as Real Time Passenger Information (RTPI).

### 3.4 Access to Key Facilities

3.4.1 The primary destinations within the local area are listed below in **Table 3.1** and illustrated in **Figure 2**, an extract of which is provided in **Image 3.4**. The figure and table include facilities for retail, employment, leisure and education as well as an assessment of the travel distances to reach the identified local facilities and the time such journeys would take by walking and cycling respectively.

**Table 3.1: Local Facilities and Services**

| Purpose    | Destination                            | Total Distance (m) | Walking Journey Time (mins) | Cycling Journey Time (mins) |
|------------|----------------------------------------|--------------------|-----------------------------|-----------------------------|
| Employment | Friday Medical Group – Brighton Campus | 560                | 7                           | 2                           |
|            | King Business Centre                   | 1,050              | 13                          | 4                           |
|            | AvTrade Global Headquarters            | 1,600              | 19                          | 6                           |

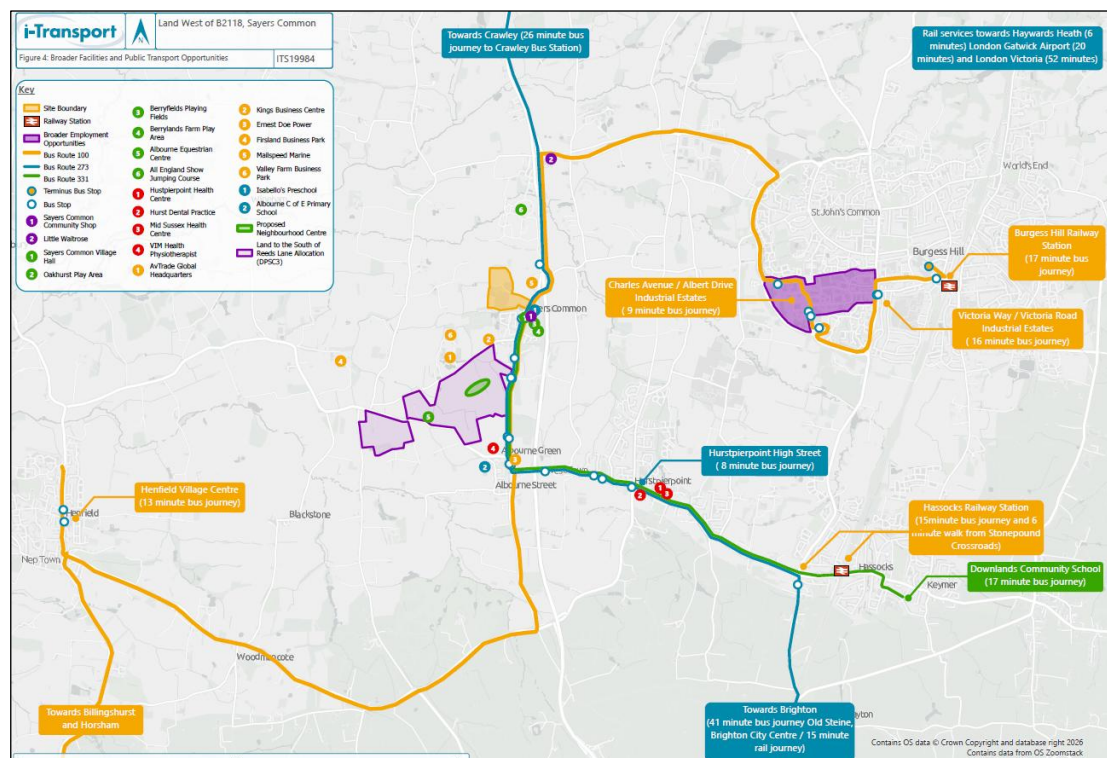
| Purpose   | Destination                     | Total Distance (m) | Walking Journey Time (mins) | Cycling Journey Time (mins) |
|-----------|---------------------------------|--------------------|-----------------------------|-----------------------------|
|           | Valley Farm Business Park       | 1,600              | 19                          | 6                           |
|           | Albourne Court Business Park    | 1,700              | 20                          | 6                           |
| Education | Isabello's Pre-School           | 550                | 7                           | 2                           |
|           | Albourne C of E Primary School  | 2,300              | 27                          | 9                           |
| Retail    | Sayers Common Community Shop    | 420                | 5                           | 2                           |
|           | Little Waitrose                 | 2,800              | 33                          | 11                          |
| Leisure   | Sayers Common Village Hall      | 420                | 5                           | 2                           |
|           | Oakhurst Play Area              | 580                | 7                           | 2                           |
|           | Berrylands Playing Fields       | 850                | 10                          | 3                           |
|           | Berrylands Farm Play Area       | 900                | 11                          | 3                           |
|           | All England Show Jumping Course | 1,700              | 20                          | 6                           |
|           | Albourne Equestrian Centre      | 3,200              | 38                          | 12                          |

Source: Consultants Estimates

Key:

|  |                                                               |
|--|---------------------------------------------------------------|
|  | Within a desirable walking (800m) / cycling (2km) distance    |
|  | Within a comfortable walking (1.6km) / cycling (5km) distance |

**Image 3.4: Local Facilities and Connectivity Plan**



3.4.2 As demonstrated in **Figure 4** and **Table 3.1** there are a range of local facilities that are accessible within an acceptable walking distance and comfortable cycling distance, including education, retail, leisure and employment opportunities. Existing bus services provide wider connectivity to nearby Hurstpierpoint and Burgess Hill.

---

## SECTION 4      Aims and Objectives

### 4.1      Aims

- 4.1.1 This Travel Plan has been prepared to improve awareness of the opportunities for reducing car dependency (particularly single occupancy journeys) through the promotion of car sharing, walking and cycling.
- 4.1.2 The overarching aim of this Travel Plan is to influence behaviour change towards the use of sustainable modes of transport and active travel.
- 4.1.3 The Travel Plan will be promoted widely amongst residents to not only minimise any development related traffic impacts on the local highway network but also promote the associated health and environmental benefits of active travel as well as the social benefits of car sharing.

### 4.2      Objectives

- 4.2.1 In the above context this Travel Plan aims to deliver the following objectives:
- To help achieve the Development Vision as detailed in the Transport Assessment.
  - To reduce the number of vehicle trips including single occupancy vehicle trips made by both residents and users of the site.
  - To minimise the total distance travelled by residents and users of the site through a reduction in journey lengths and frequency with a particular focus on single occupancy car trips.
  - To enable people to make informed choices over their method of travel.
  - To promote 'healthy travel' to the site via walking and cycling and increase the number of residents travelling by active modes.
  - To promote car sharing, walking, cycling and public transport as safe, efficient, affordable alternatives to private cars and to highlight the benefits of adopting sustainable travel patterns.
  - To maintain the Travel Plan through sustainable management strategies and financial investment.
  - To monitor the performance of the Travel Plan against its targets by regularly collecting accurate travel information.

- To reduce the impacts of car-based travel to/from the site on the surrounding highway network and on the environment.

#### 4.3 Outcomes

4.3.1 The anticipated outcomes that will result from the successful delivery of the above objectives include the following:

- Opportunities for active, healthy travel with residents benefitting from improved health and fitness through increased levels of walking and cycling.
- Increased flexibility offered through wider travel choices.
- Less congestion on local roads in Sayers Common.
- Local environmental improvements from reduced congestion, pollution and noise.
- Individuals benefitting from the social aspects of sharing transport with others.

4.3.2 Regular liaison with residents will seek to achieve a long-term commitment to changing travel behaviours.

4.3.3 The overall Travel Plan strategy includes physical measures designed to enhance the sustainable transport provision at the site, travel awareness initiatives and other measures to assist in the achievement of the objectives. The Travel Plan targets are set out in Section 6.

## SECTION 5 Travel Plan Measures

5.1 This FTP sets out a range of measures that will be incorporated within the development proposals, to encourage sustainable travel and to achieve the objectives of FTP. These Travel Plan Measures (TMP) are outlined below in **Table 5.1** and include:

**Table 5.1: Travel Plan Measures**

| Ref:  | Measure                                                                       | Timescale                      |
|-------|-------------------------------------------------------------------------------|--------------------------------|
| TPM1  | Appoint Travel Plan Co-ordinator (TPC)                                        | Opening of on-site sales suite |
| TPM2  | Pedestrian and cycle improvements                                             | Prior to first occupation      |
| TPM3  | Cycle parking                                                                 | Prior to first occupation      |
| TPM4  | Electric vehicle charging infrastructure                                      | Prior to first occupation      |
| TPM5  | Personalised travel planning                                                  | Ongoing via TPC                |
| TPM6  | Travel Plan website and welcome pack                                          | Prior to first occupation      |
| TPM7  | Promotion of 'zero travel' options (working from home, home delivery options) | Ongoing via TPC                |
| TPM8  | Bus taster passes                                                             | Upon occupation of dwellings   |
| TPM9  | Promotion of walking and cycling                                              | Upon occupation of dwellings   |
| TPM10 | Car Sharing                                                                   | Upon occupation of dwellings   |
| TPM11 | Off-site pedestrian and cycle improvements                                    | Prior to first occupation      |
| TPM12 | Improvements to bus stops on B2118 London Road                                | Prior to first occupation      |

### 5.2 TPM 1 – Travel Plan Co-ordinator

5.2.1 A Travel Plan Co-ordinator (TPC) will be appointed to promote the Travel Plan amongst residents. The TPC will begin their role upon occupation of the marketing suite on site. The TPC will have overall responsibility for the development and implementation of the final Travel Plan and for monitoring the success of the Travel Plan on an on-going basis.

5.2.2 The TPC will be employed from the initial marketing of the properties (i.e. prior to first occupation) until full occupation of the site. This will ensure that the TPC has sufficient time to produce the Travel Information Pack and Guide (TPM5) before residents move into the development.

### 5.3 **TPM 2 – Pedestrian and Cycle Improvements**

- 5.3.1 The site will be designed to provide a safe pedestrian and cyclist friendly environment with footways provided throughout and internal speeds suitable for cycling on carriageway.

### 5.4 **TPM3 – Cycle Parking**

- 5.4.1 Covered, secure cycle parking will be provided for each dwelling within the curtilage of each property.

### 5.5 **TPM4 – Electric Vehicle Charging Infrastructure**

- 5.5.1 Residents will be encouraged to use ultra-low emissions vehicles (ULEV) due to their air quality benefits.
- 5.5.2 Electric vehicle (EV) charging will be provided at each dwelling across the site. The details of EV charging infrastructure will be confirmed at a later stage in the planning process but will be provided in accordance with Building Regulation Part S.

### 5.6 **TPM5 – Personalised Travel Planning**

- 5.6.1 The TPC will answer any travel related queries that residents have and assist new residents in their travel planning. The TPC will therefore offer personalised travel planning to each household and look at arranging organised drop-in sessions.

### 5.7 **TMP6 – Travel Plan Website and Welcome Pack**

- 5.7.1 A Travel Plan website and Welcome Pack will be created for the development prior to first occupations and will contain information on public transport services (timetables, maps), cycle maps, walking routes and information on local facilities and services accessible via active travel modes.
- 5.7.2 The packs will also contain sustainable transport events such as Bike Week (normally held in June) which can be promoted across the development to encourage people to try new sustainable modes of transport and reduce private car dependency.
- 5.7.3 The health and environmental benefits of walking and cycling will be provided within the website and Welcome Packs.

## 5.8 **TPM 7 – ‘Zero Travel’ Options**

5.8.1 The TPC and Travel Information Pack will set out the benefits of working at home, internet shopping and home delivery options to reduce reliance on private car use. The development will provide high-speed broadband to enable these options.

5.8.2 The TPC will also provide information on the local supermarkets that provide home grocery delivery services, such as Sainsbury’s and Iceland in Haywards Heath as well as supermarkets in Burgess Hill such as Waitrose and Tesco. The TPC will explore any incentives supermarkets offer for new customers and promote this across the Travel Plan website and Welcome Packs.

## 5.9 **TPM 8 - Bus Taster Passes**

5.9.1 The TPC will promote Bus Taster Passes in order to encourage residents and visitors to utilise the local public bus services that serve the site. Funded by the developer, one bus taster pass will be provided per household.

5.9.2 This will be beneficial in promoting sustainable modes of travel which in turn will further help to reduce congestion and pollution.

## 5.10 **TPM 9 - Promotion of Walking and Cycling**

5.10.1 The TPC will encourage cycling to residents living on the site through providing appropriate information (e.g. cycle routes, training), liaising with local cycle shops to provide discounts on cycle equipment and promoting key national events such as Bike Week and Cycle to School Week.

5.10.2 Residents will also be provided with information on the local walking and Public Rights of Way routes as well as school walking routes and National Walking Month.

## 5.11 **TPM 10 - Car Sharing**

5.11.1 The benefits of car sharing include saving money on vehicle operating costs, cutting down on congestion and pollution, as well as the social benefits of sharing lifts and meeting people.

5.11.2 There are existing car share schemes operating in the area such as Liftshare. These provide a cheap car sharing service for anyone living in the area. The TPC will promote these via: <https://liftshare.com/uk>.

5.11.3 Residents will also be provided with information about HomeRun<sup>1</sup>; an online app-based platform which facilitates and promotes sustainable transport measures to parents and advocates a range of travel planning measures within the app. Parents can find and connect with each other using the app, with each user provided with a tailored list of possible journey sharing matches, based on the distances they live away from each other, the age ranges and their journey preferences to create a healthier and more sustainable school run

5.11.4 Some key principles and benefits of the HomeRun platform are listed below:

- Families can find travel buddies for their children, when they feel they are ready to travel independently.
- The platform includes a journey monitoring tool for parents to track their children's journeys, to and from school. The journey monitoring tool also enables parents to add geofence waypoints along the journey, to get additional notifications (e.g. at a bus stop).
- Existing travel options and initiatives can be promoted to target parent groups on the app, to increase uptake with more sustainable travel modes.
- Walking groups and cycling groups can be setup through the app and required active travel infrastructure can be added.

## 5.12 TPM 11 - Off-site Pedestrian and Cycle Improvements

5.12.1 The Transport Assessment explores the potential to deliver improvements to off-site infrastructure to further encourage the uptake of walking and cycling for future residents of the site, whilst improving the integration of the site with Sayers Common.

5.12.2 The proposed improvements are provided in **Drawing ITS19984-GA-034B** and include:

- 1 Widening of the existing footway on the B2118 north of the site access to the B2118 / Mill Lane Roundabout to provide a 3.0m wide shared use pedestrian / cycle route.
- 2 Provision of an uncontrolled crossing on the B2118 and a new footway / cycleway on the western section of the B2118 to tie into an existing footway adjacent to the southbound bus stop.
- 3 Provision of tactile paving at the junction between B2118 / Oakhurst.

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<sup>1</sup> [STEP - Transforming the school run through innovation with HomeRun-App](#)

### 5.13 TPM 12 - Improvements to Bus Stops

- 5.13.1 The Transport Assessment also proposes the opportunity to deliver improvements to the nearest bus stops to the site situated along the B2118, London Road. Improvements are to include Real Time Passenger Information (RTPI) to inform passengers of waiting times for bus service arrivals and bus border kerbs and are provided in **Drawing ITS19984-GA-034B**.

## SECTION 6 Targets

### 6.1 Existing Travel Patterns

- 6.2 The Method of Travel to Work data from the 2011 Census for the MSOA Mid Sussex 016 has been used to identify the current mode share in the local area to the development.
- 6.3 Whilst data from the 2021 Census is available, it is acknowledged that this dataset has been impacted by the COVID-19 Pandemic and therefore recorded travel habits at the time of the survey are not representative.
- 6.4 **Table 6.1** summarises the existing methods of travel to work, excluding those who are unemployed and those who work from home.

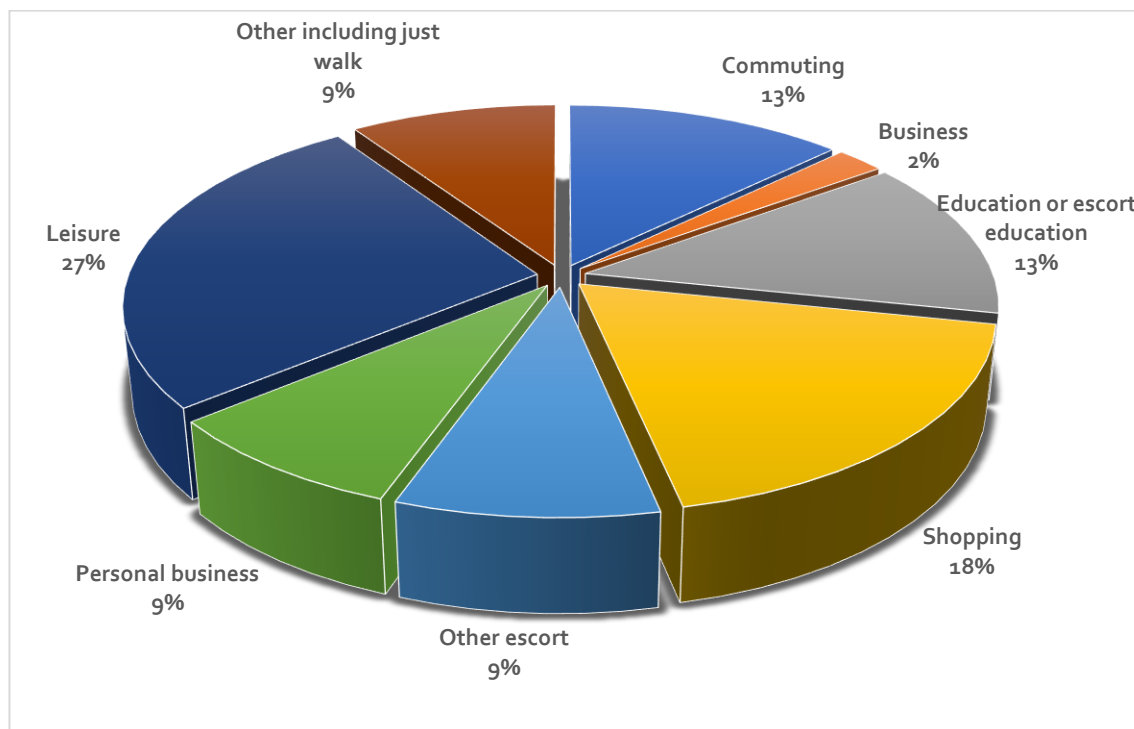
**Table 6.1: Method of Travel to Work**

| Method of Travel               | Proportion of Trips (Census 2011) |
|--------------------------------|-----------------------------------|
| Driving a car or van           | 73%                               |
| Train                          | 11%                               |
| On foot                        | 6%                                |
| Passenger in car or van        | 5%                                |
| Bus, minibus or coach          | 2%                                |
| Bicycle                        | 2%                                |
| Motorcycle, scooter or moped   | 1%                                |
| Other method of travel to work | 0%                                |
| <b>Total</b>                   | <b>100%</b>                       |

Source Census– MSOA Mid Sussex 016

- 6.4.1 The Department for Transport's National Travel Survey identifies the reasons for making a journey. The proportion of all trips by purpose (all modes) is set out below in **Image 6.1**.

**Image 6.1: Proportion of Trips per Journey Purpose – 2023**



Source: Chart NTS0409a of Transport Statistics Great Britain – 2023 Edition

6.4.2 On this basis, leisure shopping and education journeys will account for more than half (58%) of all journeys made by future residents on site.

## 6.5 Baseline Position and Targets

6.5.1 The key target of the Travel Plan is to reduce the number of single occupancy vehicular trips generated by the site by 10%. As the site is not currently occupied and therefore Travel Plan surveys have not taken place, interim targets have been presented using 2011 Census Travel to Work data.

6.5.2 Against the baseline, the key target for the TP is that:

***“Over a period of 5 years, achieve a 12-hour vehicle trip rate that is 10% lower than recorded at the commencement of the Travel Plan”***

6.5.3 Travel to Work data has been reviewed to identify the likely modal split for journeys to and from the site. The data from MSOA Mid Sussex 016 has been used as it is directly comparable to the development in terms of location. **Table 6.1** sets out the interim modal split targets across a five year period.

**Table 6.1 Interim Targets**

| Mode                          | Baseline – 2011 Census | Year 1        | Year 3        | Year 5        |
|-------------------------------|------------------------|---------------|---------------|---------------|
| Driving by car or van         | 73.0%                  | 73.0%         | 68.0%         | 63.0%         |
| Walking                       | 6.0%                   | 6.0%          | 7.0%          | 8.0%          |
| Cycle                         | 2.0%                   | 2.0%          | 3.0%          | 4.0%          |
| Bus                           | 2.0%                   | 2.0%          | 3.0%          | 4.0%          |
| Passenger in a car or van     | 5.0%                   | 5.0%          | 6.0%          | 7.0%          |
| Train (including underground) | 11.0%                  | 11.0%         | 12.0%         | 13.0%         |
| Motorcycle                    | 1.0%                   | 1.0%          | 1.0%          | 1.0%          |
| Other (including taxi)        | 0.0%                   | 0.0%          | 0.0%          | 0.0%          |
| <b>Total</b>                  | <b>100.0%</b>          | <b>100.0%</b> | <b>100.0%</b> | <b>100.0%</b> |

Source: Consultant's Calculations

- 6.5.4 The target of a 10% modal shift for car drivers to alternative travel modes would see a reduction from 73% to 63% by Year 5. Once the first monitoring surveys at the development have been undertaken, these targets will be reviewed and updated where necessary, in consultation with WSCC. These will be presented through the monitoring report.

## 6.6 First Phase Targets

- 6.6.1 In addition to the mode share targets, it is important to identify a number of action targets which will ensure that the Travel Plan is delivered.

- 6.6.2 The first phase of targets is as follows:

- Appoint Travel Plan Co-ordinator prior to sales and marketing phase.
- Travel Plan Co-ordinator to become familiarised with the agreed monitoring process.
- Undertake first phase of monitoring one year after 1st occupation including the residential travel surveys.
- Review measures to ensure that they remain appropriate.

- Once agreed with West Sussex County Council, update Travel Plan with any necessary revisions to measures and reissue the Travel Plan.

## 6.7 Remedial Measures

6.7.1 It is expected that the proposed package of measures will deliver sustainable travel benefits and will ensure that the Travel Plan targets are achieved. In the event that the trip generation targets are not met then the developer (or any successor in Title) will arrange further incentives to encourage reduced travel by car. This could include personalised travel planning offered to all residents, travel vouchers, and on-site initiatives to encourage walking and cycling (e.g. bicycle maintenance clinics). These measures will be identified as part of the development of a full Travel Plan and in consultation with WSCC.

6.7.2 It is proposed that if targets are not met additional travel planning drop-in sessions will be held for a further year beyond the end of the five-year monitoring period. Personalised one-to-one travel planning will also be undertaken with targeted households, identified from surveys as those with potential to change mode (e.g. who pay for parking for work journeys and who could use an alternative).

## **SECTION 7      Marketing and Communication**

**7.1**      It is vital that alternative travel options are effectively promoted and marketed to residents of the site, as lack of information can be a major barrier to the use of more sustainable modes of transport.

**7.2**      The Travel Plan will be communicated using a variety of methods, including:

- Details on the site sales/marketing website.
- Information available within the on-site sales and marketing suite.
- Information presented within the Travel Information Packs as outlined above.
- Travel drop-in sessions and personalised travel planning.
- Disseminate information, reporting the results of the monitoring surveys for example through resident bulletins and posts on noticeboards.
- Additional promotional leaflets / information produced by the TPC as necessary through the lifetime of the Travel Plan.

## SECTION 8 Monitoring and Review

### 8.1 Monitoring

8.1.1 The total monitoring programme of the development will last five years and will be undertaken in the following ways:

- Feedback to and through the TPC and engagement through the Travel Plan website managed by the TPC.
- Direct correspondence with residents through the TPC.
- Through TRICS SAM Surveys to be undertaken at the main access to the site.

8.1.2 The proposed five-year monitoring programme for the development is set out in **Table 8.1** in accordance with WSCC's Development Travel Plan Policy.

**Table 8.1: Monitoring Plan**

|                 | Year 1 Baseline                                 | Year 3                 | Year 5                 |
|-----------------|-------------------------------------------------|------------------------|------------------------|
| Monitoring      | TRICS SAM Survey                                | TRICS SAM Survey       | TRICS SAM Survey       |
| Level of Report | Results used to inform new targets              | TRICS SAM Survey       | TRICS SAM Survey       |
|                 | Preparation of first baseline monitoring report | Full Monitoring Report | Full Monitoring Report |

### 8.2 TRICS SAM Survey

8.2.1 Formal monitoring will be undertaken in line with TRICS Standard Assessment Methodology. The surveys will include all access points (vehicular or otherwise) by all modes. This information will allow an overall mode share for travel to the site to be established. The surveys will be undertaken one year after first occupation and then two and four years afterwards (year 3 and year 5). The initial surveys will trigger a review of the initial targets set out in this report and confirm whether they are realistic.

### 8.3 Results

8.3.1 The results of the SAM Survey will be included in the first monitoring report, with the TP targets revised or updated accordingly.

8.3.2 The results of these surveys and statistical analysis will form the basis of discussions with WSCC to examine how the TP is continuing to influence travel behaviours amongst residents and to discuss alternative measures that could be incorporated within the Travel Plan to achieve further success.

8.3.3 The TPC will monitor and review the progress and success of the Travel Plan and make all users aware of the progress made and the effectiveness of the sustainable travel solutions.

## 8.4 Reporting

8.4.1 Following each survey, a monitoring report will be prepared and submitted to WSCC setting out the results of the travel surveys against the targets and objectives identified within the Travel Plan. It will include:

- A recap of the Travel Plan objectives and agreed targets.
- Monitoring methodology.
- Summary of monitoring results, presented in relation to agreed or updated targets.
- Progress against agreed measures.
- Corrective measures to get the plan back on track, if targets are not being met.
- Proposals to further develop the Travel Plan for the future.

## 8.5 Funding

8.5.1 The Developer will fund the following items:

- 1 The transport infrastructure outlined in Section 5 of the FTP.
- 2 The TPC role for the duration of the Travel Plan period (5 years).
- 3 The initial implementation of the measures outlined in Sections 5, 7 and 9.
- 4 The monitoring surveys outlined in this section.

8.5.2 Going forward, the most likely source of funding for the TP will be through management charges. The aim will be to take steps to enable the TP to become self-funding by the time that the development is complete.

## 8.6 Framework for Handover at End of the Developer Involvement

At the end of the monitoring period the developer will no longer be responsible for the management of the TP. However, the TPC will offer residents the opportunity to set up a Travel Plan Working Group. The TPC will seek to hand-over the coordination role to this group.

## SECTION 9 Action Plan

9.1.1 The Applicant is committed to promoting sustainable travel and endorses this Travel Plan which aims to minimise the use of single occupancy vehicles by residents and users of the proposed development site.

9.1.2 **Table 9.1** summarises the overall Action Plan and identifies the timescales for implementing the measures described in this document and the responsibilities for delivery.

**Table 9.1: Action Plan**

| Action                                                                                                           | Timescale                                                                  | Responsibility  |
|------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|-----------------|
| Prepare final Full Travel Plan                                                                                   | Prior to occupation of the site                                            | Developer       |
| Appoint Travel Plan Co-ordinator                                                                                 | From opening of sales suite on the site through to full occupation         | Developer       |
| Provide TPC details to WSCC                                                                                      | Following appointment of TPC                                               | Developer / TPC |
| Deliver pedestrian / cycle access and infrastructure (TPM 2)                                                     | During construction phase / prior to first occupation                      | Developer       |
| Install secure parking provision for each dwelling (TPM 3)                                                       | During construction phase                                                  | Developer       |
| Install electric charging infrastructure for ultra-low emission vehicle charging (TPM 4)                         | During construction phase                                                  | Developer       |
| Offer personalised travel planning (TPM 5) and discuss travel plan choices with residents and users of the site. | From first-occupation and on-going through the lifetime of the Travel Plan | TPC             |
| Issue Travel Plan Welcome Pack and Website (TPM 6)                                                               | Upon occupation of dwellings                                               | TPC             |
| Promote zero-travel options (e.g. home working, internet shopping, home grocery delivery) (TPM 7)                | During construction phase and from first occupation of the site.           | TPC             |
| Promote bus taster passes (TPM 8)                                                                                | Upon occupation of dwellings                                               | TPC             |

| Action                                                                         | Timescale                                                                 | Responsibility  |
|--------------------------------------------------------------------------------|---------------------------------------------------------------------------|-----------------|
| Encourage walking and cycling through the promotion of national events (TPM 9) | Upon occupation of dwellings                                              | TPC             |
| Promote Car Sharing scheme (TPM 10)                                            | Upon occupation of dwellings                                              | TPC             |
| Conduct baseline travel surveys                                                | On completion of development                                              | TPC             |
| Conduct subsequent travel surveys                                              | On the anniversary of the baseline surveys and, every year for five years | TPC             |
| Prepare annual monitoring report                                               | Within 3 months of completion of travel surveys                           | TPC             |
| Prepare action plan setting out future travel plan incentives / measures       | Included as part of monitoring report                                     | TPC / Developer |
| Off-site pedestrian / cycle improvements (TPM 11)                              | Prior to first occupation                                                 | Developer       |
| Bus stop improvements along B2118 London Road (TPM 12)                         | Prior to first occupation                                                 | Developer       |

## FIGURES

Key

Site Boundary

