

# Wokingham Local and M4 Modelling Assessment

M4 and A329M VISSIM Microsimulation Local Model Validation Report

On behalf of Wokingham Borough Council



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Appendix A	Model Link Flow Validation Results
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Appendix C Journey Time Route Plots

Appendix D Journey Time Validation Results

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### **Acronyms and Abbreviations**

VISSIM	Verkehr In Städten - SIMulationsmodell (German for "Traffic in cities - simulation model")
LMVR	Local Model Validation
JT	Journey Time
GEH Statistic	Geoffrey E. Havers Statistic
	$GEH=\sqrt{rac{2(M-C)^2}{M+C}}$ Where M is the modelled hourly traffic volume and C is the real-world hourly traffic count
MOVA/PC MOVA	Microprocessor Optimised Vehicle Actuation
HS2	High Speed 2
ATC	Automatic Traffic Counter
МСТС	Manual Classified Turning Count
LGV	Light Goods Vehicle
HGV	Heavy Goods Vehicle

# **1 Project Overview**

### 1.1 Introduction

- 1.1.1 In 2021 Stantec was appointed by Wokingham Borough Council (WBC) and Homes England (HE) to support the preparation of the Local Plan Update (LPU). In addition to a number of smaller residential sites around the Borough, the assessment includes a major development option known as Hall Farm / Loddon Valley (Hall Farm, Hatch Farm and Four Valleys Development) and South Wokingham extension. This study is informed by a comprehensive modelling exercise, which is being undertaken using up to date information. This will support the study in identifying the impacts of the proposed development to inform a mitigation strategy.
- 1.1.2 The transport impacts of the development are informed by a three tier modelling approach comprising:
  - i. Wokingham Strategic Transport Model 4 (WSTM4) in VISUM
  - ii. A VISSIM microsimulation model, which comprises a section of the M4 between J11 and J10, the A329M between Coppid Beech and Winnersh and Lower Early Way, which run parallel to the M4
  - iii. Individual Local Junction Models (LJMs)
- 1.1.3 The models will interact in a way that outputs from the VISUM model will be required to inform the VISSIM and LJMs. The junction models will be used to inform the development of the VISUM and VISSIM models, in providing traffic signal data where applicable.
- 1.1.4 The overall approach to the assessment has been described within the "Wokingham Local and M4 Modelling Assessment Homes England Study. Assessment Methodology", November 2021.
- 1.1.5 This report describes development and validation of the VISSIM model.
- 1.1.6 The model has been developed using the appropriate modelling DfT Transport Analysis Guidance (TAG) and TfL's Microsimulation (VMAP) processes.

## 2 Data Collection

- 2.1.1 In October 2021, Stantec commissioned Intelligent Data Collection Limited (IDC) to undertake the traffic surveys for the model development. The commission was split into two packages.
- 2.1.2 Package 1 included:
  - Automatic Traffic Counts (ATCs) over a two-week period between Wednesday 17<sup>th</sup> November 2021 to Thursday 2<sup>nd</sup> December 2021.
  - Manual Classified Turning Counts (MCTCs) over a 12-hour period (between 07:00 to 19:00) on Thursday 30<sup>th</sup> November 2021 including smaller ANPR cordons for more complicated junctions.
  - Queue Length Surveys, Pedestrian Surveys and Saturation Flow surveys undertaken during the MCTC survey.

#### 2.1.3 Package 2 included:

- Automatic Number Plate Recognition (ANPR) for use for the development of the VISSIM model, over a 12-hour period (between 07:00 to 19:00) on Thursday 30<sup>th</sup> November 2021.
- Journey Time (JT) surveys were included within the ANPR survey.
- 2.1.4 A data collection report has also been issued to WBC which outlines further information about what and where data was collected.
- 2.1.5 Having received the data for both packages, a review of the data was undertaken. This was to identify which locations may have failed to collect data or were noted to underperform during the survey period and to identify how important this was to the development of the transport models. Further information is included within the Data Collection report.
- 2.1.6 The traffic data used in the development of the model has includes:
  - ANPR data for the development of the base matrices
  - ATCs for link flow validation purposes
  - MCTC for turning flow validation purposes
  - Journey Time information for validation
  - Pedestrian surveys for pedestrian VISWalk input into the model at associated junctions and pedestrian crossings

# 3 Model Development

## 3.1 Extent of the Model

3.1.1 The VISSIM model covers the section of the M4 between J11 and J10, the A329M between Coppid Beech and Winnersh. The model also includes Lower Early Way, which runs parallel to the M4. The modelled area is graphically shown in Figure 3.1.



Figure 3.1 Extent of the Wokingham VISSIM Model

### 3.2 Software Version

- 3.2.1 The Wokingham Junction 10 to 11 VISSIM model has been developed using PTV VISSIM 2022 (SP3).
- 3.2.2 VISSIM is an industry recognised transport modelling software which is ideal for the testing and assessment of highway schemes to identify strengths and limitations of alterations of junctions along a corridor. It also allows the user and client team to easily view, interpret and gain a good understanding of a scheme or a change of a network through 3D visualisation and spatially orientated view.

### 3.3 Zone Structure

3.3.1 The model consists of fifty-one zones as summarised in Table 3.1 and illustrated in Figure 3.2. The locations of the ANPR survey have been used to define the zone structure of the model.

#### Table 3.1 Zone Descriptions

Zone	Description	Zone	Description
ID		ID	
1	Basingstoke Road North	27	Butler Drive
2	B3031	28	Peacock Lane
3	Whitley Wood Lane	29	Osprey Avenue
4	Whitley Wood Lane (Shinfield Park)	30	Sparrowhawk Way
5	Whitley Wood Lane (B3270)	31	Old Wokingham Road
6	A327	32	Waterloo Road
7	Beeaston Way	33	St Annes Drive
8	Cutbush Lane	34	William Heelas Way
9	Meldreth Way	35	London Road A329 (West)
10	Paddick Drive	36	Plough Lane
11	Barn Croft Drive	37	Oak Avenue
12	Rushey Way	38	South Avenue
13	Mill Lane	39	Eastern Relief Road
14	Hatch Farm Way	40	Hawthorn
15	Reading Road A329 West	41	Catbush Lane
16	Reading Road A329 East	42	Hallow Lane
17	A3290 (at overbridge of B3350)	43	Brookers Hill
18	The Bader Way	44	Church Lane
19	Wharfedale Road	45	Basingstoke Road
20	M4 East (at overbridge of The Straight Mile)	46	Grazeley Road
21	Russell Chase	47	Tabby Drive
22	London Road East (B3408)	48	A33 South
23	John Nike Way	49	M4 West (at overbridge of Kybes Lane)
24	Berkshire Way	50	REP Southern Access/Egress
25	Webster Close (West)	51	REP Northern Access/Egress
26	Webster Close (East)	1	· · · · · · · · · · · · · · · · · · ·



Figure 3.2 Wokingham VISSIM Model Zones

#### 3.4 Network

- 3.4.1 The network was developed using 25cm aerial photography obtained from Getmapping from 2019, MCTC survey videos and signal time survey observations. Objects including links and connectors, reduced speed areas, priority rules, conflict areas and data collection points were coded into the model to replicate on site conditions and locations of the traffic surveys.
- 3.4.2 At the time of the surveys there were a number of major roadworks happening within the local study area that impacted upon the observed data collection and therefore these roadworks were coded within the base year model:
  - M4 junction 3 to 10 Smart Motorways minor lane closures and reduced speed limits in place
  - Wharfdale Road/A329, Winnersh Triangle Temporary speed limits and lane closures
  - Waterloo Road, closure of road due to SWDR construction

#### 3.5 Modelled Public Transport Services

3.5.1 Vehicle Class 3 was coded using static bus routes based on their fixed timetables (November 2021). A total of eleven and twelve bus services were incorporated within the network during the AM and PM peak period models. These are listed in Table 3.2.

Service No	Route Origin	Route Destination	No of services AM (08:00- 09:00)	No of services PM (17:00- 18:00)
151/ 151A	Winnersh Triangle P&R	Central Reading	1	2
19b	Lower Earley	Central Reading	1	2
600	Mereoak P&R	Central Reading	8	8
3	Wokingham	Reading Station	4	7
4	Bracknell Bus Station	Central Reading	3	3
X4	Bracknell Bus Station	Central Reading	2	4
500	Winnersh Triangle P&R	Central Reading	4	3
7	Fleet	Reading Station	1	1
8	Spencer Wood	Reading Station	4	5
9	Spencer Wood	Reading Station	2	1
93	Shinfield Park	Bohunt School	-	1
X3	Shinfield Park (Wood PLC)	Reading Station	1	1

#### Table 3.2 Coded Public Transport

### 3.6 Modelled Signal Timings

- 3.6.1 There are a number of methods of coding traffic signals within VISSIM, the three core examples include:
  - Fixed Timing where the associated green times do not alter during the modelled period.
  - Limited variable signal timing using VISVAP where minimum and maximum signal lengths are used alongside the coding of detectors within the model to identify associated demand allowing the model to adjust the green time accordingly.
  - The use of external software such as PC MOVA or SCOOT allowing for a more detailed modelling of a particular signal controlled junction.
- 3.6.2 The Wokingham area model includes 21 signalised junctions, and due to the number of junctions and understanding how they operate, it was concluded that VISVAP would provide the most suitable and time effective method of signal control. The signal locations along with their operation type are presented in Figure 3.3 and listed in Table 3.3.



#### Figure 3.3 Signal locations

Table 3.3 Signal	locations	and operatio	n type
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ID	Location	Operation Type	ID	Location	Operation Type
1	A33/Basingstoke Road North	Variable Demand	12	London Road/Oak Avenue	Variable Demand
2	A33/Basingstoke Road South	Variable Demand	13	Berkshire Way / Vigar Way	Variable Demand
3	J11	Variable Demand	14	Eastern Relief Road/A327	Variable Demand
4	B3270/A327	Variable Demand	15	Hallow Lane/Brookers Hill	Variable Demand
5	Hallow Lane/Shinfield Road	Variable Demand	16	London Road/St Annes Drive	Variable Demand
6	B3270/Hatch Farm Way	Variable Demand	17	London Road/William Heelas Way	Variable Demand
7	B3270/Reading Road	Variable Demand	18	London Road West Pedestrian Crossing	Variable Demand
8	A3290/A329(M)	Variable Demand	19	London Road East Pedestrian Crossing	Variable Demand
9	A3290/Wharfedale Road	Variable Demand	20	London Road/Russell Chase/John Nike Way	Variable Demand
10	Wharfedale Road/A329 (M)	Variable Demand	21	Peakcock Lane Pedestrian Crossing	Variable Demand
11	Coppid Beach / A329 (M)	Variable Demand			

## 3.7 Pedestrian Crossings

3.7.1 Pedestrian crossings were modelled at nineteen signalised junctions on their static routes. Figure 3.4 and Table 3.4 detail the pedestrian crossing locations.



Figure 3.4 Pedestrian crossing locations

Table 3.4 Pedestrian crossing locations

Pedestrian ID	Location
1	Junction 11
2	A33 Basingstoke Road
3	Black Boy Gyratory
4	Hatch Farm Junction
5	Showcase Rbt
6	A3290 Wharfdale Road
7	Winnersh Crossroads
8	Brookers Hill/Hallow Lane
9	A329(M)/London Road
10	Oak Avenue/London Road
11	London Road / William Heelas Way
12	London Road / Plough Lane
13	London Road / Hubbard Road
14	London Road/ Russell Chase / John Nike Way
15	Peakcock Lane / Butler Drive
16	Basingstoke Road/Tabby Drive
17	London Road West Pedestrian Crossing
18	London Road East Pedestrian Crossing
19	Peakcock Lane Pedestrian Crossing

#### 3.8 Time Period

- 3.8.1 The model represents November 2021 travel conditions. The modelled peak periods are:
  - AM peak 08:00 to 09:00
  - PM peak 17:00 to 18:00
- 3.8.2 Both peak periods include a 30-minute 'warm up' and 'cool down' periods, which allow sufficient vehicles to enter the network prior to the recording of the peak hours. However, these time periods are not used in the validation or further analysis of the network operation.

#### 3.9 Vehicle Classification

- 3.9.1 Both peak period matrices have been input into the model using 15-minute segments for three user classes as outlined below.
  - Vehicle Class 1 Cars
  - Vehicle Class 2 LGV
  - Vehicle Class 3 HGV
- 3.9.2 Public Transport have been coded as specific routes within the model. As outlined within section 3.5.
- 3.9.3 Note that the traffic data collection indicates low cyclist and motorcyclist flows, hence not included in the model calibration and validation. No allowances for these user classes have been made within the model.

#### 3.10 Matrix Development

- 3.10.1 To develop the matrices for the 2021 base year model, the ANPR data has been the primary location of data. The 51 ANPR locations have formed the corresponding zones of the network. The data was split into 15-minute intervals by the user classes as outlined within the sections above.
- 3.10.2 During the traffic survey review process, it was identified that there were a number of locations within the ANPR data that showed low match rates, when compared to the manual classified count undertaken as part of the review of the ANPR survey. As a result, the matrices have been through a matrix estimation process (ME) to uplift trip ends to the traffic counts thus providing a more accurate base matrix for the AM and PM peak periods.

#### 3.11 Traffic Assignment Method

- 3.11.1 There are two methods of assigning traffic within VISSIM:
  - The first, fixed routing, is where specific routes within the model are coded between the origin and demand zones and a distribution is applied based on observed data, alongside the fixed routes, vehicle inputs are coded to provide associated demand for each origin within the network. This type of assignment is usually used for less complicated networks with limited route choice, and
  - Dynamic Assignment, in this assignment an Origin/Destination (OD) matrix is applied, and the model makes its own decision of where traffic routes to get from an origin to a destination.

3.11.2 Due to the scale, network complexity and route choice, the Wokingham Junction 10 to 11 model has used the Dynamic Assignment method of assignment.

## 4 Model Calibration

### 4.1 Model Calibration Overview

- 4.1.1 Prior to the validation of the model, the comparison between observed data and modelled data, the calibration of the model was undertaken. This process is used to check the general operation of the model, vehicle behaviour and interaction within the network.
- 4.1.2 The network was developed in VISSIM 2022 (SP3) software using 25cm aerial photography obtained from Getmapping from 2019 (the most recent available data it was noted that highway schemes have been completed since then, and checks have been undertaken to make sure the network is representative of current conditions), MCTC survey videos and signal time survey observations. Objects including links and connectors, reduced speed areas, priority rules, conflict areas and data collection points were coded into the model to replicate on site conditions and locations of the traffic surveys.
- 4.1.3 As part of the model calibration the following elements have been reviewed:
  - Network links and connections
  - Reduced speed areas
  - Priority rules
  - Queue lengths
- 4.1.4 Each of these aspects is now considered in turn.

#### 4.2 Links and Connectors

4.2.1 The 'look back' distances on connectors have been coded so that vehicles are in the correct lane prior to the junction. It has been checked that link attributes match on street conditions in terms of the numbers of lanes, speed and turning movements. Additional changes to the network have also been undertaken during the validation and calibration process to replicate observed traffic behaviour. All static network changes have been made within both peak hours.

#### 4.3 Reduced Speed Areas

4.3.1 The areas where vehicles decelerate in speed (e.g. approaches to roundabouts, junctions and intersections as well as curves along the network and narrow road widths) were coded and subsequently adjusted to provide realistic representation of the observed conditions. Reduced speed areas also assist in the validation of journey time routes within the model to better replicate average speeds within the network.

#### 4.4 **Priority Rules**

4.4.1 A range of parameters must be coded within VISSIM to set an adequate gap acceptance for vehicles to enter a junction. Priority rules are coded within VISSIM to replicate priority give way junctions, this includes the coding of a stop line and an associated conflict marker, with lookback distances and time gaps set as per the VISSIM manual. Associated priority rules have been coded for light vehicles and heavy vehicles separately.

### 4.5 Queue Lengths

4.5.1 To measure queue lengths within the model, queue counters have been coded at every give way or signal stop location within the model. Queue lengths are not used in the validation of the model; they do, however, provide an indication of how a model is performing and if any changes are required at the junctions within it.

## 5 Model Convergence

#### 5.1 Model Convergence Overview

- 5.1.1 Prior to running of the model for validation purposes, the VISSIM model has first to be converged. This process includes running of the model multiple times to balance the volumes and travel times between the OD zones.
- 5.1.2 The criteria for checking of the acceptability of model convergence is set out in Figure 5.1, this follows the TfL modelling guidance.

The MAE will deem convergence to have been achieved when the following criteria have been met over the modelled peak period:

- 95% of all path traffic volumes change by less than 5% for at least four consecutive iterations; and
- 95% of travel times on all paths change by less than 20% for at least four consecutive iterations.

Figure 5.1 TfL Model Convergence Criteria

5.1.3 Once the model has been converged the recording of the model outputs and runs can progress including the validation of the model.

#### 5.2 Model Convergence Statistics

5.2.1 The model convergence statistics are provided within Figure 5.2 to Figure 5.5 below for the AM and PM peak periods, whereas Table 5.1 provides detail on the convergence of the final model runs.



Figure 5.2 AM Peak Traffic Volume Convergence



Figure 5.3 AM Peak Travel Time Convergence



![](_page_19_Figure_4.jpeg)

![](_page_19_Figure_5.jpeg)

Figure 5.5 PM Peak Traffic Volume Convergence

Table 5.1 Final Four Consecutive Run Convergence Statistics

Peak Period	Run	Travel Time	Volume Deviation
	92	0.98	0.84
0.04	93	0.97	0.79
AM	94	0.99	0.79
	95	0.99	0.83
	130	0.98	0.82
DM	131	0.99	0.86
PIN	132	0.99	0.81
	133	0.97	0.82

- 5.2.2 The Travel Time convergence is significantly above the 95% criterion set out in Figure 5.1.
- 5.2.3 The second of the criteria, however, is not met in either peak with the models converging to a level of 83% and 82% for the AM and PM peak period.
- 5.2.4 A review of the VISSIM .cva files, which contain the convergence criteria, identified that the levels of convergence are relatively stable between the runs for both the AM and PM peak periods. With the variance in the volume deviation for both peak periods being ~0.05 and with the travel time convergence being consecutively above the 0.95% for five iterations it has been concluded that the model convergence is 'the best it is going to get'.
- 5.2.5 Furthermore, due to the length of time it takes to run each model run, the associated number of iterations undertaken and the review of traffic validation we deem that the level of convergence is appropriate. However, to limit the variance between each model run for the collection of the validation statistics, the models have been run for 20 iterations with +1 random seed each run, starting at a seed value of 43.

## 6 Model Validation

### 6.1 Model Random Seed

6.1.1 Random seed function provides realistic representation of the varying traffic conditions. Vehicle randomisation is modelled to generate vehicles with varying driver characteristics, in a random, non-linear basis within the stochastic model. The number of random vehicles loaded equals the total vehicle volume of every time period. To achieve unbiased and robust results of the randomisation process, AM and PM models run twenty iterations with the random seed increasing by one per run. The average results for both AM and PM runs were used for the calibration and validation process.

#### 6.2 Validation Statistics

- 6.2.1 The base model is validated by comparing the observed surveyed flows with modelled flows. This includes comparing the model to independent link counts (ATC), turning counts (MCTC) and JT routes. The model has been run over twenty iterations, with each iteration producing slightly different results, which is reflective of the random nature of traffic behaviour within a highway network.
- 6.2.2 The average of these iterations over the peak period has been used to inform the suitability of the model.
- 6.2.3 DfT Transport Appraisal Guidance (TAG) sets out model validation criteria, which is used to understand how well the model represents route choice and fits traffic observations. This sets out a desired minimum level which should be aimed for, however there may be situations where not meeting the criteria may be acceptable and this would require explanation.
- 6.2.4 Table 6.1 provides a summary of the TAG link and turning flow validation criteria and acceptability guidelines. TAG acknowledges that these two measures are broadly consistent and link flows that meet either criterion should be regarded as satisfactory.

Criteria	Description of Criteria	Acceptability Guideline
	Individual flows within 100 vph of counts for flows less than 700 vph	>85% of cases
1 Flow Criteria	Individual flows within 15% of counts for flows from 700 to 2,700 vph	>85% of cases
	Individual flows within 400 vph of counts for flows more than 2,700 vph	>85% of cases
2 GEH Criteria	GEH < 5 for individual flows	>85% of cases

Table 6.1 DfT TAG Flow Validation Criteria Guidelines

6.2.5 For journey time validation, the validation criteria, which is detailed in Table 6.2, is the percentage difference between modelled and observed journey times.

Criteria	Description of Criteria	Acceptability Guideline
	Modelled Times along routes should be within 15% of surveyed times (or 1 minute, if higher than 15%)	>85% of routes

Table 6.2 Journey Time Validation Criterion and Acceptability Guideline

6.2.6 Using TAG guidance, the following validation for link, turning counts and journey times were achieved.

#### 6.3 Link Flow Validation

6.3.1 Table 6.3 and Table 6.4 provide a summary of the link flow validation statistics for the GEH and link flow criteria for both peak periods. Appendix A provides results for individual links.

		<b>GEH C</b>	riterion			Flow C	riterion		GEH or Flow Criteria							
Peak Period	Cars	LGV	HGV	Total	Cars	LGV	HGV	Total	Cars	LGV	HGV	Total				
Number of Links that meet TAG criteria	21	19	20	20	20	22	22	20	21	22	22	20				
Number of Links that do not meet TAG criteria	1	3	2	2	2	0	0	2	1	0	0	2				
АМ	95%	86%	91%	91%	91%	100%	100%	91%	95%	100%	100%	91%				

Table 6.3 Link Flow Validation Statistics, AM Peak

#### Table 6.4 Link Flow Validation Statistics, PM Peak

		GEH C	riterion			Flow C	riterion		GEH or Flow Criteria						
Peak Period	Cars	LGV	HGV	Total	Cars	LGV	HGV	Total	Cars	LGV	HGV	Total			
Number of Links that meet TAG criteria	19	20	18	19	19	22	22	19	19	22	22	19			
Number of Links that do not meet TAG criteria	3	2	4	3	3	0	0	3	3	0	0	3			
РМ	86%	91%	82%	86%	86%	100%	100%	86%	86%	100%	100%	86%			

- 6.3.2 As shown within the tables the model validation criteria are met for the AM and PM peak periods.
- 6.3.3 In the PM peak HGV validation falls slightly short of the GEH criteria. However, the validation of the model against the flow criteria is met and therefore is acceptable.

#### 6.4 **Turning Flow Validation**

6.4.1 Table 6.5 and Table 6.6 provide a summary of the turning flow validation statistics for each peak period. Appendix B details outputs further. The movements, which meet DfT's criteria are labelled as 'Pass' and those, which do not meet the criteria are labelled as 'Fail'. There is no requirement to achieve 100% pass rate as explained in Table 6.1, which requires the criteria to be met in more than 85% cases.

		GEH C	riterion			Flow C	riterion		GEH or Flow Criteria							
Peak Period	Cars	LGV	HGV	Total	Cars	LGV	HGV	Total	Cars	LGV	HGV	Total				
Number of Links that meet TAG criteria	312	310	305	306	277	286	287	278	318	325	327	318				
Number of Links that do not meet TAG criteria	15	17	22	21	10	2	0	12	9	2	0	9				
АМ	95%	95%	93%	<b>94%</b>	97%	99%	100%	96%	97%	99%	100%	97%				

Table 6.5 Turning Flow Validation Statistics, AM Peak

Table 6.6 Turning Flow Validation Statistics, PM Peak

		<b>GEH</b> C	riterion			Flow C	riterion		GEH or Flow Criteria							
Peak Period	Cars	LGV	HGV	Total	Cars	LGV	HGV	Total	Cars	LGV	HGV	Total				
Number of Links that meet TAG criteria	304	319	304	303	271	287	287	268	312	327	327	313				
Number of Links that do not meet TAG criteria	23	8	23	24	16	0	0	20	15	0	0	14				
РМ	93%	<b>98%</b>	93%	93%	94%	100%	100%	93%	95%	100%	100%	96%				

6.4.2 The results show that in both peak periods the model meets both GEH and Flow criteria with 97% of turning counts in the AM and 96% of turning counts in the PM meeting one of the criteria.

#### 6.5 Journey Time Validation

6.5.1 Table 6.7 provides a summary of the journey time validation statistics for both peak periods. The routes which meet DfT's criteria are labelled as 'Pass' and those, which do not meet the criteria are labelled as 'Fail'. Appendix C and Appendix D details the routes and results further. There is no requirement to achieve 100% pass rate as explained in Table 6.2, which requires more than 85% of routes to meet the criteria.

Table 6.7 Journey Time Validation Statistics

Journey Time	Pass	Fail	% Pass
AM (08:00 to 09:00)	17	1	94%
PM (17:00 to 18:00)	16	2	89%

- 6.5.2 The results show that both the AM and PM peak period models validate against available journey time data, demonstrating the model accurately represents travel times through the model.
- 6.5.3 The routes that do not meet the criteria include:
  - Route 12 (A33 North to M4 West) in the AM, which runs approximately 1:15 minutes too fast (4:36 observed vs 3:21 modelled)
  - Route 5 (A33 to Beeston Way) in the PM, which runs 1:05 too slow in the model (5:47 observed vs 6:52 modelled)

- Route 7 (Beeston Way to Bader Way) in the PM, which runs 2:55 too fast (11:04 observed vs 8:09 modelled)
- 6.5.4 Route 7 passes through the temporary road works at Winnersh Triangle. However, due to the roadworks being included within the model and being removed in all forecast models, this route is not of a concern but will be further reviewed during the development of the forecast models.

### 6.6 Network Performance

- 6.6.1 In addition to the validation results presented above, some additional network performance statistics are provided which can be further used to assess the impact of forecast models and scheme impacts.
- 6.6.2 Table 6.8 presents the network statistics for both the AM and PM peak hour. It shows that the AM peak despite carrying less traffic is slightly busier in comparison with the PM peak.

Time Period	Average Delay (Seconds)	Average Stops	Average Speed (mph)	Total Distance (miles)	Total Travel Time (hrs)	Total Vehicles (vehicles)	Latent Demand (vehicles)
AM	79	3	38	31	34	3276	7
PM	72	2	39	31	33	3302	1

Table 6.8 Network Statistics

#### 6.7 Summary

6.7.1 Overall, through the outputs presented above, the base model demonstrates that the validation of link flow, turning flow and journey time is good and meets TAG criteria and thus provides a good replication of the observed traffic conditions during November 2021.

# 7 Model Suitability and Conclusion

### 7.1 Overview

- 7.1.1 Stantec have been commissioned by Wokingham Borough Council to develop a base VISSIM model for the assessment of Local Plan Update proposed development. This report has outlined the development of the base model, the network extent, data used and the calibration and validation of the 2021 Base Year model for the AM and PM peak periods.
- 7.1.2 The modelled network covers the highway network of the M4 at the north of Wokingham, from Junction 10 until just beyond Junction 11, A329(M) until just before Doncastle Roundabout, London Road to the west and east of Coppid Beach/ A329 (M) Junction and A33 to the north and south of J10.
- 7.1.3 The base model represents a neutral weekday in a neutral month with a base year of 2021. The peak periods are as follows, both peak periods include a 30-minute 'warm up' and 'cool down' period, which allows sufficient vehicles to enter the network prior to the recording of the peak hours.
  - AM peak 08:00 to 09:00
  - PM peak 17:00 to 18:00

#### 7.2 Validation

- 7.2.1 The model validation for link flows, turning flows and journey times is shown to be accepted for both the AM and PM peak periods.
- 7.2.2 For link flow validation, all criteria are met for the AM peak period, with only the PM peak HGV flows not achieving the 85% of GEH, although overall the link flow validation is acceptable.
- 7.2.3 For turning flow validation in both peak periods the model meets TAG criteria with 97% of turning counts matching either GEH or Flow criteria in the AM peak. Whilst in the PM this is 96%.
- 7.2.4 For journey time validation, the model outputs show that both the AM and PM peak period models validate against available journey time data, demonstrating the model accurately represents travel times through the model.
- 7.2.5 The calibration and validation of the model demonstrates that the model replicates observed traffic conditions within the study area well and the models are considered fit for purpose to assess forecast traffic conditions.

# Appendix A Model Link Flow Validation Results

AM Link Flow Validation																														
Location	VICCIM Cite	Direction		Obse	rved			Mode	lled			[	Diff			%	Diff			G	ΕH			Flo	WS		TAG c	riterion	GEH or F	FLOW
LUCALIUII	VISSIM Site	Direction	Car	LGV	HGV <sup>-</sup>	<b>Fotal</b>	Car	LGV	HGV	Total	Car	LGV	HGV	Total	Car	LGV	HGV	Total	Car	LGV	HGV	Total	Car	LGV	HGV	Total	Car	LGV	HGV	Total
Basingstoke Road	1	NB	701	107	27	835	768	69	11	848	67	-38	-16	13	10%	-36%	-60%	2%	2.5	4.1	3.7	0.4	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
basingstoke noad	2	SB	545	15	9	569	387	53	7	447	-158	38	-2	-122	-29%	247%	-21%	-21%	7.3	6.5	0.7	5.4	Fail	Pass	Pass	Fail	Fail	Pass	Pass	Fail
B3270	3	EB	1250	131	42 1	.423	1232	163	58	1453	-18	32	16	30	-1%	24%	38%	2%	0.5	2.6	2.3	0.8	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
55276	4	WB	901	94	24 1	.019	926	123	64	1113	25	29	40	94	3%	31%	172%	9%	0.8	2.8	6.1	2.9	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
A327 Fastern Relief Road	5	EB	423	59	25	507	491	35	21	547	68	-24	-4	40	16%	-40%	-17%	8%	3.2	3.4	0.9	1.8	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
ASZ/ Eastern Neiter Nodu	6	WB	304	46	19	368	280	58	16	354	-24	12	-3	-14	-8%	27%	-14%	-4%	1.4	1.7	0.6	0.7	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
B3270 Lower Farley Way West	7	EB	1023	138	26 1	.187	1103	147	42	1292	80	9	16	105	8%	7%	59%	9%	2.4	0.8	2.7	3.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
BS270 LOwer Larley Way West	8	WB	1050	81	28 1	160	995	94	50	1139	-55	13	22	-21	-5%	15%	79%	-2%	1.7	1.3	3.5	0.6	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
B3270 Lower Farley Way	9	EB	639	77	20	735	762	112	41	915	123	35	21	180	19%	46%	109%	24%	4.6	3.6	3.9	6.3	Fail	Pass	Pass	Fail	Pass	Pass	Pass	Fail
bsz/o tower tuney way	10	WB	481	64	14	560	529	70	46	645	48	6	32	85	10%	9%	225%	15%	2.1	0.7	5.8	3.5	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
B3270 Lower Farley Way North	13	NB	961	56	30 1	.047	999	153	44	1196	38	97	14	149	4%	173%	46%	14%	1.2	9.5	2.3	4.4	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
B3270 LOwer Larley Way North	14	SB	954	144	25 1	.123	890	182	46	1118	-64	38	21	-5	-7%	26%	84%	0%	2.1	3.0	3.5	0.2	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Hatch Farm Way	15	NB	667	31	13	711	594	31	6	631	-73	0	-7	-80	-11%	1%	-55%	-11%	2.9	0.1	2.3	3.1	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Hatch Hallin Way	16	SB	521	62	13	596	487	48	2	537	-34	-14	-11	-59	-6%	-22%	-85%	-10%	1.5	1.9	4.1	2.5	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Mill Lane	17	NB	380	70	9	459	384	115	1	500	4	45	-8	41	1%	65%	-89%	9%	0.2	4.7	3.5	1.9	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Will Edite	18	SB	373	33	7	412	381	28	1	410	8	-5	-6	-2	2%	-14%	-85%	-1%	0.4	0.8	3.0	0.1	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
A 327 Eastern Relief Road	19	NB	383	73	35	491	453	34	20	507	70	-39	-15	16	18%	-54%	-43%	3%	3.4	5.4	2.8	0.7	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
7.527 Edistern Hener Houd	20	SB	247	49	17	313	218	43	14	275	-29	-6	-3	-38	-12%	-12%	-20%	-12%	1.9	0.9	0.9	2.2	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Peacock Lane	23	NB	514	76	17	606	532	77	6	615	18	1	-11	9	4%	2%	-64%	1%	0.8	0.1	3.2	0.3	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
	24	SB	424	32	13	468	462	41	5	508	38	9	-8	40	9%	27%	-60%	8%	1.8	1.4	2.6	1.8	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
MA	140	EB	3438	371	189 3	3998	3328	448	229	4005	-110	77	40	7	-3%	21%	21%	0%	1.9	3.8	2.8	0.1	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
1014	141	WB	2888	353	169 3	3410	2916	406	113	3435	28	53	-56	25	1%	15%	-33%	1%	0.5	2.7	4.7	0.4	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
																				GE	H			Flo	WS		VebTAC	6 criterio	n GEH o	r FLOW
																			Lights	LGV	HGV	Total	Lights	LGV	HGV	Total	Lights	LGV	HGV	Total
																		Pass	21	19	20	20	20	22	22	20	21	22	22	20
																		Fail	1	3	2	2	2	0	0	2	1	0	0	2
																		%Pass	95%	86%	91%	91%	91%	100%	100%	91%	95%	100%	100%	91%

										PM	Link I	Flow \	/alidat	tion																
Location	VICCIM Cite	Dire etie e		Obse	rved			Mode	lled			D	oiff			%	Diff			GE	Н			Flo	WS		TAG q	riterion	GEH or F	LOW
Location	VISSIM Site	Direction	Car	LGV	HGV <sup>-</sup>	Total	Car	LGV	HGV	Total	Car	LGV	HGV	Total	Car	LGV	HGV	Total	Car	LGV	HGV	Total	Car	LGV	HGV	Total	Car	LGV	HGV	Total
Basingstoke Road	1	NB	550	78	19	647	574	55	2	631	24	-23	-17	-16	4%	-30%	-89%	-2%	1.0	2.8	5.2	0.6	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Basingstoke Road	2	SB	662	31	4	698	665	58	1	724	3	27	-3	26	0%	86%	-77%	4%	0.1	4.0	2.1	1.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
B3270	3	EB	1042	98	18 1	1158	1003	156	39	1198	-39	58	21	40	-4%	59%	113%	3%	1.2	5.2	3.9	1.2	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
85270	4	WB	1011	98	23	1132	1017	100	43	1160	6	2	20	28	1%	2%	91%	3%	0.2	0.2	3.6	0.8	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
A 227 Eastern Poliof Poad	5	EB	417	42	14	473	362	43	1	406	-55	1	-13	-67	-13%	3%	-93%	-14%	2.8	0.2	4.7	3.2	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
A327 Lastern Rener Road	6	WB	429	49	13	491	384	50	8	442	-45	1	-5	-49	-10%	2%	-40%	-10%	2.2	0.1	1.6	2.3	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
B3270 Lower Farley Way West	7	EB	1159	63	20 3	1242	1000	136	40	1176	-159	73	20	-66	-14%	115%	101%	-5%	4.8	7.3	3.7	1.9	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
B3270 LOwer Larley Way West	8	WB	910	102	15 1	1026	1006	79	47	1132	96	-23	32	106	11%	-23%	219%	10%	3.1	2.4	5.8	3.2	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
P2270 Lower Farlow Way	9	EB	661	72	8	741	676	117	38	831	15	45	30	90	2%	62%	384%	12%	0.6	4.6	6.3	3.2	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
B3270 LOWER Laffey Way	10	WB	683	70	13	766	516	61	43	620	-167	-9	30	-146	-24%	-13%	234%	-19%	6.8	1.1	5.7	5.6	Fail	Pass	Pass	Fail	Fail	Pass	Pass	Fail
P2270 Lower Farlow Way North	13	NB	865	106	16	987	901	136	39	1076	36	30	23	89	4%	29%	150%	9%	1.2	2.8	4.5	2.8	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
B3270 LOWEL LAILEY WAY NOT LI	14	SB	1062	50	22 :	1134	765	91	46	902	-297	41	24	-232	-28%	83%	105%	-20%	9.8	4.9	4.0	7.3	Fail	Pass	Pass	Fail	Fail	Pass	Pass	Fail
Hatch Farm Way	15	NB	527	29	7	564	440	53	11	504	-87	24	4	-60	-17%	80%	57%	-11%	4.0	3.7	1.3	2.6	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Hatch Hath Way	16	SB	585	47	7	640	586	47	3	636	1	0	-4	-4	0%	-1%	-57%	-1%	0.0	0.1	1.8	0.1	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Mill Lane	17	NB	316	45	6	367	368	36	0	404	52	-9	-6	37	16%	-20%	-100%	10%	2.8	1.4	3.5	1.9	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
	18	SB	301	21	2	324	235	25	0	260	-66	4	-2	-64	-22%	18%	-100%	-20%	4.0	0.8	1.9	3.8	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
A 327 Fastern Relief Road	19	NB	291	43	13	347	312	34	1	347	21	-9	-12	0	7%	-21%	-92%	0%	1.2	1.5	4.5	0.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
A327 Lastern Rener Road	20	SB	319	41	12	372	382	45	8	435	63	4	-4	63	20%	9%	-32%	17%	3.4	0.6	1.2	3.1	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Peacock Lane	23	NB	450	30	10	490	571	49	5	625	121	19	-5	135	27%	64%	-51%	28%	5.4	3.0	1.9	5.7	Fail	Pass	Pass	Fail	Fail	Pass	Pass	Fail
I EBEOCK EBILE	24	SB	544	43	14	602	533	81	1	615	-11	38	-13	13	-2%	87%	-93%	2%	0.5	4.8	4.8	0.5	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
M4	140	EB	3424	242	225 3	3891	3593	263	195	4051	169	21	-30	160	5%	9%	-13%	4%	2.9	1.3	2.1	2.5	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
111	141	WB	3331	285	154 3	3770	3294	290	120	3704	-37	5	-34	-66	-1%	2%	-22%	-2%	0.6	0.3	2.9	1.1	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
																				GE	H	_		Flo	WS		VebTAC	S criterio	n GEH o	r FLOW
																			Car	LGV	HGV	Total	Car	LGV	HGV	Total	Car	LGV	HGV	Total
																		Pass	19	20	18	19	19	22	22	19	19	22	22	19
																		Fail	3	2	4	3	3	0	0	3	3	0	0	3
																		%Pass	86%	91%	82%	86%	86%	100%	100%	86%	86%	100%	100%	86%

Pass – VISSIM location meets TAG criterion, Fail - VISSIM location does not meet TAG criterion.

# Appendix B Turning Flow Validation Results

VISSIM	мстс			Obs	erved			Mode	elled			Differ	AM T rence	URNING	FLOW \	ALIDATI % Di	ON fference			GI	EH			TAG Flow	/ Criterior	1	TAG	GEH or	Flow Crite	erion
Site ID	Location	Movement	Car	LGV	HGV	Total	Car	LGV	HGV	Total	Car	LGV	HGV	Total	Car	LGV	HGV	Total	Car	LGV	HGV	Total	Car	LGV	HGV	Total	Car	LGV	HGV	Total
		A_A A_B	6 5	0	0	6 9	0	0	0	0	-6 -4	0 -4	0	-6 -7	-100% -80%	-100%	0%	-100% -78%	3.4 2.3	0.0 2.9	0.0	3.4 3.0	Pass Pass							
		A_C	165	32	0	197	170	15	12	197	5	-17	12	0	3%	-53%	0%	0%	0.4	3.5	4.9	0.0	Pass							
		A_D	153 342	0	16 9	169 438	230	38 50	10	278	77 -27	38 -37	-6 -1	109	50%	0%	-37% -13%	64%	5.5	8.7	1.6	7.3	Pass	Pass	Pass	Fail	Pass Pass	Pass	Pass Pass	Fail Pass
		A_F	290	106	11	406	281	64	6	351	-9	-42	-5	-55	-3%	-40%	-43%	-14%	0.5	4.4	1.6	2.8	Pass							
		A_G	0	0	0	0	0	0	0	0	0	0	0	0	0%	0%	0%	0%	0.0	0.0	0.0	0.0	Pass							
		<u></u> н В_А	4	1	0	4	0	0	0	41 0	-13	-5 -1	0	-10	-100%	-100%	0%	-100%	1.9 2.6	3.1	0.0	3.0	Pass	Pass	Pass	Pass Pass	Pass	Pass	Pass	Pass
		B_B	0	1	0	1	0	0	0	0	0	-1	0	-1	0%	-100%	0%	-100%	0.0	1.5	0.0	1.5	Pass							
		B_C B_D	14 86	3	0	18	18 84	4	1	23	-2	-38	-6	-45	25% -2%	23%	0% -67%	30%	0.9	0.4	1.4	1.2	Pass	Pass	Pass	Pass	Pass Pass	Pass	Pass Pass	Pass
		B_E	166	18	2	186	163	20	1	184	-3	2	-1	-40	-2%	10%	-43%	-1%	0.2	0.4	0.6	0.2	Pass							
		B_F	66	14	2	83	60	13	2	75	-6	-1	0	-8	-10%	-9%	-1%	-9%	0.8	0.4	0.0	0.9	Pass							
		B_G B_H	0	0	0	1	0	0	0	0	-1	0	0	-1	-100%	0%	0%	-100%	0.0	0.0	0.0	0.0	Pass	Pass	Pass	Pass	Pass Pass	Pass	Pass	Pass
		 C_A	394	27	7	428	366	29	17	412	-28	2	10	-16	-7%	7%	143%	-4%	1.4	0.3	2.9	0.8	Pass							
		С_В	2	0	0	2	7	0	0	7	5	0	0	5	205%	0%	0%	205%	2.2	0.0	0.0	2.2	Pass							
		C_C	132	40	3	174	94	14	6	0 114	-38	-26	3	-60	-29%	-65%	109%	-35%	1.6 3.5	0.0 5.0	0.0	1.6 5.0	Pass Pass	Pass	Pass Pass	Pass Pass	Pass	Pass	Pass	Pass
		C_E	242	21	7	270	255	60	8	323	13	39	1	53	5%	190%	19%	20%	0.8	6.2	0.5	3.1	Pass							
		C_F	270	43	8	321	260	47	27	334	-10	4	19	13	-4%	9%	252%	4%	0.6	0.6	4.6	0.7	Pass							
		C_H	26	0	0	26	3	0	0	3	-23	0	0	-23	-89%	0%	0%	-89%	6.1	0.0	0.0	6.1	Pass							
		D_A	565	128	38	730	562	68	15	645	-3	-60	-23	-85	-1%	-47%	-60%	-12%	0.1	6.0	4.4	3.3	Pass							
		D C	31 48	4	5	40 59	31 80	1	2	34 95	32	-3 3	-3 1	-6 36	0% 65%	-77%	-57% 210%	-15% 61%	0.0 4.0	2.1 0.9	1.4 1.2	1.0 4.1	Pass Pass	Pass Pass	Pass Pass	Pass Pass	Pass	Pass	Pass	Pass
1	M4 J11	D_D	4	3	3	10	0	0	0	0	-4	-3	-3	-10	-100%	-100%	-100%	-100%	2.8	2.6	2.4	4.5	Pass							
		D_E	413	121	51	585	417	262	11	690	4	141	-40	105	1%	116%	-79%	18%	0.2	10.2	7.2	4.2	Pass	Fail	Pass	Fail	Pass	Fail	Pass	Pass
		D_G D_H	12	1	0	13	5	0	0	5	-7	-1	0	-8	-59%	-100%	0%	-62%	2.4	0.0	0.0	2.7	Pass							
		E_A	892	127	22	1041	852	91	20	963	-40	-36	-2	-78	-4%	-29%	-10%	-8%	1.3	3.5	0.5	2.5	Pass							
		E_B	21	5	3	29	37	6	0	43	16	1	-3	14	75%	23%	-100%	46%	2.9	0.5	2.6	2.3	Pass							
		E_D	529	157	21	707	521	161	12	≥04 694	-8	4	-9	-13	-1%	2%	-44%	-2%	0.5	0.1	2.3	0.3	Pass							
		E_E	3	2	0	5	0	0	0	0	-3	-2	0	-5	-100%	-100%	0%	-100%	2.5	1.9	0.0	3.2	Pass							
		E_F	395	69	6	469	395	42	15 0	452	0	-27	9	-17	0%	-39%	164% 0%	-4% 0%	0.0	3.6	2.9	0.8	Pass							
		E_H	15	0	0	15	2	0	0	2	-13	0	0	-13	-86%	0%	0%	-86%	4.4	0.0	0.0	4.4	Pass							
		F_A	437	54	66	558	503	149	47	699	66	95	-19	141	15%	176%	-29%	25%	3.0	9.4	2.5	5.6	Pass	Pass	Pass	Fail	Pass	Pass	Pass	Fail
		F_B F C	32 253	12 63	0	45	24 268	5 44	2 49	31 361	-8 15	-7 -19	2	-14	-26%	-60%	0% 134%	-31% 7%	1.6	2.5	2.0	2.2	Pass							
		F_E	240	124	0	364	258	172	14	444	18	48	14	80	8%	39%	0%	22%	1.2	3.9	5.3	4.0	Pass							
		F_F	0	0	0	0	0	0	0	0	0	0	0	0	0%	0%	0%	0%	0.0	0.0	0.0	0.0	Pass							
		F_G F H	12	0	0	12	3	0	0	0	-9	0	0	-9	-75%	0%	0%	-75%	0.0	0.0	0.0	0.0	Pass Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass	Pass	Pass	Pass
		H_A	18	3	0	21	47	3	1	51	29	0	1	30	155%	1%	6368%	138%	5.0	0.0	1.4	4.9	Pass							
		H_B	2	0	0	2	3	3	0	6	1	3	0	4	44%	0%	-100%	182%	0.6	2.4	0.3	1.9	Pass							
		н_с Н D	5	0	0	2	23	3	1	24 15	18 10	0	1	19	394% 645%	0%	20308%	415% 886%	4.9 3.8	0.0	1.4 1.3	5.1 4.7	Pass Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass	Pass	Pass	Pass
		H_E	11	0	0	11	6	1	0	7	-5	1	0	-4	-44%	0%	-100%	-35%	1.6	1.4	0.3	1.3	Pass							
		H_F	0	0	0	0	9	3	1	13	9	3	1	13	0%	0%	1586%	21822%	4.2	2.4	1.3	5.1	Pass							
		H_H	0	2	2	4	0	0	0	0	0	-2	-2	-4	0%	-100%	-100%	-100%	0.0	2.1	2.0	2.9	Pass							
	Δ33	A_B	276	56	7	339	250	40	3	293	-26	-16	-4	-46	-9%	-29%	-57%	-14%	1.6	2.3	1.8	2.6	Pass							
	Basingstok	A_C B_A	1209 545	281 99	56 11	1546 655	1156 537	522 49	38 8	1716	-53 -8	-50	-18 -3	-61	-4%	86%	-32% -27%	-9%	1.5	12.0	2.6	4.2	Pass	Fail	Pass	Pass	Pass Pass	Fail Pass	Pass Pass	Pass Pass
3	e Road / Mereoak	B_C	207	21	2	230	231	20	3	254	24	-1	1	24	12%	-5%	50%	10%	1.6	0.2	0.6	1.5	Pass							
	Lane	C_A	1361	261	57	1679	1476	293	39	1808	115	32	-18	129	8%	12%	-32%	8%	3.1	1.9	2.6	3.1	Pass							
		C_B A_B	140	28	4	201	137	14 18	2	154 196	-3 -1	-14 -6	-1 2	-18	-2%	-50%	-25% 0%	-10%	0.3	3.1	0.5 2.0	1.4 0.4	Pass Pass	Pass	Pass Pass	Pass Pass	Pass Pass	Pass	Pass	Pass
	Basingstok	A_C	235	56	11	302	191	34	2	227	-44	-22	-9	-75	-19%	-39%	-82%	-25%	3.0	3.3	3.5	4.6	Pass							
4	e Road /	B_A	278	33	0	311	295	21	1	317	17	-12	1	6	6%	-36%	0%	2%	1.0	2.3	1.4	0.3	Pass							
	Lane	<u>Б_С</u> С_А	400	79	16	495	434	44	10	488	34	-3	-6	-2	9%	-38%	-38%	-2%	1.7	4.5	1.7	0.2	Pass							
		C_B	131	17	2	150	158	7	0	165	27	-10	-2	15	21%	-59%	-100%	10%	2.2	2.9	2.0	1.2	Pass							
		A_A A B	1	0	0	1	0	0	0	0	-1 -2	0	-1	-1	-100%	0% 3%	0%	-100%	1.6	0.0	0.0	1.6	Pass							
		A_C	78	18	3	99	76	13	2	91	-2	-5	-1	-8	-3%	-28%	-28%	-8%	0.2	1.3	0.5	0.2	Pass							
		A_D	177	10	1	187	181	9	0	190	4	-1	-1	3	2%	-9%	-100%	1%	0.3	0.3	1.3	0.2	Pass							
		A_E A_F	18 119	0	0	18 136	9	0 6	0	9 120	-9 -5	0	0	-9 -16	-49% -5%	-65%	0%	-49% -12%	2.4	0.0	0.0	2.4	Pass	Pass	Pass Pass	Pass	Pass Pass	Pass	Pass	Pass
		A_G	20	0	0	20	10	0	0	10	-10	0	0	-10	-49%	0%	0%	-49%	2.5	0.0	0.0	2.5	Pass							
		B_A	146	6	0	152	122	6	2	130	-24	0	2	-22	-17%	8%	0%	-14%	2.1	0.2	2.0	1.8	Pass							
		B_C	54	9	1	64	37	6	4	47	-17	-3	3	-17	-31%	-31%	308%	-26%	2.5	1.0	1.9	2.2	Pass							
		B_D	217	22	2	241	246	18	0	264	29	-4	-2	23	13%	-20%	-100%	9%	1.9	1.0	1.9	1.4	Pass							
		B_E B_F	12 646	1 60	0	13 712	11 648	2	0 37	13 790	-1 2	1 54	0	0 87	-8% 0%	45% 91%	0% 431%	-2% 12%	0.3	0.5	0.0	0.1	Pass							
		B_G	47	1	0	47	42	2	0	44	-5	1	0	-3	-10%	151%	0%	-7%	0.7	1.0	0.0	0.5	Pass							
		C_A	84	2	0	86	114	10	3	127	30	8	3	41	36%	423%	0%	48%	3.0	3.3	2.4	4.0	Pass							
		C_B	0	0	0	0	0	2	2	107 0	-28	-9	0	-35	-∠1% 0%	-61% 0%	0%	-24% 0%	2.6	3.4 0.0	2.0	3.1 0.0	Pass	Pass	Pass Pass	Pass Pass	Pass	Pass	Pass	Pass
		C_D	20	3	0	23	13	0	0	13	-7	-3	0	-10	-35%	-100%	0%	-44%	1.7	2.5	0.0	2.4	Pass							
		C_E	2	0	0	2	0	1	0	1	-2	1	0	-1	-100%	-50%	0%	-38%	1.8	1.4	0.0	0.5	Pass							
		C_G	16	0	0	16	15	0	0	15	-1	0	0	-1	-8%	0%	0%	-8%	0.3	4.0	0.4	0.3	Pass							
		D_A	151	11	1	163	138	4	0	142	-13	-7	-1	-21	-9%	-65%	-100%	-13%	1.1	2.6	1.4	1.7	Pass							
		D_B D_C	325	32	4	361	328	15 4	0	343	3	-17	-4	-18	1% 193%	-53% 57%	-100% 0%	-5% 146%	0.2	3.5	2.8	0.9	Pass	Pass	Pass	Pass	Pass Pass	Pass	Pass Pass	Pass
5	Black Boy Roundabout	D	2	0	0	2	0	0	0	0	-2	0	0	-2	-100%	0%	0%	-100%	2.2	0.0	0.0	2.2	Pass							
	Roundabout	D_E	12	3	0	15	11	0	0	11	-1	-3	0	-4	-6%	-100%	0%	-26%	0.2	2.5	0.0	1.1	Pass							
		D_F D_G	217	16	1	235	169 24	16 1	3	188 25	-48 1	0	2	-47	-22% 3%	0%	107% 0%	-20% 8%	3.5 0.2	0.0	1.0	3.2 0.4	Pass	Pass	Pass	Pass	Pass	Pass	Pass Pass	Pass
		E_A	16	0	0	16	14	1	0	15	-2	1	0	-1	-12%	0%	0%	-6%	0.5	1.4	0.0	0.2	Pass							
		E_B	36	2	0	38	29	0	0	29	-7	-2	0	-9	-19%	-100%	0%	-23%	1.2	2.1	0.0	1.5	Pass							
		E_C E_D	31	4	3	38	42	6	0	0 48	11	-1	-3	-1	37%	35%	-100%	-100%	0.0	0.7	2.4	1.5	Pass	Pass	Pass	Pass Pass	Pass	Pass	Pass	Pass
		EE	0	0	0	0	0	0	0	0	0	0	0	0	0%	0%	0%	0%	0.0	0.0	0.0	0.0	Pass							
		E_F	27	0	0	27	21	1	0	22	-6	1	0	-5	-23%	0%	0%	-20%	1.3	1.4	0.0	1.1	Pass							
		G	120	9	0	129	121	3	3	127	1	-6	3	-2	1%	-67%	0%	-2%	0.0	2.5	2.4	0.0	Pass							
		F_B	396	81	9	486	349	70	48	467	-47	-11	39	-19	-12%	-13%	444%	-4%	2.4	1.2	7.4	0.9	Pass							
		FD	121	37	5	164	140 142	33 10	9	182 153	19 24	-4	-7	18	16% 21%	-12% -24%	71% -88%	11%	1.7	0.8	1.4 3.4	1.4	Pass							
		F_E	11	5	0	16	9	2	0	11	-2	-3	0	-5	-15%	-63%	0%	-31%	0.5	1.8	0.0	1.4	Pass							
		F_F	3	0	0	3	0	0	0	0	-3	0	0	-3	-100%	0%	0%	-100%	2.4	0.0	0.0	2.4	Pass							
		G_A	9	4	0	15	16	2	0	11 18	-1	-4	-2	-4	∠0% -8%	-100%	- 100%	-28% 3%	0.6	2.9	2.0	1.2 0.1	Pass							
		 G_B	27	2	0	29	20	1	0	21	-7	-1	0	-8	-26%	-47%	0%	-27%	1.4	0.7	0.0	1.6	Pass							
		G_C	3	0	0	3	13	1	0	14	10	1	0	11	295%	0%	0%	326%	3.4	1.4	0.0	3.6	Pass							
		G_E	1	0	0	1	1	0	0	19	0	0	0	0	-26%	0%	0%	-26%	0.3	0.0	0.0	0.5	Pass							
		G_F	43	0	0	43	25	1	0	26	-18	1	0	-17	-42%	0%	0%	-39%	3.1	1.4	0.0	2.9	Pass							
		G_G	0	0	0	0	0	0	0	0	0	0	0	0	0%	0%	0%	0%	0.0	0.0	0.0	0.0	Pass							

Pass – VISSIM location meets TAG criterion, Fail - VISSIM location does not meet TAG criterion.

VISSIM	мстс	Movement		Obs	erved			Mod	elled			Diffe	AM T rence	URNING	S FLOW \	ALIDATI % D	ON ifference			G	EH		TAG F	ow Criterio	n	TAG	GEH or F	low Crite	erion
Site ID	Location	A_A	Car 0	LGV 0	HGV 0	Total 0	Car 0	LGV 0	HGV 0	Total 0	Car 0	LGV 0	HGV 0	Total 0	Car 0%	LGV 0%	HGV 0%	Total 0%	<b>Car</b> 0.0	LGV 0.0	HGV 0.0	Total 0.0	Car LG Pass Pas	HGV Pass	Total Pass	Car Pass	LGV Pass	HGV Pass	Total Pass
		A_B A C	0	1	0	1	5	0	0	5	5	-1 0	0	4	0% 0%	-100%	0%	400%	3.2	1.4	0.0	2.3	Pass Pas	B Pass	Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass
		A_D	7	5	1	13	14	0	0	14	7	-5	-1	1	100%	-100%	-100%	8%	2.2	3.2	1.4	0.3	Pass Pas	Pass Pass	Pass	Pass	Pass	Pass	Pass
	South	B_A B_B	7	2	0	9 1	11 0	0	0	11 0	4 -1	-2 0	0	2 -1	57% -100%	-100% 0%	0% 0%	22% -100%	1.3 1.4	2.0 0.0	0.0	0.6 1.4	Pass Pas Pass Pas	B Pass B Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass
	Avenue / A327	B_C B D	11 386	5 69	0	16 470	10 433	0 34	0	10	-1 47	-5 -35	0	-6 17	-9% 12%	-100%	0%	-38% 4%	0.3	3.2	0.0	1.7	Pass Pas	B Pass	Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass
6	Eastern Relief Road	C_A	1	0	0	1	0	0	1	1	-1	0	1	0	-100%	0%	0%	0%	1.4	0.0	1.4	0.0	Pass Pas	Pass	Pass	Pass	Pass	Pass	Pass
	/ Unnamed Road	С_С	0	0	0	0	0	0	0	0	-8 0	-3	0	-11	-44%	-100%	0%	-52%	0.0	0.0	0.0	0.0	Pass Pas Pass Pas	B Pass Pass	Pass	Pass	Pass Pass	Pass Pass	Pass
		C_D D_A	54 39	2	0	56 49	44 53	1 7	1	46 63	-10 14	-1 -1	1	-10 14	-19% 36%	-50% -13%	0% 50%	-18% 29%	1.4 2.1	0.8	1.4 0.6	1.4 1.9	Pass Pas Pass Pas	B Pass B Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass
		D_B	184	51	11	246	202	43	14	259	18	-8	3	13	10%	-16%	27%	5% 20%	1.3	1.2	0.8	0.8	Pass Pas	Bass	Pass	Pass	Pass	Pass	Pass
		D_0	2	0	0	2	0	0	0	0	-2	0	0	-2	-100%	0%	0%	-100%	2.0	0.0	0.0	2.0	Pass Pas	Pass Pass	Pass	Pass	Pass	Pass	Pass
		A_A A_B	1 113	1 16	0	2 129	0 122	0 9	0	0 131	-1 9	-1 -7	0	-2 2	-100% 8%	-100% -44%	0%	-100% 2%	1.4 0.8	1.4 2.0	0.0	2.0 0.2	Pass Pas Pass Pas	B Pass B Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass
	Meldreth Way /	A_C B A	40 59	5 9	0	45 68	43 63	5 8	0	48 71	3	0	0	3	8% 7%	0% -11%	0% 0%	7% 4%	0.5	0.0	0.0	0.4	Pass Pas	B Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass
10	B3270	B_B	0	1	0	1	0	0	0	0	0	-1	0	-1	0%	-100%	0%	-100%	0.0	1.4	0.0	1.4	Pass Pas	B Pass	Pass	Pass	Pass	Pass	Pass
	Earley Way	C_A	16	8	0	24	14	0	41 0	14	-45 -2	-8	28	-10	-6%	-100%	0%	-42%	1.7 0.5	1.9 4.0	5.4 0.0	0.1 2.3	Pass Pas Pass Pas	B Pass Pass	Pass	Pass	Pass	Pass	Pass
		С_В С_С	633 0	81 0	6 0	720 0	515 0	70 0	46 0	631 0	-118 0	-11 0	40 0	-89 0	-19% 0%	-14% 0%	667% 0%	-12% 0%	4.9 0.0	1.3 0.0	7.8 0.0	3.4 0.0	Fail Pas Pass Pas	B Pass B Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass
		A_A	1	2	0	3	0	0	0	0	-1 9	-2	0	-3	-100%	-100%	0%	-100%	1.4	2.0	0.0	2.4	Pass Pas	B Pass	Pass	Pass	Pass	Pass	Pass
		A_C	586	75	13	674	620	106	41	767	34	31	28	93	6%	41%	215%	14%	1.4	3.3	5.4	3.5	Pass Pas	Pass Pass	Pass	Pass	Pass	Pass	Pass
		A_D B_A	248 172	29 16	0	277 188	244 118	24 89	2	270 207	-4 -54	-5 73	2	-7 19	-2% -31%	-17% 456%	0%	-3% 10%	0.3 4.5	1.0 10.1	2.0 0.0	0.4	Pass Pas Pass Pas	B Pass B Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass
	B3270 Lower	B_B B_C	1 149	0	0	1 159	0 97	0	0	0 99	-1 -52	0 -8	0	-1 -60	-100% -35%	0% -80%	0% 0%	-100% -38%	1.4 4.7	0.0	0.0	1.4	Pass Pas	B Pass	Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass
11	Earley Way	B_D	149	11	0	160	99	8	1	108	-50	-3	1	-52	-34%	-27%	0%	-33%	4.5	1.0	1.4	4.5	Pass Pas	B Pass	Pass	Pass	Pass	Pass	Pass
	Rushey	С_В	172	16	0	188	129	3	0	132	-43	-13	0	-56	-25%	-81%	0%	-30%	3.5	4.2	0.0	4.4	Pass Pas	Pass Pass	Pass	Pass	Pass	Pass	Pass
	vvay	C_C C_D	1 66	0 5	0	1 71	0 62	0	0	0 64	-1 -4	-3	0	-1 -7	-100% -6%	0% -60%	0% 0%	-100% -10%	1.4 0.5	0.0	0.0	1.4 0.9	Pass Pas Pass Pas	B Pass B Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass
		D_A D B	329 135	33 4	1	363 139	316 130	19 3	2	337 133	-13 -5	-14	1	-26 -6	-4% -4%	-42% -25%	100% 0%	-7% -4%	0.7	2.7	0.8	1.4	Pass Pas	B Pass	Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass
		D_C	78	7	0	85	65	3	0	68	-13	-4	0	-17	-17%	-57%	0%	-20%	1.5	1.8	0.0	1.9	Pass Pas	Pass	Pass	Pass	Pass	Pass	Pass
	B3270	A_B	232	47	5	284	243	30	2	0 275	11	-17	-3	-9	5%	-36%	-60%	-3%	0.0	2.7	0.0	0.0	Pass Pas Pass Pas	Pass Pass	Pass	Pass	Pass	Pass	Pass
10	Lower Earley Wav	A_C B_A	688 343	110 30	9 11	807 384	779 370	139 18	42	960 392	91 27	29 -12	33 -7	153 8	13% 8%	26% -40%	367% -64%	19% 2%	3.4 1.4	2.6 2.4	6.5 2.6	5.1 0.4	Pass Pas Pass Pas	S Pass	Fail Pass	Pass Pass	Pass Pass	Pass Pass	Fail Pass
12	North / Hatch Farm	B_C C A	260 776	17 112	3	280 891	221 642	14 163	2 46	237	-39 -134	-3 51	-1 43	-43 -40	-15%	-18%	-33% 1433%	-15% -4%	2.5	0.8	0.6	2.7	Pass Pas	B Pass	Pass	Pass	Pass Pass	Pass Pass	Pass Pass
	Way	С_В	280	22	4	306	243	19	0	262	-37	-3	-4	-44	-13%	-14%	-100%	-14%	2.3	4.3	2.8	2.6	Pass Pas	B Pass	Pass	Pass	Pass	Pass	Pass
		A_A A_B	1 214	60	12	1 286	194	31	4	0 229	-1 -20	-29	-8	-1 -57	-100%	-48%	-67%	-100%	1.4 1.4	0.0 4.3	0.0 2.8	1.4 3.6	Pass Pas Pass Pas	B Pass B Pass	Pass Pass	Pass	Pass Pass	Pass Pass	Pass Pass
		A_C A_D	467 122	102 25	13 4	582 151	684 150	137 22	40 7	861 179	217 28	35 -3	27 3	279 28	46% 23%	34% -12%	208% 75%	48% 19%	9.0 2.4	3.2 0.6	5.2 1.3	10.4 2.2	Fail Pas Pass Pas	B Pass B Pass	Fail Pass	Fail Pass	Pass Pass	Pass Pass	Fail Pass
	A3290 /	B_A	199	28	6	233	184	13	1	198	-15	-15	-5	-35	-8%	-54%	-83%	-15%	1.1	3.3	2.7	2.4	Pass Pas	B Pass	Pass	Pass	Pass	Pass	Pass
	A329 Reading	B_C	225	38	1	264	156	18	0	174	-69	-20	-1	-90	-31%	-53%	-100%	-34%	5.0	3.8	1.4	1.4 6.1	Pass Pas Pass Pas	B Pass	Pass	Pass	Pass	Pass	Pass
13	Road / B3270	B_D C_A	328 580	35 65	2 9	365 654	328 576	18 115	1 44	347 735	0 -4	-17 50	-1 35	-18 81	0% -1%	-49% 77%	-50% 389%	-5% 12%	0.0	3.3 5.3	0.8 6.8	1.0 3.1	Pass Pas Pass Pas	B Pass B Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass
	Lower Earley Way	C_B C_C	140	25 0	0	165	91	11 0	3	105	-49 -1	-14	3	-60 -1	-35%	-56%	0%	-36% -100%	4.6	3.3	2.4	5.2	Pass Pas	B Pass	Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass
	Ň	C_D	410	52	4	466	341	55	2	398	-69	3	-2	-68	-17%	6%	-50%	-15%	3.6	0.4	1.2	3.3	Pass Pas	Pass	Pass	Pass	Pass	Pass	Pass
		D_A D_B	195 268	24 31	2	301	221	10 20	2	186 242	-21 -47	-14	-1 -1	-36	-11%	-58%	-33%	-16% -20%	1.5 3.0	3.4 2.2	0.6	2.5 3.6	Pass Pas Pass Pas	B Pass B Pass	Pass Pass	Pass	Pass Pass	Pass Pass	Pass Pass
			243 4	20 1	1	264 5	200 0	16 0	3	219	-43 -4	-4 -1	2	-45 -5	-18% -100%	-20%	200% 0%	-17% -100%	2.9	0.9	1.4	2.9	Pass Pas	B Pass	Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass
		A_B	89	5	3	97	56	3	0	59	-33	-2	-3	-38	-37%	-40%	-100%	-39%	3.9	1.0	2.4	4.3	Pass Pas	B Pass	Pass	Pass	Pass	Pass	Pass
14	A3290 / Warfedale	B_A	202	53	29	282	227	39	9	439 266	25	-14	-28	-16	12%	-26%	-97%	-6%	4.4	1.9	7.2	3.8	Pass Pas Pass Pas	B Pass Pass	Pass	Pass	Pass	Pass	Pass
	Road	B_C C_A	493 745	131 112	24 11	648 868	640 712	150 111	42 46	832 869	147 -33	19 -1	18 35	184 1	30% -4%	15% -1%	75% 318%	28% 0%	6.2 1.2	1.6 0.1	3.1 6.6	6.8 0.0	FailPasPassPas	s Pass Pass	Fail Pass	Fail Pass	Pass Pass	Pass Pass	Fail Pass
		C_B A A	240 0	13 1	5	258 1	220 0	27 0	1	248	-20 0	-1	-4 0	-10 -1	-8% 0%	108%	-80% 0%	-4% -100%	1.3	3.1 1.4	2.3	0.6	Pass Pas	B Pass	Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass
	50070	A_B	675	82	9	766	666	110	40	816	-9 16	28	31	50	-1%	34%	344%	7%	0.3	2.9	6.3	1.8	Pass Pas	B Pass	Pass	Pass	Pass	Pass	Pass
	Lower	B_A	575	85	5	665	439	69	50	558	-136	-16	45	-107	-24%	-19%	900%	-14%	6.0	1.8	8.6	4.3	Fail Pas	B Pass Pass	Fail	Fail	Pass	Pass	Pass
191	Earley Way / Beeston	B_B B_C	0 543	0 49	0 5	0 597	0 556	0 24	0	0 580	0 13	0 -25	0 -5	0 -17	0% 2%	0% -51%	0% -100%	0% -3%	0.0	0.0 4.1	0.0	0.0	Pass Pas Pass Pas	B Pass B Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass
	Way	С_А С В	131 415	17 26	1	149 442	153 435	6 37	0	159 474	22 20	-11 11	-1 1	10 32	17% 5%	-65% 42%	-100% 100%	7% 7%	1.8 1.0	3.2 2.0	1.4 0.8	0.8	Pass Pas	B Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass
		C_C	1	0	0	1	0	0	0	0	-1	0	0	-1	-100%	0%	0%	-100%	1.4	0.0	0.0	1.4	Pass Pas	B Pass	Pass	Pass	Pass	Pass	Pass
		A_A A_B	24	1	1	26	15	1	0	16	-9	0	-1	-10	-38%	0%	-100%	-38%	2.0	0.0	1.4	2.2	Pass Pas Pass Pas	B Pass Pass	Pass	Pass	Pass	Pass	Pass
	Cutbush Lane /	A_C B_A	95 19	11 4	0	106 23	97 13	7	0	104 16	2 -6	-4 -1	0	-2 -7	2% -32%	-36% -25%	0%	-2% _30%	0.2	1.3 0.5	0.0	0.2	Pass Pas Pass Pas	B Pass B Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass
192	B3270 Lower	B_B B C	1 783	0 90	0	1 885	0 751	0	0 40	0 901	-1 -32	0	0	-1 16	-100% -4%	0% 22%	0% 233%	-100% 2%	1.4 1.2	0.0	0.0	1.4 0.5	Pass Pas	B Pass	Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass
	Earley Way	C_A	89	14	1	104	77	8	4	89	-12	-6	3	-15	-13%	-43%	300%	-14%	1.3	1.8	1.9	1.5	Pass Pas	a Pass	Pass	Pass	Pass	Pass	Pass
		C_C	1	0	0	1	0	0	0	0	-99	0	42	-70	-100%	-22 %	0%	-100%	4.2	0.0	8.2 0.0	2.9	Pass Pas Pass Pas	B Pass Pass	Pass	Pass	Pass	Pass	Pass
	\A/bitter	A_B A_C	214 61	29 20	3	246 82	242 57	25 11	2	269 69	28 -4	-4 -9	-1 0	23 -13	13% -7%	-14% -45%	-33% 0%	9% -16%	1.9 0.5	0.8	0.6	1.4 1.5	Pass Pas Pass Pas	S Pass Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass
20	Wood Lane	B_A B C	312 863	39 119	1 22	352 1004	316 917	28 135	1 57	345 1109	4 54	-11 16	0 35	-7 105	1% 6%	-28% 13%	0% 159%	-2% 10%	0.2 1.8	1.9 1.4	0.0	0.4	Pass Pas	B Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass
	/ B3270	C_A	105	29	0	134	82	20	5	107	-23	-9	5	-27	-22%	-31%	0%	-20%	2.4	1.8	3.2	2.5	Pass Pas	B Pass	Pass	Pass	Pass	Pass	Pass
		A_B	367	36	23	405	396	33	1	644 430	29	-21	-1	25	8%	-17%	-50%	6%	3.0 1.5	2.0 0.5	0.0	3.3	Pass Pas Pass Pas	B Pass	Pass	Pass	Pass	Pass	Pass
04	Hollow Lane /	A_C B_A	216 509	25 46	3	244 556	242 375	13 25	0	255 402	26 -134	-12 -21	-3 1	11 -154	12% -26%	-48% -46%	-100% 100%	5% -28%	1.7 6.4	2.8 3.5	2.4 0.8	0.7	Pass Pas Fail Pas	S Pass Pass	Pass Fail	Pass Fail	Pass Pass	Pass Pass	Pass Fail
21	Brookers Hill	B_C C A	28 240	6 23	4	38 267	44 309	3 15	0	47 325	16 69	-3	-4	9 58	57% 29%	-50% -35%	-100% -75%	24% 22%	2.7 4.2	1.4	2.8	1.4 3.4	Pass Pas	B Pass	Pass	Pass Pass	Pass Pass	Pass	Pass Pass
		C_B	58	9	2	69	2	0	0	2	-56	-9	-2	-67	-97%	-100%	-100%	-97%	10.2	4.2	2.0	11.2	Pass Pas	Pass	Pass	Pass	Pass	Pass	Pass
		A_A A_B	1 189	1 36	0 8	2 233	0 215	0 37	0	0 254	-1 26	-1 1	0 -6	-2 21	-100% 14%	-100% 3%	0% -75%	-100% 9%	1.4 1.8	1.4 0.2	0.0	2.0 1.3	Pass Pas Pass Pas	S Pass Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass
		A_C A_D	216 375	48 69	4 23	268 467	181 367	25 64	7 13	213 444	-35 -8	-23 -5	3 -10	-55 -23	-16% -2%	-48% -7%	75% -43%	-21% -5%	2.5 0.4	3.8 0.6	1.3 2.4	3.5 1.1	Pass Pas	B Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass
		B_A	180	29	5	214	214	26	1	241	34	-3	-4	27	19%	-10%	-80%	13%	2.4	0.6	2.3	1.8	Pass Pas	B Pass	Pass	Pass	Pass	Pass	Pass
22	Coppid Beech	B_C	295	41	6	342	311	24	0	335	16	-17	-6	-7	5%	-41%	-100%	-2%	0.9	3.0	3.5	0.4	Pass Pas	Pass Pass	Pass	Pass	Pass	Pass	Pass
	Roundabout	C_A C_B	276 335	36 31	2	314 372	322 341	33 37	2 8	357 386	46 6	-3 6	0	43 14	17% 2%	-8% 19%	0% 33%	14% 4%	2.7 0.3	0.5	0.0	2.3 0.7	Pass Pas Pass Pas	B Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass
		C_C C D	2	1 49	0	3	0 470	0 28	0	0	-2 -26	-1 -21	0	-3	-100%	-100% -43%	0% -36%	-100% -9%	2.0	1.4	0.0	2.4	Pass Pas	B Pass	Pass	Pass Pass	Pass	Pass	Pass Pass
		D_A	414	92	14	520	335	46	8	389	-79	-46	-6	-131	-19%	-50%	-43%	-25%	4.1	5.5	1.8	6.1	Pass Pas	Pass	Fail	Pass	Pass	Pass	Fail
		D_D	312 1	85 0	13 6	410 7	457 0	87 0	9	553 0	145 -1	2	-4 -6	143 -7	46% -100%	2% 0%	-31% -100%	35% -100%	7.4 1.4	0.2	1.2 3.5	6.5 3.7	FailPasPassPas	S Pass Pass	Fail Pass	Fail Pass	Pass Pass	Pass Pass	Fail Pass
		A_B A C	221 35	29 2	4	254 38	217 35	36 0	3 0	256 35	-4 0	7	-1 -1	2	-2% 0%	24% -100%	-25%	1% -8%	0.3	1.2	0.5	0.1	Pass Pas	B Pass	Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass
23	/ A329	B_A	156	38	3	197	109	13	3	125	-47	-25	0	-72	-30%	-66%	0%	-37%	4.1	5.0	0.0	5.7	Pass Pas	a Pass	Pass	Pass	Pass	Pass	Pass
	Road	C_A	41	3	1	45	39	2	0	941 41	-2	-21	-0	-4	-5%	-13%	-40%	-9%	0.3	0.6	2.0 1.4	3.9 0.6	Pass Pas	Pass Pass	Pass	Pass	Pass	Pass	Pass
	1	C_B	871	84	16	971	907	61	14	982	36	-23	-2	11	4%	-27%	-13%	1%	1.2	2.7	0.5	0.4	Pass Pas	Pass	Pass	Pass	Pass	Pass	Pass

								Mad	- 111			D:#**	AM TI	URNING	FLOW V	ALIDATI	ON			~							T40	OFU or		-
VISSIM Site ID	Location	Movement	Car I G	V H	a V 1	Total	Car		HGV	Total	Car	LGV	HGV	Total	Car	1 GV	HGV	Total	Car	IGV	HGV	Total	Car	I GV	HGV	Total	Car	LGV	HGV	Total
		A A	1 0			1	0	0	0	0	-1	0	0	-1	-100%	0%	0%	-100%	1.4	0.0	0.0	14	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		A B	57 1	7	·	75	71	4	0	75	14	-13	-1	0	25%	-76%	-100%	0%	1.4	4.0	1.4	0.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		A C	921 20	7 10	07 1	1235	1049	124	13	1186	128	-83	-94	-49	14%	-40%	-88%	-4%	4.1	6.5	12.1	1.4	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
	Jennett's	 B_A	102 9			112	108	10	0	118	6	1	-1	6	6%	11%	-100%	5%	0.6	0.3	1.4	0.6	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
24	Park	B_B	0 0	(	)	0	0	0	0	0	0	0	0	0	0%	0%	0%	0%	0.0	0.0	0.0	0.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
	Roundabout	B_C	1134 20	2 1	1 1	1347	1047	127	8	1182	-87	-75	-3	-165	-8%	-37%	-27%	-12%	2.6	5.8	1.0	4.6	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		C_A	1328 28	0 12	26 1	1734	1470	190	56	1716	142	-90	-70	-18	11%	-32%	-56%	-1%	3.8	5.9	7.3	0.4	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		C_B	692 14	1 1	5	848	667	109	16	792	-25	-32	1	-56	-4%	-23%	7%	-7%	1.0	2.9	0.3	2.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		C_C	4 1	(	)	5	0	0	0	0	-4	-1	0	-5	-100%	-100%	0%	-100%	2.8	1.4	0.0	3.2	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		A	0 0	(	)	0	0	0	0	0	0	0	0	0	0%	0%	0%	0%	0.0	0.0	0.0	0.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		AB	0 0	(	)	0	0	0	0	0	0	0	0	0	0%	0%	0%	0%	0.0	0.0	0.0	0.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		A_C	2 0	(	)	2	0	0	0	0	-2	0	0	-2	-100%	0%	0%	-100%	2.0	0.0	0.0	2.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		A_D	8 0		)	8	2	0	0	2	-6	0	0	-6	-75%	0%	0%	-75%	2.7	0.0	0.0	2.7	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		B_A			<u>,</u>	0	0	0	0	0	0	0	0	0	0%	0%	0%	0%	0.0	0.0	0.0	0.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
	Unnamed	B_B	77 2		, 	00	62	0	1	0	15	12	0	0	10%	0%	0%	0%	0.0	0.0	0.0	0.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
	Road /	B D	557 11			670	516	68	5	580	-15	-13	2	-20	-7%	-02%	67%	-20%	1.0	3.4	1.0	3.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
25	Peacock	C A	0 0			0/0	0	00	0	0	41	42	0	-01	-7 %	-30%	0%	-12 %	1.0	4.5	0.0	0.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
	Lane / Vigar	C B	94 1	1		106	93	5	3	101	-1	-6	2	-5	-1%	-55%	200%	-5%	0.0	2.1	1.4	0.5	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
	Way	 C C	0 0		,	0	0	0	0	0	0	0	0	0	0%	0%	0%	0%	0.0	0.0	0.0	0.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		 C_D	657 10	4 9	, ,	770	636	70	3	709	-21	-34	-6	-61	-3%	-33%	-67%	-8%	0.8	3.6	2.4	2.2	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		 D_A	3 0		,	3	0	0	0	0	-3	0	0	-3	-100%	0%	0%	-100%	2.4	0.0	0.0	2.4	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		D_B	261 4	4 7	· :	312	248	34	2	284	-13	-10	-5	-28	-5%	-23%	-71%	-9%	0.8	1.6	2.4	1.6	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		D_C	486 11	1 9	, ,	606	490	79	14	583	4	-32	5	-23	1%	-29%	56%	-4%	0.2	3.3	1.5	0.9	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		D_D	1 1	(	)	2	0	0	0	0	-1	-1	0	-2	-100%	-100%	0%	-100%	1.4	1.4	0.0	2.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		A_A	0 0	(	)	0	0	0	0	0	0	0	0	0	0%	0%	0%	0%	0.0	0.0	0.0	0.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		A_B	7 3	. (	)	10	10	1	0	11	3	-2	0	1	43%	-67%	0%	10%	1.0	1.4	0.0	0.3	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
	1	A_C	4 C	(	)	4	4	0	0	4	0	0	0	0	0%	0%	0%	0%	0.0	0.0	0.0	0.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		A_D	8 2	. (	)	10	5	0	0	5	-3	-2	0	-5	-38%	-100%	0%	-50%	1.2	2.0	0.0	1.8	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		B_A	7 1	(	)	8	3	2	0	5	-4	1	0	-3	-57%	100%	0%	-38%	1.8	0.8	0.0	1.2	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
	Unnamed	B_	1 0		)	1	0	0	0	0	-1	0	0	-1	-100%	0%	0%	-100%	1.4	0.0	0.0	1.4	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
	Road /	B_C	52 9		,	61	52	4	0	56	0	-5	0	-5	0%	-56%	0%	-8%	0.0	2.0	0.0	0.7	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
26	Реакоск	<u> </u>	559 12	.9 2		1	523	12	0	601	-30	-57	2	-91	-0%	-44%	50%	-13%	1.5	5.7	0.9	3.6	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
	Osprev	<u>С</u> В	157 8		,	166	128	3	1	122	-1	-5	0	-1	-100%	-63%	0%	-70%	1.4	0.0	0.0	1.4	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
	Avenue	<u>6_</u> 0	1 0			1	0	0	0	0	-20	-0	0	-04	-100%	-00%	0%	-100%	2.4	2.1	0.0	2.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		C D	67 3			70	51	4	0	55	-16	1	0	-15	-24%	33%	0%	-21%	2.1	0.5	0.0	1.4	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		D_A	2 1			4	0	0	0	0	-2	-1	-1	-4	-100%	-100%	-100%	-100%	2.0	1.4	1.4	2.8	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		D B	327 4	9 (	; ;	381	315	37	4	356	-12	-12	-1	-25	-4%	-24%	-20%	-7%	0.7	1.8	0.5	1.3	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		 D C	24 3	. (	,	27	25	2	0	27	1	-1	0	0	4%	-33%	0%	0%	0.2	0.6	0.0	0.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		D_	0 0		,	0	0	0	0	0	0	0	0	0	0%	0%	0%	0%	0.0	0.0	0.0	0.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		A_A	1 C	(	)	1	0	0	0	0	-1	0	0	-1	-100%	0%	0%	-100%	1.4	0.0	0.0	1.4	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		A_B	91 1	3 (	)	104	93	6	0	99	2	-7	0	-5	2%	-54%	0%	-5%	0.2	2.3	0.0	0.5	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
	Destant	A_C	463 12	3 1	0	596	459	81	15	555	-4	-42	5	-41	-1%	-34%	50%	-7%	0.2	4.2	1.4	1.7	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
	Реакоск	B_A	189 1	2 (	) :	201	176	7	1	184	-13	-5	1	-17	-7%	-42%	0%	-8%	1.0	1.6	1.4	1.2	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
27	Sparrowha	B_B	2 0	(	)	2	0	0	0	0	-2	0	0	-2	-100%	0%	0%	-100%	2.0	0.0	0.0	2.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
	wk Way	B_C	114 6	. (	)	120	91	2	1	94	-23	-4	1	-26	-20%	-67%	0%	-22%	2.3	2.0	1.4	2.5	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		C_A	562 9	9 1	0	671	554	69	5	628	-8	-30	-5	-43	-1%	-30%	-50%	-6%	0.3	3.3	1.8	1.7	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		C_B	56 5		)	61	55	0	0	55	-1	-5	0	-6	-2%	-100%	0%	-10%	0.1	3.2	0.0	0.8	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
			1 1	3 0	<u> </u>	2	545	92	16	0	-1	-1	0	-2	-100%	-100%	100%	-100%	1.4	1.4	0.0	2.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
	Peakcock	<u>A_B</u>	20 7		,	28	545	2	0	643	-0	-41	0	-39	-170	-33%	100%	-0%	0.3	4.0	2.3	1.5	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
	Lane / Old	R A	603 9	2 1	1	706	602	64	4	670	-10	-28	-7	-36	-73%	-71%	-64%	-75%	4.2	2.4	1.4	5.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
28	Road /	B C	13 3		,	16	1	1	0	2	-12	-2	0	-14	-92%	-67%	0%	-88%	4.5	3.2	2.0	1.4	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
	Waterloo	C A	5 1	) (	,	15	7	5	1	13	2	-5	1	-2	40%	-50%	0%	-13%	4.0	1.4	1.4	4.7	Page	Page	Page	Pace	Pass	Pass	Pass	Pass
	Road	СВ	4 1			6	3	1	0	4	-1	0	-1	-2	-25%	0%	-100%	-33%	0.5	0.0	1.4	0.9	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		 A_B	110 1	) (	,	120	87	8	2	97	-23	-2	2	-23	-21%	-20%	0%	-19%	2.3	0.7	2.0	2.2	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
	A329	A_C	609 13	2 2	1	762	746	109	9	864	137	-23	-12	102	22%	-17%	-57%	13%	5.3	2.1	3.1	3.6	Fail	Pass	Pass	Pass	Fail	Pass	Pass	Pass
20	London Bood /	B_A	184 8	. (	)	192	166	6	4	176	-18	-2	4	-16	-10%	-25%	0%	-8%	1.4	0.8	2.8	1.2	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
29	William	B_C	49 6	; (	)	55	66	2	0	68	17	-4	0	13	35%	-67%	0%	24%	2.2	2.0	0.0	1.7	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
	Heelas Wav	C_A	719 7	7 1	7	813	779	58	10	847	60	-19	-7	34	8%	-25%	-41%	4%	2.2	2.3	1.9	1.2	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
	,	C_B	39 2	. (	)	41	45	1	0	46	6	-1	0	5	15%	-50%	0%	12%	0.9	0.8	0.0	0.8	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
	Plough	AB	151 1	2 '		164	143	7	4	154	-8	-5	3	-10	-5%	-42%	300%	-6%	0.7	1.6	1.9	0.8	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
	Lane / A329	B_A	199 3	2 4		235	162	19	3	184	-37	-13	-1	-51	-19%	-41%	-25%	-22%	2.8	2.6	0.5	3.5	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
30	London	B_C	466 10	5 1	8	589	650	89	6	745	184	-16	-12	156	39%	-15%	-67%	26%	7.8	1.6	3.5	6.0	Fail	Pass	Pass	Fail	Fail	Pass	Pass	Fail
1	Road	C B	614 0	5 4	6	695	10	53	8	7/2	-0	-3	-10	-11	-35%	-18%	-63%	-42%	1.8	2.4 1.0	3.0	∠.4 1 º	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Page
		A B	43 0		Ť	55	19	5	1	25	-24	-4	-2	-30	-56%	-44%	-67%	-55%	43	1.0	1.4	4.7	Pass	Pase	Pase	Pase	Pass	Pase	Pass	Pass
		A C	570 10	4 2	9	703	568	68	12	648	-2	-36	-17	-55	0%	-35%	-59%	-8%	0.1	3.9	3.8	2.1	Pase	Pass	Pass	Pass	Pass	Pass	Pass	Pass
1	1	A D	75 3		,	78	76	0	0	76	1	-3	0	-2	1%	-100%	0%	-3%	0.1	2.4	0.0	0.2	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
1	B3408	B_A	15 5		3	23	5	0	2	7	-10	-5	-1	-16	-67%	-100%	-33%	-70%	3.2	3.2	0.6	4.1	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
1	London	B_C	98 4	3 7		151	104	47	9	160	6	1	2	9	6%	2%	29%	6%	0.6	0.1	0.7	0.7	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
21	Road / John	B_D	9 4	. (	)	13	4	0	0	4	-5	-4	0	-9	-56%	-100%	0%	-69%	2.0	2.8	0.0	3.1	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
31	Nike Way /	C_A	574 9	9 1	9	692	574	66	8	648	0	-33	-11	-44	0%	-33%	-58%	-6%	0.0	3.6	3.0	1.7	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
	Russell	C_B	258 5	3 4		315	247	33	3	283	-11	-20	-1	-32	-4%	-38%	-25%	-10%	0.7	3.0	0.5	1.9	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
	Chase	C_D	8 1	(	)	9	48	5	0	53	40	4	0	44	500%	400%	0%	489%	7.6	2.3	0.0	7.9	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
1	1	D_A	115 3			119	113	5	0	118	-2	2	-1	-1	-2%	67%	-100%	-1%	0.2	1.0	1.4	0.1	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
1	1	B	27 5	(	)	32	24	2	0	26	-3	-3	0	-6	-11%	-60%	0%	-19%	0.6	1.6	0.0	1.1	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
	Huppard	D_C	90 4	(		94	93	10	0	103	3	6	0	9	3%	150%	0%	10%	0.3	2.3	0.0	0.9	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
	Road /	B_C	759 14	8 3	D I	943	/63	124	21	908	4	-24	-15	-35	1%	-16%	-42%	-4%	0.1	2.1	2.8	1.2	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
32	B3408	C_A	45 5	7 (	2	50	0	0	0	0	-45	-5	0	-50	-100%	-100%	0%	-100%	9.5	3.2	0.0	10.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
	London	C_B	827 15	2	< 1	27	870	104	11	985	43	-53	-11	-21	5%	-34%	-50%	-2%	1.5	4.6	2.7	0.7	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
1	1	A_B	40 4			44	∠0 53	3	0	28	-0	-1	0	-9	-22%	-100%	0%	-24%	1.4	1.4	0.0	1.6	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Page
1	Peakcock	R 4	7 4			8	6	2	0	00	-1	-1	0	0	-14%	100%	0%	0%	1.9	0.5	0.0	1.7	Pass	Pass	Pass	Pass	Pass	Pass	Page	Page
33	Lane /	B C	581 13	4		718	525	75	6	606	-56	-59	3	-112	-10%	-44%	100%	-16%	2.4	5.8	1.4	4.4	Pase	Page	Page	Fail	Pass	Pass	Pass	Pass
	Butler Drive	C A	19 1		,	20	19	1	0	20	0	0	0	0	0%	0%	0%	0%	0.0	0.0	0.0	0.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
1	1	C B	473 6	1 6	;	540	435	41	5	481	-38	-20	-1	-59	-8%	-33%	-17%	-11%	1.8	2.8	0.4	2.6	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
	1	A B	409 8	2 1	1	502	370	52	6	428	-39	-30	-5	-74	-10%	-37%	-45%	-15%	2.0	3.7	1.7	3.4	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
	Basingstok	A C	16 0		,	16	17	1	1	19	1	1	1	3	6%	0%	0%	19%	0.2	1.4	1.4	0.7	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
34	e Road /	B_A	663 11	1 1	5	789	718	66	11	795	55	-45	-4	6	8%	-41%	-27%	1%	2.1	4.8	1.1	0.2	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
	Tabby	B_C	8 0		)	8	10	0	0	10	2	0	0	2	25%	0%	0%	25%	0.7	0.0	0.0	0.7	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
	Drive	C A	59 3	(	,	62	50	3	0	53	-9	0	0	-9	-15%	0%	0%	-15%	1.2	0.0	0.0	1.2	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
				_	_	-		<u> </u>																			-			

										Car	LGV	HGV	Total	Car	LGV	HGV	Total	Car	LGV	HGV	Total
									Pass	312	310	305	306	277	286	287	278	318	325	327	318
									Fail	15	17	22	21	10	2	0	12	9	2	0	9
									%Pass	95%	95%	93%	94%	97%	99%	100%	96%	97%	99%	100%	97%

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VISSIM Site	мстс			Obse	erved			Modelle	ł		Diffe	rence			% Dif	ference			GE	EH			TAG Flow	Criterior	1	TAG	GEH or F	-low Crite	erion
ID	Location	Movement	Car	LGV	HGV	Total	Car	LGV HG	V Tota	Car	LGV	HGV	Total	Car	LGV	HGV	Total	Car	LGV	HGV	Total	Car	LGV	HGV	Total	Car	LGV	HGV	Total
		A_A A B	0	0	0	0	0	0 0	0	0	0	0	0	0%	0%	-100%	-100% 284%	0.0	0.0	0.9	0.9	Pass	Pass	Pass	Pass	Pass	Pass Pass	Pass Pass	Pass
		A_C	293	8	2	303	388	21 1	. 420	95	13	9	117	32%	154%	423%	38%	5.1	3.3	3.5	6.1	Pass	Pass	Pass	Fail	Pass	Pass	Pass	Fail
		A_D	351	22	3	377	396	30 5	431	45	8	2	54	13%	34%	54%	14%	2.3	1.5	0.9	2.7	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		A_L A_F	556	53	3	612	557	46 8	611	1	-00	5	-1	0%	-13%	147%	0%	0.1	1.0	2.0	0.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		A_G	0	0	0	0	0	0 0	0	0	0	0	0	0%	0%	0%	0%	0.0	0.0	0.0	0.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		A_H B A	36 0	0	0	36 0	33	0 0	33	-3	0	0	-3 0	-8% 0%	0%	0% 0%	-8% 0%	0.5	0.0	0.0	0.5	Pass	Pass	Pass	Pass	Pass	Pass Pass	Pass Pass	Pass
		B_B	0	0	0	0	0	0 0	0	0	0	0	0	0%	0%	0%	0%	0.0	0.0	0.0	0.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		B_C	10	1	0	11	21	3 1	25	11	2	1	14	109%	115%	0%	119%	2.8	1.1	1.4	3.2	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		B_D B E	92 95	13 5	6	111 100	61 86	9 3 7 0	93	-31	-4	-3	-38	-34% -10%	-28% 40%	-50% 0%	-34% -7%	3.6	1.1	1.4	4.0	Pass	Pass Pass	Pass	Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass
		 B_F	44	18	0	62	50	8 1	59	6	-10	1	-3	14%	-55%	0%	-4%	0.9	2.7	1.4	0.3	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		B_G	0	0	0	0	0	0 0	0	0	0	0	0	0%	0%	0%	0%	0.0	0.0	0.0	0.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		C A	0 249	20	0	1 269	226	25 7	258	-23	-1	0	-1	-9%	-100%	0%	-100%	0.0	1.4	0.0	1.4	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		C_B	5	2	2	9	4	2 0	6	-1	0	-2	-3	-14%	2%	-100%	-34%	0.3	0.0	2.2	1.1	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		C_C	0	0	0	0	0	0 0	0	0	0	0	0	0%	0%	0%	0%	0.0	0.0	0.0	0.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		C_D C E	212	34	0	134 250	80 204	14 2 40 7	96	-19	-20	2	-38	-19%	-59% 6%	0%	-28% 0%	2.0	4.1	2.0	3.5	Pass	Pass	Pass	Pass	Pass	Pass Pass	Pass	Pass
		C_F	303	27	8	338	287	53 2	363	-16	26	15	25	-5%	96%	196%	7%	0.9	4.1	3.9	1.3	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		C_G	0	0	0	0	0	0 0	0	0	0	0	0	0%	0%	0%	0%	0.0	0.0	0.0	0.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		D A	3 497	114	33	3 645	498	48 1	13	10	-66	-14	-80	273%	-58%	-43%	-12%	3.3	0.0	0.0	3.3	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		D_B	35	10	0	45	16	1 1	18	-19	-9	1	-27	-54%	-90%	0%	-60%	3.8	3.9	1.4	4.8	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
1	M4 J11	D_C	53	7	0	60	39	6 1	46	-14	-1	1	-14	-26%	-10%	0%	-23%	2.1	0.3	1.4	1.9	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		D_D D E	475	63	14	35 552	462	61 1	2 535	-19	-16	-2	-35	-100%	-100%	-12%	-100%	0.6	0.3	0.0	8.4 0.7	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		D_G	0	0	0	0	0	0 0	0	0	0	0	0	0%	0%	0%	0%	0.0	0.0	0.0	0.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		D_H	4	0	0	4	9	0 0	9	5	0	0	5	128%	0%	0%	128%	2.0	0.0	0.0	2.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		E_A E_B	23	4	1	28	19	6 0	669 25	-64	-13	-1	-3	-12%	58%	-100%	-12%	3.4 0.9	1.6	2.9	<u>ح.ح</u> 0.6	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		E_C	162	25	6	192	204	22 0	226	42	-3	-6	34	26%	-11%	-100%	18%	3.1	0.6	3.4	2.3	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		E_D	520	104	14	637	592	37 2	631	72	-67	-12	-6	14%	-64%	-85%	-1%	3.1	8.0	4.2	0.2	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		E_F	242	105	0	347	279	48 1	5 342	37	-57	15	-5	15%	-54%	0%	-1%	2.3	6.5	5.5	0.3	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		E_G	0	0	0	0	0	0 0	0	0	0	0	0	0%	0%	0%	0%	0.0	0.0	0.0	0.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		E_H	2	0	0	2	5	0 0	5	3	0	0	3	213%	0%	0%	213%	1.9	0.0	0.0	1.9	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		F_A F_B	31	0	0	31	223	1 0	261	-54	-16	-41	-5	-20%	0%	-78%	-17%	1.2	∠.8 1.4	0.0	5.2 1.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		F_C	358	76	0	434	240	45 3	319	-118	-31	34	-115	-33%	-41%	0%	-27%	6.8	4.0	8.2	5.9	Fail	Pass	Pass	Fail	Fail	Pass	Pass	Fail
		F_E	320	54	0	375	351	40 3	5 427	31	-14	36	52	10%	-27%	0%	14%	1.7	2.1	8.5	2.6	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		F_G	0	0	0	0	0	0 0	0	0	0	0	0	0%	0%	0%	0%	0.0	0.0	0.0	0.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		F_H	0	0	0	0	4	0 0	4	4	0	0	4	0%	0%	0%	0%	2.8	0.0	0.0	2.8	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		H_A	36	5	0	41	18	0 0	18	-18	-5	0	-23	-50%	-100%	0%	-56%	3.5	3.1	0.0	4.2	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		Н_С	18	0	0	18	10	0 0	10	-14	0	0	-12	-45%	0%	0%	-45%	2.2	0.0	0.0	2.2	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		H_D	39	0	0	39	14	2 0	16	-25	2	0	-23	-64%	0%	0%	-59%	4.8	2.0	0.0	4.3	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		H_E	8	0	0	8	12	0 0	12	4	0	0	4	58%	0%	0%	58%	1.4	0.0	0.0	1.4	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		H_G	0	0	0	0	0	0 0	0	0	0	0	0	0%	0%	0%	0%	0.0	0.0	0.0	0.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		H_H	0	0	0	0	0	0 0	0	0	0	0	0	0%	0%	0%	0%	0.0	0.0	0.0	0.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		A_B	449	42	2	493	472	50 1	523	23	8	-1	30	5% 0%	-29%	-50%	6%	1.1	1.2	0.8	1.3	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
2		B_A	409	69	1	479	394	46 2	442	-15	-23	1	-37	-4%	-33%	100%	-8%	0.1	3.0	0.8	1.7	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
3		B_C	188	26	0	214	176	9 0	185	-12	-17	0	-29	-6%	-65%	0%	-14%	0.9	4.1	0.0	2.1	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		C_A	1265	192	24	1481	1343	126 3 8 0	. 1500	78	-66	7	19 4	6% 9%	-34%	29% -100%	1% 2%	2.2	5.2	1.3	0.5	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		A_B	295	28	2	325	293	25 0	318	-2	-3	-2	-7	-1%	-11%	-100%	-2%	0.1	0.6	2.0	0.4	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		A_C	298	36	2	336	344	32 1	377	46	-4	-1	41	15%	-11%	-50%	12%	2.6	0.7	0.8	2.2	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
4		B_A B_C	199 84	20	2	221 86	195 87	16 0 3 0	211	-4	-4	-2	-10	-2% 4%	-20%	-100%	-5% 5%	0.3	0.9	2.0	0.7	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		C_A	402	83	0	485	371	37 2	410	-31	-46	2	-75	-8%	-55%	0%	-15%	1.6	5.9	2.0	3.5	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		C_B	77	7	0	84	77	0 0	77	0	-7	0	-7	0%	-100%	0%	-8%	0.0	3.7	0.0	0.8	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		A_A A B	0 142	1 11	0	2 153	108	7 0	115	-34	-1	0	-2	-24%	-37%	-100%	-100%	0.0	1.7	0.4	1.8	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		A_C	115	9	0	124	105	9 1	115	-10	0	1	-9	-9%	2%	614%	-7%	0.9	0.0	1.1	0.8	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		A_D	170	14	0	184	140	10 0	150	-30	-4	0	-34	-17%	-30%	-100%	-19%	2.4	1.2	0.5	2.6	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		A_E A_F	128	7	0	135	12	11 0	13	-8	4	0	-8	-39%	67%	-100%	-38% 9%	0.7	1.5	0.0	1.9	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		A_G	10	0	0	10	12	0 0	12	2	0	0	2	25%	0%	0%	25%	0.7	0.0	0.0	0.7	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		B_A	83	9	0	92	76 0	2 0	78	-7	-7	0	-14	-9%	-77%	0%	-15%	0.8	2.9	0.0	1.5	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		B_C	67	4	1	72	80	12 2	94	13	8	1	22	19%	218%	173%	31%	1.5	2.9	1.1	2.5	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		B_D	297	27	2	325	302	22 0	324	5	-5	-2	-1	2%	-17%	-100%	0%	0.3	0.9	1.8	0.1	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		B_E B_F	34	3	0	37	30 490	0 0	30	-4	-3 22	0	-7	-11% 9%	-100%	0% 1638%	-19% 18%	0.7	2.6	0.0	1.2	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		B_G	29	1	0	30	22	2 0	24	-7	1	0	-6	-25%	120%	0%	-20%	1.4	0.9	0.0	1.2	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		C_A	78	6	1	85	96	11 0	107	18	5	-1	22	23%	69%	-100%	26%	1.9	1.5	1.2	2.2	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		C_B	0	4	0	108	04 0	/ 1 0 0	72 0	-38	3	0	-36	-38% 0%	74% 0%	-8% 0%	-33% 0%	4.2	1.3 0.0	0.1	3.7 0.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		C_D	9	1	0	10	2	1 0	3	-7	0	0	-7	-78%	-30%	0%	-71%	3.0	0.4	0.0	2.8	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		C_E	4	0	0	4	2	0 0	2	-2	0	0	-2	-55%	0%	0%	-55%	1.4	0.0	0.0	1.4	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		C_G	3	0	0	3	9	1 0	10	6	1	0	-18	225%	0%	0%	262%	2.6	1.4	0.0	2.9	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		D_A	126	4	0	131	97	8 0	105	-29	4	0	-26	-23%	83%	0%	-20%	2.8	1.5	0.0	2.4	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		D_B	241	29	0	270	212	13 5	230	-29	-16	5	-40	-12%	-55%	0%	-15%	1.9	3.5	3.2	2.5	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
5	Boy Rounda	D_D	2	0	0	2	0	0 0	3	-4	0	0	-2	-100%	0%	0%	-100%	2.2	0.0	0.0	2.2	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		D_E	13	1	0	15	19	1 0	20	6	0	0	5	42%	-23%	0%	36%	1.4	0.3	0.0	1.3	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		D_F	126	18	2	145 8	106	15 2	123	-20	-3	0	-22	-16%	-15%	30%	-15%	1.8	0.7	0.3	1.9	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		E_A	13	1	0	15	7	3 0	10	-6	2	0	-5	-48%	117%	0%	-32%	2.0	1.1	0.0	1.4	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		E_B	19	3	0	23	18	0 0	18	-1	-3	0	-5	-8%	-100%	0%	-21%	0.3	2.6	0.0	1.1	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		E_C E D	0	0	0	0	1	0 0	1	-15	-1	-1	-17	0% -65%	0%	0% -100%	0% -68%	1.4 २०	0.0	0.0	1.4	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		EE	0	0	0	0	0	0 0	0	0	0	0	0	0%	0%	0%	0%	0.0	0.0	0.0	0.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		E_F	12	0	0	12	22	3 0	25	10	3	0	13	81%	0%	0%	106%	2.4	2.4	0.0	3.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		E_G F A	2	0	0	2 94	0 75	0 0	0 , 1	-2	-7	0	-2	-100%	0% -28%	0% 0%	-100% -14%	2.0	0.0	0.0	2.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		F_B	605	72	6	683	565	52 4	657	-40	-20	34	-26	-7%	-27%	623%	-4%	1.7	2.5	7.2	1.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		F_C	157	25	5	187	178	27 5	210	21	2	0	23	13%	8%	3%	12%	1.6	0.4	0.1	1.6	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		F_D F E	100 33	13	1	114 38	120 29	11 0 0 0	131	20 -4	-2	-1	-9	20%	-18%	-100% 0%	14% -23%	1.9	0.7	1.6	1.5	Pass	Pass	Pass	Pass	Pass	Pass	Pass Pass	Pass Pass
		 F_F	0	0	0	0	0	0 0	0	0	0	0	0	0%	0%	0%	0%	0.0	0.0	0.0	0.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		F_G	36	1	0	37	20	1 0	21	-16	0	0	-16	-44%	0%	0%	-43%	3.0	0.0	0.0	2.9	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		G_A G_B	19 49	0	0	19 50	18 43	0 n	19	-1	-1	0	-7	-4% -13%	0% -100%	-100% -100%	0% -15%	0.2	1.4	0.6	0.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		G_C	9	0	0	9	16	2 0	18	7	2	0	9	77%	0%	-100%	93%	2.0	2.0	0.7	2.3	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		G_D	13	0	0	13	20	0 0	20	7	0	0	7	53%	0%	-100%	49%	1.7	0.0	0.8	1.6	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		G_E G_F	0 76	0	0	0 79	0	U 0	0	-17	0	0	-18	0% -27%	0% -12%	0% -100%	0% -27%	0.0	0.0	0.0	0.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		GG	0	0	0	0	0	0 0	0	0	0	0	0	0%	0%	0%	0%		0.0	0.0	0.0	Pass	Pace	Pace	Bacc	Pass	Pass	Pass	Pass

VISSIM Site	мстс	Movement		Obse	erved			Mode	elled			Diffe	rence			% Dif	ference			GI	EH			TAG Flow	Criterio	n	TAG	GEH or F	low Crite	rion
ID	Location		Car	LGV	HGV	Total	Car		HGV	Total	Car		HGV		Car 0%	LGV	HGV	Total	Car	LGV	HGV	Total	Car	LGV	HGV	Total	Car	LGV	HGV	Total Pass
		A_B	6	1	0	7	3	0	0	3	-3	-1	0	-4	-50%	-100%	0%	-57%	1.4	1.4	0.0	1.8	Pass							
		A_C	1	0	0	1	0	0	0	0	-1	0	0	-1	-100%	0%	0%	-100%	1.4	0.0	0.0	1.4	Pass							
		A_D B A	45	9	0	54 4	38	1	0	39	-7 -1	-8 -1	0	-15	-16%	-89%	0%	-28%	1.1	3.6	0.0	2.2	Pass							
		B_B	2	0	0	2	0	0	0	0	-2	0	0	-2	-100%	0%	0%	-100%	2.0	0.0	0.0	2.0	Pass							
		B_C	7	1	0	8	8	1	0	9	1	0	0	-15	14%	0%	0%	13%	0.4	0.0	0.0	0.3	Pass							
6	astern Relief	C_A	0	0	0	0	0	2	0	2	0	2	0	2	0%	0%	0%	0%	0.5	2.0	0.0	2.0	Pass							
		C_B	5	1	0	6	22	0	0	22	17	-1	0	16	340%	-100%	0%	267%	4.6	1.4	0.0	4.3	Pass							
		C_C	1 34	0	0	35	0 20	0	0	0	-1	0	0	-1	-100%	0% 800%	0%	-100%	1.4	0.0	0.0	1.4	Pass							
		D_A	4	3	0	7	7	5	0	12	3	2	0	5	75%	67%	0%	71%	1.3	1.0	0.0	1.6	Pass							
		D_B	315	35	5	355	355	45	8	408	40	10	3	53	13%	29%	60%	15%	2.2	1.6	1.2	2.7	Pass							
		D_C D_D	1	0	0	1	0	0	0	0	-15	-1	0	-16	-42%	-50%	0%	-42%	2.8	0.8	0.0	2.9	Pass							
		A_A	1	1	0	2	0	0	0	0	-1	-1	0	-2	-100%	-100%	0%	-100%	1.4	1.4	0.0	2.0	Pass							
		A_B	72	5	0	77	66 20	8	0	74	-6 2	3	0	-3	-8%	60%	0%	-4%	0.7	1.2	0.0	0.3	Pass							
		B_A	122	18	0	140	99	5	0	104	-23	-13	0	-36	-19%	-72%	0%	-26%	2.2	3.8	0.0	3.3	Pass							
10	/ B3270 Low	B_B	1	0	0	1	0	0	0	0	-1	0	0	-1	-100%	0%	0%	-100%	1.4	0.0	0.0	1.4	Pass							
		C A	654 40	85	6	44	656 25	115 6	38	809 31	-15	30	32	-13	-38%	35% 50%	533% 0%	9% -30%	0.1	3.0	6.8 0.0	2.3	Pass							
		C_B	689	65	2	756	490	55	45	590	-199	-10	43	-166	-29%	-15%	2150%	-22%	8.2	1.3	8.9	6.4	Fail	Pass	Pass	Fail	Fail	Pass	Pass	Fail
		C_C	0	1	0	1	0	0	0	0	0	-1	0	-1	-100%	-100%	0%	-100%	0.0	1.4	0.0	1.4	Pass							
		A_A A_B	129	11	1	141	93	14	0	107	-36	3	-1	-34	-28%	27%	-100%	-24%	3.4	0.8	1.4	3.1	Pass							
		A_C	586	77	4	667	585	102	38	725	-1	25	34	58	0%	32%	850%	9%	0.0	2.6	7.4	2.2	Pass							
		A_D B_A	293	32	0	325 128	109	18	2	250	-67	-10	2	-75	-23%	-31% 6%	0%	-23%	4.2	1.9	2.0	4.4	Pass							
		B_B	0	0	0	0	0	0	0	0	0	0	0	0	0%	0%	0%	0%	0.0	0.0	0.0	0.0	Pass							
		B_C	156	20	1	177	153	8	0	161	-3	-12	-1	-16	-2%	-60%	-100%	-9%	0.2	3.2	1.4	1.2	Pass							
11	y Way / Mill I	C_A	541	51	1	593	427	57	45	529	-114	6	44	-64	-21%	12%	4400%	-11%	5.2	0.8	9.2	2.7	Fail	Pass	Pass	Pass	Fail	Pass	Pass	Pass
		C_B	106	7	0	113	65	2	0	67	-41	-5	0	-46	-39%	-71%	0%	-41%	4.4	2.4	0.0	4.8	Pass							
		C_D	72	6	0	78	65	4	0	0 69	-2	-2	0	-2	-100%	-33%	0%	-100%	2.0 0.8	0.0	0.0	2.0	Pass							
		D_A	277	26	0	303	229	18	0	247	-48	-8	0	-56	-17%	-31%	0%	-18%	3.0	1.7	0.0	3.4	Pass							
		D_B D_C	117 63	12	0	129 68	80 47	8	0	88 53	-37	-4	0	-41	-32%	-33% 20%	0%	-32% -22%	3.7	1.3	0.0	3.9	Pass							
		D_D	0	0	0	0	0	0	0	0	0	0	0	0	0%	0%	0%	0%	0.0	0.0	0.0	0.0	Pass							
		A_B	284	31	0	315	332	29	2	363	48	-2	2	48	17%	-6%	0%	15%	2.7	0.4	2.0	2.6	Pass							
		B_A	270	26	6	302	262	32	38 10	877 304	-79	20 6	4	-24	-10%	23%	67%	-5% 1%	2.9 0.5	2.0	1.4	0.8	Pass							
12	y Way North	B_C	206	25	1	232	178	21	1	200	-28	-4	0	-32	-14%	-16%	0%	-14%	2.0	0.8	0.0	2.2	Pass							
		C_A	629 309	69 25	1	699 334	512 253	73	44	629	-117	-8	43	-70	-19%	-32%	4300%	-10%	4.9	0.5	9.1	2.7	Fail	Pass						
		A_A	1	0	0	1	0	0	0	0	-1	0	0	-1	-100%	0%	0%	-100%	1.4	0.0	0.0	1.4	Pass							
		A_B	308	25	3	336	325	24	1	350	17	-1	-2	14	6%	-4%	-67%	4%	1.0	0.2	1.4	0.8	Pass							
		A_C A_D	169	19	2	188	247	110	38	818 265	-53 78	-3	36	77	-7%	-16%	1800%	2% 41%	2.0	3.8	8.0 2.0	0.7	Pass Pass	Pass Pass	Pass Pass	Pass Pass	Pass	Pass	Pass	Pass
		B_A	150	17	1	168	125	14	2	141	-25	-3	1	-27	-17%	-18%	100%	-16%	2.1	0.8	0.8	2.2	Pass							
		B_B	2	0	0	2	0	0	0	0	-2	0	0	-2	-100%	0%	0%	-100%	2.0	0.0	0.0	2.0	Pass							
12	D	B_C B_D	351	36	0	387	375	16	0	391	24	-20	0	4	7%	-56%	0%	1%	1.8	3.9	0.0	0.2	Pass							
13	, KOAG / B327	C_A	384	51	6	441	360	60	53	473	-24	9	47	32	-6%	18%	783%	7%	1.2	1.2	8.7	1.5	Pass							
		С_В	122	8	0	130	95	4	1	100 0	-27	-4 0	1 0	-30	-22%	-50% 0%	0%	-23%	2.6	1.6 0.0	1.4 0.0	2.8	Pass Pass							
		C_D	403	37	0	440	319	42	1	362	-84	5	1	-78	-21%	14%	0%	-18%	4.4	0.8	1.4	3.9	Pass							
		D_A D_B	183 326	28	1	212 357	137 299	9 10	0	211	-46 -27	-19	-1	-66 -46	-25% -8%	-68%	-100%	-31%	3.6	4.4	1.4	4.9	Pass							
		D_C	177	28	0	205	222	20	0	242	45	-8	0	37	25%	-29%	0%	18%	3.2	1.6	0.0	2.5	Pass							
		D_D	10	1	0	11	0	0	0	0	-10	-1	0	-11	-100%	-100%	0%	-100%	4.5	1.4	0.0	4.7	Pass							
		A_D A_C	371	37	1	409	324	35	7	39	-47	-2	6	-43	-13%	-5%	600%	-11%	2.5	0.3	1.4 3.0	2.2	Pass							
14	) / Warfedale	B_A	536	54	7	597	675	31	0	706	139	-23	-7	109	26%	-43%	-100%	18%	5.6	3.5	3.7	4.3	Fail	Pass	Pass	Fail	Fail	Pass	Pass	Pass
		C_A	620	82 94	3	721	920 568	112 78	32 53	1064 699	-52	-16	46	-22	-8%	-17%	967% 657%	-3%	3.2	3.0	6.9 8.4	4.9 0.8	Pass Pass	Pass Pass	Pass Pass	Fail Pass	Pass	Pass	Pass	Pass
		C_B	76	5	0	81	53	5	3	61	-23	0	3	-20	-30%	0%	0%	-25%	2.9	0.0	2.4	2.4	Pass							
		A_A	1 546	0	0	621	0	0	0 39	0 730	-1 32	0	0	-1 109	-100%	0% 64%	0% 550%	-100% 18%	1.4	0.0	0.0	1.4	Pass							
		A_C	210	26	0	236	146	10	0	156	-64	-16	0	-80	-30%	-62%	0%	-34%	4.8	3.8	0.0	5.7	Pass							
101		B_A	642	69	2	713	478	59	47	584	-164	-10	45	-129	-26%	-14%	2250%	-18%	6.9	1.3	9.1	5.1	Fail	Pass	Pass	Fail	Fail	Pass	Pass	Fail
191	Earley way /	<u>В_В</u> В_С	495	44	1	540	524	20	0	0 544	29	-24	-1	-1	-100%	-55%	-100%	1%	1.4	4.2	0.0	0.2	Pass Pass	Pass	Pass Pass	Pass	Pass	Pass	Pass	Pass
		C_A	147	9	0	156	124	8	0	132	-23	-1	0	-24	-16%	-11%	0%	-15%	2.0	0.3	0.0	2.0	Pass							
		C_B C_C	415	31	1	447	425	24 0	0	449 0	10	-7	-1 0	0	2% 0%	-23% 0%	-100% 0%	0%	0.5	1.3 0.0	1.4 0.0	0.1	Pass	Pass	Pass	Pass	Pass	Pass Pass	Pass Pass	Pass
		A_A	0	0	0	0	0	0	0	0	0	0	0	0	0%	0%	0%	0%	0.0	0.0	0.0	0.0	Pass							
		A_B A_C	37 104	0	0	37	19 61	3	0	22 67	-18 -43	3	0	-15	-49%	0%	0%	-41% -39%	3.4	2.4	0.0	2.8	Pass							
	1	 B_A	22	0	0	22	13	0	0	13	-9	0	0	-9	-41%	0%	0%	-41%	2.2	0.0	0.0	2.2	Pass							
192	/ B3270 Low	B_B	1	1	0	2	0	0	0	0	-1	-1	0	-2 73	-100% 2%	-100%	0%	-100%	1.4	1.4	0.0	2.0	Pass							
		C_A	109	8	0	117	102	10	3	115	-7	2	3	-2	-6%	25%	0%	-2%	0.7	0.7	2.4	0.2	Pass							
		C_B	687	70	2	759	500	57	44	601	-187	-13	42	-158	-27%	-19%	2100%	-21%	7.7	1.6	8.8	6.1	Fail	Pass	Pass	Fail	Fail	Pass	Pass	Fail
		A_B	257	27	0	284	215	16	0	231	-1	-11	0	-2	-16%	-41%	0%	-100%	1.4 2.7	1.4 2.4	0.0	2.0 3.3	Pass							
		A_C	42	11	1	54	34	9	1	44	-8	-2	0	-10	-19%	-18%	0%	-19%	1.3	0.6	0.0	1.4	Pass							
20	Wood Lane	B_A B_C	218 720	30 86	1 8	249 814	217 783	33 123	0 39	250 945	-1 63	3 37	-1 31	1 131	0% 9%	10% 43%	-100% 388%	0% 16%	0.1	0.5	1.4 6.4	0.1	Pass	Pass	Pass	Pass	Pass	Pass Pass	Pass Pass	Pass
		 C_A	96	19	0	115	90	13	4	107	-6	-6	4	-8	-6%	-32%	0%	-7%	0.6	1.5	2.8	0.8	Pass							
		C_B	816 429	66 37	7	889	803 394	84 31	43 1	930 426	-13	18	36	41	-2%	27%	514% 0%	5% -9%	0.5	2.1	7.2	1.4	Pass							
		A_C	190	16	4	210	197	15	0	+26 212	7	-1	-4	2	4%	-6%	-100%	1%	0.5	0.3	2.8	0.1	Pass							
21	Lane / Brook	B_A	360	31	0	391	241	18	0	259	-119	-13	0	-132	-33%	-42%	0%	-34%	6.9	2.6	0.0	7.3	Fail	Pass	Pass	Fail	Fail	Pass	Pass	Fail
		B_C C_A	53 173	16	0	61 189	44 199	/ 18	7	51 224	-9 26	2	-1	-10	-17%	13%	-100%	-16% 19%	1.3 1.9	0.0 0.5	1.4 3.7	1.3 2.4	Pass							
		C_B	40	6	0	46	2	0	0	2	-38	-6	0	-44	-95%	-100%	0%	-96%	8.3	3.5	0.0	9.0	Pass							
		A_A	1	21	0	2	0	0 19	0	0	-1	-1	0	-2	-100%	-100%	0%	-100%	1.4	1.4	0.0	2.0	Pass							
		A_C	377	21	0	403	362	31	1	143 394	-15	5	1	-9	-4%	19%	0%	-2%	4.5 0.8	0.7	1.4	4.4 0.5	Pass							
		A_D	438	39	6	483	457	47	5	509	19	8	-1	26	4%	21%	-17%	5%	0.9	1.2	0.4	1.2	Pass							
		B_B	145	8	1	154	165 0	5	2	172 0	-1	-3 -1	1	-2	14% -100%	-38% -100%	100% 0%	12% -100%	1.6 1.4	1.2 1.4	0.8	1.4 2.0	Pass	Pass	Pass Pass	Pass Pass	Pass	Pass Pass	Pass Pass	Pass
22	Beech Rouse	 B_C	334	22	3	359	385	25	0	410	51	3	-3	51	15%	14%	-100%	14%	2.7	0.6	2.4	2.6	Pass							
~~		C_A	312	37	0	349	323	24 27	1	348	11	-13	1	-1 20	4%	-35%	0%	0%	0.6	2.4	1.4	0.1	Pass							
		C_C	7	0	0	7	0	0	, 0	ى <del>44</del> 0	-7	0	0	-7	-100%	0%	0%	-100%	3.7	0.2	3.0 0.0	3.7	Pass							
		C_D	301	27	6	334	363	31	0	394	62	4	-6	60	21%	15%	-100%	18%	3.4	0.7	3.5	3.1	Pass							
		D_A D_C	426	48	7	481 476	422 290	44 25	8 5	474 320	-4 -129	-4 -25	-2	-7	-1% -31%	-8% -50%	14% -29%	-1%	0.2	0.6 4,1	0.4 0.8	0.3	Pass Fail	Pass	Pass Pass	Pass Fail	Fail	Pass	Pass	Pass Fail
		D_D	2	0	0	2	0	0	0	0	-2	0	0	-2	-100%	0%	0%	-100%	2.0	0.0	0.0	2.0	Pass							
		A_B	124	11	0	135	103	16	0	119	-21	5	0	-16	-17%	45%	0%	-12%	2.0	1.4	0.0	1.4	Pass							
	10 / 10000 -	B_A	164	19	0	183	119	14	0	133	-45	-5	0	-50	-27%	-26%	0%	-27%	3.8	1.4	0.0	4.0	Pass							
23	ue / A329 Lor	B_C	952	77	10	1039	848	61	6	915	-104	-16	-4	-124	-11%	-21%	-40%	-12%	3.5	1.9	1.4	4.0	Pass							
	1	C_A C_B	41	3	0	44 872	33 897	U 66	U	33	-8 108	-3	0	-11	-20%	-100%	0%	-25%	1.3	2.4	0.0	1.8	Pass							

VISSIM Site	мстс			Obs	erved			Modell	d		Diffe	erence		RNING FL	OW VALII % Difi	DATION ference			GI	EH			TAG Flow	/ Criterior	ı	TAG	GEH or F	low Crite	rion
ID	Location	Movement	Car	LGV	HGV	Total	Car	LGV H	SV Tota	I Car	LGV	HGV	Total	Car	LGV	HGV	Total	Car	LGV	HGV	Total	Car	LGV	HGV	Total	Car	LGV	HGV	Total
		A_A	1	0	0	1	0	0	) 0	-1	0	0	-1	-100%	0%	0%	-100%	1.4	0.0	0.0	1.4	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		A_B	127	6	0	133	130	11	) 14:	3	5	0	8	2%	83%	0%	6%	0.3	1.7	0.0	0.7	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		A_C B A	1192	149	/2	1413	30	140 2	0 139	2 40	-9	-52	-21	-47%	-6%	-72%	-1%	1.1	0.7	7.7	0.6	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
24	t's Park Roun	B B	1	0	0	1	0	0	) 0	-1	0	0	-1	-100%	0%	0%	-100%	1.4	0.0	0.0	1.4	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		B_C	881	121	6	1008	756	101 1	1 868	-125	i -20	5	-140	-14%	-17%	83%	-14%	4.4	1.9	1.7	4.6	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		C_A	1247	199	83	1529	1022	136 4	4 120	2 -225	63	-39	-327	-18%	-32%	-47%	-21%	6.7	4.9	4.9	8.8	Fail	Pass	Pass	Fail	Fail	Pass	Pass	Fail
		C_B	966	133	4	1103	856	124 1	4 994	-110	) -9	10	-109	-11%	-7%	250%	-10%	3.6	0.8	3.3	3.4	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
			5	1	0	0	0	0		-5	-1	0	-6	-100%	-100%	0%	-100%	3.2	1.4	0.0	3.5	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		A_B	1	0	0	1	5	0	) 5	4	0	0	4	400%	0%	0%	400%	2.3	0.0	0.0	2.3	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		A_C	2	0	0	2	0	0	) 0	-2	0	0	-2	-100%	0%	0%	-100%	2.0	0.0	0.0	2.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		A_D	3	1	0	4	0	0	) 0	-3	-1	0	-4	-100%	-100%	0%	-100%	2.4	1.4	0.0	2.8	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		B_A	0	0	0	0	0	0	) 0	0	0	0	0	0%	0%	0%	0%	0.0	0.0	0.0	0.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		B_B	119	11	0	130	147	7	$\frac{0}{15}$	-1	-4	0	-1	-100%	-36%	0%	-100%	1.4	0.0	0.0	1.4	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		B_D	409	58	3	470	281	47	5 333	-128	-11	2	-137	-31%	-19%	67%	-29%	6.9	1.5	1.0	6.8	Fail	Pass	Pass	Fail	Fail	Pass	Pass	Fail
25	I / Peacock La	C_A	2	0	0	2	0	0	) 0	-2	0	0	-2	-100%	0%	0%	-100%	2.0	0.0	0.0	2.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		C_B	107	14	0	121	255	30	) 28	148	16	0	164	138%	114%	0%	136%	11.0	3.4	0.0	11.5	Fail	Pass	Pass	Fail	Fail	Pass	Pass	Fail
		C_C	3	0	0	3	0	0	) ()	-3	0	0	-3	-100%	0%	0%	-100%	2.4	0.0	0.0	2.4	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
			535	74	3	20	518	62	587	-17	-12	4	-25	-3%	-16%	133%	-4%	0.7	1.5	1.8	1.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		D_B	360	47	3	410	304	55	360	-56	8	-2	-50	-16%	17%	-67%	-12%	3.1	1.1	1.4	2.5	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		D_C	716	85	1	802	674	79 1	3 766	-42	-6	12	-36	-6%	-7%	1200%	-4%	1.6	0.7	4.5	1.3	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		D_D	1	0	0	1	0	0	) 0	-1	0	0	-1	-100%	0%	0%	-100%	1.4	0.0	0.0	1.4	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		A_A	0	0	0	0	0	0	) ()	0	0	0	0	0%	0%	0%	0%	0.0	0.0	0.0	0.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
1	1	A_B	19	2	0	21	3	0		-19	-2	0	-21	-100%	-100%	0%	-100%	6.2	2.0	0.0	6.5	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
1	1	A_D	3	2	0	5	4	0	) 4	1	-2	0	-1	33%	-100%	0%	-20%	0.5	2.0	0.0	0.5	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		B_A	21	2	0	23	28	1	) 29	7	-1	0	6	33%	-50%	0%	26%	1.4	0.8	0.0	1.2	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		B_B	2	0	0	2	0	0	0 0	-2	0	0	-2	-100%	0%	0%	-100%	2.0	0.0	0.0	2.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		B_C	97	6	0	103	90	3	93	-7	-3	0	-10	-7%	-50%	0%	-10%	0.7	1.4	0.0	1.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
26	Peakock Lane	L B_D	506	67	3	5/6	412	0	469	-94	-15	2	-107	-19%	-22%	ь/% 0%	-19%	4.4	1.9	1.0	4.7	Pass	Pass	Pass	Fail	Pass	Pass	Pass	Pass
		C_B	76	6	0	82	49	4	) 53	-27	-2	0	-29	-36%	-33%	0%	-35%	3.4	0.9	0.0	3.5	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		C_C	0	0	0	0	0	0	) 0	0	0	0	0	0%	0%	0%	0%	0.0	0.0	0.0	0.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		C_D	21	0	0	21	15	1	) 16	-6	1	0	-5	-29%	0%	0%	-24%	1.4	1.4	0.0	1.2	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		D_A	12	3	0	15	9	2	) 11	-3	-1	0	-4	-25%	-33%	0%	-27%	0.9	0.6	0.0	1.1	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		D_B	396	3	3	455	512	79	. 592	-10	23	-2	-8	-19%	41% 67%	-67%	-14%	5.4	2.8	1.4	6.0	Fail	Pass	Pass	Fail	Pass	Pass	Pass	Pace
		D D	1	0	0	1	-45	0	) 48	-10	0	0	-0	-100%	0%	0%	-100%	1.4	0.0	0.0	1.1	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		 A_A	0	0	0	0	0	0	) 0	0	0	0	0	0%	0%	0%	0%	0.0	0.0	0.0	0.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		A_B	194	20	0	214	194	15	209	0	-5	0	-5	0%	-25%	0%	-2%	0.0	1.2	0.0	0.3	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		A_C	650	75	1	726	626	73 1	3 712	-24	-2	12	-14	-4%	-3%	1200%	-2%	1.0	0.2	4.5	0.5	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
27	ne / Sparrow	B_A	101	6	0	107	77	9	86	-24	-1	0	-21	-24%	-100%	0%	-20%	2.5	1.1	0.0	2.1	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
27	ne / spanow	<u>В</u> С	43	3	0	46	30	2	) 32	-13	-1	0	-14	-30%	-33%	0%	-30%	2.2	0.6	0.0	2.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		C_A	551	85	3	639	700	84	7 79:	149	-1	4	152	27%	-1%	133%	24%	6.0	0.1	1.8	5.7	Fail	Pass	Pass	Fail	Fail	Pass	Pass	Fail
		C_B	62	4	0	66	44	5	) 49	-18	1	0	-17	-29%	25%	0%	-26%	2.5	0.5	0.0	2.2	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		C_C	2	0	0	2	0	0	0 0	-2	0	0	-2	-100%	0%	0%	-100%	2.0	0.0	0.0	2.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		A_B	647	6/	2	/16	602 51	72 1	2 686	-45	-2	10	-30	-7%	-40%	500%	-4%	1.8	0.6	3.8	1.1	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		B_A	557	83	1	641	608	83	69	51	0	3	54	9%	0%	300%	8%	2.1	0.0	1.4	2.8	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
28	Wokingham F	 В_С	29	1	2	32	55	1	) 56	26	0	-2	24	90%	0%	-100%	75%	4.0	0.0	2.0	3.6	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		C_A	35	3	1	39	148	6	3 15	113	3	2	118	323%	100%	200%	303%	11.8	1.4	1.4	11.9	Fail	Pass	Pass	Fail	Fail	Pass	Pass	Fail
		C_B	15	3	1	19	21	0	) 21	6	-3	-1	2	40%	-100%	-100%	11%	1.4	2.4	1.4	0.4	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		A_B	871	73	10	954	75	3 60	) 78 5 830	-35	-13	-4	-36	-32%	-25%	-40%	-32%	3.6	0.5	0.0	3.7	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		B_A	71	2	0	73	238	8	+ 250	167	6	4	177	235%	300%	0%	242%	13.4	2.7	2.8	13.9	Fail	Pass	Pass	Fail	Fail	Pass	Pass	Fail
29	Road / Willia	B_C	21	3	0	24	17	0	) 17	-4	-3	0	-7	-19%	-100%	0%	-29%	0.9	2.4	0.0	1.5	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		C_A	749	74	7	830	704	59	5 768	-45	-15	-2	-62	-6%	-20%	-29%	-7%	1.7	1.8	0.8	2.2	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		C_B	36	4	0	40	18	0	) 18	-18	-4	0	-22	-50%	-100%	0%	-55%	3.5	2.8	0.0	4.1	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		A_B B 4	93	4	0	97	111	16	13:	-47	12	4	-47	-27%	300%	0%	35% -25%	1.8	3.8	2.8	3.2	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
30	ne / A329 Lor	B_C	717	60	10	787	665	43	5 714	-52	-17	-4	-73	-7%	-28%	-40%	-9%	2.0	2.4	1.4	2.7	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
1		C_A	15	1	0	16	3	0	) 3	-12	-1	0	-13	-80%	-100%	0%	-81%	4.0	1.4	0.0	4.2	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		C_B	707	74	7	788	615	42	658	-92	-32	-6	-130	-13%	-43%	-86%	-16%	3.6	4.2	3.0	4.8	Pass	Pass	Pass	Fail	Pass	Pass	Pass	Pass
		A_B	37	9	0	46	19	2	21	-18	-7	0	-25	-49%	-78%	0%	-54%	3.4	3.0	0.0	4.3	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
	1	A D	22	1	0	23	50	0	) 50	-5	-1	0	27	127%	-100%	0%	117%	4.7	1.4	2.1	4.5	Pase	Pass	Pass	Pass	Pass	Pass	Pass	Pass
1	1	 B_A	21	3	0	24	7	0	) 7	-14	-3	0	-17	-67%	-100%	0%	-71%	3.7	2.4	0.0	4.3	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		B_C	298	16	2	316	277	19	) 296	-21	3	-2	-20	-7%	19%	-100%	-6%	1.2	0.7	2.0	1.1	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
31	/ John Nike	B_D	22	1	0	23	25	1	26	3	0	0	3	14%	0%	0%	13%	0.6	0.0	0.0	0.6	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
1		C B	/13	10	3	143	690 an	44 1	1 74	-23	-26	8	-41	-3%	-37%	∠6/% -100%	-5%	0.9	3.4	3.0	1.5	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
1	1	C_D	6	1	0	7	67	6	) 73	61	5	0	66	1017%	500%	0%	943%	10,1	2.7	0.0	10.4	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
1	1	D_A	42	1	0	43	43	0	) 43	1	-1	0	0	2%	-100%	0%	0%	0.2	1.4	0.0	0.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		D_B	19	0	0	19	1	1	) 2	-18	1	0	-17	-95%	0%	0%	-89%	5.7	1.4	0.0	5.2	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		D_C	43	4	0	47	39	4	) 43	-4	0	0	-4	-9%	0%	0%	-9%	0.6	0.0	0.0	0.6	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
22	ad / 83408 -	B_C	993	85	5	1083	967	94	106	9 -26	9	3	-14	-3%	11%	60%	-1%	0.8	1.0	1.2	0.4	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
32	au / 03408 Li	С.В	826	90	8	924	863	69 1	, <u>0</u> 0 04'	-49	-21	2	-50	4%	-23%	25%	-100%	9.9	1.4 24	0.0	10.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		A_B	24	4	0	28	5	0	) 5	-19	-4	0	-23	-79%	-100%	0%	-82%	5.0	2.4	0.0	5.7	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
	1	A_C	24	4	0	28	9	8	) 17	-15	4	0	-11	-63%	100%	0%	-39%	3.7	1.6	0.0	2.3	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
33	k Lane / Butl	B_A	42	7	0	49	49	0	) 49	7	-7	0	0	17%	-100%	0%	0%	1.0	3.7	0.0	0.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
	,	B_C	602	69	3	674	522	49	576	-80	-20	2	-98	-13%	-29%	67%	-15%	3.4	2.6	1.0	3.9	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		C_A	477	62	0	542	32	2	34	11	0	0	11	52%	0%	-67%	48%	2.1	0.0	0.0	2.1	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
<b> </b>		A B	586	63	4	653	638	57	694	50	-6	-3	43	9%	-10%	-75%	7%	2.2	0.8	1.4	2.0	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
1	1	A_C	32	2	0	34	27	0	) 27	-5	-2	0	-7	-16%	-100%	0%	-21%	0.9	2.0	0.0	1.3	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
34	ke Road / Ta	B_A	572	98	2	672	559	54	61	-13	-44	0	-57	-2%	-45%	0%	-8%	0.5	5.0	0.0	2.2	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		B_C	8	1	0	9	5	0	) 5	-3	-1	0	-4	-38%	-100%	0%	-44%	1.2	1.4	0.0	1.5	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
		C_A	20	1	0	21	14	1	15	-6	0	0	-6	-30%	0%	0%	-29%	1.5	0.0	0.0	1.4	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
				-														Car	LGV	HGV	Total	Car	LGV	HGV	Total	Car	LGV	HGV	Total
																	Pass	304	319	304	303	271	287	287	268	312	327	327	313
																	Fail	23	8	23	24	16	0	0	20	15	0	0	14
																	%Pass	93%	98%	93%	93%	94%	100%	100%	93%	95%	100%	100%	96%

# Appendix C Journey Time Route Plots

![](_page_35_Picture_2.jpeg)

![](_page_36_Figure_1.jpeg)

![](_page_37_Figure_1.jpeg)

![](_page_38_Figure_1.jpeg)

![](_page_39_Figure_1.jpeg)

# Appendix D Journey Time Validation Results

		AM Journey T	ime Validation			
VISSIM ID	Route	<b>Observed</b> Time	Modelled Time	Difference (mins)	Difference %	DMRB
1	A33 Basingstoke Road - SB	03:59	03:48	-00:00:11	-5%	Pass
2	A33 Basingstoke Road - NB	03:16	03:15	-00:00:01	-1%	Pass
3	M4 - EB	08:38	08:27	-00:00:11	-2%	Pass
4	M4 - WB	08:33	08:01	-00:00:32	-6%	Pass
5	A33 to Beeston Way	06:55	06:27	-00:00:28	-7%	Pass
6	Beeston Way to A33	08:26	08:14	-00:00:12	-2%	Pass
7	Beeston Way to Bader Way	09:31	09:38	00:00:07	1%	Pass
8	Bader Way to Beeston Way	09:34	09:08	-00:00:26	-4%	Pass
9	A329M to Peacock Lane	07:58	08:10	00:00:12	3%	Pass
10	Peacock Lane to A329M	07:47	08:25	00:00:38	8%	Pass
11	M4 West to A33 North	03:44	02:49	-00:00:55	-25%	Pass
12	A33 North to M4 West	04:36	03:21	-00:01:15	-27%	Fail
13	M4 West to A33 South	04:34	05:31	00:00:57	21%	Pass
14	A33 South to M4 West	02:49	03:03	00:00:14	9%	Pass
15	M4 East to A33 North	10:02	09:15	-00:00:47	-8%	Pass
16	A33 North to M4 East	10:02	09:47	-00:00:15	-2%	Pass
17	M4 East to A33 South	09:14	09:59	00:00:45	8%	Pass
18	A33 South to M4 East	10:50	12:01	00:01:11	11%	Pass

 Pass
 17

 Fail
 1

 %Pass
 94%

		PM Journey T	ime Validation			
<b>VELTIMEME</b>	ASUREMENT	<b>Observed</b> Time	Modelled Time		Difference %	DMRB
1	A33 Basingstoke Road - SB	03:13	04:03	00:00:50	26%	Pass
2	A33 Basingstoke Road - NB	02:50	03:24	00:00:34	20%	Pass
3	M4 - EB	08:44	08:13	-00:00:31	-6%	Pass
4	M4 - WB	08:39	07:56	-00:00:43	-8%	Pass
5	A33 to Beeston Way	05:47	06:52	00:01:05	19%	Fail
6	Beeston Way to A33	06:40	07:16	00:00:36	9%	Pass
7	Beeston Way to Bader Way	11:04	08:09	-00:02:55	-26%	Fail
8	Bader Way to Beeston Way	07:32	08:01	00:00:29	6%	Pass
9	A329M to Peacock Lane	08:28	08:29	00:00:01	0%	Pass
10	Peacock Lane to A329M	08:33	08:29	-00:00:04	-1%	Pass
11	M4 West to A33 North	02:55	02:37	-00:00:18	-10%	Pass
12	A33 North to M4 West	03:53	04:08	00:00:15	6%	Pass
13	M4 West to A33 South	05:18	05:41	00:00:23	7%	Pass
14	A33 South to M4 West	03:02	02:58	-00:00:04	-2%	Pass
15	M4 East to A33 North	09:37	09:47	00:00:10	2%	Pass
16	A33 North to M4 East	09:05	10:12	00:01:07	12%	Pass
17	M4 East to A33 South	09:31	09:28	-00:00:03	0%	Pass
18	A33 South to M4 East	10:51	11:29	00:00:38	6%	Pass

Pass	16
Fail	2
%Pass	89%

Pass – VISSIM location meets TAG criterion, Fail - VISSIM location does not meet TAG criterion.