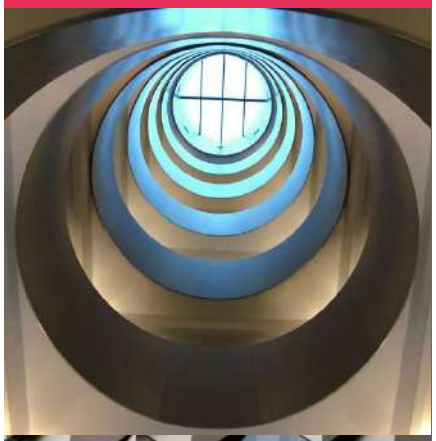


Banbury Phase 3, Junction 11, Banbury, Oxfordshire

Transport Assessment

Curtins Ref: 079074-CUR-00-XX-RP-TP-001-V02
Revision: V02
Issue Date: 13 July 2021

Client Name: Monte Blackburn Ltd

Control Sheet

This report has been prepared for the sole benefit, use, and information for the client. The liability of Curtins with respect to the information contained in the report will not extend to any third party.

Author	Signature	Date
Jonathan Ashcroft BSc (Hons) LLM Senior Transport Planner	[redacted]	13 July 2021

Reviewed	Signature	Date
Alex Vogt BSc (Hons) MSc FCIHT TPP Director of Transport Planning	[redacted]	13 July 2021

Authorised	Signature	Date
Alex Vogt BSc (Hons) MSc FCIHT TPP Director of Transport Planning	[redacted]	13 July 2021

Table of Contents

Tables

Figures

Drawings

69717-CUR-00-XX-DR-TP-75001-P07_AccessArrangement
69717-CUR-00-XX-DR-TP-75004-P02_CycleImprovements

Appendices

Appendix A – Detailed Accident Data
Appendix B – Proposed Site Layout
Appendix C – Network Diagrams
Appendix D – TRICS Outputs
Appendix E – Junction Model Outputs

1.0 Introduction

1.1 Background

1.1.1 Curtins has been appointed on behalf of Monte Blackburn Ltd to provide traffic and transportation advice in relation to a proposed mixed-use development in Banbury, Oxfordshire, on land located to the north-east of Junction 11 of the M40 motorway.

1.1.2 Curtins were previously appointed on behalf of Monte Blackburn Ltd to support a hybrid planning application for an industrial development on the wider site. The wider site extends for approximately 13 hectares and the proposals involved the construction of industrial units providing up to 50,000m^2 floorspace to be used within Use Classes B2 and B8.

1.1.3 Curtins understand that construction has already begun on Phases 1 and 2 of the development, however the intention is to submit a revised planning application for Phase 3. The revised proposal for Phase 3 differs from the original outline approval for 16,890m^2 of flexible use between Use Classes B2 and B8 and instead look to develop the following on site:

- 240 bed hotel;
- 4-storey office building (circa 5,200m^2);
- Petrol filling station (PFS);
- Coffee and hot-food drive thrus; and,
- Associated car parking.

1.2 Purpose and Scope of the Report

1.2.1 This Transport Assessment (TA) has been prepared to inform Highways Officers at Oxfordshire County Council (OCC) and Highways England (HE) on all traffic and transportation matters associated with the application.

1.2.2 On this basis of the above, this TA contains the following:

- A description of the highway network in the vicinity of the site;
- A review of the accident record in the vicinity of the site;
- A summary of the development proposals, including access, servicing and parking arrangements;
- A summary of local and national transport planning policy;
- A review of accessibility of the site by sustainable modes of travel;
- Details of the calculated trip generation for the new proposed development at the site;
- Details of the distribution of the development traffic;

- An assessment of the potential impact of the development traffic on local junctions; and
- Details of any proposed measures to mitigate the impact of development traffic.

1.2.3 This TA has been prepared in broad accordance with the Department for Communities & Local Government's (DCLG's) National Planning Policy Framework (NPPF) and Planning Practice Guidance for TAs.

1.3 Background

1.3.1 The development site forms part of a preferred employment allocation site (Strategic Development Site Reference - 15) within the Adopted Cherwell Local Plan 2011-2013 (Part 1) which was formally adopted by the Council on 20th July 2015.

1.3.2 The Local Plan Key Policies Map has been extracted for reference and is shown on **Figure 1.1** below.

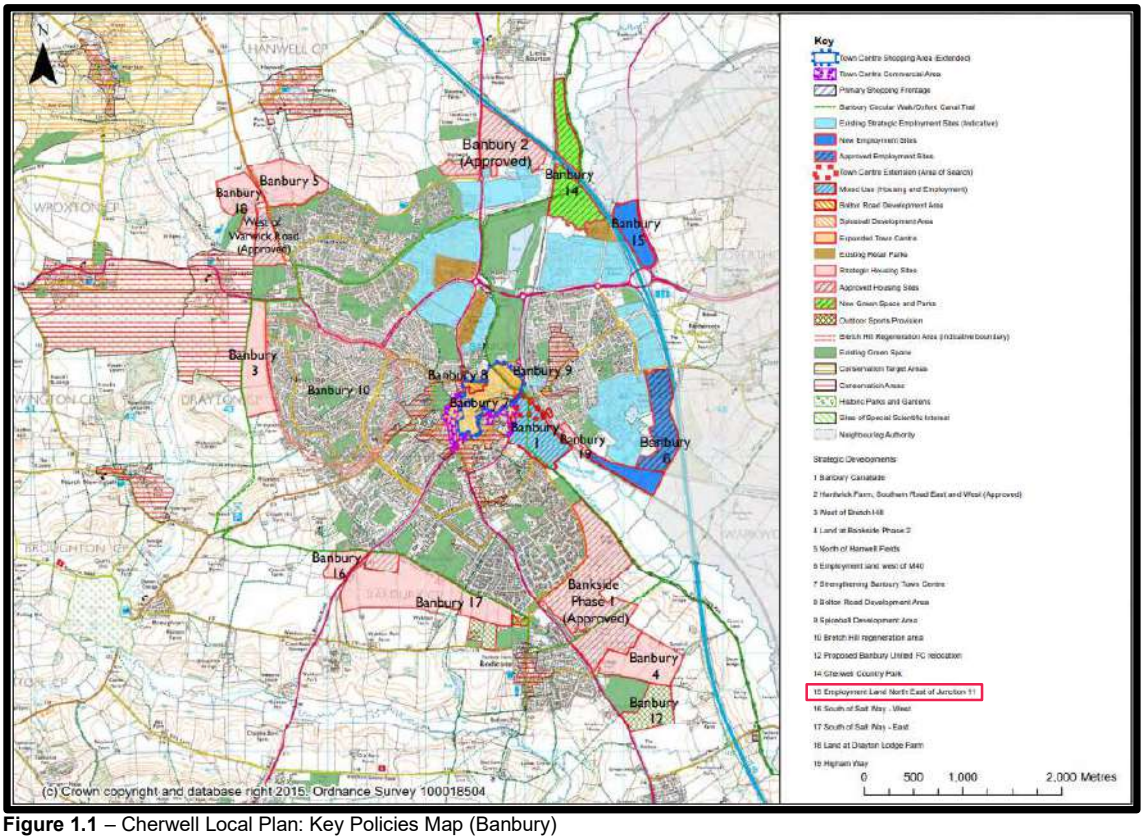


Figure 1.1 – Cherwell Local Plan: Key Policies Map (Banbury)

1.3.3 Policy Banbury 15 within the Local Plan relates specifically the development, namely "Employment Land North East of Junction 11", and allocates the land for commercial development within the Use Classes B1, B2, and B8. The policy states the following:

"*Development Description: Located on the north eastern edge of Banbury in an important position adjoining the M40 and the A361, this strategic site comprises 13 hectares of land for mixed employment generating development. A variety of employment types will be sought to reflect the need for diversity and resilience in the local economy expressed in the Economic Development Strategy*.

Employment

- *Jobs created – approximately 1,000.*
- *Use classes – B1 (Office), B2 (General Industrial) and B8 (Storage and Distribution).*

Infrastructure Needs

- *Open space – Incidental.*
- *Access and Movement – access to A361 and M40 via Junction 11. Necessary contributions to other transport improvements will be sought, including improvements to bus services, walking and cycling routes. Contributions will also be required to improve operation of Junction 11 and Hennef Way junctions and to improved bus services.*

Key site-specific design and place shaping principles

- *Proposals should comply with Policy ESD15.*
- *A high-quality commercial District for the east of Banbury that has high connectivity to major transport routes and is well integrated with the adjacent commercial uses.*
- *Layout of development that enables a high degree of integration and connectivity between new and existing development, including adjoining employment areas, nearby residential areas and the town centre.*
- *Provision of new footpaths and cycleways that link to existing networks to link the site with the Banbury urban area.*
- *Protection of the amenity of the public footpath network including satisfactory treatment of existing footpaths on the site and diversion proposals where appropriate.*
- *Good accessibility to public transport services should be provided to link the site with the Banbury urban area and provide an alternative to travel by car.*
- *Satisfactory access arrangements including a detailed transport assessment and Travel Plan given the location of the site close to the strategic road network.*
- *A high quality, well designed approach to the urban edge which functions as a high-profile economic attractor but which also achieves a successful transition between town and country environments.*

- *Development that respects the landscape setting, that demonstrates the enhancement, restoration or creation of wildlife corridors, and the creation of a green infrastructure network for Banbury.*
- *Development proposals to be accompanied and influenced by landscape/visual and heritage impact assessments.*
- *A comprehensive landscaping scheme including on-site provision to enhance the setting of buildings onsite and to limit visual intrusion into the wider landscape, particularly given the key views afforded into the site from higher ground in the wider vicinity.*
- *Include planting of vegetation along strategic route ways to screen the noise.*
- *Adequate investigation (through an ecological survey) treatment and management of priority habitats and protected species onsite to preserve and enhance biodiversity.*
- *A high-quality design and finish, with careful consideration given to layout, architecture, materials and colourings to reduce overall visual impact.*
- *The height of buildings to reflect the scale of existing employment development in the vicinity.*
- *Take account of the Council's Strategic Flood Risk Assessment for the site.*
- *Full mitigation of flood risk in compliance with Policy ESD 6: Sustainable Flood Risk Management including the use of SuDS (Policy ESD 7: Sustainable Drainage Systems (SuDS)), specifically attenuation SuDS techniques, taking account of the recommendations of the Council's Strategic Flood Risk Assessment.*
- *Adoption of a surface water management framework to reduce run off to greenfield rates.*
- *Demonstration of climate change mitigation and adaptation measures including demonstration of compliance with the requirements of policies ESD 1 – 5.*
- *An assessment of whether the site contains best and most versatile agricultural land, including a detailed survey where necessary."*

1.3.4 The Planning Inspector's Report regarding Cherwell Local Plan Part 1 stated the following regarding the allocation of 'Banbury 15', which demonstrates it is the most suitable site for the proposed development during this plan period:

Para 208. "*Subject to appropriate design and layout incorporated within a suitable master plan, as required by new policy Ban 15, employment development, principally for B2 and B8 uses, at this location would represent the most sustainable means of providing the necessary additional employment land supply for the town and district. For example, it would have reasonably good transport links with the town, including by walking and cycling, including through the existing underpass beneath the motorway, and with opportunities to improve bus services at reasonable cost. Furthermore, peripheral landscaping and green spaces within the site should also reduce the potential impact on the rural areas to the north and east, including from along the approach roads, to an acceptable level in landscape and visual terms*."

Para 209. *"Although various alternatives have been put forward for strategic scale and employment sites, including in relation to other M40 motorway junctions, none is a realistic or more sustainable location for this plan period, given doubts over deliverability, including regarding transport implications, especially, especially for the strategic road network. Additionally, some are of insufficient size to be properly considered as strategic scale allocations (e.g. land off Hennef Way), whilst others are less well linked to existing communities and would represent an even greater intrusion of built development into the otherwise largely rural countryside, such as at Ardley."*

1.3.5 The site was subject to a previous planning application in 2017 (CDC Planning Reference 17/01044/F), which sought approval for the development of a 22,150m^2 industrial building (Class B8); two office buildings of 3716m^2 each (Class B1); Motorway Services Area with amenity building, Petrol Filling Station (with canopy, fuel pump islands, ancillary convenience store and food to go outlet) and HGV Parking; creation of a new vehicular accesses off the A361 together with associated alterations to the highway; parking and circulation; landscaping, drainage and associated works.

1.3.6 The 17/01044/F application was ultimately refused on 25th June 2018.

1.3.7 More recently, Curtins were appointed on behalf of Monte Blackburn Ltd to provide traffic and transportation advice in relation to a planning application for an industrial development on the wider Banbury site.

1.3.8 The development proposals were submitted to Cherwell District Council (CDC) in January 2019 in the form of a hybrid planning application (CDC Application Reference 19/00128//HYBRID), with the application ultimately approved (subject to conditions) in May 2019. The description of the development was as follows:

1.3.9 Hybrid Planning Application comprising of:

"Part A: Full planning application for the development of a new priority junction to the A361, internal roads and associated landscaping with 2 no. commercial buildings having a maximum floorspace of 33,110m2 and with a flexible use [to enable changes in accordance with Part 6 Class V of the Town and Country Planning (General Permitted Development) Order 2015 (as amended)] within Class B2 or B8 of the Town and Country Planning (Use Classes) Order 1987 as amended, and ancillary Class B1 offices; and,

Part B: Outline planning application for the development of up to 2 no. commercial buildings having a maximum floorspace of 16,890m2 and having a flexible use [to enable changes in accordance with Part 6 Class V of the Town and Country Planning (General Permitted Development) Order 2015 (as amended)] within Class B2 or B8 of the Town and Country Planning (Use Classes) Order 1987 as amended, and ancillary Class B1 offices, with all other matters reserved for future approval."

1.4 Correspondence with OCC, NCC and HE

1.4.1 As part of the 19/00128/HYBRID application, extensive discussions were held with OCC with regards the development proposals. Curtins received formal pre-application advice (dated 16th October 2018) via an email from Mr Matthew Parry, Principal Planning Officer at CDC. The comments from OCC were reviewed and taken into consideration in the formation of the supporting TA and again have been considered for the revised proposals for Phase 3. In summary, the following topics were discussed in the pre-application advice for the 19/00128/HYBRID scheme:

- The planning background;
- The potential impact on the local highway network;
- The proposed vehicular access;
- New bus stop provisions;
- Pedestrian/ Cycle access/ connectivity;
- Internal layout and car parking provision; and,
- The requirement for a Travel Plan.

1.4.2 In addition to the formal pre-application response from OCC, Curtins attended a pre-application meeting with representatives from CDC and OCC in November 2018. At the meeting further aspects of the TA were discussed, which included but not limited to the following topics:

- The scope of the accident data review;
- The proposed traffic distribution and trip generation rates for the development;
- The extents of the TA study area requiring assessment;
- Base survey data and future years scenarios;
- Strategic highway contribution mechanisms;
- Potential sustainable transport improvements/ connections for the site;
- The Framework Travel Plan.

1.4.3 Following the submission of the TA in support of the 19/00128/HYBRID application (Curtins Document Reference **069717-CUR-00-XX-RP-TP-001-V03**) several post submission highway comments were received from Transport Officers at OCC and Northamptonshire County Council (NCC). The comments related to the submitted development proposals and requested further clarification on a number of highway related points.

1.4.4 The comments received covered the following aspects:

1) The vehicular site access;
2) Public transport enhancements;
3) The pedestrian and cycle access;
4) The internal site layout;
5) The perceived traffic impact on the A361 and Strategic Transport Contribution; and,
6) Concerns from NCC regarding traffic impact.

1.4.5 A number of additional comments were also received from OCC regarding the Framework Travel Plan (FTP) produced in support of the 19/00128/HYBRID application (Curtins Document Reference **069717-CUR-00-XX-RP-TP-001-V05**). These comments were duly considered and addressed within an updated FTP document.

1.4.6 Given the proximity of the site to the M40 motorway discussion were held with officers at Highways England (HE) regarding the 19/00128/HYBRID application. It should be noted that HE was also consulted regarding the previous application (17/01044/F) and ultimately had no objections to the final proposals for both schemes.

1.4.7 In response to the above concerns from OCC and NCC, Curtins produced a Post Submission Highway Response to in April 2019 (Curtins Document Reference **069717-CUR-01-XX-RP-TP-001-V02-HR1**). This document ultimately addressed the points raised, with the 19/00128/HYBRID application approved (subject to conditions) in May 2019.

1.4.8 The Post Submission Highway Response demonstrated that the developer was willing to work proactively with the Local Highway Authorities and implement a range of different measures for minimising the likelihood of potential highway impacts from the site, these included the following:

- A significant Strategic Transport Contribution to the improvement scheme for Hennef Way which will have significant benefits for the highway network local to the development site;
- An extensive cycle improvement scheme for Wildmere Road;
- The introduction of a pair of new bus stops on the A361 (in a redesigned layby arrangement);
- Accommodating internal bus stops within the site layout design;
- A five-year local bus service enhancement;
- The proposed pedestrian/cycle upgrades to the M40 underpass connection;
- A site layout that optimises walk distances internally and encourages the uptake of sustainable travel;
- Provision of safe and secure cycle parking; and,
- A FTP which seeks to encourage sustainable travel patterns amongst employees/visitors and reduce single occupancy vehicular use.

1.4.9 The measures outlined above are considered to go beyond minimising the potential impacts associated with the 19/00128/HYBRID application and would also offer significant benefits towards the revised proposals for Banbury Phase 3. This is considered later within this report.

1.5 Structure of the Report

1.5.1 Following this introduction, **Section 2** of the report provides a comprehensive description of the existing site and its location. This includes the local highway network and facilities for pedestrians, cyclists and public transport users. **Section 2** also contains an analysis of the local area in terms of highways safety.

1.5.2 **Section 3** contains details of the development proposals. **Section 4** contains an assessment of the site by non-car modes of transport.

1.5.3 **Section 5** outlines the traffic forecasting methodology used and the likely traffic generation associated with the development proposals. **Section 5** also analyses the likely highway impact of the proposals by presenting the results of the junction capacity assessment undertaken to determine the impact of the development on the existing highway network.

1.5.4 A review of local and national transport planning policy is included in **Section 6**, and the report is summarised and concluded in **Section 7**.

2.0 Site Location and Highway Layout

2.1 Site Location

2.1.1 The proposed development site is located approximately 2km east of Banbury in Oxfordshire. The site comprises agricultural land which is currently formed of cut grassland. The site is bound to the north by Banbury Phase 1 and 2 (currently under construction), to the south and east by the A361 and to the west by the M40 motorway.

2.1.2 **Figure 2.1** shows the site location:

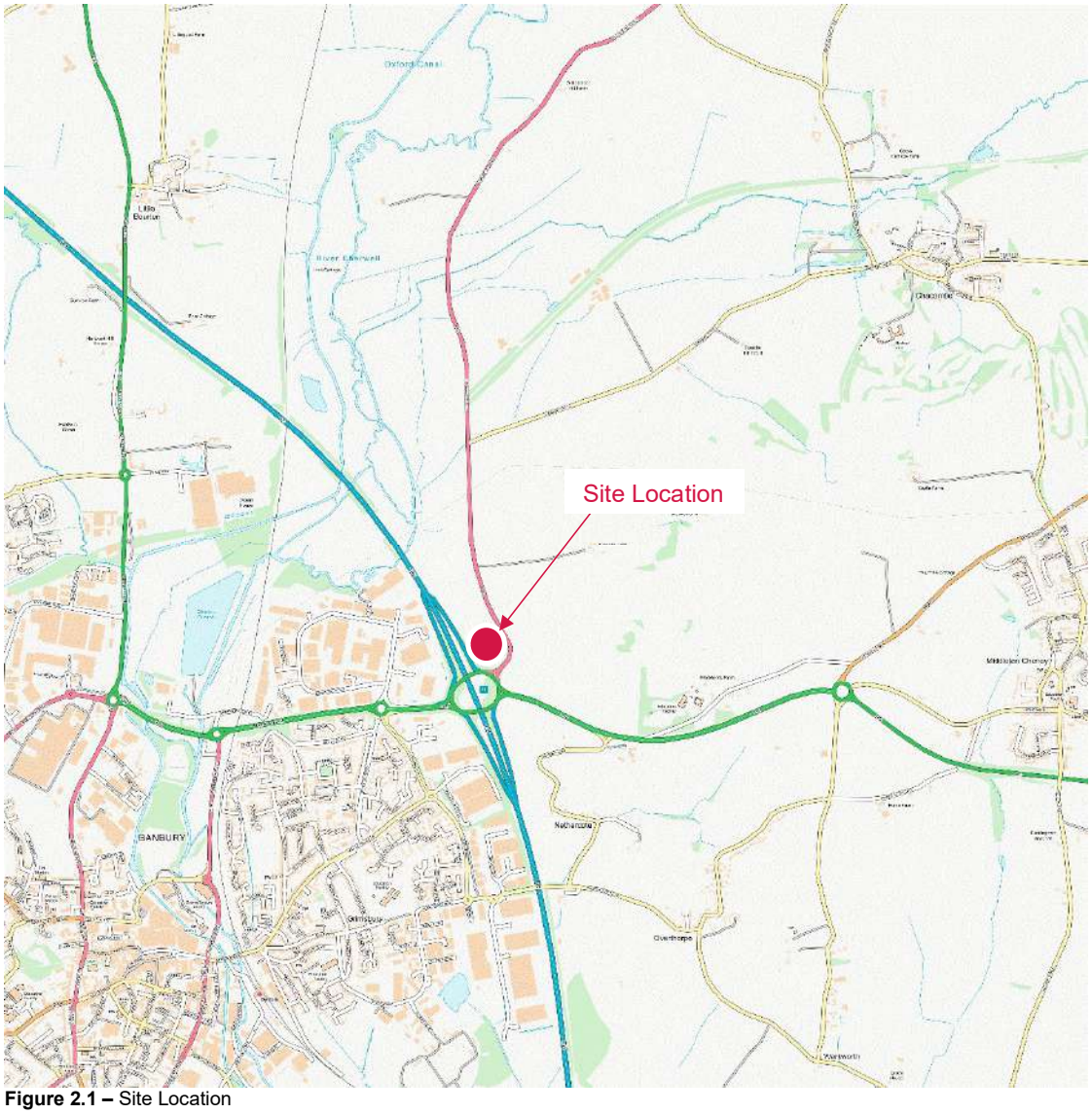


Figure 2.1 – Site Location

2.2 Existing Use

2.2.1 Previously the site was farmed and utilised for agricultural purposes with access gained from the east via small breaks within the existing hedgerow along the A361. Now that Phase 1 and 2 of the wider Banbury site are undergoing construction, the site access junction associated with the 19/00128/HYBRID application has been implemented. This is shown at **Curtins Drawing 69717-CUR-00-XX-DR-TP-75001-P07_AccessArrangement** and extracted at **Figure 2.2** below:

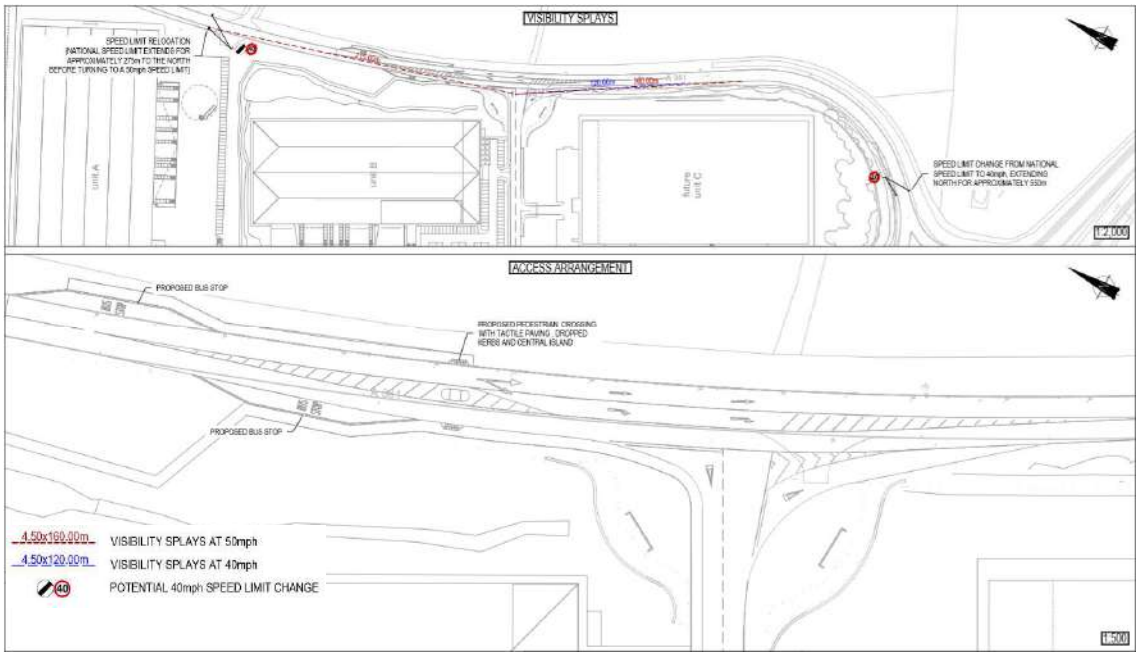


Figure 2.2 – Site Access Junction

2.2.2 As shown at **Figure 2.2** the vehicular site access is provided directly from the A361, in the form a priority junction arrangement with a ghost island right turn lane. The TA submitted alongside the 19/00128/HYBRID application demonstrated that the proposed arrangement would operate within sufficient residual capacity (confirmed by OCC within their in their Post Submission Highway Responses). The access includes the following features:

- An access road width of 7.3m, with 2m footways on either side;
- Sufficient radii to provide safe access for service and emergency vehicles;
- A deceleration lane, to avoid the risk of conflict between vehicles slowing to turn left into the site and those travelling in a northbound direction (away from the M40 Junction 11). The proposed arrangement has been amended accordingly;
- A reduced speed limit past the site. It is proposed that the speed limit of the A361 will be reduced to 40mph from the M40 junction 11 for a distance 250m north of the proposed site access, which will further help to reduce the risk of accidents along this section of the A361; and,

- Bus stops on the A361 (in a layby arrangement for highway safety reasons) and the inclusion of a refuge island to assist pedestrians crossing to access the southbound stop.

2.2.3 Once within the site, a separate priority junction arrangement is located on the southern side of the carriageway which provides access to Banbury Phase 3. The junction bellmouth has already been constructed in anticipation of the development proposals.

2.3 Surrounding Highway Network

A361

2.3.1 The A361 runs along the southern and eastern boundary of the site and provides a 22km connection between the M40 Junction 11 in the south and the town of Daventry in the northeast. Past the site, the carriageway measures approximately 7m in width, with wide grass verges on either site. The road is subject to the national speed limit, which changes to 50mph approximately 200m north of the site.

2.3.2 South of the site, the A361 forms part of a large 5-arm grade separated roundabout junction with the A422 and M40 motorway. The A361 approach to the roundabout operates under priority control and has two entry lanes; with the nearside providing access to the M40 southbound and offside to the M40 northbound. Both of the entry lanes also provide access to Banbury, i.e. ahead. The remaining approaches to the junction all operate under signal control.

A442

2.3.3 The A442 runs east and west from its grade separated roundabout junction with the M40. East towards Middleton Cheney and west towards the northern extents of Banbury. Past the site the A442 operates as a dual carriageway road, approximately 7.5m wide in each direction (with a central reservation in place) and is subject to the national speed limit.

2.3.4 The A422 Hennef Way / Wildmere Road / Ermont Way junction takes the form of a four-arm roundabout located to the west of the M40 Junction 11. Footways are located to the south of the roundabout located to the west of the M40 Junction 11. Footways are located to the south of the carriageway which feature dropped kerbs and tactile paving across the Ermont Way arm. These footways connect to a signalised pedestrian crossing across the A422 Hennef Way and provides a connection to footways along the eastern side of Wildmere Road.

2.3.5 All arms of the roundabout operate under priority control, currently with the A422 Hennef Way eastern approach providing three lanes at entry and the A422 western approach providing four lanes entry. The Wildmere Road and Ermont Way approaches provide two lanes at entry. For vehicles turning left from Wildmere Road to A422 Hennef Way east and from A422 east to Ermont Way there is are separate, left turn lanes.

2.3.6 The A422 Hennef Way / A4260 Concorde Avenue junction takes the form of a four-arm roundabout. The A4260 serves Banbury town centre, as well as Adderbury Village to the south. The northern arm provide access for industrial uses such as Thames Water. All arms of the roundabout operate under priority control with the A422 Hennef Way eastbound approach providing two lanes at entry, the A422 Hennef Way westbound approach three lanes at entry, and the A4260 northbound approach three lanes at entry.

Ermont Way

2.3.7 Tachbrook Road is located approximately 700m east of the proposed development. From its signal junction with Harbury Lane, Tachbrook Road continues north for approximately 2.6km, through Whitnash, towards Leamington Spa town centre.

2.3.8 For the most part Tachbrook Road operates as a single carriageway road, approximately 7m wide and is subject to a 30mph speed limit. Tachbrook Road is street lit, and along its length has a number of junctions, some which form priority junctions (with right turn ghost lanes) and others are signalised, such as Othello Avenue.

M40

2.3.9 Immediately south of the site, the M40 can be reached via the A361 at Junction 11 (Banbury). From the grade separated junction with the A361, the M40 provides journeys north-west towards Birmingham and south-east towards Oxford and London. The M40 forms part of England's Strategic Road Network (SRN). The motorway has three lanes in both directions, except for Junction 1A to 3, which is four lanes, and a short section past Junction 4 which is dual lanes.

2.4 Highway Safety

2.4.1 As part of the 19/00128/HYBRID TA a detailed accident data review was included. This has been extracted below for ease of reference and considers a 5-year time period, from 1st January 2013 to the date of the last data entry on 31st August 2018.

2.4.2 The study area considered for the accident data review is shown on the plan in **Appendix A**. As shown on the plan the extents include the A361, from the grade separated roundabout junction with M40, as well as the A422 (east and west of the M40) – including the Hennef Way Corridor.

2.4.3 In addition to this detailed review, Personal Injury Accident (PIA) data for the study area has been obtained from the CrashMap database for the time period from 31st August 2018 until the time of writing this report. This, and the detailed accident review undertaken previously, are included in the below subsections.

2.5 Detailed Safety Records Review (2013 – 2018)

2.5.1 In total there were 80 accidents within the study area over the five-year time period between 2013 and 2018. These comprised 1 fatal accident, 11 serious accidents and 68 slight accidents. The annual breakdown of number and severity of injuries is shown in **Table 2.1** below. The full accident data report obtained from OCC is attached at **Appendix A**.

Severity	Recorded Collisions						
	2013	2014	2015	2016	2017	2018	Total
Fatal	0	0	1	0	0	0	**1**
Serious	2	3	3	1	1	1	**11**
Slight	12	17	11	12	11	5	**68**
Total	**14**	**20**	**14**	**13**	**12**	**6**	**80**

Table 2.1 – OCC Recorded Collisions (2013 – 2018)

2.5.2 A review of the plans shows that the accidents are generally disbursed equally across the four key junctions within the study area. As demonstrated in **Table 2.1** above, 1 fatal accident and a total of 11 serious accidents were reported across the study area within the five-year time period. These are considered in more detail within the following paragraphs.

Fatal Accident 1 (P0121115)

2.5.3 The fatal accident occurrent in 2015 at the roundabout junction between the A422 Hennef Way and Ermont Way. The incident occurred when a HGV was entering the roundabout junction and a cyclist (potential impacted by drugs/ distracted by texting) collided with the nearside of the HGV, resulting in fatal injuries. The accident occurred during daylight with wet/damp road conditions.

2.5.4 The contributory factors in this instance were listed as a failure to look properly, poor turn or manoeuvre, impaired by drugs and driver using mobile phone.

Serious Accident 1 (P0510114)

2.5.5 A serious accident occurred on Southam Road in the vicinity of the Bristol Street Motors access junction. The incident occurred when a vehicle was exiting from Bristol Street Motors to turn right onto the A361, but failed to give way to oncoming traffic, resulting in a collision. The accident occurred in darkness with wet road conditions.

2.5.6 The contributory factors in this instance were listed as a failure to look properly, failure to judge other persons path or speed, junction restart and weather conditions (rain, sleet, snow or fog).

Serious Accident 2 (180260690)

2.5.7 A serious accident occurred at the A422 Hennef Way/ Concorde Avenue roundabout junction, during daylight with dry road conditions. However, no detailed accident description or contributory factors were provided in the information supplied by OCC.

Serious Accident 3 (P3361015)

2.5.8 A serious accident occurred when a motorcyclist, navigating the A422 Hennef Way/ A4260 Concorde Avenue roundabout junction, lost control and hit the central island of the roundabout, sustaining serious injuries. The incident occurred in darkness with dry road conditions. The contributory factors were listed as a failure to look properly and loss of control.

Serious Accident 4 (P1650415)

2.5.9 Another serious accident occurred when a motorcyclist, navigating the A422 Hennef Way/ A4260 Concorde Avenue junction, fell whilst exiting the roundabout, sustaining serious injuries. The incident occurred during daylight with dry road conditions. The driver produced a positive breath test and as such impaired by alcohol is listed as the contributory factor in this instance.

Serious Accident 5 (170123166)

2.5.10 A serious accident occurred at the A422 Hennef Way/ Wildmere Road roundabout junction, when a motorcyclist (travelling east on the A422) crashed into the rear of a stationary vehicle already queuing at the roundabout. The incident occurred in daylight with dry road conditions. The contributory factors were listed as a failure to judge other persons path or speed and swerving.

Serious Accident 6 (P2821214)

2.5.11 A serious accident occurred on the A422 Hennef Way, approximately 150m west of Junction 11 of the M40, when a motorcyclist travelling east braked heavily in wet road conditions - due to a vehicle in front changing lanes. The rider fell from the bike and suffered serious injuries. The contributory factors were listed as a failure to judge other persons path or speed, careless/reckless/in a hurry and travelling too fast for conditions.

Serious Accident 7 (P2010714)

2.5.12 A serious accident occurred on the A361, approximately 330m north-east of Junction 11 of the M40, when a car travelling north performed a U-turn manoeuvre (utilising a nearby farm gate) and hit an overtaking motorcyclist, resulting in serious injuries. The incident occurred in daylight with dry road conditions.

2.5.13 The contributory factors in this instance were listed as a careless/ reckless/ in a hurry and distraction in vehicle.

Serious Accident 8 (P1150813)

2.5.14 A serious accident occurred on the A361, approximately 150m north-east of Junction 11 of the M40, when a car travelling south in wet conditions lost control and crossed into the opposing lane and hit an oncoming vehicle. The contributory factors were listed as slippery road (due to weather conditions) and sudden breaking.

Serious Accident 9 (P3040513)

2.5.15 A serious accident occurred on the A361, approximately 160m north-east of Junction 11 of the M40, when a car travelling south in wet conditions lost control and crossed into the opposing lane and hit an oncoming vehicle. A loss of control was listed as the contributory factor in this instance.

Serious Accident 10 (160261575)

2.5.16 A serious accident occurred at Junction 11 of the M40 when a car travelling south-east around the circulatory of the roundabout junction hit a motorcyclist entering the junction. The incident occurred during daylight with dry road conditions. The contributor factor in this instance was listed as a poor turn or manoeuvre by the motorcyclist.

Serious Accident 11 (P1050915)

2.5.17 A serious accident occurred on the M40 mainline when a vehicle travelling south suffered sudden tyre deflation, lost control, veered into the central barriers and overturned. The incident occurred during daylight with dry road conditions. The contributory factor in this case was listed as tyres - illegal, defective or under inflated.

2.6 Accident Data 2021 Update

2.6.1 PIA data for the highway network adjacent to the site (the A361, Hennef Way Corridor and M40 Junction 11) has been obtained from the Crashmap Website for the period from 31st August 2018 up until the date of writing this report. A breakdown of the information is contained in **Table 2.2**:

Severity	Recorded Collisions		
	2018 (Sept Onwards)	2019	2020
Fatal	0	0	0
Serious	1	1	1
Slight	7	8	2
Total	**8**	**9**	**2**

Table 2.2 – CrashMap Personal Injury Accident Data Summary (2018-2020)

2.6.2 As shown in **Table 2.2**, a total of 19 accidents have occurred since the detailed accident review found within the 19/00128/HYBRID TA (a period greater than 28 months). Three of the accidents resulted in a 'serious' injuries with the remaining resulting in 'slight' injuries, no fatal accidents were recorded. A review of the location of each PIA shows that the accidents are generally disbursed equally across the four key junctions within the study area.

2.7 Summary

2.7.1 Following a review of OCC's and CrashMap's accident records no significant correlations have been identified to suggest that highway condition, layout or design were significant contributory factors in any of the collisions. It is not considered that there is an existing safety issue that is likely to be exacerbated by the proposed development. It can therefore be considered that the development would not have a significant effect on highway safety.

2.7.2 It should be noted during that the 19/00128/HYBRID proposals OCC and HE did not raise any concerns regarding highway safety, and a significant Strategic Transport Contribution was made towards an improvement scheme for Hennef Way which will have benefits for highway safety along the local highway network.

3.0 Development Proposals

3.1 Introduction

3.1.1 This TA has been prepared to support the revised proposals for Phase 3 of the wider Land North-East of the M40 Junction 11, Banbury site. Reference should be made to **Appendix B** for the proposed site layout.

3.1.2 Monte Blackburn Ltd have taken the opportunity to revisit the design approach to Phase 3 and now propose the creation of a high-quality mixed-use development that is fully integrated into the surrounding employment uses.

3.1.3 The vision for the scheme is to serve passing traffic on the local highway network and support those working at, and visiting, Frontier Park (Phases 1 and 2 of the Hybrid Application). No signage is proposed on the M40 Motorway or Strategic Road Network to alert drivers to the presence of the mixed-use development. Furthermore, **Section 4** demonstrates that the site is within an accessible walk distance of Banbury Gateway Shopping Park and the residential districts of northern Banbury thus offering a benefit for pre-existing uses in the surrounding area.

3.1.4 As discussed in greater detail within **Section 5** of this report it is considered that there will be large element of linked, shared and pass-by trips associated with the revised proposals.

3.1.5 As shown on the site layout in **Appendix B** it is envisaged that the site could comprise the following:

- 240 bed hotel;
- 4-storey office building (circa 5,200m^2);
- Petrol filling station (PFS);
- Coffee and hot-food drive thrus; and,
- Associated car parking.

3.2 Proposed Access

Vehicular Access

3.2.1 As with Phases 1 and 2 the vehicular access for the proposed Phase 3 development is to be provided directly from the A361, in the form a priority junction arrangement with a ghost island right turn lane with the following parameters:

- An access road width of 7.3m, with 2m footways on either side;
- Sufficient radii to provide safe access for service and emergency vehicles;
- A deceleration lane, to avoid the risk of conflict between vehicles slowing to turn left into the site and those travelling in a northbound direction (away from the M40 Junction 11). The proposed arrangement has been amended accordingly;
- A reduced speed limit past the site. It is proposed that the speed limit of the A361 will be reduced to 40mph from the M40 junction 11 for a distance 250m north of the proposed site access, which will further help to reduce the risk of accidents along this section of the A361; and,
- Bus stops on the A361, provided in a layby arrangement for highway safety reasons, and the inclusion of a refuge island to assist pedestrians crossing to access the southbound stop.

3.2.2 **Drawing 69717-CUR-XX-00-DR-TP-75001-P07** shows a site access arrangement to serve the development, which accords with all of the above parameters and with relevant design standards for ghost island right turn lanes, as found within the DMRB (Volume 6 Section 2 – TD 42/95).

3.2.3 Once within the site, a separate priority junction arrangement is located on the southern side of the carriageway which provides access to Banbury Phase 3. The junction bellmouth has already been constructed in anticipation of the development proposals.

3.2.4 A detailed swept path assessment has been undertaken on the access arrangement and the Banbury Phase 3 site to ensure that it can be suitably accessed by HGVs, service and emergency vehicles, which can be provided upon request under separate cover.

Pedestrian and Cycle Access

3.2.5 The layout of the wider site has been designed to provide at least 2m wide footways on all the internal roads with pedestrian facilities such as zebra crossings, dropped kerbs and tactile paving to be provided at pedestrian desire lines.

3.2.6 Pedestrian and cycle access to the site will be provided from the northwest of the site via the underpass beneath the M40, which provides a useful (and traffic free) connection to the Banbury Gateway Shopping Park and the adjacent residential areas. From the underpass is a 3m wide cycle link which initially leads into the wider Banbury site.

3.2.7 The developer is committed to a Section 106 agreement towards the delivery of improvement works to the M40 underpass connection. These works will improve (and maintain) the lighting, security, surfacing and general arrangement of this pedestrian/cycle link.

3.3 Servicing and Refuse Collection

3.3.1 The internal site layout will be designed such that the site can be suitable accessed by delivery vehicles and refuse vehicles. As requested by OCC for the 19/00128/HYBRID application, drawings for access and vehicle tracking can also be provided separately from this TA.

3.4 Parking Provision

3.4.1 Car parking across the site is to be provided in broad accordance with the maximum standards set out by CDC. CDC's maximum vehicle parking standards are found within the (Interactive) Chewell Local Plan 2011-2031.

3.4.2 The parking quantities are shown on the site layout in **Appendix B** and have been extracted in **Table 3.1** below for ease of reference:

Land Use	No. Parking Spaces
Petrol Filling Station	36 Spaces (incl. 2 disabled bays). 20 additional electric vehicle (EV) charging stations.
Coffee Drive-Thru	23 Spaces (incl. 2 EV charging spaces and 1 disabled bay)
Hot Food Drive-Thru Facilities	59 Spaces (including 2 EV charging spaces and 4 disabled bays).
Office	111 spaces (including 15 disabled bays)
Hotel	167 spaces (including 14 disable bays)

Table 3.1 – Proposed Car Parking Provision

3.4.3 Monte Blackburn Ltd have an excellent understanding of the commercial and market requirements for car parking on their sites. The site layout in **Appendix B** shows sufficient parking to ensure that developer end user requirements are met, with the purpose of guaranteeing that no overspill parking occurs onto the internal site access road, or wider network. This is considered of particular importance given the nature of the adjacent development proposals (with potential HGV vehicular movements).

3.4.4 It is considered that there is adequate onsite parking for potential staff and visitors to support the necessary functions on site, based upon discussion with anticipated end users and experienced gained from Monte Blackburn Ltd sites around the country.

3.4.5 In addition to the above the developer is committed to the principles of sustainable development and could seek to influence the travel choices of employees and visitors on site with the implementation of a Framework Travel Plan (FTP). The FTP document could seek to encourage sustainable development and travel patterns to reduce single occupancy vehicular use on site.

3.4.6 In addition to the FTP, and as demonstrated on the site layout, cycle parking will be provided across the proposed development at safe and convenient locations. This will be provided in broad accordance with OCC's guidance.

4.0 Accessibility by Sustainable Modes of Travel

4.1 Introduction

4.1.1 A key element of national and local policy is to ensure that new developments are located in areas where alternative modes of travel are available. It is important to ensure that developments are not isolated but are located close to complementary land uses. This supports the aims of integrating planning and transport, providing more sustainable transport choices, and reducing overall travel and car use.

4.1.2 The accessibility of the proposed development is considered in this context for the following modes of travel:

- Pedestrian accessibility;
- Cycle accessibility; and,
- Public transport.

4.2 Pedestrian Accessibility

4.2.1 Research has indicated that acceptable walking distances depend on a number of factors, including the quality of the development, the type of amenity offered, the surrounding area, and other local facilities. The Chartered Institution of Highways and Transportation (CIHT) document entitled 'Providing for Journeys on Foot' suggests walking distances which are relevant to this planning application. These are reproduced in **Table 4.1**.

CIHT Classification	Town Centres (m)	Commuting/School/ Sightseeing (m)	Elsewhere/Local Services (m)
Desirable	200	**500**	400
Acceptable	400	**1,000**	800
Preferred Maximum	800	**2,000**	1,200

Table 4.1 – CIHT Recommended Walking Distances

4.2.2 To assist in summarising the accessibility of the site by foot, an indicative pedestrian catchment plan was produced for the Banbury site. **Plan 069717-CUR-00-XX-DR-TP-06003-V01** shows distances of 500m, 1,000m and 2,000m which are termed 'Desirable', 'Acceptable' and the 'Preferred Maximum' by the CIHT for commuting trips, which are likely to be the most significant categories of trips generated by the development. This plan has been extracted and shown at **Figure 4.1** for ease of reference.

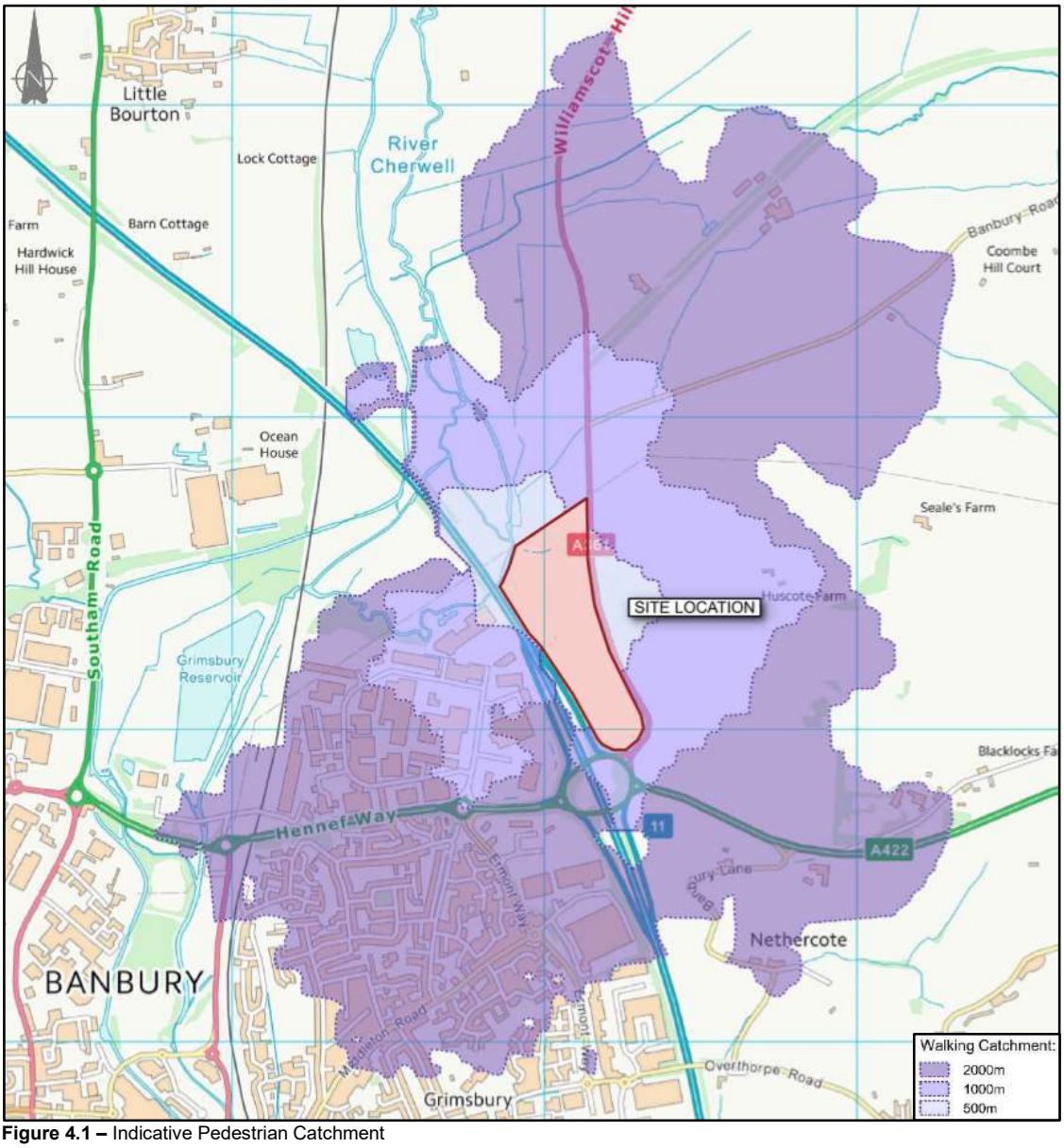


Figure 4.1 – Indicative Pedestrian Catchment

4.2.3 The surrounding land uses around the development location, and the pre-existing residential areas in Banbury, ensures that the site is situated adjacent to potential site users and with good levels of pedestrian infrastructure (for example within Banbury Gateway Shopping Park). It is therefore considered from a highway perspective, that the development location is suitable.

4.2.4 As demonstrated on **Plan 069717-CUR-00-XX-DR-TP-06003-V01** the large residential area of Grimsbury is located within the indicative pedestrian catchment. This includes the numerous housing estates accessed from Manor Road, Brinkburn Grove and Daventry Road, amongst many others.

4.2.5 There are excellent well-lit footway provisions on the main pedestrian routes from this residential area and the proposed development. Upon reaching the A422 Hennef Way, there is a staggered signalised pedestrian crossing with guard railing in place. After which a 3m wide footway continues northbound along Wildmere Road for approximately 100m towards another pedestrian signalised crossing.

4.2.6 From this signal crossing a 2.5m footway continues north from approximately 300m towards the Banbury Gateway shopping park. A zebra crossing is located on Acorn Way, in the proximity of the entrance to Banbury Gateway, which provides a safe crossing point for pedestrians. From this point a traffic free pedestrian/cycle route extends behind the adjacent retail units and connects to an underpass transecting the M40 motorway and connecting with the proposed development.

4.2.7 This pedestrian footpath connection forms part of the wider Public Right of Way Network (PROW), as demonstrated on **Figure 4.2** below. It should be noted that the PROW has been diverted slightly from the alignment shown in the below figure following the construction of the Banbury Gateway Retail Park.

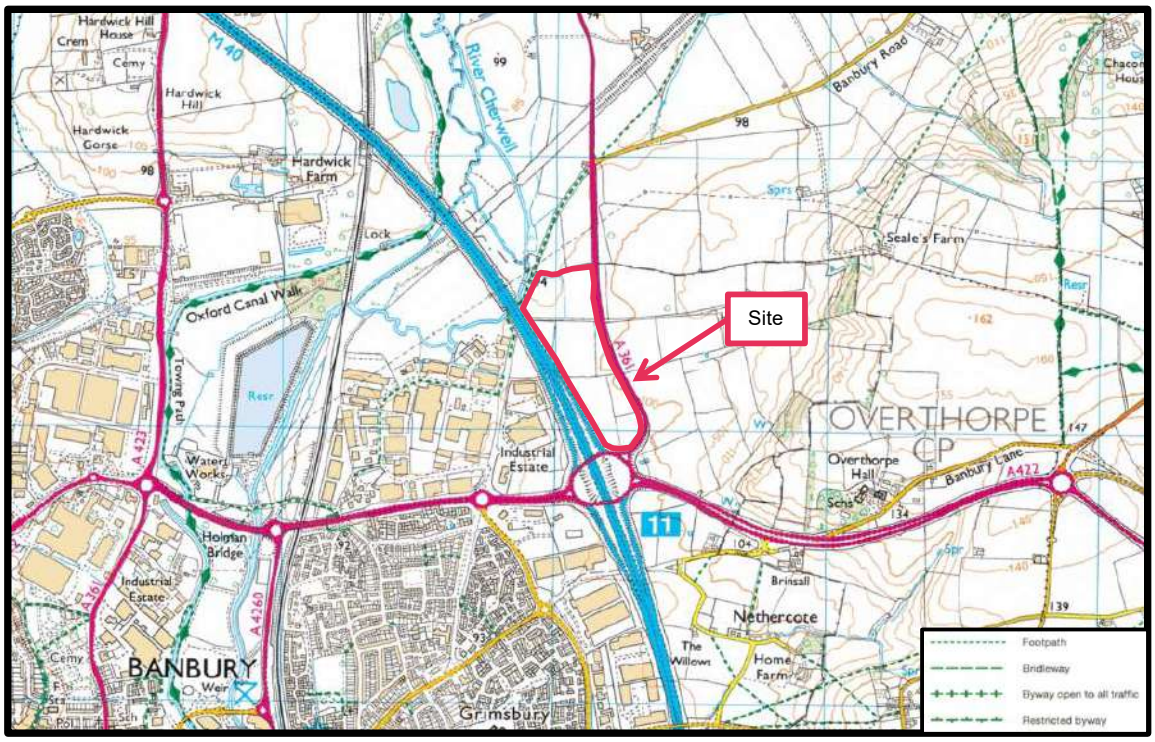


Figure 4.2 – PROW Network

4.2.8 As mentioned in **Section 3**, the internal site layout has been designed to provide 2m wide footways on all the internal roads, as well as a 3m pedestrian / cycleway provided to the underpass beneath the M40. After which, pedestrians will be able to access wider residential and commercial areas within Banbury where pedestrian facilities already exist and are generally of a high standard.

4.2.9 Buses currently run along the A361 in both directions past the development. Additionally, Banbury Railway Station is located approximately 2km south-west of the site. The public transport section of this Chapter discusses the bus and rail services available from the site in further detail.

4.2.10 In summary, in light of the site's location close to existing, and proposed, facilities it has been demonstrated that the site is accessible for pedestrians.

4.3 Accessibility by Cycle

4.3.1 In order to assist in assessing the accessibility of the site by cycle an 8km cycle catchment for the site has been considered. The 8km cycling distance refers to a recommendation by Cycling England in the document 'Integrating Cycling into Development Proposals' (2009).

4.3.2 In order to assist in assessing the accessibility of the site by cycle, **Plan 069717-CUR-00-XX-DR-TP-06004-V01** presents an 8km cycle catchment for the site. This equates to a journey time of around 40 minutes, cycle at a speed of 12kph. This plan has been extracted and shown at **Figure 4.2** for ease of reference.

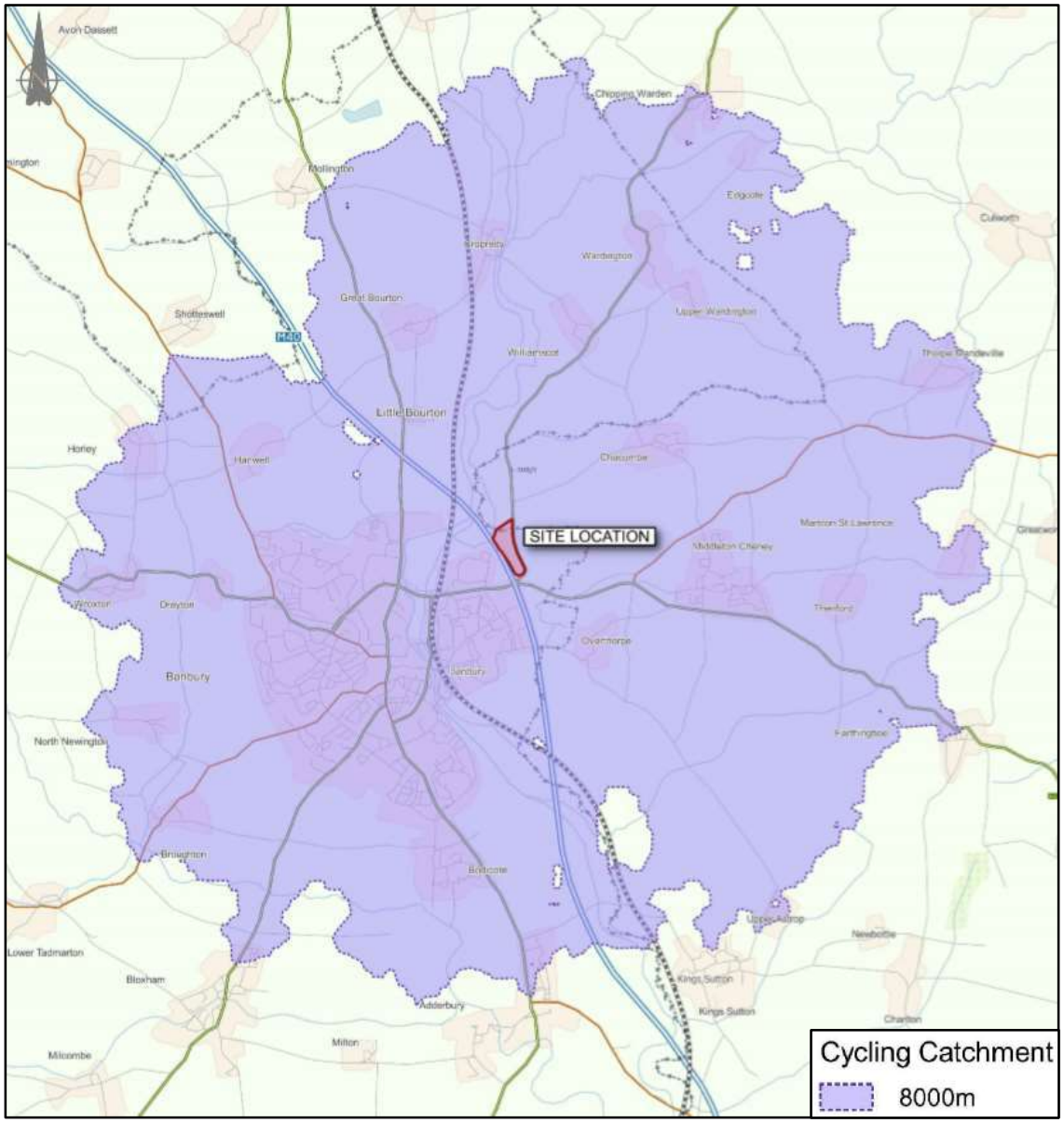


Figure 4.2 – Indicative Cycle Catchment

4.3.3 The catchment extends as far as Chipping Warden in the north, Thorpe Mandeville to the east, Bodicote in the south and Wroxton to the west. The whole Banbury and the large residential areas of Neithrop, Easington and Hardwick can be reached from the site via an accessible cycle ride. Several outlying villages such as Middleton Cheney, Overthorpe and Chacombe are also accessible.

4.3.4 There are excellent well-lit cycling provisions on the main routes from these residential areas and the proposed development. Based on **Figure 4.3** the majority of cycle journeys will likely come from Banbury itself.

4.3.5 On several of the routes linking the residential areas of Banbury with the site, such as Ermont Way and Daventry Road, there are existing cycle facilities. Ermont Way is located south of the site and has a 3m shared foot/cycleway which is well lit and segregated from the carriageway. This shared foot/cycleway forms part of a larger loop which also runs along Daventry Road (up until Overthorpe Road) before re-joining Ermont Way. This provides a safe, traffic free and convenient route for cyclists (and pedestrians) accessing the site from Banbury and the surrounding area.

4.3.6 The crossing facilities discussed above can be utilised by cyclists wishing to navigate the A422 Hennef Way, i.e. the existing staggered signalised crossings and improved M40 underpass.

4.3.7 In addition to the local cycling provisions, there are sections of the National Cycle Network (NCN) that are located within the recommended 8km cycle distance from the site. NCN Route 5 is located approximately 5km south-west of the site and is connected to Banbury centre (and the site) via an on-road cycle route that follows Bankside.

4.3.8 Furthermore, Regional Route 40 is located 1.5km south of the development site and runs between Middleton Cheney, Overthorpe and Ermont Way at Banbury. This is made up of both traffic-free and on-road cycle routes and provides a useful connection to prospective employees looking to access the site, particularly from the villages of Middleton Cheney and Overthorpe.

4.3.9 The wider local highway network in the vicinity of the site is predominately residential in nature, lightly trafficked with low vehicular speeds. Therefore, where specific cycle provisions are not provided the majority of the local roads are considered suitable for cycling on carriageway.

4.3.10 As stated above, the developer is committed to a Section 106 agreement towards the delivery of improvement works to the adjacent M40 underpass connection. These improvement works would improve (and maintain) the lighting, security, surfacing and general arrangement of this pedestrian/ cycle link and therefore promote cycling to/ from Banbury.

4.3.11 In addition to this, the developer is funding an extensive scheme of pedestrian/cycle improvements along Wildmere Road (and short sections of Hennef Way and Daventry Road), which includes footway widening, signage (indicating the presence of a shared foot/cycleway), new tactile paving and dropped kerbs, and upgrades to the existing traffic signals to permit cycle crossing.

4.3.12 Reference should be made to Curtins **Drawing 69717-CUR-00-XX-DR-TP-75004-P02**, extracted and shown at **Figure 4.3** below, for details of the proposed pedestrian/cycle improvements along Wildmere Road. The improvements increase the attractiveness of pedestrian and cycle trips between the site and Banbury, promoting more sustainable transport modes.

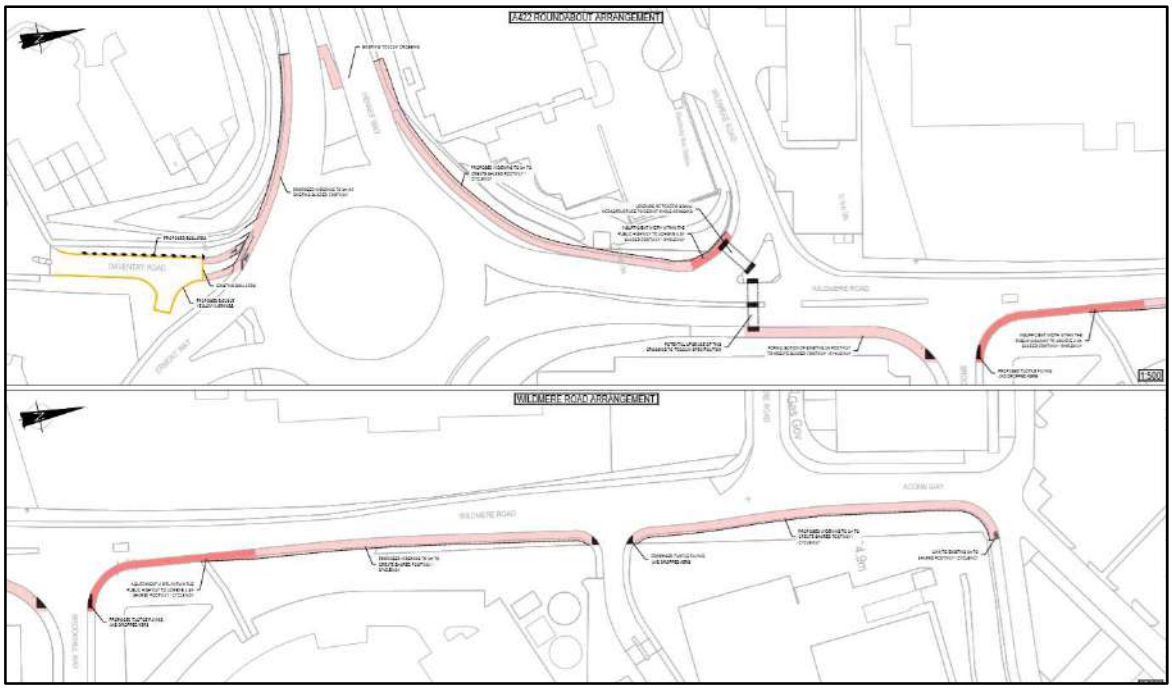


Figure 4.3 – Wildmere Road Pedestrian/Cycle Improvements

4.3.13 The proposed development is ideally placed to take advantage of the cycle connections around Banbury. Banbury Phase 3 will feature secure cycle parking spaces to encourage cycling amongst prospective employees and visitors.

4.3.14 In summary, it is considered that cycling is a highly realistic mode of travel for future employees and visitors at the proposed development site.

4.4 Public Transport Accessibility

4.4.1 The site is well situated to take advantage of existing public transport infrastructure within Oxfordshire. **Plan 069717-CUR-00-XX-DR-TP-06005-V01** demonstrates the areas accessible via public transport within 10, 20 and 30 minutes of the site. This plan has been extracted and shown at **Figure 4.4** for ease of reference. Accessibility by bus and rail are considered in further detail below.

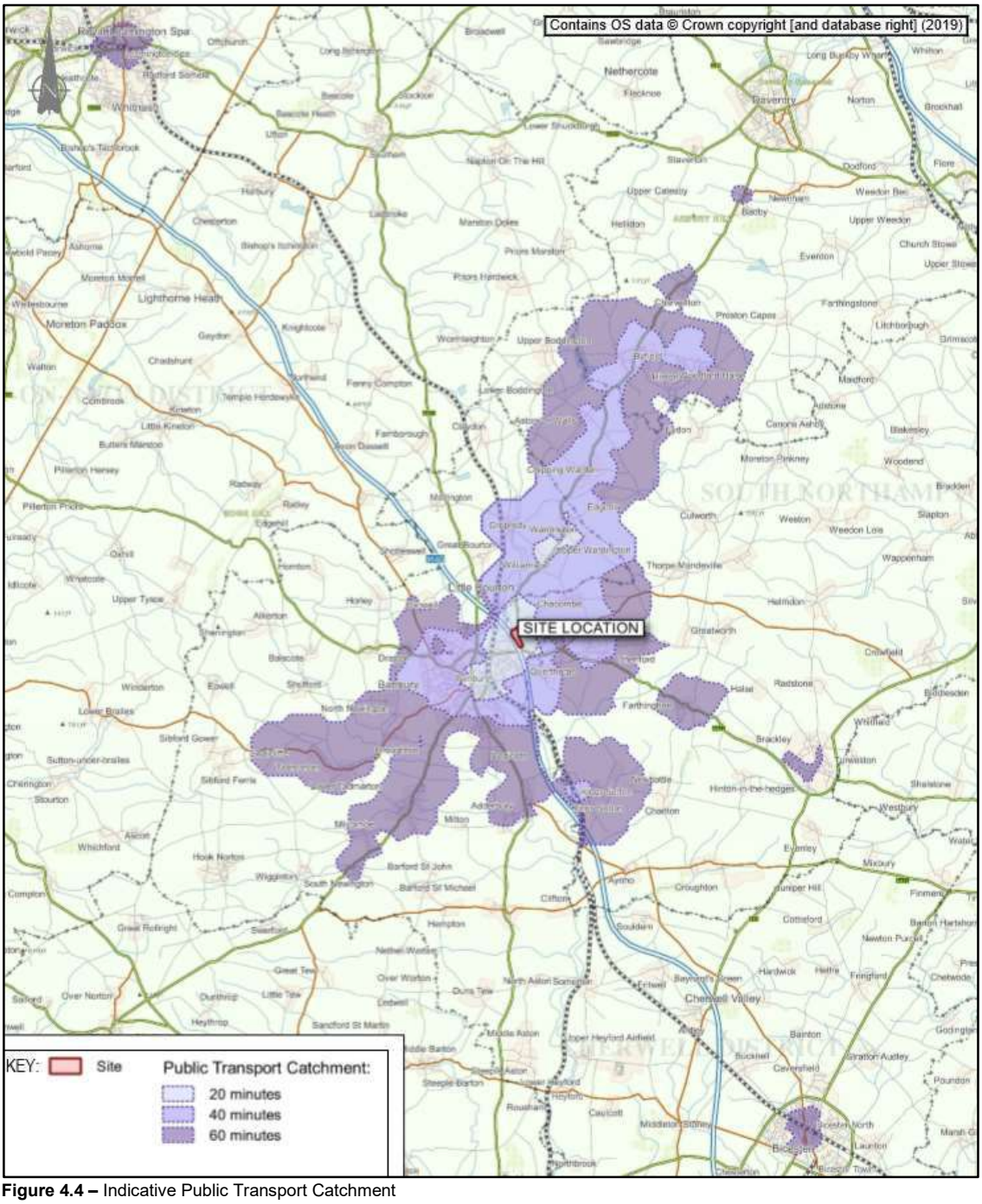


Figure 4.4 – Indicative Public Transport Catchment

Bus

4.4.2 The Chartered Institution of Highways and Transportation (CIHT) document, 'Planning for Public Transport in Developments' recommends that developments should ideally be located within 400m of a bus stop.

4.4.3 As part of the 19/00128//HYBRID application, it is proposed to introduce bus stops on A361 along the site frontage which will be well within the recommended 400m walking distance from the site. The new bus stops will be situated in a layby arrangement, sheltered and provide up to date timetable information, as well as being fully accessible for all users.

4.4.4 Safe pedestrian access will be provided to these bus stops through the introduction of 2m wide footways and a pedestrian refuge island, located at the main pedestrian desire line. This pedestrian crossing points will also benefit from the introduction of dropped kerbs and tactile paving.

4.4.5 The proposed bus stops will be served by the No.200 and 500 buses that currently run along the A361 in both directions. These are existing services that run between Banbury and Daventry/Brackley, and also call at Farthinghoe, Middleton Cheney and Chacombe. A summary of these bus services is given at **Table 4.2** below.

Bus Service	Journey	Frequency		
		Monday to Friday	Saturday	Sunday
200	**Brackley – Daventry** Via Wardington, Chipping Warden, Byfield, Woodford Halse, Byfield, Badby & Daventry	60 mins	60 mins	No Service
500	**Brackley – Banbury** Via Middleton Cheney	30 mins	30 mins	60 mins

Table 4.2 – No. 200 Bus Service Summary

4.4.6 In summary, in light of the site's location close to existing services on the A361 it has been demonstrated that the site is accessible by bus.

4.4.7 Following discussion with officers at Oxfordshire County Council (OCC) during the 19/00128//HYBRID application it was stated developer would be willing to implement 'internal' bus stops so that an additional Banbury bus service could enter the site, stop to drop off/ collect passengers, before safely turning within the layout (utilising the proposed turning head) and returning to Banbury.

4.4.8 Such a bus service could coincide with shift patterns to facilitate journeys to and from the development when workers are due to start and finish on site. The proposed site layout includes a bus turning head area within the development to accommodate an additional bus service in the future.

Rail

4.4.9 The Chartered Institution of Highways and Transportation (CIHT) document, 'Planning for Public Transport in Developments' notes that visitors travelling to a site by rail will typically be prepared to walk further to the site than visitors travelling by bus, with a preferred distance of 800m. Banbury Station is located on Bridge Street, approximately 2km walk/ cycle distance from the site.

4.4.10 Whilst the walking distance from the site to the railway station is above the desired maximum, it may still be viable for some rail users, particularly those who cycle or 'park and ride'. Furthermore, there are bus stops located on Middleton Roade adjacent to the railway station, which are also served by the No.200 bus.

4.4.11 It is therefore considered that a multi-modal journey would be viable for employees of the site to who are unable to walk/ cycle the 2km distance.

4.4.12 Banbury Rail Station is managed by Chiltern Railway and provides regular and frequent trains towards Manchester, Birmingham and London, as well as many of the nearby local stations. At the station itself there is a large number of secure cycle and car parking spaces available, as well as Wi-Fi, CCTV coverage, taxi services, disabled access, a café, customer help points and a ticket office.

4.4.13 In view of the availability of connecting bus services to access the Banbury Railway Station, and the level of service available at the station, it is considered that the site is accessible for travel by rail.

4.5 Summary

In summary, the site is located such as to benefit from existing walking, cycling and public transport opportunities. The site is located in close proximity to a variety of key services and facilities as well as a number of pre-existing residential areas. The site is therefore considered to be accessible from sustainable modes of travel in line with national and local transport planning policy outlined in **Section 6** of this TA and no barriers to sustainable travel to and from the site have been identified.

5.0 Highway Impact

5.1 Introduction

5.1.1 This section of the report details the methodology used to predict the demand associated with the proposed development and describes the methodology/results of the highway impact assessments that have been undertaken.

5.2 Baseline Traffic Data

5.2.1 As part of the previous planning applications, manual classified turning count traffic surveys were undertaken at the M40 Junction 11 during the AM and PM Peak periods. The raw traffic survey data was included as part of those applications. Traffic flow data for the M40 mainline was obtained from the TRADS Database (from a neutral traffic month i.e. October).

5.2.2 For all other junctions with the TA study area, the traffic flow data was provided by OCC from the Banbury Highway Model (SATURN model) which was developed by OCC in order to assess impact of allocations proposals as part of CDC's Local Plan. The data utilised in the previous applications covered the 2021, 2026 and 2029 scenarios and includes traffic flows from all of the committed development and allocated development sites within Banbury (i.e. 'No Development' flows).

5.2.3 For consistency, and due to ongoing impacts of the Covid pandemic, this traffic flow data has been used as the robust basis for assessing the revised planning application, with suitable trip generation and growth factors applied for the future year 'with development' scenarios.

5.2.4 Future year assessments have been undertaken in 2026 and 2031. These assessment years are in line with the approach recommended in the HE's '*A guide to working with Highways England on planning matters'* document which recommends assessments are undertaken in the predicted year of opening (assuming a full build out and occupation i.e. 2026), and ten years after the date of registration of the planning application (2031).

5.2.5 The traffic flows previously produced for the 2026 scenarios have been projected to 2031 by applying factors extracted from the DfT's TEMPRO 7.2 program, using the definitive NTEM v7.2 database and the current NTM AF09 dataset in line with TAG Unit M4: Forecasting and Uncertainty. Cherwell (004) has been selected as the defined area.

Scenarios	Time Period	
	AM Peak	PM Peak
2026 - 2031	1.0407	1.0407

Table 5.1 – TEMPRO Growth Factors in Cherwell

5.2.6 Reference should be made to **Figures 1 - 4** in **Appendix C** which show the 2026 and 2031 'Base Traffic' scenarios for the weekday AM and PM peak periods. In order to create robust 'No Development' Scenarios the traffic flows associated with the previous hybrid application have been added to the base scenarios. The 2026 and 2031 'No Development' Scenarios are shown at **Figures 5 - 8** in **Appendix C**.

5.3 Traffic Generation

5.3.1 In order to calculate the trip generation associated with the development proposals, which informs the junction capacity assessments found in the below subsections, a trip generation exercise has been undertaken for the weekday AM and PM peak hours. This process has been based upon the development proposals outlined in **Section 3** above.

5.3.2 In order to undertake the assessment, the TRICS database has been used. TRICS is the industry recognised tool for calculating the anticipated future trip demand of a proposed development. The database contains multi-modal surveys of varying land uses in multiple destinations across the UK.

5.3.3 As described in **Section 3** it is envisaged that the proposed development would comprise of the following uses;

- 240 bed hotel;
- 4-storey office building (circa 5,200m^2);
- Petrol filling station (PFS);
- Coffee and hot-food drive thrus; and,
- Associated car parking.

5.3.4 The search criteria used in the TRICS database are presented in **Appendix D**. The Weekday AM and PM peak hours of 08:00 – 09:00 and 17:00 – 18:00 have been considered in summarising the trip rates in the following **Table 5.2**.

5.3.5 All trips rates for the office and drive thru uses are per 100m^2 GFA, whereas the hotels are per 1 bedroom and the PFS is per car filling bay.

TRICS – Land Uses	Weekday AM Peak Hour (08:00 – 09:00)			Weekday PM Peak Hour (17:00 – 18:00)		
	Arrive	Depart	Total	Arrive	Depart	Total
Office	1.097	0.154	1.251	0.157	1.015	1.172
Hotel	0.229	0.305	0.534	0.164	0.179	0.343
PFS (with retail)	7.900	7.676	15.575	8.488	8.419	16.907
Drive Thru FF	12.719	12.281	25.000	13.074	13.128	26.202
Drive Thru Coffee	14.985	13.558	28.543	8.869	10.194	19.063

Table 5.2 – Proposed Development Trip Rates

5.3.6 It is considered that not all of the above will attract purely new trips to the local highway network. Given the ongoing development of Frontier Park (Phases 1 and 2 of the Banbury site), the mixed-use proposals for Phase 3 and the site's proximity to the A361 it is considered that a large proportion of trips will be 'linked' to other uses on site, or 'passing by' the site as part of a journey elsewhere.

5.3.7 The vision for the scheme is to serve passing traffic on the local highway network and support those working at, and visiting, Frontier Park (Phases 1 and 2 of the Hybrid Application). No signage is proposed on the M40 Motorway or Strategic Road Network to alert drivers to the presence of the mixed-use development.

5.3.8 On this basis, the trip rates and trip generation for these elements are considered in the junction analysis but would be amended based upon the percentage splits shown in **Table 5.3** below.

Land Uses	Primary (%)	Pass-by/Diverted (%)	Linked (%)
Office	100%	-	-
Hotel	100%	-	-
PFS (with retail)	-	80%	20%
Drive Thru Elements	10%	70%	20%

Table 5.3 – Trip Types by Land Use Element (extract)

5.3.9 The following **Table 5.4** indicates the 'primary' trip generation of the proposed site.

TRICS – Land Uses	Weekday AM Peak Hour (08:00 – 09:00)			Weekday PM Peak Hour (17:00 – 18:00)		
	Arrive	Depart	Total	Arrive	Depart	Total
Office	57	8	65	8	53	61
Hotel	55	73	128	39	43	82
Drive Thrus	10	10	20	9	9	18
Total	122	91	213	57	105	162

Table 5.4 – Proposed Development 'Primary' Trip Generation

5.3.10 The following **Table 5.5** indicates the 'pass-by' trip generation of the proposed site.

TRICS – Land Uses	Weekday AM Peak Hour (08:00 – 09:00)			Weekday PM Peak Hour (17:00 – 18:00)		
	Arrive	Depart	Total	Arrive	Depart	Total
PFS & Drive Thrus	135	129	263	131	133	264

Table 5.5 – Pass-by Trip Generation

5.3.11 **Table 5.4** demonstrates the proposed development could generate approximately 213 and 162 two-way 'primary' trips in the weekday AM and PM peaks. This is considered to be a robust estimate of traffic generation from the proposed development. Particularly when considering the accessible location of the proposed development site, the fact that a high proportion of trips that will already be on the highway network and the sustainable transport measures being brought forward as part of the Hybrid Application (detailed throughout this report).

5.3.12 For comparative purposes, the trip rates from the consented Phase 3 are also extracted and recreated in **Table 5.6** below:

TRICS – Land Uses	Weekday AM Peak Hour (08:00 – 09:00)			Weekday PM Peak Hour (17:00 – 18:00)		
	Arrive	Depart	Total	Arrive	Depart	Total
Previous Phase 3	30	11	41	6	27	33

Table 5.6 – Phase 3 Consented Development Trip Generation

5.4 Traffic Distribution

5.4.1 The previous planning applications utilised the trip distribution for Banbury 15 (i.e. the proposed development site) found within the existing Banbury SATURN model (with the data provided by OCC). To ensure a consistent approach, the same assignment has been utilised for the newly proposed uses on site.

5.4.2 **Figures 9** and **10** in **Appendix C** shows this assignment on the network. The number of vehicles presented in **Section 5.3** above have been distributed on the network using this assignment, which derives **Figures 11 - 14**. These show the AM and PM peak hour traffic flows generated by the proposed development.

5.4.3 In order to create a suitable 'With Development' traffic scenario, traffic flows associated with the previous Phase 3 proposals have been 'netted off' the overall trip generation of the revised scheme. The previous Phase 3 traffic flows shown in **Table 5.6** above have been shown diagrammatically at **Figures 15** and **16**, and **Figures 17** and **18** show the net traffic generation of the revised Phase 3 proposals.

5.4.4 These 'net' development generated flows have been added to **Figures 5 – 8** to create the 2026 and 2031 'With Development' scenarios, which are shown as **Figures 19 – 22** in **Appendix C**.

5.5 Junction Assessments

5.5.1 As per the previous Hybrid Application, capacity assessments have been undertaken at the following junctions:

- A361/ Proposed Site Access Junction;
- M40 Junction 11 Grade Separated Roundabout Junction;
- A422 Hennef Way/ Ermont Way Roundabout;
- A422 Hennef Way/ Concorde Avenue Roundabout; and,
- A422 Hennef Way/ Southam Road Roundabout.

5.5.2 It was demonstrated as part of the previous applications that the developments would result in very minor increases in traffic travelling through junctions further afield than those locations listed above. As discussed in **Section 6.4**, the same trip distribution has been applied for this development.

5.5.3 Curtins are aware of an existing base LinSig traffic model produced by OCC and provided as a part of the previous TA work. The base model includes the M40 Junction 11 and Hennef Way Corridor, i.e. all three roundabout junctions to the west, and has been used for the purpose of assessing the impact of the development on the local highway network.

5.5.4 LinSig is a software tool developed by JCT Consultancy which allows traffic engineers to model traffic signals and their effect on traffic capacities and queuing. As well as modelling the effects of traffic signals LinSig also optimises signal timings to reduce delay or increase capacity at a junction or group of interlinked junctions.

5.5.5 LinSig results refer to the Degree of Saturation (DoS) and Mean Maximum Queue (MMQ) predicted in each lane of the junction. A DoS of 100% indicates that the lane in question is operating at its theoretical capacity (point of saturation), whilst a DoS of 90% or less indicates that the lane is operating within its practical capacity.

5.5.6 MOVA technology is also intended to be introduced at the junction, which will significantly improve upon its operation by constantly assessing and modifying signals times of the approach arms in order to maximise capacity. Within the LINSIG programme, it is not currently possible to accurately model the benefits of MOVA, as such the results presented within this TA are a worse-case and will likely be improved upon vastly following the introduction of MOVA.

5.5.7 In addition to the above LINSIG model, a stand-alone junction capacity assessment has been undertaken for the site access junction. Given that the proposed site access arrangement is a priority-controlled junction it has been assessed via TRL's JUNCTIONS programme.

5.5.8 JUNCTIONS results refer to the Ratio of Flow to Capacity (RFC), delay and queue length predicted on each arm of the junction. An RFC of 1.00 indicates that the arm in question is operating at its theoretical capacity, whilst an RFC of 0.85 or less indicates that the arm is operating within its practical capacity.

5.5.9 The results from the junction assessments are shown in the following section and the relevant junction modelling output reports are attached in **Appendix E**, to the rear of this report.

5.6 Junction Modelling Results

A361/ Proposed Site Access Junction

5.6.1 The site access junction proposed to serve the development is located on the A361, approximately 300m north-east of M40 Junction 11. The JUNCTIONS 9 results of the future year assessments at the site access are summarised below.

Approach	Movement	AM 2026 With Dev			PM 2026 With Dev		
		Queue (Vehs)	Delay	RFC	Queue (Vehs)	Delay	RFC
A361 (North)	**Ahead/Right**	0	8 secs	0.13	0	7 secs	0.12
Site Access	**Left/Right**	1	20 secs	0.48	2	28 secs	0.65

Table 5.7 – A361/ Proposed Site Access: '2026 With Dev' Scenarios

Approach	Movement	AM 2031 With Dev			PM 2031 With Dev		
		Queue (Vehs)	Delay	RFC	Queue (Vehs)	Delay	RFC
A361 (North)	**Ahead/Right**	0	8 secs	0.13	0	7 secs	0.12
Site Access	**Left/Right**	1	21 secs	0.49	2	30 secs	0.67

Table 5.8 – A361/ Proposed Site Access: '2031 With Dev' Scenarios

5.6.2 It is clear from the results shown in **Tables 5.6** and **5.8**, that the proposed A361/Site Access priority junction is predicted to operate within capacity in both the 2026 and 2031 future year scenarios.

M40 Junction 11 Grade Separated Roundabout Junction

5.6.3 The results of the M40 Junction 11 grade separated roundabout junction are summarised below.

Link	Lane Description	2026 No Development				2026 With Development			
		AM Peak		PM Peak		AM Peak		PM Peak	
		DoS	MMQ	DoS	MMQ	DoS	MMQ	DoS	MMQ
1/1	**M40N Approach Left Ahead**	75.2%	4.4	59.4%	4.1	76.7%	4.6	75.6%	5.6
1/2+1/3	**M40N Approach Ahead**	94.4%	7.8	97.0%	8.3	97.4%	8.2	82.7%	6.9
2/1+2/2	**A361 Approach Left Ahead**	56.6%	3.1	100.3%	22.1	65.1%	3.9	105.9%	39.3
3/2+3/1	**A422 East Approach Left Ahead**	102.7%	32.0	104.1%	33.3	109.8%	55.4	77.9%	10.8
3/3	**A422 East Approach Ahead**	102.5%	30.7	104.4%	33.0	109.2%	50.9	75.3%	11.0
4/1	**M40S Approach Ahead**	111.6%	29.6	79.1%	7.5	111.9%	30.1	83.8%	8.1
4/2+4/3	**M40S Approach Ahead Ahead2**	111.6%	33.1	88.1%	10.3	111.6%	38.8	96.4%	8.9
5/2+5/1	**A422 Hennef Way Approach Left Ahead**	158.0%	209.0	101.9%	29.7	159.0%	212.2	104.0%	39.8
5/3	**A422 Hennef Way Approach Ahead**	159.3%	212.4	99.1%	28.7	159.5%	213.1	102.9%	39.5
10/1	**A422 Hennef Way Exit Ahead**	81.4%	2.9	74.3%	1.8	80.6%	2.8	74.9%	1.8
10/2	**A422 Hennef Way Exit Ahead**	55.6%	0.9	60.5%	1.3	54.5%	0.9	63.3%	1.5
11/1	**J11 Circ1 Ahead Right**	80.4%	12.9	88.2%	18.3	83.3%	13.5	87.7%	20.9
11/2	**J11 Circ1 Right**	60.4%	8.5	76.9%	13.4	60.1%	8.5	73.7%	17.2
12/1	**J11 Circ3 Ahead**	36.3%	0.3	44.1%	0.4	35.4%	0.3	44.5%	0.4
12/2	**J11 Circ3 Ahead**	19.3%	0.1	26.4%	0.2	19.6%	0.1	24.8%	0.2
12/3	**J11 Circ3 Right**	36.8%	0.3	44.8%	0.4	36.8%	0.3	41.4%	0.4
12/4	**J11 Circ3 Right**	14.6%	0.1	11.6%	0.1	14.3%	0.1	14.0%	0.1
13/1	**J11 Circ5 Ahead**	49.2%	5.6	41.8%	6.6	48.6%	5.7	49.2%	6.9
13/2	**J11 Circ5 Ahead Right**	61.7%	5.5	59.3%	6.2	61.0%	5.6	73.9%	11.3
13/3	**J11 Circ5 Right**	51.3%	3.1	42.5%	0.7	51.4%	3.3	57.5%	3.6
14/1	**J11 Circ7 Ahead**	88.2%	16.3	78.2%	9.8	87.1%	15.9	77.6%	9.1
14/2	**J11 Circ7 Ahead Right**	94.4%	22.4	84.5%	12.8	92.7%	20.9	87.5%	14.6

15/1	**J11 Circ9 Ahead**	49.4%	4.6	55.3%	5.5	50.1%	4.8	54.5%	6.0
15/2	**J11 Circ9 Right**	60.6%	6.2	63.0%	6.9	64.2%	6.4	66.9%	4.3

Table 5.9 – M40 Junction 11: 2026 Scenarios

Link	Lane Descriptor	2031 No Development				2031 With Development			
		AM Peak		PM Peak		AM Peak		PM Peak	
		DoS	MMQ	DoS	MMQ	DoS	MMQ	DoS	MMQ
1/1	**M40N Approach Left Ahead**	79.9%	5.1	62.9%	4.4	81.7%	5.4	63.1%	4.5
1/2+1/3	**M40N Approach Ahead**	97.4%	8.9	95.7%	8.5	98.0 %	9.3	97.5%	8.6
2/1+2/2	**A361 Approach Left Ahead**	58.8%	3.3	100.0%	21.2	67.7%	4.3	111.1%	52.8
3/2+3/1	**A422 East Approach Left Ahead**	113.5%	69.7	98.5%	22.0	113.8%	70.8	99.2%	23.3
3/3	**A422 East Approach Ahead**	113.1%	65.5	98.0%	21.4	113.9%	68.5	98.3%	21.8
4/1	**M40S Approach Ahead**	101.2%	16.3	87.4%	9.0	117.0%	38.7	86.4%	8.7
4/2+4/3	**M40S Approach Ahead Ahead2**	105.4%	20.3	100.5%	12.2	115.9%	46.3	100.9%	11.8
5/2+5/1	**A422 Hennef Way Approach Left Ahead**	168.8%	233.9	110.6%	70.0	169.3%	239.1	110.4%	69.2
5/3	**A422 Hennef Way Approach Ahead**	169.2%	232.7	110.7%	69.0	170.0%	235.3	110.9%	69.8
10/1	**A422 Hennef Way Exit Ahead**	82.9%	3.2	77.2%	1.9	81.8%	3.0	77.1%	1.9
10/2	**A422 Hennef Way Exit Ahead**	57.7%	1.0	64.8%	1.6	55.2%	0.9	64.8%	1.6
11/1	**J11 Circ1 Ahead Right**	77.2%	11.7	83.3%	12.0	80.2%	12.5	86.1%	13.5
11/2	**J11 Circ1 Right**	57.7%	7.9	72.3%	9.8	58.2%	8.0	72.5%	9.8
12/1	**J11 Circ3 Ahead**	36.3%	0.3	41.5%	0.4	34.8%	0.3	41.0%	0.3
12/2	**J11 Circ3 Ahead**	18.6%	0.1	26.2%	0.2	19.5%	0.1	26.5%	0.2
12/3	**J11 Circ3 Right**	36.2%	0.3	41.7%	0.4	35.7%	0.3	41.9%	0.4
12/4	**J11 Circ3 Right**	15.0%	0.1	12.8%	0.1	15.1%	0.1	12.5%	0.1
13/1	**J11 Circ5 Ahead**	46.7%	5.5	45.8%	6.6	47.7%	5.6	45.8%	6.6
13/2	**J11 Circ5 Ahead Right**	59.5%	5.3	56.4%	6.0	61.7%	5.6	55.7%	5.7
13/3	**J11 Circ5 Right**	49.5%	3.1	48.3%	4.5	52.5%	3.5	48.3%	4.6
14/1	**J11 Circ7 Ahead**	90.1%	17.0	79.6%	7.7	88.9%	16.6	79.8%	7.7
14/2	**J11 Circ7 Ahead Right**	94.6%	22.1	89.1%	13.8	93.5%	21.5	89.2%	13.9
15/1	**J11 Circ9 Ahead**	45.0%	4.5	50.8%	3.4	47.7%	4.6	50.1%	3.3
15/2	**J11 Circ9 Right**	57.0%	5.9	57.3%	6.0	61.8%	6.2	62.6%	6.9

Table 5.10 – M40 Junction 11: 2031Scenarios

5.6.4 The results in **Tables 5.9** and **5.10** demonstrates that the M40 Junction 11 Grade Separated Roundabout Junction is predicted to operate over capacity in both future year 2026 and 2031 'No Development' traffic scenarios. However, with the development in place, i.e. the 'With Development' scenarios, the proposals have minimal impact on the DoS across the majority of the junction approach arms.

5.6.5 In the weekday PM peak 'With development' scenarios, the network operates with a higher MMQ on the A361 approach arm, but not one that is considered significantly detrimental nor 'severe' in the context of the National Planning Policy Framework (NPPF). It should also be noted that LinSig, when already operating over capacity, is highly sensitive to relatively minor changes in traffic flows. This is considered further in the highway impacts summary below.

422 Hennef Way/ Ermont Way Roundabout

5.6.6 The results of the A422 Hennef Way/ Ermont Way roundabout junction are summarised below.

Link	Lane Descriptor	2026 No Development				2026 With Development			
		AM Peak		PM Peak		AM Peak		PM Peak	
		DoS	MMQ	DoS	MMQ	DoS	MMQ	DoS	MMQ
1/1	Wildmere SB Entry Ahead Left	11.8%	0.1	21.6%	0.1	12.0%	0.1	21.5%	0.1
1/2	Wildmere SB Entry Ahead	7.2%	0.0	28.1%	0.2	7.2%	0.0	28.0%	0.2
2/1	Hennef Way WB Ahead Left	68.5%	0.5	67.4%	0.5	67.6%	0.5	69.1%	0.6
3/1+3/2	Ermont Way NB Ahead Left	71.7%	1.2	63.4%	0.9	71.2%	1.2	63.6%	0.9
4/1	Hennef Way EB Left	10.4%	0.4	10.2%	0.3	10.4%	0.4	10.0%	0.3
4/2	Hennef Way EB Ahead	127.6%	175.0	115.5%	132.4	128.1%	177.7	115.1%	120.2
4/3	Hennef Way EB Ahead	127.4%	174.1	114.8%	129.2	129.2%	183.0	116.1%	124.7
6/1	Hennef Way EB Ahead	70.7%	0.6	70.5%	0.6	70.8%	0.6	70.5%	0.6
8/1	Wildmere Rd SB Ahead	4.9%	0.0	24.8%	0.2	4.9%	0.0	24.8%	0.2
8/2	Wildmere Rd SB Ahead	33.3%	0.2	127.1%	91.1	33.3%	0.2	126.5%	89.8
9/1	Wildmere - Hennef Ahead	41.6%	0.4	60.2%	0.8	42.2%	0.4	59.8%	0.7
10/1	Hennef EB Ahead	53.0%	0.6	51.1%	0.5	52.9%	0.6	51.0%	0.5
10/2	Hennef EB Ahead	51.5%	0.5	49.7%	0.5	51.6%	0.5	49.7%	0.5
11/1	Hennef Way WB Ahead	105.8%	70.5	112.0%	98.3	105.1%	67.8	114.7%	114.3
11/2	Hennef Way WB Ahead	106.1%	71.8	111.0%	92.3	104.5%	65.1	114.3%	110.6
11/3	Hennef Way WB Ahead	18.5%	0.1	19.2%	0.1	18.1%	0.1	19.7%	0.1
12/1	Hennef - Ermont Left	24.1%	0.2	31.9%	0.2	23.5%	0.2	32.5%	0.2
13/1	Ermont SB Ahead	1.1%	0.0	7.2%	0.0	1.1%	0.0	7.2%	0.0
14/1	E Circ 7 Ahead	55.4%	0.6	53.5%	0.6	55.3%	0.6	53.4%	0.6

14/2	**E Circ 7 Ahead**	53.8%	0.6	51.8%	0.5	53.8%	0.6	51.8%	0.5
14/3	**E Circ 7 Right**	0.1%	0.0	1.8%	0.0	0.1%	0.0	1.8%	0.0
15/1	**E Circ Ahead**	1.2%	0.0	7.6%	0.0	1.2%	0.0	7.6%	0.0
15/2	**E Circ Right**	2.4%	0.0	9.5%	0.1	2.4%	0.0	9.6%	0.1
15/3	**E Circ Right**	4.5%	0.0	11.8%	0.1	4.6%	0.0	11.8%	0.1
16/1	**E Circ 3 Ahead**	48.7%	0.5	50.4%	0.5	48.6%	0.5	50.5%	0.5
16/2	**E Circ 3 Ahead**	47.5%	0.5	50.1%	0.5	47.6%	0.5	50.0%	0.5
16/3	**E Circ 3 Right**	8.2%	0.0	7.8%	0.0	8.1%	0.0	8.0%	0.0
17/1	**E Circ 5 Ahead**	5.5%	0.0	4.8%	0.0	5.4%	0.0	4.7%	0.0
17/2	**E Circ 5 Ahead Right**	11.7%	0.1	10.6%	0.1	11.6%	0.1	10.8%	0.1
17/3	**E Circ 5 Right**	9.2%	0.1	8.1%	0.0	9.2%	0.1	8.1%	0.0
18/2+18/1	**Hennef Way EB Xing Ahead**	92.2%	17.7	75.7%	11.2	92.6%	19.5	75.2%	10.1
18/3	**Hennef Way EB Xing Ahead**	88.0%	15.2	70.6%	11.7	89.3%	17.3	71.3%	9.9
19/1	**Hennef Way WB Ahead**	74.6%	9.6	71.9%	11.4	74.4%	9.5	71.9%	11.4
19/2	**Hennef Way WB Ahead**	73.3%	9.8	73.1%	12.3	73.5%	9.9	73.1%	12.3
20/1	**Hennef Way Xing WB Ahead**	55.2%	0.7	62.0%	5.2	55.2%	0.7	62.0%	5.2

Table 5.11 – A422 Hennef Way/ Ermont Way: 2026 Scenarios

Link	Lane Descriptor	2031 No Development				2031 With Development			
		AM Peak		PM Peak		AM Peak		PM Peak	
		DoS	MMQ	DoS	MMQ	DoS	MMQ	DoS	MMQ
1/1	**Wildmere SB Entry Ahead Left**	12.3%	0.1	22.4%	0.1	12.4%	0.1	22.4%	0.1
1/2	**Wildmere SB Entry Ahead**	7.5%	0.0	29.2%	0.2	7.5%	0.0	29.3%	0.2
2/1	**Hennef Way WB Ahead Left**	70.3%	0.6	71.0%	0.6	68.5%	0.5	71.0%	0.6
3/1+3/2	**Ermont Way NB Ahead Left**	74.4%	1.4	66.4%	1.0	74.5%	1.4	66.2%	1.0
4/1	**Hennef Way EB Left**	10.8%	0.4	10.4%	0.3	10.8%	0.4	10.4%	0.4
4/2	**Hennef Way EB Ahead**	133.0%	200.9	118.0%	132.2	133.9%	201.6	118.7%	135.0
4/3	**Hennef Way EB Ahead**	133.4%	202.5	118.9%	136.6	135.0%	206.6	118.9%	136.2
6/1	**Hennef Way EB Ahead**	71.1%	0.6	71.0%	0.6	71.2%	0.6	71.0%	0.6
8/1	**Wildmere Rd SB Ahead**	5.1%	0.0	25.7%	0.2	5.1%	0.0	25.7%	0.2
8/2	**Wildmere Rd SB Ahead**	34.7%	0.3	132.0%	102.8	34.7%	0.3	132.2%	103.3
9/1	**Wildmere - Hennef Ahead**	42.9%	0.4	62.5%	0.8	43.3%	0.4	62.5%	0.8
10/1	**Hennef EB Ahead**	51.5%	0.5	51.2%	0.5	51.4%	0.5	51.2%	0.5
10/2	**Hennef EB Ahead**	53.0%	0.6	49.6%	0.5	53.0%	0.6	49.6%	0.5
11/1	**Hennef Way WB Ahead**	109.0%	84.6	117.6%	126.3	106.2%	72.1	117.8%	127.4
11/2	**Hennef Way WB Ahead**	109.0%	84.5	117.5%	123.7	106.6%	73.8	117.5%	124.0

11/3	**Hennef Way WB Ahead**	19.0%	0.1	20.5%	0.1	18.5%	0.1	20.4%	0.1
12/1	**Hennef - Ermont Left**	24.7%	0.2	33.7%	0.3	23.8%	0.2	33.5%	0.3
13/1	**Ermont SB Ahead**	1.2%	0.0	7.4%	0.0	1.2%	0.0	7.4%	0.0
14/1	**E Circ 7 Ahead**	53.8%	0.6	53.5%	0.6	53.7%	0.6	53.5%	0.6
14/2	**E Circ 7 Ahead**	55.3%	0.6	51.7%	0.5	55.3%	0.6	51.7%	0.5
14/3	**E Circ 7 Right**	0.1%	0.0	1.8%	0.0	0.1%	0.0	1.8%	0.0
15/1	**E Circ Ahead**	1.2%	0.0	7.8%	0.0	1.2%	0.0	7.8%	0.0
15/2	**E Circ Right**	2.4%	0.0	9.5%	0.1	2.6%	0.0	9.4%	0.1
15/3	**E Circ Right**	4.8%	0.0	11.8%	0.1	4.6%	0.0	11.9%	0.1
16/1	**E Circ 3 Ahead**	48.6%	0.5	50.4%	0.5	48.8%	0.5	50.3%	0.5
16/2	**E Circ 3 Ahead**	47.7%	0.5	50.0%	0.5	47.6%	0.5	50.1%	0.5
16/3	**E Circ 3 Right**	8.4%	0.0	8.3%	0.0	8.2%	0.0	8.3%	0.0
17/1	**E Circ 5 Ahead**	5.0%	0.0	5.0%	0.0	4.9%	0.0	5.1%	0.0
17/2	**E Circ 5 Ahead Right**	11.2%	0.1	11.3%	0.1	11.0%	0.1	11.2%	0.1
17/3	**E Circ 5 Right**	11.0%	0.1	8.3%	0.0	11.1%	0.1	8.3%	0.0
18/2+18/1	**Hennef Way EB Xing Ahead**	95.5%	23.2	76.9%	11.0	96.2%	24.7	: 77.4%	11.2
18/3	**Hennef Way EB Xing Ahead**	91.6%	18.9	72.6%	10.7	92.6%	19.6	72.7%	10.7
19/1	**Hennef Way WB Ahead**	74.4%	9.5	72.1%	11.5	74.7%	9.6	71.9%	11.4
19/2	**Hennef Way WB Ahead**	73.7%	9.9	73.1%	12.3	73.4%	9.8	73.3%	12.3
20/1	**Hennef Way Xing WB Ahead**	55.3%	0.8	62.1%	5.2	55.3%	0.8	62.1%	5.2

Table 5.12 – A422 Hennef Way/ Ermont Way: 2031 Scenarios

5.6.7 The results in **Tables 5.11** and **5.12** demonstrates that the A422 Hennef Way/ Ermont Way roundabout junction is currently predicted to operate over capacity in both future year 2026 and 2031 'No Development' traffic scenarios. However, with the development in place, i.e. the 'With Development' scenarios, the proposals have minimal impact on the DoS or MMQ across the junction approach arms.

A422 Hennef Way/ Concorde Avenue Roundabout

5.6.8 The results of the A422 Hennef Way/ Concorde Avenue roundabout junction are summarised below.

Link	Lane Descriptor	2026 No Development				2026 With Development			
		AM Peak		PM Peak		AM Peak		PM Peak	
		DoS	MMQ	DoS	MMQ	DoS	MMQ	DoS	MMQ
1/1	**From Grimsby Green Left Ahead**	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
2/1	**Hennef Way WB Left**	62.0%	0.8	72.4%	1.3	61.8%	0.8	73.2%	1.4
2/3+2/2	**Hennef Way WB Ahead**	65.9%	0.9	72.7%	1.2	66.1%	0.9	72.0%	1.2

3/1	**Concord Ave Entry Left**	42.3%	0.4	40.0%	0.3	42.0%	0.4	39.9%	0.3
3/2+3/3	**Concord Ave Entry Ahead**	96.0%	11.5	111.0%	89.9	97.7%	13.1	111.2%	91.3
4/1	**Holman Bridge Entry Left Ahead**	76.1%	7.9	75.6%	11.2	77.4%	8.9	76.2%	8.9
4/2	**Holman Bridge Entry Ahead**	78.0%	8.6	76.8%	11.9	78.6%	9.3	76.5%	9.5
6/1	**Hennef Way WB Ahead**	68.6%	0.5	63.3%	0.4	69.2%	0.6	63.4%	0.4
9/1	**C Circ 7 Ahead**	64.4%	0.9	64.6%	0.9	65.0%	0.9	64.9%	0.9
9/2	**C Circ 7 Ahead Right**	59.8%	0.7	52.6%	0.6	60.3%	0.8	52.5%	0.6
9/3	**C Circ 7 Right**	2.3%	0.0	8.9%	0.0	2.3%	0.0	8.9%	0.0
10/1	**C Circ1 Ahead**	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
10/2	**C Circ1 Ahead Right**	2.2%	0.0	8.6%	0.0	2.2%	0.0	8.6%	0.0
11/1	**C Circ 3 Ahead**	29.8%	0.2	35.5%	0.3	29.8%	0.2	37.7%	0.3
11/2	**C Circ 3 Ahead Right**	36.0%	0.3	38.4%	0.3	36.1%	0.3	35.9%	0.3
12/1	**C Circ 5 Ahead Right**	25.3%	0.2	25.7%	0.2	25.4%	0.2	25.8%	0.2
12/2	**C Circ 5 Right**	24.7%	0.2	24.1%	0.2	25.1%	0.2	24.2%	0.2

Table 5.13 – A422 Hennef Way/ Concorde Avenue: 2026 Scenarios

Link	Lane Descriptor	2031 No Development				2031 With Development			
		AM Peak		PM Peak		AM Peak		PM Peak	
		DoS	MMQ	DoS	MMQ	DoS	MMQ	DoS	MMQ
1/1	**From Grimsby Green Left Ahead**	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
2/1	**Hennef Way WB Left**	62.3%	0.8	72.7%	1.3	62.0%	0.8	73.3%	1.4
2/3+2/2	**Hennef Way WB Ahead**	67.2%	1.0	74.2%	1.3	62.7%	0.8	71.7%	1.4
3/1	**Concord Ave Entry Left**	43.8%	0.4	41.8%	0.4	44.0%	0.4	41.7%	0.4
3/2+3/3	**Concord Ave Entry Ahead**	99.8%	18.0	115.5%	113.3	100.0%	20.5	115.7%	114.6
4/1	**Holman Bridge Entry Left Ahead**	80.8%	10.0	77.1%	11.9	81.6%	10.2	76.8%	8.7
4/2	**Holman Bridge Entry Ahead**	82.0%	10.4	79.1%	12.9	83.2%	10.7	79.5%	11.0
6/1	**Hennef Way WB Ahead**	71.2%	0.6	64.7%	0.5	71.8%	0.6	64.9%	0.5
9/1	**C Circ 7 Ahead**	67.1%	1.0	65.4%	0.9	67.9%	1.1	65.2%	0.9
9/2	**C Circ 7 Ahead Right**	62.0%	0.8	53.5%	0.6	62.4%	0.8	53.8%	0.6
9/3	**C Circ 7 Right**	2.4%	0.0	9.2%	0.1	2.4%	0.0	9.2%	0.1
10/1	**C Circ1 Ahead**	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
10/2	**C Circ1 Ahead Right**	2.3%	0.0	8.8%	0.0	2.3%	0.0	8.8%	0.0
11/1	**C Circ 3 Ahead**	29.1%	0.2	34.8%	0.3	33.9%	0.3	36.4%	0.3
11/2	**C Circ 3 Ahead Right**	36.7%	0.3	39.1%	0.3	32.3%	0.2	37.3%	0.3
12/1	**C Circ 5 Ahead Right**	26.3%	0.2	25.7%	0.2	26.9%	0.2	25.8%	0.2
12/2	**C Circ 5 Right**	25.7%	0.2	24.1%	0.2	25.7%	0.2	24.1%	0.2

Table 5.14 – A422 Hennef Way/ Concorde Avenue: 2031 Scenarios

5.6.9 The results in **Tables 5.13** and **5.14** demonstrates that the A422 Hennef Way/ Concorde Avenue roundabout junction is currently predicted to operate over capacity in both future year 2026 and 2031 'No Development' traffic scenarios. However, with the development in place, i.e. the 'With Development' scenarios, the proposals have minimal impact on the DoS or MMQ across the junction approach arms.

A422 Hennef Way/ Southam Road Roundabout

5.6.10 The results of the A422 Hennef Way/ Concorde Avenue roundabout junction are summarised below.

Link	Lane Descriptor	2026 No Development				2026 With Development			
		AM Peak		PM Peak		AM Peak		PM Peak	
		DoS	MMQ	DoS	MMQ	DoS	MMQ	DoS	MMQ
1/2+1/1	**Hennef Way East Ahead Left**	68.4%	9.9	102.8%	50.7	68.8%	10.2	100.1%	27.2
1/3	**Hennef Way East Ahead**	118.7%	106.0	116.1%	97.5	117.9%	102.5	115.6%	97.3
3/2+3/1	**Southam Rd Sth Ahead Left**	90.2%	7.7	105.6%	52.8	90.3%	7.9	105.6%	52.8
3/3	**Southam Rd Sth Ahead**	12.3%	0.1	23.1%	0.2	12.3%	0.1	22.9%	0.1
5/2+5/1	**Ruscote Ave Ahead Left**	85.7%	8.6	84.1%	10.0	85.9%	8.6	83.2%	9.8
5/3	**Ruscote Ave Ahead**	86.0%	8.6	82.4%	9.4	86.6%	8.7	83.0%	9.5
7/2+7/1	**Southam Rd Nth Ahead Left**	91.2%	11.5	98.3%	20.2	92.6%	12.3	98.6%	20.6
7/3	**Southam Rd Nth Ahead**	40.5%	2.0	65.2%	7.3	40.6%	2.0	65.2%	4.8
10/1	**Ahead**	60.2%	5.8	51.3%	6.8	61.3%	6.0	51.7%	4.6
10/2	**Ahead**	59.4%	5.9	52.0%	6.7	59.3%	5.9	51.7%	5.2
12/1	**Ahead**	89.4%	14.6	75.9%	11.6	89.8%	14.7	75.9%	12.6
12/2	**Ahead**	0.7%	0.0	2.0%	0.2	0.7%	0.0	2.1%	0.2
13/1	**Ahead**	50.7%	4.1	62.9%	6.6	51.3%	4.4	61.4%	6.4
13/2	**Ahead**	74.4%	8.8	59.4%	6.3	73.9%	9.1	59.1%	5.9
15/1	**Ahead**	124.0%	151.2	106.4%	74.5	124.0%	151.2	106.3%	73.8
16/1	**Ahead**	75.7%	9.4	76.3%	13.4	76.4%	9.6	76.4%	13.4
19/1	**Ahead**	86.4%	12.8	71.8%	11.5	86.7%	13.2	71.8%	11.5

Table 5.15 – A422 Hennef Way/ Southam Road: 2026 Scenarios

Link	Lane Descriptor	2031 No Development				2031 With Development			
		AM Peak		PM Peak		AM Peak		PM Peak	
		DoS	MMQ	DoS	MMQ	DoS	MMQ	DoS	MMQ
1/2+1/1	**Hennef Way East Ahead Left**	69.1%	10.3	103.4%	54.0	69.3%	10.7	102.8%	52.4
1/3	**Hennef Way East Ahead**	119.8%	110.0	120.6%	116.0	120.2%	109.2	119.0%	108.6
3/2+3/1	**Southam Rd Sth Ahead Left**	93.9%	11.0	109.8%	66.4	94.0%	10.9	109.8%	66.4
3/3	**Southam Rd Sth Ahead**	12.9%	0.1	24.0%	0.2	13.0%	0.1	24.0%	0.2
5/2+5/1	**Ruscote Ave Ahead Left**	90.2%	10.0	86.9%	10.9	90.6%	10.2	87.1 %	10.9

5/3	**Ruscote Ave Ahead**	90.2%	10.0	86.3%	10.4	90.4%	10.0	86.2%	10.4
7/2+7/1	**Southam Rd Nth Ahead Left**	96.3%	15.0	103.8%	46.0	97.7%	16.6	104.4%	53.0
7/3	**Southam Rd Nth Ahead**	42.7%	2.3	68.7%	7.9	42.8%	1.2	68.7%	7.9
10/1	**Ahead**	63.0%	6.5	53.5%	7.2	63.4%	6.6	55.2%	5.7
10/2	**Ahead**	61.5%	6.4	52.5%	6.7	62.1%	6.4	50.8%	5.2
12/1	**Ahead**	91.4%	15.7	76.2%	11.6	91.4%	15.4	76.2%	11.6
12/2	**Ahead**	0.6%	0.0	2.4%	0.2	0.6%	0.1	2.3%	0.2
13/1	**Ahead**	51.0%	4.5	62.8%	6.6	51.4%	5.0	62.8%	6.5
13/2	**Ahead**	74.8%	9.4	61.3%	6.3	75.0%	9.3	60.5%	6.0
15/1	**Ahead**	125.9%	161.7	106.3%	73.8	125.8%	161.4	106.3%	74.2
16/1	**Ahead**	78.7%	10.3	79.4%	14.4	79.5%	10.4	79.7%	14.5
19/1	**Ahead**	89.9%	14.9	74.8%	12.7	90.2%	15.0	74.8%	12.7

Table 5.16 – A422 Hennef Way/ Southam Road: 2031 Scenarios

5.6.11 The results in **Tables 5.15** and **5.16** demonstrates that the A422 Hennef Way/ Southam Road roundabout junction is currently predicted to operate over capacity in both future year 2026 and 2031 'No Development' traffic scenarios. However, with the development in place, i.e. the 'With Development' scenarios, the proposals have minimal impact on the DoS or MMQ across the junction approach arms.

5.7 Highway Impact Summary

5.7.1 The highway impacts of development generated traffic at key junctions on the road network local to the site are not viewed as severe, and therefore highway works for capacity reasons are not viewed as necessary for the proposed development.

5.7.2 Given that Junction 11 and the Hennef Way Corridor is already predicted to operate over capacity during the future year 'No development' scenarios it is considered that this is a pre-existing capacity issue and no-mitigation is required for the revised development proposals for Banbury Phase 3. Once over theoretical capacity, LINSIG results increase exponentially with even minor increases in traffic flows.

5.7.3 When reviewing the above junction modelling results it is considered appropriate to bear in mind the following elements:

- The Oxfordshire Growth Board has recently agreed a grant of public funding which will deliver highway improvements along a number of roads local to the development. More specifically schemes to reduce congestion along Hennef Way will also be included, at a cost to the Growth Board of about £18.5m, with another £1.5m to be taken from developers' contributions (towards which a contribution has already been made under the Hybrid Planning Application).

- At the time of writing details are sought regarding the precise nature of these highway improvements, however Curtins understand this could potentially be in the form a new motorway junction. This has not been represented in the above junction modelling exercise. A highway intervention of such a scale would go beyond mitigating any potential impacts of the proposed development and vastly improve the operation of the M40 Junction 11 and Hennef Way corridor.
- It is noted that in the previous Hybrid Application OCC did not necessarily want to see the A361 junction approach (or internal gyratory) signalised or widened and therefore requested a cycle scheme on Wildmere Road as an alternative form of mitigation.
- Curtins understand that MOVA technology is also to be introduced at the Junction 11, which will significantly improve upon its operation by constantly assessing and modifying signals times of the approach arms in order to maximise capacity. Again, this is not represented in the above junction modelling exercise due to limitations in the LINSIG software. Research by Transport Research Laboratory (TRL) and the Department for Transport (DfT) supports this, with Traffic Advisory Leaflet 3/97 stating:

  "Department of Transport trials have shown that MOVA reduces delays by an average of 13% compared to the earlier, vehicle actuated system. Benefits are likely to be largest when compared with vehicle actuated signal control that has not been recently validated".

- There is a recognition that traffic flows may take a number of months or even years to return to pre-Covid levels. Alternatively, there is also the potential that flows may never return to these levels (certainly in the foreseeable future) due to a drastic change in working from home habits. When considering this, the base flows utilised in the above junction modelling exercise, and any associated traffic growth, may in fact be overly robust. Similarly, the traffic generation profile of the proposed offices uses on site could potentially be affected by increased home working habits.
- As part of the previous Hybrid Application, it is proposed to introduce a new pair of bus stops on the A361 (in a layby arrangement with suitable pedestrian crossing facilities), this will also promote the uptake of sustainable transport modes for Banbury Phase 3. This is supported by a contribution towards a five-year local bus service enhancement. The wider site proposals have been designed as such to accommodate internal bus stop within the site (if required in the future).
- The developer is committed to a Section 106 agreement towards the delivery of improvement works to the M40 underpass connection. These works will improve (and maintain) the lighting, security, surfacing and general arrangement of this pedestrian/cycle link, and encourage the uptake of sustainable transport modes on site.

- In addition to this, the developer is funding an extensive scheme of pedestrian/cycle improvements along Wildmere Road (and short sections of Hennef Way and Daventry Road), which includes footway widening, signage (indicating the presence of a shared foot/cycleway), new tactile paving and dropped kerbs, and upgrades to the existing traffic signals to permit cycle crossing.
- The site layout that optimises walk distances internally and encourages the uptake of sustainable travel. The revised proposals for Phase 3 include the provision of safe and secure cycle parking facilities.
- The revised proposals for Phase 3 are supported by an updated Framework Travel Plan which seeks to encourage sustainable travel patterns amongst employees/visitors and reduce single occupancy vehicular use.

6.0 Transport Planning Policy

6.1 Introduction

6.1.1 When developing scheme proposals it is important to understand the national and local transport related planning policies. This section aims to outline the key policies throughout relevant policy and guidance documents.

6.2 National Planning Policy Framework (NPPF)

6.2.1 NPPF sets out the current national transport planning policy and outlines the important role that transport policies have to play in facilitating sustainable development. From the outset, the Minister for Planning's Foreword lays the foundations for current policy thinking;

"The purpose of the planning system is to contribute to the achievement of sustainable development. At a very high level, the objective of sustainable development can be summarised as meeting the needs of the present without compromising the ability of future generations to meet their own needs".

6.2.2 Paragraph 11 states that at the heart of NPPF is a "presumption in favour of sustainable development". For decision making this means granting permission unless:

"…any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole."

6.2.3 Section 9 of the NPPF is entitled Promoting Sustainable Transport, and outlines the important role that transport policies have to play in facilitating sustainable development. The section states that:

"The planning system should actively manage patterns of growth in support of these objectives. Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions, and improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making".

6.2.4 Paragraph 108 of the NPPF states that:

"In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

a) Appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location".

b) Safe and suitable access to the site can be achieved for all users, and,

c) Any significant impacts from the development of the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree".

6.2.5 It has been demonstrated throughout this TA that the proposed development is situated in an accessible location and accords with the NPPF.

6.3 National Planning Practice Guidance (NPPG)

6.3.1 In addition to the NPPF, a National Planning Practice Guidance (NPPG) document has also been developed by the government. Within this document there is a specific section that clarifies the over-arching principles on Travel Plans, Transport Assessments and Transport Statements.

6.3.2 The guidance on Transport Assessments and Statements re-iterates the circumstances in which either document would usually be required. It is appropriate that a Transport Assessment is provided for a development of this scale, and that a Travel Plan would also be necessary. The NPPG has been considered in the production of this Transport Assessment.

6.4 Oxfordshire Local Transport Plan 2015 - 2031

6.4.1 '*Connecting Oxfordshire*', OCC's Local Transport Plan, sets out the policy and strategy for developing the transport system in Oxfordshire until 2031. The document was adopted in September 2015 and identifies the key (existing) transport issues, as well as setting out the goals/ objectives targeted at addressing these issues. These goals are as follows:

"1) Goal 1: Supporting growth and economic vitality.

- *Maintain and improve transport connections to support economic growth and vitality across the county;*
- *Make most effective use of all available transport capacity through innovative management of the network;*
- *Increase journey time reliability and minimise end-to-end public transport journey times on main routes; and,*
- *Develop a high quality, innovative and resilient integrated transport system that is attractive to customers and generates inward investment.*

2) Goal 2: Reduce emissions, enhance air quality and support the transition to a low carbon economy.

- *Minimise the need to travel;*
- *Reduce the proportion of journeys made by private car by making the use of public transport, walking and cycling more attractive;*

- *Influence the location and layout of development to maximise the use and value of existing and planned sustainable transport investment; and,*
- *Reduce per capita carbon emissions from transport in Oxfordshire in line with UK Government targets.*

3) Goal 3: Improving quality of life.

- *Mitigate and wherever possible enhance the impacts of transport on the local built, historic and natural environment; and,*
- *Improve public health and wellbeing by increasing levels of walking and cycling, reducing transport emissions, reducing casualties, and enabling inclusive access to jobs, education, training and services."*

6.4.2 It is considered that the development proposal will not adversely impact on transport network, and indeed will enhance opportunities for sustainable travel by integrating into existing opportunities for sustainable travel to the site. The proposed development is in accordance with the general principles and objectives of the Oxfordshire Local Transport Plan.

6.5 Cherwell Local Plan 2011 - 2031

6.5.1 The Cherwell Local Plan sets the development framework for the District. It sets out a series of strategic policies, allocates sites for developments, and includes policies to guide the form of development.

6.5.2 The purpose of the Plan is to set out the long-term spatial vision for how the towns, villages and countryside in the district will develop and change and how this vision will be delivered through a strategy for promoting, distributing and delivering sustainable development.

6.5.3 Policy SLE 4 outlines the 'Improved Transport and Connections' approach and includes a number of Transport Policies, stating the following;

"The Council will support the implementation of the proposals in the Movement Strategies and the Local Transport Plan to deliver key connections, to support modal shift and to support more sustainable locations for employment and housing growth. We will support key transport proposals including:

- *Transport Improvements at Banbury, Bicester and at the Former RAF Upper Heyford in accordance with the County Council's Local Transport Plan and Movement Strategies;*
- *Projects associated with East-West rail including new stations at Bicester Town and Water Eaton;*
- *Rail freight associated development at Graven Hill, Bicester;*
- *Improvements to M40 junctions.*

Consultation on options for new link and relief roads at Bicester and Banbury will be undertaken through the Local Transport Plan (LTP) review process. Routes identified following strategic options appraisal work for LTP4 will be confirmed by the County Council and will be incorporated in Local Plan Part 2.

New development in the District will be required to provide financial and/or in-kind contributions to mitigate the transport impacts of development.

All development where reasonable to do so, should facilitate the use of sustainable modes of transport to make the fullest possible use of public transport, walking and cycling. Encouragement will be given to solutions which support reductions in greenhouse gas emissions and reduce congestion. Development which is not suitable for the roads that serve the development, and which have a severe traffic impact will not be supported."

6.5.4 It is considered that the proposals are in accordance with the above Policies for the following reasons:

- As is discussed in **Section 4** of this TA, it is considered that the site is accessible by sustainable non-car modes of transport. The development will also be designed to take account of current OCC car, bicycle and disabled parking standards.
- The development will be designed with consideration of sustainable principles and existing walking/ cycling opportunities will be maximised by the development.

6.5.5 Safety and capacity on the local highway network have been considered, and assessed, within this TA which demonstrates the residual traffic impacts are not severe

6.6 Summary

6.6.1 In summary, the development proposals are considered to be consistent with local and national transport planning policy.

7.0 Summary and Conclusions

7.1 Summary

7.1.1 Curtins has been appointed on behalf of Monte Blackburn Ltd to provide traffic and transportation advice in relation to a proposed mixed-use development in Banbury, Oxfordshire, on land located to the north-east of Junction 11 of the M40 motorway.

7.1.2 Curtins were previously appointed on behalf of Monte Blackburn Ltd to support a hybrid planning application for an industrial development on the wider site. The wider site extends for approximately 13 hectares and the proposals involved the construction industrial units providing up to 50,000m^2 floorspace to be used within Use Classes B2 and B8.

7.1.3 Curtins understand that construction has already begun on Phases 1 and 2 of the development, however the intention is to submit a revised planning application for Phase 3. The revised proposal for Phase 3 differs from the original outline approval for 16,890m^2 of flexible use between Use Classes B2 and B8 and instead look to develop the following on site:

- 240 bed hotel;
- 4-storey office building (circa 5,200m^2);
- Petrol filling station (PFS);
- Coffee and hot-food drive thrus; and,
- Associated car parking.

7.1.4 The vision for the scheme is to serve passing traffic on the local highway network and support those working at, and visiting, Frontier Park (Phases 1 and 2 of the Hybrid Application). No signage is proposed on the M40 Motorway or Strategic Road Network to alert drivers to the presence of the mixed-use development. Furthermore, it has been demonstrated that the site is within an accessible walk distance of Banbury Gateway Shopping Park and the residential districts of northern Banbury thus offering a benefit for pre-existing uses in the surrounding area.

7.1.5 Vehicular access to the development will be provided directly from the A361, in the form a priority junction arrangement with a ghost island right turn lane, with suitable road widths, visibility splays and footway provided at the junction. A detailed swept path assessment has been undertaken on the potential access arrangement to ensure that it can be suitably accessed by service and emergency vehicles.

7.1.6 Pedestrian and cycle access to the site will be provided from the northwest corner of the development via the underpass beneath the M40, which provides a useful connection to the Banbury Gateway Shopping Park and the adjacent residential areas. The internal layout of the site has been designed to with due consideration of the parking provision, circulation, refuse vehicle access and access for disabled people.

7.1.7 A review of accidents on the local highway network does not indicate any correlations that would suggest that highway condition, layout or design were significant contributory factors in the accidents.

7.1.8 The site is adjacent to an existing residential and retail/ employment areas where pedestrian facilities already exist and are of a high standard with well-lit, well-used and well-defined footway networks close to the site. Additionally, the site benefits from proximity to the existing PROW network.

7.1.9 The walking, cycling and public transport opportunities at the site constitute alternative modes of travel to the car which are considered to be realistic modes of travel for commuter-based journeys.

7.1.10 The highway impacts of development generated traffic at key junctions on the road network local to the site are not viewed as severe, and therefore highway works for capacity reasons are not viewed as necessary as part of the proposed development.

7.1.11 Curtins are aware that the Oxfordshire Growth Board has recently agreed a grant of public funding which will deliver highway improvements along a number of roads local to the development. More specifically schemes to reduce congestion along Hennef Way will also be included, at a cost to the Growth Board of about £18.5, with another £1.5m to be taken from developers' contributions, to which the developer has already made a significant contribution towards.

7.1.12 A review of relevant local and national transport planning guidance has been undertaken. It is considered that the proposed development conforms with such policy.

7.2 Conclusion

7.2.1 The proposed development meets the sustainable objectives of the National Planning Policy Framework and its residual traffic impacts are not severe. From a traffic and transportation perspective there are no reasons why the development proposals should not be granted planning approval.

Plans

curtins
Merchant Exchange, 17-19 Whitworth St. W Manchester M1 5WG
0161 236 2394
manchester@curtins.com
www.curtins.com

Civils & Structures • Transport Planning • Environmental • Infrastructure • Geotechnical • Conservation & Heritage • Principal Designer

Birmingham • Bristol • Cambridge • Cardiff • Douglas • Dublin • Edinburgh • Glasgow • Kendal • Leeds • Liverpool • London • Manchester • Nottingham

Project: BANBURY

Status: PRELIMINARY

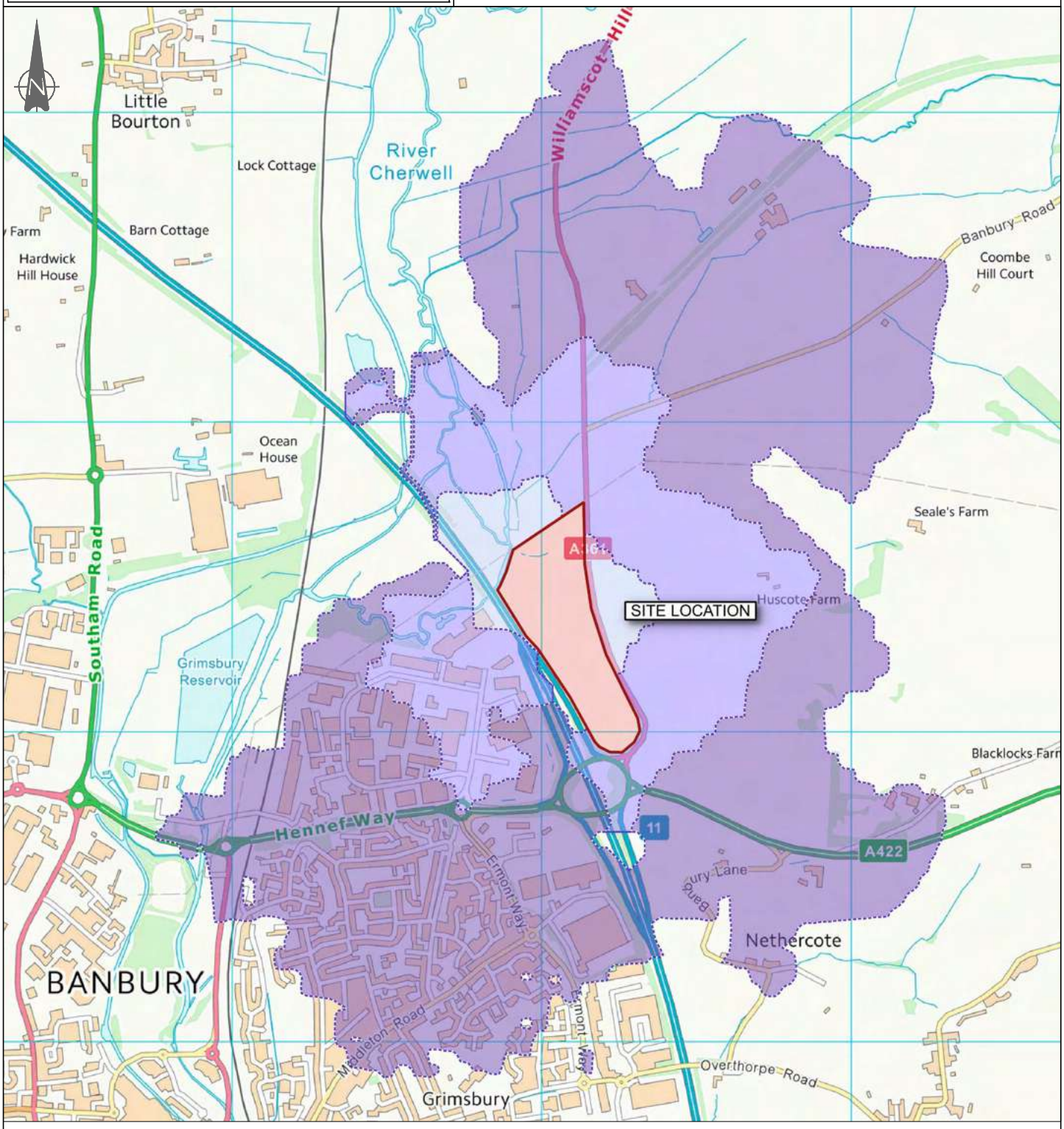
Drg Title: ACCESSIBILITY
INDICATIVE WALKING CATCHMENT

Drawn By: SS Checked By: JA

Designed By: SS Date: 08/01/19

Scale: NTS

Project No:	Originator:	Zone:	Level:	Type:	Discipline:	Category / Number:	Rev:
69717	CUR	00	XX	DR	TP	06003	P01



KEY: Site

Walking Catchment:
- 2000m
- 1000m
- 500m

\\mafs02\Projects\069001 - 070000\069717 - Banbury 15 EG\QMS 4 Production\4B Models & Drawings_Transport-ZICAD\06\

curtins

Merchant Exchange, 17-19 Whitworth St. W Manchester M1 5WG
0161 236 2394
manchester@curtins.com
www.curtins.com

Civils & Structures • Transport Planning • Environmental • Infrastructure • Geotechnical • Conservation & Heritage • Principal Designer

Birmingham • Bristol • Cambridge • Cardiff • Douglas • Dublin • Edinburgh • Glasgow • Kendal • Leeds • Liverpool • London • Manchester • Nottingham

Project: BANBURY

Status: PRELIMINARY

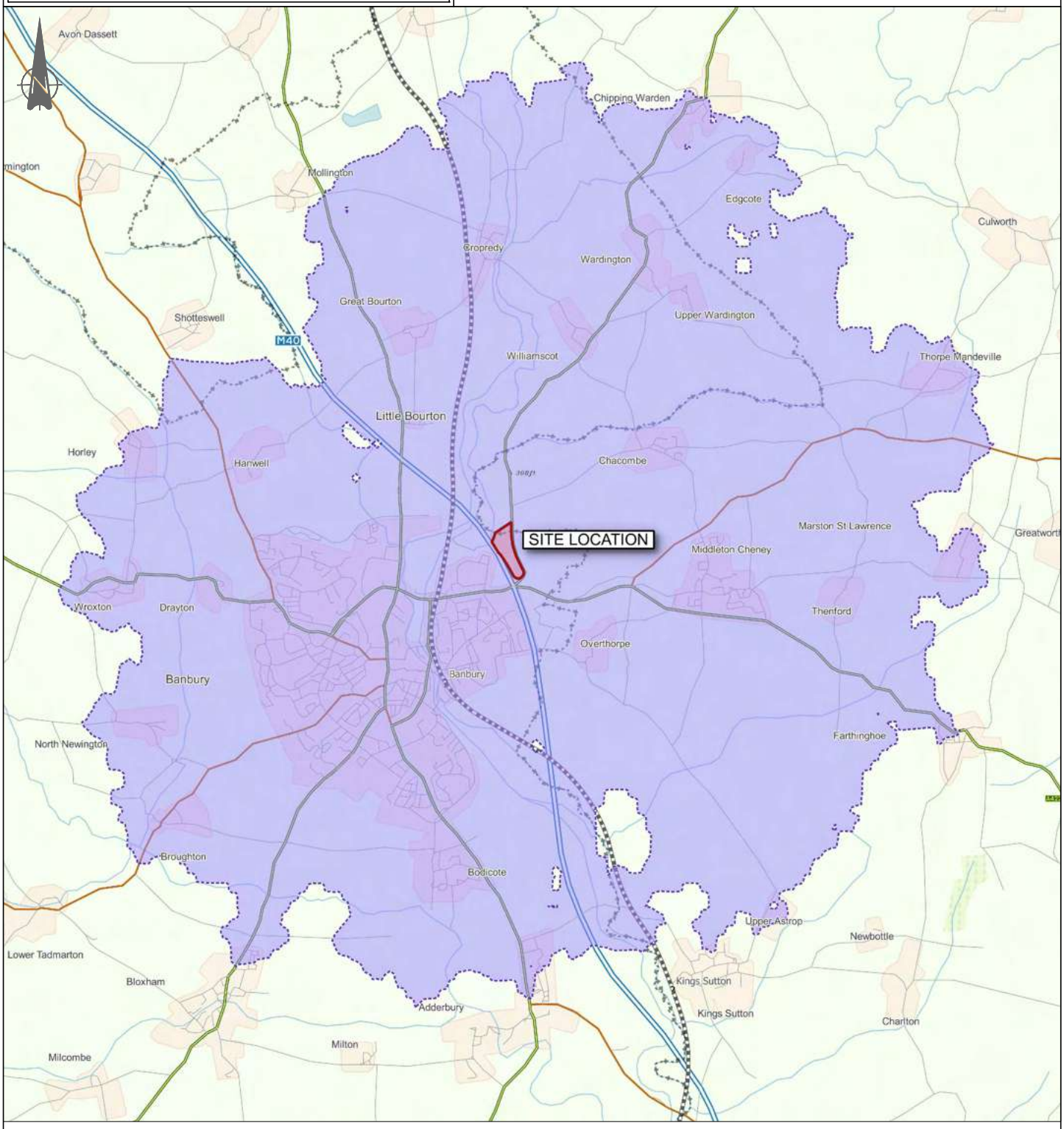
Drg Title: ACCESSIBILITY
INDICATIVE CYCLE CATCHMENT

Drawn By: SS | Checked By: JA

Designed By: SS | Date: 08/01/19

Scale: NTS

Project No:	Originator:	Zone:	Level:	Type:	Discipline:	Category / Number:	Rev:
69717	CUR	00	XX	DR	TP	06004	P01



KEY: Site — Cycling Catchment 8000m

\\mafs02\Projects\069001 - 070000\069717 - Banbury 15 EG\QMS 4 Production\4B Models & Drawings_Transport-Z\CAD\06\

curtins

Merchant Exchange, 17-19 Whitworth St. W Manchester M1 5WG
0161 236 2394
manchester@curtins.com
www.curtins.com

Civils & Structures • Transport Planning • Environmental • Infrastructure • Geotechnical • Conservation & Heritage • Principal Designer

Birmingham • Bristol • Cambridge • Cardiff • Douglas • Dublin • Edinburgh • Glasgow • Kendal • Leeds • Liverpool • London • Manchester • Nottingham

Project: BANBURY

Status: PRELIMINARY

Drg Title: ACCESSIBILITY INDICATIVE IMPROVED PUBLIC TRANSPORT CATCHMENT

Drawn By: DD | Checked By: JA

Designed By: DD | Date: 11/01/19

Scale: NTS

Project No:	Originator:	Zone:	Level:	Type:	Discipline:	Category / Number:	Rev:
69717	CUR	00	XX	DR	TP	06006	P01

SITE LOCATION

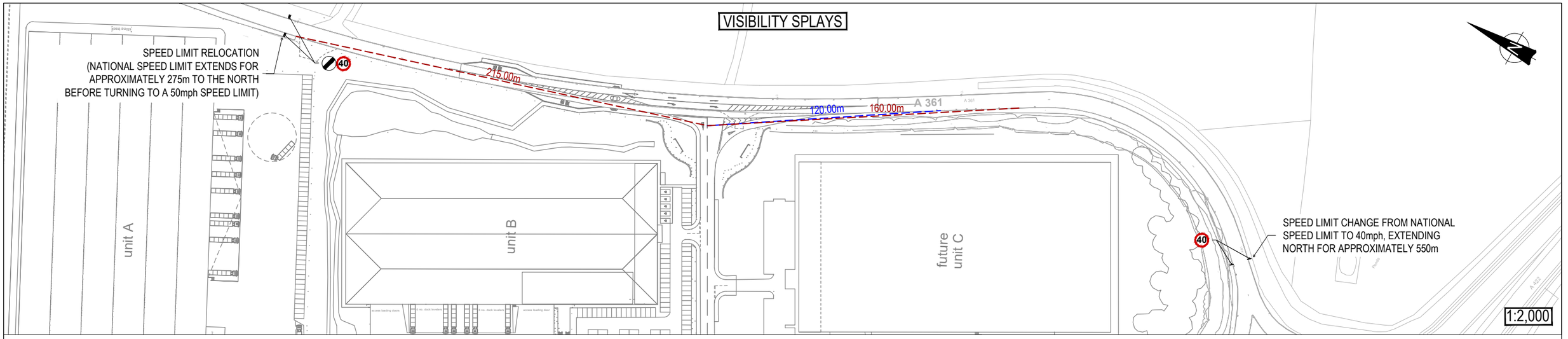
KEY: Site

Public Transport Catchment:
- 20 minutes
- 40 minutes
- 60 minutes

\\mafs02\Projects\069001 - 070000\069717 - Banbury 15 EG\QMS 4 Production\4B Models & Drawings_Transport-ZICAD\06\

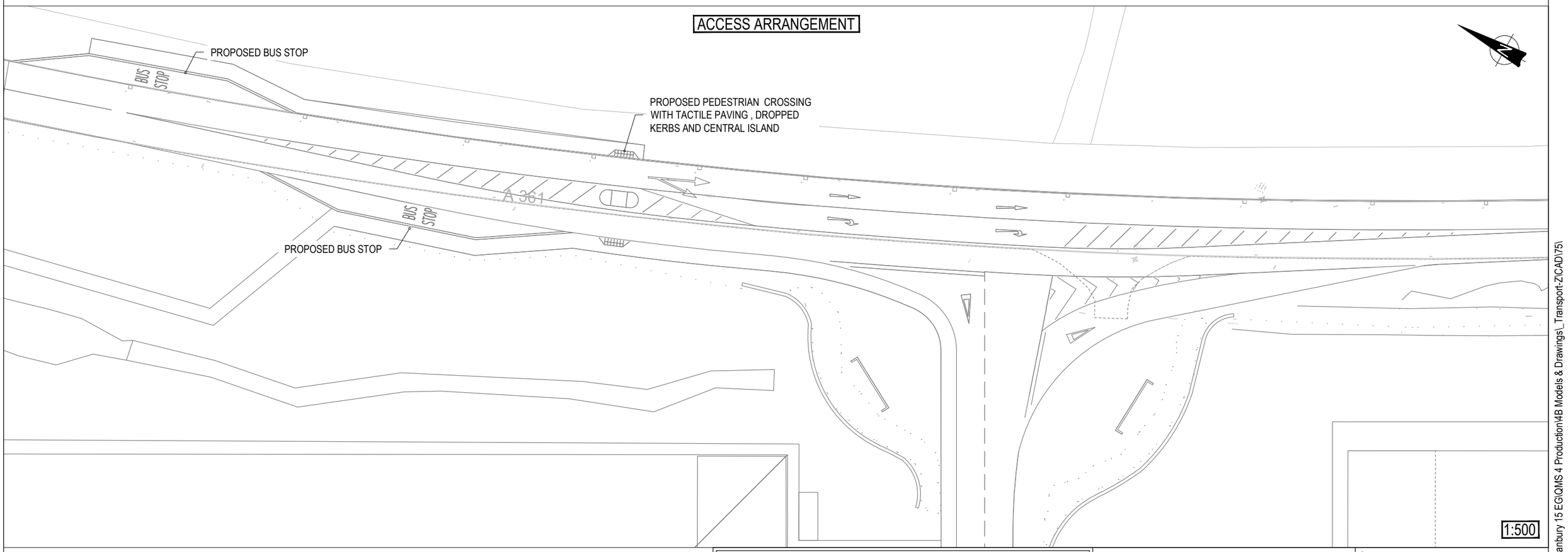
Drawings

VISIBILITY SPLAYS



1:2,000

ACCESS ARRANGEMENT



1:500

KEY:
- 4.50x160.00m — VISIBILITY SPLAYS AT 50mph
- 4.50x120.00m — VISIBILITY SPLAYS AT 40mph
- 40 — POTENTIAL 40mph SPEED LIMIT CHANGE

GENERAL NOTES:

Rev:	Description:	Date:	By:
P07	Notes on speed limit	30/09/20	DD
P06	Layout updated	29/09/20	DD
P05	Bus stops updated	14/05/19	DD
P04	Visibility updated	11/04/19	DD
P03	Access layout updated	25/03/19	DD
P02	Site layout udpated	04/01/19	DD

curtins
Merchant Exchange, 17-19 Whitworth Street West, Manchester, M1 5WG
0161 236 2394
manchester@curtins.com
www.curtins.com
Civils & Structures • Transport Planning • Environmental • Infrastructure • Geotechnical • Conservation & Heritage • Principal Designer
Birmingham • Bristol • Cambridge • Cardiff • Douglas • Dublin • Edinburgh • Glasgow • Kendal • Leeds • Liverpool • London • Manchester • Nottingham

Project: BANBURY 15

Drg Title: ACCESS ARRANGEMENT

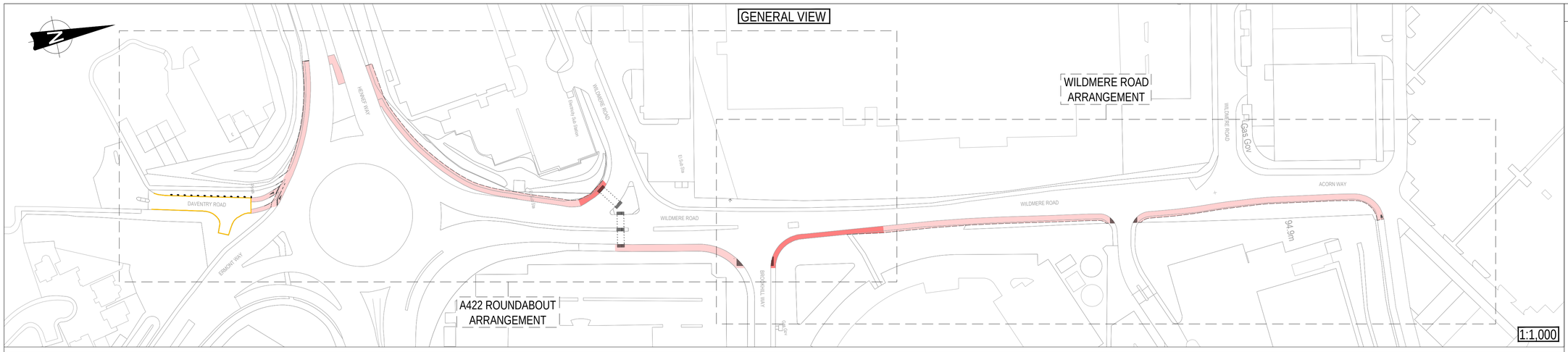
Status: PRELIMINARY

Drawn By:	DD	Checked By:	AT
Designed By:	DD	Date:	25/07/18
Scale:	AS INDICATED		

Project No:	Originator:	Zone:	Level:	Type:	Discipline:	Category / Number:	Rev:
69717	CUR	00	XX	DR	TP	75001	P07

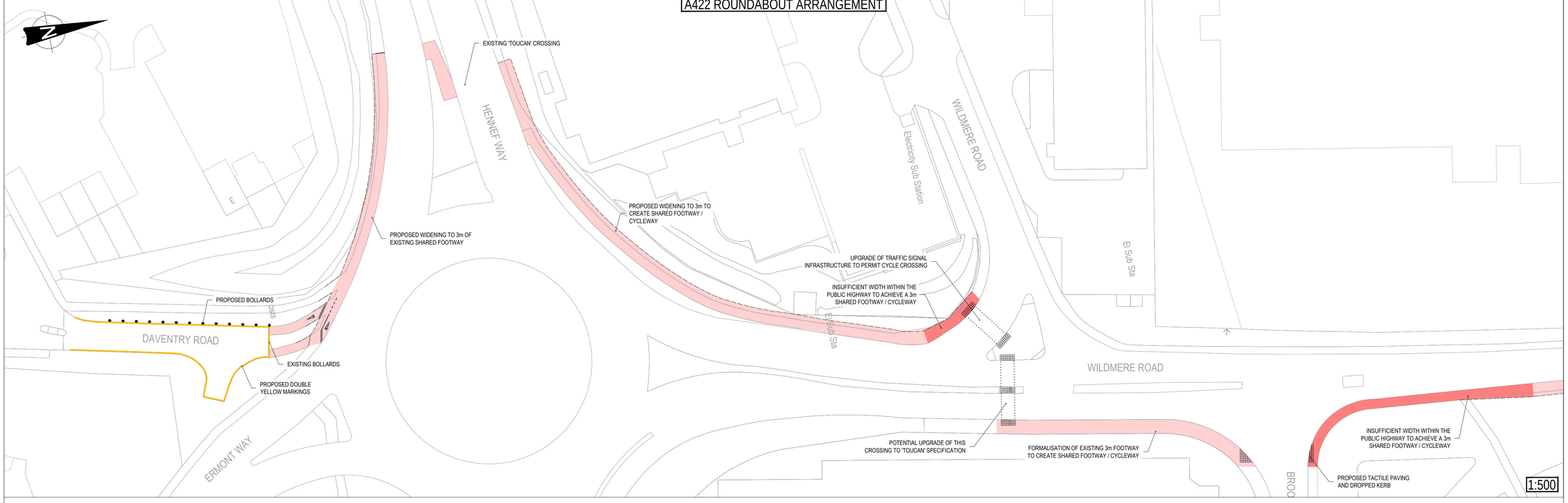
\\mafs02\Projects\069001 - 070000\069717 - Banbury 15 EG\QMS 4 Production\4B Models & Drawings_Transport-Z\CAD\75\

GENERAL VIEW



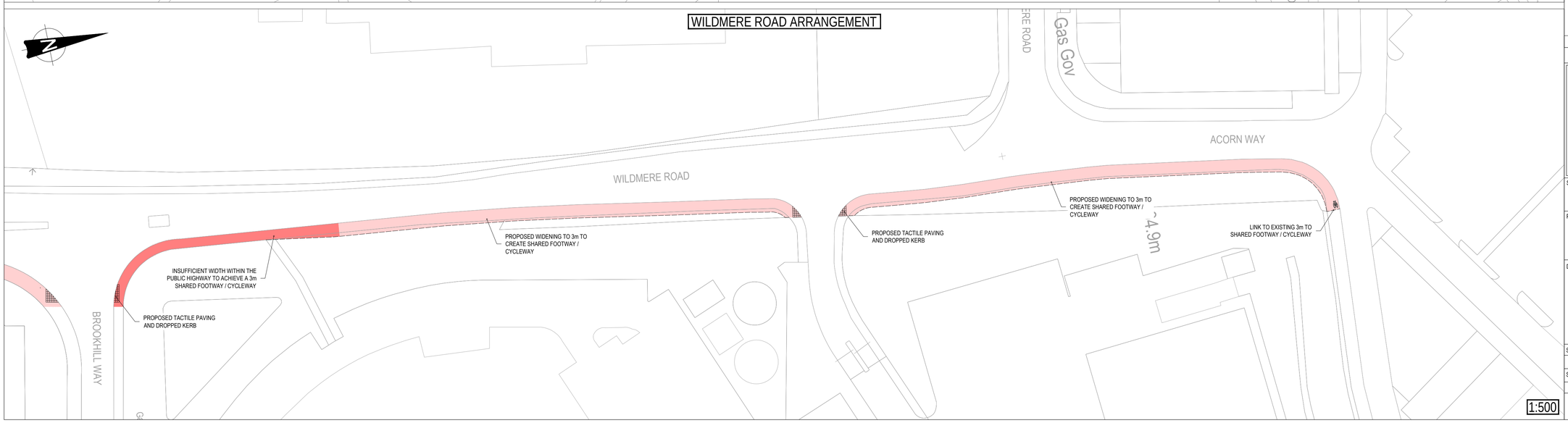
1:1,000

A422 ROUNDABOUT ARRANGEMENT



1:500

WILDMERE ROAD ARRANGEMENT



1:500

GENERAL NOTES:

KEY:

- PROPOSED BACK OF SHARED FOOTWAY / CYCLEWAY
- PROPOSED ROAD MARKINGS
- PROPOSED BOLLARD
- 3m SHARED FOOTWAY / CYCLEWAY
- SHARED USE FOOTWAY / CYCLEWAY TO MAXIMUM AVAILABLE WIDTH WITHIN HIGHWAY

Rev:	Description:	Date:	By:	Chkd:
P02	Shared lane updated following Highways comments	30/09/19	DD	JA

curtins

Merchant Exchange, 17-19 Whitworth Street West, Manchester, M1 5WG
0161 236 2354
manchester@curtins.com
www.curtins.com

Civils & Structures • Transport Planning • Environmental • Infrastructure • Geotechnical • Conservation & Heritage • Principal Designer
Birmingham • Bristol • Cambridge • Cardiff • Douglas • Dublin • Edinburgh • Glasgow • Kendal • Leeds • Liverpool • London • Manchester • Nottingham

Status: PRELIMINARY

Project: BANBURY 15

Drg Title: SHARED FOOTWAY / CYCLEWAY POTENTIAL IMPROVEMENTS

Size:	Date:	Drawn By:	Designed By:	Checked By:
A1	29/10/18	DD	DD	JA

Scale: AS STATED

Project No:	Originator:	Volume:	Level:	Type:	Role:	Category / Number:	Rev:
69717	CUR	00	XX	DR	TP	75004	P02

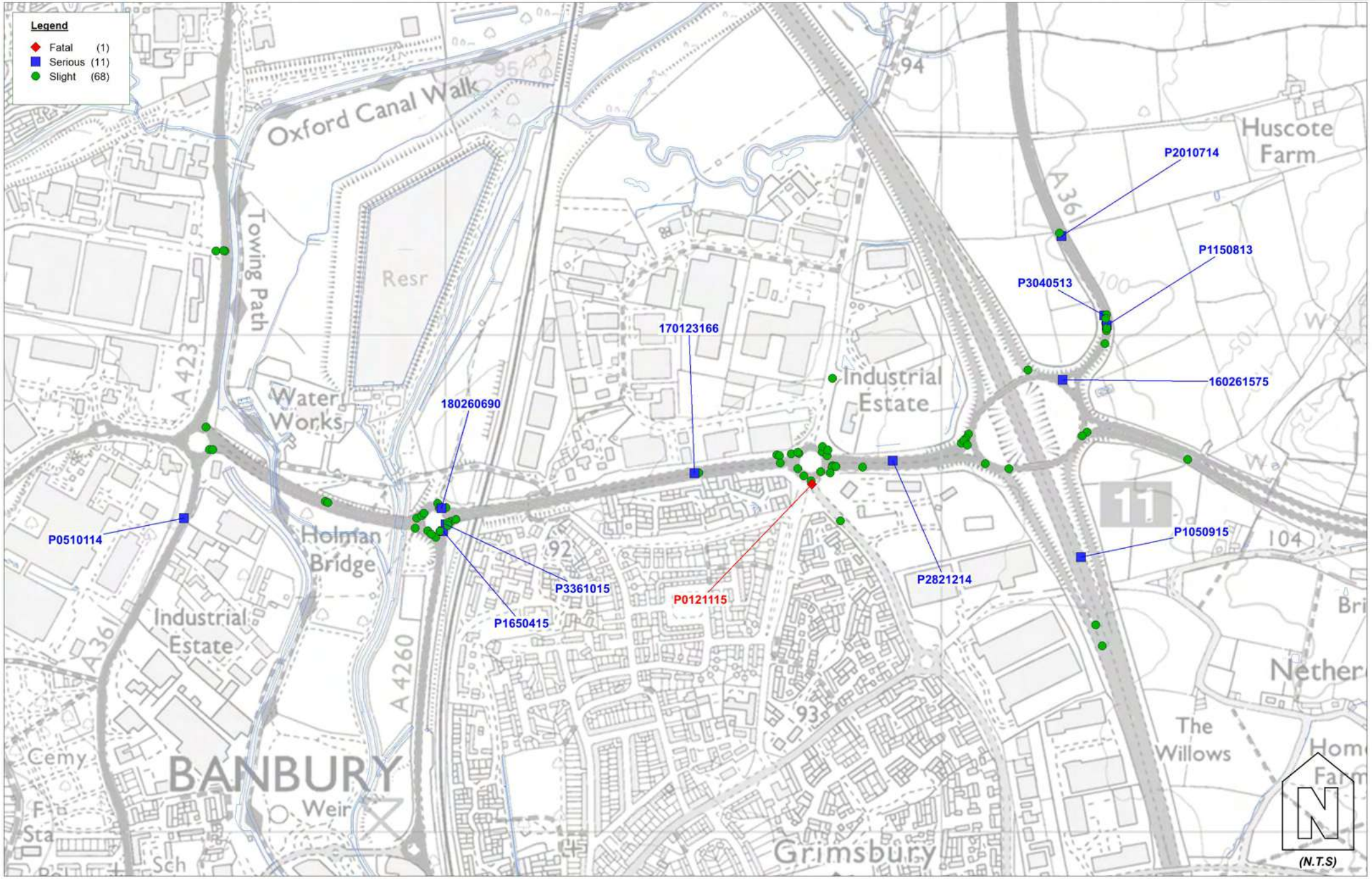
\\mafs02\Projects\69\001 - 070000\69717 - Banbury 15 EIA\MS 4 Products\4B Models & Drawings_Transport ZCAD\75\

Appendix A – Detailed Accident Data

ACCIDENT REQUEST - BANBURY (HENNEF WAY AREA)

OXFORDSHIRE COUNTY COUNCIL - INFRASTRUCTURE OPERATIONS

Accidents between following dates:
01/01/2013 and 31/08/2018



OXFORDSHIRE COUNTY COUNCIL

Date drawn: 04/01/2019
Drawn by: CJM

Map centre:
easting. 446490, northing. 241790

Accidents between dates **01/01/2013** **and** **31/08/2018** (68) months

Selection:
Selected using Manual Selection

Notes:

Thursday 07/02/2013 Time 1108 Slight at A422 HENNEF WAY RBT J/W ERMONT WAY BANBURY

E: 446723 N: 241717 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Dry Daylight
Vehicle Reference 1 Car Moving from S to N Going ahead other On main carriageway
Casualty Reference: 1 Age: 21 Female Passenger Severity: Slight Injured by vehicle: 1
Vehicle Reference 2 Car Moving from S to N Going ahead but held up On main carriageway

Tuesday 19/02/2013 Time 1641 Slight at A422 HENNEF WAY AT RBT J/W ERMONT WAY & DAVENTRY RD BANBURY

E: 446757 N: 241725 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Dry Daylight
Vehicle Reference 1 Car Moving from E to W Going ahead other On main carriageway
Vehicle Reference 2 Motorcycle 50cc and Moving from N to S Going ahead other On main carriageway
Casualty Reference: 1 Age: 58 Male Driver/rider Severity: Slight Injured by vehicle: 2

Accidents between dates **01/01/2013** **and** **31/08/2018** (68) months

Selection:
Selected using Manual Selection

Notes:

Tuesday 12/03/2013 Time 1755 Slight at A422 HENNEF WAY RBT J/W A4260 CONCORDE AVE BANBURY

E: 445965 N: 241606 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Dry Daylight
Vehicle Reference 1 Car Moving from S to N Going ahead other On main carriageway
Vehicle Reference 2 Car Moving from E to W Going ahead other On main carriageway
Casualty Reference: 1 Age: 31 Female Driver/rider Severity: Slight Injured by vehicle: 2

Thursday 04/04/2013 Time 2020 Slight at A423 SOUTHAM RD RBT J/W A422 RUSCOTE AVE & HENNEF WAY BANBURY

E: 445525 N: 241770 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Dry Darkness: street lights present and lit
Vehicle Reference 1 Car Moving from E to W Going ahead other On main carriageway
Vehicle Reference 2 Car Moving from N to S Going ahead other On main carriageway
Casualty Reference: 1 Age: 49 Female Driver/rider Severity: Slight Injured by vehicle: 2

Accidents between dates **01/01/2013** **and** **31/08/2018** (68) months
Selection: **Notes:**
Selected using Manual Selection

Saturday 13/04/2013 Time 1115 Slight at A4260 CONCORDE AVE J/W A422 HENNEF WAY BANBURY

E: 445981 N: 241593 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Dry Daylight
Vehicle Reference 1 Car Moving from S to N Going ahead other On main carriageway
Vehicle Reference 2 Car Moving from S to N Stopping On main carriageway
Casualty Reference: 1 Age: 69 Male Driver/rider Severity: Slight Injured by vehicle: 2

Tuesday 16/04/2013 Time 1830 Slight at A422 HENNEF WAY AT RBT J/W ERMONT WAY & DAVENTRY RD BANBURY

E: 446781 N: 241737 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Dry Daylight
Vehicle Reference 1 Car Moving from E to W Stopping On main carriageway
Vehicle Reference 2 Car Moving from E to W Going ahead but held up On main carriageway
Casualty Reference: 1 Age: 33 Female Driver/rider Severity: Slight Injured by vehicle: 2

Accidents between dates **01/01/2013** **and** **31/08/2018** (68) months
Selection: **Notes:**
Selected using Manual Selection

Thursday 18/04/2013 Time 1916 Slight at A422 HENNEF WAY RBT J/W A4260 CONCORDE AVENUE BANBURY

E: 445995 N: 241651 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Wet/Damp Daylight
Vehicle Reference 1 Car Moving from W to E Going ahead other On main carriageway

Casualty Reference:	1	Age:	12	Male	Passenger	Severity: Slight	Injured by vehicle: 1
Casualty Reference:	2	Age:	8	Female	Passenger	Severity: Slight	Injured by vehicle: 1

Tuesday 28/05/2013 Time 1322 Serious at A361 APPROX 160M N OF J/W RBT J/W A422 / M40 AT J11 BANBURY

E: 447329 N: 242040 Junction Detail: Not within 20m of j Control:
Raining without high winds Road surface Wet/Damp Daylight
Vehicle Reference 1 Car Moving from N to S Going ahead right bend On main carriageway

Casualty Reference:	4	Age:	25	Female	Driver/rider	Severity: Slight	Injured by vehicle: 1

Vehicle Reference 2 Car Moving from S to N Going ahead left bend On main carriageway

Casualty Reference:	1	Age:	32	Female	Driver/rider	Severity: Slight	Injured by vehicle: 2
Casualty Reference:	2	Age:	70	Female	Passenger	Severity: Serious	Injured by vehicle: 2
Casualty Reference:	3	Age:	77	Male	Passenger	Severity: Slight	Injured by vehicle: 2

Accidents between dates **01/01/2013** **and** **31/08/2018** (68) months
Selection: **Notes:**
Selected using Manual Selection

Tuesday 30/07/2013 Time 1625 Slight at A422 HENNEF WAY RBT J/W A4260 CONCORDE AVE BANBURY

E: 445943 N: 241631 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Dry Daylight
Vehicle Reference 1 Car Moving from W to E Starting On main carriageway
Vehicle Reference 2 Car Moving from W to E Going ahead but held up On main carriageway
Casualty Reference: 1 Age: 29 Female Driver/rider Severity: Slight Injured by vehicle: 2

Monday 05/08/2013 Time 0803 Serious at A361 AT BEND APPROX 150M N OF J/W RBT J/W A422 / M40 AT J11 BANBURY

E: 447334 N: 242020 Junction Detail: Not within 20m of j Control:
Fine without high winds Road surface Wet/Damp Daylight
Vehicle Reference 1 Car Moving from N to S Going ahead right bend On main carriageway
Casualty Reference: 1 Age: 39 Female Driver/rider Severity: Serious Injured by vehicle: 1
Vehicle Reference 2 Van or Goods 3.5 to Moving from S to N Going ahead left bend On main carriageway
Casualty Reference: 2 Age: 40 Male Driver/rider Severity: Slight Injured by vehicle: 2

Accidents between dates **01/01/2013** **and** **31/08/2018** (68) months
Selection: **Notes:**
Selected using Manual Selection

Thursday 15/08/2013 Time 0636 Slight at A361 AT BEND APPROX 150M N OF J/W RBT J/W A422 / M40 AT J11 BANBURY

E: 447330 N: 241983 Junction Detail: Not within 20m of j Control:
Fine without high winds Road surface Dry Daylight
Vehicle Reference 1 Car Moving from N to S Going ahead right bend On main carriageway
Casualty Reference: 1 Age: 39 Male Driver/rider Severity: Slight Injured by vehicle: 1
Vehicle Reference 2 Car Moving from S to N Going ahead left bend On main carriageway

Sunday 01/09/2013 Time 1548 Slight at A422 HENNEF WAY RBT J/W DAVENTRY RD BANBURY

E: 446760 N: 241765 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Dry Daylight
Vehicle Reference 1 Car Moving from S to E Turning right On main carriageway
Vehicle Reference 2 Car Moving from W to E Going ahead other On main carriageway
Casualty Reference: 1 Age: 32 Female Passenger Severity: Slight Injured by vehicle: 2

Wednesday 18/12/2013 Time 1800 Slight at A422 HENNEF WAY AT TOUCAN CRO SSING APPROX 40M W OF RBT J/W ERMONT WAY BANBURY

E: 446669 N: 241759 Junction Detail: Not within 20m of j Control:
Unknown Road surface Dry Darkness: street lights present and lit
Vehicle Reference 1 Car Moving from W to E Going ahead other On main carriageway
Casualty Reference: 1 Age: 33 Female Pedestrian Severity: Slight Injured by vehicle: 1

Accidents between dates **01/01/2013** **and** **31/08/2018** (68) months

Selection:

Selected using Manual Selection

Notes:

Monday 30/12/2013 Time 1458 Slight at A422 RBT J/W M40 & A361 AT JUNCTION 11 BANBURY

E: 447055 N: 241801 Junction Detail: Roundabout Control: Give way or controlled
Fine with high winds Road surface Wet/Damp Daylight
Vehicle Reference 1 Car Moving from S to NE Going ahead other On main carriageway
Casualty Reference: 1 Age: 40 Female Passenger Severity: Slight Injured by vehicle: 1
Vehicle Reference 2 Car Moving from S to NE Going ahead but held up On main carriageway

Wednesday 08/01/2014 Time 1658 Serious at A361 SOUTHAM RD AT J/W ACCESS TO BRISTOL STREET MOTORS BANBURY

E: 445473 N: 241631 Junction Detail: Using private drive c Control: Give way or controlled
Raining without high winds Road surface Wet/Damp Darkness: street lights present and lit
Vehicle Reference 1 Car Moving from E to N Turning right On main carriageway
Casualty Reference: 1 Age: 86 Male Driver/rider Severity: Serious Injured by vehicle: 1
Vehicle Reference 2 Taxi/Private hire car Moving from N to S Going ahead other On main carriageway
Casualty Reference: 2 Age: 22 Male Driver/rider Severity: Slight Injured by vehicle: 2

Accidents between dates **01/01/2013** **and** **31/08/2018** (68) months
Selection: **Notes:**
Selected using Manual Selection

Friday 17/01/2014 Time 1511 Slight at BEAUMONT RD J/W A423 SOUTHAM RD BANBURY

E: 445538 N: 242170 Junction Detail: T or staggered junct Control: Automatic traffic sign
Fine without high winds Road surface Wet/Damp Daylight

Vehicle Reference 1 Car Moving from W to E Stopping On main carriageway

Vehicle Reference 2 Car Moving from W to E Waiting to turn right On main carriageway

Casualty Reference: 1 Age: 27 Male Driver/rider Severity: Slight Injured by vehicle: 2

Vehicle Reference 3 Car Moving from W to E Waiting to turn right On main carriageway

Saturday 15/02/2014 Time 1923 Slight at A422 HENNEF WAY AT RBT J/W ERMONT WAY & DAVENTRY RD BANBURY

E: 446780 N: 241734 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Dry Darkness: street lights present and lit

Vehicle Reference 1 Car Moving from E to W Stopping On main carriageway

Casualty Reference: 1 Age: 72 Female Passenger Severity: Slight Injured by vehicle: 1

Vehicle Reference 2 Car Moving from E to W Stopping On main carriageway

Accidents between dates **01/01/2013** **and** **31/08/2018** (68) months
Selection: **Notes:**
Selected using Manual Selection

Saturday 29/03/2014 Time 0835 Slight at A422 WBOUND CWAY APPROX 220M E OF ENTRY TO RBT J/W M40 JCTN 11 BANBURY - EXACT LOCATION NOT SUPPLIED
E: 447497 N: 241750 Junction Detail: Not within 20m of j Control:
Fine without high winds Road surface Dry Daylight
Vehicle Reference 1 Motor Cycle over 50 Moving from SE to N Going ahead other On main carriageway
Casualty Reference: 1 Age: 23 Male Driver/rider Severity: Slight Injured by vehicle: 1
Vehicle Reference 2 Car Moving from SE to Parked On main carriageway

Saturday 05/04/2014 Time 1909 Slight at A422 HENNEF WAY RBT J/W A4260 CONCORDE AVE BANBURY
E: 445953 N: 241637 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Dry Daylight
Vehicle Reference 1 Car Moving from W to E Going ahead other On main carriageway
Casualty Reference: 1 Age: 25 Female Passenger Severity: Slight Injured by vehicle: 1
Vehicle Reference 2 Car Moving from W to E Changing lane to left On main carriageway

Monday 14/04/2014 Time 0750 Slight at A422 HENNEF WAY EBOUND AT TOUCAN CROSSING JUST W OF RBT J/W ERMONT WAY BANBURY
E: 446674 N: 241757 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Dry Daylight
Vehicle Reference 1 Car Moving from W to E Going ahead other On main carriageway
Casualty Reference: 1 Age: 52 Male Pedestrian Severity: Slight Injured by vehicle: 1

Accidents between dates **01/01/2013** **and** **31/08/2018** (68) months
Selection: **Notes:**
Selected using Manual Selection

Wednesday 23/04/2014 Time 2044 Slight at ERMONT WAY NBOUND CWAY APPROX 100M S OF RBT J/W A422 HENNEF WAY BANBURY

E: 446797 N: 241626 Junction Detail: Not within 20m of j Control:
Raining without high winds Road surface Wet/Damp Darkness: street lights present and lit
Vehicle Reference 1 Car Moving from S to N Going ahead left bend On main carriageway

Casualty Reference: 1 Age: 23 Male Driver/rider Severity: Slight Injured by vehicle: 1

Wednesday 14/05/2014 Time 0820 Slight at A422 / M40 / A361 RBT JUNCTION AT M40 J11 BANBURY

E: 447294 N: 241805 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Dry Daylight
Vehicle Reference 1 Car Moving from E to W Going ahead other On main carriageway

Vehicle Reference 2 Car Moving from E to W Going ahead but held up On main carriageway

Casualty Reference: 1 Age: 26 Female Driver/rider Severity: Slight Injured by vehicle: 2

Sunday 25/05/2014 Time 1049 Slight at A422 HENNEF WAY RBT J/W ERMONT WAY IN DEDICATED LEFT TURN LANE TO ERMONT WAY BANBURY

E: 446776 N: 241723 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Dry Daylight
Vehicle Reference 1 Motorcycle over 500 Moving from E to S Going ahead left bend On main carriageway

Casualty Reference: 1 Age: 26 Male Driver/rider Severity: Slight Injured by vehicle: 1

Accidents between dates **01/01/2013** **and** **31/08/2018** (68) months
Selection: **Notes:**
Selected using Manual Selection

Thursday 29/05/2014 Time 2139 Slight at M40 NBOUND J/W NBOUND EXIT SLIP ROAD TO J11 BANBURY

E: 447325 N: 241374 Junction Detail: Slip Road Control: Give way or controlled
Fine without high winds Road surface Dry Darkness: no street lighting
Vehicle Reference 1 Car Moving from S to N Changing lane to left On main carriageway
Vehicle Reference 2 Car Moving from S to N Going ahead other On main carriageway
Casualty Reference: 1 Age: 28 Male Passenger Severity: Slight Injured by vehicle: 2

Tuesday 24/06/2014 Time 1439 Slight at A422 RBT J/W M40 NBOUND EXIT SLIP RD BANBURY

E: 447089 N: 241741 Junction Detail: Roundabout Control: Automatic traffic sign
Fine without high winds Road surface Dry Daylight
Vehicle Reference 1 Goods 7.5 tonnes mg Moving from E to N Going ahead right bend On main carriageway
Vehicle Reference 2 Van or Goods 3.5 to Moving from E to W Going ahead other On main carriageway
Casualty Reference: 1 Age: 41 Male Driver/rider Severity: Slight Injured by vehicle: 2

Wednesday 09/07/2014 Time 2244 Slight at A361 APPROX 160M N OF J/W RBT J/W A422 / M40 AT J11 BANBURY

E: 447333 N: 242042 Junction Detail: Not within 20m of j Control:
Fine without high winds Road surface Dry Darkness: no street lighting
Vehicle Reference 1 Motorcycle over 500 Moving from N to S Going ahead right bend On main carriageway
Casualty Reference: 1 Age: 32 Male Driver/rider Severity: Slight Injured by vehicle: 1

Accidents between dates **01/01/2013** **and** **31/08/2018** (68) months

Selection:

Selected using Manual Selection

Notes:

Saturday 26/07/2014 Time 0847 Serious at A361 ON BEND 330 NE OF RBT J/W M40 & A422 (J11) BANBURY

E: 447243 N: 242200 Junction Detail: Using private drive c Control: Give way or controlled
Fine without high winds Road surface Dry Daylight

Vehicle Reference 1 Car Moving from SE to SE U-turn On main carriageway

Vehicle Reference 2 Motorcycle over 500 Moving from SE to N Going ahead other On main carriageway

Casualty Reference: 1 Age: 46 Male Driver/rider Severity: Serious Injured by vehicle: 2

Thursday 21/08/2014 Time 1425 Slight at A422 RBT J/W M40 & A361 AT JUNCTION 11 BANBURY

E: 447050 N: 241792 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Dry Daylight

Vehicle Reference 1 Van or Goods 3.5 to Moving from S to NE Going ahead other On main carriageway

Vehicle Reference 2 Car Moving from S to NE Going ahead but held up On main carriageway

Casualty Reference: 1 Age: 40 Female Driver/rider Severity: Slight Injured by vehicle: 2

Accidents between dates **01/01/2013** **and** **31/08/2018** (68) months
Selection: **Notes:**
Selected using Manual Selection

Monday 15/09/2014 Time 1132 Slight at A361 ON BEND J/W PRIVATE FIELD ENTRANCE APPROX 330M NE OF RBT J/W M40 & A422 (J11) BANBURY
E: 447239 N: 242206 Junction Detail: Using private drive c Control: Give way or controlled
Fine without high winds Road surface Dry Daylight
Vehicle Reference 1 Car Moving from SE to N Overtaking moving vehicle O/S On main carriageway
Vehicle Reference 2 Car Moving from SE to E Turning right On main carriageway
Casualty Reference: 1 Age: 23 Female Driver/rider Severity: Slight Injured by vehicle: 2

Tuesday 30/09/2014 Time 0930 Slight at A422 HENNEF WAY RBT J/W A4260 CONCORDE AVE BANBURY
E: 446012 N: 241625 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Dry Daylight
Vehicle Reference 1 Other Vehicle Moving from E to W Stopping On main carriageway
Vehicle Reference 2 Car Moving from E to S Turning left On main carriageway
Casualty Reference: 1 Age: 52 Female Driver/rider Severity: Slight Injured by vehicle: 2

Accidents between dates **01/01/2013** **and** **31/08/2018** (68) months

Selection:
Selected using Manual Selection

Notes:

Wednesday 01/10/2014 Time 1228 Slight at A422 HENNEF WAY WBOUND APPROX 300M E OF RBT J/W A4260 CHERWELL STREET BANBURY

E: 446511 N: 241723 Junction Detail: Not within 20m of j Control:
Fine without high winds Road surface Dry Daylight

Vehicle Reference 1 Van or Goods 3.5 to Moving from E to W Changing lane to right On main carriageway

Vehicle Reference 2 Car Moving from E to W Going ahead other On main carriageway

Casualty Reference: 1 Age: 23 Female Passenger Severity: Slight Injured by vehicle: 2

Vehicle Reference 3 Goods 7.5 tonnes mg Moving from E to W Going ahead but held up On main carriageway

Thursday 06/11/2014 Time 1346 Slight at A422 HENNEF WAY EBOUND CWAY APPROX 200M W OF RBT J/W A4260 CONCORDE AVE BANBURY

E: 445758 N: 241665 Junction Detail: Not within 20m of j Control:
Fine without high winds Road surface Dry Daylight

Vehicle Reference 1 Motorcycle over 500 Moving from N to SE Going ahead other On main carriageway

Casualty Reference: 1 Age: 32 Male Driver/rider Severity: Slight Injured by vehicle: 1

Sunday 23/11/2014 Time 1545 Slight at A361 AT BEND APPROX 150M N OF J/W RBT J/W A422 / M40 AT J11 BANBURY

E: 447333 N: 242009 Junction Detail: Not within 20m of j Control:
Fine without high winds Road surface Wet/Damp Darkness: street lights present and lit

Vehicle Reference 1 Car Moving from S to N Going ahead left bend On main carriageway

Casualty Reference: 1 Age: 32 Female Driver/rider Severity: Slight Injured by vehicle: 1

Accidents between dates **01/01/2013** **and** **31/08/2018** (68) months
Selection: **Notes:**
Selected using Manual Selection

Tuesday 16/12/2014 Time 1655 Serious at A422 APPROX 150M W OF RBT J/W M40 & A361 AT JUNCTION 11 BANBURY

E: 446902 N: 241747 Junction Detail: Not within 20m of j Control:
Fine without high winds Road surface Wet/Damp Darkness: street lights present and lit
Vehicle Reference 1 Motorcycle over 500 Moving from W to E Going ahead other On main carriageway
Casualty Reference: 1 Age: 22 Male Driver/rider Severity: Serious Injured by vehicle: 1
Vehicle Reference 2 Van or Goods 3.5 to Moving from W to E Changing lane to right On main carriageway

Tuesday 06/01/2015 Time 1616 Slight at A4260 CONCORDE AVE RBT J/W A422 HENNEF WAY BANBURY

E: 445972 N: 241599 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Wet/Damp Daylight
Vehicle Reference 1 Car Moving from S to W Turning left On main carriageway
Vehicle Reference 2 Car Moving from S to W Turning left On main carriageway
Casualty Reference: 1 Age: 33 Female Driver/rider Severity: Slight Injured by vehicle: 2

Accidents between dates **01/01/2013** **and** **31/08/2018** (68) months
Selection: **Notes:**
Selected using Manual Selection

Monday 12/01/2015 Time 1927 Slight at M40 NBOUND JUST N OF J/W EXIT SLIP ROAD TO J11 BANBURY

E: 447312 N: 241416 Junction Detail: Slip Road Control: Give way or controlled
Raining without high winds Road surface Wet/Damp Darkness: street lighting unknown
Vehicle Reference 1 Van or Goods 3.5 to Moving from S to N Going ahead other On main carriageway

Vehicle Reference 2 Car Moving from S to N Going ahead other On main carriageway

Casualty Reference: 1 Age: 40 Male Driver/rider Severity: Slight Injured by vehicle: 2

Monday 19/01/2015 Time 1425 Slight at A422 RBT J/W M40 AT J11 BANBURY

E: 447041 N: 241783 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Dry Daylight
Vehicle Reference 1 Van or Goods 3.5 to Moving from S to NE Changing lane to left On main carriageway

Vehicle Reference 2 Car Moving from S to NE Going ahead other On main carriageway

Casualty Reference: 1 Age: 32 Male Driver/rider Severity: Slight Injured by vehicle: 2

Accidents between dates **01/01/2013** **and** **31/08/2018** (68) months

Selection:
Selected using Manual Selection

Notes:

Monday 26/01/2015 Time 1857 Slight at A422 HENNEF WAY RBT J/W A4260 CONCORDE AVENUE BANBURY

E: 445991 N: 241652 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Dry Darkness: street lights present and lit
Vehicle Reference 1 Car Moving from W to E Going ahead other On main carriageway

Casualty Reference: 1 Age: 49 Male Driver/rider Severity: Slight Injured by vehicle: 1

Vehicle Reference 2 Car Moving from W to E Going ahead other On main carriageway

Friday 06/03/2015 Time 2342 Slight at A422 HENNEF WAY RBT J/W A4260 CONCORDE AVE BANBURY

E: 446005 N: 241622 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Dry Darkness: street lights present and lit
Vehicle Reference 1 Motorcycle over 500 Moving from E to W Going ahead other On main carriageway

Casualty Reference: 1 Age: 25 Male Driver/rider Severity: Slight Injured by vehicle: 1

Thursday 16/04/2015 Time 1436 Serious at A422 HENNEF WAY RBT J/W A4260 CONCORDE AVE BANBURY

E: 445996 N: 241605 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Dry Daylight
Vehicle Reference 1 Motor Cycle over 1 Moving from W to S Turning right On main carriageway

Casualty Reference: 1 Age: 48 Male Driver/rider Severity: Serious Injured by vehicle: 1

Accidents between dates **01/01/2013** **and** **31/08/2018** (68) months
Selection: **Notes:**
Selected using Manual Selection

Tuesday 21/04/2015 Time 1820 Slight at A423 SOUTHAM RD RBT J/W A422 RUSCOTE AVE & HENNEF WAY BANBURY

E: 445532 N: 241770 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Dry Daylight
Vehicle Reference 1 Car Moving from E to W Going ahead other On main carriageway
Vehicle Reference 2 Car Moving from E to W Going ahead but held up On main carriageway
Casualty Reference: 1 Age: 23 Male Driver/rider Severity: Slight Injured by vehicle: 2

Wednesday 08/07/2015 Time 1148 Slight at A422 HENNEF WAY RBT J/W A4260 CONCORDE AVENUE BANBURY

E: 445988 N: 241652 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Dry Daylight
Vehicle Reference 1 Car Moving from W to S Turning right On main carriageway
Vehicle Reference 2 Car Moving from W to E Going ahead other On main carriageway
Casualty Reference: 1 Age: 50 Female Passenger Severity: Slight Injured by vehicle: 2
Vehicle Reference 3 Car Moving from W to E Going ahead other On main carriageway

Accidents between dates **01/01/2013** **and** **31/08/2018** (68) months
Selection: **Notes:**
Selected using Manual Selection

Thursday 09/07/2015 Time 2016 Slight at A422 HENNEF WAY RBT J/W ERMONT WAY BANBURY

E: 446711 N: 241731 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Dry Daylight

Vehicle Reference 1 Goods 7.5 tonnes mg Moving from E to N Going ahead right bend On main carriageway

Vehicle Reference 2 Car Moving from E to W Going ahead other On main carriageway

Casualty Reference: 1 Age: 30 Female Driver/rider Severity: Slight Injured by vehicle: 2

Monday 13/07/2015 Time 1500 Slight at A361 AT BEND APPROX 150M N OF J/W RBT J/W A422 / M40 AT J11 BANBURY

E: 447332 N: 242025 Junction Detail: Not within 20m of j Control:
Raining without high winds Road surface Wet/Damp Daylight

Vehicle Reference 1 Car Moving from N to S Going ahead right bend On main carriageway

Casualty Reference: 1 Age: 19 Female Driver/rider Severity: Slight Injured by vehicle: 1

Casualty Reference: 2 Age: 27 Male Passenger Severity: Slight Injured by vehicle: 1

Vehicle Reference 2 Van or Goods 3.5 to Moving from S to N Going ahead left bend On main carriageway

Vehicle Reference 3 Car Moving from S to N Going ahead left bend On main carriageway

Casualty Reference: 3 Age: 24 Female Driver/rider Severity: Slight Injured by vehicle: 3

Accidents between dates **01/01/2013** **and** **31/08/2018** (68) months
Selection: **Notes:**
Selected using Manual Selection

Friday 14/08/2015 Time 1509 Slight at A361 APPROX 160M N OF J/W RBT J/W A422 / M40 AT J11 BANBURY

E: 447334 N: 242015 Junction Detail: Not within 20m of j Control:
Raining without high winds Road surface Wet/Damp Daylight

Vehicle Reference 1 Car Moving from N to S Going ahead right bend On main carriageway

Vehicle Reference 2 Car Moving from S to N Going ahead left bend On main carriageway

Casualty Reference: 1 Age: 69 Male Driver/rider Severity: Slight Injured by vehicle: 2

Casualty Reference: 2 Age: 66 Female Passenger Severity: Slight Injured by vehicle: 2

Vehicle Reference 3 Car Moving from S to N Going ahead left bend On main carriageway

Saturday 12/09/2015 Time 1820 Serious at M40 SBOUND MP 122/7B BANBURY

E: 447282 N: 241553 Junction Detail: Not within 20m of j Control:
Fine without high winds Road surface Dry Daylight

Vehicle Reference 1 Car Moving from N to S Going ahead other On main carriageway

Casualty Reference: 1 Age: 60 Female Passenger Severity: Slight Injured by vehicle: 1

Casualty Reference: 2 Age: 62 Male Passenger Severity: Serious Injured by vehicle: 1

Accidents between dates **01/01/2013** **and** **31/08/2018** (68) months
Selection: **Notes:**
Selected using Manual Selection

Tuesday 20/10/2015 Time 0314 Serious at A422 HENNEF WAY RBT J/W A4260 CONCORDE AVE BANBURY

E: 446001 N: 241619 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Dry Darkness: street lights present but unlit
Vehicle Reference 1 Motorcycle over 500 Moving from E to W Going ahead other On main carriageway

Casualty Reference: 1 Age: 38 Male Driver/rider Severity: Serious Injured by vehicle: 1

Sunday 01/11/2015 Time 0433 Slight at A361 APPROX 160M N OF J/W RBT J/W A422 / M40 AT J11 BANBURY

E: 447332 N: 242034 Junction Detail: Not within 20m of j Control:
Fine without high winds Road surface Wet/Damp Darkness: no street lighting
Vehicle Reference 1 Car Moving from S to N Going ahead left bend On main carriageway

Vehicle Reference 2 Car Moving from N to S Going ahead right bend On main carriageway

Casualty Reference: 1 Age: 53 Male Driver/rider Severity: Slight Injured by vehicle: 2

Wednesday 04/11/2015 Time 1243 Fatal at A422 HENNEF WAY AT RBT J/W ERMONT WAY & DAVENTRY ROAD BANBURY

E: 446738 N: 241705 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Wet/Damp Daylight
Vehicle Reference 1 Pedal Cycle Moving from S to NE Going ahead other On main carriageway

Casualty Reference: 1 Age: 20 Male Driver/rider Severity: Fatal Injured by vehicle: 1

Vehicle Reference 2 Goods 7.5 tonnes mg Moving from S to N Going ahead other On main carriageway

Accidents between dates **01/01/2013** **and** **31/08/2018** (68) months

Selection:
Selected using Manual Selection

Notes:

Saturday 30/01/2016 Time 1715 Slight at A422 HENNEF WAY RBT J/W ERMONT WAY BANBURY

E: 446713 N: 241762 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Wet/Damp Darkness: street lights present and lit

Vehicle Reference 1	Car	Moving from	W	to	E	Going ahead other	On main carriageway
Vehicle Reference 2	Motorcycle over 500	Moving from	S	to	E	Turning right	On main carriageway

Casualty Reference: 1 Age: 33 Male Driver/rider Severity: Slight Injured by vehicle: 2

Saturday 05/03/2016 Time 1358 Slight at A422 HENNEF WAY RBT APPROX 75M E OF J/W ERMONT WAY BY JUNCTION WITH SLIP ROAD TO ERMONT WAY BANBURY

E: 446842 N: 241734 Junction Detail: Slip Road Control: Give way or controlled
Fine without high winds Road surface Wet/Damp Daylight

Vehicle Reference 1	Car	Moving from	E	to	W	Going ahead other	On main carriageway
Vehicle Reference 2	Car	Moving from	E	to	W	Stopping	On main carriageway

Casualty Reference: 1 Age: 21 Male Driver/rider Severity: Slight Injured by vehicle: 2

Vehicle Reference 3	Car	Moving from	E	to	W	Stopping	On main carriageway

Accidents between dates **01/01/2013** **and** **31/08/2018** (68) months
Selection: **Notes:**
Selected using Manual Selection

Wednesday 23/03/2016 Time 0835 Slight at A422 RBT J/W M40 & A361 AT JUNCTION 11 BANBURY

E: 447046 N: 241788 Junction Detail: Roundabout Control: Give way or controlled
Fine with high winds Road surface Dry Daylight

Vehicle Reference 1	Car	Moving from	S	to	NE	Stopping	On main carriageway
Vehicle Reference 2	Car	Moving from	S	to	NE	Going ahead but held up	On main carriageway

Casualty Reference: 1 Age: 41 Female Driver/rider Severity: Slight Injured by vehicle: 2

Saturday 16/04/2016 Time 1130 Slight at A422 HENNEF WAY WBOUND CWAY 20M E OF RBT J/W A4260 CONCORDE AVE BANBURY

E: 446022 N: 241629 Junction Detail: Roundabout Control: Give way or controlled
Raining without high winds Road surface Wet/Damp Daylight

Vehicle Reference 1	Car	Moving from	E	to	W	Going ahead other	On main carriageway

Casualty Reference: 1 Age: 30 Male Driver/rider Severity: Slight Injured by vehicle: 1

Vehicle Reference 2	Car	Moving from	E	to	W	Going ahead but held up	On main carriageway
Vehicle Reference 3	Car	Moving from	E	to	W	Going ahead but held up	On main carriageway

Accidents between dates **01/01/2013** **and** **31/08/2018** (68) months
Selection: **Notes:**
Selected using Manual Selection

Friday 27/05/2016 Time 1846 Slight at DAVENTRY ROAD J/W BROOK HILL WAY BANBURY BANBURY

E: 446781 N: 241913 Junction Detail: T or staggered junct Control: Automatic traffic sign
Fine without high winds Road surface Dry Daylight
Vehicle Reference 1 Car Moving from W to E Going ahead other On main carriageway
Vehicle Reference 2 Car Moving from W to E Going ahead other On main carriageway
Casualty Reference: 1 Age: 31 Male Driver/rider Severity: Slight Injured by vehicle: 2
Casualty Reference: 2 Age: 29 Female Passenger Severity: Slight Injured by vehicle: 2

Wednesday 08/06/2016 Time 0030 Slight at A422 HENNEF WAY RBT J/W A4260 CONCORDE AVE BANBURY

E: 445990 N: 241605 Junction Detail: Roundabout Control: Give way or controlled
Other Road surface Wet/Damp Darkness: street lights present and lit
Vehicle Reference 1 Car Moving from E to N Going ahead right bend On main carriageway
Casualty Reference: 1 Age: 20 Female Driver/rider Severity: Slight Injured by vehicle: 1

Accidents between dates **01/01/2013** **and** **31/08/2018** (68) months
Selection: **Notes:**
Selected using Manual Selection

Sunday 11/09/2016 Time 0951 Serious at A422 / M40 / A361 RBT JUNCTION AT M40 J11 J/W EXIT TO A361 TO DAVENTRY BANBURY

E: 447245 N: 241910 Junction Detail: Roundabout Control: Automatic traffic sign
Fine without high winds Road surface Dry Daylight
Vehicle Reference 1 Motor Cycle over 1 Moving from W to NE Turning left On main carriageway
Casualty Reference: 1 Age: 62 Male Driver/rider Severity: Serious Injured by vehicle: 1
Vehicle Reference 2 Car Moving from W to SE Going ahead right bend On main carriageway

Tuesday 27/09/2016 Time 1800 Slight at A423 SOUTHAM ROAD RBT J/W A422 HENNEF WAT & RUSCOTE AVENUE BANBURY

E: 445518 N: 241815 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Dry Daylight
Vehicle Reference 1 Car Moving from N to E Turning left On main carriageway
Vehicle Reference 2 Car Moving from W to E Going ahead other On main carriageway
Casualty Reference: 1 Age: 54 Male Driver/rider Severity: Slight Injured by vehicle: 2

Accidents between dates **01/01/2013** **and** **31/08/2018** (68) months
Selection: **Notes:**
Selected using Manual Selection

Monday 17/10/2016 Time 1705 Slight at A422 RBT J/W M40 NBOUND EXIT SLIP ROAD BANBURY

E: 447137 N: 241731 Junction Detail: Roundabout Control: Automatic traffic sign
Fine without high winds Road surface Dry Daylight
Vehicle Reference 1 Car Moving from E to W Going ahead other On main carriageway
Vehicle Reference 2 Car Moving from E to W Going ahead but held up On main carriageway
Casualty Reference: 1 Age: 21 Male Driver/rider Severity: Slight Injured by vehicle: 2
Casualty Reference: 2 Age: 20 Male Passenger Severity: Slight Injured by vehicle: 2

Wednesday 02/11/2016 Time 0920 Slight at A422 HENNEF WAY EBOUND CWAY APPROX 200M W OF RBT J/W A4260 CONCORDE AVE BANBURY

E: 445764 N: 241663 Junction Detail: Not within 20m of j Control:
Fine without high winds Road surface Dry Daylight
Vehicle Reference 1 Car Moving from N to SE Going ahead other On main carriageway
Vehicle Reference 2 Car Moving from N to SE Going ahead but held up On main carriageway
Casualty Reference: 1 Age: 29 Male Driver/rider Severity: Slight Injured by vehicle: 2

Accidents between dates **01/01/2013** **and** **31/08/2018** (68) months

Selection:
Selected using Manual Selection

Notes:

Friday 09/12/2016 Time 1730 Slight at A423 SOUTHAM ROAD J/W BEAUMONT ROAD BANBURY

E: 445556 N: 242170 Junction Detail: T or staggered junct Control: Automatic traffic sign
Fine without high winds Road surface Dry Darkness: street lights present and lit
Vehicle Reference 1 Car Moving from S to N Going ahead other On main carriageway

Casualty Reference: 1 Age: 82 Female Driver/rider Severity: Slight Injured by vehicle: 1

Tuesday 13/12/2016 Time 1700 Slight at A423 SOUTHAM ROAD J/W BEAUMONT ROAD BANBURY

E: 445553 N: 242171 Junction Detail: T or staggered junct Control: Automatic traffic sign
Other Road surface Wet/Damp Darkness: street lights present and lit
Vehicle Reference 1 Car Moving from S to N Going ahead other On main carriageway

Vehicle Reference 2 Car Moving from W to S Turning right On main carriageway

Casualty Reference: 1 Age: 59 Male Driver/rider Severity: Slight Injured by vehicle: 2

Wednesday 21/12/2016 Time 0937 Slight at A422 HENNEF WAY RBT J/W ERMONT WAY & WILDMERE ROAD BANBURY

E: 446698 N: 241761 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Dry Daylight
Vehicle Reference 1 Goods over 3.5 ton Moving from W to E Changing lane to right On main carriageway

Vehicle Reference 2 Car Moving from W to E Going ahead other On main carriageway

Casualty Reference: 1 Age: 21 Female Driver/rider Severity: Slight Injured by vehicle: 2

Accidents between dates **01/01/2013** **and** **31/08/2018** (68) months
Selection: **Notes:**
Selected using Manual Selection

Friday 13/01/2017 Time 0825 Slight at A422 HENNEF WAY RBT J/W ERMONT WAY & WILDMERE ROAD BANBURY

E: 445989 N: 241656 Junction Detail: Roundabout Control: Give way or controlled
Snowing with high winds Road surface Wet/Damp Daylight
Vehicle Reference 1 Car Moving from W to S Turning right On main carriageway
Vehicle Reference 2 Van or Goods 3.5 to Moving from W to E Going ahead other On main carriageway
Casualty Reference: 1 Age: 23 Male Driver/rider Severity: Slight Injured by vehicle: 2

Monday 16/01/2017 Time 0030 Slight at A422 HENNEF WAY AT RBT J/W WATERWORKS LANE & A4260 CONCORDE AVENUE BANBURY

E: 445985 N: 241661 Junction Detail: Roundabout Control: Give way or controlled
Other Road surface Wet/Damp Darkness: street lights present but unlit
Vehicle Reference 1 Car Moving from W to E Going ahead other On main carriageway
Casualty Reference: 1 Age: 30 Female Driver/rider Severity: Slight Injured by vehicle: 1

Accidents between dates **01/01/2013** **and** **31/08/2018** (68) months
Selection: **Notes:**
Selected using Manual Selection

Monday 27/03/2017 Time 1821 Slight at A422 HENNEF WAY RBT J/W WILDMERE ROAD & ERMONT WAY BANBURY

E: 446770 N: 241757 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Dry Daylight

Vehicle Reference 1 Car Moving from N to S Going ahead other On main carriageway

Casualty Reference: 2 Age: 43 Male Driver/rider Severity: Slight Injured by vehicle: 1

Vehicle Reference 2 Car Moving from S to E Turning right On main carriageway

Vehicle Reference 3 Car Moving from W to E Going ahead other On main carriageway

Casualty Reference: 1 Age: 31 Female Driver/rider Severity: Slight Injured by vehicle: 3

Tuesday 18/04/2017 Time 1605 Slight at A422 HENNEF WAY RBT J/W DAVENTRY ROAD BANBURY

E: 446761 N: 241776 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Dry Daylight

Vehicle Reference 1 Car Moving from N to S Stopping On main carriageway

Vehicle Reference 2 Car Moving from N to S Stopping On main carriageway

Casualty Reference: 1 Age: 28 Female Driver/rider Severity: Slight Injured by vehicle: 2

Accidents between dates **01/01/2013** **and** **31/08/2018** (68) months

Selection:
Selected using Manual Selection

Notes:

Tuesday 18/04/2017 Time 1715 Serious at A422 HENNEF WAY WBOUND CWAY APPROX 200M W OF RBT J/W WILDMERE ROAD & ERMONT WAY BANBURY

E: 446503 N: 241722 Junction Detail: Not within 20m of j Control:
Fine without high winds Road surface Dry Daylight

Vehicle Reference 1 Motorcycle over 500 Moving from W to E Going ahead other On main carriageway

Casualty Reference: 1 Age: 39 Male Driver/rider Severity: Serious Injured by vehicle: 1

Vehicle Reference 2 Car Moving from W to E Going ahead but held up On main carriageway

Wednesday 19/04/2017 Time 1236 Slight at A422 RBT J/W A422 FROM MIDDLETON CHENEY BANBURY

E: 447284 N: 241797 Junction Detail: Roundabout Control: Automatic traffic sign
Fine without high winds Road surface Dry Daylight

Vehicle Reference 1 Car Moving from E to W Going ahead other On main carriageway

Casualty Reference: 1 Age: 18 Male Driver/rider Severity: Slight Injured by vehicle: 1

Casualty Reference: 3 Age: 17 Male Passenger Severity: Slight Injured by vehicle: 1

Vehicle Reference 2 Car Moving from N to S Going ahead other On main carriageway

Casualty Reference: 2 Age: 41 Female Driver/rider Severity: Slight Injured by vehicle: 2

Vehicle Reference 3 Car Moving from E to W Going ahead but held up On main carriageway

Accidents between dates **01/01/2013** **and** **31/08/2018** (68) months

Selection:
Selected using Manual Selection

Notes:

Sunday 23/07/2017 Time 1655 Slight at M40 SBOUND EXIT SLIP ROAD RBT J/W A422 AT JUNCTION 11 BANBURY

E: 447175 N: 241930 Junction Detail: Roundabout Control: Automatic traffic sign
Fine without high winds Road surface Dry Daylight

Vehicle Reference 1 Car Moving from N to S Stopping On main carriageway

Vehicle Reference 2 Car Moving from N to S Going ahead but held up On main carriageway

Casualty Reference: 1 Age: 39 Female Driver/rider Severity: Slight Injured by vehicle: 2

Thursday 17/08/2017 Time 1738 Slight at A422 HENNEF WAY WBOUND CWAY AT SIGNALLED CROSSING 30M W OF RBT J/W ERMONT WAY BANBURY

E: 446676 N: 241743 Junction Detail: Not within 20m of j Control:
Fine without high winds Road surface Dry Daylight

Vehicle Reference 1 Car Moving from E to W Going ahead other On main carriageway

Casualty Reference: 1 Age: 46 Male Passenger Severity: Slight Injured by vehicle: 1

Casualty Reference: 2 Age: 9 Female Passenger Severity: Slight Injured by vehicle: 1

Vehicle Reference 2 Car Moving from E to W Stopping On main carriageway

Accidents between dates **01/01/2013** **and** **31/08/2018** (68) months

Selection:
Selected using Manual Selection

Notes:

Wednesday 13/09/2017 Time 1515 Slight at A422 HENNEF WAY RBT J/W ERMONT WAY & DAVENTRY ROAD BANBURY

E: 446738 N: 241707 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Dry Daylight
Vehicle Reference 1 Van or Goods 3.5 to Moving from S to N Going ahead other On main carriageway
Vehicle Reference 2 Car Moving from S to N Going ahead but held up On main carriageway
Casualty Reference: 1 Age: 24 Female Driver/rider Severity: Slight Injured by vehicle: 2

Monday 18/09/2017 Time 0610 Slight at A422 HENNEF WAY RBT J/W DAVENTRT ROAD & ERMONT WAY BANBURY

E: 446772 N: 241769 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Dry Darkness: street lights present and lit
Vehicle Reference 1 Motor Cycle over 50 Moving from W to E Going ahead other On main carriageway
Casualty Reference: 1 Age: 18 Male Driver/rider Severity: Slight Injured by vehicle: 1

Thursday 21/09/2017 Time 1749 Slight at A422 HENNEF WAY RBT J/W A4260 CONCORDE AVENUE BANBURY

E: 446006 N: 241617 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Wet/Damp Daylight
Vehicle Reference 1 Motor Cycle over 50 Moving from E to W Going ahead other On main carriageway
Casualty Reference: 1 Age: 22 Male Driver/rider Severity: Slight Injured by vehicle: 1

Accidents between dates **01/01/2013** **and** **31/08/2018** (68) months
Selection: **Notes:**
Selected using Manual Selection

Sunday 29/10/2017 Time 1532 Slight at A422 HENNEF WAY RBT J/W A4260 CONCORDE AVENUE BANBURY (SOME UNCERTAINTY OVER WHICH RBT ON A422 HENNEF WAY ACCIDENT OCCURRED)
E: 446002 N: 241653 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Dry Daylight
Vehicle Reference 1 Motorcycle - unknow Moving from W to E Going ahead other On main carriageway
Casualty Reference: 1 Age: 56 Male Driver/rider Severity: Slight Injured by vehicle: 1
Vehicle Reference 2 Car Moving from W to E Going ahead other On main carriageway

Friday 02/02/2018 Time 1830 Slight at A422 HENNEF WAY RBT J/W A4260 CONCORDE AVE BANBURY
E: 445940 N: 241611 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Dry Darkness: street lights present and lit
Vehicle Reference 1 Car Moving from E to W Going ahead other On main carriageway
Casualty Reference: 1 Age: 63 Male Pedestrian Severity: Slight Injured by vehicle: 1

Accidents between dates **01/01/2013** **and** **31/08/2018** (68) months
Selection: **Notes:**
Selected using Manual Selection

Tuesday 10/04/2018 Time 1815 Slight at A422 HENNEF WAY RBT J/W ERMONT WAY & DAVENTRY ROAD BANBURY

E: 446711 N: 241764 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Dry Daylight
Vehicle Reference 1 Car Moving from W to E Going ahead other On main carriageway
Casualty Reference: 1 Age: 50 Male Driver/rider Severity: Slight Injured by vehicle: 1
Casualty Reference: 2 Age: 44 Female Passenger Severity: Slight Injured by vehicle: 1
Vehicle Reference 2 Car Moving from S to N Going ahead other On main carriageway

Tuesday 17/04/2018 Time 1059 Slight at A422 HENNEF WAY WBOUND CWAY APPROX 15M E OF RBT J/W ERMONT WAY BANBURY

E: 446788 N: 241736 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Dry Daylight
Vehicle Reference 1 Car Moving from E to W Stopping On main carriageway
Casualty Reference: 1 Age: 36 Female Driver/rider Severity: Slight Injured by vehicle: 1
Vehicle Reference 2 Goods 7.5 tonnes mg Moving from E to W Going ahead but held up On main carriageway

Accidents between dates **01/01/2013** **and** **31/08/2018** (68) months
Selection: **Notes:**
Selected using Manual Selection

Saturday 19/05/2018 Time 1237 Slight at A422 HENNEF WAY RBT J/W AT M40 RBT JUNC 11 BANBURY

E: 447053 N: 241779 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Dry Daylight
Vehicle Reference 1 Motorcycle over 500 Moving from W to NE Going ahead left bend On main carriageway

Casualty Reference: 1 Age: 31 Male Driver/rider Severity: Slight Injured by vehicle: 1

Saturday 23/06/2018 Time 2344 Slight at A422 HENNEF WAY RBT J/W A4260 CONCORDE AVENUE BANBURY

E: 445957 N: 241641 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Dry Darkness: street lights present and lit
Vehicle Reference 1 Car Moving from W to E Going ahead other On main carriageway

Casualty Reference: 1 Age: 18 Male Passenger Severity: Slight Injured by vehicle: 1
Casualty Reference: 2 Age: 17 Male Passenger Severity: Slight Injured by vehicle: 1

Friday 24/08/2018 Time 1022 Serious at A422 HENNEF WAY RBT J/W A4260 CONCORDE AVENUE BANBURY

E: 445993 N: 241651 Junction Detail: Roundabout Control: Give way or controlled
Fine without high winds Road surface Dry Daylight
Vehicle Reference 1 Car Moving from S to S Turning right On main carriageway
Vehicle Reference 2 Motorcycle over 500 Moving from N to E Turning left On main carriageway

Casualty Reference: 1 Age: 32 Male Driver/rider Severity: Serious Injured by vehicle: 2

Accidents between dates **01/01/2013** **and** **31/08/2018** (68) months

Selection:
Selected using Manual Selection

Notes:

Accidents involving:

	Fatal	Serious	Slight	Total
Motor vehicles only (excluding 2-wheels)	0	4	57	61
2-wheeled motor vehicles	0	7	11	18
Pedal cycles	1	0	0	1
Horses & other	0	0	0	0
Total	1	11	68	80

Casualties:

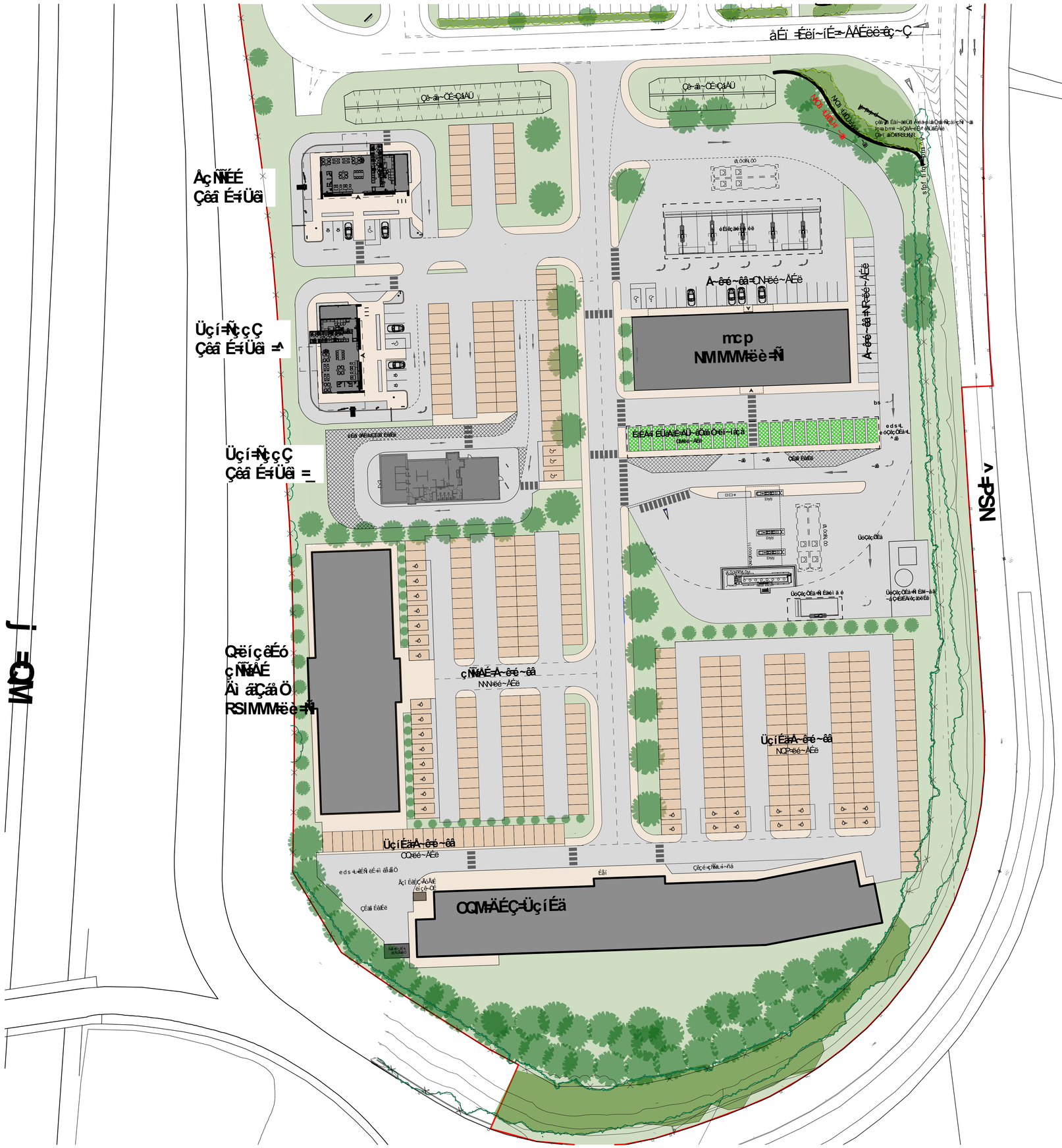
	Fatal	Serious	Slight	Total
Vehicle driver	0	2	51	53
Passenger	0	2	22	24
Motorcycle rider	0	7	10	17
Cyclist	1	0	0	1
Pedestrian	0	0	3	3
Other	0	0	0	0
Total	1	11	86	98

Number of casualties meeting the criteria: **98**

Appendix B – Proposed Site Layout

issue:

A: original issue
B: 11.03.21: PFS layout amended
C: 29.03.21: hotel car park amended, car wash added
D: 09.04.21: auto car wash omitted
E: 13.05.21: drive-thru unit added, hotel changed to 240 bed, hydrogen pump / station added, elec. parking reconfigured
F: 08.06.21: PFS increased to 8,500 sq ft; kerb lines adjusted to suit vehicle tracking
G: 08.06.21: PFS increased to 10,000 sq ft; EV to 20 spaces, jet and wash bays omitted; air lines added



campbelldriverpartnership architects

client: monte blackburn ltd

project: Phase 3

junction 11, banbury

sheet: phase 3 site plan

job no: 16.145.03 | dwg no: 301 | H

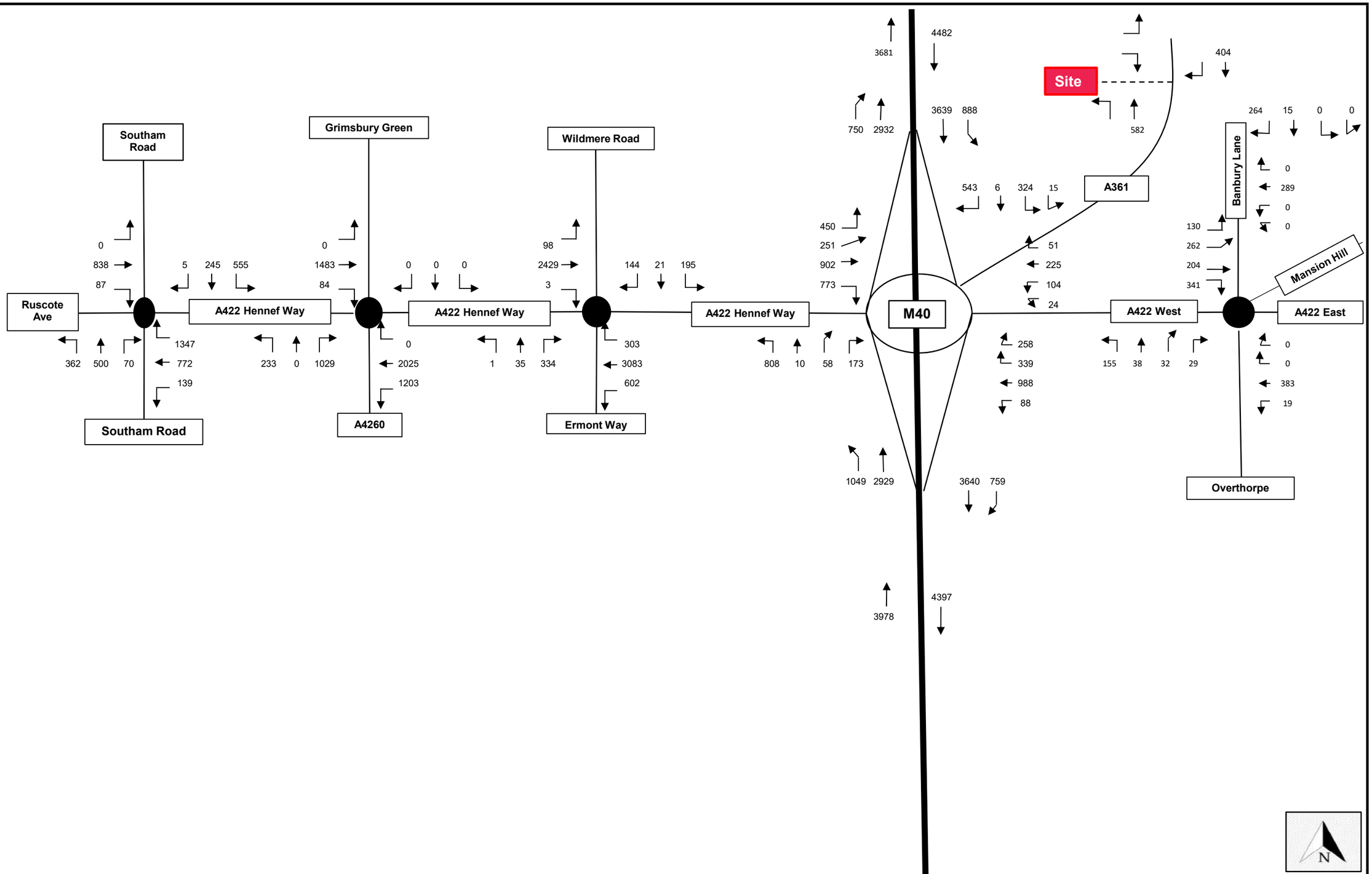
scale: 1:500 @ A1

date: 27.01.21

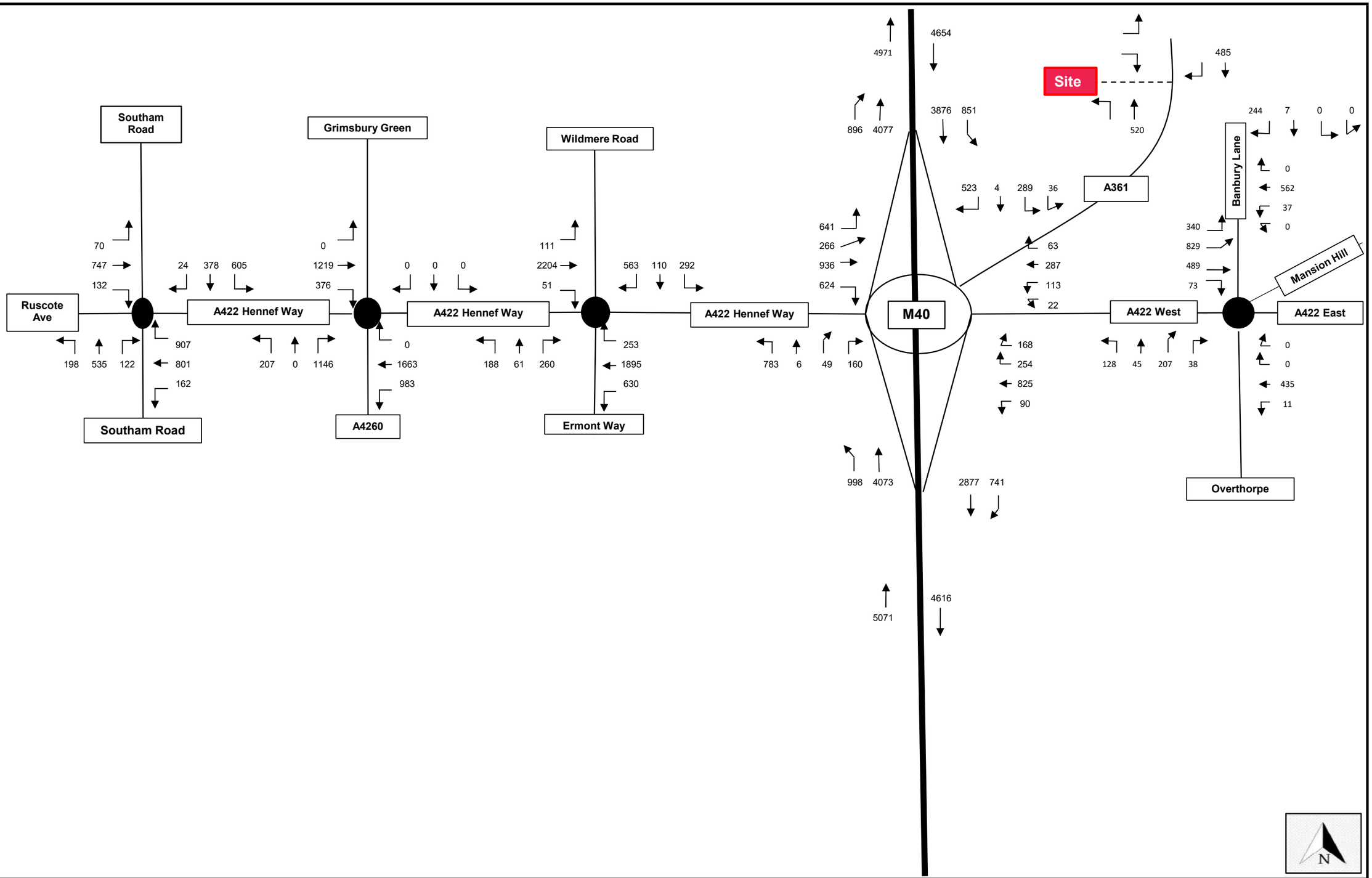
drawn: dp

capricorn park
blakewater road
blackburn bb1 5qr
t: 01254 297700
e: design@cdparchitects.co.uk

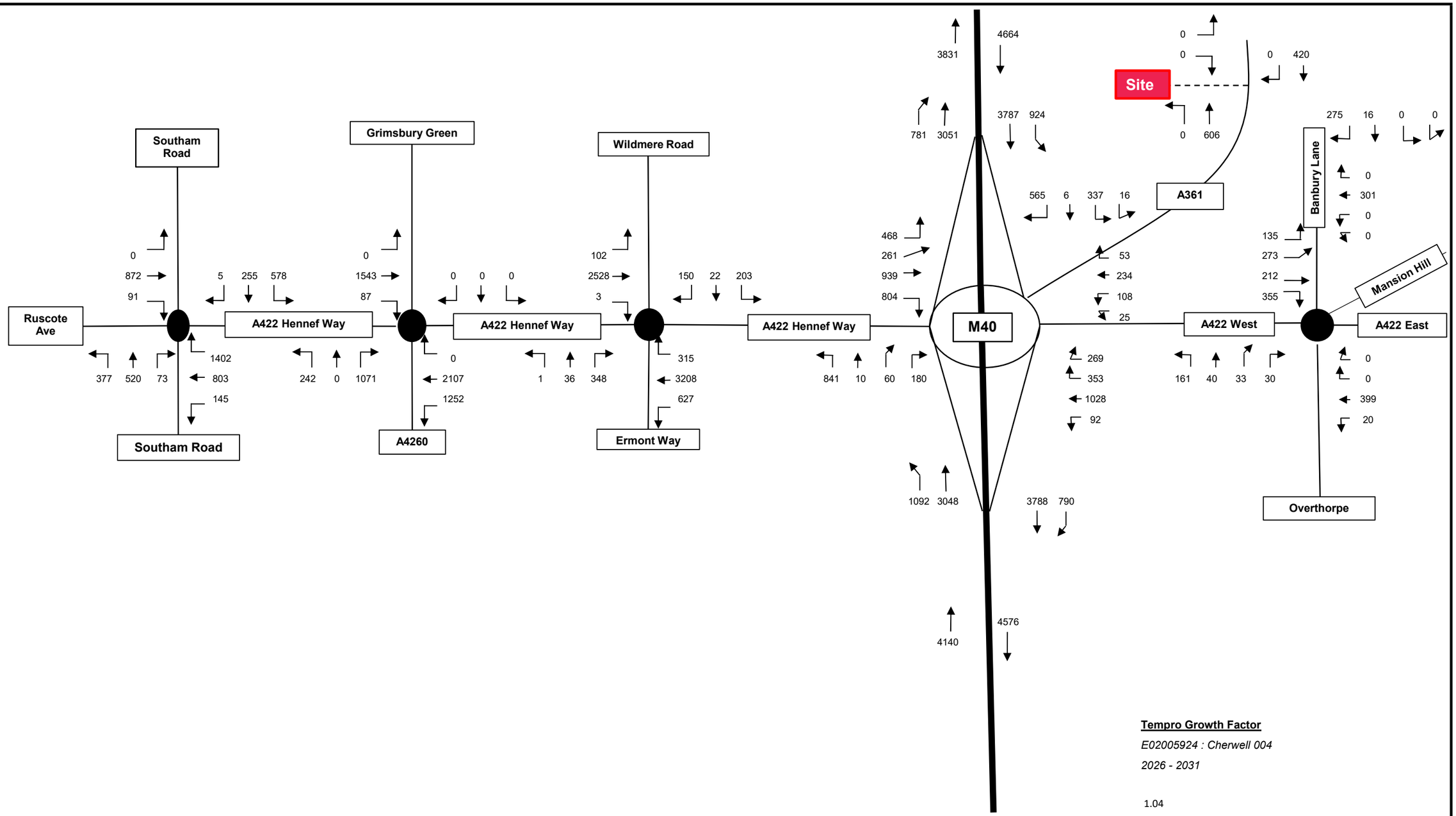
Appendix C – Network Diagrams



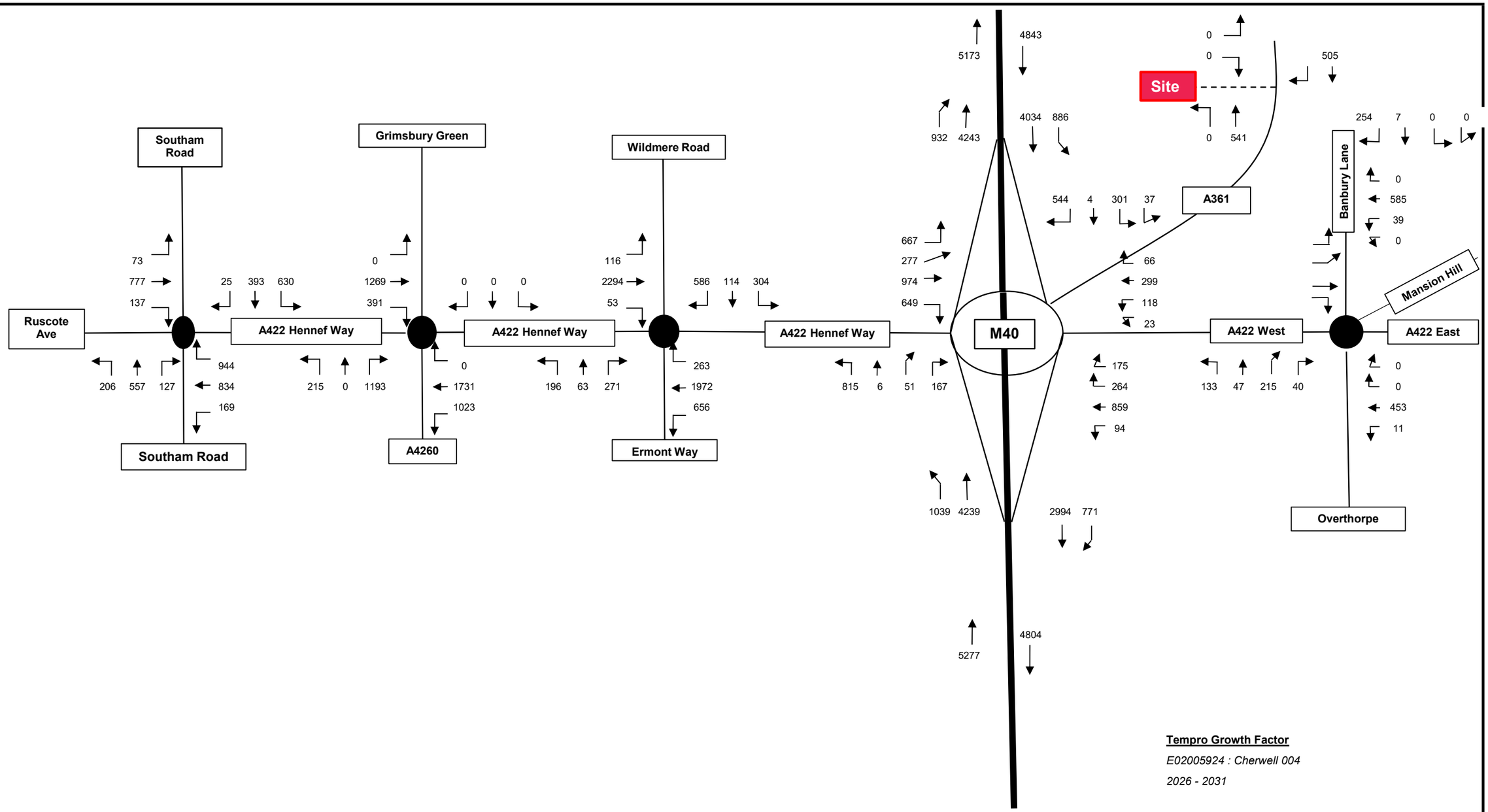
curtins	2026 Weekday AM Peak Base Flows (PCU)	20 May 2021	079704
	Land North & East of M40 Jnc 11, Banbury, Oxfordshire	Figure 1	



curtins	2026 Weekday PM Peak Base Flows (PCU)	20 May 2021	079704
	Land North & East of M40 Jnc 11, Banbury, Oxfordshire	Figure 2	



curtins	2031 Weekday AM Peak Base Flows (PCU)	20 May 2021	079704
	Land North & East of M40 Jnc 11, Banbury, Oxfordshire	Figure 3	



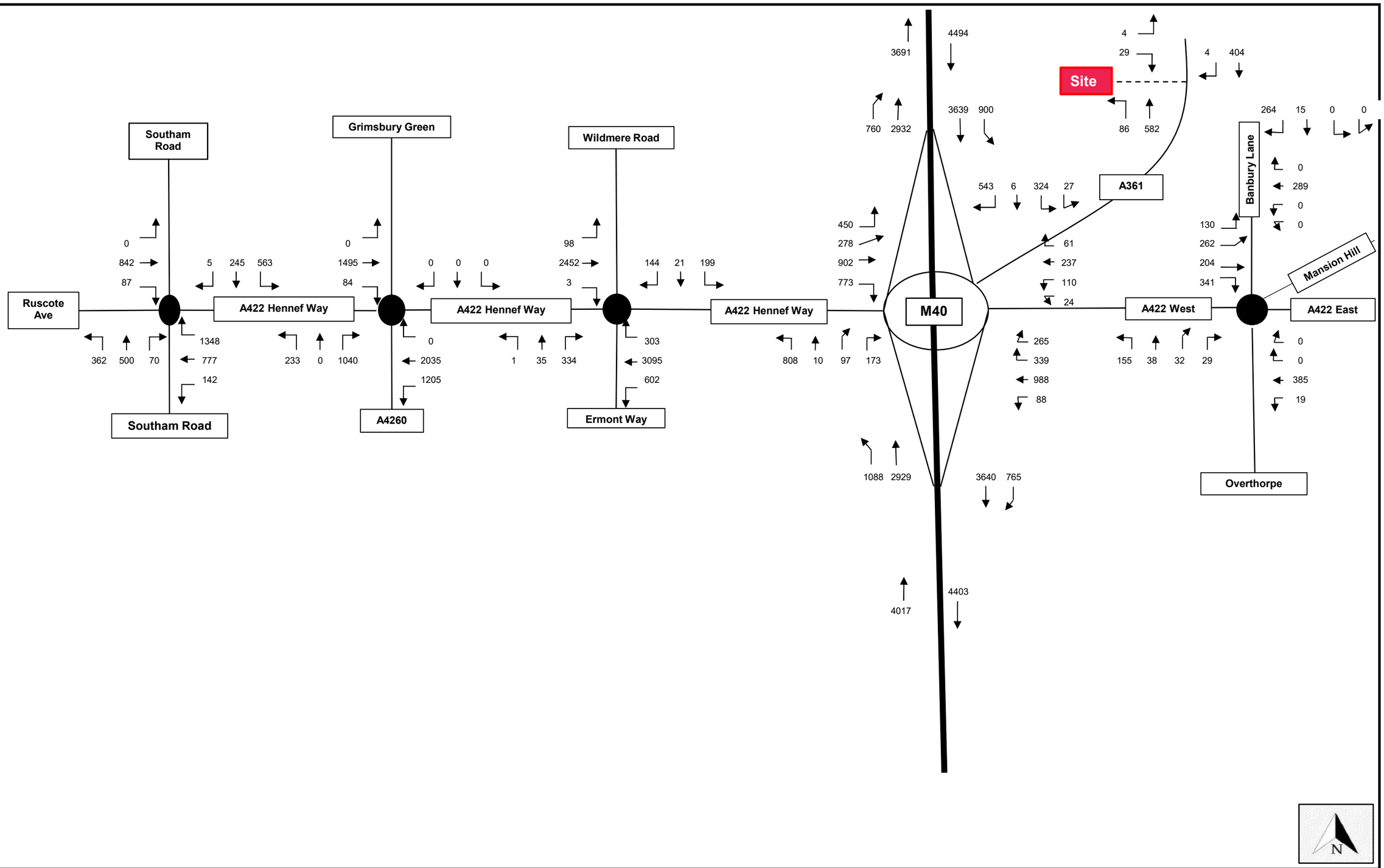
Tempro Growth Factor

E02005924 : Cherwell 004

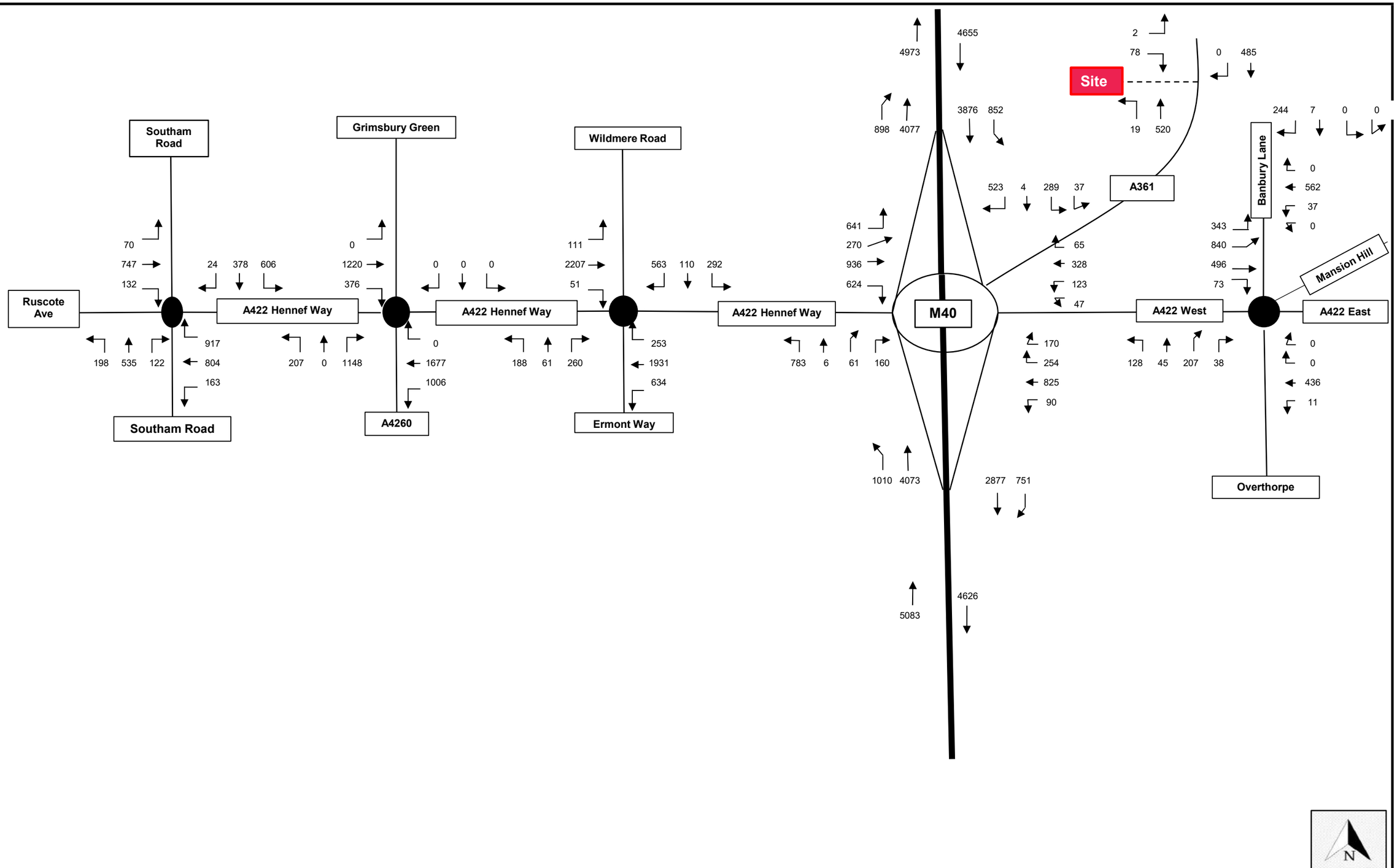
2026 - 2031

1.04

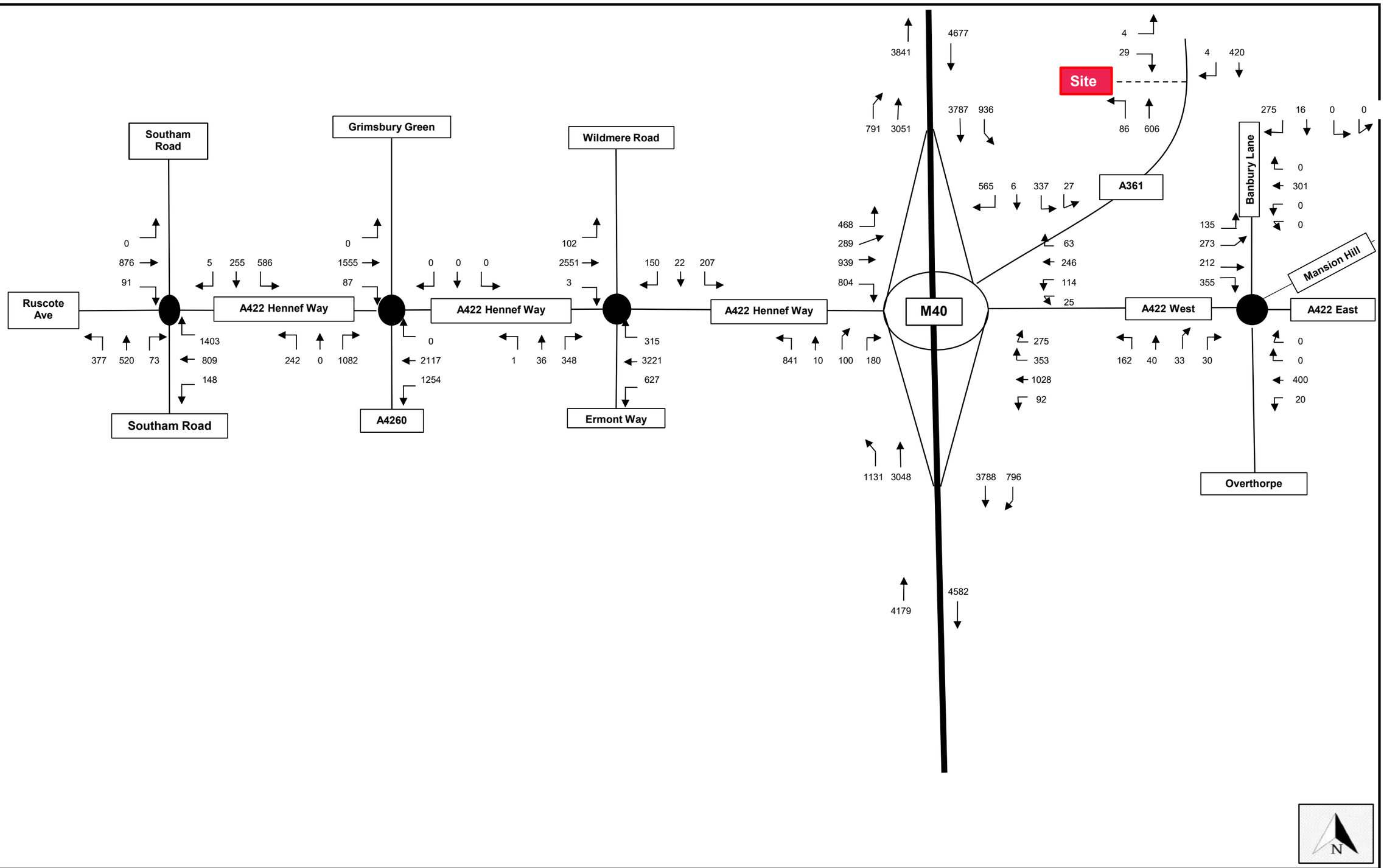
curtins	2031 Weekday PM Peak Base Flows (PCU)	20 May 2021	079704
	Land North & East of M40 Jnc 11, Banbury, Oxfordshire	Figure 4	



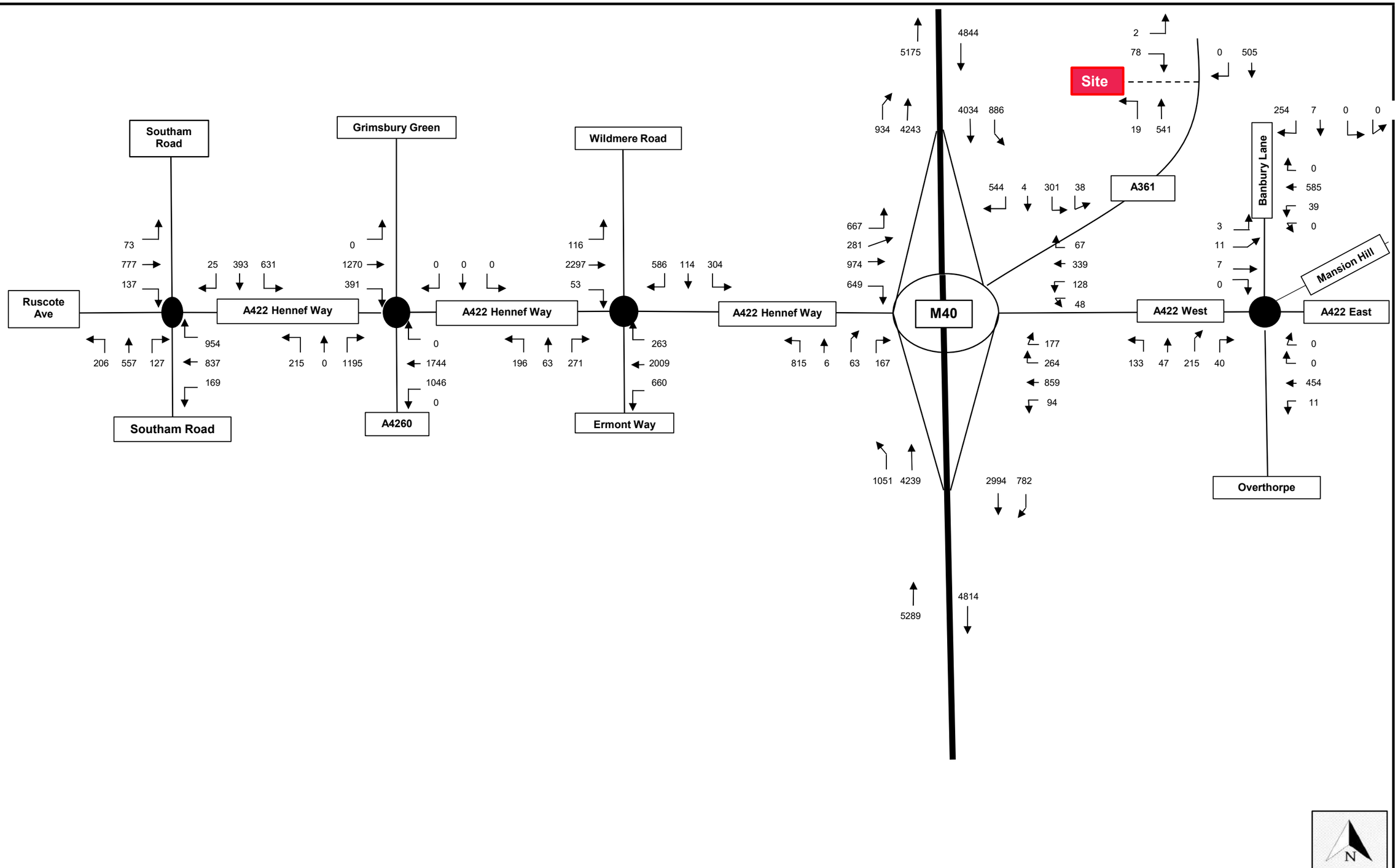
curtins	2026 Weekday AM Peak No Development Flows (PCU)	20 May 2021	079704
	Land North & East of M40 Jnc 11, Banbury, Oxfordshire	Figure 5	



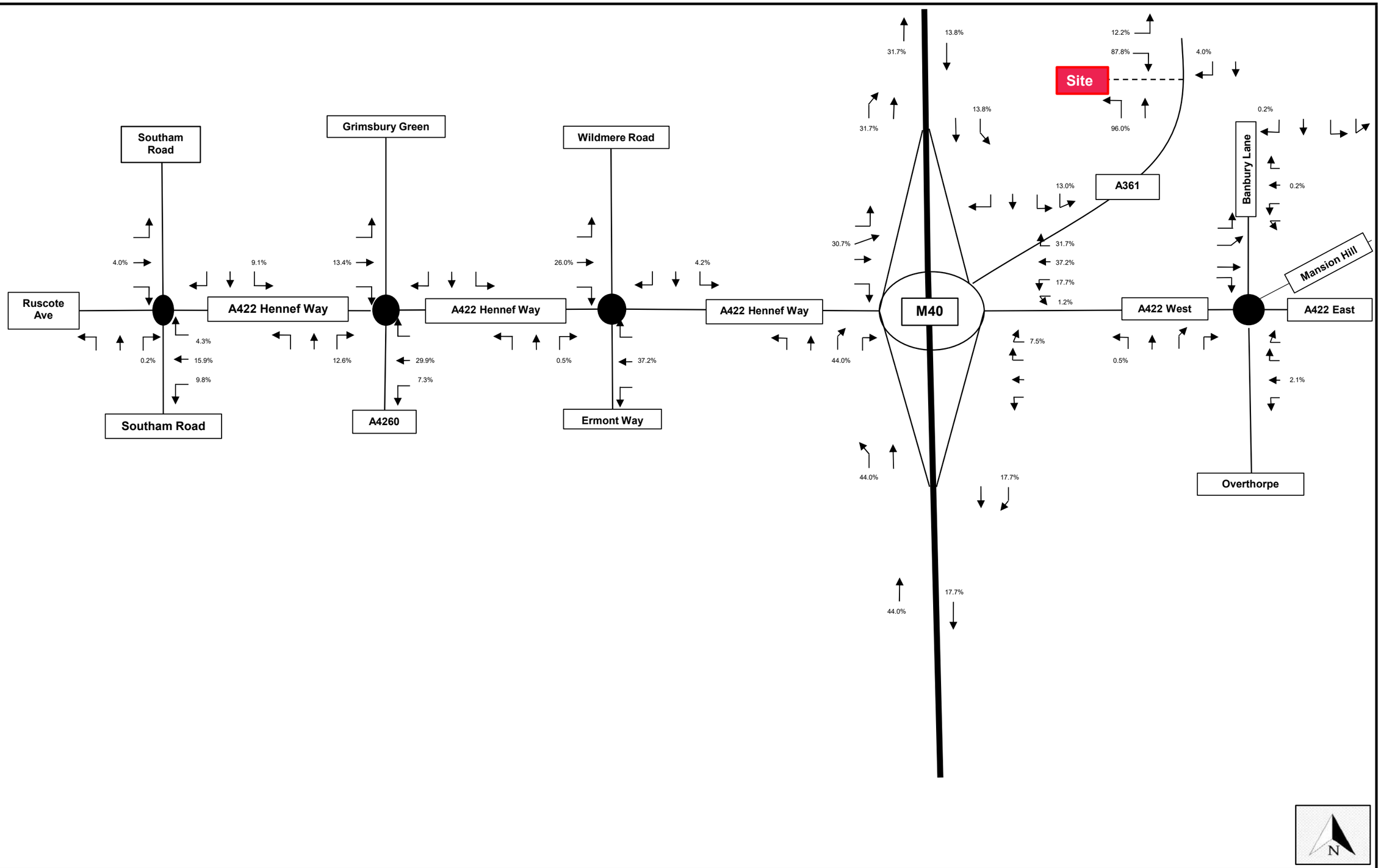
curtins	2026 Weekday PM Peak No Development Flows (PCU)	20 May 2021	079704
	Land North & East of M40 Jnc 11, Banbury, Oxfordshire	Figure 6	



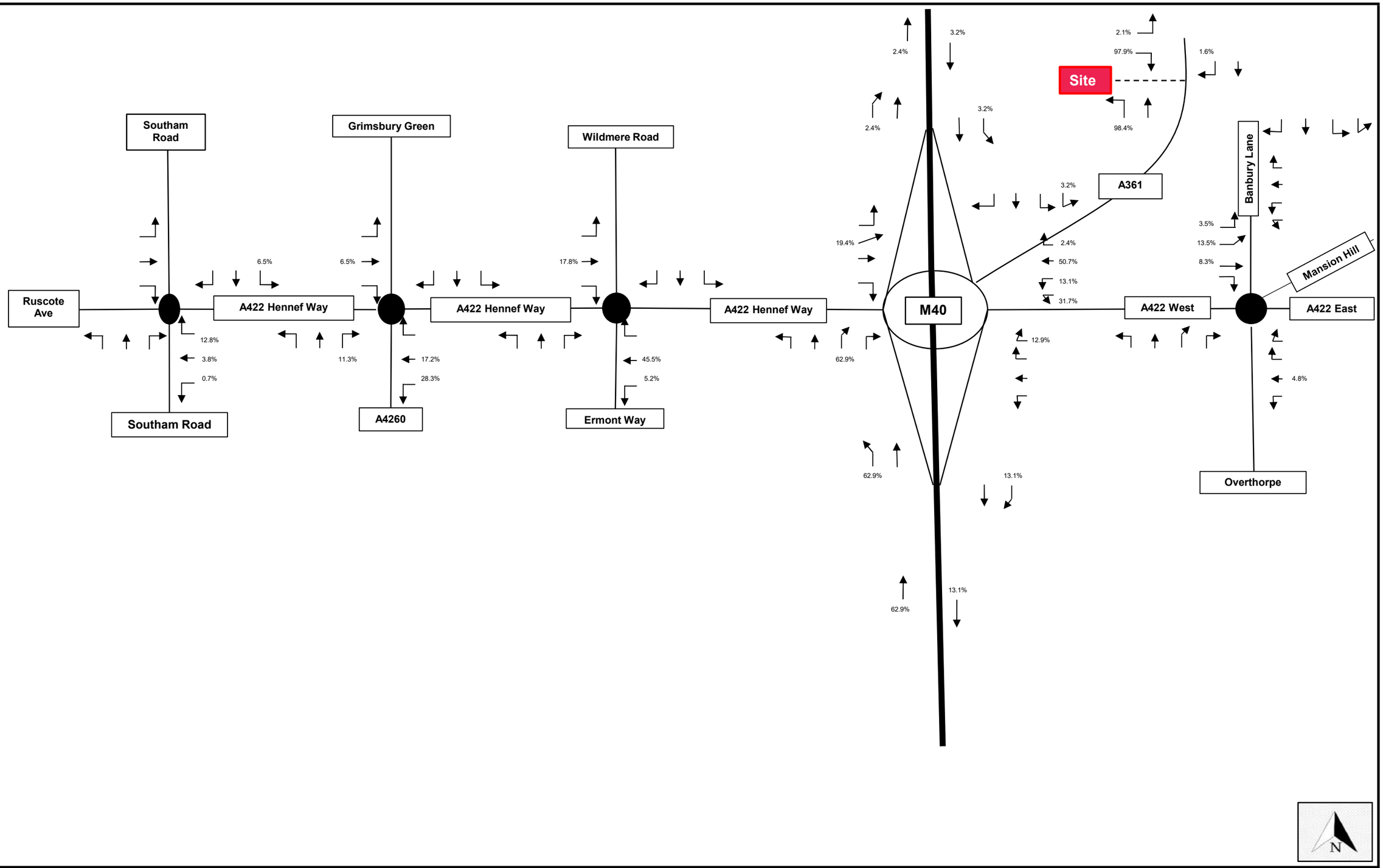
curtins	2031 Weekday AM Peak No Development Flows (PCU)	20 May 2021	079704
	Land North & East of M40 Jnc 11, Banbury, Oxfordshire	Figure 7	



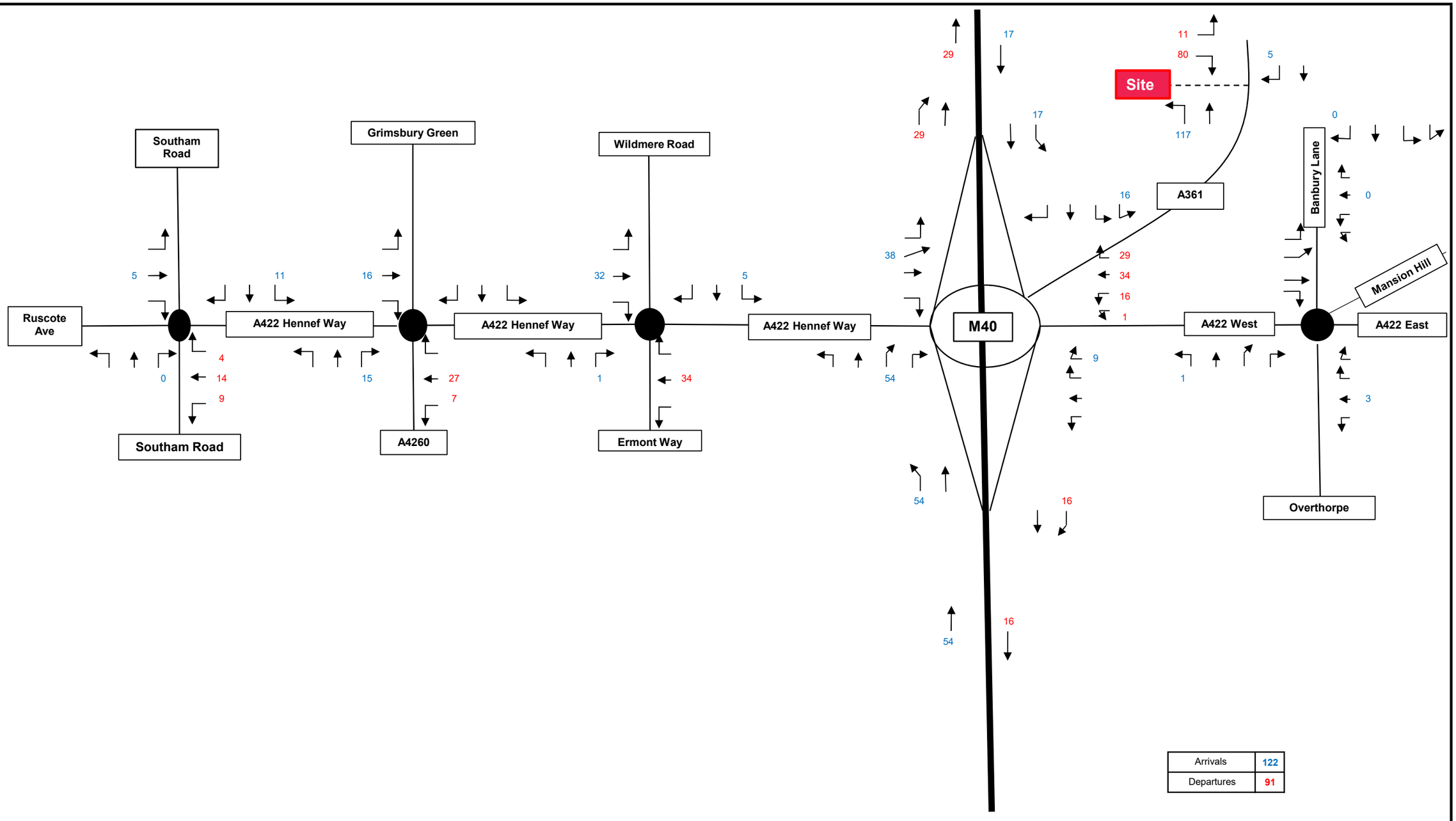
curtins	2031 Weekday PM Peak No Development Flows (PCU)	20 May 2021	079704
	Land North & East of M40 Jnc 11, Banbury, Oxfordshire	Figure 8	



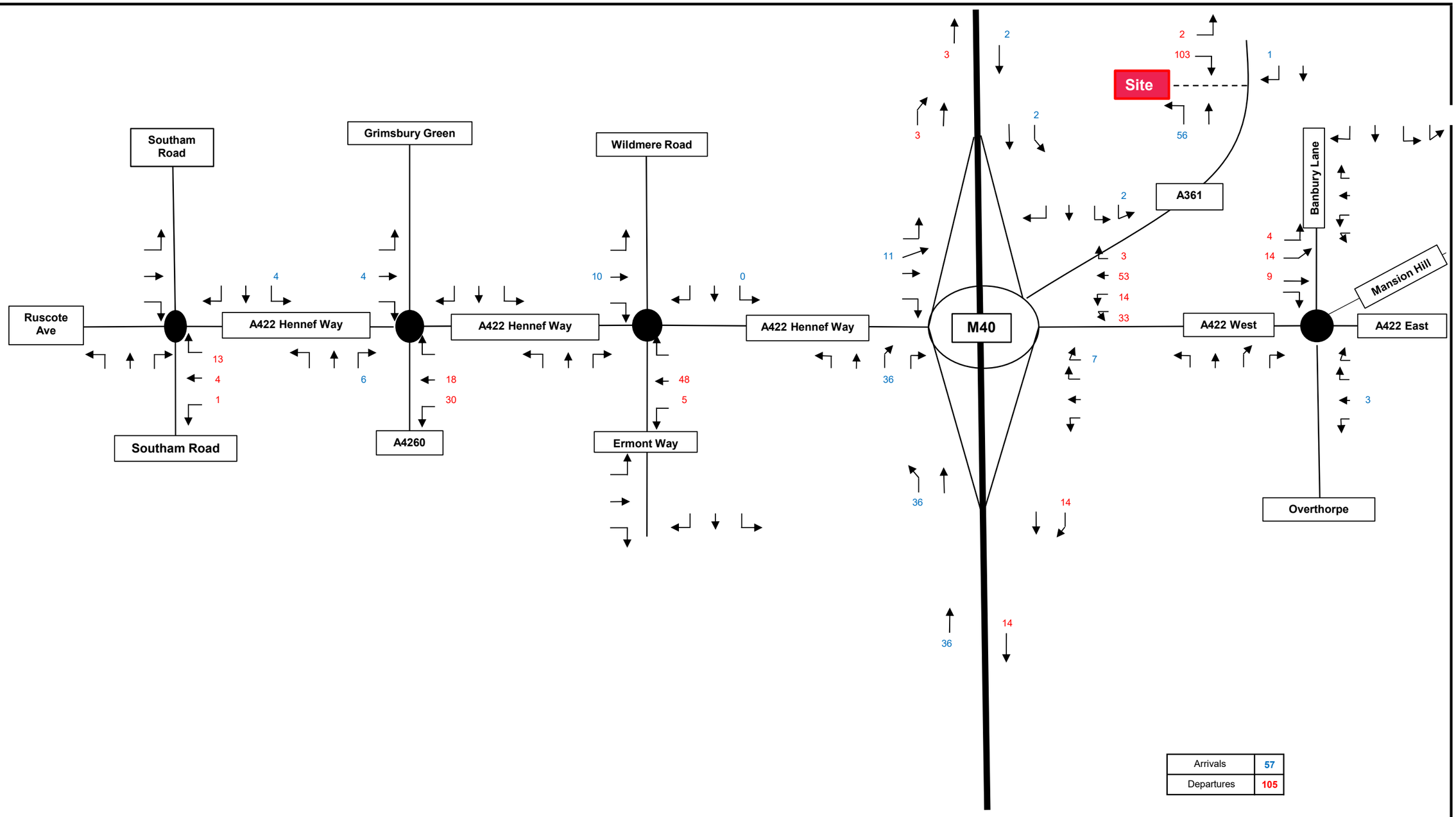
curtins	AM Peak Development Trip Distribution (New Trips)	20 May 2021	079704
	Land North & East of M40 Jnc 11, Banbury, Oxfordshire	Figure 9	



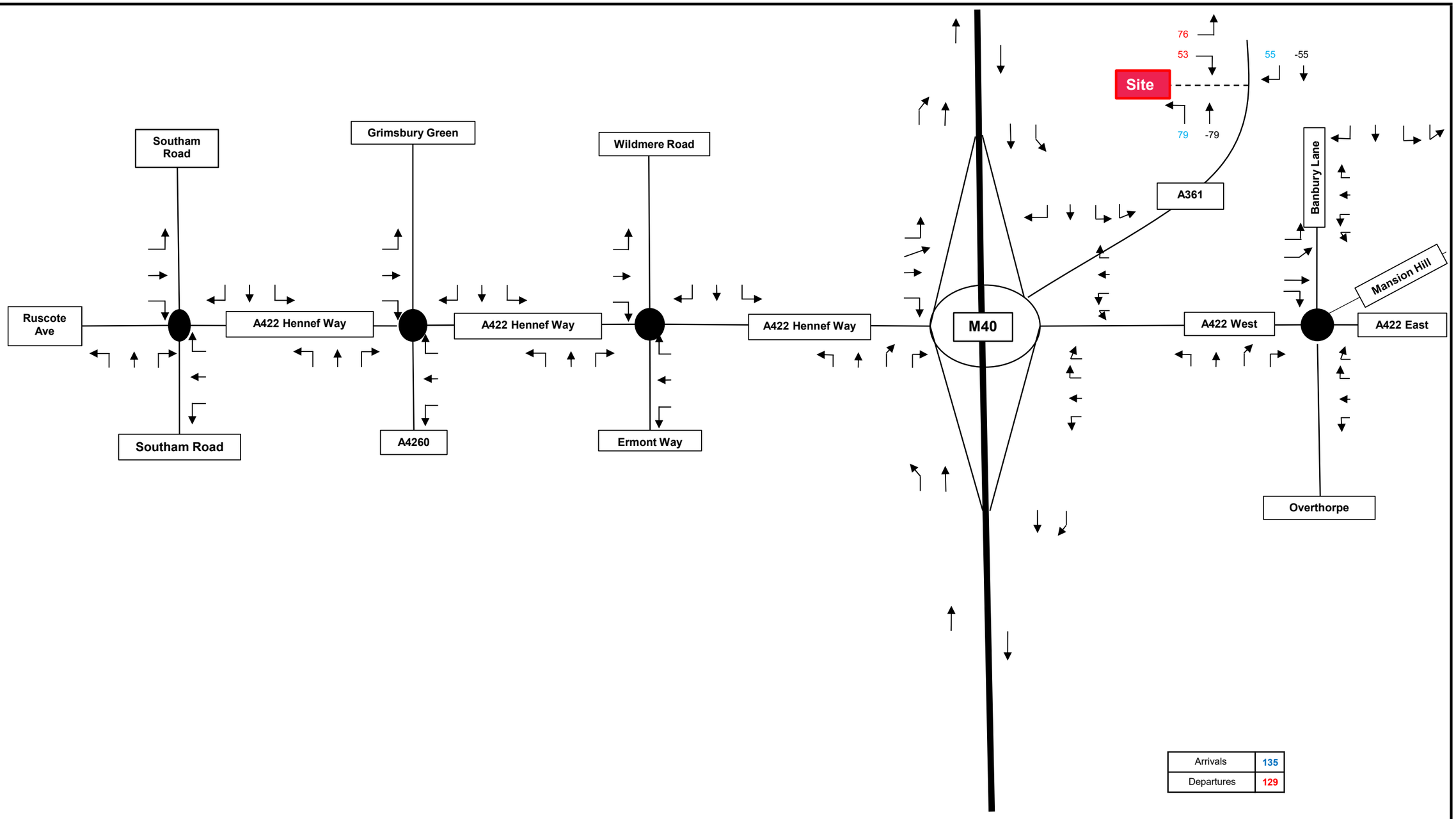
curtins	PM Peak Development Trip Distribution (New Trips)	20 May 2021	079704
	Land North & East of M40 Jnc 11, Banbury, Oxfordshire	Figure 10	



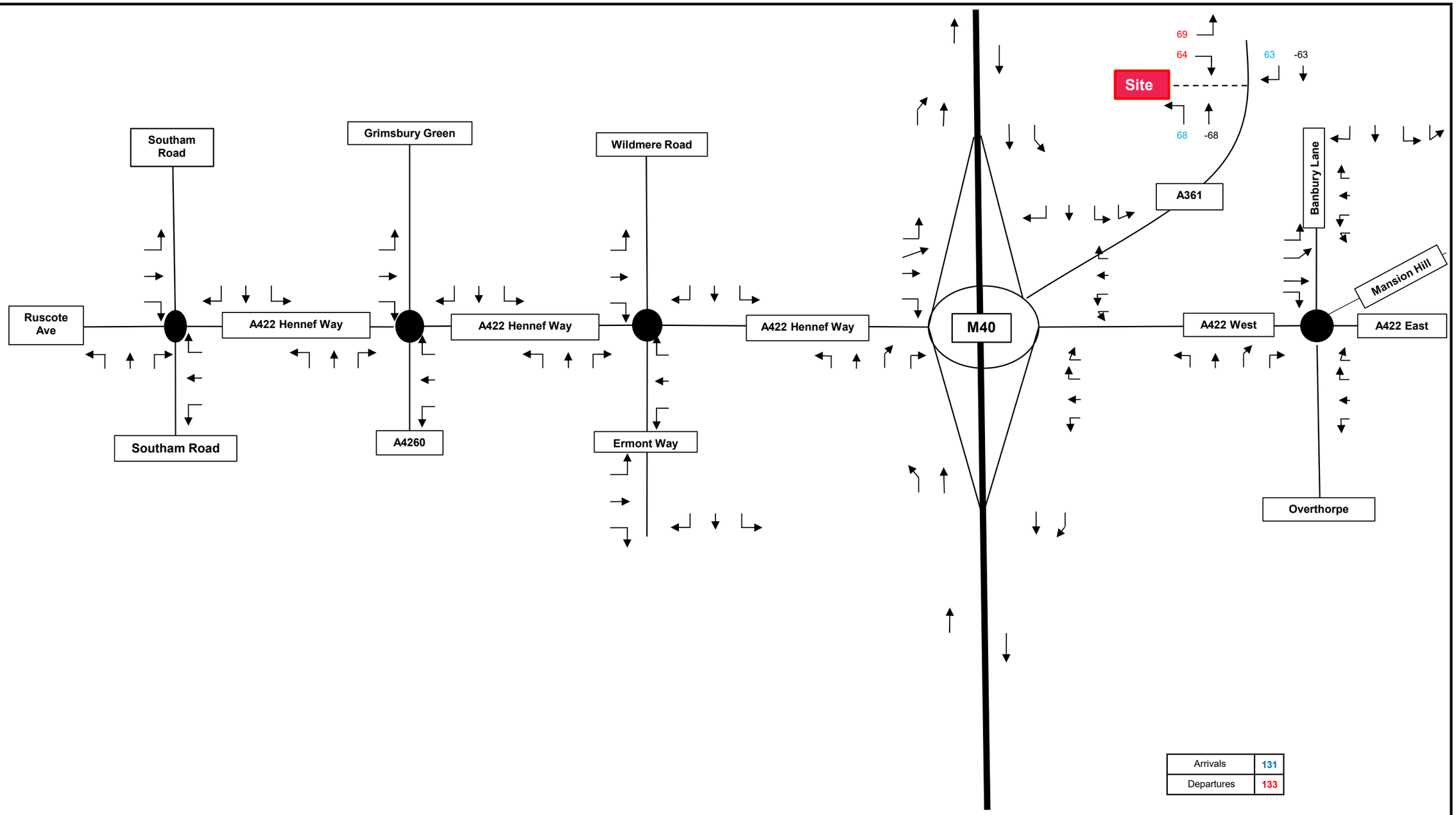
curtins	AM Peak Development Trips (Phase 3 - New Trips)	20 May 2021	079704
	Land North & East of M40 Jnc 11, Banbury, Oxfordshire		Figure 11



curtins	PM Peak Development Trips (Phase 3 - New Trips)	20 May 2021	079704
	Land North & East of M40 Jnc 11, Banbury, Oxfordshire	Figure 12	

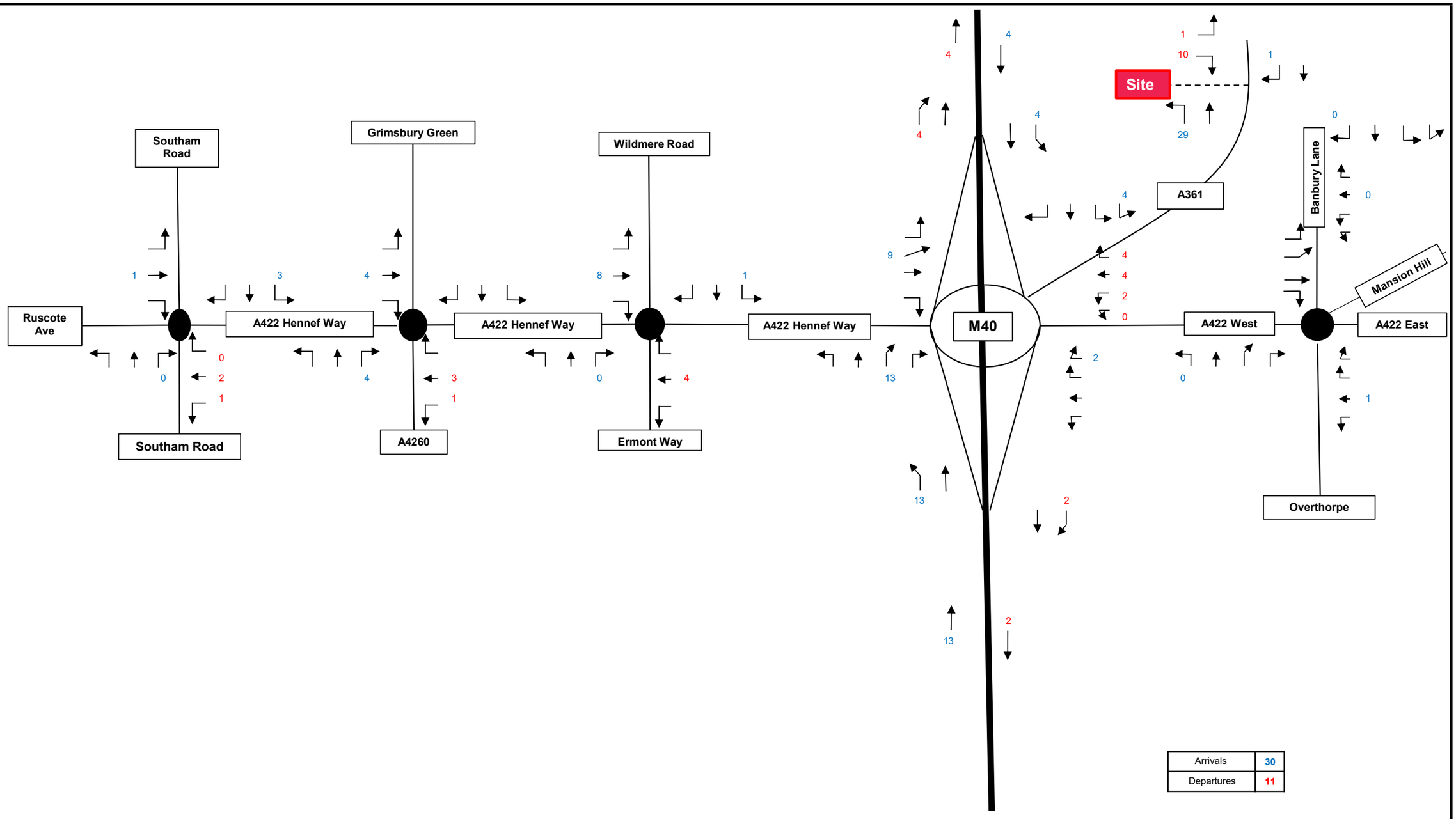


curtins	AM Peak Development Trips (Phase 3 - Pass-by)	20 May 2021	079704
	Land North & East of M40 Jnc 11, Banbury, Oxfordshire		Figure 13

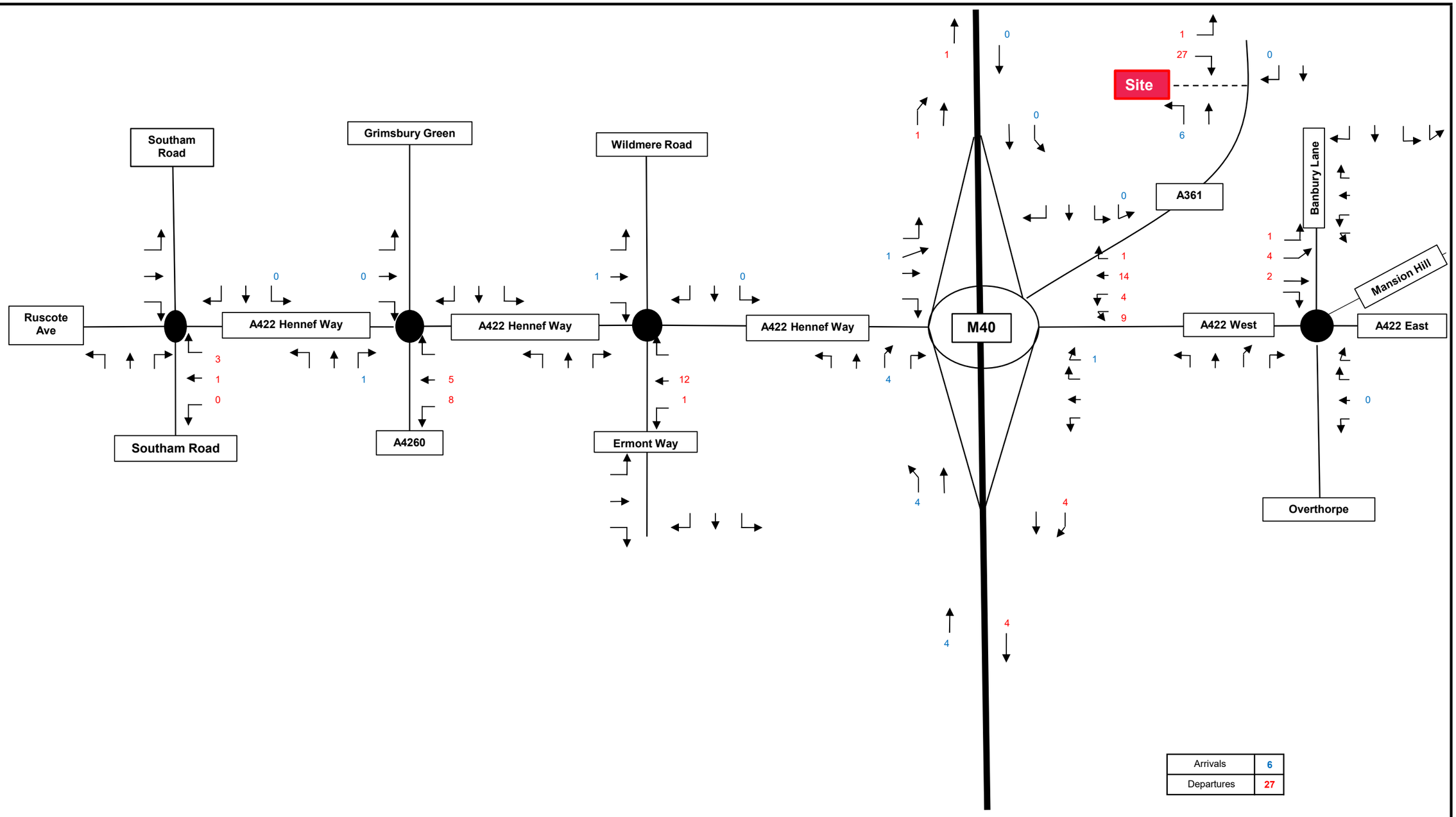


curtins	PM Peak Development Trips (Phase 3 - Pass-by)	20 May 2021	079704
	Land North & East of M40 Jnc 11, Banbury, Oxfordshire	Figure 14	

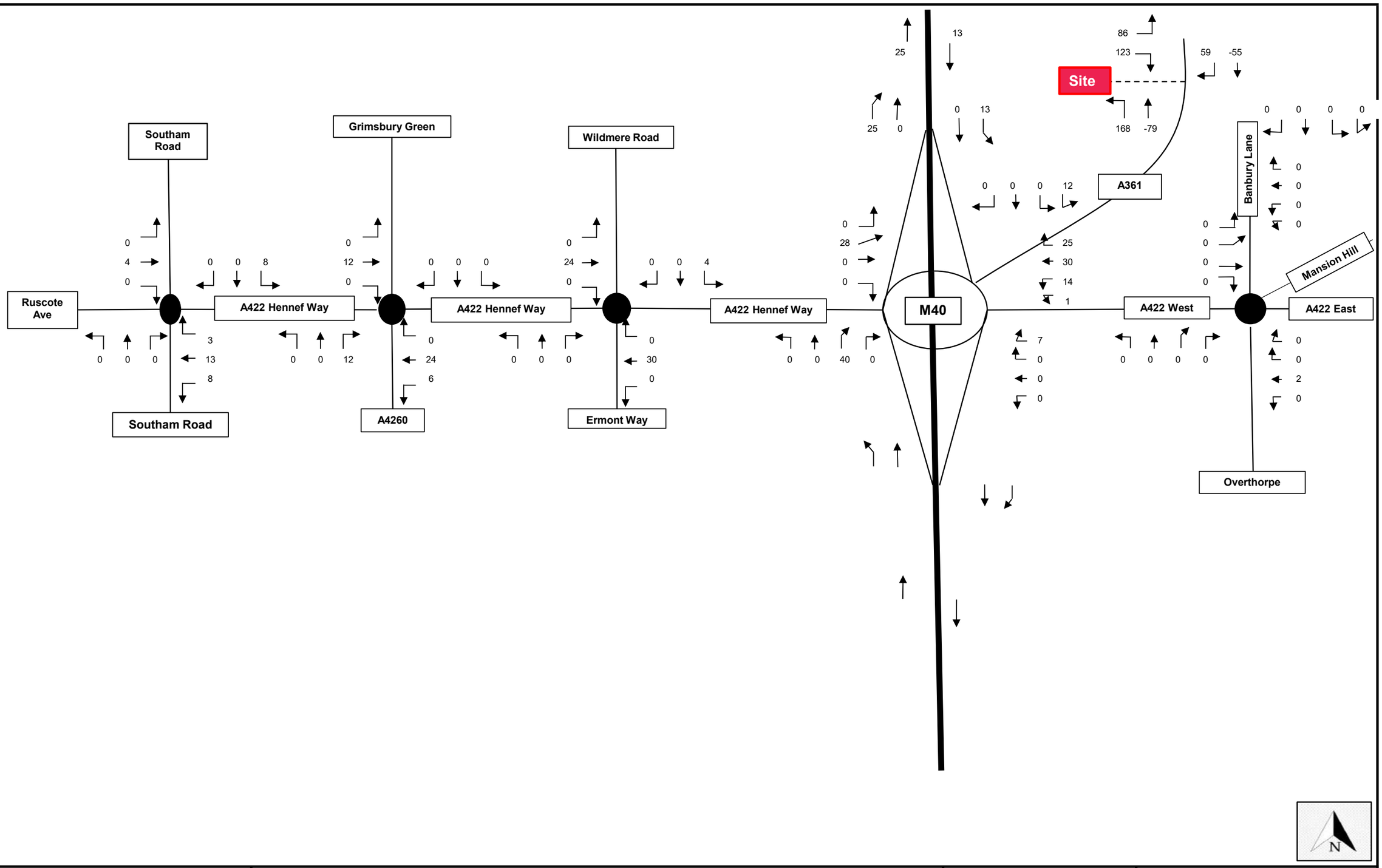
\\lifs03\projects\- TP\079074 - Banbury Phase 3\Q3-Design\3A-Calculations\TP\Network Diagram\079074 - Traffic Model Banbury Phase 3



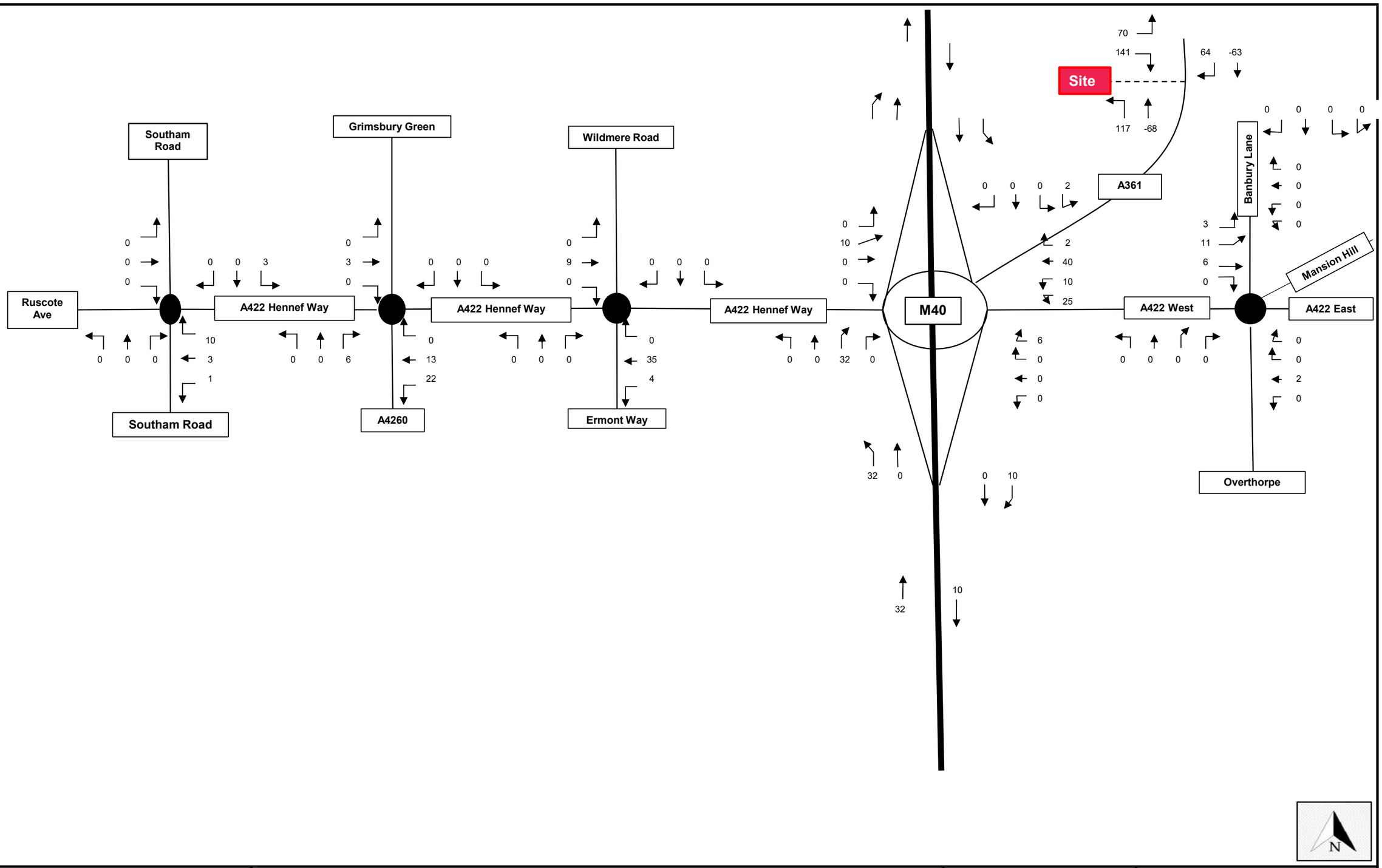
curtins	AM Peak Development Trips (Previous Phase 3 Proposals)	20 May 2021	079704
	Land North & East of M40 Jnc 11, Banbury, Oxfordshire		Figure 15



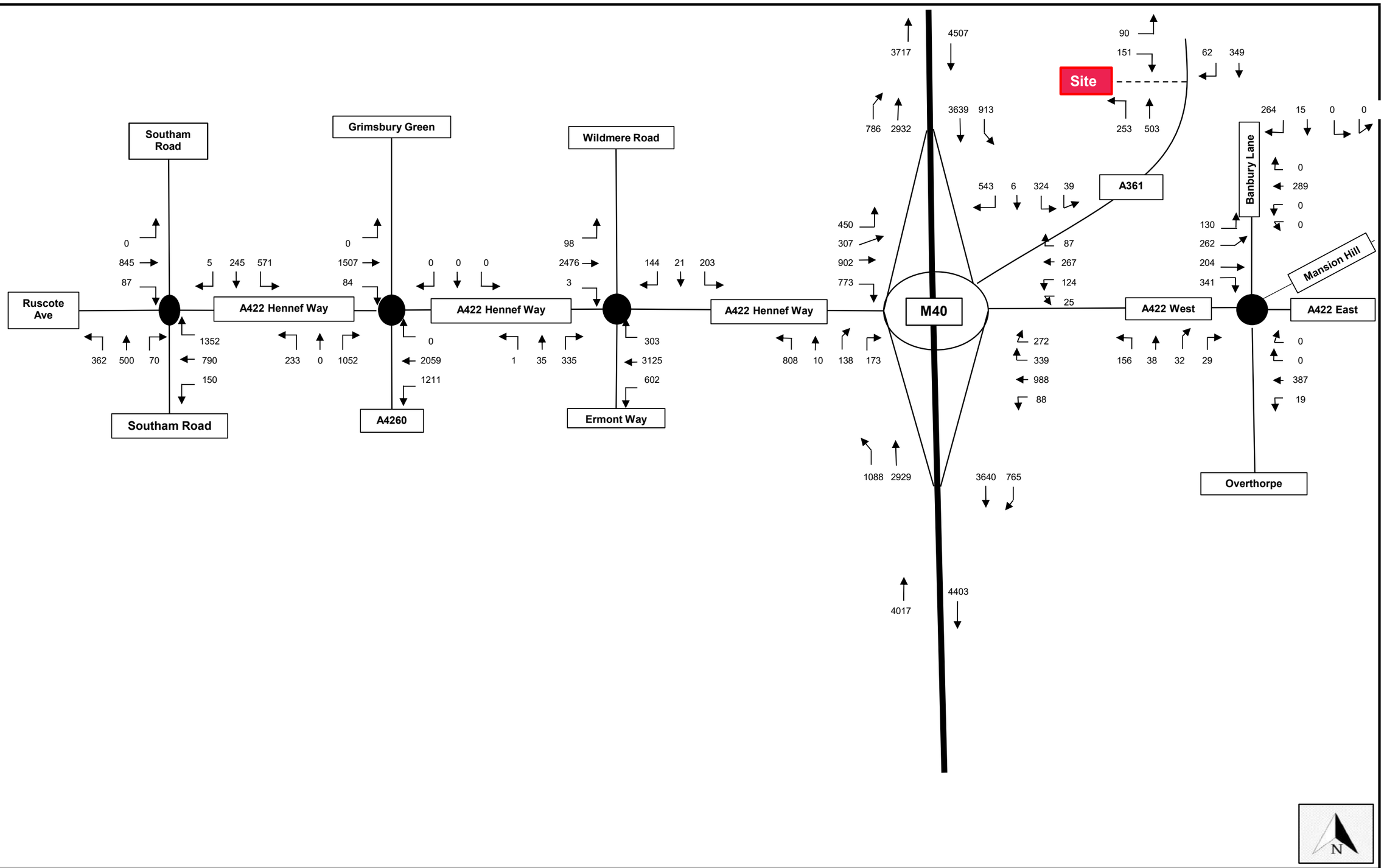
curtins	PM Peak Development Trips (Previous Phase 3 Proposals)	20 May 2021	079704
	Land North & East of M40 Jnc 11, Banbury, Oxfordshire	Figure 16	



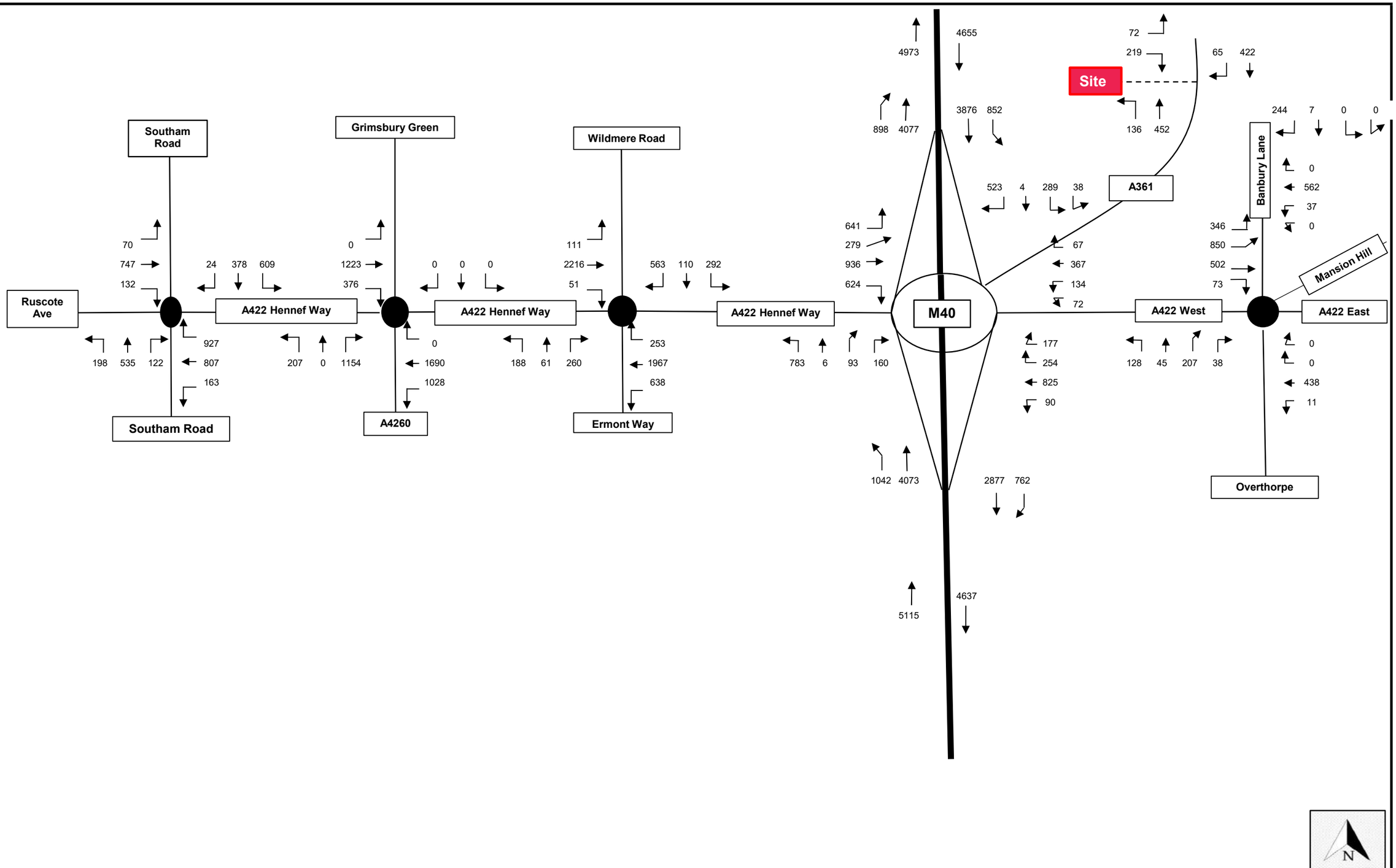
curtins	AM Peak Net Development Trips (Phase 3)	20 May 2021	079704
	Land North & East of M40 Jnc 11, Banbury, Oxfordshire	Figure 17	



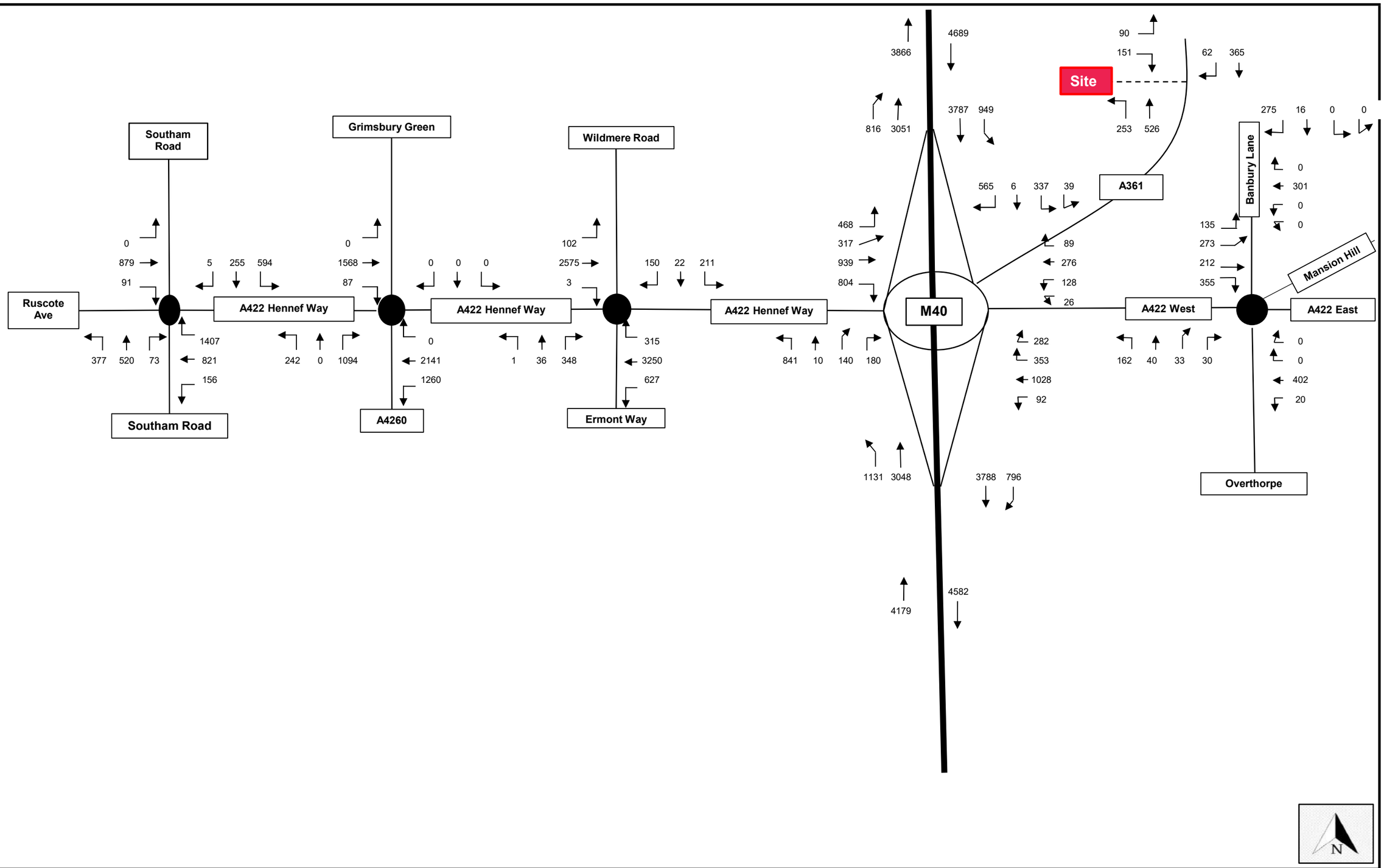
curtins	PM Peak Net Development Trips (Phase 3)	20 May 2021	079704
	Land North & East of M40 Jnc 11, Banbury, Oxfordshire	Figure 18	



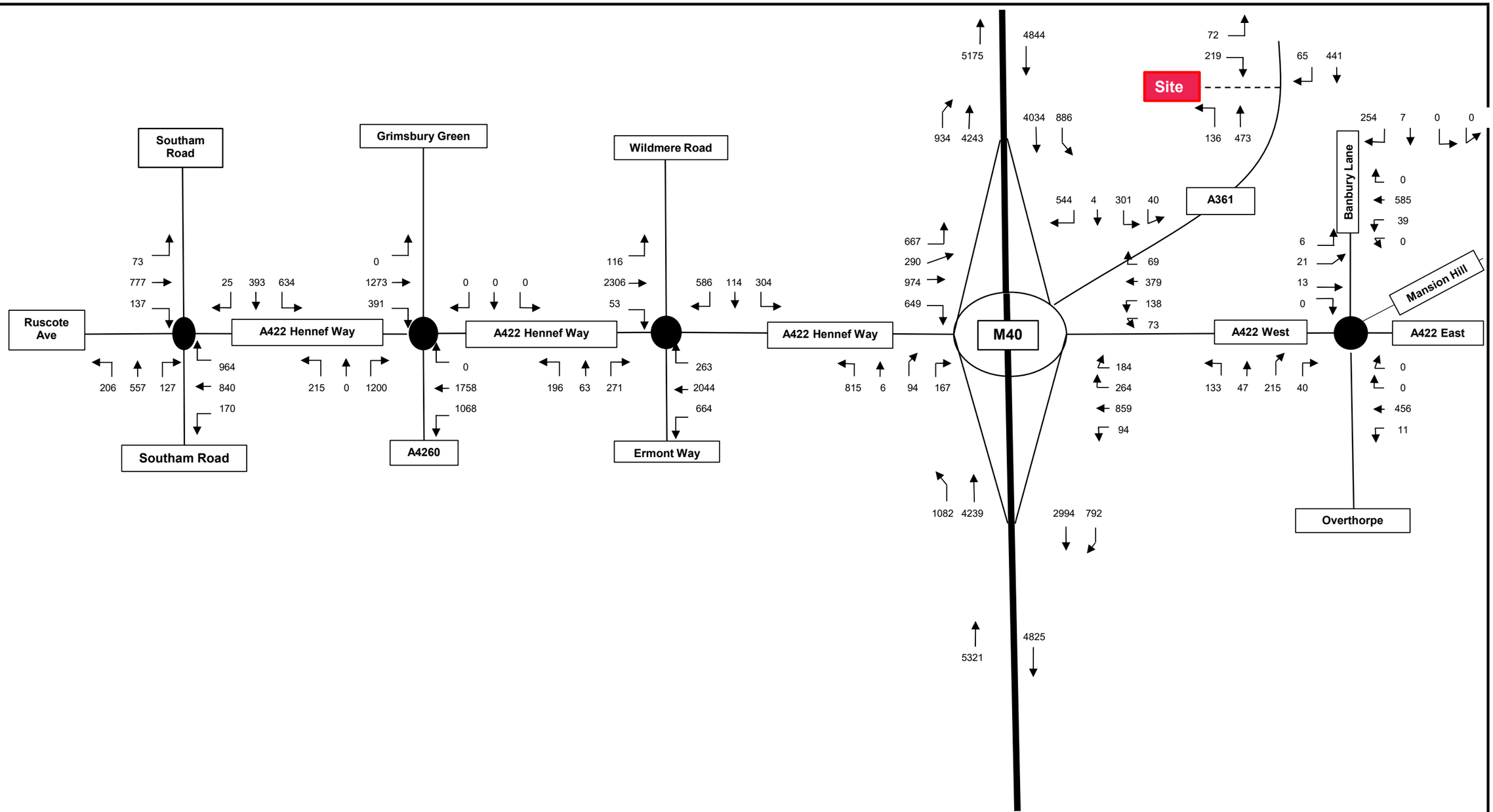
curtins	2026 Weekday AM Peak With Development Flows (PCU)	20 May 2021	079704
	Land North & East of M40 Jnc 11, Banbury, Oxfordshire	Figure 19	



curtins	2026 Weekday PM Peak With Development Flows (PCU)	20 May 2021	079704
	Land North & East of M40 Jnc 11, Banbury, Oxfordshire	Figure 20	



curtins	2031 Weekday AM Peak With Development Flows (PCU)	20 May 2021	079704
	Land North & East of M40 Jnc 11, Banbury, Oxfordshire	Figure 21	



curtins	2031 Weekday PM Peak With Development Flows (PCU)	20 May 2021	079704
	Land North & East of M40 Jnc 11, Banbury, Oxfordshire	Figure 22	

Appendix D – TRICS Outputs

Calculation Reference: AUDIT-148301-210520-0502

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK
Category : J - DRIVE THROUGH COFFEE SHOP
TOTAL VEHICLES

Selected regions and areas:

04	EAST ANGLIA		
	SF	SUFFOLK	1 days
05	EAST MIDLANDS		
	NR	NORTHAMPTONSHIRE	1 days
06	WEST MIDLANDS		
	HE	HEREFORDSHIRE	1 days
	WO	WORCESTERSHIRE	1 days

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

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area
Actual Range: 200 to 305 (units: sqm)
Range Selected by User: 125 to 420 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 24/11/20

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Tuesday	1 days
Friday	3 days

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

Selected survey types:

Manual count	4 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	2
Edge of Town	2

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Industrial Zone	1
Residential Zone	1
Retail Zone	1
No Sub Category	1

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

Secondary Filtering selection:

Use Class:

Not Known	4 days

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

Population within 500m Range:
All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	2 days
15,001 to 20,000	1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000	2 days
50,001 to 75,000	1 days
100,001 to 125,000	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	3 days
1.1 to 1.5	1 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No	4 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	4 days

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

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions

LIST OF SITES relevant to selection parameters

1	HE-06-J-01 LEDBURY ROAD ROSS-ON-WYE	STARBUCKS		HEREFORDSHIRE
	Edge of Town Retail Zone Total Gross floor area:		305 sqm	
	Survey date: TUESDAY		*24/11/20*	*Survey Type: MANUAL*
2	NR-06-J-01 CORBY ROAD CORBY WELDON	STARBUCKS		NORTHAMPTONSHIRE
	Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area:		236 sqm	
	Survey date: FRIDAY		*23/10/20*	*Survey Type: MANUAL*
3	SF-06-J-01 THORNEY WAY STOWMARKET	COSTA COFFEE		SUFFOLK
	Edge of Town No Sub Category Total Gross floor area:		200 sqm	
	Survey date: FRIDAY		*25/09/20*	*Survey Type: MANUAL*
4	WO-06-J-01 STOURPORT ROAD KIDDERMINSTER	STARBUCKS		WORCESTERSHIRE
	Suburban Area (PPS6 Out of Centre) Residential Zone Total Gross floor area:		240 sqm	
	Survey date: FRIDAY		*09/10/20*	*Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/J - DRIVE THROUGH COFFEE SHOP
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	2	218	0.459	2	218	0.000	2	218	0.459
06:00 - 07:00	3	247	2.969	3	247	2.159	3	247	5.128
07:00 - 08:00	4	245	11.825	4	245	10.601	4	245	22.426
08:00 - 09:00	4	245	14.985	4	245	13.558	4	245	28.543
09:00 - 10:00	4	245	16.718	4	245	15.189	4	245	31.907
10:00 - 11:00	4	245	13.965	4	245	14.271	4	245	28.236
11:00 - 12:00	4	245	12.946	4	245	12.844	4	245	25.790
12:00 - 13:00	4	245	14.067	4	245	13.761	4	245	27.828
13:00 - 14:00	4	245	15.494	4	245	16.106	4	245	31.600
14:00 - 15:00	4	245	11.213	4	245	12.538	4	245	23.751
15:00 - 16:00	4	245	12.029	4	245	10.601	4	245	22.630
16:00 - 17:00	4	245	11.519	4	245	12.946	4	245	24.465
17:00 - 18:00	4	245	8.869	4	245	10.194	4	245	19.063
18:00 - 19:00	4	245	5.199	4	245	6.422	4	245	11.621
19:00 - 20:00	3	247	3.644	3	247	3.509	3	247	7.153
20:00 - 21:00	3	247	0.945	3	247	1.889	3	247	2.834
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			156.846			156.588			313.434

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Parameter summary

Trip rate parameter range selected:	200 - 305 (units: sqm)
Survey date date range:	01/01/13 - 24/11/20
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Calculation Reference: AUDIT-148301-210517-0513

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : A - OFFICE
MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	ES	EAST SUSSEX	1 days
04	EAST ANGLIA		
	NF	NORFOLK	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	WY	WEST YORKSHIRE	1 days
08	NORTH WEST		
	LC	LANCASHIRE	1 days
	MS	MERSEYSIDE	1 days
09	NORTH		
	TW	TYNE & WEAR	1 days
10	WALES		
	CO	CONWY	1 days

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

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area
Actual Range: 186 to 11250 (units: sqm)
Range Selected by User: 178 to 70291 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 13/11/19

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Tuesday	4 days
Wednesday	2 days
Friday	1 days

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

Selected survey types:

Manual count	7 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	3
Edge of Town	4

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Commercial Zone	2
Residential Zone	2
Built-Up Zone	2
No Sub Category	1

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

Secondary Filtering selection:

Use Class:

Not Known	7 days

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

Filter by Site Operations Breakdown:
All Surveys Included

Population within 500m Range:
All Surveys Included

Population within 1 mile:

1,001 to 5,000	1 days
5,001 to 10,000	2 days
15,001 to 20,000	1 days
25,001 to 50,000	3 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

50,001 to 75,000	1 days
75,001 to 100,000	1 days
125,001 to 250,000	3 days
500,001 or More	2 days

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

Car ownership within 5 miles:

0.6 to 1.0	6 days
1.1 to 1.5	1 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes	1 days
No	6 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	7 days

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

LIST OF SITES relevant to selection parameters

1 CO-02-A-01 GOVERNMENT OFFICES CONWY
NARROW LANE
LLANDUDNO JUNCTION

Edge of Town
Commercial Zone
Total Gross floor area: 6186 sqm
Survey date: WEDNESDAY *28/03/18* *Survey Type: MANUAL*

2 ES-02-A-11 HOUSING COMPANY EAST SUSSEX
THE SIDINGS
HASTINGS
ORE VALLEY
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 186 sqm
Survey date: TUESDAY *17/11/15* *Survey Type: MANUAL*

3 LC-02-A-09 OFFICES LANCASHIRE
FURTHERGATE
BLACKBURN

Suburban Area (PPS6 Out of Centre)
Built-Up Zone
Total Gross floor area: 2600 sqm
Survey date: TUESDAY *04/06/13* *Survey Type: MANUAL*

4 MS-02-A-02 SCIENCE PARK OFFICES MERSEYSIDE
MOUNT PLEASANT
LIVERPOOL

Edge of Town
Built-Up Zone
Total Gross floor area: 11250 sqm
Survey date: TUESDAY *13/11/18* *Survey Type: MANUAL*

5 NF-02-A-04 BUILDING CONSULTANT NORFOLK
WHITING ROAD
NORWICH

Edge of Town
Commercial Zone
Total Gross floor area: 500 sqm
Survey date: WEDNESDAY *13/11/19* *Survey Type: MANUAL*

6 TW-02-A-08 HOUSING ASSOCIATION OFFICE TYNE & WEAR
BENTON PARK ROAD
NEWCASTLE UPON TYNE
LONGBENTON
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 4800 sqm
Survey date: FRIDAY *19/10/18* *Survey Type: MANUAL*

7 WY-02-A-05 OFFICES WEST YORKSHIRE
PIONEER WAY
CASTLEFORD
WHITWOOD
Edge of Town
No Sub Category
Total Gross floor area: 1230 sqm
Survey date: TUESDAY *23/05/17* *Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	3815	0.247	7	3815	0.049	7	3815	0.296
08:00 - 09:00	7	3815	1.097	7	3815	0.154	7	3815	1.251
09:00 - 10:00	7	3815	0.678	7	3815	0.217	7	3815	0.895
10:00 - 11:00	7	3815	0.311	7	3815	0.168	7	3815	0.479
11:00 - 12:00	7	3815	0.210	7	3815	0.202	7	3815	0.412
12:00 - 13:00	7	3815	0.367	7	3815	0.397	7	3815	0.764
13:00 - 14:00	7	3815	0.416	7	3815	0.322	7	3815	0.738
14:00 - 15:00	7	3815	0.187	7	3815	0.221	7	3815	0.408
15:00 - 16:00	7	3815	0.172	7	3815	0.281	7	3815	0.453
16:00 - 17:00	7	3815	0.217	7	3815	0.599	7	3815	0.816
17:00 - 18:00	7	3815	0.157	7	3815	1.015	7	3815	1.172
18:00 - 19:00	6	4246	0.051	6	4246	0.436	6	4246	0.487
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.110			4.061			8.171

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Parameter summary

Trip rate parameter range selected:	186 - 11250 (units: sqm)
Survey date date range:	01/01/13 - 13/11/19
Number of weekdays (Monday-Friday):	7
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK
Category : A - HOTELS
MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	BU	BUCKINGHAMSHIRE	1 days
03	SOUTH WEST		
	GS	GLOUCESTERSHIRE	1 days
05	EAST MIDLANDS		
	LE	LEICESTERSHIRE	1 days
10	WALES		
	SW	SWANSEA	1 days

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

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Number of bedrooms
Actual Range: 67 to 227 (units:)
Range Selected by User: 4 to 227 (units:)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 25/11/19

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	1 days
Wednesday	1 days
Thursday	2 days

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

Selected survey types:

Manual count	4 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	1
Edge of Town	3

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Commercial Zone	1
Development Zone	1
Residential Zone	1
Out of Town	1

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

Secondary Filtering selection:

Use Class:

C1	4 days

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

Population within 500m Range:

All Surveys Included

Population within 1 mile:

5,001 to 10,000	4 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

25,001 to 50,000	1 days
100,001 to 125,000	1 days
125,001 to 250,000	1 days
250,001 to 500,000	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	2 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No	4 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	4 days

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

LIST OF SITES relevant to selection parameters

1	BU-06-A-02	HOLIDAY INN		BUCKINGHAMSHIRE
	NEW ROAD			
	AYLESBURY			
	WESTON TURVILLE			
	Edge of Town			
	Out of Town			
	Total Number of bedrooms:		139	
	Survey date: WEDNESDAY		*01/10/14*	*Survey Type: MANUAL*
2	GS-06-A-02	PREMIER INN		GLOUCESTERSHIRE
	GLOUCESTER ROAD			
	CHELTENHAM SPA			
	SAINT MARKS			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Number of bedrooms:		67	
	Survey date: THURSDAY		*28/11/13*	*Survey Type: MANUAL*
3	LE-06-A-01	MARRIOTT		LEICESTERSHIRE
	SMITH WAY			
	LEICESTER			
	ENDERBY			
	Edge of Town			
	Commercial Zone			
	Total Number of bedrooms:		227	
	Survey date: THURSDAY		*12/07/18*	*Survey Type: MANUAL*
4	SW-06-A-01	IBIS		SWANSEA
	FABIAN WAY			
	SWANSEA			
	PORT TENNANT			
	Edge of Town			
	Development Zone			
	Total Number of bedrooms:		99	
	Survey date: MONDAY		*07/10/19*	*Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/A - HOTELS
MULTI-MODAL TOTAL VEHICLES
Calculation factor: 1 BEDRMS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. BEDRMS	Trip Rate	No. Days	Ave. BEDRMS	Trip Rate	No. Days	Ave. BEDRMS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	133	0.122	4	133	0.241	4	133	0.363
08:00 - 09:00	4	133	0.229	4	133	0.305	4	133	0.534
09:00 - 10:00	4	133	0.288	4	133	0.192	4	133	0.480
10:00 - 11:00	4	133	0.197	4	133	0.130	4	133	0.327
11:00 - 12:00	4	133	0.085	4	133	0.152	4	133	0.237
12:00 - 13:00	4	133	0.165	4	133	0.117	4	133	0.282
13:00 - 14:00	4	133	0.177	4	133	0.135	4	133	0.312
14:00 - 15:00	4	133	0.130	4	133	0.147	4	133	0.277
15:00 - 16:00	4	133	0.167	4	133	0.173	4	133	0.340
16:00 - 17:00	4	133	0.160	4	133	0.205	4	133	0.365
17:00 - 18:00	4	133	0.164	4	133	0.179	4	133	0.343
18:00 - 19:00	4	133	0.214	4	133	0.188	4	133	0.402
19:00 - 20:00	4	133	0.145	4	133	0.154	4	133	0.299
20:00 - 21:00	4	133	0.133	4	133	0.090	4	133	0.223
21:00 - 22:00	4	133	0.083	4	133	0.100	4	133	0.183
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.459			2.508			4.967

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Parameter summary

Trip rate parameter range selected:	67 - 227 (units:)
Survey date date range:	01/01/13 - 25/11/19
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Calculation Reference: AUDIT-148301-210621-0629

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 13 - PETROL FILLING STATIONS
Category : B - PFS - WITH RETAIL
TOTAL VEHICLES

Selected regions and areas:

03	SOUTH WEST		
	DC	DORSET	2 days
	DV	DEVON	1 days
04	EAST ANGLIA		
	SF	SUFFOLK	1 days
05	EAST MIDLANDS		
	DS	DERBYSHIRE	1 days
	LE	LEICESTERSHIRE	1 days
	LN	LINCOLNSHIRE	1 days
	NT	NOTTINGHAMSHIRE	1 days
06	WEST MIDLANDS		
	WM	WEST MIDLANDS	1 days
	WO	WORCESTERSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NY	NORTH YORKSHIRE	2 days
08	NORTH WEST		
	GM	GREATER MANCHESTER	1 days
	LC	LANCASHIRE	1 days
	MS	MERSEYSIDE	1 days
09	NORTH		
	TW	TYNE & WEAR	1 days
11	SCOTLAND		
	EB	CITY OF EDINBURGH	1 days
	FI	FIFE	1 days

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

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Filling bays
Actual Range: 6 to 16 (units:)
Range Selected by User: 4 to 16 (units:)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 23/10/20

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	3 days
Tuesday	5 days
Wednesday	3 days
Thursday	1 days
Friday	6 days

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

Selected survey types:

Manual count	18 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	12
Edge of Town	6

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Industrial Zone	1

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

Secondary Filtering selection:

Use Class:

Sui Generis	18 days

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

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,001 to 5,000	2 days
5,001 to 10,000	2 days
10,001 to 15,000	5 days
15,001 to 20,000	2 days
20,001 to 25,000	2 days
25,001 to 50,000	4 days
50,001 to 100,000	1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

25,001 to 50,000	1 days
50,001 to 75,000	2 days
75,001 to 100,000	3 days
100,001 to 125,000	1 days
125,001 to 250,000	5 days
250,001 to 500,000	5 days
500,001 or More	1 days

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

Car ownership within 5 miles:

0.5 or Less	1 days
0.6 to 1.0	7 days
1.1 to 1.5	9 days
1.6 to 2.0	1 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No	18 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	18 days

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

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions

LIST OF SITES relevant to selection parameters

1 DC-13-B-01 ESSO & TESCO EXPRESS DORSET
271 BARRACK ROAD
CHRISTCHURCH

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Filling bays: 6
Survey date: MONDAY *24/03/14* *Survey Type: MANUAL*

2 DC-13-B-02 M&S & BP DORSET
71-75 SOMERFORD ROAD
CHRISTCHURCH

Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Filling bays: 8
Survey date: FRIDAY *21/03/14* *Survey Type: MANUAL*

3 DS-13-B-01 ESSO & TESCO EXPRESS DERBYSHIRE
NOTTINGHAM ROAD
DERBY
CHADDESDEN
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Filling bays: 8
Survey date: FRIDAY *26/06/15* *Survey Type: MANUAL*

4 DV-13-B-01 BP & COSTCUTTER DEVON
TORBAY ROAD
PAIGNTON

Edge of Town
Residential Zone
Total Filling bays: 8
Survey date: TUESDAY *18/07/17* *Survey Type: MANUAL*

5 EB-13-B-02 BP CONNECT & M&S SIMPLY FOOD CITY OF EDINBURGH
BULLYEON ROAD
QUEENSFERRY

Edge of Town
Residential Zone
Total Filling bays: 15
Survey date: THURSDAY *26/06/14* *Survey Type: MANUAL*

6 FI-13-B-01 BP & M&S SIMPLY FOOD FIFE
HARBOUR DRIVE
DALGETY BAY

Edge of Town
No Sub Category
Total Filling bays: 13
Survey date: WEDNESDAY *23/03/16* *Survey Type: MANUAL*

7 GM-13-B-01 BP & SPAR GREATER MANCHESTER
NEW STREET
ROCHDALE
MILNROW
Edge of Town
Residential Zone
Total Filling bays: 8
Survey date: WEDNESDAY *21/10/15* *Survey Type: MANUAL*

8 LC-13-B-03 TEXACO & MORRISONS DAILY LANCASHIRE
GARSTANG ROAD
PRESTON
FULWOOD
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Filling bays: 8
Survey date: TUESDAY *06/11/18* *Survey Type: MANUAL*

9 LE-13-B-02 TESCO EXPRESS & ESSO LEICESTERSHIRE
FOSSE ROAD NORTH
LEICESTER

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Filling bays: 8
Survey date: TUESDAY *28/10/14* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

10 LN-13-B-01 GULF & CO-OP LINCOLNSHIRE
CARHOLME ROAD
LINCOLN

Edge of Town
Residential Zone
Total Filling bays: 8
Survey date: WEDNESDAY *04/10/17* *Survey Type: MANUAL*

11 MS-13-B-01 ESSO & SPAR MERSEYSIDE
ULLET ROAD
LIVERPOOL
SEFTON PARK
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Filling bays: 6
Survey date: TUESDAY *18/11/14* *Survey Type: MANUAL*

12 NT-13-B-03 SAINSBURY'S PFS NOTTINGHAMSHIRE
CASTLE BRIDGE ROAD
NOTTINGHAM

Suburban Area (PPS6 Out of Centre)
Development Zone
Total Filling bays: 16
Survey date: FRIDAY *25/11/16* *Survey Type: MANUAL*

13 NY-13-B-02 BP & SPAR NORTH YORKSHIRE
NORTH STREET
RIPON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Filling bays: 6
Survey date: MONDAY *23/09/13* *Survey Type: MANUAL*

14 NY-13-B-03 ESSO & CO-OP NORTH YORKSHIRE
WETHERBY ROAD NORTH
KNARESBOROUGH

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Filling bays: 8
Survey date: FRIDAY *30/09/16* *Survey Type: MANUAL*

15 SF-13-B-02 BP CONNECT & M&S SUFFOLK
ROUGHAM ROAD
BURY ST EDMUNDS

Edge of Town
Residential Zone
Total Filling bays: 8
Survey date: FRIDAY *19/07/13* *Survey Type: MANUAL*

16 TW-13-B-05 SHELL & SPAR TYNE & WEAR
THE BROADWAY
SUNDERLAND

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Filling bays: 6
Survey date: FRIDAY *24/05/19* *Survey Type: MANUAL*

17 WM-13-B-05 TEXACO & CO-OPERATIVE WEST MIDLANDS
HIGH STREET
BIRMINGHAM
HARBORNE
Suburban Area (PPS6 Out of Centre)
High Street
Total Filling bays: 8
Survey date: TUESDAY *22/10/13* *Survey Type: MANUAL*

18 WO-13-B-02 MORRISONS PFS WORCESTERSHIRE
CLEARWELL ROAD
REDDITCH
WINYATES WEST
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Filling bays: 12
Survey date: MONDAY *05/10/20* *Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 13 - PETROL FILLING STATIONS/B - PFS - WITH RETAIL
TOTAL VEHICLES
Calculation factor: 1 BAYS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. BAYS	Trip Rate	No. Days	Ave. BAYS	Trip Rate	No. Days	Ave. BAYS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	18	9	4.969	18	9	4.650	18	9	9.619
07:00 - 08:00	18	9	7.644	18	9	7.463	18	9	15.107
08:00 - 09:00	18	9	7.900	18	9	7.675	18	9	15.575
09:00 - 10:00	18	9	7.669	18	9	7.769	18	9	15.438
10:00 - 11:00	18	9	6.925	18	9	6.956	18	9	13.881
11:00 - 12:00	18	9	6.550	18	9	6.588	18	9	13.138
12:00 - 13:00	18	9	8.231	18	9	8.144	18	9	16.375
13:00 - 14:00	18	9	7.862	18	9	7.794	18	9	15.656
14:00 - 15:00	18	9	7.531	18	9	7.369	18	9	14.900
15:00 - 16:00	18	9	7.463	18	9	7.644	18	9	15.107
16:00 - 17:00	18	9	7.963	18	9	8.175	18	9	16.138
17:00 - 18:00	18	9	8.488	18	9	8.419	18	9	16.907
18:00 - 19:00	18	9	7.938	18	9	8.050	18	9	15.988
19:00 - 20:00	18	9	7.125	18	9	7.256	18	9	14.381
20:00 - 21:00	18	9	5.025	18	9	5.006	18	9	10.031
21:00 - 22:00	18	9	3.806	18	9	3.919	18	9	7.725
22:00 - 23:00	2	10	0.850	2	10	1.100	2	10	1.950
23:00 - 24:00	1	8	0.000	1	8	0.250	1	8	0.250
Total Rates:			113.939			114.227			228.166

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Parameter summary

Trip rate parameter range selected:	6 - 16 (units:)
Survey date date range:	01/01/13 - 23/10/20
Number of weekdays (Monday-Friday):	18
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Calculation Reference: AUDIT-148301-210520-0530

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK
Category : D - FAST FOOD - DRIVE THROUGH
TOTAL VEHICLES

Selected regions and areas:

04	EAST ANGLIA		
	CA	CAMBRIDGESHIRE	1 days
06	WEST MIDLANDS		
	WO	WORCESTERSHIRE	1 days
10	WALES		
	VG	VALE OF GLAMORGAN	1 days
11	SCOTLAND		
	AD	ABERDEEN CITY	1 days
	FI	FIFE	1 days

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

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area
Actual Range: 275 to 436 (units: sqm)
Range Selected by User: 182 to 800 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 02/10/20

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Tuesday	2 days
Thursday	1 days
Friday	2 days

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

Selected survey types:

Manual count	5 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	2
Edge of Town	3

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Industrial Zone	1
Development Zone	1
Residential Zone	1
No Sub Category	2

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

Secondary Filtering selection:

Use Class:

Not Known	5 days

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

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,001 to 5,000	1 days
5,001 to 10,000	1 days
10,001 to 15,000	1 days
15,001 to 20,000	2 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

75,001 to 100,000	1 days
100,001 to 125,000	1 days
125,001 to 250,000	3 days

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

Car ownership within 5 miles:

0.6 to 1.0	3 days
1.1 to 1.5	2 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No	5 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	5 days

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

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions

LIST OF SITES relevant to selection parameters

1	AD-06-D-02	BURGER KING		ABERDEEN CITY
	WELLINGTON ROAD			
	ABERDEEN			
	ALTENS			
	Edge of Town			
	No Sub Category			
	Total Gross floor area:		300 sqm	
	Survey date: FRIDAY		*22/11/19*	*Survey Type: MANUAL*
2	CA-06-D-02	MCDONALD'S		CAMBRIDGESHIRE
	NEWMARKET ROAD			
	CAMBRIDGE			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Gross floor area:		435 sqm	
	Survey date: TUESDAY		*19/09/17*	*Survey Type: MANUAL*
3	FI-06-D-02	KFC		FIFE
	WHIMBREL PLACE			
	DUNFERMLINE			
	HALBEATH			
	Edge of Town			
	Development Zone			
	Total Gross floor area:		275 sqm	
	Survey date: TUESDAY		*22/03/16*	*Survey Type: MANUAL*
4	VG-06-D-01	MCDONALD'S		VALE OF GLAMORGAN
	CARDIFF ROAD			
	BARRY			
	Edge of Town			
	Industrial Zone			
	Total Gross floor area:		405 sqm	
	Survey date: THURSDAY		*24/09/20*	*Survey Type: MANUAL*
5	WO-06-D-01	KFC		WORCESTERSHIRE
	CLEWS ROAD			
	REDDITCH			
	Suburban Area (PPS6 Out of Centre)			
	No Sub Category			
	Total Gross floor area:		436 sqm	
	Survey date: FRIDAY		*02/10/20*	*Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/D - FAST FOOD - DRIVE THROUGH
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	405	7.654	1	405	4.938	1	405	12.592
07:00 - 08:00	3	380	9.912	3	380	8.596	3	380	18.508
08:00 - 09:00	3	380	12.719	3	380	12.281	3	380	25.000
09:00 - 10:00	3	380	13.684	3	380	13.421	3	380	27.105
10:00 - 11:00	5	370	7.563	5	370	6.861	5	370	14.424
11:00 - 12:00	5	370	11.885	5	370	10.373	5	370	22.258
12:00 - 13:00	5	370	17.720	5	370	17.288	5	370	35.008
13:00 - 14:00	5	370	16.153	5	370	17.774	5	370	33.927
14:00 - 15:00	5	370	10.859	5	370	11.831	5	370	22.690
15:00 - 16:00	5	370	11.507	5	370	11.291	5	370	22.798
16:00 - 17:00	5	370	11.723	5	370	11.777	5	370	23.500
17:00 - 18:00	5	370	13.074	5	370	13.128	5	370	26.202
18:00 - 19:00	5	370	15.019	5	370	14.263	5	370	29.282
19:00 - 20:00	5	370	11.723	5	370	13.830	5	370	25.553
20:00 - 21:00	5	370	10.049	5	370	10.373	5	370	20.422
21:00 - 22:00	5	370	8.212	5	370	7.726	5	370	15.938
22:00 - 23:00	4	354	5.720	4	354	7.345	4	354	13.065
23:00 - 24:00	2	421	3.567	2	421	3.805	2	421	7.372
Total Rates:			198.743			196.901			395.644

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Parameter summary

Trip rate parameter range selected:	275 - 436 (units: sqm)
Survey date date range:	01/01/13 - 02/10/20
Number of weekdays (Monday-Friday):	5
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Appendix E – Junction Model Outputs

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.1.7462

Filename: Banbury Phase 3 - Site Access.j9
Path: \\lifs03\projects\- TP\079074 - Banbury Phase 3\Q3-Design\3A-Calculations\TP\Junction Models
Report generation date: 28/06/2021 09:55:14

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	A1 - 2026 With Dev									
Stream B-C	D4	0.3	10.26	0.22	B	D5	0.3	13.00	0.22	B
Stream B-A		0.9	19.62	0.48	C		1.8	28.01	0.65	D
Stream C-AB		0.1	7.77	0.13	A		0.1	7.04	0.12	A
	A1 - 2031 With Dev									
Stream B-C	D6	0.3	10.61	0.23	B	D7	0.3	13.84	0.23	B
Stream B-A		0.9	20.76	0.49	C		2.0	30.38	0.67	D
Stream C-AB		0.1	7.89	0.13	A		0.1	7.13	0.12	A

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

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

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	25/07/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	thorley_m
Description	

Units

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

Analysis Options

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

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2031 With Dev	PM	ONE HOUR	17:00	18:30	15	✓

(Default Analysis Set) - 2031 With Dev, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way		5.77	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	(untitled)		Major
B	(untitled)		Minor
C	(untitled)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.40		✓	3.25	190.0	✓	5.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	10.00	6.00	3.70	3.65	3.65	✓	1.00	100	125

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	637	0.109	0.275	0.173	0.393
B-C	720	0.104	0.262	-	-
C-B	762	0.277	0.277	-	-

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

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

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

Traffic Demand

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	609	100.000
B		ONE HOUR	✓	291	100.000
C		ONE HOUR	✓	506	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	136	473
	B	219	0	72
	C	441	65	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.23	13.84	0.3	B	66	99
B-A	0.67	30.38	2.0	D	201	301
C-AB	0.12	7.13	0.1	A	60	89
C-A					405	607
A-B					125	187
A-C					434	651

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	54	14	535	0.101	54	0.0	0.1	7.467	A
B-A	165	41	450	0.367	163	0.0	0.6	12.450	B
C-AB	49	12	635	0.077	49	0.0	0.1	6.137	A
C-A	332	83			332				
A-B	102	26			102				
A-C	356	89			356				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	65	16	473	0.137	65	0.1	0.2	8.811	A
B-A	197	49	412	0.478	196	0.6	0.9	16.530	C
C-AB	58	15	610	0.096	58	0.1	0.1	6.522	A
C-A	396	99			396				
A-B	122	31			122				
A-C	425	106			425				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	79	20	347	0.229	79	0.2	0.3	13.403	B
B-A	241	60	359	0.672	237	0.9	1.9	28.720	D
C-AB	72	18	576	0.124	71	0.1	0.1	7.129	A
C-A	486	121			486				
A-B	150	37			150				
A-C	521	130			521				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	79	20	339	0.234	79	0.3	0.3	13.838	B
B-A	241	60	358	0.673	241	1.9	2.0	30.377	D
C-AB	72	18	576	0.124	72	0.1	0.1	7.132	A
C-A	486	121			486				
A-B	150	37			150				
A-C	521	130			521				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	65	16	466	0.139	65	0.3	0.2	8.989	A
B-A	197	49	412	0.478	201	2.0	0.9	17.366	C
C-AB	58	15	610	0.096	59	0.1	0.1	6.525	A
C-A	396	99			396				
A-B	122	31			122				
A-C	425	106			425				

18:15 - 18:30

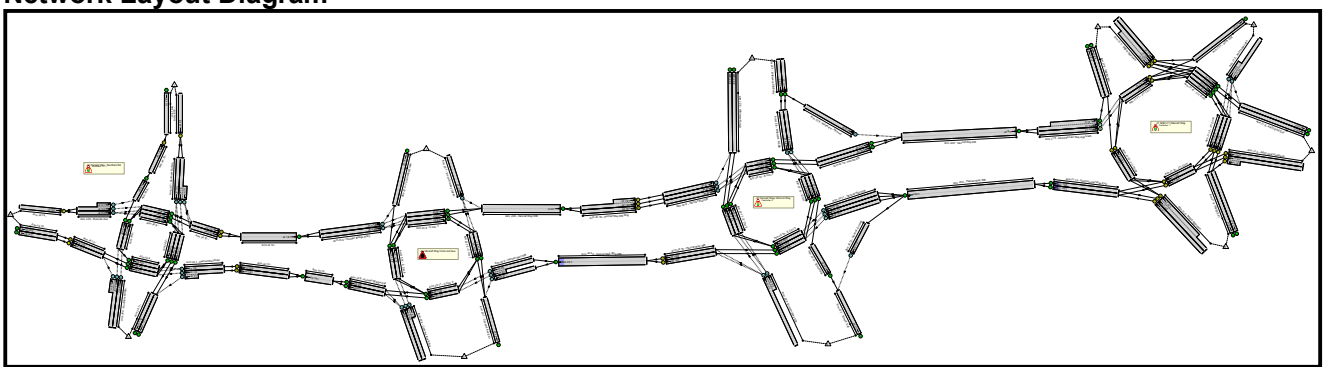
Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	54	14	532	0.102	54	0.2	0.1	7.536	A
B-A	165	41	449	0.367	166	0.9	0.6	12.778	B
C-AB	49	12	635	0.077	49	0.1	0.1	6.146	A
C-A	332	83			332				
A-B	102	26			102				
A-C	356	89			356				

Full Input Data And Results

User and Project Details

Project:	**Banbury 15**
Title:	**M40/Hennef Way Junction Base Model**
Location:	M40/ Hennef Way Corridor
Client:	Monte Blackburn
Date Started:	09/01/2019
Model Purpose:	Transport Assessment
Checked By:	Frederick Frempong
Checked By Date:	09/01/2019
Additional detail:	
File name:	Hennef Way Model 230621.lsg3x
Author:	Jonathan Ashcroft
Company:	Curtins
Address:	51-55 Tithebarn Street, Liverpool L2 2SB

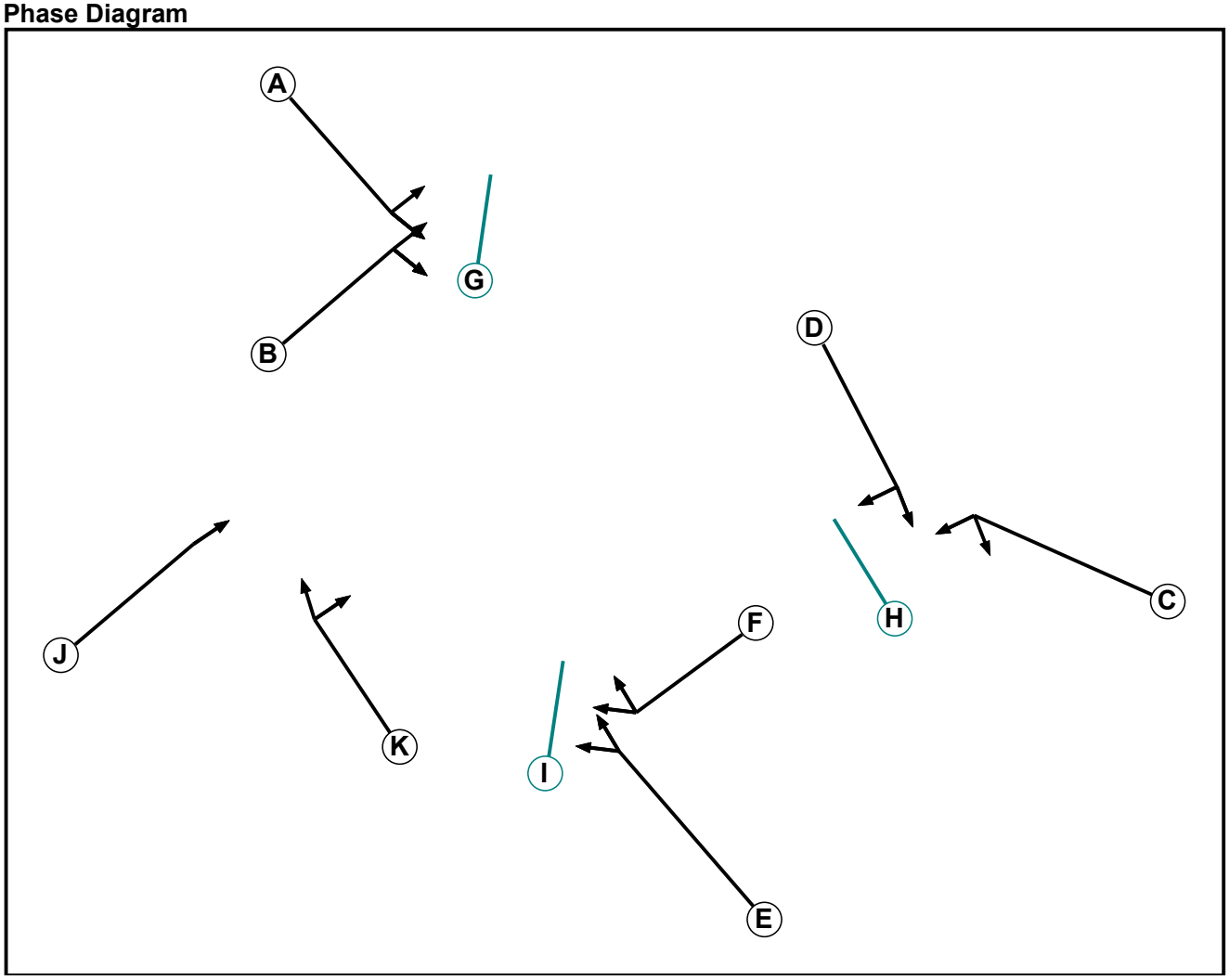
Network Layout Diagram



Full Input Data And Results

C1 - M40 J11

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Traffic	2		7	7
D	Traffic	2		7	7
E	Traffic	3		7	7
F	Traffic	3		7	7
G	Dummy	1		0	0
H	Dummy	2		0	0
I	Dummy	3		0	0
J	Traffic	4		7	7
K	Traffic	4		7	7

Full Input Data And Results

Phase Intergreens Matrix

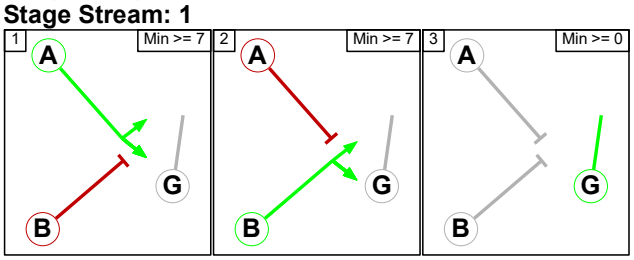
		Starting Phase										
		A	B	C	D	E	F	G	H	I	J	K
Terminating Phase	A		5	-	-	-	-	-	-	-	-	-
	B	5		-	-	-	-	-	-	-	-	-
	C	-	-		5	-	-	-	-	-	-	-
	D	-	-	5		-	-	-	-	-	-	-
	E	-	-	-	-		5	-	-	-	-	-
	F	-	-	-	-	5		-	-	-	-	-
	G	-	-	-	-	-	-		-	-	-	-
	H	-	-	-	-	-	-	-		-	-	-
	I	-	-	-	-	-	-	-	-		-	-
	J	-	-	-	-	-	-	-	-	-		5
	K	-	-	-	-	-	-	-	-	-	5	

Phases in Stage

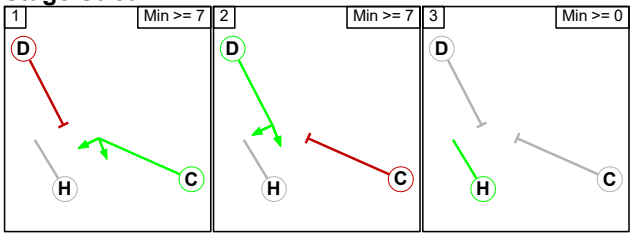
Stream	Stage No.	Phases in Stage
1	1	A
1	2	B
1	3	G
2	1	C
2	2	D
2	3	H
3	1	E
3	2	F
3	3	I
4	1	J
4	2	K

Stage Diagram

Stage Stream: 1

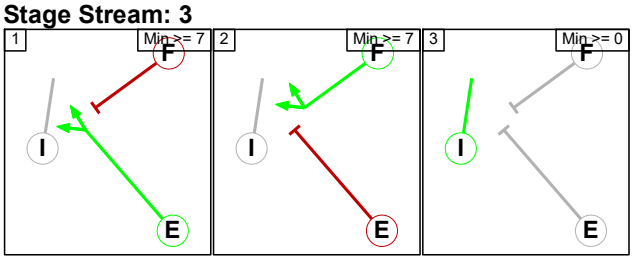


Stage Stream: 2

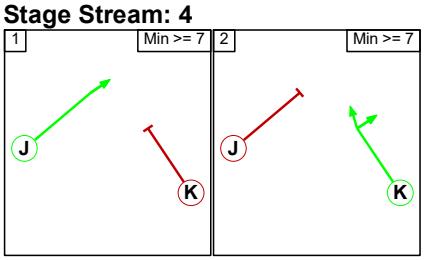


Full Input Data And Results

Stage Stream: 3



Stage Stream: 4



Phase Delays

Stage Stream: 1

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 2

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 3

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 4

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

Stage Stream: 1

		To Stage		
		1	2	3
From Stage	1		5	0
	2	5		0
	3	2	2	

Stage Stream: 2

		To Stage		
		1	2	3
From Stage	1		5	0
	2	5		0
	3	2	2	

Full Input Data And Results

Stage Stream: 3

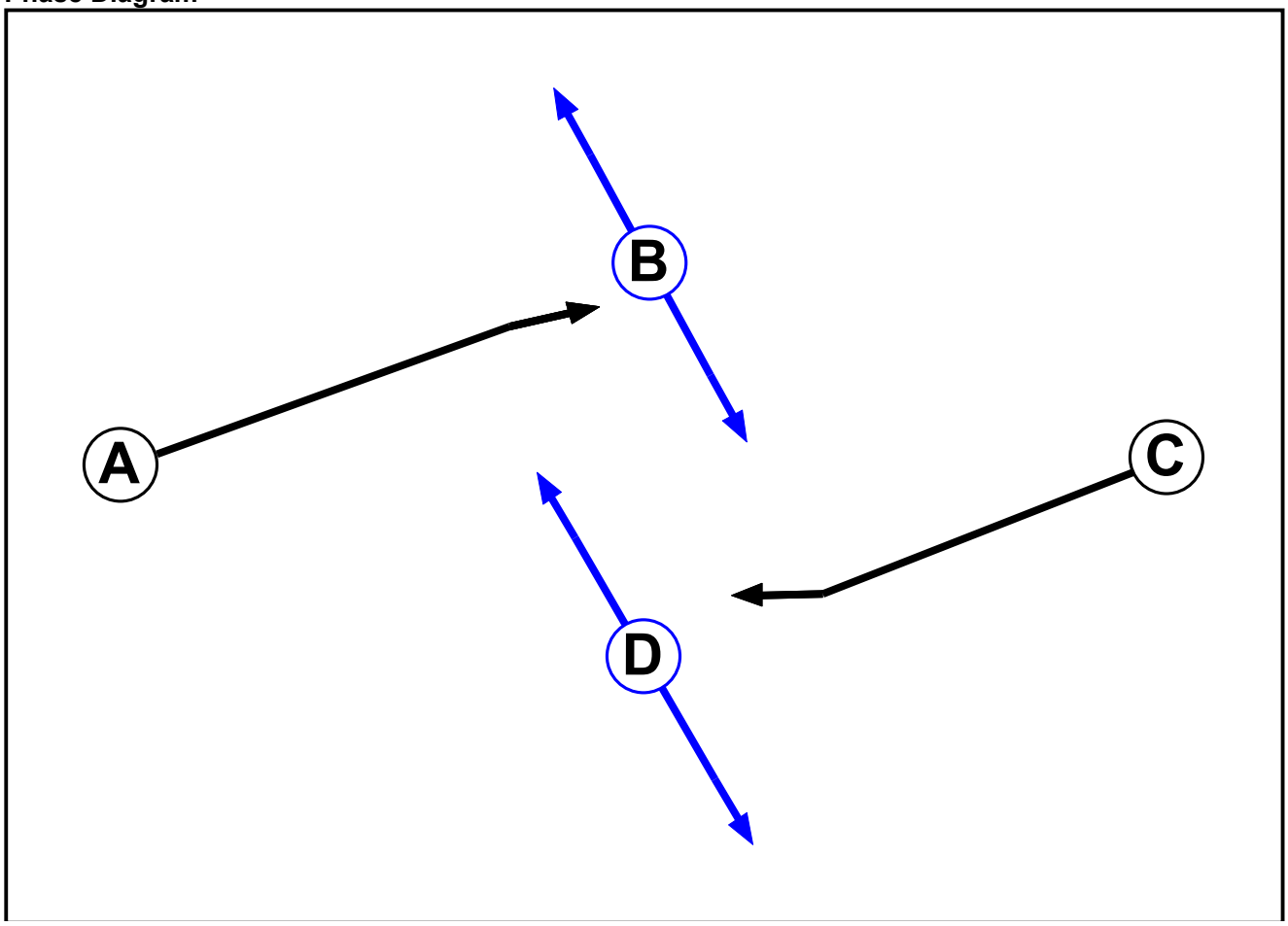
	To Stage		
From Stage	1	2	3
1		5	0
2	5		0
3	2	2	

Stage Stream: 4

	To Stage	
From Stage	1	2
1		5
2	5	

C2 - Hennef Way Pedestrian Crossing

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Pedestrian		7	7
C	Traffic		7	7
D	Pedestrian		7	7

Full Input Data And Results

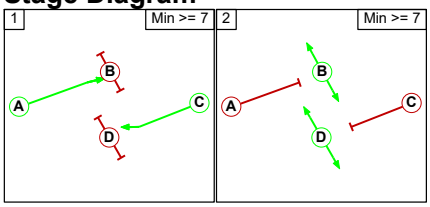
Phase Intergreens Matrix

		Starting Phase			
		A	B	C	D
Terminating Phase	A		5	-	-
	B	5		-	-
	C	-	-		5
	D	-	-	5	

Phases in Stage

Stage No.	Phases in Stage
1	A C
2	B D

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

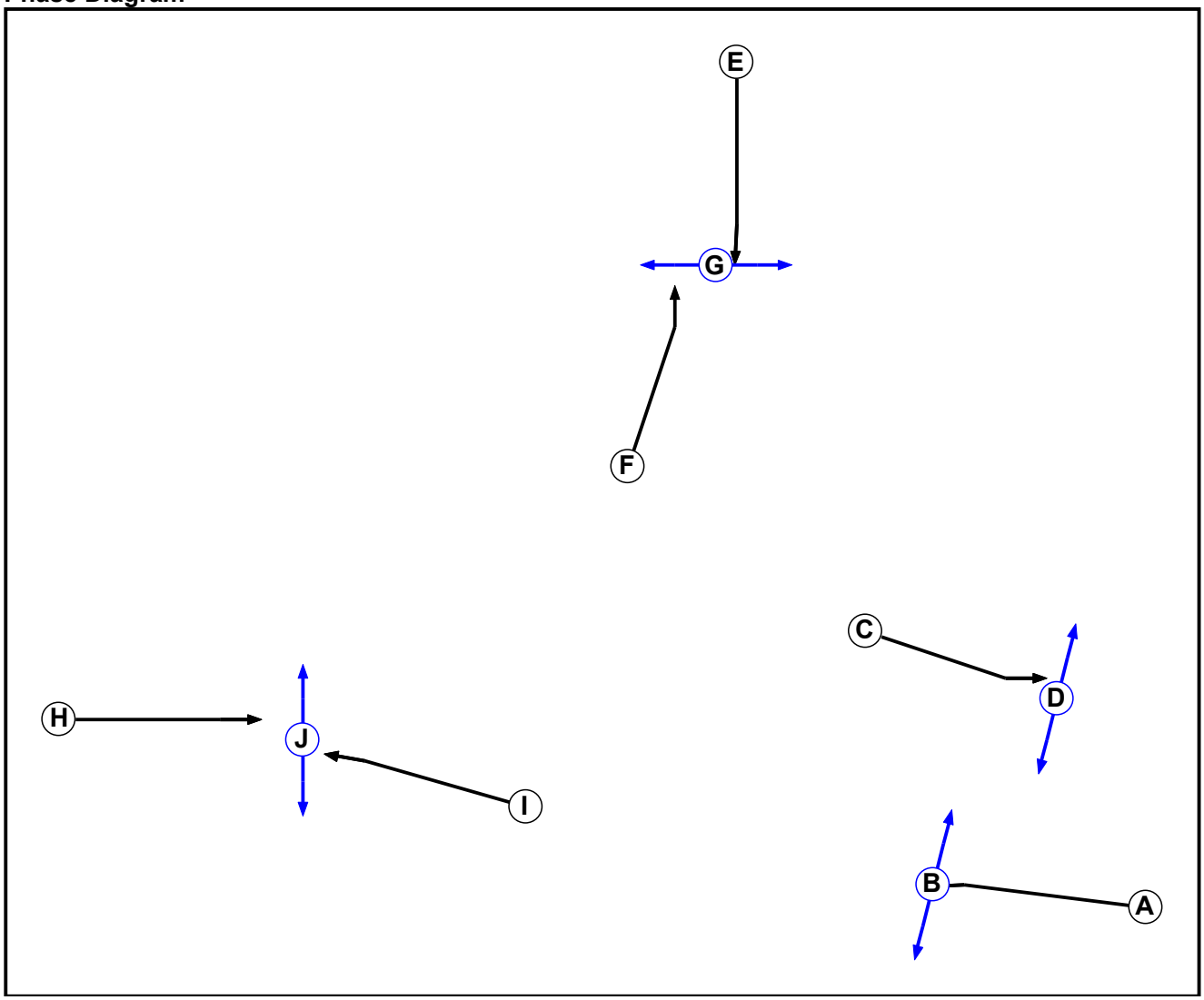
Prohibited Stage Change

		To Stage	
		1	2
From Stage	1		5
	2	5	

Full Input Data And Results

C3 - Southam Rd

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Pedestrian	1		5	5
C	Traffic	2		7	7
D	Pedestrian	2		5	5
E	Traffic	3		7	7
F	Traffic	3		7	7
G	Pedestrian	3		5	5
H	Traffic	4		7	7
I	Traffic	4		7	7
J	Pedestrian	4		5	5

Full Input Data And Results

Phase Intergreens Matrix

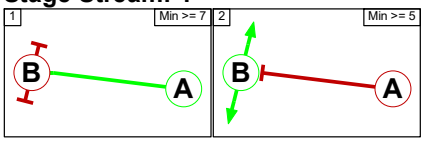
Terminating Phase \ Starting Phase	A	B	C	D	E	F	G	H	I	J
A		5	-	-	-	-	-	-	-	-
B	8		-	-	-	-	-	-	-	-
C	-	-		5	-	-	-	-	-	-
D	-	-	8		-	-	-	-	-	-
E	-	-	-	-		-	5	-	-	-
F	-	-	-	-	-		5	-	-	-
G	-	-	-	-	12	12		-	-	-
H	-	-	-	-	-	-	-		-	5
I	-	-	-	-	-	-	-	-		5
J	-	-	-	-	-	-	-	12	12	

Phases in Stage

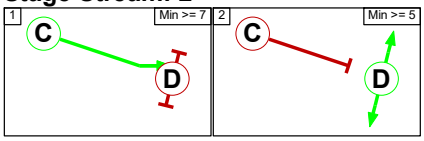
Stream	Stage No.	Phases in Stage
1	1	A
1	2	B
2	1	C
2	2	D
3	1	E F
3	2	G
4	1	H I
4	2	J

Stage Diagram

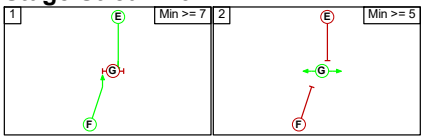
Stage Stream: 1



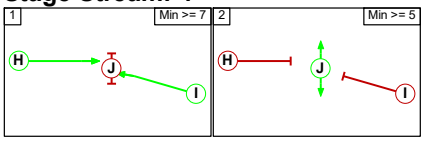
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Phase Delays

Stage Stream: 1

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 2

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 3

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Stage Stream: 4

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

Stage Stream: 1

		To Stage	
		1	2
From Stage	1		5
	2	8	

Stage Stream: 2

		To Stage	
		1	2
From Stage	1		5
	2	8	

Stage Stream: 3

		To Stage	
		1	2
From Stage	1		5
	2	12	

Stage Stream: 4

		To Stage	
		1	2
From Stage	1		5
	2	12	

Full Input Data And Results

Give-Way Lane Input Data

Junction: J1: M40 J11/Hennef Way

Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
J1:2/1 (A361 Approach)	J1:8/1 (Left)	1441	0	J1:12/1	0.52	All	-	-	-	-	-
				J1:12/2	0.52	All					
	J1:13/1 (Ahead)	1441	0	J1:12/1	0.52	All					
				J1:12/2	0.52	All					
				J1:12/3	0.52	All					
				J1:12/4	0.52	All					
	J1:13/2 (Ahead)	1441	0	J1:12/1	0.52	All					
				J1:12/2	0.52	All					
				J1:12/3	0.52	All					
				J1:12/4	0.52	All					
J1:2/2 (A361 Approach)	J1:13/3 (Ahead)	1441	0	J1:12/1	0.52	All	-	-	-	-	-
				J1:12/2	0.52	All					
				J1:12/3	0.52	All					
				J1:12/4	0.52	All					
J1:5/2 (A422 Hennef Way Approach)	J1:11/1 (Ahead)	1631	0	J1:15/1	0.60	All	-	-	-	-	-
				J1:15/2	0.60	All					
J1:5/3 (A422 Hennef Way Approach)	J1:11/2 (Ahead)	1631	0	J1:15/1	0.60	All	-	-	-	-	-
				J1:15/2	0.60	All					

Full Input Data And Results

Junction: J2: Hennef Way/ Ermont Way

Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
J2:3/1 (Ermont Way NB)	J2:17/1 (Ahead)	1013	0	J2:16/1	0.23	All	-	-	-	-	-
				J2:16/2	0.23	All					
				J2:16/3	0.23	All					
	J2:19/1 (Left)	1013	0	J2:16/1	0.23	All					
				J2:16/2	0.23	All					
	J2:19/2 (Left)	1013	0	J2:16/1	0.23	All					
				J2:16/2	0.23	All					
J2:3/2 (Ermont Way NB)	J2:17/2 (Ahead)	1013	0	J2:16/1	0.23	All	-	-	-	-	-
				J2:16/2	0.23	All					
				J2:16/3	0.23	All					
	J2:17/3 (Ahead)	1013	0	J2:16/1	0.23	All					
				J2:16/2	0.23	All					
				J2:16/3	0.23	All					
J2:4/1 (Hennef Way EB)	J2:5/1 (Left)	1083	0	J2:17/1	0.28	All	-	-	-	-	-
				J2:17/2	0.28	All					
				J2:17/3	0.28	All					
J2:4/2 (Hennef Way EB)	J2:14/1 (Ahead)	1083	0	J2:17/1	0.28	All	-	-	-	-	-
				J2:17/2	0.28	All					
				J2:17/3	0.28	All					
J2:4/3 (Hennef Way EB)	J2:14/2 (Ahead)	1083	0	J2:17/1	0.28	All	-	-	-	-	-
				J2:17/2	0.28	All					
				J2:17/3	0.28	All					
	J2:14/3 (Ahead)	1083	0	J2:17/1	0.28	All					
				J2:17/2	0.28	All					

Full Input Data And Results

				J2:17/3	0.28	All						
J2:8/1 (Wildmere Rd SB)	J2:15/1 (Ahead)	1047	0	J2:14/1	0.28	All	-	-	-	-	-
				J2:14/2	0.28	All					
				J2:14/3	0.28	All					
J2:8/2 (Wildmere Rd SB)	J2:15/2 (Ahead)	1047	0	J2:14/1	0.28	All	-	-	-	-	-
				J2:14/2	0.28	All					
				J2:14/3	0.28	All					
	J2:15/3 (Ahead)	1047	0	J2:14/1	0.28	All					
				J2:14/2	0.28	All					
				J2:14/3	0.28	All					
J2:9/1 (Wildmere - Hennef)	J2:6/1 (Ahead)	715	0	J2:10/1	0.22	All	-	-	-	-	-
J2:11/1 (Hennef Way WB)	J2:16/1 (Ahead)	961	0	J2:15/1	0.23	All	-	-	-	-	-
				J2:15/2	0.23	All					
				J2:15/3	0.23	All					
J2:11/2 (Hennef Way WB)	J2:16/2 (Ahead)	961	0	J2:15/1	0.23	All	-	-	-	-	-
				J2:15/2	0.23	All					
				J2:15/3	0.23	All					
J2:11/3 (Hennef Way WB)	J2:16/3 (Ahead)	961	0	J2:15/1	0.23	All	-	-	-	-	-
				J2:15/2	0.23	All					
				J2:15/3	0.23	All					
J2:12/1 (Hennef - Ermont)	J2:7/1 (Left)	1439	0	J2:13/1	1.09	All	-	-	-	-	-

Full Input Data And Results

Junction: J3: Hennef Way/ Concord Ave

Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
J3:1/1 (From Grimsby Green)	J3:6/1 (Left)	1492	0	J3:9/1	0.50	All	-	-	-	-	-
				J3:9/2	0.50	All					
				J3:9/3	0.50	All					
	J3:10/1 (Ahead)	1492	0	J3:9/1	0.50	All					
				J3:9/2	0.50	All					
				J3:9/3	0.50	All					
	J3:10/2 (Ahead)	1492	0	J3:9/1	0.50	All					
				J3:9/2	0.50	All					
				J3:9/3	0.50	All					
J3:2/1 (Hennef Way WB)	J3:7/1 (Left)	1126	0	J3:10/1	0.28	All	-	-	-	-	-
				J3:10/2	0.28	All					
J3:2/2 (Hennef Way WB)	J3:11/1 (Ahead)	1126	0	J3:10/1	0.28	All	-	-	-	-	-
				J3:10/2	0.28	All					
J3:2/3 (Hennef Way WB)	J3:11/2 (Ahead)	1126	0	J3:10/1	0.28	All	-	-	-	-	-
				J3:10/2	0.28	All					
J3:3/1 (Concord Ave Entry)	J3:8/1 (Left)	852	0	J3:11/1	0.23	All	-	-	-	-	-
				J3:11/2	0.23	All					
	J3:8/2 (Left)	852	0	J3:11/1	0.23	All					
				J3:11/2	0.23	All					
J3:3/2 (Concord Ave Entry)	J3:12/1 (Ahead)	852	0	J3:11/1	0.23	All	-	-	-	-	-
				J3:11/2	0.23	All					
J3:3/3 (Concord Ave Entry)	J3:12/2 (Ahead)	852	0	J3:11/1	0.23	All	-	-	-	-	-
				J3:11/2	0.23	All					
	J3:5/1 (Left)	1342	0	J3:12/1	0.37	All	-	-	-	-	-

Full Input Data And Results

J3:4/1 (Holman Bridge Entry)				J3:12/2	0.37	All					
	J3:9/1 (Ahead)	1342	0	J3:12/1	0.37	All					
				J3:12/2	0.37	All					
J3:4/2 (Holman Bridge Entry)	J3:9/2 (Ahead)	1342	0	J3:12/1	0.37	All	-	-	-	-	-
				J3:12/2	0.37	All					
	J3:9/3 (Ahead)	1342	0	J3:12/1	0.37	All					
				J3:12/2	0.37	All					

Full Input Data And Results

Junction: J4: Hennef Way_Southam Rd											
Lane	**Movement**	**Max Flow when Giving Way (PCU/Hr)**	**Min Flow when Giving Way (PCU/Hr)**	**Opposing Lane**	**Opp. Lane Coeff.**	**Opp. Mvmnts.**	**Right Turn Storage (PCU)**	**Non-Blocking Storage (PCU)**	**RTF**	**Right Turn Move up (s)**	**Max Turns in Intergreen (PCU)**
J4:1/1 (Hennef Way East)	J4:11/1 (Left)	843	0	J4:2/1	0.21	All	-	-	-	-	-
				J4:2/2	0.21	All					
				J4:2/3	0.21	All					
J4:1/2 (Hennef Way East)	J4:4/1 (Ahead)	843	0	J4:2/1	0.21	All	-	-	-	-	-
				J4:2/2	0.21	All					
				J4:2/3	0.21	All					
J4:1/3 (Hennef Way East)	J4:4/2 (Ahead)	843	0	J4:2/1	0.21	All	-	-	-	-	-
				J4:2/2	0.21	All					
				J4:2/3	0.21	All					
	J4:4/3 (Ahead)	843	0	J4:2/1	0.21	All					
				J4:2/2	0.21	All					
				J4:2/3	0.21	All					
J4:3/1 (Southam Rd Sth)	J4:12/1 (Left)	855	0	J4:4/1	0.22	All	-	-	-	-	-
				J4:4/2	0.22	All					
				J4:4/3	0.22	All					
J4:3/2 (Southam Rd Sth)	J4:6/1 (Ahead)	855	0	J4:4/1	0.22	All	-	-	-	-	-
				J4:4/2	0.22	All					
				J4:4/3	0.22	All					
J4:3/3 (Southam Rd Sth)	J4:6/2 (Ahead)	855	0	J4:4/1	0.22	All	-	-	-	-	-
				J4:4/2	0.22	All					
				J4:4/3	0.22	All					
J4:5/1 (Ruscote Ave)	J4:9/1 (Left)	849	0	J4:6/1	0.22	All	-	-	-	-	-
				J4:6/2	0.22	All					
	J4:8/1 (Ahead)	849	0	J4:6/1	0.22	All	-	-	-	-	-

Full Input Data And Results

J4:5/2 (Ruscote Ave)				J4:6/2	0.22	All					
J4:5/3 (Ruscote Ave)	J4:8/2 (Ahead)	849	0	J4:6/1	0.22	All	-	-	-	-	-
				J4:6/2	0.22	All					
	J4:8/3 (Ahead)	849	0	J4:6/1	0.22	All					
				J4:6/2	0.22	All					
J4:7/1 (Southam Rd Nth)	J4:10/1 (Left)	827	0	J4:8/1	0.21	All	-	-	-	-	-
				J4:8/2	0.21	All					
				J4:8/3	0.21	All					
	J4:10/2 (Left)	827	0	J4:8/1	0.21	All					
				J4:8/2	0.21	All					
				J4:8/3	0.21	All					
J4:7/2 (Southam Rd Nth)	J4:2/1 (Ahead)	827	0	J4:8/1	0.21	All	-	-	-	-	-
				J4:8/2	0.21	All					
				J4:8/3	0.21	All					
J4:7/3 (Southam Rd Nth)	J4:2/2 (Ahead)	827	0	J4:8/1	0.21	All	-	-	-	-	-
				J4:8/2	0.21	All					
				J4:8/3	0.21	All					
	J4:2/3 (Ahead)	827	0	J4:8/1	0.21	All					
				J4:8/2	0.21	All					
				J4:8/3	0.21	All					

Full Input Data And Results

Lane Input Data

Full Input Data And Results

Junction: J1: M40 J11/Hennef Way												
Lane	**Lane Type**	**Phases**	**Start Disp.**	**End Disp.**	**Physical Length (PCU)**	**Sat Flow Type**	**Def User Saturation Flow (PCU/Hr)**	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Turns**	**Turning Radius (m)**
J1:1/1 (M40N Approach)	U	A	2	3	62.6	Geom	-	3.50	0.00	Y	Arm J1:7 Left	50.00
											Arm J1:12 Ahead	50.00
J1:1/2 (M40N Approach)	U	A	2	3	62.6	Geom	-	3.50	0.00	N	Arm J1:12 Ahead	50.00
J1:1/3 (M40N Approach)	U	A	2	3	19.1	Geom	-	3.50	0.00	N	Arm J1:12 Ahead	50.00
J1:2/1 (A361 Approach)	O		2	3	60.0	Geom	-	4.25	0.00	Y	Arm J1:8 Left	40.00
											Arm J1:13 Ahead	40.00
J1:2/2 (A361 Approach)	O		2	3	6.6	Geom	-	4.25	0.00	N	Arm J1:13 Ahead	40.00
J1:3/1 (A422 East Approach)	U	C	2	3	4.8	Geom	-	4.00	0.00	Y	Arm J1:9 Left	100.00
J1:3/2 (A422 East Approach)	U	C	2	3	60.0	Geom	-	4.00	0.00	Y	Arm J1:14 Ahead	100.00
J1:3/3 (A422 East Approach)	U	C	2	3	60.0	Geom	-	4.00	0.00	N	Arm J1:14 Ahead	100.00
J1:4/1 (M40S Approach)	U	E	2	3	60.0	Geom	-	4.00	0.00	Y	Arm J1:10 Ahead	60.00
J1:4/2 (M40S Approach)	U	E	2	3	60.0	Geom	-	4.00	0.00	N	Arm J1:10 Ahead	60.00
J1:4/3 (M40S Approach)	U	E	2	3	19.5	Geom	-	4.00	0.00	N	Arm J1:15 Ahead	60.00
J1:5/1 (A422 Hennef Way Approach)	U		2	3	28.3	Geom	-	3.70	0.00	Y	Arm J1:6 Left	70.00
J1:5/2 (A422 Hennef Way Approach)	O	J	2	3	40.9	Geom	-	4.20	0.00	N	Arm J1:11 Ahead	100.00
J1:5/3 (A422 Hennef Way Approach)	O	J	2	3	40.9	Geom	-	4.20	0.00	N	Arm J1:11 Ahead	100.00
J1:6/1 (M40N Exit)	U		2	3	63.5	Inf	-	-	-	-	-	-

Full Input Data And Results

J1:6/2 (M40N Exit)	U		2	3	63.5	Inf	-	-	-	-	-	-
J1:7/1 (A631 Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:8/1 (A422 East Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:8/2 (A422 East Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:9/1 (M40S Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:9/2 (M40S Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:10/1 (A422 Hennef Way Exit)	U		2	3	43.1	User	1800	-	-	-	-	-
J1:10/2 (A422 Hennef Way Exit)	U		2	3	43.1	User	1800	-	-	-	-	-
J1:11/1 (J11 Circ1)	U	B	2	3	21.7	Geom	-	3.60	0.00	Y	Arm J1:7 Ahead	200.00
											Arm J1:12 Right	200.00
J1:11/2 (J11 Circ1)	U	B	2	3	21.7	Geom	-	3.60	0.00	N	Arm J1:12 Right	200.00
J1:12/1 (J11 Circ3)	U		2	3	5.9	Geom	-	3.40	0.00	Y	Arm J1:8 Ahead	125.00
J1:12/2 (J11 Circ3)	U		2	3	5.9	Geom	-	3.40	0.00	N	Arm J1:8 Ahead	125.00
J1:12/3 (J11 Circ3)	U		2	3	5.9	Geom	-	3.40	0.00	N	Arm J1:13 Right	125.00
J1:12/4 (J11 Circ3)	U		2	3	5.9	Geom	-	3.40	0.00	N	Arm J1:13 Right	125.00
J1:13/1 (J11 Circ5)	U	D	2	3	5.9	Geom	-	3.50	0.00	Y	Arm J1:9 Ahead	150.00
J1:13/2 (J11 Circ5)	U	D	2	3	5.9	Geom	-	3.50	0.00	N	Arm J1:9 Ahead	150.00
											Arm J1:14 Right	150.00
J1:13/3 (J11 Circ5)	U	D	2	3	5.9	Geom	-	3.50	0.00	N	Arm J1:14 Right	150.00
J1:14/1 (J11 Circ7)	U	F	2	3	22.6	Geom	-	3.70	0.00	Y	Arm J1:10 Ahead	125.00

Full Input Data And Results

J1:14/2 (J11 Circ7)	U	F	2	3	22.6	Geom	-	3.70	0.00	N	Arm J1:10 Ahead	125.00
											Arm J1:15 Right	125.00
J1:15/1 (J11 Circ9)	U	K	2	3	7.8	Geom	-	3.35	0.00	Y	Arm J1:6 Ahead	125.00
J1:15/2 (J11 Circ9)	U	K	2	3	7.8	Geom	-	3.35	0.00	N	Arm J1:11 Right	125.00

Full Input Data And Results

Junction: J2: Hennef Way/ Ermont Way												
Lane	**Lane Type**	**Phases**	**Start Disp.**	**End Disp.**	**Physical Length (PCU)**	**Sat Flow Type**	**Def User Saturation Flow (PCU/Hr)**	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Turns**	**Turning Radius (m)**
J2:1/1 (Wildmere SB Entry)	U		2	3	60.0	Geom	-	2.50	0.00	Y	Arm J2:8 Ahead	Inf
											Arm J2:9 Left	Inf
J2:1/2 (Wildmere SB Entry)	U		2	3	60.0	Geom	-	2.50	0.00	N	Arm J2:8 Ahead	Inf
J2:2/1 (Hennef Way WB)	U		2	3	10.0	User	3600	-	-	-	-	-
J2:3/1 (Ermont Way NB)	O		2	3	60.0	Geom	-	3.75	0.00	Y	Arm J2:17 Ahead	100.00
											Arm J2:19 Left	Inf
J2:3/2 (Ermont Way NB)	O		2	3	5.7	Geom	-	3.75	0.00	N	Arm J2:17 Ahead	100.00
J2:4/1 (Hennef Way EB)	O		2	3	5.0	Geom	-	4.00	0.00	Y	Arm J2:5 Left	70.00
J2:4/2 (Hennef Way EB)	O		2	3	5.0	Geom	-	4.00	0.00	N	Arm J2:14 Ahead	70.00
J2:4/3 (Hennef Way EB)	O		2	3	5.0	Geom	-	4.00	0.00	N	Arm J2:14 Ahead	70.00
J2:5/1 (Wildmere Rd NB)	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:5/2 (Wildmere Rd NB)	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:6/1 (Hennef Way EB)	U		2	3	10.0	User	3600	-	-	-	-	-
J2:7/1 (Ermont Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:8/1 (Wildmere Rd SB)	O		2	3	5.7	Geom	-	4.00	0.00	Y	Arm J2:15 Ahead	40.00
J2:8/2 (Wildmere Rd SB)	O		2	3	5.7	Geom	-	4.00	0.00	N	Arm J2:15 Ahead	40.00
J2:9/1 (Wildmere - Hennef)	O		2	3	14.1	Geom	-	4.00	0.00	Y	Arm J2:6 Ahead	50.00
J2:10/1 (Hennef EB)	U		2	3	6.1	Geom	-	4.50	0.00	Y	Arm J2:6 Ahead	90.00

Full Input Data And Results

J2:10/2 (Hennef EB)	U		2	3	6.1	Geom	-	4.50	0.00	N	Arm J2:6 Ahead	90.00
J2:11/1 (Hennef Way WB)	O		2	3	6.8	Geom	-	3.50	0.00	Y	Arm J2:16 Ahead	25.00
J2:11/2 (Hennef Way WB)	O		2	3	6.8	Geom	-	3.50	0.00	N	Arm J2:16 Ahead	25.00
J2:11/3 (Hennef Way WB)	O		2	3	6.8	Geom	-	3.50	0.00	N	Arm J2:16 Ahead	25.00
J2:12/1 (Hennef - Ermont)	O		2	3	13.9	Geom	-	4.80	0.00	Y	Arm J2:7 Left	60.00
J2:13/1 (Ermont SB)	U		2	3	7.0	Geom	-	5.00	0.00	Y	Arm J2:7 Ahead	50.00
J2:14/1 (E Circ 7)	U		2	3	3.7	Geom	-	3.93	0.00	Y	Arm J2:10 Ahead	45.00
J2:14/2 (E Circ 7)	U		2	3	3.7	Geom	-	3.93	0.00	N	Arm J2:10 Ahead	45.00
J2:14/3 (E Circ 7)	U		2	3	3.7	Geom	-	3.93	0.00	N	Arm J2:15 Right	45.00
J2:15/1 (E Circ)	U		2	3	2.9	Geom	-	4.00	0.00	Y	Arm J2:13 Ahead	45.00
J2:15/2 (E Circ)	U		2	3	2.9	Geom	-	4.00	0.00	N	Arm J2:16 Right	45.00
J2:15/3 (E Circ)	U		2	3	2.9	Geom	-	4.00	0.00	N	Arm J2:16 Right	45.00
J2:16/1 (E Circ 3)	U		2	3	1.7	Geom	-	3.83	0.00	Y	Arm J2:19 Ahead	Inf
J2:16/2 (E Circ 3)	U		2	3	1.7	Geom	-	3.83	0.00	N	Arm J2:19 Ahead	Inf
J2:16/3 (E Circ 3)	U		2	3	1.7	Geom	-	3.83	0.00	N	Arm J2:17 Right	45.00
J2:17/1 (E Circ 5)	U		2	3	2.9	Geom	-	3.93	0.00	Y	Arm J2:5 Ahead	45.00
J2:17/2 (E Circ 5)	U		2	3	2.9	Geom	-	3.93	0.00	N	Arm J2:5 Ahead	45.00
											Arm J2:14 Right	45.00
J2:17/3 (E Circ 5)	U		2	3	2.9	Geom	-	3.93	0.00	N	Arm J2:14 Right	45.00

Full Input Data And Results

J2:18/1 (Hennef Way EB Xing)	U	A	2	3	8.2	Geom	-	3.33	0.00	Y	Arm J2:4 Ahead	Inf
J2:18/2 (Hennef Way EB Xing)	U	A	2	3	60.0	Geom	-	3.33	0.00	N	Arm J2:4 Ahead	Inf
J2:18/3 (Hennef Way EB Xing)	U	A	2	3	60.0	Geom	-	3.33	0.00	N	Arm J2:4 Ahead	Inf
J2:19/1 (Hennef Way WB)	U	C	2	3	60.0	Geom	-	4.10	0.00	Y	Arm J2:20 Ahead	Inf
J2:19/2 (Hennef Way WB)	U	C	2	3	60.0	Geom	-	4.10	0.00	N	Arm J2:20 Ahead	200.00
J2:20/1 (Hennef Way Xing WB)	U		2	3	60.0	User	3600	-	-	-	-	-

Full Input Data And Results

Junction: J3: Hennef Way/ Concord Ave												
Lane	**Lane Type**	**Phases**	**Start Disp.**	**End Disp.**	**Physical Length (PCU)**	**Sat Flow Type**	**Def User Saturation Flow (PCU/Hr)**	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Turns**	**Turning Radius (m)**
J3:1/1 (From Grimsby Green)	O		2	3	11.3	Geom	-	5.00	0.00	Y	Arm J3:6 Left	20.00
											Arm J3:10 Ahead	20.00
J3:2/1 (Hennef Way WB)	O		2	3	60.0	Geom	-	3.91	0.00	Y	Arm J3:7 Left	55.00
J3:2/2 (Hennef Way WB)	O		2	3	4.9	Geom	-	3.91	0.00	N	Arm J3:11 Ahead	55.00
J3:2/3 (Hennef Way WB)	O		2	3	115.7	Geom	-	3.91	0.00	N	Arm J3:11 Ahead	55.00
J3:3/1 (Concord Ave Entry)	O		2	3	60.0	Geom	-	3.33	0.00	Y	Arm J3:8 Left	35.00
J3:3/2 (Concord Ave Entry)	O		2	3	60.0	Geom	-	3.33	0.00	N	Arm J3:12 Ahead	35.00
J3:3/3 (Concord Ave Entry)	O		2	3	3.9	Geom	-	3.33	0.00	N	Arm J3:12 Ahead	35.00
J3:4/1 (Holman Bridge Entry)	O		2	3	60.0	Geom	-	4.35	0.00	Y	Arm J3:5 Left	40.00
											Arm J3:9 Ahead	40.00
J3:4/2 (Holman Bridge Entry)	O		2	3	60.0	Geom	-	4.35	0.00	N	Arm J3:9 Ahead	40.00
J3:5/1 (To Grimsby Green)	U		2	3	60.0	Inf	-	-	-	-	-	-
J3:6/1 (Hennef Way WB)	U		2	3	118.3	User	3600	-	-	-	-	-
J3:7/1 (Concord Ave Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
J3:8/1 (Holman Bridge Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
J3:8/2 (Holman Bridge Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
J3:9/1 (C Circ 7)	U		2	3	2.5	Geom	-	3.80	0.00	Y	Arm J3:6 Ahead	40.00
J3:9/2 (C Circ 7)	U		2	3	2.5	Geom	-	3.80	0.00	N	Arm J3:6 Ahead	40.00

Full Input Data And Results

											Arm J3:10 Right	40.00
J3:9/3 (C Circ 7)	U		2	3	2.5	Geom	-	3.80	0.00	N	Arm J3:10 Right	40.00
J3:10/1 (C Circ1)	U		2	3	3.5	Geom	-	3.94	0.00	Y	Arm J3:7 Ahead	40.00
J3:10/2 (C Circ1)	U		2	3	3.5	Geom	-	3.94	0.00	N	Arm J3:7 Ahead	Inf
											Arm J3:11 Right	40.00
J3:11/1 (C Circ 3)	U		2	3	3.1	Geom	-	3.56	0.00	Y	Arm J3:8 Ahead	40.00
J3:11/2 (C Circ 3)	U		2	3	3.1	Geom	-	3.56	0.00	N	Arm J3:8 Ahead	40.00
											Arm J3:12 Right	40.00
J3:12/1 (C Circ 5)	U		2	3	2.6	Geom	-	4.74	0.00	Y	Arm J3:5 Ahead	40.00
											Arm J3:9 Right	40.00
J3:12/2 (C Circ 5)	U		2	3	2.6	Geom	-	4.74	0.00	N	Arm J3:9 Right	40.00
J3:13/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

Junction: J4: Hennef Way_Southam Rd												
Lane	**Lane Type**	**Phases**	**Start Disp.**	**End Disp.**	**Physical Length (PCU)**	**Sat Flow Type**	**Def User Saturation Flow (PCU/Hr)**	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Turns**	**Turning Radius (m)**
J4:1/1 (Hennef Way East)	O		2	3	5.0	User	1800	-	-	-	-	-
J4:1/2 (Hennef Way East)	O		2	3	60.0	User	1800	-	-	-	-	-
J4:1/3 (Hennef Way East)	O		2	3	60.0	User	1800	-	-	-	-	-
J4:2/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J4:2/2	U		2	3	60.0	Inf	-	-	-	-	-	-
J4:2/3	U		2	3	60.0	Inf	-	-	-	-	-	-
J4:3/1 (Southam Rd Sth)	O		2	3	5.0	User	1800	-	-	-	-	-
J4:3/2 (Southam Rd Sth)	O		2	3	60.0	User	1800	-	-	-	-	-
J4:3/3 (Southam Rd Sth)	O		2	3	60.0	User	1800	-	-	-	-	-
J4:4/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J4:4/2	U		2	3	60.0	Inf	-	-	-	-	-	-
J4:4/3	U		2	3	60.0	Inf	-	-	-	-	-	-
J4:5/1 (Ruscote Ave)	O		2	3	5.0	User	1800	-	-	-	-	-
J4:5/2 (Ruscote Ave)	O		2	3	60.0	User	1800	-	-	-	-	-
J4:5/3 (Ruscote Ave)	O		2	3	60.0	User	1800	-	-	-	-	-
J4:6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J4:6/2	U		2	3	60.0	Inf	-	-	-	-	-	-
J4:7/1 (Southam Rd Nth)	O		2	3	5.0	User	1800	-	-	-	-	-
J4:7/2 (Southam Rd Nth)	O		2	3	60.0	User	1800	-	-	-	-	-
J4:7/3 (Southam Rd Nth)	O		2	3	60.0	User	1800	-	-	-	-	-
J4:8/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J4:8/2	U		2	3	60.0	Inf	-	-	-	-	-	-
J4:8/3	U		2	3	60.0	Inf	-	-	-	-	-	-
J4:9/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

J4:10/1	U	C	2	3	60.0	Geom	-	3.65	0.00	Y	Arm J4:14 Ahead	Inf
J4:10/2	U	C	2	3	60.0	Geom	-	3.65	0.00	Y	Arm J4:14 Ahead	Inf
J4:11/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J4:11/2	U		2	3	60.0	Inf	-	-	-	-	-	-
J4:12/1	U	I	2	3	60.0	Geom	-	2.50	0.00	Y	Arm J4:18 Ahead	Inf
J4:12/2	U	I	2	3	60.0	Geom	-	2.50	0.00	Y	Arm J4:18 Ahead	Inf
J4:13/1	U	A	2	3	60.0	Geom	-	3.65	0.00	Y	Arm J4:1 Ahead	Inf
J4:13/2	U	A	2	3	60.0	Geom	-	3.65	0.00	Y	Arm J4:1 Ahead	Inf
J4:14/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J4:15/1	U	F	2	3	60.0	Geom	-	4.00	0.00	Y	Arm J4:17 Ahead	Inf
J4:16/1	U	E	2	3	60.0	Geom	-	4.00	0.00	Y	Arm J4:7 Ahead	Inf
J4:17/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J4:18/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J4:18/2	U		2	3	60.0	Inf	-	-	-	-	-	-
J4:19/1	U	H	2	3	60.0	Geom	-	4.00	0.00	Y	Arm J4:5 Ahead	Inf

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2026 AM No Dev'	08:00	09:00	01:00	
2: '2026 PM No Dev'	17:00	18:00	01:00	
3: '2026 AM With Dev'	08:00	09:00	01:00	
4: '2026 PM With Dev'	17:00	18:00	01:00	
5: '2031 AM No Dev'	08:00	09:00	01:00	
6: '2031 PM No Dev'	17:00	18:00	01:00	
7: '2031 AM With Dev'	08:00	09:00	01:00	
8: '2031 PM With Dev'	17:00	18:00	01:00	

Scenario 1: '2026 AM No Dev' (FG1: '2026 AM No Dev', Plan 1: 'Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination											
		A	B	C	D	E	F	G	H	I	J	K	Tot.
Origin	A	0	27	324	6	75	149	18	96	167	0	38	900
	B	61	0	24	110	33	65	8	42	73	0	16	432
	C	339	265	0	88	136	272	32	175	304	0	68	1679
	D	10	97	173	0	111	222	26	143	249	0	56	1087
	E	63	39	126	108	0	0	0	0	0	0	35	371
	F	187	116	375	321	1	0	15	80	139	0	41	1275
	G	12	8	24	21	0	2	0	362	500	0	3	932
	H	146	91	293	251	1	27	87	0	0	0	32	928
	I	98	61	196	168	1	18	245	5	0	0	21	813
	J	0	0	0	0	0	0	0	0	0	0	0	0
	K	37	23	75	64	21	50	6	32	56	0	0	364
	Tot.	953	727	1610	1137	379	805	437	935	1488	0	310	8781

Full Input Data And Results

Traffic Lane Flows

Full Input Data And Results

Lane	Scenario 1: 2026 AM No Dev
Junction: J1: M40 J11/Hennef Way	
J1:1/1	255
J1:1/2 (with short)	645(In) 343(Out)
J1:1/3 (short)	302
J1:2/1 (with short)	432(In) 259(Out)
J1:2/2 (short)	173
J1:3/1 (short)	88
J1:3/2 (with short)	857(In) 769(Out)
J1:3/3	822
J1:4/1	390
J1:4/2 (with short)	697(In) 417(Out)
J1:4/3 (short)	280
J1:5/1 (short)	543
J1:5/2 (with short)	1715(In) 1172(Out)
J1:5/3	1188
J1:6/1	543
J1:6/2	410
J1:7/1	727
J1:8/1	1094
J1:8/2	516
J1:9/1	769
J1:9/2	368
J1:10/1	1525
J1:10/2	1049
J1:11/1	1542
J1:11/2	1353
J1:12/1	1070
J1:12/2	516
J1:12/3	1180
J1:12/4	302
J1:13/1	681
J1:13/2	734
J1:13/3	475
J1:14/1	1135
J1:14/2	1297
J1:15/1	410
J1:15/2	535

Full Input Data And Results

Junction: J2: Hennef Way/ Ermont Way	
J2:1/1	220
J2:1/2	144
J2:2/1	2574
J2:3/1 (with short)	371(In) 1(Out)
J2:3/2 (short)	370
J2:4/1	97
J2:4/2	1187
J2:4/3	1184
J2:5/1	209
J2:5/2	101
J2:6/1	2903
J2:7/1	379
J2:8/1	21
J2:8/2	144
J2:9/1	199
J2:10/1	1332
J2:10/2	1372
J2:11/1	1020
J2:11/2	1021
J2:11/3	178
J2:12/1	355
J2:13/1	24
J2:14/1	1332
J2:14/2	1372
J2:14/3	3
J2:15/1	24
J2:15/2	51
J2:15/3	93
J2:16/1	1071
J2:16/2	1114
J2:16/3	178
J2:17/1	112
J2:17/2	246
J2:17/3	191
J2:18/1 (short)	97
J2:18/2 (with short)	1284(In) 1187(Out)
J2:18/3	1184
J2:19/1	1071
J2:19/2	1114
J2:20/1	2185
Junction: J3: Hennef Way/ Concord Ave	

Full Input Data And Results

J3:1/1	0
J3:2/1	758
J3:2/2 (short)	611
J3:2/3 (with short)	1427(In) 816(Out)
J3:3/1	234
J3:3/2 (with short)	1041(In) 510(Out)
J3:3/3 (short)	531
J3:4/1	728
J3:4/2	746
J3:5/1	0
J3:6/1	2468
J3:7/1	805
J3:8/1	728
J3:8/2	933
J3:9/1	1238
J3:9/2	1230
J3:9/3	47
J3:10/1	0
J3:10/2	47
J3:11/1	611
J3:11/2	816
J3:12/1	510
J3:12/2	531
J3:13/1	1661
Junction: J4: Hennef Way_Southam Rd	
J4:1/1 (short)	105
J4:1/2 (with short)	671(In) 566(Out)
J4:1/3	990
J4:2/1	43
J4:2/2	289
J4:2/3	5
J4:3/1 (short)	362
J4:3/2 (with short)	862(In) 500(Out)
J4:3/3	70
J4:4/1	566
J4:4/2	7
J4:4/3	988
J4:5/1 (short)	0
J4:5/2 (with short)	463(In) 463(Out)

Full Input Data And Results

J4:5/3	465
J4:6/1	1488
J4:6/2	70
J4:7/1 (short)	563
J4:7/2 (with short)	563(In) 0(Out)
J4:7/3	250
J4:8/1	495
J4:8/2	416
J4:8/3	87
J4:9/1	1488
J4:10/1	742
J4:10/2	732
J4:11/1	148
J4:11/2	289
J4:12/1	928
J4:12/2	7
J4:13/1	671
J4:13/2	990
J4:14/1	1474
J4:15/1	1488
J4:16/1	813
J4:17/1	1488
J4:18/1	928
J4:18/2	7
J4:19/1	928

Lane Saturation Flows

Full Input Data And Results

Junction: J1: M40 J11/Hennef Way								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (M40N Approach)	3.50	0.00	Y	Arm J1:7 Left	50.00	10.6 %	1908	1908
				Arm J1:12 Ahead	50.00	89.4 %		
J1:1/2 (M40N Approach)	3.50	0.00	N	Arm J1:12 Ahead	50.00	100.0 %	2044	2044
J1:1/3 (M40N Approach)	3.50	0.00	N	Arm J1:12 Ahead	50.00	100.0 %	2044	2044
J1:2/1 (A361 Approach)	4.25	0.00	Y	Arm J1:8 Left	40.00	9.3 %	1966	1966
				Arm J1:13 Ahead	40.00	90.7 %		
J1:2/2 (A361 Approach)	4.25	0.00	N	Arm J1:13 Ahead	40.00	100.0 %	2101	2101
J1:3/1 (A422 East Approach)	4.00	0.00	Y	Arm J1:9 Left	100.00	100.0 %	1985	1985
J1:3/2 (A422 East Approach)	4.00	0.00	Y	Arm J1:14 Ahead	100.00	100.0 %	1985	1985
J1:3/3 (A422 East Approach)	4.00	0.00	N	Arm J1:14 Ahead	100.00	100.0 %	2123	2123
J1:4/1 (M40S Approach)	4.00	0.00	Y	Arm J1:10 Ahead	60.00	100.0 %	1966	1966
J1:4/2 (M40S Approach)	4.00	0.00	N	Arm J1:10 Ahead	60.00	100.0 %	2102	2102
J1:4/3 (M40S Approach)	4.00	0.00	N	Arm J1:15 Ahead	60.00	100.0 %	2102	2102
J1:5/1 (A422 Hennef Way Approach)	3.70	0.00	Y	Arm J1:6 Left	70.00	100.0 %	1943	1943
J1:5/2 (A422 Hennef Way Approach)	4.20	0.00	N	Arm J1:11 Ahead	100.00	100.0 %	2143	2143
J1:5/3 (A422 Hennef Way Approach)	4.20	0.00	N	Arm J1:11 Ahead	100.00	100.0 %	2143	2143
J1:6/1 (M40N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/2 (M40N Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:7/1 (A631 Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:8/1 (A422 East Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:8/2 (A422 East Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:9/1 (M40S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:9/2 (M40S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

J1:10/1 (A422 Hennef Way Exit Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J1:10/2 (A422 Hennef Way Exit Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J1:11/1 (J11 Circ1)	3.60	0.00	Y	Arm J1:7 Ahead	200.00	45.4 %	1960	1960
				Arm J1:12 Right	200.00	54.6 %		
J1:11/2 (J11 Circ1)	3.60	0.00	N	Arm J1:12 Right	200.00	100.0 %	2099	2099
J1:12/1 (J11 Circ3)	3.40	0.00	Y	Arm J1:8 Ahead	125.00	100.0 %	1932	1932
J1:12/2 (J11 Circ3)	3.40	0.00	N	Arm J1:8 Ahead	125.00	100.0 %	2070	2070
J1:12/3 (J11 Circ3)	3.40	0.00	N	Arm J1:13 Right	125.00	100.0 %	2070	2070
J1:12/4 (J11 Circ3)	3.40	0.00	N	Arm J1:13 Right	125.00	100.0 %	2070	2070
J1:13/1 (J11 Circ5)	3.50	0.00	Y	Arm J1:9 Ahead	150.00	100.0 %	1946	1946
J1:13/2 (J11 Circ5)	3.50	0.00	N	Arm J1:9 Ahead	150.00	50.1 %	2084	2084
				Arm J1:14 Right	150.00	49.9 %		
J1:13/3 (J11 Circ5)	3.50	0.00	N	Arm J1:14 Right	150.00	100.0 %	2084	2084
J1:14/1 (J11 Circ7)	3.70	0.00	Y	Arm J1:10 Ahead	125.00	100.0 %	1961	1961
J1:14/2 (J11 Circ7)	3.70	0.00	N	Arm J1:10 Ahead	125.00	48.7 %	2100	2100
				Arm J1:15 Right	125.00	51.3 %		
J1:15/1 (J11 Circ9)	3.35	0.00	Y	Arm J1:6 Ahead	125.00	100.0 %	1927	1927
J1:15/2 (J11 Circ9)	3.35	0.00	N	Arm J1:11 Right	125.00	100.0 %	2065	2065

Full Input Data And Results

Junction: J2: Hennef Way/ Ermont Way								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Wildmere SB Entry)	2.50	0.00	Y	Arm J2:8 Ahead	Inf	9.5 %	1865	1865
				Arm J2:9 Left	Inf	90.5 %		
J2:1/2 (Wildmere SB Entry)	2.50	0.00	N	Arm J2:8 Ahead	Inf	100.0 %	2005	2005
J2:2/1 (Hennef Way WB Lane 1)	This lane uses a directly entered Saturation Flow						3600	3600
J2:3/1 (Ermont Way NB)	3.75	0.00	Y	Arm J2:17 Ahead	100.00	100.0 %	1961	1961
				Arm J2:19 Left	Inf	0.0 %		
J2:3/2 (Ermont Way NB)	3.75	0.00	N	Arm J2:17 Ahead	100.00	100.0 %	2099	2099
J2:4/1 (Hennef Way EB)	4.00	0.00	Y	Arm J2:5 Left	70.00	100.0 %	1973	1973
J2:4/2 (Hennef Way EB)	4.00	0.00	N	Arm J2:14 Ahead	70.00	100.0 %	2110	2110
J2:4/3 (Hennef Way EB)	4.00	0.00	N	Arm J2:14 Ahead	70.00	100.0 %	2110	2110
J2:5/1 (Wildmere Rd NB Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:5/2 (Wildmere Rd NB Lane 2)	Infinite Saturation Flow						Inf	Inf
J2:6/1 (Hennef Way EB Lane 1)	This lane uses a directly entered Saturation Flow						3600	3600
J2:7/1 (Ermont Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:8/1 (Wildmere Rd SB)	4.00	0.00	Y	Arm J2:15 Ahead	40.00	100.0 %	1942	1942
J2:8/2 (Wildmere Rd SB)	4.00	0.00	N	Arm J2:15 Ahead	40.00	100.0 %	2077	2077
J2:9/1 (Wildmere - Hennef)	4.00	0.00	Y	Arm J2:6 Ahead	50.00	100.0 %	1956	1956
J2:10/1 (Hennef EB)	4.50	0.00	Y	Arm J2:6 Ahead	90.00	100.0 %	2031	2031
J2:10/2 (Hennef EB)	4.50	0.00	N	Arm J2:6 Ahead	90.00	100.0 %	2169	2169
J2:11/1 (Hennef Way WB)	3.50	0.00	Y	Arm J2:16 Ahead	25.00	100.0 %	1854	1854
J2:11/2 (Hennef Way WB)	3.50	0.00	N	Arm J2:16 Ahead	25.00	100.0 %	1986	1986
J2:11/3 (Hennef Way WB)	3.50	0.00	N	Arm J2:16 Ahead	25.00	100.0 %	1986	1986
J2:12/1 (Hennef - Ermont)	4.80	0.00	Y	Arm J2:7 Left	60.00	100.0 %	2044	2044
J2:13/1 (Ermont SB)	5.00	0.00	Y	Arm J2:7 Ahead	50.00	100.0 %	2053	2053
J2:14/1 (E Circ 7)	3.93	0.00	Y	Arm J2:10 Ahead	45.00	100.0 %	1943	1943

Full Input Data And Results

J2:14/2 (E Circ 7)	3.93	0.00	N	Arm J2:10 Ahead	45.00	100.0 %	2079	2079
J2:14/3 (E Circ 7)	3.93	0.00	N	Arm J2:15 Right	45.00	100.0 %	2079	2079
J2:15/1 (E Circ)	4.00	0.00	Y	Arm J2:13 Ahead	45.00	100.0 %	1950	1950
J2:15/2 (E Circ)	4.00	0.00	N	Arm J2:16 Right	45.00	100.0 %	2085	2085
J2:15/3 (E Circ)	4.00	0.00	N	Arm J2:16 Right	45.00	100.0 %	2085	2085
J2:16/1 (E Circ 3)	3.83	0.00	Y	Arm J2:19 Ahead	Inf	100.0 %	1998	1998
J2:16/2 (E Circ 3)	3.83	0.00	N	Arm J2:19 Ahead	Inf	100.0 %	2138	2138
J2:16/3 (E Circ 3)	3.83	0.00	N	Arm J2:17 Right	45.00	100.0 %	2069	2069
J2:17/1 (E Circ 5)	3.93	0.00	Y	Arm J2:5 Ahead	45.00	100.0 %	1943	1943
J2:17/2 (E Circ 5)	3.93	0.00	N	Arm J2:5 Ahead	45.00	41.1 %	2079	2079
				Arm J2:14 Right	45.00	58.9 %		
J2:17/3 (E Circ 5)	3.93	0.00	N	Arm J2:14 Right	45.00	100.0 %	2079	2079
J2:18/1 (Hennef Way EB Xing)	3.33	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1948	1948
J2:18/2 (Hennef Way EB Xing)	3.33	0.00	N	Arm J2:4 Ahead	Inf	100.0 %	2088	2088
J2:18/3 (Hennef Way EB Xing)	3.33	0.00	N	Arm J2:4 Ahead	Inf	100.0 %	2088	2088
J2:19/1 (Hennef Way WB)	4.10	0.00	Y	Arm J2:20 Ahead	Inf	100.0 %	2025	2025
J2:19/2 (Hennef Way WB)	4.10	0.00	N	Arm J2:20 Ahead	200.00	100.0 %	2149	2149
J2:20/1 (Hennef Way Xing WB Lane 1)	This lane uses a directly entered Saturation Flow						3600	3600

Full Input Data And Results

Junction: J3: Hennef Way/ Concord Ave								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J3:1/1 (From Grimsby Green)	5.00	0.00	Y	Arm J3:6 Left	20.00	0.0 %	2115	2115
				Arm J3:10 Ahead	20.00	0.0 %		
J3:2/1 (Hennef Way WB)	3.91	0.00	Y	Arm J3:7 Left	55.00	100.0 %	1953	1953
J3:2/2 (Hennef Way WB)	3.91	0.00	N	Arm J3:11 Ahead	55.00	100.0 %	2089	2089
J3:2/3 (Hennef Way WB)	3.91	0.00	N	Arm J3:11 Ahead	55.00	100.0 %	2089	2089
J3:3/1 (Concord Ave Entry)	3.33	0.00	Y	Arm J3:8 Left	35.00	100.0 %	1868	1868
J3:3/2 (Concord Ave Entry)	3.33	0.00	N	Arm J3:12 Ahead	35.00	100.0 %	2002	2002
J3:3/3 (Concord Ave Entry)	3.33	0.00	N	Arm J3:12 Ahead	35.00	100.0 %	2002	2002
J3:4/1 (Holman Bridge Entry)	4.35	0.00	Y	Arm J3:5 Left	40.00	0.0 %	1976	1976
				Arm J3:9 Ahead	40.00	100.0 %		
J3:4/2 (Holman Bridge Entry)	4.35	0.00	N	Arm J3:9 Ahead	40.00	100.0 %	2111	2111
J3:5/1 (To Grimsby Green Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:6/1 (Hennef Way WB Lane 1)	This lane uses a directly entered Saturation Flow						3600	3600
J3:7/1 (Concord Ave Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/1 (Holman Bridge Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/2 (Holman Bridge Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J3:9/1 (C Circ 7)	3.80	0.00	Y	Arm J3:6 Ahead	40.00	100.0 %	1923	1923
J3:9/2 (C Circ 7)	3.80	0.00	N	Arm J3:6 Ahead	40.00	100.0 %	2058	2058
				Arm J3:10 Right	40.00	0.0 %		
J3:9/3 (C Circ 7)	3.80	0.00	N	Arm J3:10 Right	40.00	100.0 %	2058	2058
J3:10/1 (C Circ1)	3.94	0.00	Y	Arm J3:7 Ahead	40.00	0.0 %	2009	2009
J3:10/2 (C Circ1)	3.94	0.00	N	Arm J3:7 Ahead	Inf	100.0 %	2149	2149
				Arm J3:11 Right	40.00	0.0 %		
J3:11/1 (C Circ 3)	3.56	0.00	Y	Arm J3:8 Ahead	40.00	100.0 %	1900	1900
J3:11/2 (C Circ 3)	3.56	0.00	N	Arm J3:8 Ahead	40.00	100.0 %	2035	2035
				Arm J3:12 Right	40.00	0.0 %		
J3:12/1 (C Circ 5)	4.74	0.00	Y	Arm J3:5 Ahead	40.00	0.0 %	2013	2013
				Arm J3:9 Right	40.00	100.0 %		

Full Input Data And Results

J3:12/2 (C Circ 5)	4.74	0.00	N	Arm J3:9 Right	40.00	100.0 %	2148	2148
J3:13/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J4: Hennef Way_Southam Rd								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J4:1/1 (Hennef Way East Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J4:1/2 (Hennef Way East Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J4:1/3 (Hennef Way East Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
J4:2/1	Infinite Saturation Flow						Inf	Inf
J4:2/2	Infinite Saturation Flow						Inf	Inf
J4:2/3	Infinite Saturation Flow						Inf	Inf
J4:3/1 (Southam Rd Sth Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J4:3/2 (Southam Rd Sth Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J4:3/3 (Southam Rd Sth Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
J4:4/1	Infinite Saturation Flow						Inf	Inf
J4:4/2	Infinite Saturation Flow						Inf	Inf
J4:4/3	Infinite Saturation Flow						Inf	Inf
J4:5/1 (Ruscote Ave Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J4:5/2 (Ruscote Ave Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J4:5/3 (Ruscote Ave Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
J4:6/1	Infinite Saturation Flow						Inf	Inf
J4:6/2	Infinite Saturation Flow						Inf	Inf
J4:7/1 (Southam Rd Nth Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J4:7/2 (Southam Rd Nth Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J4:7/3 (Southam Rd Nth Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
J4:8/1	Infinite Saturation Flow						Inf	Inf
J4:8/2	Infinite Saturation Flow						Inf	Inf
J4:8/3	Infinite Saturation Flow						Inf	Inf
J4:9/1	Infinite Saturation Flow						Inf	Inf
J4:10/1	3.65	0.00	Y	Arm J4:14 Ahead	Inf	100.0 %	1980	1980
J4:10/2	3.65	0.00	Y	Arm J4:14 Ahead	Inf	100.0 %	1980	1980
J4:11/1	Infinite Saturation Flow						Inf	Inf
J4:11/2	Infinite Saturation Flow						Inf	Inf
J4:12/1	2.50	0.00	Y	Arm J4:18 Ahead	Inf	100.0 %	1865	1865
J4:12/2	2.50	0.00	Y	Arm J4:18 Ahead	Inf	100.0 %	1865	1865
J4:13/1	3.65	0.00	Y	Arm J4:1 Ahead	Inf	100.0 %	1980	1980

Full Input Data And Results

J4:13/2	3.65	0.00	Y	Arm J4:1 Ahead	Inf	100.0 %	1980	1980
J4:14/1	Infinite Saturation Flow						Inf	Inf
J4:15/1	4.00	0.00	Y	Arm J4:17 Ahead	Inf	100.0 %	2015	2015
J4:16/1	4.00	0.00	Y	Arm J4:7 Ahead	Inf	100.0 %	2015	2015
J4:17/1	Infinite Saturation Flow						Inf	Inf
J4:18/1	Infinite Saturation Flow						Inf	Inf
J4:18/2	Infinite Saturation Flow						Inf	Inf
J4:19/1	4.00	0.00	Y	Arm J4:5 Ahead	Inf	100.0 %	2015	2015

Scenario 2: '2026 PM No Dev' (FG2: '2026 PM No Dev', Plan 1: 'Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination											
		A	B	C	D	E	F	G	H	I	J	K	Tot.
Origin	A	0	37	289	4	88	139	23	111	127	0	35	853
	B	65	0	47	123	55	87	14	70	80	0	22	563
	C	254	170	0	90	139	220	36	176	200	0	55	1340
	D	6	61	160	0	131	208	34	167	190	0	52	1009
	E	67	28	98	66	0	54	9	43	49	0	61	475
	F	280	118	408	272	22	0	18	88	101	0	48	1355
	G	26	11	38	25	2	15	0	198	535	0	5	855
	H	159	67	232	155	13	93	132	0	70	0	28	949
	I	129	54	189	126	10	76	378	24	0	0	22	1008
	J	0	0	0	0	0	0	0	0	0	0	0	0
	K	76	32	111	74	110	196	32	157	179	0	0	967
	Tot.	1062	578	1572	935	570	1088	676	1034	1531	0	328	9374

Full Input Data And Results

Traffic Lane Flows

Full Input Data And Results

Lane	Scenario 2: 2026 PM No Dev
Junction: J1: M40 J11/Hennef Way	
J1:1/1	223
J1:1/2 (with short)	630(In) 390(Out)
J1:1/3 (short)	240
J1:2/1 (with short)	563(In) 295(Out)
J1:2/2 (short)	268
J1:3/1 (short)	90
J1:3/2 (with short)	686(In) 596(Out)
J1:3/3	654
J1:4/1	357
J1:4/2 (with short)	652(In) 425(Out)
J1:4/3 (short)	227
J1:5/1 (short)	737
J1:5/2 (with short)	1797(In) 1060(Out)
J1:5/3	1044
J1:6/1	737
J1:6/2	325
J1:7/1	578
J1:8/1	985
J1:8/2	587
J1:9/1	597
J1:9/2	338
J1:10/1	1361
J1:10/2	1098
J1:11/1	1293
J1:11/2	1202
J1:12/1	938
J1:12/2	587
J1:12/3	1005
J1:12/4	240
J1:13/1	507
J1:13/2	746
J1:13/3	508
J1:14/1	1004
J1:14/2	1162
J1:15/1	325
J1:15/2	391

Full Input Data And Results

Junction: J2: Hennef Way/ Ermont Way	
J2:1/1	403
J2:1/2	564
J2:2/1	2459
J2:3/1 (with short)	475(In) 156(Out)
J2:3/2 (short)	319
J2:4/1	103
J2:4/2	1173
J2:4/3	1163
J2:5/1	197
J2:5/2	131
J2:6/1	2841
J2:7/1	570
J2:8/1	110
J2:8/2	564
J2:9/1	293
J2:10/1	1264
J2:10/2	1284
J2:11/1	954
J2:11/2	928
J2:11/3	164
J2:12/1	413
J2:13/1	157
J2:14/1	1264
J2:14/2	1284
J2:14/3	47
J2:15/1	157
J2:15/2	251
J2:15/3	313
J2:16/1	1205
J2:16/2	1241
J2:16/3	164
J2:17/1	94
J2:17/2	222
J2:17/3	168
J2:18/1 (short)	103
J2:18/2 (with short)	1276(In) 1173(Out)
J2:18/3	1163
J2:19/1	1272
J2:19/2	1329
J2:20/1	2601
Junction: J3: Hennef Way/ Concord Ave	

Full Input Data And Results

J3:1/1	0
J3:2/1	904
J3:2/2 (short)	782
J3:2/3 (with short)	1697(In) 915(Out)
J3:3/1	207
J3:3/2 (with short)	1148(In) 574(Out)
J3:3/3 (short)	574
J3:4/1	725
J3:4/2	750
J3:5/1	0
J3:6/1	2439
J3:7/1	1088
J3:8/1	886
J3:8/2	1018
J3:9/1	1299
J3:9/2	1140
J3:9/3	184
J3:10/1	0
J3:10/2	184
J3:11/1	782
J3:11/2	915
J3:12/1	574
J3:12/2	574
J3:13/1	1904
Junction: J4: Hennef Way_Southam Rd	
J4:1/1 (short)	166
J4:1/2 (with short)	978(In) 812(Out)
J4:1/3	926
J4:2/1	66
J4:2/2	444
J4:2/3	24
J4:3/1 (short)	198
J4:3/2 (with short)	733(In) 535(Out)
J4:3/3	122
J4:4/1	812
J4:4/2	24
J4:4/3	926
J4:5/1 (short)	70
J4:5/2 (with short)	514(In) 444(Out)

Full Input Data And Results

J4:5/3	435
J4:6/1	1461
J4:6/2	122
J4:7/1 (short)	606
J4:7/2 (with short)	606(In) 0(Out)
J4:7/3	402
J4:8/1	492
J4:8/2	377
J4:8/3	132
J4:9/1	1531
J4:10/1	732
J4:10/2	743
J4:11/1	232
J4:11/2	444
J4:12/1	1010
J4:12/2	24
J4:13/1	978
J4:13/2	926
J4:14/1	1475
J4:15/1	1531
J4:16/1	1008
J4:17/1	1531
J4:18/1	1010
J4:18/2	24
J4:19/1	949

Lane Saturation Flows

Full Input Data And Results

Junction: J1: M40 J11/Hennef Way								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (M40N Approach)	3.50	0.00	Y	Arm J1:7 Left	50.00	16.6 %	1908	1908
				Arm J1:12 Ahead	50.00	83.4 %		
J1:1/2 (M40N Approach)	3.50	0.00	N	Arm J1:12 Ahead	50.00	100.0 %	2044	2044
J1:1/3 (M40N Approach)	3.50	0.00	N	Arm J1:12 Ahead	50.00	100.0 %	2044	2044
J1:2/1 (A361 Approach)	4.25	0.00	Y	Arm J1:8 Left	40.00	15.9 %	1966	1966
				Arm J1:13 Ahead	40.00	84.1 %		
J1:2/2 (A361 Approach)	4.25	0.00	N	Arm J1:13 Ahead	40.00	100.0 %	2101	2101
J1:3/1 (A422 East Approach)	4.00	0.00	Y	Arm J1:9 Left	100.00	100.0 %	1985	1985
J1:3/2 (A422 East Approach)	4.00	0.00	Y	Arm J1:14 Ahead	100.00	100.0 %	1985	1985
J1:3/3 (A422 East Approach)	4.00	0.00	N	Arm J1:14 Ahead	100.00	100.0 %	2123	2123
J1:4/1 (M40S Approach)	4.00	0.00	Y	Arm J1:10 Ahead	60.00	100.0 %	1966	1966
J1:4/2 (M40S Approach)	4.00	0.00	N	Arm J1:10 Ahead	60.00	100.0 %	2102	2102
J1:4/3 (M40S Approach)	4.00	0.00	N	Arm J1:15 Ahead	60.00	100.0 %	2102	2102
J1:5/1 (A422 Hennef Way Approach)	3.70	0.00	Y	Arm J1:6 Left	70.00	100.0 %	1943	1943
J1:5/2 (A422 Hennef Way Approach)	4.20	0.00	N	Arm J1:11 Ahead	100.00	100.0 %	2143	2143
J1:5/3 (A422 Hennef Way Approach)	4.20	0.00	N	Arm J1:11 Ahead	100.00	100.0 %	2143	2143
J1:6/1 (M40N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/2 (M40N Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:7/1 (A631 Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:8/1 (A422 East Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:8/2 (A422 East Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:9/1 (M40S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:9/2 (M40S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

J1:10/1 (A422 Hennef Way Exit Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J1:10/2 (A422 Hennef Way Exit Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J1:11/1 (J11 Circ1)	3.60	0.00	Y	Arm J1:7 Ahead	200.00	41.8 %	1960	1960
				Arm J1:12 Right	200.00	58.2 %		
J1:11/2 (J11 Circ1)	3.60	0.00	N	Arm J1:12 Right	200.00	100.0 %	2099	2099
J1:12/1 (J11 Circ3)	3.40	0.00	Y	Arm J1:8 Ahead	125.00	100.0 %	1932	1932
J1:12/2 (J11 Circ3)	3.40	0.00	N	Arm J1:8 Ahead	125.00	100.0 %	2070	2070
J1:12/3 (J11 Circ3)	3.40	0.00	N	Arm J1:13 Right	125.00	100.0 %	2070	2070
J1:12/4 (J11 Circ3)	3.40	0.00	N	Arm J1:13 Right	125.00	100.0 %	2070	2070
J1:13/1 (J11 Circ5)	3.50	0.00	Y	Arm J1:9 Ahead	150.00	100.0 %	1946	1946
J1:13/2 (J11 Circ5)	3.50	0.00	N	Arm J1:9 Ahead	150.00	45.3 %	2084	2084
				Arm J1:14 Right	150.00	54.7 %		
J1:13/3 (J11 Circ5)	3.50	0.00	N	Arm J1:14 Right	150.00	100.0 %	2084	2084
J1:14/1 (J11 Circ7)	3.70	0.00	Y	Arm J1:10 Ahead	125.00	100.0 %	1961	1961
J1:14/2 (J11 Circ7)	3.70	0.00	N	Arm J1:10 Ahead	125.00	57.9 %	2100	2100
				Arm J1:15 Right	125.00	42.1 %		
J1:15/1 (J11 Circ9)	3.35	0.00	Y	Arm J1:6 Ahead	125.00	100.0 %	1927	1927
J1:15/2 (J11 Circ9)	3.35	0.00	N	Arm J1:11 Right	125.00	100.0 %	2065	2065

Full Input Data And Results

Junction: J2: Hennef Way/ Ermont Way								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Wildmere SB Entry)	2.50	0.00	Y	Arm J2:8 Ahead	Inf	27.3 %	1865	1865
				Arm J2:9 Left	Inf	72.7 %		
J2:1/2 (Wildmere SB Entry)	2.50	0.00	N	Arm J2:8 Ahead	Inf	100.0 %	2005	2005
J2:2/1 (Hennef Way WB Lane 1)	This lane uses a directly entered Saturation Flow						3600	3600
J2:3/1 (Ermont Way NB)	3.75	0.00	Y	Arm J2:17 Ahead	100.00	0.6 %	1990	1990
				Arm J2:19 Left	Inf	99.4 %		
J2:3/2 (Ermont Way NB)	3.75	0.00	N	Arm J2:17 Ahead	100.00	100.0 %	2099	2099
J2:4/1 (Hennef Way EB)	4.00	0.00	Y	Arm J2:5 Left	70.00	100.0 %	1973	1973
J2:4/2 (Hennef Way EB)	4.00	0.00	N	Arm J2:14 Ahead	70.00	100.0 %	2110	2110
J2:4/3 (Hennef Way EB)	4.00	0.00	N	Arm J2:14 Ahead	70.00	100.0 %	2110	2110
J2:5/1 (Wildmere Rd NB Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:5/2 (Wildmere Rd NB Lane 2)	Infinite Saturation Flow						Inf	Inf
J2:6/1 (Hennef Way EB Lane 1)	This lane uses a directly entered Saturation Flow						3600	3600
J2:7/1 (Ermont Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:8/1 (Wildmere Rd SB)	4.00	0.00	Y	Arm J2:15 Ahead	40.00	100.0 %	1942	1942
J2:8/2 (Wildmere Rd SB)	4.00	0.00	N	Arm J2:15 Ahead	40.00	100.0 %	2077	2077
J2:9/1 (Wildmere - Hennef)	4.00	0.00	Y	Arm J2:6 Ahead	50.00	100.0 %	1956	1956
J2:10/1 (Hennef EB)	4.50	0.00	Y	Arm J2:6 Ahead	90.00	100.0 %	2031	2031
J2:10/2 (Hennef EB)	4.50	0.00	N	Arm J2:6 Ahead	90.00	100.0 %	2169	2169
J2:11/1 (Hennef Way WB)	3.50	0.00	Y	Arm J2:16 Ahead	25.00	100.0 %	1854	1854
J2:11/2 (Hennef Way WB)	3.50	0.00	N	Arm J2:16 Ahead	25.00	100.0 %	1986	1986
J2:11/3 (Hennef Way WB)	3.50	0.00	N	Arm J2:16 Ahead	25.00	100.0 %	1986	1986
J2:12/1 (Hennef - Ermont)	4.80	0.00	Y	Arm J2:7 Left	60.00	100.0 %	2044	2044
J2:13/1 (Ermont SB)	5.00	0.00	Y	Arm J2:7 Ahead	50.00	100.0 %	2053	2053
J2:14/1 (E Circ 7)	3.93	0.00	Y	Arm J2:10 Ahead	45.00	100.0 %	1943	1943

Full Input Data And Results

J2:14/2 (E Circ 7)	3.93	0.00	N	Arm J2:10 Ahead	45.00	100.0 %	2079	2079
J2:14/3 (E Circ 7)	3.93	0.00	N	Arm J2:15 Right	45.00	100.0 %	2079	2079
J2:15/1 (E Circ)	4.00	0.00	Y	Arm J2:13 Ahead	45.00	100.0 %	1950	1950
J2:15/2 (E Circ)	4.00	0.00	N	Arm J2:16 Right	45.00	100.0 %	2085	2085
J2:15/3 (E Circ)	4.00	0.00	N	Arm J2:16 Right	45.00	100.0 %	2085	2085
J2:16/1 (E Circ 3)	3.83	0.00	Y	Arm J2:19 Ahead	Inf	100.0 %	1998	1998
J2:16/2 (E Circ 3)	3.83	0.00	N	Arm J2:19 Ahead	Inf	100.0 %	2138	2138
J2:16/3 (E Circ 3)	3.83	0.00	N	Arm J2:17 Right	45.00	100.0 %	2069	2069
J2:17/1 (E Circ 5)	3.93	0.00	Y	Arm J2:5 Ahead	45.00	100.0 %	1943	1943
J2:17/2 (E Circ 5)	3.93	0.00	N	Arm J2:5 Ahead	45.00	59.0 %	2079	2079
				Arm J2:14 Right	45.00	41.0 %		
J2:17/3 (E Circ 5)	3.93	0.00	N	Arm J2:14 Right	45.00	100.0 %	2079	2079
J2:18/1 (Hennef Way EB Xing)	3.33	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1948	1948
J2:18/2 (Hennef Way EB Xing)	3.33	0.00	N	Arm J2:4 Ahead	Inf	100.0 %	2088	2088
J2:18/3 (Hennef Way EB Xing)	3.33	0.00	N	Arm J2:4 Ahead	Inf	100.0 %	2088	2088
J2:19/1 (Hennef Way WB)	4.10	0.00	Y	Arm J2:20 Ahead	Inf	100.0 %	2025	2025
J2:19/2 (Hennef Way WB)	4.10	0.00	N	Arm J2:20 Ahead	200.00	100.0 %	2149	2149
J2:20/1 (Hennef Way Xing WB Lane 1)	This lane uses a directly entered Saturation Flow						3600	3600

Full Input Data And Results

Junction: J3: Hennef Way/ Concord Ave								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J3:1/1 (From Grimsby Green)	5.00	0.00	Y	Arm J3:6 Left	20.00	0.0 %	2115	2115
				Arm J3:10 Ahead	20.00	0.0 %		
J3:2/1 (Hennef Way WB)	3.91	0.00	Y	Arm J3:7 Left	55.00	100.0 %	1953	1953
J3:2/2 (Hennef Way WB)	3.91	0.00	N	Arm J3:11 Ahead	55.00	100.0 %	2089	2089
J3:2/3 (Hennef Way WB)	3.91	0.00	N	Arm J3:11 Ahead	55.00	100.0 %	2089	2089
J3:3/1 (Concord Ave Entry)	3.33	0.00	Y	Arm J3:8 Left	35.00	100.0 %	1868	1868
J3:3/2 (Concord Ave Entry)	3.33	0.00	N	Arm J3:12 Ahead	35.00	100.0 %	2002	2002
J3:3/3 (Concord Ave Entry)	3.33	0.00	N	Arm J3:12 Ahead	35.00	100.0 %	2002	2002
J3:4/1 (Holman Bridge Entry)	4.35	0.00	Y	Arm J3:5 Left	40.00	0.0 %	1976	1976
				Arm J3:9 Ahead	40.00	100.0 %		
J3:4/2 (Holman Bridge Entry)	4.35	0.00	N	Arm J3:9 Ahead	40.00	100.0 %	2111	2111
J3:5/1 (To Grimsby Green Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:6/1 (Hennef Way WB Lane 1)	This lane uses a directly entered Saturation Flow						3600	3600
J3:7/1 (Concord Ave Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/1 (Holman Bridge Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/2 (Holman Bridge Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J3:9/1 (C Circ 7)	3.80	0.00	Y	Arm J3:6 Ahead	40.00	100.0 %	1923	1923
J3:9/2 (C Circ 7)	3.80	0.00	N	Arm J3:6 Ahead	40.00	100.0 %	2058	2058
				Arm J3:10 Right	40.00	0.0 %		
J3:9/3 (C Circ 7)	3.80	0.00	N	Arm J3:10 Right	40.00	100.0 %	2058	2058
J3:10/1 (C Circ1)	3.94	0.00	Y	Arm J3:7 Ahead	40.00	0.0 %	2009	2009
J3:10/2 (C Circ1)	3.94	0.00	N	Arm J3:7 Ahead	Inf	100.0 %	2149	2149
				Arm J3:11 Right	40.00	0.0 %		
J3:11/1 (C Circ 3)	3.56	0.00	Y	Arm J3:8 Ahead	40.00	100.0 %	1900	1900
J3:11/2 (C Circ 3)	3.56	0.00	N	Arm J3:8 Ahead	40.00	100.0 %	2035	2035
				Arm J3:12 Right	40.00	0.0 %		
J3:12/1 (C Circ 5)	4.74	0.00	Y	Arm J3:5 Ahead	40.00	0.0 %	2013	2013
				Arm J3:9 Right	40.00	100.0 %		

Full Input Data And Results

J3:12/2 (C Circ 5)	4.74	0.00	N	Arm J3:9 Right	40.00	100.0 %	2148	2148
J3:13/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J4: Hennef Way_Southam Rd								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J4:1/1 (Hennef Way East Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J4:1/2 (Hennef Way East Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J4:1/3 (Hennef Way East Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
J4:2/1	Infinite Saturation Flow						Inf	Inf
J4:2/2	Infinite Saturation Flow						Inf	Inf
J4:2/3	Infinite Saturation Flow						Inf	Inf
J4:3/1 (Southam Rd Sth Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J4:3/2 (Southam Rd Sth Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J4:3/3 (Southam Rd Sth Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
J4:4/1	Infinite Saturation Flow						Inf	Inf
J4:4/2	Infinite Saturation Flow						Inf	Inf
J4:4/3	Infinite Saturation Flow						Inf	Inf
J4:5/1 (Ruscote Ave Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J4:5/2 (Ruscote Ave Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J4:5/3 (Ruscote Ave Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
J4:6/1	Infinite Saturation Flow						Inf	Inf
J4:6/2	Infinite Saturation Flow						Inf	Inf
J4:7/1 (Southam Rd Nth Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J4:7/2 (Southam Rd Nth Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J4:7/3 (Southam Rd Nth Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
J4:8/1	Infinite Saturation Flow						Inf	Inf
J4:8/2	Infinite Saturation Flow						Inf	Inf
J4:8/3	Infinite Saturation Flow						Inf	Inf
J4:9/1	Infinite Saturation Flow						Inf	Inf
J4:10/1	3.65	0.00	Y	Arm J4:14 Ahead	Inf	100.0 %	1980	1980
J4:10/2	3.65	0.00	Y	Arm J4:14 Ahead	Inf	100.0 %	1980	1980
J4:11/1	Infinite Saturation Flow						Inf	Inf
J4:11/2	Infinite Saturation Flow						Inf	Inf
J4:12/1	2.50	0.00	Y	Arm J4:18 Ahead	Inf	100.0 %	1865	1865
J4:12/2	2.50	0.00	Y	Arm J4:18 Ahead	Inf	100.0 %	1865	1865
J4:13/1	3.65	0.00	Y	Arm J4:1 Ahead	Inf	100.0 %	1980	1980

Full Input Data And Results

J4:13/2	3.65	0.00	Y	Arm J4:1 Ahead	Inf	100.0 %	1980	1980
J4:14/1	Infinite Saturation Flow						Inf	Inf
J4:15/1	4.00	0.00	Y	Arm J4:17 Ahead	Inf	100.0 %	2015	2015
J4:16/1	4.00	0.00	Y	Arm J4:7 Ahead	Inf	100.0 %	2015	2015
J4:17/1	Infinite Saturation Flow						Inf	Inf
J4:18/1	Infinite Saturation Flow						Inf	Inf
J4:18/2	Infinite Saturation Flow						Inf	Inf
J4:19/1	4.00	0.00	Y	Arm J4:5 Ahead	Inf	100.0 %	2015	2015

Scenario 3: '2026 AM With Dev' (FG3: '2026 AM With Dev', Plan 1: 'Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination											
		A	B	C	D	E	F	G	H	I	J	K	Tot.
Origin	A	0	39	324	6	74	149	18	97	167	0	37	911
	B	87	0	25	124	36	73	9	48	82	0	18	502
	C	339	272	0	88	135	271	34	177	303	0	68	1687
	D	10	138	173	0	110	222	27	145	248	0	56	1129
	E	62	42	124	106	0	0	0	0	0	0	35	369
	F	187	127	375	321	1	0	15	80	137	0	41	1284
	G	12	8	24	21	0	2	0	362	500	0	3	932
	H	145	99	291	250	1	27	87	0	0	0	32	932
	I	98	67	197	169	1	18	245	5	0	0	21	821
	J	0	0	0	0	0	0	0	0	0	0	0	0
	K	37	26	75	64	21	50	6	32	56	0	0	367
	Tot.	977	818	1608	1149	379	812	441	946	1493	0	311	8934

Full Input Data And Results

Traffic Lane Flows

Full Input Data And Results

Lane	Scenario 3: 2026 AM With Dev
Junction: J1: M40 J11/Hennef Way	
J1:1/1	260
J1:1/2 (with short)	651(In) 354(Out)
J1:1/3 (short)	297
J1:2/1 (with short)	502(In) 299(Out)
J1:2/2 (short)	203
J1:3/1 (short)	88
J1:3/2 (with short)	863(In) 775(Out)
J1:3/3	824
J1:4/1	391
J1:4/2 (with short)	738(In) 417(Out)
J1:4/3 (short)	321
J1:5/1 (short)	541
J1:5/2 (with short)	1729(In) 1188(Out)
J1:5/3	1198
J1:6/1	541
J1:6/2	436
J1:7/1	818
J1:8/1	1078
J1:8/2	530
J1:9/1	790
J1:9/2	359
J1:10/1	1561
J1:10/2	1043
J1:11/1	1611
J1:11/2	1358
J1:12/1	1053
J1:12/2	530
J1:12/3	1182
J1:12/4	297
J1:13/1	702
J1:13/2	754
J1:13/3	500
J1:14/1	1170
J1:14/2	1324
J1:15/1	436
J1:15/2	583

Full Input Data And Results

Junction: J2: Hennef Way/ Ermont Way	
J2:1/1	223
J2:1/2	144
J2:2/1	2604
J2:3/1 (with short)	369(In) 1(Out)
J2:3/2 (short)	368
J2:4/1	97
J2:4/2	1193
J2:4/3	1201
J2:5/1	209
J2:5/2	102
J2:6/1	2927
J2:7/1	379
J2:8/1	21
J2:8/2	144
J2:9/1	202
J2:10/1	1336
J2:10/2	1389
J2:11/1	1038
J2:11/2	1032
J2:11/3	179
J2:12/1	355
J2:13/1	24
J2:14/1	1336
J2:14/2	1389
J2:14/3	3
J2:15/1	24
J2:15/2	49
J2:15/3	95
J2:16/1	1087
J2:16/2	1127
J2:16/3	179
J2:17/1	112
J2:17/2	245
J2:17/3	191
J2:18/1 (short)	97
J2:18/2 (with short)	1290(In) 1193(Out)
J2:18/3	1201
J2:19/1	1087
J2:19/2	1127
J2:20/1	2214
Junction: J3: Hennef Way/ Concord Ave	

Full Input Data And Results

J3:1/1	0
J3:2/1	765
J3:2/2 (short)	626
J3:2/3 (with short)	1449(In) 823(Out)
J3:3/1	232
J3:3/2 (with short)	1052(In) 512(Out)
J3:3/3 (short)	540
J3:4/1	737
J3:4/2	749
J3:5/1	0
J3:6/1	2491
J3:7/1	812
J3:8/1	743
J3:8/2	938
J3:9/1	1249
J3:9/2	1242
J3:9/3	47
J3:10/1	0
J3:10/2	47
J3:11/1	626
J3:11/2	823
J3:12/1	512
J3:12/2	540
J3:13/1	1681
Junction: J4: Hennef Way_Southam Rd	
J4:1/1 (short)	109
J4:1/2 (with short)	686(In) 577(Out)
J4:1/3	995
J4:2/1	43
J4:2/2	289
J4:2/3	5
J4:3/1 (short)	362
J4:3/2 (with short)	862(In) 500(Out)
J4:3/3	70
J4:4/1	577
J4:4/2	7
J4:4/3	993
J4:5/1 (short)	0
J4:5/2 (with short)	464(In) 464(Out)

Full Input Data And Results

J4:5/3	468
J4:6/1	1493
J4:6/2	70
J4:7/1 (short)	571
J4:7/2 (with short)	571(In) 0(Out)
J4:7/3	250
J4:8/1	496
J4:8/2	419
J4:8/3	87
J4:9/1	1493
J4:10/1	755
J4:10/2	731
J4:11/1	152
J4:11/2	289
J4:12/1	939
J4:12/2	7
J4:13/1	686
J4:13/2	995
J4:14/1	1486
J4:15/1	1493
J4:16/1	821
J4:17/1	1493
J4:18/1	939
J4:18/2	7
J4:19/1	932

Lane Saturation Flows

Full Input Data And Results

Junction: J1: M40 J11/Hennef Way								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (M40N Approach)	3.50	0.00	Y	Arm J1:7 Left	50.00	15.0 %	1908	1908
				Arm J1:12 Ahead	50.00	85.0 %		
J1:1/2 (M40N Approach)	3.50	0.00	N	Arm J1:12 Ahead	50.00	100.0 %	2044	2044
J1:1/3 (M40N Approach)	3.50	0.00	N	Arm J1:12 Ahead	50.00	100.0 %	2044	2044
J1:2/1 (A361 Approach)	4.25	0.00	Y	Arm J1:8 Left	40.00	8.4 %	1966	1966
				Arm J1:13 Ahead	40.00	91.6 %		
J1:2/2 (A361 Approach)	4.25	0.00	N	Arm J1:13 Ahead	40.00	100.0 %	2101	2101
J1:3/1 (A422 East Approach)	4.00	0.00	Y	Arm J1:9 Left	100.00	100.0 %	1985	1985
J1:3/2 (A422 East Approach)	4.00	0.00	Y	Arm J1:14 Ahead	100.00	100.0 %	1985	1985
J1:3/3 (A422 East Approach)	4.00	0.00	N	Arm J1:14 Ahead	100.00	100.0 %	2123	2123
J1:4/1 (M40S Approach)	4.00	0.00	Y	Arm J1:10 Ahead	60.00	100.0 %	1966	1966
J1:4/2 (M40S Approach)	4.00	0.00	N	Arm J1:10 Ahead	60.00	100.0 %	2102	2102
J1:4/3 (M40S Approach)	4.00	0.00	N	Arm J1:15 Ahead	60.00	100.0 %	2102	2102
J1:5/1 (A422 Hennef Way Approach)	3.70	0.00	Y	Arm J1:6 Left	70.00	100.0 %	1943	1943
J1:5/2 (A422 Hennef Way Approach)	4.20	0.00	N	Arm J1:11 Ahead	100.00	100.0 %	2143	2143
J1:5/3 (A422 Hennef Way Approach)	4.20	0.00	N	Arm J1:11 Ahead	100.00	100.0 %	2143	2143
J1:6/1 (M40N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/2 (M40N Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:7/1 (A631 Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:8/1 (A422 East Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:8/2 (A422 East Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:9/1 (M40S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:9/2 (M40S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

J1:10/1 (A422 Hennef Way Exit Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J1:10/2 (A422 Hennef Way Exit Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J1:11/1 (J11 Circ1)	3.60	0.00	Y	Arm J1:7 Ahead	200.00	48.4 %	1960	1960
				Arm J1:12 Right	200.00	51.6 %		
J1:11/2 (J11 Circ1)	3.60	0.00	N	Arm J1:12 Right	200.00	100.0 %	2099	2099
J1:12/1 (J11 Circ3)	3.40	0.00	Y	Arm J1:8 Ahead	125.00	100.0 %	1932	1932
J1:12/2 (J11 Circ3)	3.40	0.00	N	Arm J1:8 Ahead	125.00	100.0 %	2070	2070
J1:12/3 (J11 Circ3)	3.40	0.00	N	Arm J1:13 Right	125.00	100.0 %	2070	2070
J1:12/4 (J11 Circ3)	3.40	0.00	N	Arm J1:13 Right	125.00	100.0 %	2070	2070
J1:13/1 (J11 Circ5)	3.50	0.00	Y	Arm J1:9 Ahead	150.00	100.0 %	1946	1946
J1:13/2 (J11 Circ5)	3.50	0.00	N	Arm J1:9 Ahead	150.00	47.6 %	2084	2084
				Arm J1:14 Right	150.00	52.4 %		
J1:13/3 (J11 Circ5)	3.50	0.00	N	Arm J1:14 Right	150.00	100.0 %	2084	2084
J1:14/1 (J11 Circ7)	3.70	0.00	Y	Arm J1:10 Ahead	125.00	100.0 %	1961	1961
J1:14/2 (J11 Circ7)	3.70	0.00	N	Arm J1:10 Ahead	125.00	47.3 %	2100	2100
				Arm J1:15 Right	125.00	52.7 %		
J1:15/1 (J11 Circ9)	3.35	0.00	Y	Arm J1:6 Ahead	125.00	100.0 %	1927	1927
J1:15/2 (J11 Circ9)	3.35	0.00	N	Arm J1:11 Right	125.00	100.0 %	2065	2065

Full Input Data And Results

Junction: J2: Hennef Way/ Ermont Way								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Wildmere SB Entry)	2.50	0.00	Y	Arm J2:8 Ahead	Inf	9.4 %	1865	1865
				Arm J2:9 Left	Inf	90.6 %		
J2:1/2 (Wildmere SB Entry)	2.50	0.00	N	Arm J2:8 Ahead	Inf	100.0 %	2005	2005
J2:2/1 (Hennef Way WB Lane 1)	This lane uses a directly entered Saturation Flow						3600	3600
J2:3/1 (Ermont Way NB)	3.75	0.00	Y	Arm J2:17 Ahead	100.00	100.0 %	1961	1961
				Arm J2:19 Left	Inf	0.0 %		
J2:3/2 (Ermont Way NB)	3.75	0.00	N	Arm J2:17 Ahead	100.00	100.0 %	2099	2099
J2:4/1 (Hennef Way EB)	4.00	0.00	Y	Arm J2:5 Left	70.00	100.0 %	1973	1973
J2:4/2 (Hennef Way EB)	4.00	0.00	N	Arm J2:14 Ahead	70.00	100.0 %	2110	2110
J2:4/3 (Hennef Way EB)	4.00	0.00	N	Arm J2:14 Ahead	70.00	100.0 %	2110	2110
J2:5/1 (Wildmere Rd NB Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:5/2 (Wildmere Rd NB Lane 2)	Infinite Saturation Flow						Inf	Inf
J2:6/1 (Hennef Way EB Lane 1)	This lane uses a directly entered Saturation Flow						3600	3600
J2:7/1 (Ermont Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:8/1 (Wildmere Rd SB)	4.00	0.00	Y	Arm J2:15 Ahead	40.00	100.0 %	1942	1942
J2:8/2 (Wildmere Rd SB)	4.00	0.00	N	Arm J2:15 Ahead	40.00	100.0 %	2077	2077
J2:9/1 (Wildmere - Hennef)	4.00	0.00	Y	Arm J2:6 Ahead	50.00	100.0 %	1956	1956
J2:10/1 (Hennef EB)	4.50	0.00	Y	Arm J2:6 Ahead	90.00	100.0 %	2031	2031
J2:10/2 (Hennef EB)	4.50	0.00	N	Arm J2:6 Ahead	90.00	100.0 %	2169	2169
J2:11/1 (Hennef Way WB)	3.50	0.00	Y	Arm J2:16 Ahead	25.00	100.0 %	1854	1854
J2:11/2 (Hennef Way WB)	3.50	0.00	N	Arm J2:16 Ahead	25.00	100.0 %	1986	1986
J2:11/3 (Hennef Way WB)	3.50	0.00	N	Arm J2:16 Ahead	25.00	100.0 %	1986	1986
J2:12/1 (Hennef - Ermont)	4.80	0.00	Y	Arm J2:7 Left	60.00	100.0 %	2044	2044
J2:13/1 (Ermont SB)	5.00	0.00	Y	Arm J2:7 Ahead	50.00	100.0 %	2053	2053
J2:14/1 (E Circ 7)	3.93	0.00	Y	Arm J2:10 Ahead	45.00	100.0 %	1943	1943

Full Input Data And Results

J2:14/2 (E Circ 7)	3.93	0.00	N	Arm J2:10 Ahead	45.00	100.0 %	2079	2079
J2:14/3 (E Circ 7)	3.93	0.00	N	Arm J2:15 Right	45.00	100.0 %	2079	2079
J2:15/1 (E Circ)	4.00	0.00	Y	Arm J2:13 Ahead	45.00	100.0 %	1950	1950
J2:15/2 (E Circ)	4.00	0.00	N	Arm J2:16 Right	45.00	100.0 %	2085	2085
J2:15/3 (E Circ)	4.00	0.00	N	Arm J2:16 Right	45.00	100.0 %	2085	2085
J2:16/1 (E Circ 3)	3.83	0.00	Y	Arm J2:19 Ahead	Inf	100.0 %	1998	1998
J2:16/2 (E Circ 3)	3.83	0.00	N	Arm J2:19 Ahead	Inf	100.0 %	2138	2138
J2:16/3 (E Circ 3)	3.83	0.00	N	Arm J2:17 Right	45.00	100.0 %	2069	2069
J2:17/1 (E Circ 5)	3.93	0.00	Y	Arm J2:5 Ahead	45.00	100.0 %	1943	1943
J2:17/2 (E Circ 5)	3.93	0.00	N	Arm J2:5 Ahead	45.00	41.6 %	2079	2079
				Arm J2:14 Right	45.00	58.4 %		
J2:17/3 (E Circ 5)	3.93	0.00	N	Arm J2:14 Right	45.00	100.0 %	2079	2079
J2:18/1 (Hennef Way EB Xing)	3.33	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1948	1948
J2:18/2 (Hennef Way EB Xing)	3.33	0.00	N	Arm J2:4 Ahead	Inf	100.0 %	2088	2088
J2:18/3 (Hennef Way EB Xing)	3.33	0.00	N	Arm J2:4 Ahead	Inf	100.0 %	2088	2088
J2:19/1 (Hennef Way WB)	4.10	0.00	Y	Arm J2:20 Ahead	Inf	100.0 %	2025	2025
J2:19/2 (Hennef Way WB)	4.10	0.00	N	Arm J2:20 Ahead	200.00	100.0 %	2149	2149
J2:20/1 (Hennef Way Xing WB Lane 1)	This lane uses a directly entered Saturation Flow						3600	3600

Full Input Data And Results

Junction: J3: Hennef Way/ Concord Ave								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J3:1/1 (From Grimsby Green)	5.00	0.00	Y	Arm J3:6 Left	20.00	0.0 %	2115	2115
				Arm J3:10 Ahead	20.00	0.0 %		
J3:2/1 (Hennef Way WB)	3.91	0.00	Y	Arm J3:7 Left	55.00	100.0 %	1953	1953
J3:2/2 (Hennef Way WB)	3.91	0.00	N	Arm J3:11 Ahead	55.00	100.0 %	2089	2089
J3:2/3 (Hennef Way WB)	3.91	0.00	N	Arm J3:11 Ahead	55.00	100.0 %	2089	2089
J3:3/1 (Concord Ave Entry)	3.33	0.00	Y	Arm J3:8 Left	35.00	100.0 %	1868	1868
J3:3/2 (Concord Ave Entry)	3.33	0.00	N	Arm J3:12 Ahead	35.00	100.0 %	2002	2002
J3:3/3 (Concord Ave Entry)	3.33	0.00	N	Arm J3:12 Ahead	35.00	100.0 %	2002	2002
J3:4/1 (Holman Bridge Entry)	4.35	0.00	Y	Arm J3:5 Left	40.00	0.0 %	1976	1976
				Arm J3:9 Ahead	40.00	100.0 %		
J3:4/2 (Holman Bridge Entry)	4.35	0.00	N	Arm J3:9 Ahead	40.00	100.0 %	2111	2111
J3:5/1 (To Grimsby Green Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:6/1 (Hennef Way WB Lane 1)	This lane uses a directly entered Saturation Flow						3600	3600
J3:7/1 (Concord Ave Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/1 (Holman Bridge Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/2 (Holman Bridge Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J3:9/1 (C Circ 7)	3.80	0.00	Y	Arm J3:6 Ahead	40.00	100.0 %	1923	1923
J3:9/2 (C Circ 7)	3.80	0.00	N	Arm J3:6 Ahead	40.00	100.0 %	2058	2058
				Arm J3:10 Right	40.00	0.0 %		
J3:9/3 (C Circ 7)	3.80	0.00	N	Arm J3:10 Right	40.00	100.0 %	2058	2058
J3:10/1 (C Circ1)	3.94	0.00	Y	Arm J3:7 Ahead	40.00	0.0 %	2009	2009
J3:10/2 (C Circ1)	3.94	0.00	N	Arm J3:7 Ahead	Inf	100.0 %	2149	2149
				Arm J3:11 Right	40.00	0.0 %		
J3:11/1 (C Circ 3)	3.56	0.00	Y	Arm J3:8 Ahead	40.00	100.0 %	1900	1900
J3:11/2 (C Circ 3)	3.56	0.00	N	Arm J3:8 Ahead	40.00	100.0 %	2035	2035
				Arm J3:12 Right	40.00	0.0 %		
J3:12/1 (C Circ 5)	4.74	0.00	Y	Arm J3:5 Ahead	40.00	0.0 %	2013	2013
				Arm J3:9 Right	40.00	100.0 %		

Full Input Data And Results

J3:12/2 (C Circ 5)	4.74	0.00	N	Arm J3:9 Right	40.00	100.0 %	2148	2148
J3:13/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J4: Hennef Way_Southam Rd								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J4:1/1 (Hennef Way East Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J4:1/2 (Hennef Way East Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J4:1/3 (Hennef Way East Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
J4:2/1	Infinite Saturation Flow						Inf	Inf
J4:2/2	Infinite Saturation Flow						Inf	Inf
J4:2/3	Infinite Saturation Flow						Inf	Inf
J4:3/1 (Southam Rd Sth Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J4:3/2 (Southam Rd Sth Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J4:3/3 (Southam Rd Sth Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
J4:4/1	Infinite Saturation Flow						Inf	Inf
J4:4/2	Infinite Saturation Flow						Inf	Inf
J4:4/3	Infinite Saturation Flow						Inf	Inf
J4:5/1 (Ruscote Ave Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J4:5/2 (Ruscote Ave Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J4:5/3 (Ruscote Ave Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
J4:6/1	Infinite Saturation Flow						Inf	Inf
J4:6/2	Infinite Saturation Flow						Inf	Inf
J4:7/1 (Southam Rd Nth Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J4:7/2 (Southam Rd Nth Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J4:7/3 (Southam Rd Nth Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
J4:8/1	Infinite Saturation Flow						Inf	Inf
J4:8/2	Infinite Saturation Flow						Inf	Inf
J4:8/3	Infinite Saturation Flow						Inf	Inf
J4:9/1	Infinite Saturation Flow						Inf	Inf
J4:10/1	3.65	0.00	Y	Arm J4:14 Ahead	Inf	100.0 %	1980	1980
J4:10/2	3.65	0.00	Y	Arm J4:14 Ahead	Inf	100.0 %	1980	1980
J4:11/1	Infinite Saturation Flow						Inf	Inf
J4:11/2	Infinite Saturation Flow						Inf	Inf
J4:12/1	2.50	0.00	Y	Arm J4:18 Ahead	Inf	100.0 %	1865	1865
J4:12/2	2.50	0.00	Y	Arm J4:18 Ahead	Inf	100.0 %	1865	1865
J4:13/1	3.65	0.00	Y	Arm J4:1 Ahead	Inf	100.0 %	1980	1980

Full Input Data And Results

J4:13/2	3.65	0.00	Y	Arm J4:1 Ahead	Inf	100.0 %	1980	1980
J4:14/1	Infinite Saturation Flow						Inf	Inf
J4:15/1	4.00	0.00	Y	Arm J4:17 Ahead	Inf	100.0 %	2015	2015
J4:16/1	4.00	0.00	Y	Arm J4:7 Ahead	Inf	100.0 %	2015	2015
J4:17/1	Infinite Saturation Flow						Inf	Inf
J4:18/1	Infinite Saturation Flow						Inf	Inf
J4:18/2	Infinite Saturation Flow						Inf	Inf
J4:19/1	4.00	0.00	Y	Arm J4:5 Ahead	Inf	100.0 %	2015	2015

Scenario 4: '2026 PM With Dev' (FG4: '2026 PM With Dev', Plan 1: 'Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination											
		A	B	C	D	E	F	G	H	I	J	K	Tot.
Origin	A	0	38	289	4	87	141	22	111	127	0	35	854
	B	67	0	72	134	61	99	16	78	89	0	24	640
	C	254	177	0	90	138	222	35	174	200	0	55	1345
	D	6	93	160	0	131	211	33	166	190	0	52	1042
	E	67	29	98	65	0	54	9	43	49	0	61	475
	F	280	122	409	272	22	0	18	88	101	0	48	1360
	G	26	11	38	25	2	15	0	198	535	0	4	854
	H	159	69	232	154	13	93	132	0	70	0	27	949
	I	129	56	189	126	10	76	378	24	0	0	22	1010
	J	0	0	0	0	0	0	0	0	0	0	0	0
	K	75	33	110	73	110	198	31	155	178	0	0	963
	Tot.	1063	628	1597	943	574	1109	674	1037	1539	0	328	9492

Full Input Data And Results

Traffic Lane Flows

Full Input Data And Results

Lane	Scenario 4: 2026 PM With Dev
Junction: J1: M40 J11/Hennef Way	
J1:1/1	260
J1:1/2 (with short)	594(In) 305(Out)
J1:1/3 (short)	289
J1:2/1 (with short)	640(In) 379(Out)
J1:2/2 (short)	261
J1:3/1 (short)	90
J1:3/2 (with short)	690(In) 600(Out)
J1:3/3	655
J1:4/1	351
J1:4/2 (with short)	691(In) 432(Out)
J1:4/3 (short)	259
J1:5/1 (short)	736
J1:5/2 (with short)	1791(In) 1055(Out)
J1:5/3	1056
J1:6/1	736
J1:6/2	327
J1:7/1	628
J1:8/1	1033
J1:8/2	564
J1:9/1	595
J1:9/2	348
J1:10/1	1358
J1:10/2	1139
J1:11/1	1329
J1:11/2	1212
J1:12/1	961
J1:12/2	564
J1:12/3	953
J1:12/4	289
J1:13/1	505
J1:13/2	755
J1:13/3	550
J1:14/1	1007
J1:14/2	1205
J1:15/1	327
J1:15/2	430

Full Input Data And Results

Junction: J2: Hennef Way/ Ermont Way	
J2:1/1	401
J2:1/2	562
J2:2/1	2497
J2:3/1 (with short)	475(In) 156(Out)
J2:3/2 (short)	319
J2:4/1	101
J2:4/2	1168
J2:4/3	1176
J2:5/1	193
J2:5/2	135
J2:6/1	2847
J2:7/1	574
J2:8/1	110
J2:8/2	562
J2:9/1	291
J2:10/1	1258
J2:10/2	1298
J2:11/1	966
J2:11/2	948
J2:11/3	166
J2:12/1	417
J2:13/1	157
J2:14/1	1258
J2:14/2	1298
J2:14/3	47
J2:15/1	157
J2:15/2	252
J2:15/3	310
J2:16/1	1218
J2:16/2	1258
J2:16/3	166
J2:17/1	92
J2:17/2	225
J2:17/3	169
J2:18/1 (short)	101
J2:18/2 (with short)	1269(In) 1168(Out)
J2:18/3	1176
J2:19/1	1284
J2:19/2	1347
J2:20/1	2631
Junction: J3: Hennef Way/ Concord Ave	

Full Input Data And Results

J3:1/1	0
J3:2/1	925
J3:2/2 (short)	813
J3:2/3 (with short)	1706(In) 893(Out)
J3:3/1	207
J3:3/2 (with short)	1153(In) 577(Out)
J3:3/3 (short)	576
J3:4/1	730
J3:4/2	746
J3:5/1	0
J3:6/1	2445
J3:7/1	1109
J3:8/1	916
J3:8/2	997
J3:9/1	1307
J3:9/2	1138
J3:9/3	184
J3:10/1	0
J3:10/2	184
J3:11/1	813
J3:11/2	893
J3:12/1	577
J3:12/2	576
J3:13/1	1913
Junction: J4: Hennef Way_Southam Rd	
J4:1/1 (short)	164
J4:1/2 (with short)	977(In) 813(Out)
J4:1/3	936
J4:2/1	66
J4:2/2	444
J4:2/3	24
J4:3/1 (short)	198
J4:3/2 (with short)	733(In) 535(Out)
J4:3/3	121
J4:4/1	813
J4:4/2	26
J4:4/3	934
J4:5/1 (short)	70
J4:5/2 (with short)	510(In) 440(Out)

Full Input Data And Results

J4:5/3	439
J4:6/1	1469
J4:6/2	121
J4:7/1 (short)	608
J4:7/2 (with short)	608(In) 0(Out)
J4:7/3	402
J4:8/1	492
J4:8/2	376
J4:8/3	132
J4:9/1	1539
J4:10/1	738
J4:10/2	738
J4:11/1	230
J4:11/2	444
J4:12/1	1011
J4:12/2	26
J4:13/1	977
J4:13/2	936
J4:14/1	1476
J4:15/1	1539
J4:16/1	1010
J4:17/1	1539
J4:18/1	1011
J4:18/2	26
J4:19/1	949

Lane Saturation Flows

Full Input Data And Results

Junction: J1: M40 J11/Hennef Way								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (M40N Approach)	3.50	0.00	Y	Arm J1:7 Left	50.00	14.6 %	1908	1908
				Arm J1:12 Ahead	50.00	85.4 %		
J1:1/2 (M40N Approach)	3.50	0.00	N	Arm J1:12 Ahead	50.00	100.0 %	2044	2044
J1:1/3 (M40N Approach)	3.50	0.00	N	Arm J1:12 Ahead	50.00	100.0 %	2044	2044
J1:2/1 (A361 Approach)	4.25	0.00	Y	Arm J1:8 Left	40.00	19.0 %	1966	1966
				Arm J1:13 Ahead	40.00	81.0 %		
J1:2/2 (A361 Approach)	4.25	0.00	N	Arm J1:13 Ahead	40.00	100.0 %	2101	2101
J1:3/1 (A422 East Approach)	4.00	0.00	Y	Arm J1:9 Left	100.00	100.0 %	1985	1985
J1:3/2 (A422 East Approach)	4.00	0.00	Y	Arm J1:14 Ahead	100.00	100.0 %	1985	1985
J1:3/3 (A422 East Approach)	4.00	0.00	N	Arm J1:14 Ahead	100.00	100.0 %	2123	2123
J1:4/1 (M40S Approach)	4.00	0.00	Y	Arm J1:10 Ahead	60.00	100.0 %	1966	1966
J1:4/2 (M40S Approach)	4.00	0.00	N	Arm J1:10 Ahead	60.00	100.0 %	2102	2102
J1:4/3 (M40S Approach)	4.00	0.00	N	Arm J1:15 Ahead	60.00	100.0 %	2102	2102
J1:5/1 (A422 Hennef Way Approach)	3.70	0.00	Y	Arm J1:6 Left	70.00	100.0 %	1943	1943
J1:5/2 (A422 Hennef Way Approach)	4.20	0.00	N	Arm J1:11 Ahead	100.00	100.0 %	2143	2143
J1:5/3 (A422 Hennef Way Approach)	4.20	0.00	N	Arm J1:11 Ahead	100.00	100.0 %	2143	2143
J1:6/1 (M40N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/2 (M40N Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:7/1 (A631 Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:8/1 (A422 East Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:8/2 (A422 East Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:9/1 (M40S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:9/2 (M40S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

J1:10/1 (A422 Hennef Way Exit Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J1:10/2 (A422 Hennef Way Exit Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J1:11/1 (J11 Circ1)	3.60	0.00	Y	Arm J1:7 Ahead	200.00	44.4 %	1960	1960
				Arm J1:12 Right	200.00	55.6 %		
J1:11/2 (J11 Circ1)	3.60	0.00	N	Arm J1:12 Right	200.00	100.0 %	2099	2099
J1:12/1 (J11 Circ3)	3.40	0.00	Y	Arm J1:8 Ahead	125.00	100.0 %	1932	1932
J1:12/2 (J11 Circ3)	3.40	0.00	N	Arm J1:8 Ahead	125.00	100.0 %	2070	2070
J1:12/3 (J11 Circ3)	3.40	0.00	N	Arm J1:13 Right	125.00	100.0 %	2070	2070
J1:12/4 (J11 Circ3)	3.40	0.00	N	Arm J1:13 Right	125.00	100.0 %	2070	2070
J1:13/1 (J11 Circ5)	3.50	0.00	Y	Arm J1:9 Ahead	150.00	100.0 %	1946	1946
J1:13/2 (J11 Circ5)	3.50	0.00	N	Arm J1:9 Ahead	150.00	46.1 %	2084	2084
				Arm J1:14 Right	150.00	53.9 %		
J1:13/3 (J11 Circ5)	3.50	0.00	N	Arm J1:14 Right	150.00	100.0 %	2084	2084
J1:14/1 (J11 Circ7)	3.70	0.00	Y	Arm J1:10 Ahead	125.00	100.0 %	1961	1961
J1:14/2 (J11 Circ7)	3.70	0.00	N	Arm J1:10 Ahead	125.00	58.7 %	2100	2100
				Arm J1:15 Right	125.00	41.3 %		
J1:15/1 (J11 Circ9)	3.35	0.00	Y	Arm J1:6 Ahead	125.00	100.0 %	1927	1927
J1:15/2 (J11 Circ9)	3.35	0.00	N	Arm J1:11 Right	125.00	100.0 %	2065	2065

Full Input Data And Results

Junction: J2: Hennef Way/ Ermont Way								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Wildmere SB Entry)	2.50	0.00	Y	Arm J2:8 Ahead	Inf	27.4 %	1865	1865
				Arm J2:9 Left	Inf	72.6 %		
J2:1/2 (Wildmere SB Entry)	2.50	0.00	N	Arm J2:8 Ahead	Inf	100.0 %	2005	2005
J2:2/1 (Hennef Way WB Lane 1)	This lane uses a directly entered Saturation Flow						3600	3600
J2:3/1 (Ermont Way NB)	3.75	0.00	Y	Arm J2:17 Ahead	100.00	0.6 %	1990	1990
				Arm J2:19 Left	Inf	99.4 %		
J2:3/2 (Ermont Way NB)	3.75	0.00	N	Arm J2:17 Ahead	100.00	100.0 %	2099	2099
J2:4/1 (Hennef Way EB)	4.00	0.00	Y	Arm J2:5 Left	70.00	100.0 %	1973	1973
J2:4/2 (Hennef Way EB)	4.00	0.00	N	Arm J2:14 Ahead	70.00	100.0 %	2110	2110
J2:4/3 (Hennef Way EB)	4.00	0.00	N	Arm J2:14 Ahead	70.00	100.0 %	2110	2110
J2:5/1 (Wildmere Rd NB Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:5/2 (Wildmere Rd NB Lane 2)	Infinite Saturation Flow						Inf	Inf
J2:6/1 (Hennef Way EB Lane 1)	This lane uses a directly entered Saturation Flow						3600	3600
J2:7/1 (Ermont Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:8/1 (Wildmere Rd SB)	4.00	0.00	Y	Arm J2:15 Ahead	40.00	100.0 %	1942	1942
J2:8/2 (Wildmere Rd SB)	4.00	0.00	N	Arm J2:15 Ahead	40.00	100.0 %	2077	2077
J2:9/1 (Wildmere - Hennef)	4.00	0.00	Y	Arm J2:6 Ahead	50.00	100.0 %	1956	1956
J2:10/1 (Hennef EB)	4.50	0.00	Y	Arm J2:6 Ahead	90.00	100.0 %	2031	2031
J2:10/2 (Hennef EB)	4.50	0.00	N	Arm J2:6 Ahead	90.00	100.0 %	2169	2169
J2:11/1 (Hennef Way WB)	3.50	0.00	Y	Arm J2:16 Ahead	25.00	100.0 %	1854	1854
J2:11/2 (Hennef Way WB)	3.50	0.00	N	Arm J2:16 Ahead	25.00	100.0 %	1986	1986
J2:11/3 (Hennef Way WB)	3.50	0.00	N	Arm J2:16 Ahead	25.00	100.0 %	1986	1986
J2:12/1 (Hennef - Ermont)	4.80	0.00	Y	Arm J2:7 Left	60.00	100.0 %	2044	2044
J2:13/1 (Ermont SB)	5.00	0.00	Y	Arm J2:7 Ahead	50.00	100.0 %	2053	2053
J2:14/1 (E Circ 7)	3.93	0.00	Y	Arm J2:10 Ahead	45.00	100.0 %	1943	1943

Full Input Data And Results

J2:14/2 (E Circ 7)	3.93	0.00	N	Arm J2:10 Ahead	45.00	100.0 %	2079	2079
J2:14/3 (E Circ 7)	3.93	0.00	N	Arm J2:15 Right	45.00	100.0 %	2079	2079
J2:15/1 (E Circ)	4.00	0.00	Y	Arm J2:13 Ahead	45.00	100.0 %	1950	1950
J2:15/2 (E Circ)	4.00	0.00	N	Arm J2:16 Right	45.00	100.0 %	2085	2085
J2:15/3 (E Circ)	4.00	0.00	N	Arm J2:16 Right	45.00	100.0 %	2085	2085
J2:16/1 (E Circ 3)	3.83	0.00	Y	Arm J2:19 Ahead	Inf	100.0 %	1998	1998
J2:16/2 (E Circ 3)	3.83	0.00	N	Arm J2:19 Ahead	Inf	100.0 %	2138	2138
J2:16/3 (E Circ 3)	3.83	0.00	N	Arm J2:17 Right	45.00	100.0 %	2069	2069
J2:17/1 (E Circ 5)	3.93	0.00	Y	Arm J2:5 Ahead	45.00	100.0 %	1943	1943
J2:17/2 (E Circ 5)	3.93	0.00	N	Arm J2:5 Ahead	45.00	60.0 %	2079	2079
				Arm J2:14 Right	45.00	40.0 %		
J2:17/3 (E Circ 5)	3.93	0.00	N	Arm J2:14 Right	45.00	100.0 %	2079	2079
J2:18/1 (Hennef Way EB Xing)	3.33	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1948	1948
J2:18/2 (Hennef Way EB Xing)	3.33	0.00	N	Arm J2:4 Ahead	Inf	100.0 %	2088	2088
J2:18/3 (Hennef Way EB Xing)	3.33	0.00	N	Arm J2:4 Ahead	Inf	100.0 %	2088	2088
J2:19/1 (Hennef Way WB)	4.10	0.00	Y	Arm J2:20 Ahead	Inf	100.0 %	2025	2025
J2:19/2 (Hennef Way WB)	4.10	0.00	N	Arm J2:20 Ahead	200.00	100.0 %	2149	2149
J2:20/1 (Hennef Way Xing WB Lane 1)	This lane uses a directly entered Saturation Flow						3600	3600

Full Input Data And Results

Junction: J3: Hennef Way/ Concord Ave								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J3:1/1 (From Grimsby Green)	5.00	0.00	Y	Arm J3:6 Left	20.00	0.0 %	2115	2115
				Arm J3:10 Ahead	20.00	0.0 %		
J3:2/1 (Hennef Way WB)	3.91	0.00	Y	Arm J3:7 Left	55.00	100.0 %	1953	1953
J3:2/2 (Hennef Way WB)	3.91	0.00	N	Arm J3:11 Ahead	55.00	100.0 %	2089	2089
J3:2/3 (Hennef Way WB)	3.91	0.00	N	Arm J3:11 Ahead	55.00	100.0 %	2089	2089
J3:3/1 (Concord Ave Entry)	3.33	0.00	Y	Arm J3:8 Left	35.00	100.0 %	1868	1868
J3:3/2 (Concord Ave Entry)	3.33	0.00	N	Arm J3:12 Ahead	35.00	100.0 %	2002	2002
J3:3/3 (Concord Ave Entry)	3.33	0.00	N	Arm J3:12 Ahead	35.00	100.0 %	2002	2002
J3:4/1 (Holman Bridge Entry)	4.35	0.00	Y	Arm J3:5 Left	40.00	0.0 %	1976	1976
				Arm J3:9 Ahead	40.00	100.0 %		
J3:4/2 (Holman Bridge Entry)	4.35	0.00	N	Arm J3:9 Ahead	40.00	100.0 %	2111	2111
J3:5/1 (To Grimsby Green Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:6/1 (Hennef Way WB Lane 1)	This lane uses a directly entered Saturation Flow						3600	3600
J3:7/1 (Concord Ave Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/1 (Holman Bridge Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/2 (Holman Bridge Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J3:9/1 (C Circ 7)	3.80	0.00	Y	Arm J3:6 Ahead	40.00	100.0 %	1923	1923
J3:9/2 (C Circ 7)	3.80	0.00	N	Arm J3:6 Ahead	40.00	100.0 %	2058	2058
				Arm J3:10 Right	40.00	0.0 %		
J3:9/3 (C Circ 7)	3.80	0.00	N	Arm J3:10 Right	40.00	100.0 %	2058	2058
J3:10/1 (C Circ1)	3.94	0.00	Y	Arm J3:7 Ahead	40.00	0.0 %	2009	2009
J3:10/2 (C Circ1)	3.94	0.00	N	Arm J3:7 Ahead	Inf	100.0 %	2149	2149
				Arm J3:11 Right	40.00	0.0 %		
J3:11/1 (C Circ 3)	3.56	0.00	Y	Arm J3:8 Ahead	40.00	100.0 %	1900	1900
J3:11/2 (C Circ 3)	3.56	0.00	N	Arm J3:8 Ahead	40.00	100.0 %	2035	2035
				Arm J3:12 Right	40.00	0.0 %		
J3:12/1 (C Circ 5)	4.74	0.00	Y	Arm J3:5 Ahead	40.00	0.0 %	2013	2013
				Arm J3:9 Right	40.00	100.0 %		

Full Input Data And Results

J3:12/2 (C Circ 5)	4.74	0.00	N	Arm J3:9 Right	40.00	100.0 %	2148	2148
J3:13/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J4: Hennef Way_Southam Rd								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J4:1/1 (Hennef Way East Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J4:1/2 (Hennef Way East Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J4:1/3 (Hennef Way East Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
J4:2/1	Infinite Saturation Flow						Inf	Inf
J4:2/2	Infinite Saturation Flow						Inf	Inf
J4:2/3	Infinite Saturation Flow						Inf	Inf
J4:3/1 (Southam Rd Sth Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J4:3/2 (Southam Rd Sth Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J4:3/3 (Southam Rd Sth Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
J4:4/1	Infinite Saturation Flow						Inf	Inf
J4:4/2	Infinite Saturation Flow						Inf	Inf
J4:4/3	Infinite Saturation Flow						Inf	Inf
J4:5/1 (Ruscote Ave Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J4:5/2 (Ruscote Ave Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J4:5/3 (Ruscote Ave Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
J4:6/1	Infinite Saturation Flow						Inf	Inf
J4:6/2	Infinite Saturation Flow						Inf	Inf
J4:7/1 (Southam Rd Nth Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J4:7/2 (Southam Rd Nth Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J4:7/3 (Southam Rd Nth Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
J4:8/1	Infinite Saturation Flow						Inf	Inf
J4:8/2	Infinite Saturation Flow						Inf	Inf
J4:8/3	Infinite Saturation Flow						Inf	Inf
J4:9/1	Infinite Saturation Flow						Inf	Inf
J4:10/1	3.65	0.00	Y	Arm J4:14 Ahead	Inf	100.0 %	1980	1980
J4:10/2	3.65	0.00	Y	Arm J4:14 Ahead	Inf	100.0 %	1980	1980
J4:11/1	Infinite Saturation Flow						Inf	Inf
J4:11/2	Infinite Saturation Flow						Inf	Inf
J4:12/1	2.50	0.00	Y	Arm J4:18 Ahead	Inf	100.0 %	1865	1865
J4:12/2	2.50	0.00	Y	Arm J4:18 Ahead	Inf	100.0 %	1865	1865
J4:13/1	3.65	0.00	Y	Arm J4:1 Ahead	Inf	100.0 %	1980	1980

Full Input Data And Results

J4:13/2	3.65	0.00	Y	Arm J4:1 Ahead	Inf	100.0 %	1980	1980
J4:14/1	Infinite Saturation Flow						Inf	Inf
J4:15/1	4.00	0.00	Y	Arm J4:17 Ahead	Inf	100.0 %	2015	2015
J4:16/1	4.00	0.00	Y	Arm J4:7 Ahead	Inf	100.0 %	2015	2015
J4:17/1	Infinite Saturation Flow						Inf	Inf
J4:18/1	Infinite Saturation Flow						Inf	Inf
J4:18/2	Infinite Saturation Flow						Inf	Inf
J4:19/1	4.00	0.00	Y	Arm J4:5 Ahead	Inf	100.0 %	2015	2015

Scenario 5: '2031 AM No Dev' (FG5: '2031 AM No Dev', Plan 1: 'Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination											
		A	B	C	D	E	F	G	H	I	J	K	Tot.
Origin	A	0	27	337	6	78	156	18	100	174	0	39	935
	B	63	0	25	114	34	68	8	44	76	0	17	449
	C	353	275	0	92	141	283	33	182	317	0	71	1747
	D	10	100	180	0	116	232	27	149	259	0	58	1131
	E	65	40	131	112	0	0	0	0	0	0	36	384
	F	195	120	390	334	1	0	15	83	144	0	42	1324
	G	13	8	25	22	0	2	0	377	520	0	3	970
	H	152	94	305	262	1	28	91	0	0	0	33	966
	I	102	63	204	175	1	19	255	5	0	0	22	846
	J	0	0	0	0	0	0	0	0	0	0	0	0
	K	39	24	78	67	22	52	6	34	58	0	0	380
	Tot.	992	751	1675	1184	394	840	453	974	1548	0	321	9132

Full Input Data And Results

Traffic Lane Flows

Full Input Data And Results

Lane	Scenario 5: 2031 AM No Dev
Junction: J1: M40 J11/Hennef Way	
J1:1/1	271
J1:1/2 (with short)	664(In) 354(Out)
J1:1/3 (short)	310
J1:2/1 (with short)	449(In) 278(Out)
J1:2/2 (short)	171
J1:3/1 (short)	92
J1:3/2 (with short)	893(In) 801(Out)
J1:3/3	854
J1:4/1	398
J1:4/2 (with short)	733(In) 443(Out)
J1:4/3 (short)	290
J1:5/1 (short)	566
J1:5/2 (with short)	1784(In) 1218(Out)
J1:5/3	1236
J1:6/1	566
J1:6/2	426
J1:7/1	751
J1:8/1	1154
J1:8/2	521
J1:9/1	827
J1:9/2	357
J1:10/1	1593
J1:10/2	1087
J1:11/1	1609
J1:11/2	1400
J1:12/1	1129
J1:12/2	521
J1:12/3	1233
J1:12/4	310
J1:13/1	735
J1:13/2	751
J1:13/3	481
J1:14/1	1195
J1:14/2	1335
J1:15/1	426
J1:15/2	555

Full Input Data And Results

Junction: J2: Hennef Way/ Ermont Way	
J2:1/1	230
J2:1/2	150
J2:2/1	2680
J2:3/1 (with short)	384(In) 1(Out)
J2:3/2 (short)	383
J2:4/1	100
J2:4/2	1231
J2:4/3	1236
J2:5/1	203
J2:5/2	118
J2:6/1	3020
J2:7/1	394
J2:8/1	22
J2:8/2	150
J2:9/1	208
J2:10/1	1351
J2:10/2	1461
J2:11/1	1067
J2:11/2	1059
J2:11/3	185
J2:12/1	369
J2:13/1	25
J2:14/1	1351
J2:14/2	1461
J2:14/3	3
J2:15/1	25
J2:15/2	50
J2:15/3	100
J2:16/1	1117
J2:16/2	1159
J2:16/3	185
J2:17/1	103
J2:17/2	238
J2:17/3	228
J2:18/1 (short)	100
J2:18/2 (with short)	1331(In) 1231(Out)
J2:18/3	1236
J2:19/1	1117
J2:19/2	1159
J2:20/1	2276
Junction: J3: Hennef Way/ Concord Ave	

Full Input Data And Results

J3:1/1	0
J3:2/1	791
J3:2/2 (short)	620
J3:2/3 (with short)	1485(In) 865(Out)
J3:3/1	242
J3:3/2 (with short)	1082(In) 530(Out)
J3:3/3 (short)	552
J3:4/1	761
J3:4/2	773
J3:5/1	0
J3:6/1	2567
J3:7/1	840
J3:8/1	741
J3:8/2	986
J3:9/1	1291
J3:9/2	1276
J3:9/3	49
J3:10/1	0
J3:10/2	49
J3:11/1	620
J3:11/2	865
J3:12/1	530
J3:12/2	552
J3:13/1	1727
Junction: J4: Hennef Way_Southam Rd	
J4:1/1 (short)	107
J4:1/2 (with short)	698(In) 591(Out)
J4:1/3	1029
J4:2/1	45
J4:2/2	301
J4:2/3	5
J4:3/1 (short)	377
J4:3/2 (with short)	897(In) 520(Out)
J4:3/3	73
J4:4/1	591
J4:4/2	6
J4:4/3	1028
J4:5/1 (short)	0
J4:5/2 (with short)	483(In) 483(Out)

Full Input Data And Results

J4:5/3	483
J4:6/1	1548
J4:6/2	73
J4:7/1 (short)	586
J4:7/2 (with short)	586(In) 0(Out)
J4:7/3	260
J4:8/1	515
J4:8/2	433
J4:8/3	91
J4:9/1	1548
J4:10/1	776
J4:10/2	758
J4:11/1	152
J4:11/2	301
J4:12/1	968
J4:12/2	6
J4:13/1	698
J4:13/2	1029
J4:14/1	1534
J4:15/1	1548
J4:16/1	846
J4:17/1	1548
J4:18/1	968
J4:18/2	6
J4:19/1	966

Lane Saturation Flows

Full Input Data And Results

Junction: J1: M40 J11/Hennef Way								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (M40N Approach)	3.50	0.00	Y	Arm J1:7 Left	50.00	10.0 %	1908	1908
				Arm J1:12 Ahead	50.00	90.0 %		
J1:1/2 (M40N Approach)	3.50	0.00	N	Arm J1:12 Ahead	50.00	100.0 %	2044	2044
J1:1/3 (M40N Approach)	3.50	0.00	N	Arm J1:12 Ahead	50.00	100.0 %	2044	2044
J1:2/1 (A361 Approach)	4.25	0.00	Y	Arm J1:8 Left	40.00	9.0 %	1966	1966
				Arm J1:13 Ahead	40.00	91.0 %		
J1:2/2 (A361 Approach)	4.25	0.00	N	Arm J1:13 Ahead	40.00	100.0 %	2101	2101
J1:3/1 (A422 East Approach)	4.00	0.00	Y	Arm J1:9 Left	100.00	100.0 %	1985	1985
J1:3/2 (A422 East Approach)	4.00	0.00	Y	Arm J1:14 Ahead	100.00	100.0 %	1985	1985
J1:3/3 (A422 East Approach)	4.00	0.00	N	Arm J1:14 Ahead	100.00	100.0 %	2123	2123
J1:4/1 (M40S Approach)	4.00	0.00	Y	Arm J1:10 Ahead	60.00	100.0 %	1966	1966
J1:4/2 (M40S Approach)	4.00	0.00	N	Arm J1:10 Ahead	60.00	100.0 %	2102	2102
J1:4/3 (M40S Approach)	4.00	0.00	N	Arm J1:15 Ahead	60.00	100.0 %	2102	2102
J1:5/1 (A422 Hennef Way Approach)	3.70	0.00	Y	Arm J1:6 Left	70.00	100.0 %	1943	1943
J1:5/2 (A422 Hennef Way Approach)	4.20	0.00	N	Arm J1:11 Ahead	100.00	100.0 %	2143	2143
J1:5/3 (A422 Hennef Way Approach)	4.20	0.00	N	Arm J1:11 Ahead	100.00	100.0 %	2143	2143
J1:6/1 (M40N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/2 (M40N Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:7/1 (A631 Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:8/1 (A422 East Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:8/2 (A422 East Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:9/1 (M40S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:9/2 (M40S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

J1:10/1 (A422 Hennef Way Exit Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J1:10/2 (A422 Hennef Way Exit Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J1:11/1 (J11 Circ1)	3.60	0.00	Y	Arm J1:7 Ahead	200.00	45.0 %	1960	1960
				Arm J1:12 Right	200.00	55.0 %		
J1:11/2 (J11 Circ1)	3.60	0.00	N	Arm J1:12 Right	200.00	100.0 %	2099	2099
J1:12/1 (J11 Circ3)	3.40	0.00	Y	Arm J1:8 Ahead	125.00	100.0 %	1932	1932
J1:12/2 (J11 Circ3)	3.40	0.00	N	Arm J1:8 Ahead	125.00	100.0 %	2070	2070
J1:12/3 (J11 Circ3)	3.40	0.00	N	Arm J1:13 Right	125.00	100.0 %	2070	2070
J1:12/4 (J11 Circ3)	3.40	0.00	N	Arm J1:13 Right	125.00	100.0 %	2070	2070
J1:13/1 (J11 Circ5)	3.50	0.00	Y	Arm J1:9 Ahead	150.00	100.0 %	1946	1946
J1:13/2 (J11 Circ5)	3.50	0.00	N	Arm J1:9 Ahead	150.00	47.5 %	2084	2084
				Arm J1:14 Right	150.00	52.5 %		
J1:13/3 (J11 Circ5)	3.50	0.00	N	Arm J1:14 Right	150.00	100.0 %	2084	2084
J1:14/1 (J11 Circ7)	3.70	0.00	Y	Arm J1:10 Ahead	125.00	100.0 %	1961	1961
J1:14/2 (J11 Circ7)	3.70	0.00	N	Arm J1:10 Ahead	125.00	48.2 %	2100	2100
				Arm J1:15 Right	125.00	51.8 %		
J1:15/1 (J11 Circ9)	3.35	0.00	Y	Arm J1:6 Ahead	125.00	100.0 %	1927	1927
J1:15/2 (J11 Circ9)	3.35	0.00	N	Arm J1:11 Right	125.00	100.0 %	2065	2065

Full Input Data And Results

Junction: J2: Hennef Way/ Ermont Way								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Wildmere SB Entry)	2.50	0.00	Y	Arm J2:8 Ahead	Inf	9.6 %	1865	1865
				Arm J2:9 Left	Inf	90.4 %		
J2:1/2 (Wildmere SB Entry)	2.50	0.00	N	Arm J2:8 Ahead	Inf	100.0 %	2005	2005
J2:2/1 (Hennef Way WB Lane 1)	This lane uses a directly entered Saturation Flow						3600	3600
J2:3/1 (Ermont Way NB)	3.75	0.00	Y	Arm J2:17 Ahead	100.00	100.0 %	1961	1961
				Arm J2:19 Left	Inf	0.0 %		
J2:3/2 (Ermont Way NB)	3.75	0.00	N	Arm J2:17 Ahead	100.00	100.0 %	2099	2099
J2:4/1 (Hennef Way EB)	4.00	0.00	Y	Arm J2:5 Left	70.00	100.0 %	1973	1973
J2:4/2 (Hennef Way EB)	4.00	0.00	N	Arm J2:14 Ahead	70.00	100.0 %	2110	2110
J2:4/3 (Hennef Way EB)	4.00	0.00	N	Arm J2:14 Ahead	70.00	100.0 %	2110	2110
J2:5/1 (Wildmere Rd NB Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:5/2 (Wildmere Rd NB Lane 2)	Infinite Saturation Flow						Inf	Inf
J2:6/1 (Hennef Way EB Lane 1)	This lane uses a directly entered Saturation Flow						3600	3600
J2:7/1 (Ermont Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:8/1 (Wildmere Rd SB)	4.00	0.00	Y	Arm J2:15 Ahead	40.00	100.0 %	1942	1942
J2:8/2 (Wildmere Rd SB)	4.00	0.00	N	Arm J2:15 Ahead	40.00	100.0 %	2077	2077
J2:9/1 (Wildmere - Hennef)	4.00	0.00	Y	Arm J2:6 Ahead	50.00	100.0 %	1956	1956
J2:10/1 (Hennef EB)	4.50	0.00	Y	Arm J2:6 Ahead	90.00	100.0 %	2031	2031
J2:10/2 (Hennef EB)	4.50	0.00	N	Arm J2:6 Ahead	90.00	100.0 %	2169	2169
J2:11/1 (Hennef Way WB)	3.50	0.00	Y	Arm J2:16 Ahead	25.00	100.0 %	1854	1854
J2:11/2 (Hennef Way WB)	3.50	0.00	N	Arm J2:16 Ahead	25.00	100.0 %	1986	1986
J2:11/3 (Hennef Way WB)	3.50	0.00	N	Arm J2:16 Ahead	25.00	100.0 %	1986	1986
J2:12/1 (Hennef - Ermont)	4.80	0.00	Y	Arm J2:7 Left	60.00	100.0 %	2044	2044
J2:13/1 (Ermont SB)	5.00	0.00	Y	Arm J2:7 Ahead	50.00	100.0 %	2053	2053
J2:14/1 (E Circ 7)	3.93	0.00	Y	Arm J2:10 Ahead	45.00	100.0 %	1943	1943

Full Input Data And Results

J2:14/2 (E Circ 7)	3.93	0.00	N	Arm J2:10 Ahead	45.00	100.0 %	2079	2079
J2:14/3 (E Circ 7)	3.93	0.00	N	Arm J2:15 Right	45.00	100.0 %	2079	2079
J2:15/1 (E Circ)	4.00	0.00	Y	Arm J2:13 Ahead	45.00	100.0 %	1950	1950
J2:15/2 (E Circ)	4.00	0.00	N	Arm J2:16 Right	45.00	100.0 %	2085	2085
J2:15/3 (E Circ)	4.00	0.00	N	Arm J2:16 Right	45.00	100.0 %	2085	2085
J2:16/1 (E Circ 3)	3.83	0.00	Y	Arm J2:19 Ahead	Inf	100.0 %	1998	1998
J2:16/2 (E Circ 3)	3.83	0.00	N	Arm J2:19 Ahead	Inf	100.0 %	2138	2138
J2:16/3 (E Circ 3)	3.83	0.00	N	Arm J2:17 Right	45.00	100.0 %	2069	2069
J2:17/1 (E Circ 5)	3.93	0.00	Y	Arm J2:5 Ahead	45.00	100.0 %	1943	1943
J2:17/2 (E Circ 5)	3.93	0.00	N	Arm J2:5 Ahead	45.00	49.6 %	2079	2079
				Arm J2:14 Right	45.00	50.4 %		
J2:17/3 (E Circ 5)	3.93	0.00	N	Arm J2:14 Right	45.00	100.0 %	2079	2079
J2:18/1 (Hennef Way EB Xing)	3.33	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1948	1948
J2:18/2 (Hennef Way EB Xing)	3.33	0.00	N	Arm J2:4 Ahead	Inf	100.0 %	2088	2088
J2:18/3 (Hennef Way EB Xing)	3.33	0.00	N	Arm J2:4 Ahead	Inf	100.0 %	2088	2088
J2:19/1 (Hennef Way WB)	4.10	0.00	Y	Arm J2:20 Ahead	Inf	100.0 %	2025	2025
J2:19/2 (Hennef Way WB)	4.10	0.00	N	Arm J2:20 Ahead	200.00	100.0 %	2149	2149
J2:20/1 (Hennef Way Xing WB Lane 1)	This lane uses a directly entered Saturation Flow						3600	3600

Full Input Data And Results

Junction: J3: Hennef Way/ Concord Ave								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J3:1/1 (From Grimsby Green)	5.00	0.00	Y	Arm J3:6 Left	20.00	0.0 %	2115	2115
				Arm J3:10 Ahead	20.00	0.0 %		
J3:2/1 (Hennef Way WB)	3.91	0.00	Y	Arm J3:7 Left	55.00	100.0 %	1953	1953
J3:2/2 (Hennef Way WB)	3.91	0.00	N	Arm J3:11 Ahead	55.00	100.0 %	2089	2089
J3:2/3 (Hennef Way WB)	3.91	0.00	N	Arm J3:11 Ahead	55.00	100.0 %	2089	2089
J3:3/1 (Concord Ave Entry)	3.33	0.00	Y	Arm J3:8 Left	35.00	100.0 %	1868	1868
J3:3/2 (Concord Ave Entry)	3.33	0.00	N	Arm J3:12 Ahead	35.00	100.0 %	2002	2002
J3:3/3 (Concord Ave Entry)	3.33	0.00	N	Arm J3:12 Ahead	35.00	100.0 %	2002	2002
J3:4/1 (Holman Bridge Entry)	4.35	0.00	Y	Arm J3:5 Left	40.00	0.0 %	1976	1976
				Arm J3:9 Ahead	40.00	100.0 %		
J3:4/2 (Holman Bridge Entry)	4.35	0.00	N	Arm J3:9 Ahead	40.00	100.0 %	2111	2111
J3:5/1 (To Grimsby Green Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:6/1 (Hennef Way WB Lane 1)	This lane uses a directly entered Saturation Flow						3600	3600
J3:7/1 (Concord Ave Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/1 (Holman Bridge Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/2 (Holman Bridge Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J3:9/1 (C Circ 7)	3.80	0.00	Y	Arm J3:6 Ahead	40.00	100.0 %	1923	1923
J3:9/2 (C Circ 7)	3.80	0.00	N	Arm J3:6 Ahead	40.00	100.0 %	2058	2058
				Arm J3:10 Right	40.00	0.0 %		
J3:9/3 (C Circ 7)	3.80	0.00	N	Arm J3:10 Right	40.00	100.0 %	2058	2058
J3:10/1 (C Circ1)	3.94	0.00	Y	Arm J3:7 Ahead	40.00	0.0 %	2009	2009
J3:10/2 (C Circ1)	3.94	0.00	N	Arm J3:7 Ahead	Inf	100.0 %	2149	2149
				Arm J3:11 Right	40.00	0.0 %		
J3:11/1 (C Circ 3)	3.56	0.00	Y	Arm J3:8 Ahead	40.00	100.0 %	1900	1900
J3:11/2 (C Circ 3)	3.56	0.00	N	Arm J3:8 Ahead	40.00	100.0 %	2035	2035
				Arm J3:12 Right	40.00	0.0 %		
J3:12/1 (C Circ 5)	4.74	0.00	Y	Arm J3:5 Ahead	40.00	0.0 %	2013	2013
				Arm J3:9 Right	40.00	100.0 %		

Full Input Data And Results

J3:12/2 (C Circ 5)	4.74	0.00	N	Arm J3:9 Right	40.00	100.0 %	2148	2148
J3:13/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J4: Hennef Way_Southam Rd								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J4:1/1 (Hennef Way East Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J4:1/2 (Hennef Way East Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J4:1/3 (Hennef Way East Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
J4:2/1	Infinite Saturation Flow						Inf	Inf
J4:2/2	Infinite Saturation Flow						Inf	Inf
J4:2/3	Infinite Saturation Flow						Inf	Inf
J4:3/1 (Southam Rd Sth Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J4:3/2 (Southam Rd Sth Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J4:3/3 (Southam Rd Sth Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
J4:4/1	Infinite Saturation Flow						Inf	Inf
J4:4/2	Infinite Saturation Flow						Inf	Inf
J4:4/3	Infinite Saturation Flow						Inf	Inf
J4:5/1 (Ruscote Ave Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J4:5/2 (Ruscote Ave Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J4:5/3 (Ruscote Ave Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
J4:6/1	Infinite Saturation Flow						Inf	Inf
J4:6/2	Infinite Saturation Flow						Inf	Inf
J4:7/1 (Southam Rd Nth Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J4:7/2 (Southam Rd Nth Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J4:7/3 (Southam Rd Nth Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
J4:8/1	Infinite Saturation Flow						Inf	Inf
J4:8/2	Infinite Saturation Flow						Inf	Inf
J4:8/3	Infinite Saturation Flow						Inf	Inf
J4:9/1	Infinite Saturation Flow						Inf	Inf
J4:10/1	3.65	0.00	Y	Arm J4:14 Ahead	Inf	100.0 %	1980	1980
J4:10/2	3.65	0.00	Y	Arm J4:14 Ahead	Inf	100.0 %	1980	1980
J4:11/1	Infinite Saturation Flow						Inf	Inf
J4:11/2	Infinite Saturation Flow						Inf	Inf
J4:12/1	2.50	0.00	Y	Arm J4:18 Ahead	Inf	100.0 %	1865	1865
J4:12/2	2.50	0.00	Y	Arm J4:18 Ahead	Inf	100.0 %	1865	1865
J4:13/1	3.65	0.00	Y	Arm J4:1 Ahead	Inf	100.0 %	1980	1980

J4:13/2	3.65	0.00	Y	Arm J4:1 Ahead	Inf	100.0 %	1980	1980
J4:14/1	Infinite Saturation Flow						Inf	Inf
J4:15/1	4.00	0.00	Y	Arm J4:17 Ahead	Inf	100.0 %	2015	2015
J4:16/1	4.00	0.00	Y	Arm J4:7 Ahead	Inf	100.0 %	2015	2015
J4:17/1	Infinite Saturation Flow						Inf	Inf
J4:18/1	Infinite Saturation Flow						Inf	Inf
J4:18/2	Infinite Saturation Flow						Inf	Inf
J4:19/1	4.00	0.00	Y	Arm J4:5 Ahead	Inf	100.0 %	2015	2015

Scenario 6: '2031 PM No Dev' (FG6: '2031 PM No Dev', Plan 1: 'Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination											
		A	B	C	D	E	F	G	H	I	J	K	Tot.
Origin	A	0	38	301	4	91	145	23	116	132	0	36	886
	B	67	0	48	128	57	90	15	72	82	0	23	582
	C	264	177	0	94	144	229	37	183	209	0	58	1395
	D	6	63	167	0	137	217	35	174	198	0	55	1052
	E	70	30	103	68	0	56	9	45	51	0	63	495
	F	291	122	425	283	23	0	19	92	105	0	50	1410
	G	27	11	40	26	2	16	0	206	557	0	5	890
	H	166	70	242	161	13	97	137	0	73	0	29	988
	I	134	57	196	131	11	79	393	25	0	0	23	1049
	J	0	0	0	0	0	0	0	0	0	0	0	0
	K	79	33	115	77	114	204	33	163	186	0	0	1004
	Tot.	1104	601	1637	972	592	1133	701	1076	1593	0	342	9751

Full Input Data And Results

Traffic Lane Flows

Full Input Data And Results

Lane	Scenario 6: 2031 PM No Dev
Junction: J1: M40 J11/Hennef Way	
J1:1/1	236
J1:1/2 (with short)	650(In) 385(Out)
J1:1/3 (short)	265
J1:2/1 (with short)	582(In) 302(Out)
J1:2/2 (short)	280
J1:3/1 (short)	94
J1:3/2 (with short)	713(In) 619(Out)
J1:3/3	682
J1:4/1	366
J1:4/2 (with short)	686(In) 450(Out)
J1:4/3 (short)	236
J1:5/1 (short)	767
J1:5/2 (with short)	1853(In) 1086(Out)
J1:5/3	1104
J1:6/1	767
J1:6/2	337
J1:7/1	601
J1:8/1	1011
J1:8/2	626
J1:9/1	692
J1:9/2	280
J1:10/1	1389
J1:10/2	1169
J1:11/1	1328
J1:11/2	1269
J1:12/1	963
J1:12/2	626
J1:12/3	1028
J1:12/4	265
J1:13/1	598
J1:13/2	684
J1:13/3	545
J1:14/1	1023
J1:14/2	1227
J1:15/1	337
J1:15/2	407

Full Input Data And Results

Junction: J2: Hennef Way/ Ermont Way	
J2:1/1	418
J2:1/2	586
J2:2/1	2558
J2:3/1 (with short)	495(In) 162(Out)
J2:3/2 (short)	333
J2:4/1	107
J2:4/2	1213
J2:4/3	1218
J2:5/1	205
J2:5/2	137
J2:6/1	2957
J2:7/1	592
J2:8/1	114
J2:8/2	586
J2:9/1	304
J2:10/1	1312
J2:10/2	1341
J2:11/1	989
J2:11/2	968
J2:11/3	172
J2:12/1	429
J2:13/1	163
J2:14/1	1312
J2:14/2	1341
J2:14/3	49
J2:15/1	163
J2:15/2	262
J2:15/3	324
J2:16/1	1251
J2:16/2	1292
J2:16/3	172
J2:17/1	98
J2:17/2	236
J2:17/3	172
J2:18/1 (short)	107
J2:18/2 (with short)	1320(In) 1213(Out)
J2:18/3	1218
J2:19/1	1322
J2:19/2	1382
J2:20/1	2704
Junction: J3: Hennef Way/ Concord Ave	

Full Input Data And Results

J3:1/1	0
J3:2/1	941
J3:2/2 (short)	809
J3:2/3 (with short)	1763(In) 954(Out)
J3:3/1	216
J3:3/2 (with short)	1194(In) 597(Out)
J3:3/3 (short)	597
J3:4/1	751
J3:4/2	785
J3:5/1	0
J3:6/1	2538
J3:7/1	1133
J3:8/1	918
J3:8/2	1061
J3:9/1	1348
J3:9/2	1190
J3:9/3	192
J3:10/1	0
J3:10/2	192
J3:11/1	809
J3:11/2	954
J3:12/1	597
J3:12/2	597
J3:13/1	1979
Junction: J4: Hennef Way_Southam Rd	
J4:1/1 (short)	171
J4:1/2 (with short)	1010(In) 839(Out)
J4:1/3	969
J4:2/1	68
J4:2/2	462
J4:2/3	25
J4:3/1 (short)	206
J4:3/2 (with short)	763(In) 557(Out)
J4:3/3	127
J4:4/1	839
J4:4/2	31
J4:4/3	963
J4:5/1 (short)	73
J4:5/2 (with short)	532(In) 459(Out)

Full Input Data And Results

J4:5/3	456
J4:6/1	1520
J4:6/2	127
J4:7/1 (short)	631
J4:7/2 (with short)	631(In) 0(Out)
J4:7/3	418
J4:8/1	509
J4:8/2	396
J4:8/3	137
J4:9/1	1593
J4:10/1	773
J4:10/2	763
J4:11/1	239
J4:11/2	462
J4:12/1	1045
J4:12/2	31
J4:13/1	1010
J4:13/2	969
J4:14/1	1536
J4:15/1	1593
J4:16/1	1049
J4:17/1	1593
J4:18/1	1045
J4:18/2	31
J4:19/1	988

Lane Saturation Flows

Full Input Data And Results

Junction: J1: M40 J11/Hennef Way								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (M40N Approach)	3.50	0.00	Y	Arm J1:7 Left	50.00	16.1 %	1908	1908
				Arm J1:12 Ahead	50.00	83.9 %		
J1:1/2 (M40N Approach)	3.50	0.00	N	Arm J1:12 Ahead	50.00	100.0 %	2044	2044
J1:1/3 (M40N Approach)	3.50	0.00	N	Arm J1:12 Ahead	50.00	100.0 %	2044	2044
J1:2/1 (A361 Approach)	4.25	0.00	Y	Arm J1:8 Left	40.00	15.9 %	1966	1966
				Arm J1:13 Ahead	40.00	84.1 %		
J1:2/2 (A361 Approach)	4.25	0.00	N	Arm J1:13 Ahead	40.00	100.0 %	2101	2101
J1:3/1 (A422 East Approach)	4.00	0.00	Y	Arm J1:9 Left	100.00	100.0 %	1985	1985
J1:3/2 (A422 East Approach)	4.00	0.00	Y	Arm J1:14 Ahead	100.00	100.0 %	1985	1985
J1:3/3 (A422 East Approach)	4.00	0.00	N	Arm J1:14 Ahead	100.00	100.0 %	2123	2123
J1:4/1 (M40S Approach)	4.00	0.00	Y	Arm J1:10 Ahead	60.00	100.0 %	1966	1966
J1:4/2 (M40S Approach)	4.00	0.00	N	Arm J1:10 Ahead	60.00	100.0 %	2102	2102
J1:4/3 (M40S Approach)	4.00	0.00	N	Arm J1:15 Ahead	60.00	100.0 %	2102	2102
J1:5/1 (A422 Hennef Way Approach)	3.70	0.00	Y	Arm J1:6 Left	70.00	100.0 %	1943	1943
J1:5/2 (A422 Hennef Way Approach)	4.20	0.00	N	Arm J1:11 Ahead	100.00	100.0 %	2143	2143
J1:5/3 (A422 Hennef Way Approach)	4.20	0.00	N	Arm J1:11 Ahead	100.00	100.0 %	2143	2143
J1:6/1 (M40N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/2 (M40N Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:7/1 (A631 Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:8/1 (A422 East Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:8/2 (A422 East Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:9/1 (M40S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:9/2 (M40S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

J1:10/1 (A422 Hennef Way Exit Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J1:10/2 (A422 Hennef Way Exit Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J1:11/1 (J11 Circ1)	3.60	0.00	Y	Arm J1:7 Ahead	200.00	42.4 %	1960	1960
				Arm J1:12 Right	200.00	57.6 %		
J1:11/2 (J11 Circ1)	3.60	0.00	N	Arm J1:12 Right	200.00	100.0 %	2099	2099
J1:12/1 (J11 Circ3)	3.40	0.00	Y	Arm J1:8 Ahead	125.00	100.0 %	1932	1932
J1:12/2 (J11 Circ3)	3.40	0.00	N	Arm J1:8 Ahead	125.00	100.0 %	2070	2070
J1:12/3 (J11 Circ3)	3.40	0.00	N	Arm J1:13 Right	125.00	100.0 %	2070	2070
J1:12/4 (J11 Circ3)	3.40	0.00	N	Arm J1:13 Right	125.00	100.0 %	2070	2070
J1:13/1 (J11 Circ5)	3.50	0.00	Y	Arm J1:9 Ahead	150.00	100.0 %	1946	1946
J1:13/2 (J11 Circ5)	3.50	0.00	N	Arm J1:9 Ahead	150.00	40.9 %	2084	2084
				Arm J1:14 Right	150.00	59.1 %		
J1:13/3 (J11 Circ5)	3.50	0.00	N	Arm J1:14 Right	150.00	100.0 %	2084	2084
J1:14/1 (J11 Circ7)	3.70	0.00	Y	Arm J1:10 Ahead	125.00	100.0 %	1961	1961
J1:14/2 (J11 Circ7)	3.70	0.00	N	Arm J1:10 Ahead	125.00	58.6 %	2100	2100
				Arm J1:15 Right	125.00	41.4 %		
J1:15/1 (J11 Circ9)	3.35	0.00	Y	Arm J1:6 Ahead	125.00	100.0 %	1927	1927
J1:15/2 (J11 Circ9)	3.35	0.00	N	Arm J1:11 Right	125.00	100.0 %	2065	2065

Full Input Data And Results

Junction: J2: Hennef Way/ Ermont Way								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Wildmere SB Entry)	2.50	0.00	Y	Arm J2:8 Ahead	Inf	27.3 %	1865	1865
				Arm J2:9 Left	Inf	72.7 %		
J2:1/2 (Wildmere SB Entry)	2.50	0.00	N	Arm J2:8 Ahead	Inf	100.0 %	2005	2005
J2:2/1 (Hennef Way WB Lane 1)	This lane uses a directly entered Saturation Flow						3600	3600
J2:3/1 (Ermont Way NB)	3.75	0.00	Y	Arm J2:17 Ahead	100.00	0.6 %	1990	1990
				Arm J2:19 Left	Inf	99.4 %		
J2:3/2 (Ermont Way NB)	3.75	0.00	N	Arm J2:17 Ahead	100.00	100.0 %	2099	2099
J2:4/1 (Hennef Way EB)	4.00	0.00	Y	Arm J2:5 Left	70.00	100.0 %	1973	1973
J2:4/2 (Hennef Way EB)	4.00	0.00	N	Arm J2:14 Ahead	70.00	100.0 %	2110	2110
J2:4/3 (Hennef Way EB)	4.00	0.00	N	Arm J2:14 Ahead	70.00	100.0 %	2110	2110
J2:5/1 (Wildmere Rd NB Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:5/2 (Wildmere Rd NB Lane 2)	Infinite Saturation Flow						Inf	Inf
J2:6/1 (Hennef Way EB Lane 1)	This lane uses a directly entered Saturation Flow						3600	3600
J2:7/1 (Ermont Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:8/1 (Wildmere Rd SB)	4.00	0.00	Y	Arm J2:15 Ahead	40.00	100.0 %	1942	1942
J2:8/2 (Wildmere Rd SB)	4.00	0.00	N	Arm J2:15 Ahead	40.00	100.0 %	2077	2077
J2:9/1 (Wildmere - Hennef)	4.00	0.00	Y	Arm J2:6 Ahead	50.00	100.0 %	1956	1956
J2:10/1 (Hennef EB)	4.50	0.00	Y	Arm J2:6 Ahead	90.00	100.0 %	2031	2031
J2:10/2 (Hennef EB)	4.50	0.00	N	Arm J2:6 Ahead	90.00	100.0 %	2169	2169
J2:11/1 (Hennef Way WB)	3.50	0.00	Y	Arm J2:16 Ahead	25.00	100.0 %	1854	1854
J2:11/2 (Hennef Way WB)	3.50	0.00	N	Arm J2:16 Ahead	25.00	100.0 %	1986	1986
J2:11/3 (Hennef Way WB)	3.50	0.00	N	Arm J2:16 Ahead	25.00	100.0 %	1986	1986
J2:12/1 (Hennef - Ermont)	4.80	0.00	Y	Arm J2:7 Left	60.00	100.0 %	2044	2044
J2:13/1 (Ermont SB)	5.00	0.00	Y	Arm J2:7 Ahead	50.00	100.0 %	2053	2053
J2:14/1 (E Circ 7)	3.93	0.00	Y	Arm J2:10 Ahead	45.00	100.0 %	1943	1943

Full Input Data And Results

J2:14/2 (E Circ 7)	3.93	0.00	N	Arm J2:10 Ahead	45.00	100.0 %	2079	2079
J2:14/3 (E Circ 7)	3.93	0.00	N	Arm J2:15 Right	45.00	100.0 %	2079	2079
J2:15/1 (E Circ)	4.00	0.00	Y	Arm J2:13 Ahead	45.00	100.0 %	1950	1950
J2:15/2 (E Circ)	4.00	0.00	N	Arm J2:16 Right	45.00	100.0 %	2085	2085
J2:15/3 (E Circ)	4.00	0.00	N	Arm J2:16 Right	45.00	100.0 %	2085	2085
J2:16/1 (E Circ 3)	3.83	0.00	Y	Arm J2:19 Ahead	Inf	100.0 %	1998	1998
J2:16/2 (E Circ 3)	3.83	0.00	N	Arm J2:19 Ahead	Inf	100.0 %	2138	2138
J2:16/3 (E Circ 3)	3.83	0.00	N	Arm J2:17 Right	45.00	100.0 %	2069	2069
J2:17/1 (E Circ 5)	3.93	0.00	Y	Arm J2:5 Ahead	45.00	100.0 %	1943	1943
J2:17/2 (E Circ 5)	3.93	0.00	N	Arm J2:5 Ahead	45.00	58.1 %	2079	2079
				Arm J2:14 Right	45.00	41.9 %		
J2:17/3 (E Circ 5)	3.93	0.00	N	Arm J2:14 Right	45.00	100.0 %	2079	2079
J2:18/1 (Hennef Way EB Xing)	3.33	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1948	1948
J2:18/2 (Hennef Way EB Xing)	3.33	0.00	N	Arm J2:4 Ahead	Inf	100.0 %	2088	2088
J2:18/3 (Hennef Way EB Xing)	3.33	0.00	N	Arm J2:4 Ahead	Inf	100.0 %	2088	2088
J2:19/1 (Hennef Way WB)	4.10	0.00	Y	Arm J2:20 Ahead	Inf	100.0 %	2025	2025
J2:19/2 (Hennef Way WB)	4.10	0.00	N	Arm J2:20 Ahead	200.00	100.0 %	2149	2149
J2:20/1 (Hennef Way Xing WB Lane 1)	This lane uses a directly entered Saturation Flow						3600	3600

Full Input Data And Results

Junction: J3: Hennef Way/ Concord Ave								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J3:1/1 (From Grimsby Green)	5.00	0.00	Y	Arm J3:6 Left	20.00	0.0 %	2115	2115
				Arm J3:10 Ahead	20.00	0.0 %		
J3:2/1 (Hennef Way WB)	3.91	0.00	Y	Arm J3:7 Left	55.00	100.0 %	1953	1953
J3:2/2 (Hennef Way WB)	3.91	0.00	N	Arm J3:11 Ahead	55.00	100.0 %	2089	2089
J3:2/3 (Hennef Way WB)	3.91	0.00	N	Arm J3:11 Ahead	55.00	100.0 %	2089	2089
J3:3/1 (Concord Ave Entry)	3.33	0.00	Y	Arm J3:8 Left	35.00	100.0 %	1868	1868
J3:3/2 (Concord Ave Entry)	3.33	0.00	N	Arm J3:12 Ahead	35.00	100.0 %	2002	2002
J3:3/3 (Concord Ave Entry)	3.33	0.00	N	Arm J3:12 Ahead	35.00	100.0 %	2002	2002
J3:4/1 (Holman Bridge Entry)	4.35	0.00	Y	Arm J3:5 Left	40.00	0.0 %	1976	1976
				Arm J3:9 Ahead	40.00	100.0 %		
J3:4/2 (Holman Bridge Entry)	4.35	0.00	N	Arm J3:9 Ahead	40.00	100.0 %	2111	2111
J3:5/1 (To Grimsby Green Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:6/1 (Hennef Way WB Lane 1)	This lane uses a directly entered Saturation Flow						3600	3600
J3:7/1 (Concord Ave Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/1 (Holman Bridge Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/2 (Holman Bridge Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J3:9/1 (C Circ 7)	3.80	0.00	Y	Arm J3:6 Ahead	40.00	100.0 %	1923	1923
J3:9/2 (C Circ 7)	3.80	0.00	N	Arm J3:6 Ahead	40.00	100.0 %	2058	2058
				Arm J3:10 Right	40.00	0.0 %		
J3:9/3 (C Circ 7)	3.80	0.00	N	Arm J3:10 Right	40.00	100.0 %	2058	2058
J3:10/1 (C Circ1)	3.94	0.00	Y	Arm J3:7 Ahead	40.00	0.0 %	2009	2009
J3:10/2 (C Circ1)	3.94	0.00	N	Arm J3:7 Ahead	Inf	100.0 %	2149	2149
				Arm J3:11 Right	40.00	0.0 %		
J3:11/1 (C Circ 3)	3.56	0.00	Y	Arm J3:8 Ahead	40.00	100.0 %	1900	1900
J3:11/2 (C Circ 3)	3.56	0.00	N	Arm J3:8 Ahead	40.00	100.0 %	2035	2035
				Arm J3:12 Right	40.00	0.0 %		
J3:12/1 (C Circ 5)	4.74	0.00	Y	Arm J3:5 Ahead	40.00	0.0 %	2013	2013
				Arm J3:9 Right	40.00	100.0 %		

Full Input Data And Results

J3:12/2 (C Circ 5)	4.74	0.00	N	Arm J3:9 Right	40.00	100.0 %	2148	2148
J3:13/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J4: Hennef Way_Southam Rd								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J4:1/1 (Hennef Way East Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J4:1/2 (Hennef Way East Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J4:1/3 (Hennef Way East Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
J4:2/1	Infinite Saturation Flow						Inf	Inf
J4:2/2	Infinite Saturation Flow						Inf	Inf
J4:2/3	Infinite Saturation Flow						Inf	Inf
J4:3/1 (Southam Rd Sth Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J4:3/2 (Southam Rd Sth Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J4:3/3 (Southam Rd Sth Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
J4:4/1	Infinite Saturation Flow						Inf	Inf
J4:4/2	Infinite Saturation Flow						Inf	Inf
J4:4/3	Infinite Saturation Flow						Inf	Inf
J4:5/1 (Ruscote Ave Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J4:5/2 (Ruscote Ave Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J4:5/3 (Ruscote Ave Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
J4:6/1	Infinite Saturation Flow						Inf	Inf
J4:6/2	Infinite Saturation Flow						Inf	Inf
J4:7/1 (Southam Rd Nth Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J4:7/2 (Southam Rd Nth Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J4:7/3 (Southam Rd Nth Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
J4:8/1	Infinite Saturation Flow						Inf	Inf
J4:8/2	Infinite Saturation Flow						Inf	Inf
J4:8/3	Infinite Saturation Flow						Inf	Inf
J4:9/1	Infinite Saturation Flow						Inf	Inf
J4:10/1	3.65	0.00	Y	Arm J4:14 Ahead	Inf	100.0 %	1980	1980
J4:10/2	3.65	0.00	Y	Arm J4:14 Ahead	Inf	100.0 %	1980	1980
J4:11/1	Infinite Saturation Flow						Inf	Inf
J4:11/2	Infinite Saturation Flow						Inf	Inf
J4:12/1	2.50	0.00	Y	Arm J4:18 Ahead	Inf	100.0 %	1865	1865
J4:12/2	2.50	0.00	Y	Arm J4:18 Ahead	Inf	100.0 %	1865	1865
J4:13/1	3.65	0.00	Y	Arm J4:1 Ahead	Inf	100.0 %	1980	1980

Full Input Data And Results

J4:13/2	3.65	0.00	Y	Arm J4:1 Ahead	Inf	100.0 %	1980	1980
J4:14/1	Infinite Saturation Flow						Inf	Inf
J4:15/1	4.00	0.00	Y	Arm J4:17 Ahead	Inf	100.0 %	2015	2015
J4:16/1	4.00	0.00	Y	Arm J4:7 Ahead	Inf	100.0 %	2015	2015
J4:17/1	Infinite Saturation Flow						Inf	Inf
J4:18/1	Infinite Saturation Flow						Inf	Inf
J4:18/2	Infinite Saturation Flow						Inf	Inf
J4:19/1	4.00	0.00	Y	Arm J4:5 Ahead	Inf	100.0 %	2015	2015

Scenario 7: '2031 AM With Dev' (FG7: '2031 AM With Dev', Plan 1: 'Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination											
		A	B	C	D	E	F	G	H	I	J	K	Tot.
Origin	A	0	39	337	6	77	155	19	101	173	0	39	946
	B	89	0	26	128	38	76	9	49	85	0	19	519
	C	353	282	0	92	140	283	35	184	315	0	71	1755
	D	10	140	180	0	115	231	29	151	258	0	58	1172
	E	65	44	129	111	0	0	0	0	0	0	36	385
	F	194	132	390	334	1	0	16	84	143	0	42	1336
	G	13	9	25	22	0	2	0	377	520	0	3	971
	H	151	102	303	260	1	28	91	0	0	0	33	969
	I	102	69	205	176	1	19	255	5	0	0	22	854
	J	0	0	0	0	0	0	0	0	0	0	0	0
	K	39	26	78	67	22	52	6	34	58	0	0	382
	Tot.	1016	843	1673	1196	395	846	460	985	1552	0	323	9289

Full Input Data And Results

Traffic Lane Flows

Full Input Data And Results

Lane	Scenario 7: 2031 AM With Dev
Junction: J1: M40 J11/Hennef Way	
J1:1/1	277
J1:1/2 (with short)	669(In) 356(Out)
J1:1/3 (short)	313
J1:2/1 (with short)	519(In) 321(Out)
J1:2/2 (short)	198
J1:3/1 (short)	92
J1:3/2 (with short)	895(In) 803(Out)
J1:3/3	860
J1:4/1	409
J1:4/2 (with short)	763(In) 433(Out)
J1:4/3 (short)	330
J1:5/1 (short)	564
J1:5/2 (with short)	1797(In) 1233(Out)
J1:5/3	1249
J1:6/1	564
J1:6/2	452
J1:7/1	843
J1:8/1	1124
J1:8/2	549
J1:9/1	832
J1:9/2	364
J1:10/1	1630
J1:10/2	1080
J1:11/1	1664
J1:11/2	1420
J1:12/1	1098
J1:12/2	549
J1:12/3	1227
J1:12/4	313
J1:13/1	740
J1:13/2	782
J1:13/3	511
J1:14/1	1221
J1:14/2	1371
J1:15/1	452
J1:15/2	602

Full Input Data And Results

Junction: J2: Hennef Way/ Ermont Way	
J2:1/1	232
J2:1/2	150
J2:2/1	2710
J2:3/1 (with short)	385(In) 1(Out)
J2:3/2 (short)	384
J2:4/1	100
J2:4/2	1240
J2:4/3	1250
J2:5/1	205
J2:5/2	118
J2:6/1	3046
J2:7/1	395
J2:8/1	22
J2:8/2	150
J2:9/1	210
J2:10/1	1359
J2:10/2	1477
J2:11/1	1073
J2:11/2	1080
J2:11/3	187
J2:12/1	370
J2:13/1	25
J2:14/1	1359
J2:14/2	1477
J2:14/3	3
J2:15/1	25
J2:15/2	54
J2:15/3	96
J2:16/1	1127
J2:16/2	1176
J2:16/3	187
J2:17/1	105
J2:17/2	237
J2:17/3	230
J2:18/1 (short)	100
J2:18/2 (with short)	1340(In) 1240(Out)
J2:18/3	1250
J2:19/1	1127
J2:19/2	1176
J2:20/1	2303
Junction: J3: Hennef Way/ Concord Ave	

Full Input Data And Results

J3:1/1	0
J3:2/1	797
J3:2/2 (short)	740
J3:2/3 (with short)	1506(In) 766(Out)
J3:3/1	243
J3:3/2 (with short)	1093(In) 541(Out)
J3:3/3 (short)	552
J3:4/1	765
J3:4/2	781
J3:5/1	0
J3:6/1	2590
J3:7/1	846
J3:8/1	862
J3:8/2	887
J3:9/1	1306
J3:9/2	1284
J3:9/3	49
J3:10/1	0
J3:10/2	49
J3:11/1	740
J3:11/2	766
J3:12/1	541
J3:12/2	552
J3:13/1	1749
Junction: J4: Hennef Way_Southam Rd	
J4:1/1 (short)	114
J4:1/2 (with short)	715(In) 601(Out)
J4:1/3	1034
J4:2/1	45
J4:2/2	301
J4:2/3	5
J4:3/1 (short)	377
J4:3/2 (with short)	897(In) 520(Out)
J4:3/3	74
J4:4/1	601
J4:4/2	7
J4:4/3	1032
J4:5/1 (short)	0
J4:5/2 (with short)	485(In) 485(Out)

Full Input Data And Results

J4:5/3	484
J4:6/1	1552
J4:6/2	74
J4:7/1 (short)	594
J4:7/2 (with short)	594(In) 0(Out)
J4:7/3	260
J4:8/1	518
J4:8/2	434
J4:8/3	91
J4:9/1	1552
J4:10/1	781
J4:10/2	765
J4:11/1	159
J4:11/2	301
J4:12/1	978
J4:12/2	7
J4:13/1	715
J4:13/2	1034
J4:14/1	1546
J4:15/1	1552
J4:16/1	854
J4:17/1	1552
J4:18/1	978
J4:18/2	7
J4:19/1	969

Lane Saturation Flows

Full Input Data And Results

Junction: J1: M40 J11/Hennef Way								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (M40N Approach)	3.50	0.00	Y	Arm J1:7 Left	50.00	14.1 %	1908	1908
				Arm J1:12 Ahead	50.00	85.9 %		
J1:1/2 (M40N Approach)	3.50	0.00	N	Arm J1:12 Ahead	50.00	100.0 %	2044	2044
J1:1/3 (M40N Approach)	3.50	0.00	N	Arm J1:12 Ahead	50.00	100.0 %	2044	2044
J1:2/1 (A361 Approach)	4.25	0.00	Y	Arm J1:8 Left	40.00	8.1 %	1966	1966
				Arm J1:13 Ahead	40.00	91.9 %		
J1:2/2 (A361 Approach)	4.25	0.00	N	Arm J1:13 Ahead	40.00	100.0 %	2101	2101
J1:3/1 (A422 East Approach)	4.00	0.00	Y	Arm J1:9 Left	100.00	100.0 %	1985	1985
J1:3/2 (A422 East Approach)	4.00	0.00	Y	Arm J1:14 Ahead	100.00	100.0 %	1985	1985
J1:3/3 (A422 East Approach)	4.00	0.00	N	Arm J1:14 Ahead	100.00	100.0 %	2123	2123
J1:4/1 (M40S Approach)	4.00	0.00	Y	Arm J1:10 Ahead	60.00	100.0 %	1966	1966
J1:4/2 (M40S Approach)	4.00	0.00	N	Arm J1:10 Ahead	60.00	100.0 %	2102	2102
J1:4/3 (M40S Approach)	4.00	0.00	N	Arm J1:15 Ahead	60.00	100.0 %	2102	2102
J1:5/1 (A422 Hennef Way Approach)	3.70	0.00	Y	Arm J1:6 Left	70.00	100.0 %	1943	1943
J1:5/2 (A422 Hennef Way Approach)	4.20	0.00	N	Arm J1:11 Ahead	100.00	100.0 %	2143	2143
J1:5/3 (A422 Hennef Way Approach)	4.20	0.00	N	Arm J1:11 Ahead	100.00	100.0 %	2143	2143
J1:6/1 (M40N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/2 (M40N Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:7/1 (A631 Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:8/1 (A422 East Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:8/2 (A422 East Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:9/1 (M40S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:9/2 (M40S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

J1:10/1 (A422 Hennef Way Exit Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J1:10/2 (A422 Hennef Way Exit Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J1:11/1 (J11 Circ1)	3.60	0.00	Y	Arm J1:7 Ahead	200.00	48.3 %	1960	1960
				Arm J1:12 Right	200.00	51.7 %		
J1:11/2 (J11 Circ1)	3.60	0.00	N	Arm J1:12 Right	200.00	100.0 %	2099	2099
J1:12/1 (J11 Circ3)	3.40	0.00	Y	Arm J1:8 Ahead	125.00	100.0 %	1932	1932
J1:12/2 (J11 Circ3)	3.40	0.00	N	Arm J1:8 Ahead	125.00	100.0 %	2070	2070
J1:12/3 (J11 Circ3)	3.40	0.00	N	Arm J1:13 Right	125.00	100.0 %	2070	2070
J1:12/4 (J11 Circ3)	3.40	0.00	N	Arm J1:13 Right	125.00	100.0 %	2070	2070
J1:13/1 (J11 Circ5)	3.50	0.00	Y	Arm J1:9 Ahead	150.00	100.0 %	1946	1946
J1:13/2 (J11 Circ5)	3.50	0.00	N	Arm J1:9 Ahead	150.00	46.5 %	2084	2084
				Arm J1:14 Right	150.00	53.5 %		
J1:13/3 (J11 Circ5)	3.50	0.00	N	Arm J1:14 Right	150.00	100.0 %	2084	2084
J1:14/1 (J11 Circ7)	3.70	0.00	Y	Arm J1:10 Ahead	125.00	100.0 %	1961	1961
J1:14/2 (J11 Circ7)	3.70	0.00	N	Arm J1:10 Ahead	125.00	47.2 %	2100	2100
				Arm J1:15 Right	125.00	52.8 %		
J1:15/1 (J11 Circ9)	3.35	0.00	Y	Arm J1:6 Ahead	125.00	100.0 %	1927	1927
J1:15/2 (J11 Circ9)	3.35	0.00	N	Arm J1:11 Right	125.00	100.0 %	2065	2065

Full Input Data And Results

Junction: J2: Hennef Way/ Ermont Way								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Wildmere SB Entry)	2.50	0.00	Y	Arm J2:8 Ahead	Inf	9.5 %	1865	1865
				Arm J2:9 Left	Inf	90.5 %		
J2:1/2 (Wildmere SB Entry)	2.50	0.00	N	Arm J2:8 Ahead	Inf	100.0 %	2005	2005
J2:2/1 (Hennef Way WB Lane 1)	This lane uses a directly entered Saturation Flow						3600	3600
J2:3/1 (Ermont Way NB)	3.75	0.00	Y	Arm J2:17 Ahead	100.00	100.0 %	1961	1961
				Arm J2:19 Left	Inf	0.0 %		
J2:3/2 (Ermont Way NB)	3.75	0.00	N	Arm J2:17 Ahead	100.00	100.0 %	2099	2099
J2:4/1 (Hennef Way EB)	4.00	0.00	Y	Arm J2:5 Left	70.00	100.0 %	1973	1973
J2:4/2 (Hennef Way EB)	4.00	0.00	N	Arm J2:14 Ahead	70.00	100.0 %	2110	2110
J2:4/3 (Hennef Way EB)	4.00	0.00	N	Arm J2:14 Ahead	70.00	100.0 %	2110	2110
J2:5/1 (Wildmere Rd NB Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:5/2 (Wildmere Rd NB Lane 2)	Infinite Saturation Flow						Inf	Inf
J2:6/1 (Hennef Way EB Lane 1)	This lane uses a directly entered Saturation Flow						3600	3600
J2:7/1 (Ermont Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:8/1 (Wildmere Rd SB)	4.00	0.00	Y	Arm J2:15 Ahead	40.00	100.0 %	1942	1942
J2:8/2 (Wildmere Rd SB)	4.00	0.00	N	Arm J2:15 Ahead	40.00	100.0 %	2077	2077
J2:9/1 (Wildmere - Hennef)	4.00	0.00	Y	Arm J2:6 Ahead	50.00	100.0 %	1956	1956
J2:10/1 (Hennef EB)	4.50	0.00	Y	Arm J2:6 Ahead	90.00	100.0 %	2031	2031
J2:10/2 (Hennef EB)	4.50	0.00	N	Arm J2:6 Ahead	90.00	100.0 %	2169	2169
J2:11/1 (Hennef Way WB)	3.50	0.00	Y	Arm J2:16 Ahead	25.00	100.0 %	1854	1854
J2:11/2 (Hennef Way WB)	3.50	0.00	N	Arm J2:16 Ahead	25.00	100.0 %	1986	1986
J2:11/3 (Hennef Way WB)	3.50	0.00	N	Arm J2:16 Ahead	25.00	100.0 %	1986	1986
J2:12/1 (Hennef - Ermont)	4.80	0.00	Y	Arm J2:7 Left	60.00	100.0 %	2044	2044
J2:13/1 (Ermont SB)	5.00	0.00	Y	Arm J2:7 Ahead	50.00	100.0 %	2053	2053
J2:14/1 (E Circ 7)	3.93	0.00	Y	Arm J2:10 Ahead	45.00	100.0 %	1943	1943

Full Input Data And Results

J2:14/2 (E Circ 7)	3.93	0.00	N	Arm J2:10 Ahead	45.00	100.0 %	2079	2079
J2:14/3 (E Circ 7)	3.93	0.00	N	Arm J2:15 Right	45.00	100.0 %	2079	2079
J2:15/1 (E Circ)	4.00	0.00	Y	Arm J2:13 Ahead	45.00	100.0 %	1950	1950
J2:15/2 (E Circ)	4.00	0.00	N	Arm J2:16 Right	45.00	100.0 %	2085	2085
J2:15/3 (E Circ)	4.00	0.00	N	Arm J2:16 Right	45.00	100.0 %	2085	2085
J2:16/1 (E Circ 3)	3.83	0.00	Y	Arm J2:19 Ahead	Inf	100.0 %	1998	1998
J2:16/2 (E Circ 3)	3.83	0.00	N	Arm J2:19 Ahead	Inf	100.0 %	2138	2138
J2:16/3 (E Circ 3)	3.83	0.00	N	Arm J2:17 Right	45.00	100.0 %	2069	2069
J2:17/1 (E Circ 5)	3.93	0.00	Y	Arm J2:5 Ahead	45.00	100.0 %	1943	1943
J2:17/2 (E Circ 5)	3.93	0.00	N	Arm J2:5 Ahead	45.00	49.8 %	2079	2079
				Arm J2:14 Right	45.00	50.2 %		
J2:17/3 (E Circ 5)	3.93	0.00	N	Arm J2:14 Right	45.00	100.0 %	2079	2079
J2:18/1 (Hennef Way EB Xing)	3.33	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1948	1948
J2:18/2 (Hennef Way EB Xing)	3.33	0.00	N	Arm J2:4 Ahead	Inf	100.0 %	2088	2088
J2:18/3 (Hennef Way EB Xing)	3.33	0.00	N	Arm J2:4 Ahead	Inf	100.0 %	2088	2088
J2:19/1 (Hennef Way WB)	4.10	0.00	Y	Arm J2:20 Ahead	Inf	100.0 %	2025	2025
J2:19/2 (Hennef Way WB)	4.10	0.00	N	Arm J2:20 Ahead	200.00	100.0 %	2149	2149
J2:20/1 (Hennef Way Xing WB Lane 1)	This lane uses a directly entered Saturation Flow						3600	3600

Full Input Data And Results

Junction: J3: Hennef Way/ Concord Ave								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J3:1/1 (From Grimsby Green)	5.00	0.00	Y	Arm J3:6 Left	20.00	0.0 %	2115	2115
				Arm J3:10 Ahead	20.00	0.0 %		
J3:2/1 (Hennef Way WB)	3.91	0.00	Y	Arm J3:7 Left	55.00	100.0 %	1953	1953
J3:2/2 (Hennef Way WB)	3.91	0.00	N	Arm J3:11 Ahead	55.00	100.0 %	2089	2089
J3:2/3 (Hennef Way WB)	3.91	0.00	N	Arm J3:11 Ahead	55.00	100.0 %	2089	2089
J3:3/1 (Concord Ave Entry)	3.33	0.00	Y	Arm J3:8 Left	35.00	100.0 %	1868	1868
J3:3/2 (Concord Ave Entry)	3.33	0.00	N	Arm J3:12 Ahead	35.00	100.0 %	2002	2002
J3:3/3 (Concord Ave Entry)	3.33	0.00	N	Arm J3:12 Ahead	35.00	100.0 %	2002	2002
J3:4/1 (Holman Bridge Entry)	4.35	0.00	Y	Arm J3:5 Left	40.00	0.0 %	1976	1976
				Arm J3:9 Ahead	40.00	100.0 %		
J3:4/2 (Holman Bridge Entry)	4.35	0.00	N	Arm J3:9 Ahead	40.00	100.0 %	2111	2111
J3:5/1 (To Grimsby Green Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:6/1 (Hennef Way WB Lane 1)	This lane uses a directly entered Saturation Flow						3600	3600
J3:7/1 (Concord Ave Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/1 (Holman Bridge Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/2 (Holman Bridge Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J3:9/1 (C Circ 7)	3.80	0.00	Y	Arm J3:6 Ahead	40.00	100.0 %	1923	1923
J3:9/2 (C Circ 7)	3.80	0.00	N	Arm J3:6 Ahead	40.00	100.0 %	2058	2058
				Arm J3:10 Right	40.00	0.0 %		
J3:9/3 (C Circ 7)	3.80	0.00	N	Arm J3:10 Right	40.00	100.0 %	2058	2058
J3:10/1 (C Circ1)	3.94	0.00	Y	Arm J3:7 Ahead	40.00	0.0 %	2009	2009
J3:10/2 (C Circ1)	3.94	0.00	N	Arm J3:7 Ahead	Inf	100.0 %	2149	2149
				Arm J3:11 Right	40.00	0.0 %		
J3:11/1 (C Circ 3)	3.56	0.00	Y	Arm J3:8 Ahead	40.00	100.0 %	1900	1900
J3:11/2 (C Circ 3)	3.56	0.00	N	Arm J3:8 Ahead	40.00	100.0 %	2035	2035
				Arm J3:12 Right	40.00	0.0 %		
J3:12/1 (C Circ 5)	4.74	0.00	Y	Arm J3:5 Ahead	40.00	0.0 %	2013	2013
				Arm J3:9 Right	40.00	100.0 %		

Full Input Data And Results

J3:12/2 (C Circ 5)	4.74	0.00	N	Arm J3:9 Right	40.00	100.0 %	2148	2148
J3:13/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J4: Hennef Way_Southam Rd								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J4:1/1 (Hennef Way East Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J4:1/2 (Hennef Way East Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J4:1/3 (Hennef Way East Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
J4:2/1	Infinite Saturation Flow						Inf	Inf
J4:2/2	Infinite Saturation Flow						Inf	Inf
J4:2/3	Infinite Saturation Flow						Inf	Inf
J4:3/1 (Southam Rd Sth Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J4:3/2 (Southam Rd Sth Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J4:3/3 (Southam Rd Sth Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
J4:4/1	Infinite Saturation Flow						Inf	Inf
J4:4/2	Infinite Saturation Flow						Inf	Inf
J4:4/3	Infinite Saturation Flow						Inf	Inf
J4:5/1 (Ruscote Ave Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J4:5/2 (Ruscote Ave Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J4:5/3 (Ruscote Ave Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
J4:6/1	Infinite Saturation Flow						Inf	Inf
J4:6/2	Infinite Saturation Flow						Inf	Inf
J4:7/1 (Southam Rd Nth Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J4:7/2 (Southam Rd Nth Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J4:7/3 (Southam Rd Nth Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
J4:8/1	Infinite Saturation Flow						Inf	Inf
J4:8/2	Infinite Saturation Flow						Inf	Inf
J4:8/3	Infinite Saturation Flow						Inf	Inf
J4:9/1	Infinite Saturation Flow						Inf	Inf
J4:10/1	3.65	0.00	Y	Arm J4:14 Ahead	Inf	100.0 %	1980	1980
J4:10/2	3.65	0.00	Y	Arm J4:14 Ahead	Inf	100.0 %	1980	1980
J4:11/1	Infinite Saturation Flow						Inf	Inf
J4:11/2	Infinite Saturation Flow						Inf	Inf
J4:12/1	2.50	0.00	Y	Arm J4:18 Ahead	Inf	100.0 %	1865	1865
J4:12/2	2.50	0.00	Y	Arm J4:18 Ahead	Inf	100.0 %	1865	1865
J4:13/1	3.65	0.00	Y	Arm J4:1 Ahead	Inf	100.0 %	1980	1980

Full Input Data And Results

J4:13/2	3.65	0.00	Y	Arm J4:1 Ahead	Inf	100.0 %	1980	1980
J4:14/1	Infinite Saturation Flow						Inf	Inf
J4:15/1	4.00	0.00	Y	Arm J4:17 Ahead	Inf	100.0 %	2015	2015
J4:16/1	4.00	0.00	Y	Arm J4:7 Ahead	Inf	100.0 %	2015	2015
J4:17/1	Infinite Saturation Flow						Inf	Inf
J4:18/1	Infinite Saturation Flow						Inf	Inf
J4:18/2	Infinite Saturation Flow						Inf	Inf
J4:19/1	4.00	0.00	Y	Arm J4:5 Ahead	Inf	100.0 %	2015	2015

Scenario 8: '2031 PM With Dev' (FG8: '2031 PM With Dev', Plan 1: 'Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination											
		A	B	C	D	E	F	G	H	I	J	K	Tot.
Origin	A	0	40	301	4	91	146	23	115	132	0	36	888
	B	69	0	73	138	63	102	16	80	92	0	25	658
	C	264	184	0	94	144	231	37	182	209	0	57	1402
	D	6	94	167	0	136	219	35	172	198	0	54	1081
	E	70	30	102	68	0	56	9	44	51	0	63	493
	F	291	127	425	284	23	0	19	92	105	0	50	1416
	G	27	12	39	26	2	16	0	206	557	0	5	890
	H	165	72	241	161	13	97	137	0	73	0	29	988
	I	135	59	197	131	11	79	393	25	0	0	23	1053
	J	0	0	0	0	0	0	0	0	0	0	0	0
	K	79	34	115	76	114	206	33	162	186	0	0	1005
	Tot.	1106	652	1660	982	597	1152	702	1078	1603	0	342	9874

Full Input Data And Results

Traffic Lane Flows

Full Input Data And Results

Lane	Scenario 8: 2031 PM With Dev
Junction: J1: M40 J11/Hennef Way	
J1:1/1	237
J1:1/2 (with short)	651(In) 392(Out)
J1:1/3 (short)	259
J1:2/1 (with short)	658(In) 341(Out)
J1:2/2 (short)	317
J1:3/1 (short)	94
J1:3/2 (with short)	718(In) 624(Out)
J1:3/3	684
J1:4/1	362
J1:4/2 (with short)	719(In) 452(Out)
J1:4/3 (short)	267
J1:5/1 (short)	767
J1:5/2 (with short)	1853(In) 1086(Out)
J1:5/3	1113
J1:6/1	767
J1:6/2	339
J1:7/1	652
J1:8/1	1022
J1:8/2	638
J1:9/1	699
J1:9/2	283
J1:10/1	1400
J1:10/2	1195
J1:11/1	1364
J1:11/2	1280
J1:12/1	949
J1:12/2	638
J1:12/3	1034
J1:12/4	259
J1:13/1	605
J1:13/2	697
J1:13/3	576
J1:14/1	1038
J1:14/2	1260
J1:15/1	339
J1:15/2	445

Full Input Data And Results

Junction: J2: Hennef Way/ Ermont Way	
J2:1/1	418
J2:1/2	587
J2:2/1	2595
J2:3/1 (with short)	493(In) 161(Out)
J2:3/2 (short)	332
J2:4/1	107
J2:4/2	1222
J2:4/3	1219
J2:5/1	206
J2:5/2	136
J2:6/1	2966
J2:7/1	597
J2:8/1	114
J2:8/2	587
J2:9/1	304
J2:10/1	1320
J2:10/2	1342
J2:11/1	1005
J2:11/2	984
J2:11/3	172
J2:12/1	434
J2:13/1	163
J2:14/1	1320
J2:14/2	1342
J2:14/3	49
J2:15/1	163
J2:15/2	260
J2:15/3	327
J2:16/1	1265
J2:16/2	1311
J2:16/3	172
J2:17/1	99
J2:17/2	234
J2:17/3	172
J2:18/1 (short)	107
J2:18/2 (with short)	1329(In) 1222(Out)
J2:18/3	1219
J2:19/1	1334
J2:19/2	1402
J2:20/1	2736
Junction: J3: Hennef Way/ Concord Ave	

Full Input Data And Results

J3:1/1	0
J3:2/1	960
J3:2/2 (short)	876
J3:2/3 (with short)	1776(In) 900(Out)
J3:3/1	216
J3:3/2 (with short)	1200(In) 600(Out)
J3:3/3 (short)	600
J3:4/1	749
J3:4/2	791
J3:5/1	0
J3:6/1	2548
J3:7/1	1152
J3:8/1	985
J3:8/2	1007
J3:9/1	1349
J3:9/2	1199
J3:9/3	192
J3:10/1	0
J3:10/2	192
J3:11/1	876
J3:11/2	900
J3:12/1	600
J3:12/2	600
J3:13/1	1992
Junction: J4: Hennef Way_Southam Rd	
J4:1/1 (short)	172
J4:1/2 (with short)	1014(In) 842(Out)
J4:1/3	978
J4:2/1	68
J4:2/2	462
J4:2/3	25
J4:3/1 (short)	206
J4:3/2 (with short)	763(In) 557(Out)
J4:3/3	127
J4:4/1	842
J4:4/2	30
J4:4/3	973
J4:5/1 (short)	73
J4:5/2 (with short)	533(In) 460(Out)

Full Input Data And Results

J4:5/3	455
J4:6/1	1530
J4:6/2	127
J4:7/1 (short)	635
J4:7/2 (with short)	635(In) 0(Out)
J4:7/3	418
J4:8/1	516
J4:8/2	389
J4:8/3	137
J4:9/1	1603
J4:10/1	800
J4:10/2	740
J4:11/1	240
J4:11/2	462
J4:12/1	1048
J4:12/2	30
J4:13/1	1014
J4:13/2	978
J4:14/1	1540
J4:15/1	1603
J4:16/1	1053
J4:17/1	1603
J4:18/1	1048
J4:18/2	30
J4:19/1	988

Lane Saturation Flows

Full Input Data And Results

Junction: J1: M40 J11/Hennef Way								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (M40N Approach)	3.50	0.00	Y	Arm J1:7 Left	50.00	16.9 %	1908	1908
				Arm J1:12 Ahead	50.00	83.1 %		
J1:1/2 (M40N Approach)	3.50	0.00	N	Arm J1:12 Ahead	50.00	100.0 %	2044	2044
J1:1/3 (M40N Approach)	3.50	0.00	N	Arm J1:12 Ahead	50.00	100.0 %	2044	2044
J1:2/1 (A361 Approach)	4.25	0.00	Y	Arm J1:8 Left	40.00	21.4 %	1966	1966
				Arm J1:13 Ahead	40.00	78.6 %		
J1:2/2 (A361 Approach)	4.25	0.00	N	Arm J1:13 Ahead	40.00	100.0 %	2101	2101
J1:3/1 (A422 East Approach)	4.00	0.00	Y	Arm J1:9 Left	100.00	100.0 %	1985	1985
J1:3/2 (A422 East Approach)	4.00	0.00	Y	Arm J1:14 Ahead	100.00	100.0 %	1985	1985
J1:3/3 (A422 East Approach)	4.00	0.00	N	Arm J1:14 Ahead	100.00	100.0 %	2123	2123
J1:4/1 (M40S Approach)	4.00	0.00	Y	Arm J1:10 Ahead	60.00	100.0 %	1966	1966
J1:4/2 (M40S Approach)	4.00	0.00	N	Arm J1:10 Ahead	60.00	100.0 %	2102	2102
J1:4/3 (M40S Approach)	4.00	0.00	N	Arm J1:15 Ahead	60.00	100.0 %	2102	2102
J1:5/1 (A422 Hennef Way Approach)	3.70	0.00	Y	Arm J1:6 Left	70.00	100.0 %	1943	1943
J1:5/2 (A422 Hennef Way Approach)	4.20	0.00	N	Arm J1:11 Ahead	100.00	100.0 %	2143	2143
J1:5/3 (A422 Hennef Way Approach)	4.20	0.00	N	Arm J1:11 Ahead	100.00	100.0 %	2143	2143
J1:6/1 (M40N Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:6/2 (M40N Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:7/1 (A631 Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:8/1 (A422 East Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:8/2 (A422 East Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J1:9/1 (M40S Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:9/2 (M40S Exit Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

J1:10/1 (A422 Hennef Way Exit Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J1:10/2 (A422 Hennef Way Exit Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J1:11/1 (J11 Circ1)	3.60	0.00	Y	Arm J1:7 Ahead	200.00	44.9 %	1960	1960
				Arm J1:12 Right	200.00	55.1 %		
J1:11/2 (J11 Circ1)	3.60	0.00	N	Arm J1:12 Right	200.00	100.0 %	2099	2099
J1:12/1 (J11 Circ3)	3.40	0.00	Y	Arm J1:8 Ahead	125.00	100.0 %	1932	1932
J1:12/2 (J11 Circ3)	3.40	0.00	N	Arm J1:8 Ahead	125.00	100.0 %	2070	2070
J1:12/3 (J11 Circ3)	3.40	0.00	N	Arm J1:13 Right	125.00	100.0 %	2070	2070
J1:12/4 (J11 Circ3)	3.40	0.00	N	Arm J1:13 Right	125.00	100.0 %	2070	2070
J1:13/1 (J11 Circ5)	3.50	0.00	Y	Arm J1:9 Ahead	150.00	100.0 %	1946	1946
J1:13/2 (J11 Circ5)	3.50	0.00	N	Arm J1:9 Ahead	150.00	40.6 %	2084	2084
				Arm J1:14 Right	150.00	59.4 %		
J1:13/3 (J11 Circ5)	3.50	0.00	N	Arm J1:14 Right	150.00	100.0 %	2084	2084
J1:14/1 (J11 Circ7)	3.70	0.00	Y	Arm J1:10 Ahead	125.00	100.0 %	1961	1961
J1:14/2 (J11 Circ7)	3.70	0.00	N	Arm J1:10 Ahead	125.00	59.0 %	2100	2100
				Arm J1:15 Right	125.00	41.0 %		
J1:15/1 (J11 Circ9)	3.35	0.00	Y	Arm J1:6 Ahead	125.00	100.0 %	1927	1927
J1:15/2 (J11 Circ9)	3.35	0.00	N	Arm J1:11 Right	125.00	100.0 %	2065	2065

Full Input Data And Results

Junction: J2: Hennef Way/ Ermont Way								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Wildmere SB Entry)	2.50	0.00	Y	Arm J2:8 Ahead	Inf	27.3 %	1865	1865
				Arm J2:9 Left	Inf	72.7 %		
J2:1/2 (Wildmere SB Entry)	2.50	0.00	N	Arm J2:8 Ahead	Inf	100.0 %	2005	2005
J2:2/1 (Hennef Way WB Lane 1)	This lane uses a directly entered Saturation Flow						3600	3600
J2:3/1 (Ermont Way NB)	3.75	0.00	Y	Arm J2:17 Ahead	100.00	0.6 %	1990	1990
				Arm J2:19 Left	Inf	99.4 %		
J2:3/2 (Ermont Way NB)	3.75	0.00	N	Arm J2:17 Ahead	100.00	100.0 %	2099	2099
J2:4/1 (Hennef Way EB)	4.00	0.00	Y	Arm J2:5 Left	70.00	100.0 %	1973	1973
J2:4/2 (Hennef Way EB)	4.00	0.00	N	Arm J2:14 Ahead	70.00	100.0 %	2110	2110
J2:4/3 (Hennef Way EB)	4.00	0.00	N	Arm J2:14 Ahead	70.00	100.0 %	2110	2110
J2:5/1 (Wildmere Rd NB Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:5/2 (Wildmere Rd NB Lane 2)	Infinite Saturation Flow						Inf	Inf
J2:6/1 (Hennef Way EB Lane 1)	This lane uses a directly entered Saturation Flow						3600	3600
J2:7/1 (Ermont Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:8/1 (Wildmere Rd SB)	4.00	0.00	Y	Arm J2:15 Ahead	40.00	100.0 %	1942	1942
J2:8/2 (Wildmere Rd SB)	4.00	0.00	N	Arm J2:15 Ahead	40.00	100.0 %	2077	2077
J2:9/1 (Wildmere - Hennef)	4.00	0.00	Y	Arm J2:6 Ahead	50.00	100.0 %	1956	1956
J2:10/1 (Hennef EB)	4.50	0.00	Y	Arm J2:6 Ahead	90.00	100.0 %	2031	2031
J2:10/2 (Hennef EB)	4.50	0.00	N	Arm J2:6 Ahead	90.00	100.0 %	2169	2169
J2:11/1 (Hennef Way WB)	3.50	0.00	Y	Arm J2:16 Ahead	25.00	100.0 %	1854	1854
J2:11/2 (Hennef Way WB)	3.50	0.00	N	Arm J2:16 Ahead	25.00	100.0 %	1986	1986
J2:11/3 (Hennef Way WB)	3.50	0.00	N	Arm J2:16 Ahead	25.00	100.0 %	1986	1986
J2:12/1 (Hennef - Ermont)	4.80	0.00	Y	Arm J2:7 Left	60.00	100.0 %	2044	2044
J2:13/1 (Ermont SB)	5.00	0.00	Y	Arm J2:7 Ahead	50.00	100.0 %	2053	2053
J2:14/1 (E Circ 7)	3.93	0.00	Y	Arm J2:10 Ahead	45.00	100.0 %	1943	1943

Full Input Data And Results

J2:14/2 (E Circ 7)	3.93	0.00	N	Arm J2:10 Ahead	45.00	100.0 %	2079	2079
J2:14/3 (E Circ 7)	3.93	0.00	N	Arm J2:15 Right	45.00	100.0 %	2079	2079
J2:15/1 (E Circ)	4.00	0.00	Y	Arm J2:13 Ahead	45.00	100.0 %	1950	1950
J2:15/2 (E Circ)	4.00	0.00	N	Arm J2:16 Right	45.00	100.0 %	2085	2085
J2:15/3 (E Circ)	4.00	0.00	N	Arm J2:16 Right	45.00	100.0 %	2085	2085
J2:16/1 (E Circ 3)	3.83	0.00	Y	Arm J2:19 Ahead	Inf	100.0 %	1998	1998
J2:16/2 (E Circ 3)	3.83	0.00	N	Arm J2:19 Ahead	Inf	100.0 %	2138	2138
J2:16/3 (E Circ 3)	3.83	0.00	N	Arm J2:17 Right	45.00	100.0 %	2069	2069
J2:17/1 (E Circ 5)	3.93	0.00	Y	Arm J2:5 Ahead	45.00	100.0 %	1943	1943
J2:17/2 (E Circ 5)	3.93	0.00	N	Arm J2:5 Ahead	45.00	58.1 %	2079	2079
				Arm J2:14 Right	45.00	41.9 %		
J2:17/3 (E Circ 5)	3.93	0.00	N	Arm J2:14 Right	45.00	100.0 %	2079	2079
J2:18/1 (Hennef Way EB Xing)	3.33	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1948	1948
J2:18/2 (Hennef Way EB Xing)	3.33	0.00	N	Arm J2:4 Ahead	Inf	100.0 %	2088	2088
J2:18/3 (Hennef Way EB Xing)	3.33	0.00	N	Arm J2:4 Ahead	Inf	100.0 %	2088	2088
J2:19/1 (Hennef Way WB)	4.10	0.00	Y	Arm J2:20 Ahead	Inf	100.0 %	2025	2025
J2:19/2 (Hennef Way WB)	4.10	0.00	N	Arm J2:20 Ahead	200.00	100.0 %	2149	2149
J2:20/1 (Hennef Way Xing WB Lane 1)	This lane uses a directly entered Saturation Flow						3600	3600

Full Input Data And Results

Junction: J3: Hennef Way/ Concord Ave								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J3:1/1 (From Grimsby Green)	5.00	0.00	Y	Arm J3:6 Left	20.00	0.0 %	2115	2115
				Arm J3:10 Ahead	20.00	0.0 %		
J3:2/1 (Hennef Way WB)	3.91	0.00	Y	Arm J3:7 Left	55.00	100.0 %	1953	1953
J3:2/2 (Hennef Way WB)	3.91	0.00	N	Arm J3:11 Ahead	55.00	100.0 %	2089	2089
J3:2/3 (Hennef Way WB)	3.91	0.00	N	Arm J3:11 Ahead	55.00	100.0 %	2089	2089
J3:3/1 (Concord Ave Entry)	3.33	0.00	Y	Arm J3:8 Left	35.00	100.0 %	1868	1868
J3:3/2 (Concord Ave Entry)	3.33	0.00	N	Arm J3:12 Ahead	35.00	100.0 %	2002	2002
J3:3/3 (Concord Ave Entry)	3.33	0.00	N	Arm J3:12 Ahead	35.00	100.0 %	2002	2002
J3:4/1 (Holman Bridge Entry)	4.35	0.00	Y	Arm J3:5 Left	40.00	0.0 %	1976	1976
				Arm J3:9 Ahead	40.00	100.0 %		
J3:4/2 (Holman Bridge Entry)	4.35	0.00	N	Arm J3:9 Ahead	40.00	100.0 %	2111	2111
J3:5/1 (To Grimsby Green Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:6/1 (Hennef Way WB Lane 1)	This lane uses a directly entered Saturation Flow						3600	3600
J3:7/1 (Concord Ave Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/1 (Holman Bridge Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:8/2 (Holman Bridge Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
J3:9/1 (C Circ 7)	3.80	0.00	Y	Arm J3:6 Ahead	40.00	100.0 %	1923	1923
J3:9/2 (C Circ 7)	3.80	0.00	N	Arm J3:6 Ahead	40.00	100.0 %	2058	2058
				Arm J3:10 Right	40.00	0.0 %		
J3:9/3 (C Circ 7)	3.80	0.00	N	Arm J3:10 Right	40.00	100.0 %	2058	2058
J3:10/1 (C Circ1)	3.94	0.00	Y	Arm J3:7 Ahead	40.00	0.0 %	2009	2009
J3:10/2 (C Circ1)	3.94	0.00	N	Arm J3:7 Ahead	Inf	100.0 %	2149	2149
				Arm J3:11 Right	40.00	0.0 %		
J3:11/1 (C Circ 3)	3.56	0.00	Y	Arm J3:8 Ahead	40.00	100.0 %	1900	1900
J3:11/2 (C Circ 3)	3.56	0.00	N	Arm J3:8 Ahead	40.00	100.0 %	2035	2035
				Arm J3:12 Right	40.00	0.0 %		
J3:12/1 (C Circ 5)	4.74	0.00	Y	Arm J3:5 Ahead	40.00	0.0 %	2013	2013
				Arm J3:9 Right	40.00	100.0 %		

Full Input Data And Results

J3:12/2 (C Circ 5)	4.74	0.00	N	Arm J3:9 Right	40.00	100.0 %	2148	2148
J3:13/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J4: Hennef Way_Southam Rd								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J4:1/1 (Hennef Way East Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J4:1/2 (Hennef Way East Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J4:1/3 (Hennef Way East Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
J4:2/1	Infinite Saturation Flow						Inf	Inf
J4:2/2	Infinite Saturation Flow						Inf	Inf
J4:2/3	Infinite Saturation Flow						Inf	Inf
J4:3/1 (Southam Rd Sth Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J4:3/2 (Southam Rd Sth Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J4:3/3 (Southam Rd Sth Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
J4:4/1	Infinite Saturation Flow						Inf	Inf
J4:4/2	Infinite Saturation Flow						Inf	Inf
J4:4/3	Infinite Saturation Flow						Inf	Inf
J4:5/1 (Ruscote Ave Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J4:5/2 (Ruscote Ave Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J4:5/3 (Ruscote Ave Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
J4:6/1	Infinite Saturation Flow						Inf	Inf
J4:6/2	Infinite Saturation Flow						Inf	Inf
J4:7/1 (Southam Rd Nth Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J4:7/2 (Southam Rd Nth Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
J4:7/3 (Southam Rd Nth Lane 3)	This lane uses a directly entered Saturation Flow						1800	1800
J4:8/1	Infinite Saturation Flow						Inf	Inf
J4:8/2	Infinite Saturation Flow						Inf	Inf
J4:8/3	Infinite Saturation Flow						Inf	Inf
J4:9/1	Infinite Saturation Flow						Inf	Inf
J4:10/1	3.65	0.00	Y	Arm J4:14 Ahead	Inf	100.0 %	1980	1980
J4:10/2	3.65	0.00	Y	Arm J4:14 Ahead	Inf	100.0 %	1980	1980
J4:11/1	Infinite Saturation Flow						Inf	Inf
J4:11/2	Infinite Saturation Flow						Inf	Inf
J4:12/1	2.50	0.00	Y	Arm J4:18 Ahead	Inf	100.0 %	1865	1865
J4:12/2	2.50	0.00	Y	Arm J4:18 Ahead	Inf	100.0 %	1865	1865
J4:13/1	3.65	0.00	Y	Arm J4:1 Ahead	Inf	100.0 %	1980	1980

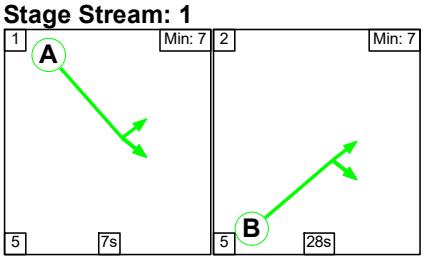
Full Input Data And Results

J4:13/2	3.65	0.00	Y	Arm J4:1 Ahead	Inf	100.0 %	1980	1980
J4:14/1	Infinite Saturation Flow						Inf	Inf
J4:15/1	4.00	0.00	Y	Arm J4:17 Ahead	Inf	100.0 %	2015	2015
J4:16/1	4.00	0.00	Y	Arm J4:7 Ahead	Inf	100.0 %	2015	2015
J4:17/1	Infinite Saturation Flow						Inf	Inf
J4:18/1	Infinite Saturation Flow						Inf	Inf
J4:18/2	Infinite Saturation Flow						Inf	Inf
J4:19/1	4.00	0.00	Y	Arm J4:5 Ahead	Inf	100.0 %	2015	2015

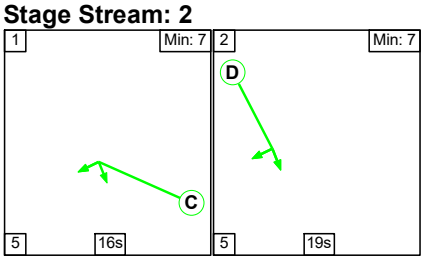
Scenario 1: '2026 AM No Dev' (FG1: '2026 AM No Dev', Plan 1: 'Control Plan 1')
C1 - M40 J11

Stage Sequence Diagram

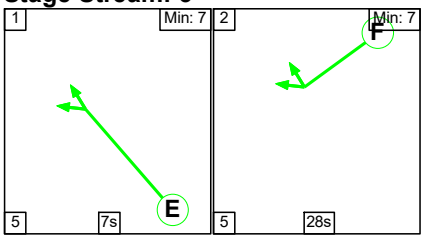
Stage Stream: 1



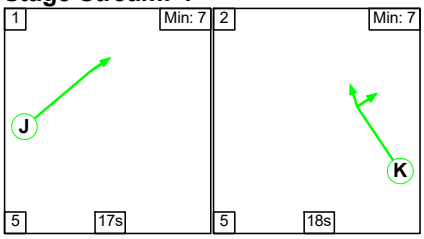
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	7	28
Change Point	14	26

Full Input Data And Results

Stage Stream: 2

Stage	1	2
Duration	16	19
Change Point	44	20

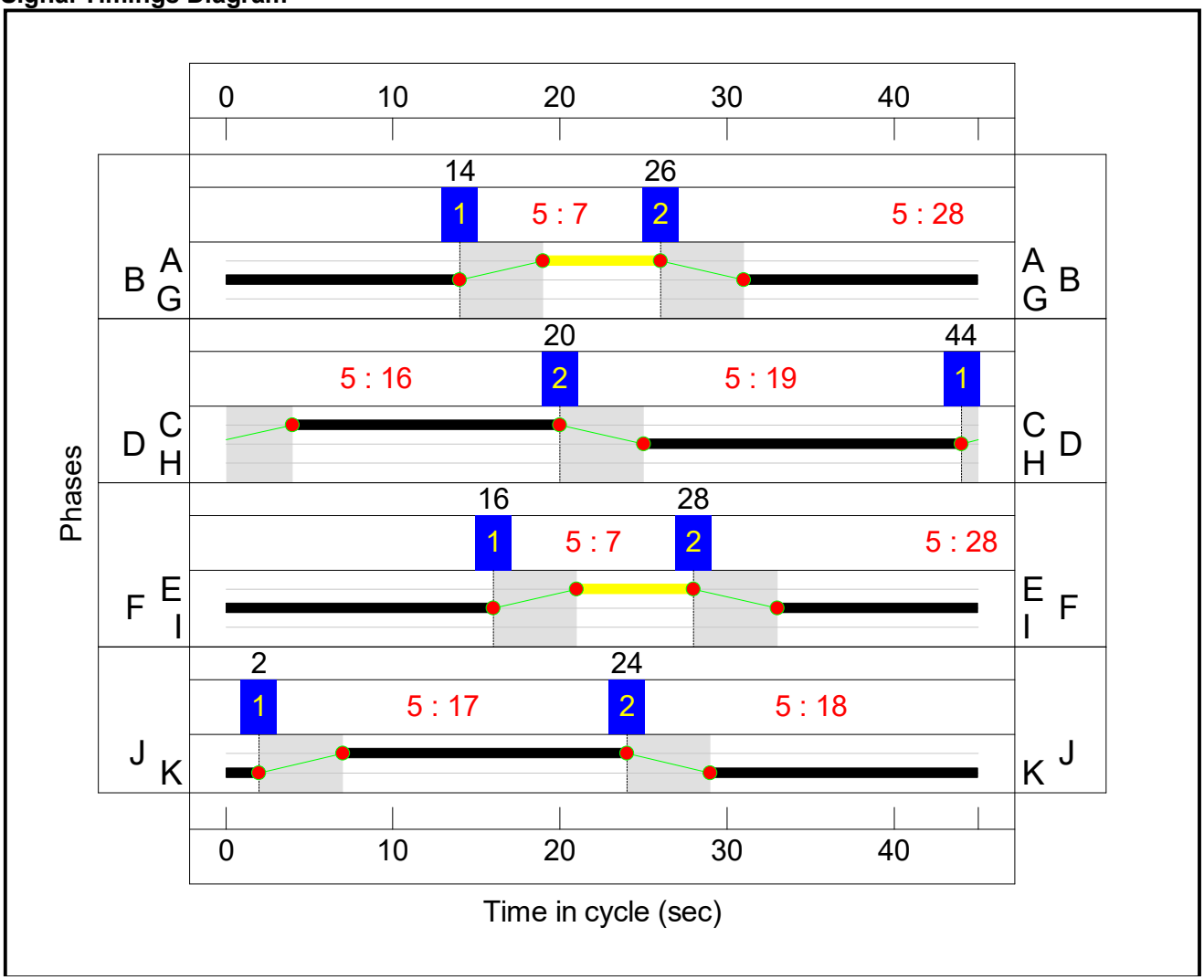
Stage Stream: 3

Stage	1	2
Duration	7	28
Change Point	16	28

Stage Stream: 4

Stage	1	2
Duration	17	18
Change Point	2	24

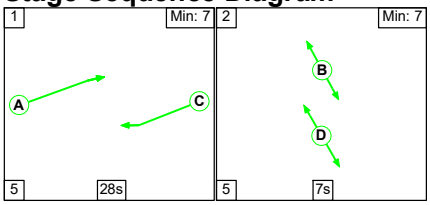
Signal Timings Diagram



Full Input Data And Results

C2 - Hennef Way Pedestrian Crossing

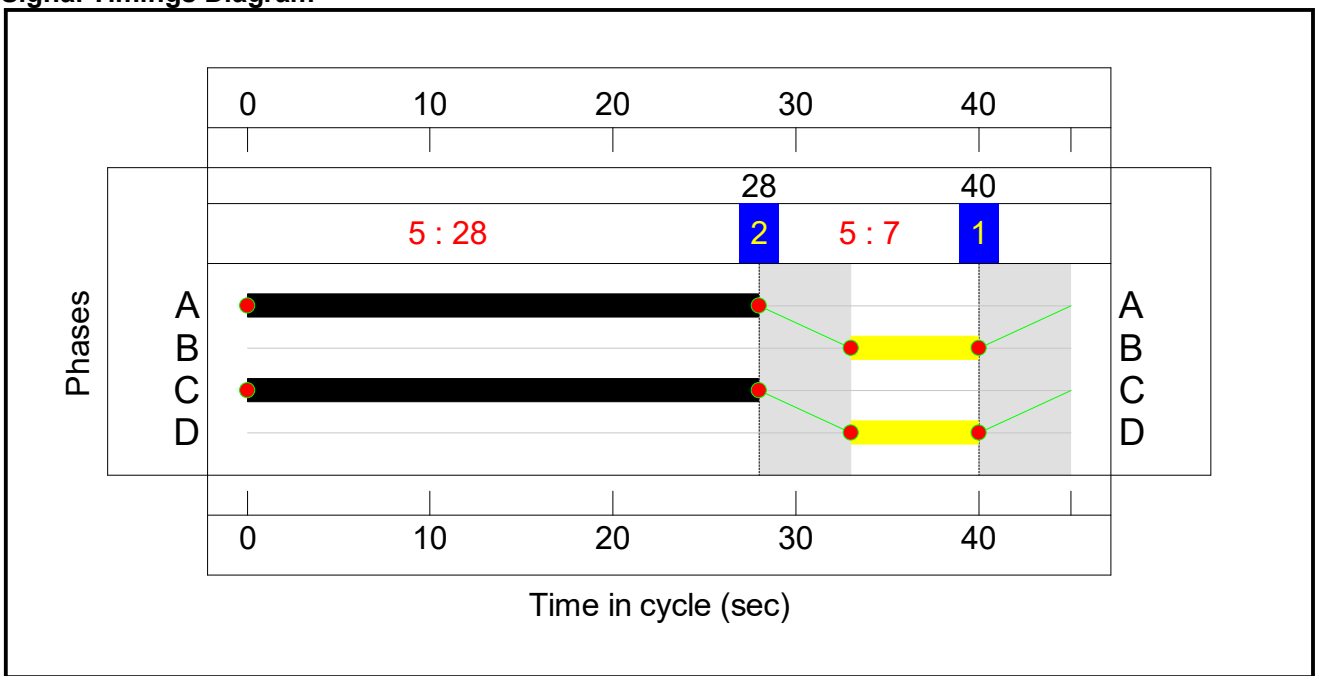
Stage Sequence Diagram



Stage Timings

Stage	1	2
Duration	28	7
Change Point	40	28

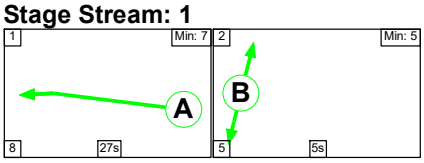
Signal Timings Diagram



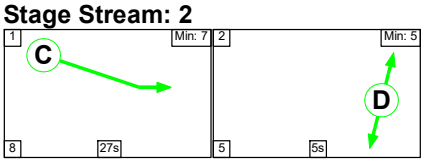
C3 - Southam Rd

Stage Sequence Diagram

Stage Stream: 1

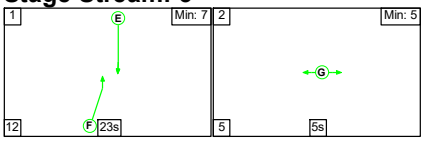


Stage Stream: 2

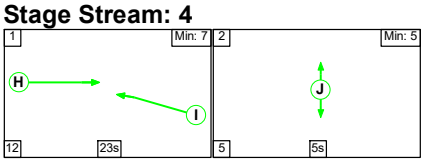


Full Input Data And Results

Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	27	5
Change Point	18	8

Stage Stream: 2

Stage	1	2
Duration	27	5
Change Point	30	20

Stage Stream: 3

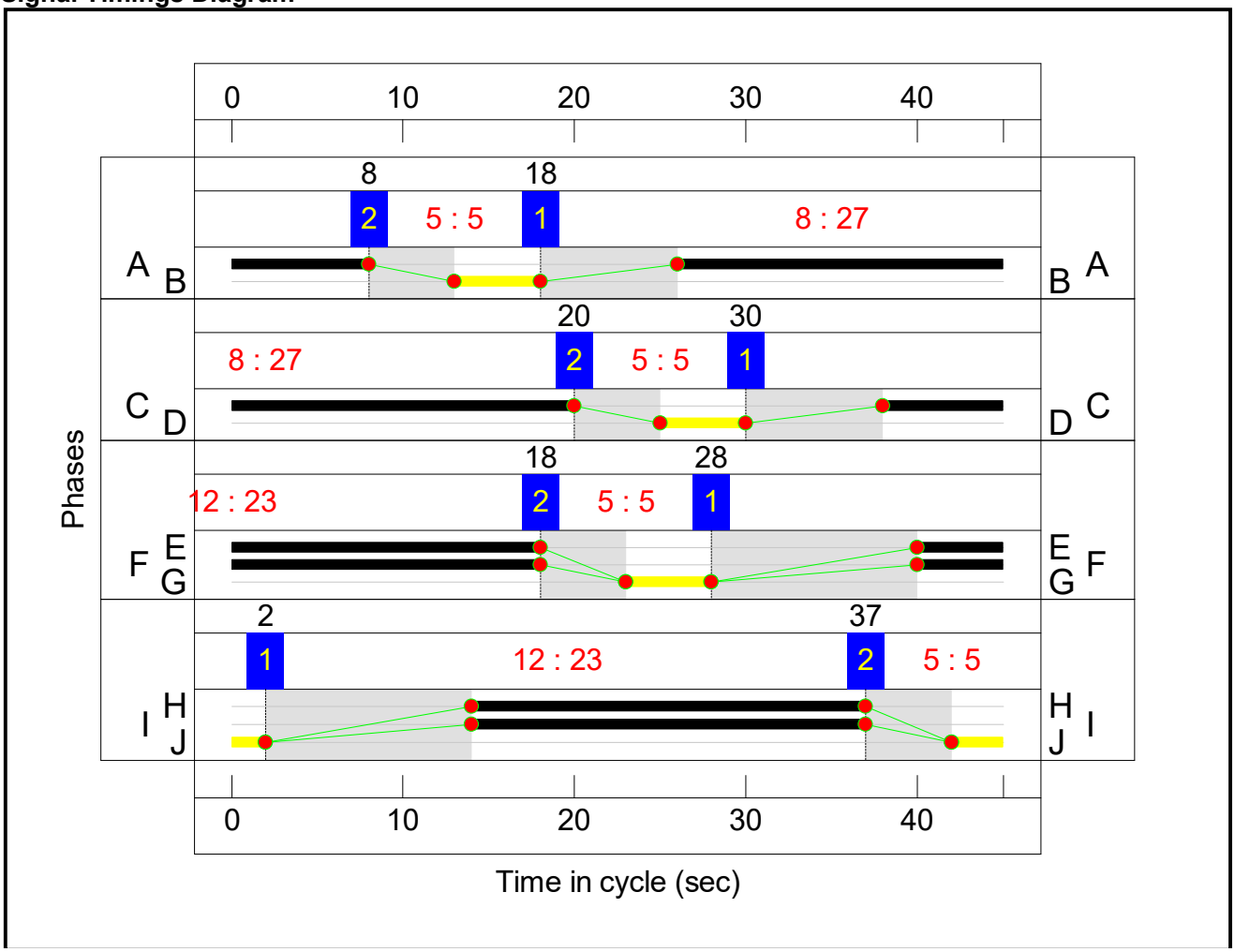
Stage	1	2
Duration	23	5
Change Point	28	18

Stage Stream: 4

Stage	1	2
Duration	23	5
Change Point	2	37

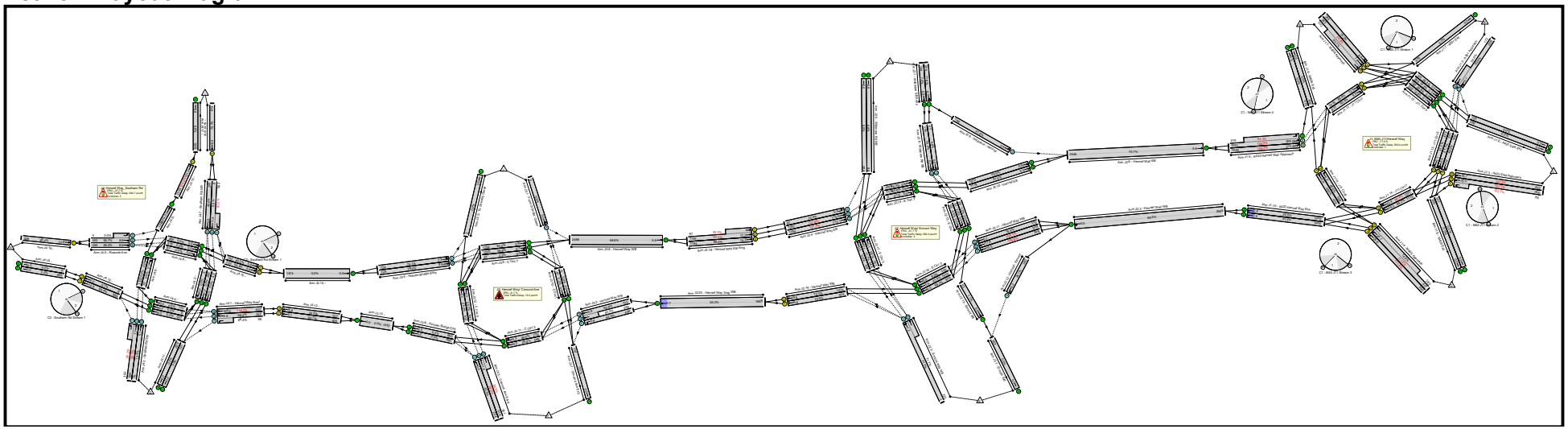
Full Input Data And Results

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: M40/Hennef Way Junction Base Model	-	-	**N/A**	-	-		-	-	-	-	-	-	**159.3%**
J1: M40 J11/Hennef Way	-	-	**N/A**	-	-		-	-	-	-	-	-	**159.3%**
1/1	M40N Approach Left Ahead	U	1:1	N/A	C1:A		1	7	-	255	1908	339	75.2%
1/2+1/3	M40N Approach Ahead	U	1:1	N/A	C1:A		1	7	-	645	2044:2044	363+363	94.4 : 83.1%
2/1+2/2	A361 Approach Left Ahead	O	N/A	N/A	-		-	-	-	432	1966:2101	457+306	56.6 : 56.6%
3/2+3/1	A422 East Approach Left Ahead	U	1:2	N/A	C1:C		1	16	-	857	1985:1985	749+86	102.7 : 102.7%
3/3	A422 East Approach Ahead	U	1:2	N/A	C1:C		1	16	-	822	2123	802	102.5%
4/1	M40S Approach Ahead	U	1:3	N/A	C1:E		1	7	-	390	1966	350	111.6%
4/2+4/3	M40S Approach Ahead Ahead2	U	1:3	N/A	C1:E		1	7	-	697	2102:2102	374+374	111.6 : 74.9%
5/2+5/1	A422 Hennef Way Approach Left Ahead	O+U	1:4	N/A	C1:J -		1	17	-	1715	2143:1943	652+504	158.0 : 94.3%
5/3	A422 Hennef Way Approach Ahead	O	1:4	N/A	C1:J		1	17	-	1188	2143	652	159.3%
6/1	M40N Exit	U	N/A	N/A	-		-	-	-	543	Inf	Inf	0.0%
6/2	M40N Exit	U	N/A	N/A	-		-	-	-	410	Inf	Inf	0.0%
7/1	A631 Exit	U	N/A	N/A	-		-	-	-	727	Inf	Inf	0.0%
8/1	A422 East Exit	U	N/A	N/A	-		-	-	-	1094	Inf	Inf	0.0%
8/2	A422 East Exit	U	N/A	N/A	-		-	-	-	516	Inf	Inf	0.0%
9/1	M40S Exit	U	N/A	N/A	-		-	-	-	769	Inf	Inf	0.0%
9/2	M40S Exit	U	N/A	N/A	-		-	-	-	368	Inf	Inf	0.0%
10/1	A422 Hennef Way Exit Ahead	U	N/A	N/A	-		-	-	-	1525	1800	1800	81.4%

Full Input Data And Results

10/2	A422 Hennef Way Exit Ahead	U	N/A	N/A	-		-	-	-	1049	1800	1800	55.6%
11/1	J11 Circ1 Ahead Right	U	1:1	N/A	C1:B		1	28	-	1542	1960	1263	80.4%
11/2	J11 Circ1 Right	U	1:1	N/A	C1:B		1	28	-	1353	2099	1353	60.4%
12/1	J11 Circ3 Ahead	U	N/A	N/A	-		-	-	-	1070	1932	1932	36.3%
12/2	J11 Circ3 Ahead	U	N/A	N/A	-		-	-	-	516	2070	2070	19.3%
12/3	J11 Circ3 Right	U	N/A	N/A	-		-	-	-	1180	2070	2070	36.8%
12/4	J11 Circ3 Right	U	N/A	N/A	-		-	-	-	302	2070	2070	14.6%
13/1	J11 Circ5 Ahead	U	1:2	N/A	C1:D		1	19	-	681	1946	865	49.2%
13/2	J11 Circ5 Ahead Right	U	1:2	N/A	C1:D		1	19	-	734	2084	926	61.7%
13/3	J11 Circ5 Right	U	1:2	N/A	C1:D		1	19	-	475	2084	926	51.3%
14/1	J11 Circ7 Ahead	U	1:3	N/A	C1:F		1	28	-	1135	1961	1264	88.2%
14/2	J11 Circ7 Ahead Right	U	1:3	N/A	C1:F		1	28	-	1297	2100	1353	94.4%
15/1	J11 Circ9 Ahead	U	1:4	N/A	C1:K		1	18	-	410	1927	814	49.4%
15/2	J11 Circ9 Right	U	1:4	N/A	C1:K		1	18	-	535	2065	872	60.6%
J2: Hennef Way/ Ermont Way	-	-	**N/A**	-	-		-	-	-	-	-	-	**127.6%**
1/1	Wildmere SB Entry Ahead Left	U	N/A	N/A	-		-	-	-	220	1865	1865	11.8%
1/2	Wildmere SB Entry Ahead	U	N/A	N/A	-		-	-	-	144	2005	2005	7.2%
2/1	Hennef Way WB Ahead Left	U	N/A	N/A	-		-	-	-	2574	3600	3600	68.5%
3/1+3/2	Ermont Way NB Ahead Left	O	N/A	N/A	-		-	-	-	371	1961:2099	1+516	71.7 : 71.7%
4/1	Hennef Way EB Left	O	N/A	N/A	-		-	-	-	97	1973	931	10.4%
4/2	Hennef Way EB Ahead	O	N/A	N/A	-		-	-	-	1187	2110	930	127.6%
4/3	Hennef Way EB Ahead	O	N/A	N/A	-		-	-	-	1184	2110	929	127.4%
5/1	Wildmere Rd NB	U	N/A	N/A	-		-	-	-	209	Inf	Inf	0.0%

Full Input Data And Results

5/2	Wildmere Rd NB	U	N/A	N/A	-		-	-	-	101	Inf	Inf	0.0%
6/1	Hennef Way EB Ahead	U	N/A	N/A	-		-	-	-	2903	3600	3600	70.7%
7/1	Ermont Exit	U	N/A	N/A	-		-	-	-	379	Inf	Inf	0.0%
8/1	Wildmere Rd SB Ahead	O	N/A	N/A	-		-	-	-	21	1942	432	4.9%
8/2	Wildmere Rd SB Ahead	O	N/A	N/A	-		-	-	-	144	2077	432	33.3%
9/1	Wildmere - Hennef Ahead	O	N/A	N/A	-		-	-	-	199	1956	478	41.6%
10/1	Hennef EB Ahead	U	N/A	N/A	-		-	-	-	1332	2031	2031	53.0%
10/2	Hennef EB Ahead	U	N/A	N/A	-		-	-	-	1372	2169	2169	51.5%
11/1	Hennef Way WB Ahead	O	N/A	N/A	-		-	-	-	1020	1854	922	105.8%
11/2	Hennef Way WB Ahead	O	N/A	N/A	-		-	-	-	1021	1986	922	106.1%
11/3	Hennef Way WB Ahead	O	N/A	N/A	-		-	-	-	178	1986	922	18.5%
12/1	Hennef - Ermont Left	O	N/A	N/A	-		-	-	-	355	2044	1413	24.1%
13/1	Ermont SB Ahead	U	N/A	N/A	-		-	-	-	24	2053	2053	1.1%
14/1	E Circ 7 Ahead	U	N/A	N/A	-		-	-	-	1332	1943	1943	55.4%
14/2	E Circ 7 Ahead	U	N/A	N/A	-		-	-	-	1372	2079	2079	53.8%
14/3	E Circ 7 Right	U	N/A	N/A	-		-	-	-	3	2079	2079	0.1%
15/1	E Circ Ahead	U	N/A	N/A	-		-	-	-	24	1950	1950	1.2%
15/2	E Circ Right	U	N/A	N/A	-		-	-	-	51	2085	2085	2.4%
15/3	E Circ Right	U	N/A	N/A	-		-	-	-	93	2085	2085	4.5%
16/1	E Circ 3 Ahead	U	N/A	N/A	-		-	-	-	1071	1998	1998	48.7%
16/2	E Circ 3 Ahead	U	N/A	N/A	-		-	-	-	1114	2138	2138	47.5%
16/3	E Circ 3 Right	U	N/A	N/A	-		-	-	-	178	2069	2069	8.2%
17/1	E Circ 5 Ahead	U	N/A	N/A	-		-	-	-	112	1943	1943	5.5%

Full Input Data And Results

17/2	E Circ 5 Ahead Right	U	N/A	N/A	-		-	-	-	246	2079	2079	11.7%
17/3	E Circ 5 Right	U	N/A	N/A	-		-	-	-	191	2079	2079	9.2%
18/2+18/1	Hennef Way EB Xing Ahead	U	N/A	N/A	C2:A		1	28	-	1284	2088:1948	1288+105	92.2 : 92.2%
18/3	Hennef Way EB Xing Ahead	U	N/A	N/A	C2:A		1	28	-	1184	2088	1346	88.0%
19/1	Hennef Way WB Ahead	U	N/A	N/A	C2:C		1	28	-	1071	2025	1305	74.6%
19/2	Hennef Way WB Ahead	U	N/A	N/A	C2:C		1	28	-	1114	2149	1385	73.3%
20/1	Hennef Way Xing WB Ahead	U	N/A	N/A	-		-	-	-	2185	3600	3600	55.2%
J3: Hennef Way/ Concord Ave	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**96.0%**
1/1	From Grimsby Green Left Ahead	O	N/A	N/A	-		-	-	-	0	2115	236	0.0%
2/1	Hennef Way WB Left	O	N/A	N/A	-		-	-	-	758	1953	1113	62.0%
2/3+2/2	Hennef Way WB Ahead	O	N/A	N/A	-		-	-	-	1427	2089:2089	1113+894	65.9 : 63.2%
3/1	Concord Ave Entry Left	O	N/A	N/A	-		-	-	-	234	1868	553	42.3%
3/2+3/3	Concord Ave Entry Ahead	O	N/A	N/A	-		-	-	-	1041	2002:2002	553+553	92.2 : 96.0%
4/1	Holman Bridge Entry Left Ahead	O	N/A	N/A	-		-	-	-	728	1976	957	76.1%
4/2	Holman Bridge Entry Ahead	O	N/A	N/A	-		-	-	-	746	2111	957	78.0%
5/1	To Grimsby Green	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
6/1	Hennef Way WB Ahead	U	N/A	N/A	-		-	-	-	2468	3600	3600	68.6%
7/1	Concord Ave Exit	U	N/A	N/A	-		-	-	-	805	Inf	Inf	0.0%
8/1	Holman Bridge Exit Ahead	U	N/A	N/A	-		-	-	-	728	Inf	Inf	0.0%

Full Input Data And Results

8/2	Holman Bridge Exit Ahead	U	N/A	N/A	-		-	-	-	933	Inf	Inf	0.0%
9/1	C Circ 7 Ahead	U	N/A	N/A	-		-	-	-	1238	1923	1923	64.4%
9/2	C Circ 7 Ahead Right	U	N/A	N/A	-		-	-	-	1230	2058	2058	59.8%
9/3	C Circ 7 Right	U	N/A	N/A	-		-	-	-	47	2058	2058	2.3%
10/1	C Circ1 Ahead	U	N/A	N/A	-		-	-	-	0	2009	2009	0.0%
10/2	C Circ1 Ahead Right	U	N/A	N/A	-		-	-	-	47	2149	2149	2.2%
11/1	C Circ 3 Ahead	U	N/A	N/A	-		-	-	-	611	1900	1900	29.8%
11/2	C Circ 3 Ahead Right	U	N/A	N/A	-		-	-	-	816	2035	2035	36.0%
12/1	C Circ 5 Ahead Right	U	N/A	N/A	-		-	-	-	510	2013	2013	25.3%
12/2	C Circ 5 Right	U	N/A	N/A	-		-	-	-	531	2148	2148	24.7%
13/1	Ahead	U	N/A	N/A	-		-	-	-	1661	Inf	Inf	0.0%
J4: Hennef Way_Southam Rd	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**124.0%**
1/2+1/1	Hennef Way East Ahead Left	O	N/A	N/A	-		-	-	-	671	1800:1800	772+143	68.3 : 68.4%
1/3	Hennef Way East Ahead	O	N/A	N/A	-		-	-	-	990	1800	772	118.7%
2/1	Ahead	U	N/A	N/A	-		-	-	-	43	Inf	Inf	0.0%
2/2	Ahead	U	N/A	N/A	-		-	-	-	289	Inf	Inf	0.0%
2/3	Right	U	N/A	N/A	-		-	-	-	5	Inf	Inf	0.0%
3/2+3/1	Southam Rd Sth Ahead Left	O	N/A	N/A	-		-	-	-	862	1800:1800	554+401	90.2 : 90.2%
3/3	Southam Rd Sth Ahead	O	N/A	N/A	-		-	-	-	70	1800	568	12.3%
4/1	Ahead	U	N/A	N/A	-		-	-	-	566	Inf	Inf	0.0%
4/2	Ahead	U	N/A	N/A	-		-	-	-	7	Inf	Inf	0.0%
4/3	Right	U	N/A	N/A	-		-	-	-	988	Inf	Inf	0.0%
5/2+5/1	Ruscote Ave Ahead Left	O	N/A	N/A	-		-	-	-	463	1800:1800	540+0	85.7 : 0.0%

Full Input Data And Results

5/3	Ruscote Ave Ahead	O	N/A	N/A	-		-	-	-	465	1800	540	86.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	1488	Inf	Inf	0.0%
6/2	Right	U	N/A	N/A	-		-	-	-	70	Inf	Inf	0.0%
7/2+7/1	Southam Rd Nth Ahead Left	O	N/A	N/A	-		-	-	-	563	1800:1800	0+617	0.0 : 91.2%
7/3	Southam Rd Nth Ahead	O	N/A	N/A	-		-	-	-	250	1800	617	40.5%
8/1	Ahead	U	N/A	N/A	-		-	-	-	495	Inf	Inf	0.0%
8/2	Ahead	U	N/A	N/A	-		-	-	-	416	Inf	Inf	0.0%
8/3	Right	U	N/A	N/A	-		-	-	-	87	Inf	Inf	0.0%
9/1	Ahead	U	N/A	N/A	-		-	-	-	1488	Inf	Inf	0.0%
10/1	Ahead	U	3:2	N/A	C3:C		1	27	-	742	1980	1232	60.2%
10/2	Ahead	U	3:2	N/A	C3:C		1	27	-	732	1980	1232	59.4%
11/1		U	N/A	N/A	-		-	-	-	148	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	289	Inf	Inf	0.0%
12/1	Ahead	U	3:4	N/A	C3:I		1	23	-	928	1865	995	89.4%
12/2	Ahead	U	3:4	N/A	C3:I		1	23	-	7	1865	995	0.7%
13/1	Ahead	U	3:1	N/A	C3:A		1	27	-	671	1980	1232	50.7%
13/2	Ahead	U	3:1	N/A	C3:A		1	27	-	990	1980	1232	74.4%
14/1	Ahead	U	N/A	N/A	-		-	-	-	1474	Inf	Inf	0.0%
15/1	Ahead	U	3:3	N/A	C3:F		1	23	-	1488	2015	1075	124.0%
16/1	Ahead	U	3:3	N/A	C3:E		1	23	-	813	2015	1075	75.7%
17/1		U	N/A	N/A	-		-	-	-	1488	Inf	Inf	0.0%
18/1		U	N/A	N/A	-		-	-	-	928	Inf	Inf	0.0%
18/2		U	N/A	N/A	-		-	-	-	7	Inf	Inf	0.0%
19/1	Ahead	U	3:4	N/A	C3:H		1	23	-	928	2015	1075	86.4%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M40/Hennef Way Junction Base Model	**-**	**-**	**19942**	**1305**	**0**	**121.7**	**1104.5**	**0.0**	**1226.1**	**-**	**-**	**-**	**-**
J1: M40 J11/Hennef Way	**-**	**-**	**864**	**1305**	**0**	**58.5**	**504.8**	**0.0**	**563.4**	**-**	**-**	**-**	**-**
1/1	255	255	-	-	-	1.2	1.5	-	2.7	38.2	3.0	1.5	4.4
1/2+1/3	645	645	-	-	-	3.2	3.6	-	6.9	38.3	4.2	3.6	7.8
2/1+2/2	432	432	864	0	0	0.4	0.6	-	1.1	9.1	2.4	0.6	3.1
3/2+3/1	857	835	-	-	-	3.8	21.3	-	25.0	105.2	10.7	21.3	32.0
3/3	822	802	-	-	-	3.6	20.2	-	23.8	104.2	10.5	20.2	30.7
4/1	390	350	-	-	-	2.7	24.3	-	27.0	249.1	5.4	24.3	29.6
4/2+4/3	697	654	-	-	-	4.3	27.3	-	31.6	163.1	5.8	27.3	33.1
5/2+5/1	1507	1128	0	652	0	11.5	191.4	-	202.9	484.8	17.6	191.4	209.0
5/3	1039	652	0	652	0	11.7	194.6	-	206.3	714.8	17.8	194.6	212.4
6/1	476	476	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	402	402	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	570	570	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	725	725	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	399	399	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	511	511	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	205	205	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	1464	1464	-	-	-	0.2	2.2	-	2.4	5.8	0.8	2.2	2.9
10/2	1000	1000	-	-	-	0.0	0.6	-	0.6	2.3	0.3	0.6	0.9
11/1	1016	1016	-	-	-	1.3	2.0	-	3.4	11.9	10.9	2.0	12.9
11/2	817	817	-	-	-	0.9	0.8	-	1.6	7.2	7.7	0.8	8.5
12/1	701	701	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
12/2	399	399	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1

Full Input Data And Results

12/3	762	762	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
12/4	302	302	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
13/1	426	426	-	-	-	1.7	0.5	-	2.2	18.2	5.1	0.5	5.6
13/2	571	571	-	-	-	1.6	0.8	-	2.4	15.3	4.7	0.8	5.5
13/3	475	475	-	-	-	0.9	0.5	-	1.4	11.0	2.6	0.5	3.1
14/1	1115	1115	-	-	-	2.9	3.6	-	6.5	20.9	12.7	3.6	16.3
14/2	1277	1277	-	-	-	3.4	7.1	-	10.5	29.5	15.4	7.1	22.4
15/1	402	402	-	-	-	1.8	0.5	-	2.3	20.5	4.1	0.5	4.6
15/2	529	529	-	-	-	1.3	0.8	-	2.1	14.2	5.4	0.8	6.2
J2: Hennef Way/ Ermont Way	**-**	**-**	**5418**	**0**	**0**	**32.4**	**349.6**	**0.0**	**382.0**	**-**	**-**	**-**	**-**
1/1	220	220	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
1/2	144	144	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
2/1	2465	2465	-	-	-	0.0	1.1	-	1.1	1.6	0.0	0.5	0.5
3/1+3/2	371	371	742	0	0	0.0	1.2	-	1.2	12.1	0.0	1.2	1.2
4/1	97	97	97	0	0	0.0	0.1	-	0.1	2.2	0.3	0.1	0.4
4/2	1187	930	930	0	0	10.8	130.5	-	141.3	428.6	44.5	130.5	175.0
4/3	1184	929	929	0	0	10.8	129.7	-	140.5	427.1	44.4	129.7	174.1
5/1	204	204	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	98	98	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	2546	2546	-	-	-	0.0	1.2	-	1.2	1.7	0.0	0.6	0.6
7/1	363	363	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	21	21	21	0	0	0.0	0.0	-	0.0	4.4	0.0	0.0	0.0
8/2	144	144	144	0	0	0.0	0.2	-	0.2	6.2	0.0	0.2	0.2
9/1	199	199	199	0	0	0.0	0.4	-	0.4	6.4	0.0	0.4	0.4
10/1	1075	1075	-	-	-	0.0	0.6	-	0.6	1.9	0.0	0.6	0.6
10/2	1118	1118	-	-	-	0.0	0.5	-	0.5	1.7	0.0	0.5	0.5
11/1	976	922	922	0	0	1.8	33.9	-	35.8	131.9	36.6	33.9	70.5
11/2	979	922	922	0	0	1.9	35.1	-	36.9	135.9	36.7	35.1	71.8
11/3	170	170	170	0	0	0.0	0.1	-	0.1	2.4	0.0	0.1	0.1

Full Input Data And Results

12/1	340	340	340	0	0	0.0	0.2	-	0.2	1.7	0.0	0.2	0.2
13/1	23	23	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
14/1	1075	1075	-	-	-	0.0	0.6	-	0.6	2.1	0.0	0.6	0.6
14/2	1118	1118	-	-	-	0.0	0.6	-	0.6	1.9	0.0	0.6	0.6
14/3	2	2	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
15/1	23	23	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
15/2	51	51	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
15/3	93	93	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
16/1	973	973	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
16/2	1015	1015	-	-	-	0.0	0.5	-	0.5	1.6	0.0	0.5	0.5
16/3	170	170	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
17/1	107	107	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
17/2	243	243	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
17/3	191	191	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
18/2+18/1	1284	1284	-	-	-	2.1	5.4	-	7.5	20.9	12.3	5.4	17.7
18/3	1184	1184	-	-	-	2.0	3.5	-	5.5	16.6	11.7	3.5	15.2
19/1	973	973	-	-	-	1.5	1.5	-	2.9	10.9	8.1	1.5	9.6
19/2	1015	1015	-	-	-	1.5	1.4	-	2.9	10.2	8.5	1.4	9.8
20/1	1989	1989	-	-	-	0.1	0.6	-	0.7	1.4	0.4	0.3	0.7
J3: Hennef Way/ Concord Ave	**-**	**-**	**7077**	**0**	**0**	**0.4**	**15.6**	**0.0**	**16.0**	**-**	**-**	**-**	**-**
1/1	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/1	690	690	690	0	0	0.0	0.8	-	0.8	4.2	0.0	0.8	0.8
2/3+2/2	1299	1299	2598	0	0	0.0	0.9	-	0.9	2.5	0.0	0.9	0.9
3/1	234	234	234	0	0	0.0	0.4	-	0.4	5.6	0.0	0.4	0.4
3/2+3/3	1041	1041	2082	0	0	0.2	6.6	-	6.8	23.6	4.9	6.6	11.5
4/1	728	728	728	0	0	0.1	1.6	-	1.7	8.2	6.3	1.6	7.9
4/2	746	746	746	0	0	0.1	1.7	-	1.9	9.0	6.9	1.7	8.6
5/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	2468	2468	-	-	-	0.0	1.1	-	1.1	1.6	0.0	0.5	0.5

Full Input Data And Results

7/1	737	737	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	683	683	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	850	850	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	1238	1238	-	-	-	0.0	0.9	-	0.9	2.6	0.0	0.9	0.9
9/2	1230	1230	-	-	-	0.0	0.7	-	0.7	2.2	0.0	0.7	0.7
9/3	47	47	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
10/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	47	47	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
11/1	566	566	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
11/2	733	733	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
12/1	510	510	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
12/2	531	531	-	-	-	0.0	0.2	-	0.2	1.1	0.0	0.2	0.2
13/1	1542	1542	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J4: Hennef Way_Southam Rd	**-**	**-**	**6583**	**0**	**0**	**30.3**	**234.4**	**0.0**	**264.7**	**-**	**-**	**-**	**-**
1/2+1/1	625	625	1250	0	0	0.6	1.1	-	1.7	9.7	8.8	1.1	9.9
1/3	917	772	772	0	0	5.8	75.4	-	81.2	318.9	30.6	75.4	106.0
2/1	43	43	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/2	289	289	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/3	5	5	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2+3/1	862	862	1724	0	0	0.0	4.2	-	4.2	17.6	3.5	4.2	7.7
3/3	70	70	70	0	0	0.0	0.1	-	0.1	3.6	0.0	0.1	0.1
4/1	527	527	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	6	6	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/3	771	771	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2+5/1	463	463	926	0	0	1.0	2.8	-	3.8	29.7	5.8	2.8	8.6
5/3	465	465	465	0	0	0.9	2.9	-	3.8	29.3	5.7	2.9	8.6
6/1	1332	1332	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	70	70	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2+7/1	563	563	1126	0	0	1.7	4.5	-	6.2	39.4	7.0	4.5	11.5

Full Input Data And Results

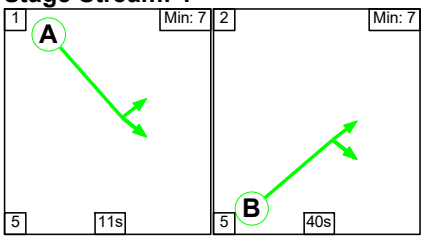
7/3	250	250	250	0	0	0.0	0.3	-	0.3	5.0	1.7	0.3	2.0
8/1	495	495	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	416	416	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/3	87	87	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	1332	1332	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	742	742	-	-	-	0.9	0.8	-	1.6	8.0	5.1	0.8	5.8
10/2	732	732	-	-	-	0.9	0.7	-	1.7	8.2	5.1	0.7	5.9
11/1	141	141	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	289	289	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	889	889	-	-	-	2.5	3.9	-	6.4	26.0	10.7	3.9	14.6
12/2	6	6	-	-	-	0.0	0.0	-	0.0	4.8	0.0	0.0	0.0
13/1	625	625	-	-	-	0.7	0.5	-	1.2	6.8	3.6	0.5	4.1
13/2	917	917	-	-	-	1.2	1.4	-	2.7	10.6	7.3	1.4	8.8
14/1	1474	1474	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	1332	1075	-	-	-	9.7	131.3	-	141.0	381.0	19.9	131.3	151.2
16/1	813	813	-	-	-	1.9	1.5	-	3.4	15.0	7.9	1.5	9.4
17/1	1075	1075	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	889	889	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/2	6	6	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/1	928	928	-	-	-	2.3	3.0	-	5.4	20.9	9.8	3.0	12.8

C1 - M40 J11	Stream: 1 PRC for Signalled Lanes (%):	-4.9	Total Delay for Signalled Lanes (pcuHr):	14.58	Cycle Time (s): 45
C1 - M40 J11	Stream: 2 PRC for Signalled Lanes (%):	-14.1	Total Delay for Signalled Lanes (pcuHr):	54.86	Cycle Time (s): 45
C1 - M40 J11	Stream: 3 PRC for Signalled Lanes (%):	-24.0	Total Delay for Signalled Lanes (pcuHr):	75.48	Cycle Time (s): 45
C1 - M40 J11	Stream: 4 PRC for Signalled Lanes (%):	-77.0	Total Delay for Signalled Lanes (pcuHr):	413.56	Cycle Time (s): 45
C2 - Hennef Way Pedestrian Crossing	PRC for Signalled Lanes (%):	-2.4	Total Delay for Signalled Lanes (pcuHr):	18.75	Cycle Time (s): 45
C3 - Southam Rd	Stream: 1 PRC for Signalled Lanes (%):	21.0	Total Delay for Signalled Lanes (pcuHr):	3.87	Cycle Time (s): 45
C3 - Southam Rd	Stream: 2 PRC for Signalled Lanes (%):	49.4	Total Delay for Signalled Lanes (pcuHr):	3.32	Cycle Time (s): 45
C3 - Southam Rd	Stream: 3 PRC for Signalled Lanes (%):	-37.7	Total Delay for Signalled Lanes (pcuHr):	144.39	Cycle Time (s): 45
C3 - Southam Rd	Stream: 4 PRC for Signalled Lanes (%):	0.7	Total Delay for Signalled Lanes (pcuHr):	11.81	Cycle Time (s): 45
	PRC Over All Lanes (%):	-77.0	Total Delay Over All Lanes(pcuHr):	1226.13	

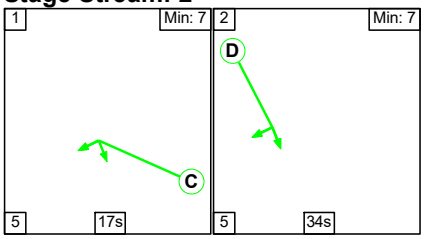
Full Input Data And Results
Scenario 2: '2026 PM No Dev' (FG2: '2026 PM No Dev', Plan 1: 'Control Plan 1')
C1 - M40 J11

Stage Sequence Diagram

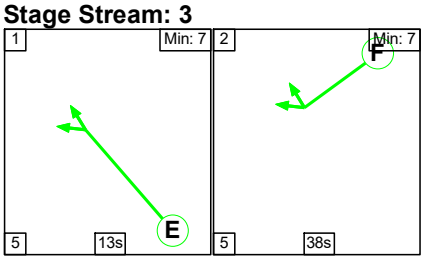
Stage Stream: 1



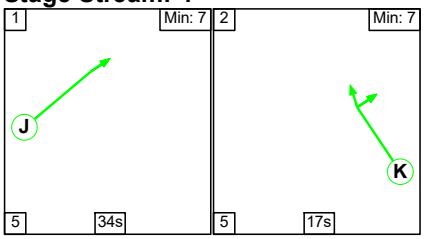
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	11	40
Change Point	10	26

Stage Stream: 2

Stage	1	2
Duration	17	34
Change Point	57	18

Stage Stream: 3

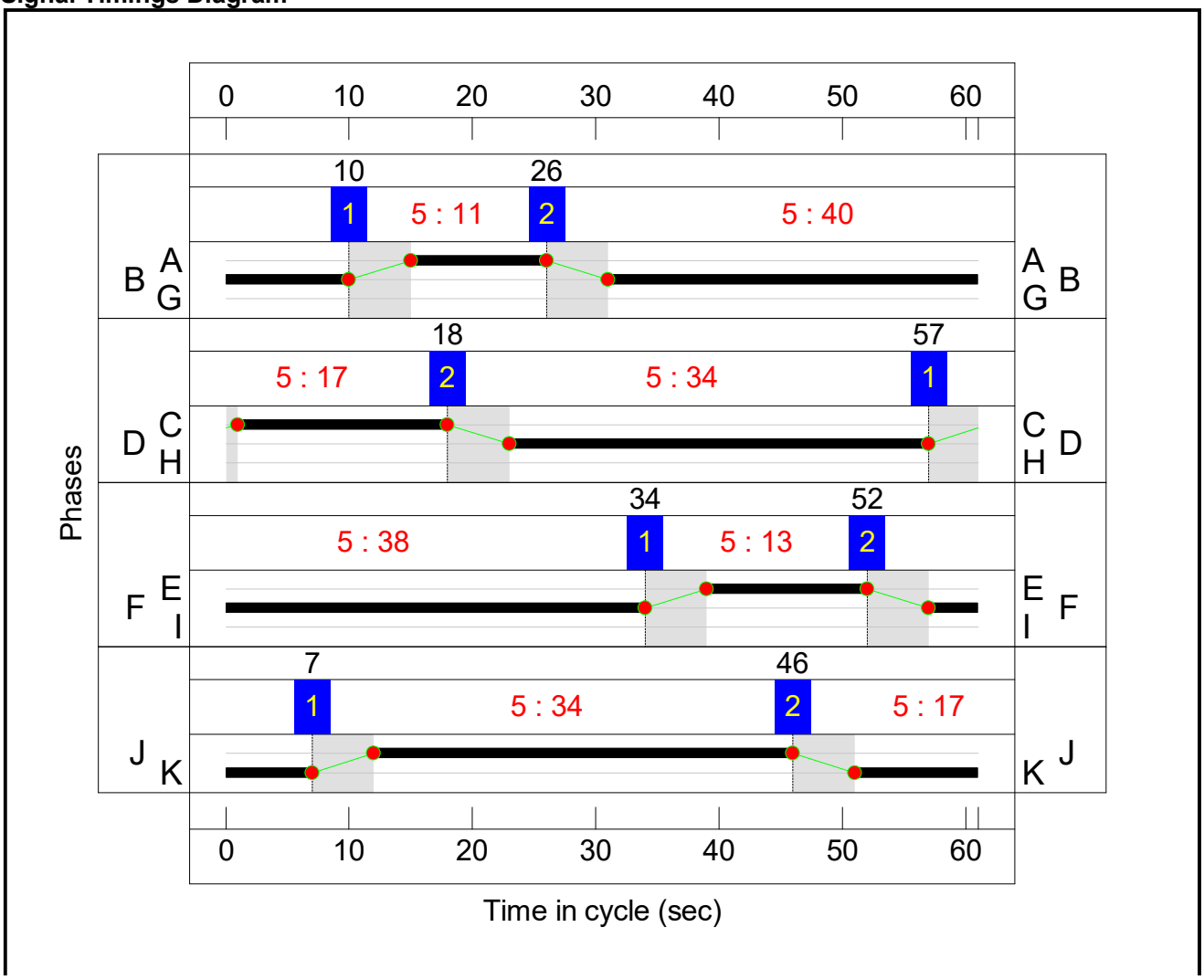
Stage	1	2
Duration	13	38
Change Point	34	52

Full Input Data And Results

Stage Stream: 4

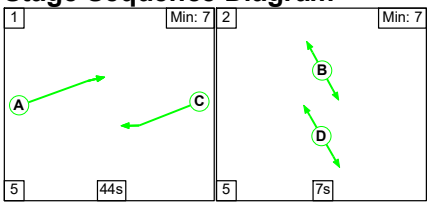
Stage	1	2
Duration	34	17
Change Point	7	46

Signal Timings Diagram



C2 - Hennef Way Pedestrian Crossing

Stage Sequence Diagram

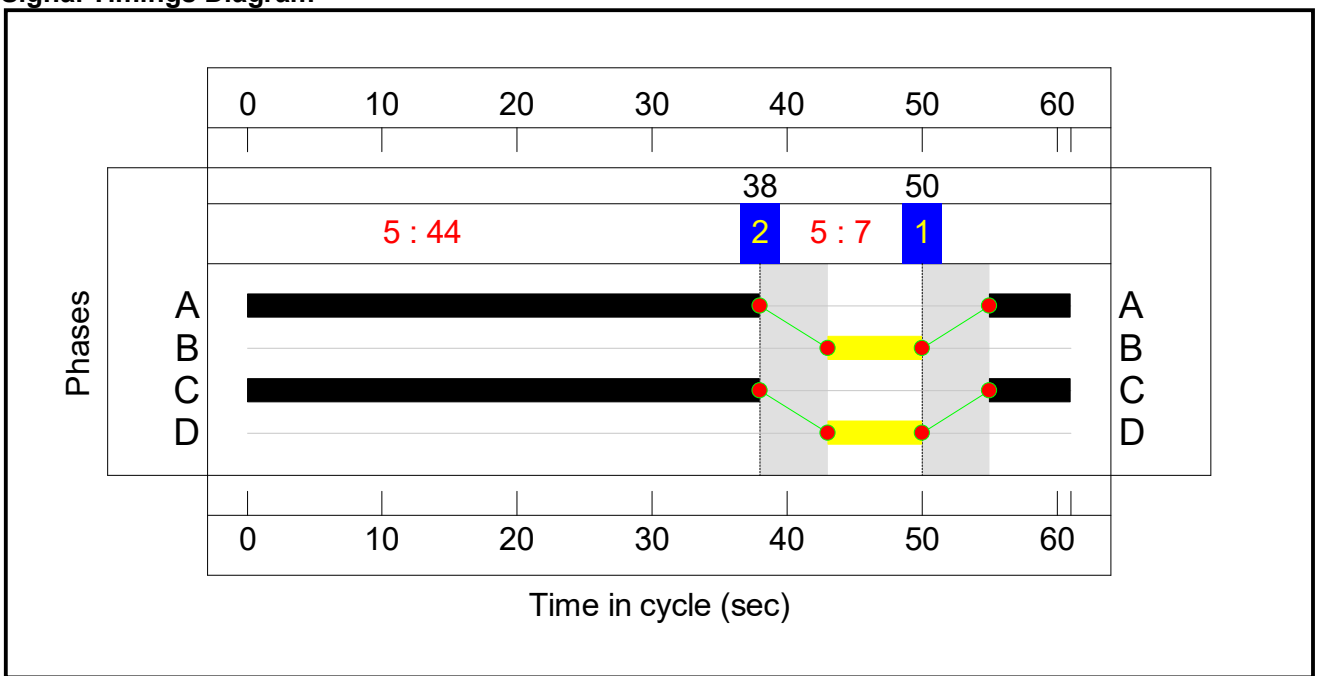


Stage Timings

Stage	1	2
Duration	44	7
Change Point	50	38

Full Input Data And Results

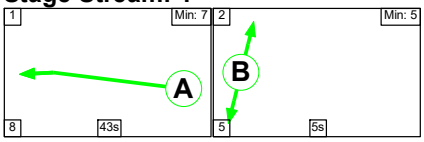
Signal Timings Diagram



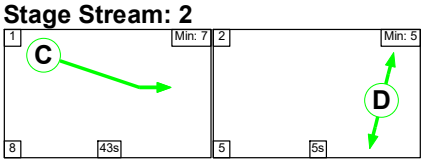
C3 - Southam Rd

Stage Sequence Diagram

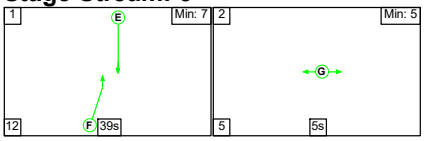
Stage Stream: 1



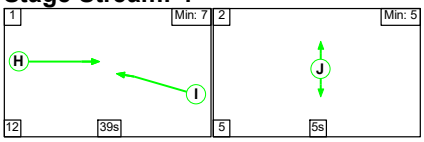
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	43	5
Change Point	34	24

Full Input Data And Results

Stage Stream: 2

Stage	1	2
Duration	43	5
Change Point	2	53

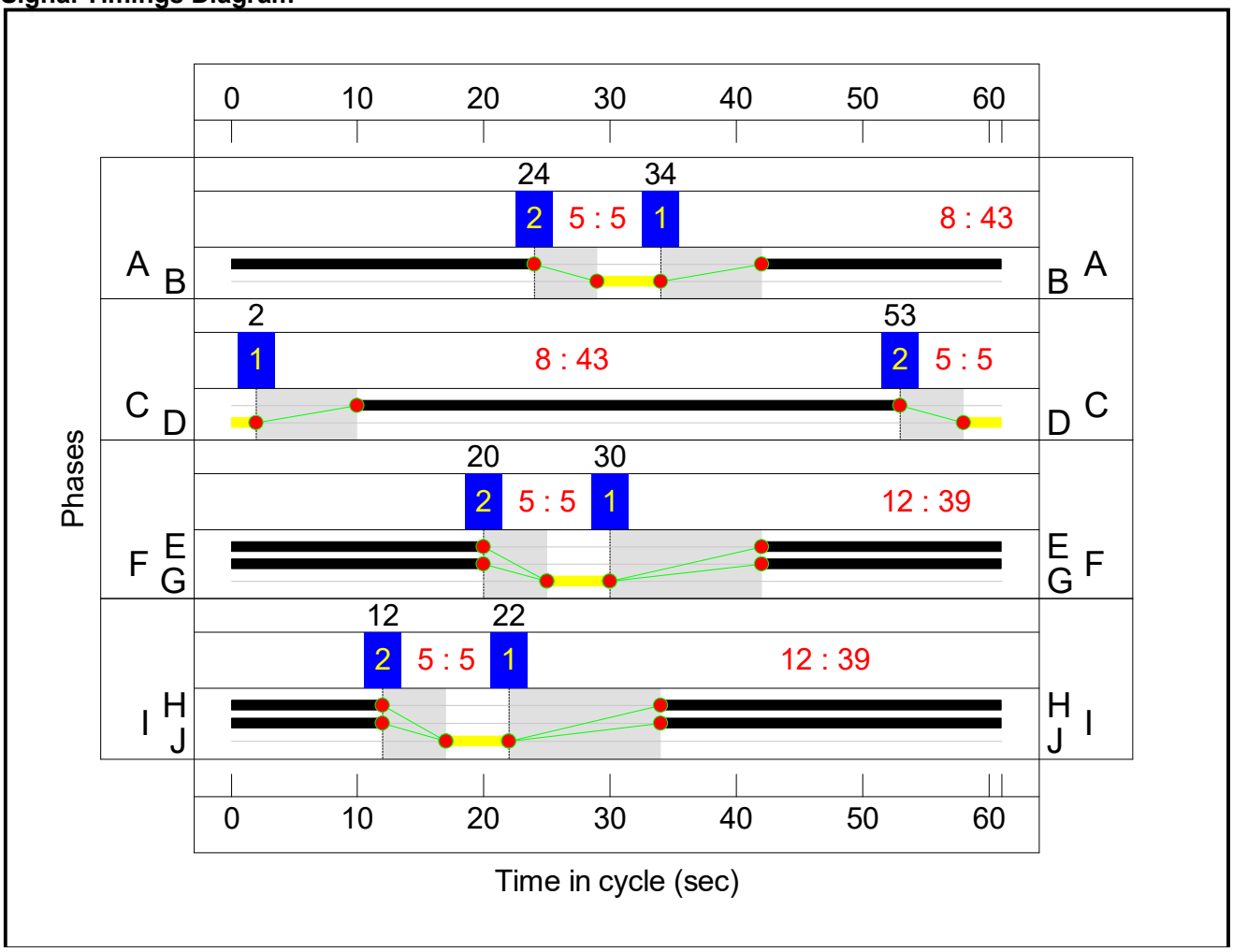
Stage Stream: 3

Stage	1	2
Duration	39	5
Change Point	30	20

Stage Stream: 4

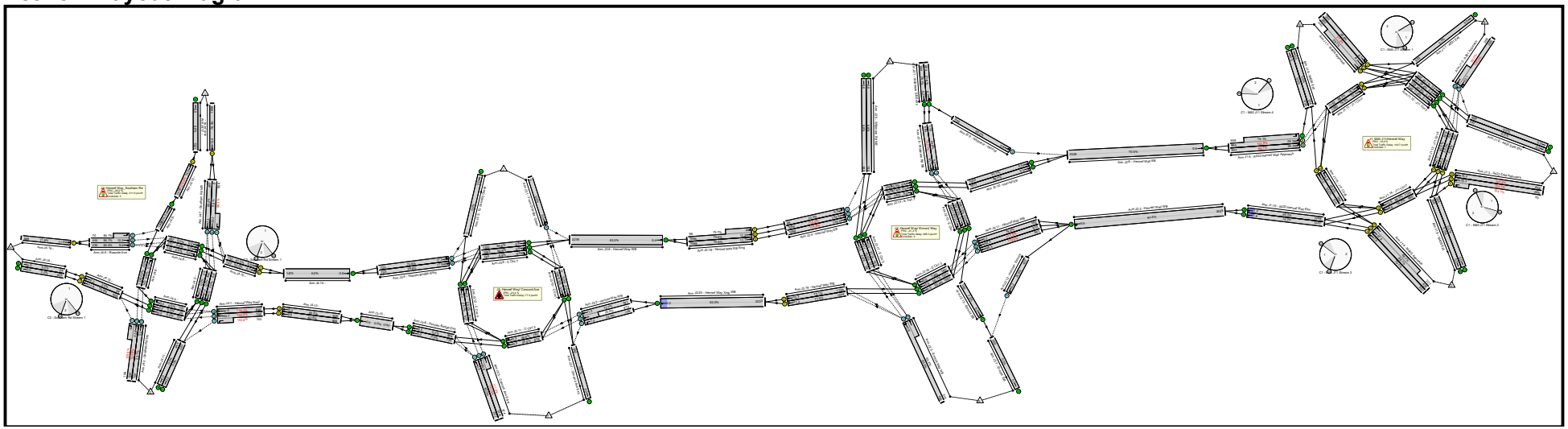
Stage	1	2
Duration	39	5
Change Point	22	12

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: M40/Hennef Way Junction Base Model	-	-	**N/A**	-	-		-	-	-	-	-	-	**127.1%**
J1: M40 J11/Hennef Way	-	-	**N/A**	-	-		-	-	-	-	-	-	**104.4%**
1/1	M40N Approach Left Ahead	U	1:1	N/A	C1:A		1	11	-	223	1908	375	59.4%
1/2+1/3	M40N Approach Ahead	U	1:1	N/A	C1:A		1	11	-	630	2044:2044	402+402	97.0 : 59.7%
2/1+2/2	A361 Approach Left Ahead	O	N/A	N/A	-		-	-	-	563	1966:2101	294+282	100.3 : 95.0%
3/2+3/1	A422 East Approach Left Ahead	U	1:2	N/A	C1:C		1	17	-	686	1985:1985	572+86	104.1 : 104.1%
3/3	A422 East Approach Ahead	U	1:2	N/A	C1:C		1	17	-	654	2123	626	104.4%
4/1	M40S Approach Ahead	U	1:3	N/A	C1:E		1	13	-	357	1966	451	79.1%
4/2+4/3	M40S Approach Ahead Ahead2	U	1:3	N/A	C1:E		1	13	-	652	2102:2102	482+258	88.1 : 88.1%
5/2+5/1	A422 Hennef Way Approach Left Ahead	O+U	1:4	N/A	C1:J -		1	34	-	1797	2143:1943	936+843	101.9 : 78.1%
5/3	A422 Hennef Way Approach Ahead	O	1:4	N/A	C1:J		1	34	-	1044	2143	936	99.1%
6/1	M40N Exit	U	N/A	N/A	-		-	-	-	737	Inf	Inf	0.0%
6/2	M40N Exit	U	N/A	N/A	-		-	-	-	325	Inf	Inf	0.0%
7/1	A631 Exit	U	N/A	N/A	-		-	-	-	578	Inf	Inf	0.0%
8/1	A422 East Exit	U	N/A	N/A	-		-	-	-	985	Inf	Inf	0.0%
8/2	A422 East Exit	U	N/A	N/A	-		-	-	-	587	Inf	Inf	0.0%
9/1	M40S Exit	U	N/A	N/A	-		-	-	-	597	Inf	Inf	0.0%
9/2	M40S Exit	U	N/A	N/A	-		-	-	-	338	Inf	Inf	0.0%
10/1	A422 Hennef Way Exit Ahead	U	N/A	N/A	-		-	-	-	1361	1800	1800	74.3%

Full Input Data And Results

10/2	A422 Hennef Way Exit Ahead	U	N/A	N/A	-		-	-	-	1098	1800	1800	60.5%
11/1	J11 Circ1 Ahead Right	U	1:1	N/A	C1:B		1	40	-	1293	1960	1317	88.2%
11/2	J11 Circ1 Right	U	1:1	N/A	C1:B		1	40	-	1202	2099	1411	76.9%
12/1	J11 Circ3 Ahead	U	N/A	N/A	-		-	-	-	938	1932	1932	44.1%
12/2	J11 Circ3 Ahead	U	N/A	N/A	-		-	-	-	587	2070	2070	26.4%
12/3	J11 Circ3 Right	U	N/A	N/A	-		-	-	-	1005	2070	2070	44.8%
12/4	J11 Circ3 Right	U	N/A	N/A	-		-	-	-	240	2070	2070	11.6%
13/1	J11 Circ5 Ahead	U	1:2	N/A	C1:D		1	34	-	507	1946	1117	41.8%
13/2	J11 Circ5 Ahead Right	U	1:2	N/A	C1:D		1	34	-	746	2084	1196	59.3%
13/3	J11 Circ5 Right	U	1:2	N/A	C1:D		1	34	-	508	2084	1196	42.5%
14/1	J11 Circ7 Ahead	U	1:3	N/A	C1:F		1	38	-	1004	1961	1254	78.2%
14/2	J11 Circ7 Ahead Right	U	1:3	N/A	C1:F		1	38	-	1162	2100	1343	84.5%
15/1	J11 Circ9 Ahead	U	1:4	N/A	C1:K		1	17	-	325	1927	569	55.3%
15/2	J11 Circ9 Right	U	1:4	N/A	C1:K		1	17	-	391	2065	609	63.0%
J2: Hennef Way/ Ermont Way	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**127.1%**
1/1	Wildmere SB Entry Ahead Left	U	N/A	N/A	-		-	-	-	403	1865	1865	21.6%
1/2	Wildmere SB Entry Ahead	U	N/A	N/A	-		-	-	-	564	2005	2005	28.1%
2/1	Hennef Way WB Ahead Left	U	N/A	N/A	-		-	-	-	2459	3600	3600	67.4%
3/1+3/2	Ermont Way NB Ahead Left	O	N/A	N/A	-		-	-	-	475	1990:2099	246+503	63.4 : 63.4%
4/1	Hennef Way EB Left	O	N/A	N/A	-		-	-	-	103	1973	948	10.2%
4/2	Hennef Way EB Ahead	O	N/A	N/A	-		-	-	-	1173	2110	948	115.5%
4/3	Hennef Way EB Ahead	O	N/A	N/A	-		-	-	-	1163	2110	947	114.8%
5/1	Wildmere Rd NB	U	N/A	N/A	-		-	-	-	197	Inf	Inf	0.0%

Full Input Data And Results

5/2	Wildmere Rd NB	U	N/A	N/A	-		-	-	-	131	Inf	Inf	0.0%
6/1	Hennef Way EB Ahead	U	N/A	N/A	-		-	-	-	2841	3600	3600	70.5%
7/1	Ermont Exit	U	N/A	N/A	-		-	-	-	570	Inf	Inf	0.0%
8/1	Wildmere Rd SB Ahead	O	N/A	N/A	-		-	-	-	110	1942	444	24.8%
8/2	Wildmere Rd SB Ahead	O	N/A	N/A	-		-	-	-	564	2077	444	127.1%
9/1	Wildmere - Hennef Ahead	O	N/A	N/A	-		-	-	-	293	1956	486	60.2%
10/1	Hennef EB Ahead	U	N/A	N/A	-		-	-	-	1264	2031	2031	51.1%
10/2	Hennef EB Ahead	U	N/A	N/A	-		-	-	-	1284	2169	2169	49.7%
11/1	Hennef Way WB Ahead	O	N/A	N/A	-		-	-	-	954	1854	840	112.0%
11/2	Hennef Way WB Ahead	O	N/A	N/A	-		-	-	-	928	1986	825	111.0%
11/3	Hennef Way WB Ahead	O	N/A	N/A	-		-	-	-	164	1986	840	19.2%
12/1	Hennef - Ermont Left	O	N/A	N/A	-		-	-	-	413	2044	1277	31.9%
13/1	Ermont SB Ahead	U	N/A	N/A	-		-	-	-	157	2053	2053	7.2%
14/1	E Circ 7 Ahead	U	N/A	N/A	-		-	-	-	1264	1943	1943	53.5%
14/2	E Circ 7 Ahead	U	N/A	N/A	-		-	-	-	1284	2079	2079	51.8%
14/3	E Circ 7 Right	U	N/A	N/A	-		-	-	-	47	2079	2079	1.8%
15/1	E Circ Ahead	U	N/A	N/A	-		-	-	-	157	1950	1950	7.6%
15/2	E Circ Right	U	N/A	N/A	-		-	-	-	251	2085	2085	9.5%
15/3	E Circ Right	U	N/A	N/A	-		-	-	-	313	2085	2085	11.8%
16/1	E Circ 3 Ahead	U	N/A	N/A	-		-	-	-	1205	1998	1998	50.4%
16/2	E Circ 3 Ahead	U	N/A	N/A	-		-	-	-	1241	2138	2138	50.1%
16/3	E Circ 3 Right	U	N/A	N/A	-		-	-	-	164	2069	2069	7.8%
17/1	E Circ 5 Ahead	U	N/A	N/A	-		-	-	-	94	1943	1943	4.8%

Full Input Data And Results

17/2	E Circ 5 Ahead Right	U	N/A	N/A	-		-	-	-	222	2079	2079	10.6%
17/3	E Circ 5 Right	U	N/A	N/A	-		-	-	-	168	2079	2079	8.1%
18/2+18/1	Hennef Way EB Xing Ahead	U	N/A	N/A	C2:A		1	44	-	1276	2088:1948	1448+127	75.6 : 75.7%
18/3	Hennef Way EB Xing Ahead	U	N/A	N/A	C2:A		1	44	-	1163	2088	1540	70.6%
19/1	Hennef Way WB Ahead	U	N/A	N/A	C2:C		1	44	-	1272	2025	1494	71.9%
19/2	Hennef Way WB Ahead	U	N/A	N/A	C2:C		1	44	-	1329	2149	1585	73.1%
20/1	Hennef Way Xing WB Ahead	U	N/A	N/A	-		-	-	-	2601	3600	3600	62.0%
J3: Hennef Way/ Concord Ave	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**111.0%**
1/1	From Grimsby Green Left Ahead	O	N/A	N/A	-		-	-	-	0	2115	318	0.0%
2/1	Hennef Way WB Left	O	N/A	N/A	-		-	-	-	904	1953	1074	72.4%
2/3+2/2	Hennef Way WB Ahead	O	N/A	N/A	-		-	-	-	1697	2089:2089	1074+963	72.7 : 70.0%
3/1	Concord Ave Entry Left	O	N/A	N/A	-		-	-	-	207	1868	517	40.0%
3/2+3/3	Concord Ave Entry Ahead	O	N/A	N/A	-		-	-	-	1148	2002:2002	517+517	111.0 : 111.0%
4/1	Holman Bridge Entry Left Ahead	O	N/A	N/A	-		-	-	-	725	1976	959	75.6%
4/2	Holman Bridge Entry Ahead	O	N/A	N/A	-		-	-	-	750	2111	976	76.8%
5/1	To Grimsby Green	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
6/1	Hennef Way WB Ahead	U	N/A	N/A	-		-	-	-	2439	3600	3600	63.3%
7/1	Concord Ave Exit	U	N/A	N/A	-		-	-	-	1088	Inf	Inf	0.0%
8/1	Holman Bridge Exit Ahead	U	N/A	N/A	-		-	-	-	886	Inf	Inf	0.0%

Full Input Data And Results

8/2	Holman Bridge Exit Ahead	U	N/A	N/A	-		-	-	-	1018	Inf	Inf	0.0%
9/1	C Circ 7 Ahead	U	N/A	N/A	-		-	-	-	1299	1923	1923	64.6%
9/2	C Circ 7 Ahead Right	U	N/A	N/A	-		-	-	-	1140	2058	2058	52.6%
9/3	C Circ 7 Right	U	N/A	N/A	-		-	-	-	184	2058	2058	8.9%
10/1	C Circ1 Ahead	U	N/A	N/A	-		-	-	-	0	2009	2009	0.0%
10/2	C Circ1 Ahead Right	U	N/A	N/A	-		-	-	-	184	2149	2149	8.6%
11/1	C Circ 3 Ahead	U	N/A	N/A	-		-	-	-	782	1900	1900	35.5%
11/2	C Circ 3 Ahead Right	U	N/A	N/A	-		-	-	-	915	2035	2035	38.4%
12/1	C Circ 5 Ahead Right	U	N/A	N/A	-		-	-	-	574	2013	2013	25.7%
12/2	C Circ 5 Right	U	N/A	N/A	-		-	-	-	574	2148	2148	24.1%
13/1	Ahead	U	N/A	N/A	-		-	-	-	1904	Inf	Inf	0.0%
J4: Hennef Way_Southam Rd	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**116.1%**
1/2+1/1	Hennef Way East Ahead Left	O	N/A	N/A	-		-	-	-	978	1800:1800	731+149	102.0 : 102.8%
1/3	Hennef Way East Ahead	O	N/A	N/A	-		-	-	-	926	1800	731	116.1%
2/1	Ahead	U	N/A	N/A	-		-	-	-	66	Inf	Inf	0.0%
2/2	Ahead	U	N/A	N/A	-		-	-	-	444	Inf	Inf	0.0%
2/3	Right	U	N/A	N/A	-		-	-	-	24	Inf	Inf	0.0%
3/2+3/1	Southam Rd Sth Ahead Left	O	N/A	N/A	-		-	-	-	733	1800:1800	507+187	105.6 : 105.6%
3/3	Southam Rd Sth Ahead	O	N/A	N/A	-		-	-	-	122	1800	528	23.1%
4/1	Ahead	U	N/A	N/A	-		-	-	-	812	Inf	Inf	0.0%
4/2	Ahead	U	N/A	N/A	-		-	-	-	24	Inf	Inf	0.0%
4/3	Right	U	N/A	N/A	-		-	-	-	926	Inf	Inf	0.0%
5/2+5/1	Ruscote Ave Ahead Left	O	N/A	N/A	-		-	-	-	514	1800:1800	528+83	84.1 : 84.1%

Full Input Data And Results

5/3	Ruscote Ave Ahead	O	N/A	N/A	-		-	-	-	435	1800	528	82.4%
6/1	Ahead	U	N/A	N/A	-		-	-	-	1461	Inf	Inf	0.0%
6/2	Right	U	N/A	N/A	-		-	-	-	122	Inf	Inf	0.0%
7/2+7/1	Southam Rd Nth Ahead Left	O	N/A	N/A	-		-	-	-	606	1800:1800	0+617	0.0 : 98.3%
7/3	Southam Rd Nth Ahead	O	N/A	N/A	-		-	-	-	402	1800	617	65.2%
8/1	Ahead	U	N/A	N/A	-		-	-	-	492	Inf	Inf	0.0%
8/2	Ahead	U	N/A	N/A	-		-	-	-	377	Inf	Inf	0.0%
8/3	Right	U	N/A	N/A	-		-	-	-	132	Inf	Inf	0.0%
9/1	Ahead	U	N/A	N/A	-		-	-	-	1531	Inf	Inf	0.0%
10/1	Ahead	U	3:2	N/A	C3:C		1	43	-	732	1980	1428	51.3%
10/2	Ahead	U	3:2	N/A	C3:C		1	43	-	743	1980	1428	52.0%
11/1		U	N/A	N/A	-		-	-	-	232	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	444	Inf	Inf	0.0%
12/1	Ahead	U	3:4	N/A	C3:I		1	39	-	1010	1865	1223	75.9%
12/2	Ahead	U	3:4	N/A	C3:I		1	39	-	24	1865	1223	2.0%
13/1	Ahead	U	3:1	N/A	C3:A		1	43	-	978	1980	1428	62.9%
13/2	Ahead	U	3:1	N/A	C3:A		1	43	-	926	1980	1428	59.4%
14/1	Ahead	U	N/A	N/A	-		-	-	-	1475	Inf	Inf	0.0%
15/1	Ahead	U	3:3	N/A	C3:F		1	39	-	1531	2015	1321	106.4%
16/1	Ahead	U	3:3	N/A	C3:E		1	39	-	1008	2015	1321	76.3%
17/1		U	N/A	N/A	-		-	-	-	1531	Inf	Inf	0.0%
18/1		U	N/A	N/A	-		-	-	-	1010	Inf	Inf	0.0%
18/2		U	N/A	N/A	-		-	-	-	24	Inf	Inf	0.0%
19/1	Ahead	U	3:4	N/A	C3:H		1	39	-	949	2015	1321	71.8%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M40/Hennef Way Junction Base Model	**-**	**-**	**21693**	**1863**	**0**	**115.2**	**686.5**	**0.0**	**801.7**	**-**	**-**	**-**	**-**
J1: M40 J11/Hennef Way	**-**	**-**	**1124**	**1863**	**0**	**42.2**	**102.5**	**0.0**	**144.7**	**-**	**-**	**-**	**-**
1/1	223	223	-	-	-	1.4	0.7	-	2.1	34.0	3.4	0.7	4.1
1/2+1/3	630	630	-	-	-	4.1	1.8	-	5.9	33.7	6.5	1.8	8.3
2/1+2/2	563	562	1124	0	0	1.7	9.4	-	11.2	71.4	12.6	9.4	22.1
3/2+3/1	686	659	-	-	-	4.9	21.6	-	26.4	138.7	11.7	21.6	33.3
3/3	654	626	-	-	-	4.8	21.4	-	26.2	144.0	11.5	21.4	33.0
4/1	357	357	-	-	-	2.2	1.8	-	4.0	40.5	5.7	1.8	7.5
4/2+4/3	652	652	-	-	-	4.0	3.4	-	7.4	40.8	6.8	3.4	10.3
5/2+5/1	1611	1594	0	936	0	3.9	13.3	-	17.2	38.4	16.4	13.3	29.7
5/3	927	927	0	927	0	3.3	13.2	-	16.6	64.3	15.5	13.2	28.7
6/1	658	658	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	314	314	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	533	533	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	899	899	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	547	547	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	553	553	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	302	302	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	1337	1337	-	-	-	0.1	1.4	-	1.5	4.0	0.4	1.4	1.8
10/2	1088	1088	-	-	-	0.1	0.8	-	0.8	2.7	0.6	0.8	1.3
11/1	1162	1162	-	-	-	1.2	3.6	-	4.8	14.8	14.7	3.6	18.3
11/2	1085	1085	-	-	-	1.1	1.7	-	2.8	9.3	11.8	1.7	13.4
12/1	852	852	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
12/2	547	547	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2

Full Input Data And Results

12/3	928	928	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4
12/4	240	240	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
13/1	466	466	-	-	-	1.6	0.4	-	1.9	14.8	6.3	0.4	6.6
13/2	709	709	-	-	-	1.2	0.7	-	1.9	9.8	5.5	0.7	6.2
13/3	508	508	-	-	-	0.0	0.4	-	0.4	2.9	0.4	0.4	0.7
14/1	980	980	-	-	-	1.4	1.8	-	3.2	11.7	8.0	1.8	9.8
14/2	1134	1134	-	-	-	2.2	2.7	-	4.9	15.5	10.1	2.7	12.8
15/1	314	314	-	-	-	2.0	0.6	-	2.6	29.5	4.9	0.6	5.5
15/2	384	384	-	-	-	1.1	0.8	-	2.0	18.5	6.0	0.8	6.9
J2: Hennef Way/ Ermont Way	**-**	**-**	**6022**	**0**	**0**	**36.1**	**331.9**	**0.0**	**368.0**	**-**	**-**	**-**	**-**
1/1	403	403	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
1/2	564	564	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
2/1	2425	2425	-	-	-	0.0	1.0	-	1.0	1.5	0.0	0.5	0.5
3/1+3/2	475	475	950	0	0	0.0	0.9	-	0.9	6.5	0.0	0.9	0.9
4/1	96	96	96	0	0	0.0	0.1	-	0.1	2.1	0.3	0.1	0.3
4/2	1094	948	948	0	0	9.0	76.8	-	85.8	282.3	55.6	76.8	132.4
4/3	1088	947	947	0	0	8.9	73.9	-	82.8	274.1	55.3	73.9	129.2
5/1	189	189	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	130	130	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	2539	2539	-	-	-	0.0	1.2	-	1.2	1.7	0.0	0.6	0.6
7/1	555	555	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	110	110	110	0	0	0.0	0.2	-	0.2	5.4	0.0	0.2	0.2
8/2	564	444	444	0	0	5.1	62.4	-	67.5	430.8	28.7	62.4	91.1
9/1	293	293	293	0	0	0.0	0.8	-	0.8	9.2	0.0	0.8	0.8
10/1	1039	1039	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
10/2	1077	1077	-	-	-	0.0	0.5	-	0.5	1.6	0.0	0.5	0.5
11/1	941	840	840	0	0	4.2	54.6	-	58.7	224.6	43.8	54.6	98.3
11/2	915	825	825	0	0	3.7	49.8	-	53.5	210.5	42.5	49.8	92.3
11/3	162	162	162	0	0	0.0	0.1	-	0.1	2.7	0.0	0.1	0.1

Full Input Data And Results

12/1	407	407	407	0	0	0.0	0.2	-	0.2	2.1	0.0	0.2	0.2
13/1	148	148	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
14/1	1039	1039	-	-	-	0.0	0.6	-	0.6	2.0	0.0	0.6	0.6
14/2	1077	1077	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
14/3	38	38	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
15/1	148	148	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
15/2	197	197	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
15/3	246	246	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
16/1	1007	1007	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
16/2	1071	1071	-	-	-	0.0	0.5	-	0.5	1.7	0.0	0.5	0.5
16/3	162	162	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
17/1	93	93	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
17/2	221	221	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
17/3	168	168	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
18/2+18/1	1190	1190	-	-	-	1.1	1.5	-	2.6	7.8	9.7	1.5	11.2
18/3	1088	1088	-	-	-	1.1	1.2	-	2.3	7.5	10.5	1.2	11.7
19/1	1074	1074	-	-	-	1.3	1.3	-	2.6	8.7	10.1	1.3	11.4
19/2	1159	1159	-	-	-	1.5	1.4	-	2.8	8.8	10.9	1.4	12.3
20/1	2233	2233	-	-	-	0.2	0.8	-	1.1	1.7	4.8	0.4	5.2
J3: Hennef Way/ Concord Ave	**-**	**-**	**7439**	**0**	**0**	**6.3**	**71.0**	**0.0**	**77.4**	**-**	**-**	**-**	**-**
1/1	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/1	778	778	778	0	0	0.0	1.3	-	1.3	6.0	0.0	1.3	1.3
2/3+2/2	1455	1455	2911	0	0	0.0	1.2	-	1.2	3.1	0.0	1.2	1.2
3/1	207	207	207	0	0	0.0	0.3	-	0.3	5.8	0.0	0.3	0.3
3/2+3/3	1148	1034	2068	0	0	5.2	61.6	-	66.9	209.7	28.2	61.6	89.9
4/1	725	725	725	0	0	0.5	1.5	-	2.0	10.1	9.7	1.5	11.2
4/2	750	750	750	0	0	0.6	1.6	-	2.2	10.6	10.3	1.6	11.9
5/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	2278	2278	-	-	-	0.0	0.9	-	0.9	1.4	0.0	0.4	0.4

Full Input Data And Results

7/1	962	962	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	778	778	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	884	884	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	1242	1242	-	-	-	0.0	0.9	-	0.9	2.6	0.0	0.9	0.9
9/2	1083	1083	-	-	-	0.0	0.6	-	0.6	1.8	0.0	0.6	0.6
9/3	184	184	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
10/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	184	184	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
11/1	674	674	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
11/2	781	781	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
12/1	517	517	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
12/2	517	517	-	-	-	0.0	0.2	-	0.2	1.1	0.0	0.2	0.2
13/1	1747	1747	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J4: Hennef Way_Southam Rd	**-**	**-**	**7107**	**0**	**0**	**30.6**	**181.1**	**0.0**	**211.6**	**-**	**-**	**-**	**-**
1/2+1/1	899	884	1768	0	0	2.9	20.5	-	23.3	93.5	30.3	20.5	50.7
1/3	848	731	731	0	0	6.1	62.2	-	68.2	289.7	35.3	62.2	97.5
2/1	66	66	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/2	444	444	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/3	24	24	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2+3/1	733	705	1409	0	0	1.1	26.4	-	27.5	135.1	26.5	26.4	52.8
3/3	122	122	122	0	0	0.0	0.2	-	0.2	4.4	0.0	0.2	0.2
4/1	731	731	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	24	24	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/3	731	731	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2+5/1	514	514	1028	0	0	1.1	2.5	-	3.6	25.0	7.5	2.5	10.0
5/3	435	435	435	0	0	0.9	2.2	-	3.1	25.6	7.1	2.2	9.4
6/1	1336	1336	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	122	122	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2+7/1	606	606	1212	0	0	2.4	9.9	-	12.3	73.1	10.3	9.9	20.2

Full Input Data And Results

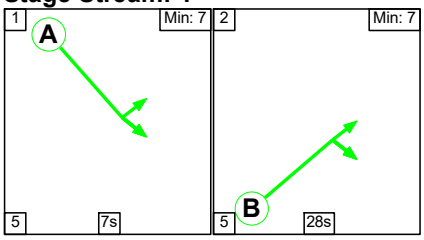
7/3	402	402	402	0	0	0.4	0.9	-	1.3	11.6	6.3	0.9	7.3
8/1	492	492	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	377	377	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/3	132	132	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	1406	1406	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	732	732	-	-	-	0.9	0.5	-	1.4	6.9	6.3	0.5	6.8
10/2	743	743	-	-	-	0.9	0.5	-	1.4	6.8	6.2	0.5	6.7
11/1	220	220	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	444	444	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	929	929	-	-	-	1.7	1.6	-	3.3	12.7	10.1	1.6	11.6
12/2	24	24	-	-	-	0.0	0.0	-	0.0	6.9	0.2	0.0	0.2
13/1	899	899	-	-	-	0.9	0.8	-	1.7	6.9	5.8	0.8	6.6
13/2	848	848	-	-	-	0.8	0.7	-	1.5	6.5	5.6	0.7	6.3
14/1	1475	1475	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	1406	1321	-	-	-	6.8	49.2	-	56.0	143.5	25.2	49.2	74.5
16/1	1008	1008	-	-	-	2.0	1.6	-	3.6	12.9	11.8	1.6	13.4
17/1	1321	1321	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	929	929	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/2	24	24	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/1	949	949	-	-	-	1.8	1.3	-	3.1	11.6	10.3	1.3	11.5

C1 - M40 J11	Stream: 1 PRC for Signalled Lanes (%):	-7.8	Total Delay for Signalled Lanes (pcuHr):	15.57	Cycle Time (s):	61
C1 - M40 J11	Stream: 2 PRC for Signalled Lanes (%):	-16.0	Total Delay for Signalled Lanes (pcuHr):	56.85	Cycle Time (s):	61
C1 - M40 J11	Stream: 3 PRC for Signalled Lanes (%):	2.2	Total Delay for Signalled Lanes (pcuHr):	19.48	Cycle Time (s):	61
C1 - M40 J11	Stream: 4 PRC for Signalled Lanes (%):	-13.2	Total Delay for Signalled Lanes (pcuHr):	38.28	Cycle Time (s):	61
C2 - Hennef Way Pedestrian Crossing	PRC for Signalled Lanes (%):	18.9	Total Delay for Signalled Lanes (pcuHr):	10.30	Cycle Time (s):	61
C3 - Southam Rd	Stream: 1 PRC for Signalled Lanes (%):	43.0	Total Delay for Signalled Lanes (pcuHr):	3.26	Cycle Time (s):	61
C3 - Southam Rd	Stream: 2 PRC for Signalled Lanes (%):	73.0	Total Delay for Signalled Lanes (pcuHr):	2.82	Cycle Time (s):	61
C3 - Southam Rd	Stream: 3 PRC for Signalled Lanes (%):	-18.2	Total Delay for Signalled Lanes (pcuHr):	59.65	Cycle Time (s):	61
C3 - Southam Rd	Stream: 4 PRC for Signalled Lanes (%):	18.5	Total Delay for Signalled Lanes (pcuHr):	6.39	Cycle Time (s):	61
	PRC Over All Lanes (%):	-41.2	Total Delay Over All Lanes(pcuHr):	801.69		

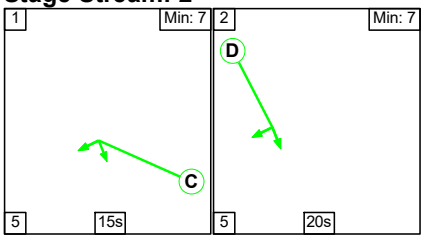
Full Input Data And Results
Scenario 3: '2026 AM With Dev' (FG3: '2026 AM With Dev', Plan 1: 'Control Plan 1')
C1 - M40 J11

Stage Sequence Diagram

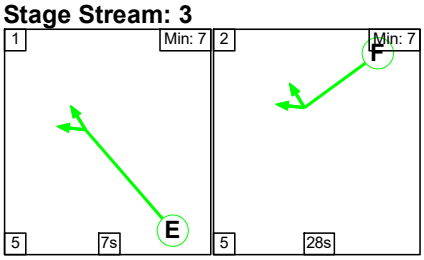
Stage Stream: 1



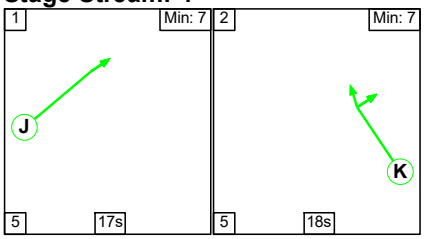
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	7	28
Change Point	14	26

Stage Stream: 2

Stage	1	2
Duration	15	20
Change Point	44	19

Stage Stream: 3

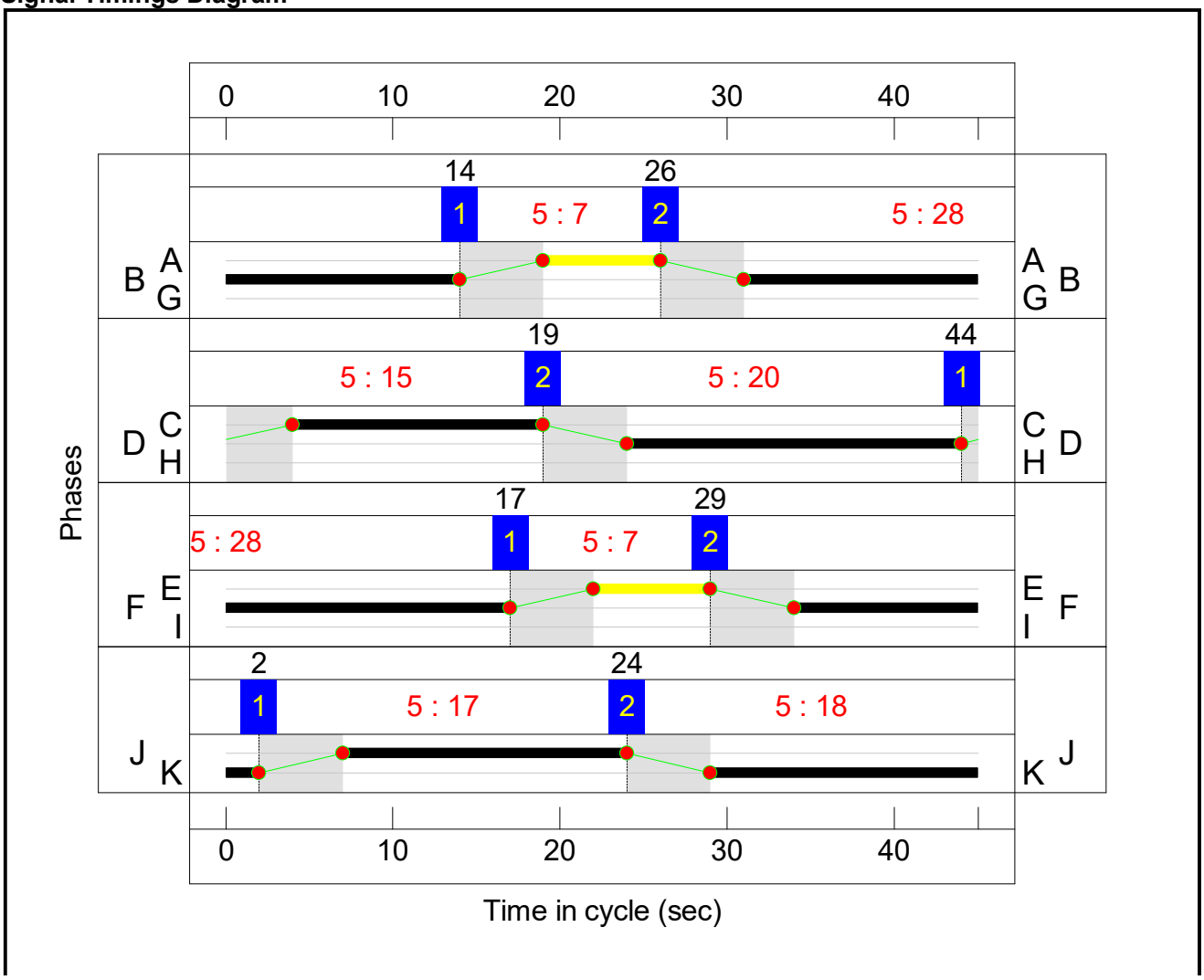
Stage	1	2
Duration	7	28
Change Point	17	29

Full Input Data And Results

Stage Stream: 4

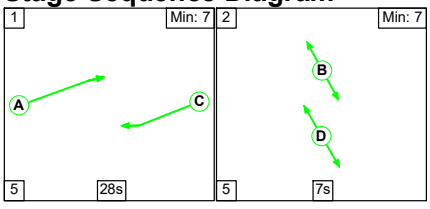
Stage	1	2
Duration	17	18
Change Point	2	24

Signal Timings Diagram



C2 - Hennef Way Pedestrian Crossing

Stage Sequence Diagram

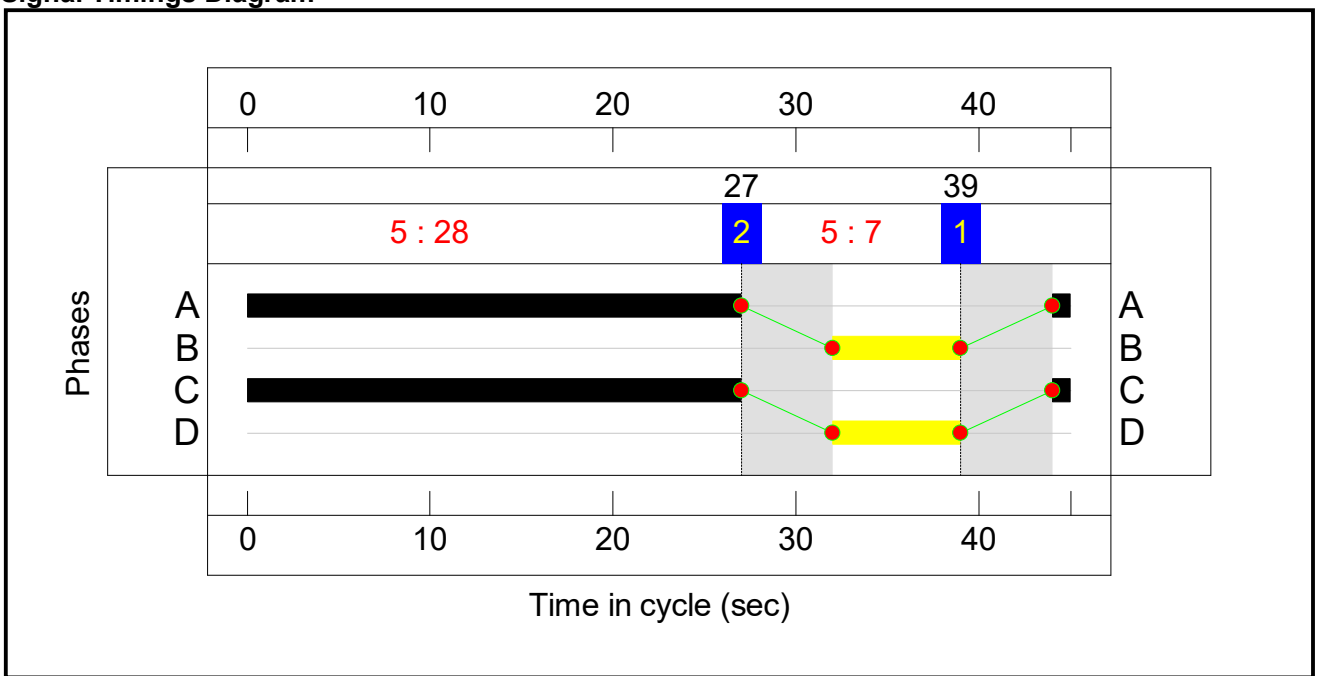


Stage Timings

Stage	1	2
Duration	28	7
Change Point	39	27

Full Input Data And Results

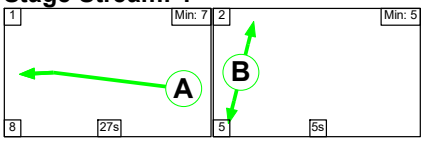
Signal Timings Diagram



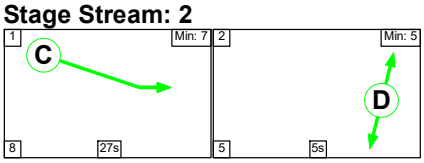
C3 - Southam Rd

Stage Sequence Diagram

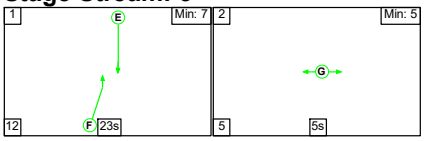
Stage Stream: 1



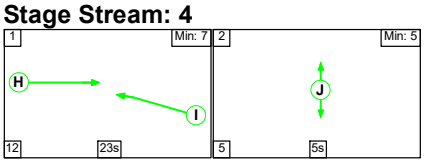
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	27	5
Change Point	19	9

Full Input Data And Results

Stage Stream: 2

Stage	1	2
Duration	27	5
Change Point	16	6

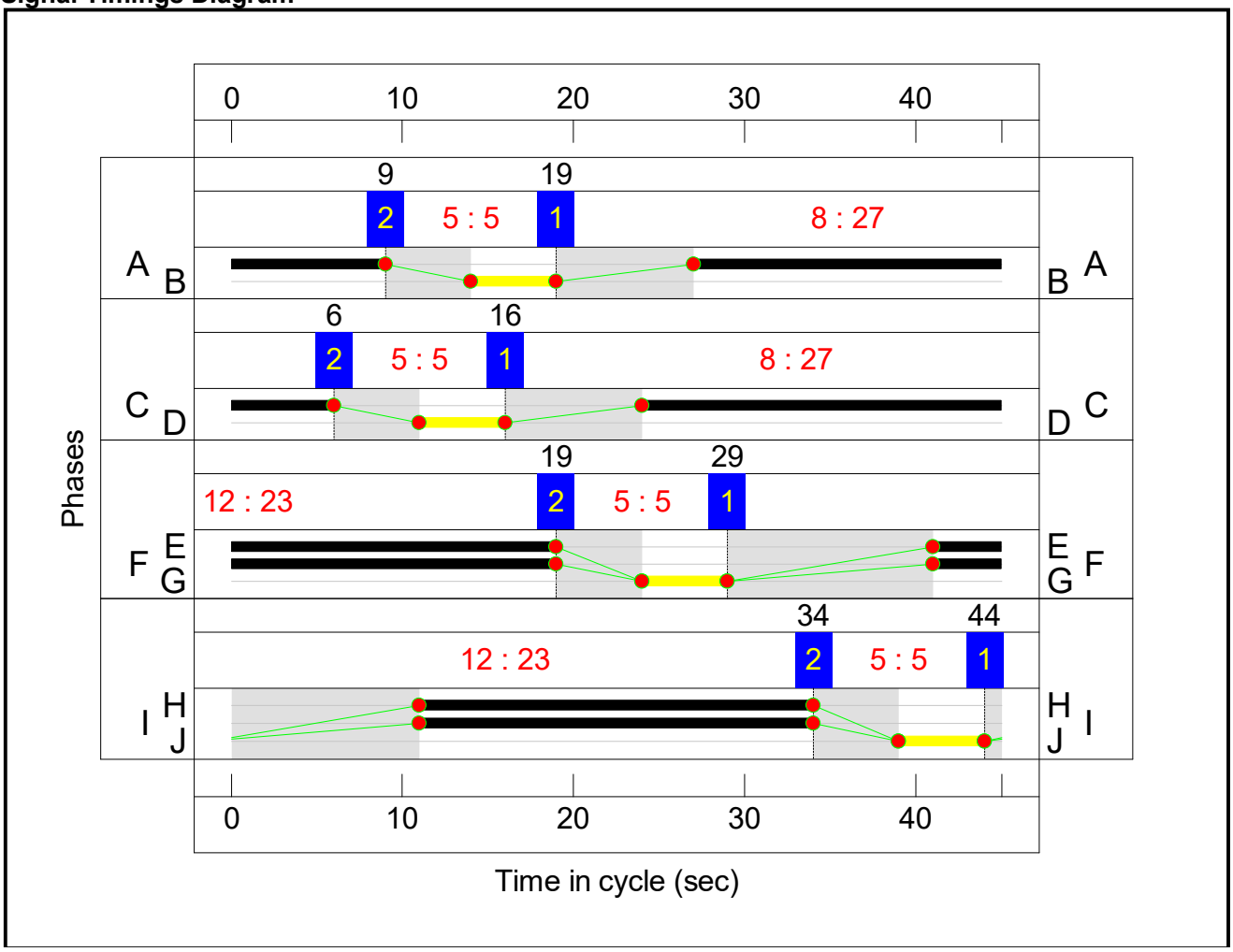
Stage Stream: 3

Stage	1	2
Duration	23	5
Change Point	29	19

Stage Stream: 4

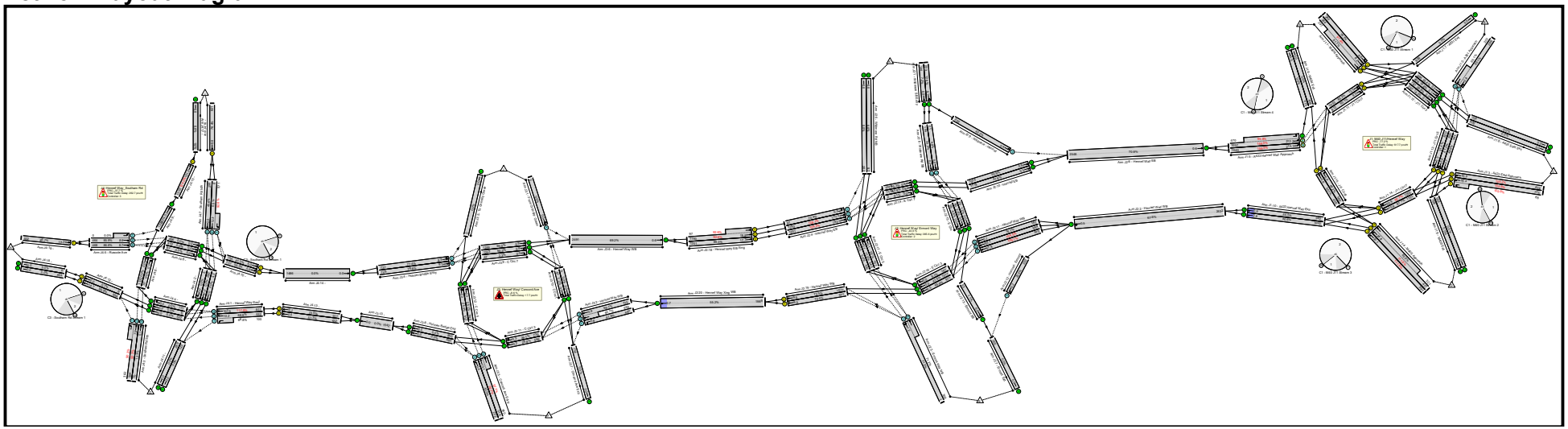
Stage	1	2
Duration	23	5
Change Point	44	34

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: M40/Hennef Way Junction Base Model	-	-	**N/A**	-	-		-	-	-	-	-	-	**159.5%**
J1: M40 J11/Hennef Way	-	-	**N/A**	-	-		-	-	-	-	-	-	**159.5%**
1/1	M40N Approach Left Ahead	U	1:1	N/A	C1:A		1	7	-	260	1908	339	76.7%
1/2+1/3	M40N Approach Ahead	U	1:1	N/A	C1:A		1	7	-	651	2044:2044	363+363	97.4 : 81.7%
2/1+2/2	A361 Approach Left Ahead	O	N/A	N/A	-		-	-	-	502	1966:2101	459+312	65.1 : 65.1%
3/2+3/1	A422 East Approach Left Ahead	U	1:2	N/A	C1:C		1	15	-	863	1985:1985	706+80	109.8 : 109.8%
3/3	A422 East Approach Ahead	U	1:2	N/A	C1:C		1	15	-	824	2123	755	109.2%
4/1	M40S Approach Ahead	U	1:3	N/A	C1:E		1	7	-	391	1966	350	111.9%
4/2+4/3	M40S Approach Ahead Ahead2	U	1:3	N/A	C1:E		1	7	-	738	2102:2102	374+374	111.6 : 85.9%
5/2+5/1	A422 Hennef Way Approach Left Ahead	O+U	1:4	N/A	C1:J -		1	17	-	1729	2143:1943	652+491	159.0 : 95.8%
5/3	A422 Hennef Way Approach Ahead	O	1:4	N/A	C1:J		1	17	-	1198	2143	652	159.5%
6/1	M40N Exit	U	N/A	N/A	-		-	-	-	541	Inf	Inf	0.0%
6/2	M40N Exit	U	N/A	N/A	-		-	-	-	436	Inf	Inf	0.0%
7/1	A631 Exit	U	N/A	N/A	-		-	-	-	818	Inf	Inf	0.0%
8/1	A422 East Exit	U	N/A	N/A	-		-	-	-	1078	Inf	Inf	0.0%
8/2	A422 East Exit	U	N/A	N/A	-		-	-	-	530	Inf	Inf	0.0%
9/1	M40S Exit	U	N/A	N/A	-		-	-	-	790	Inf	Inf	0.0%
9/2	M40S Exit	U	N/A	N/A	-		-	-	-	359	Inf	Inf	0.0%
10/1	A422 Hennef Way Exit Ahead	U	N/A	N/A	-		-	-	-	1561	1800	1800	80.6%

Full Input Data And Results

10/2	A422 Hennef Way Exit Ahead	U	N/A	N/A	-		-	-	-	1043	1800	1800	54.5%
11/1	J11 Circ1 Ahead Right	U	1:1	N/A	C1:B		1	28	-	1611	1960	1263	83.3%
11/2	J11 Circ1 Right	U	1:1	N/A	C1:B		1	28	-	1358	2099	1353	60.1%
12/1	J11 Circ3 Ahead	U	N/A	N/A	-		-	-	-	1053	1932	1932	35.4%
12/2	J11 Circ3 Ahead	U	N/A	N/A	-		-	-	-	530	2070	2070	19.6%
12/3	J11 Circ3 Right	U	N/A	N/A	-		-	-	-	1182	2070	2070	36.8%
12/4	J11 Circ3 Right	U	N/A	N/A	-		-	-	-	297	2070	2070	14.3%
13/1	J11 Circ5 Ahead	U	1:2	N/A	C1:D		1	20	-	702	1946	908	48.6%
13/2	J11 Circ5 Ahead Right	U	1:2	N/A	C1:D		1	20	-	754	2084	973	61.0%
13/3	J11 Circ5 Right	U	1:2	N/A	C1:D		1	20	-	500	2084	973	51.4%
14/1	J11 Circ7 Ahead	U	1:3	N/A	C1:F		1	28	-	1170	1961	1264	87.1%
14/2	J11 Circ7 Ahead Right	U	1:3	N/A	C1:F		1	28	-	1324	2100	1353	92.7%
15/1	J11 Circ9 Ahead	U	1:4	N/A	C1:K		1	18	-	436	1927	814	50.1%
15/2	J11 Circ9 Right	U	1:4	N/A	C1:K		1	18	-	583	2065	872	64.2%
J2: Hennef Way/ Ermont Way	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**129.2%**
1/1	Wildmere SB Entry Ahead Left	U	N/A	N/A	-		-	-	-	223	1865	1865	12.0%
1/2	Wildmere SB Entry Ahead	U	N/A	N/A	-		-	-	-	144	2005	2005	7.2%
2/1	Hennef Way WB Ahead Left	U	N/A	N/A	-		-	-	-	2604	3600	3600	67.6%
3/1+3/2	Ermont Way NB Ahead Left	O	N/A	N/A	-		-	-	-	369	1961:2099	1+517	71.2 : 71.2%
4/1	Hennef Way EB Left	O	N/A	N/A	-		-	-	-	97	1973	933	10.4%
4/2	Hennef Way EB Ahead	O	N/A	N/A	-		-	-	-	1193	2110	931	128.1%
4/3	Hennef Way EB Ahead	O	N/A	N/A	-		-	-	-	1201	2110	929	129.2%
5/1	Wildmere Rd NB	U	N/A	N/A	-		-	-	-	209	Inf	Inf	0.0%

Full Input Data And Results

5/2	Wildmere Rd NB	U	N/A	N/A	-		-	-	-	102	Inf	Inf	0.0%
6/1	Hennef Way EB Ahead	U	N/A	N/A	-		-	-	-	2927	3600	3600	70.8%
7/1	Ermont Exit	U	N/A	N/A	-		-	-	-	379	Inf	Inf	0.0%
8/1	Wildmere Rd SB Ahead	O	N/A	N/A	-		-	-	-	21	1942	432	4.9%
8/2	Wildmere Rd SB Ahead	O	N/A	N/A	-		-	-	-	144	2077	432	33.3%
9/1	Wildmere - Hennef Ahead	O	N/A	N/A	-		-	-	-	202	1956	479	42.2%
10/1	Hennef EB Ahead	U	N/A	N/A	-		-	-	-	1336	2031	2031	52.9%
10/2	Hennef EB Ahead	U	N/A	N/A	-		-	-	-	1389	2169	2169	51.6%
11/1	Hennef Way WB Ahead	O	N/A	N/A	-		-	-	-	1038	1854	922	105.1%
11/2	Hennef Way WB Ahead	O	N/A	N/A	-		-	-	-	1032	1986	922	104.5%
11/3	Hennef Way WB Ahead	O	N/A	N/A	-		-	-	-	179	1986	922	18.1%
12/1	Hennef - Ermont Left	O	N/A	N/A	-		-	-	-	355	2044	1414	23.5%
13/1	Ermont SB Ahead	U	N/A	N/A	-		-	-	-	24	2053	2053	1.1%
14/1	E Circ 7 Ahead	U	N/A	N/A	-		-	-	-	1336	1943	1943	55.3%
14/2	E Circ 7 Ahead	U	N/A	N/A	-		-	-	-	1389	2079	2079	53.8%
14/3	E Circ 7 Right	U	N/A	N/A	-		-	-	-	3	2079	2079	0.1%
15/1	E Circ Ahead	U	N/A	N/A	-		-	-	-	24	1950	1950	1.2%
15/2	E Circ Right	U	N/A	N/A	-		-	-	-	49	2085	2085	2.4%
15/3	E Circ Right	U	N/A	N/A	-		-	-	-	95	2085	2085	4.6%
16/1	E Circ 3 Ahead	U	N/A	N/A	-		-	-	-	1087	1998	1998	48.6%
16/2	E Circ 3 Ahead	U	N/A	N/A	-		-	-	-	1127	2138	2138	47.6%
16/3	E Circ 3 Right	U	N/A	N/A	-		-	-	-	179	2069	2069	8.1%
17/1	E Circ 5 Ahead	U	N/A	N/A	-		-	-	-	112	1943	1943	5.4%

Full Input Data And Results

17/2	E Circ 5 Ahead Right	U	N/A	N/A	-		-	-	-	245	2079	2079	11.6%
17/3	E Circ 5 Right	U	N/A	N/A	-		-	-	-	191	2079	2079	9.2%
18/2+18/1	Hennef Way EB Xing Ahead	U	N/A	N/A	C2:A		1	28	-	1290	2088:1948	1288+105	92.6 : 92.6%
18/3	Hennef Way EB Xing Ahead	U	N/A	N/A	C2:A		1	28	-	1201	2088	1346	89.3%
19/1	Hennef Way WB Ahead	U	N/A	N/A	C2:C		1	28	-	1087	2025	1305	74.4%
19/2	Hennef Way WB Ahead	U	N/A	N/A	C2:C		1	28	-	1127	2149	1385	73.5%
20/1	Hennef Way Xing WB Ahead	U	N/A	N/A	-		-	-	-	2214	3600	3600	55.2%
J3: Hennef Way/ Concord Ave	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**97.7%**
1/1	From Grimsby Green Left Ahead	O	N/A	N/A	-		-	-	-	0	2115	257	0.0%
2/1	Hennef Way WB Left	O	N/A	N/A	-		-	-	-	765	1953	1113	61.8%
2/3+2/2	Hennef Way WB Ahead	O	N/A	N/A	-		-	-	-	1449	2089:2089	1113+902	66.1 : 62.7%
3/1	Concord Ave Entry Left	O	N/A	N/A	-		-	-	-	232	1868	552	42.0%
3/2+3/3	Concord Ave Entry Ahead	O	N/A	N/A	-		-	-	-	1052	2002:2002	552+552	92.7 : 97.7%
4/1	Holman Bridge Entry Left Ahead	O	N/A	N/A	-		-	-	-	737	1976	952	77.4%
4/2	Holman Bridge Entry Ahead	O	N/A	N/A	-		-	-	-	749	2111	952	78.6%
5/1	To Grimsby Green	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
6/1	Hennef Way WB Ahead	U	N/A	N/A	-		-	-	-	2491	3600	3600	69.2%
7/1	Concord Ave Exit	U	N/A	N/A	-		-	-	-	812	Inf	Inf	0.0%
8/1	Holman Bridge Exit Ahead	U	N/A	N/A	-		-	-	-	743	Inf	Inf	0.0%

Full Input Data And Results

8/2	Holman Bridge Exit Ahead	U	N/A	N/A	-		-	-	-	938	Inf	Inf	0.0%
9/1	C Circ 7 Ahead	U	N/A	N/A	-		-	-	-	1249	1923	1923	65.0%
9/2	C Circ 7 Ahead Right	U	N/A	N/A	-		-	-	-	1242	2058	2058	60.3%
9/3	C Circ 7 Right	U	N/A	N/A	-		-	-	-	47	2058	2058	2.3%
10/1	C Circ1 Ahead	U	N/A	N/A	-		-	-	-	0	2009	2009	0.0%
10/2	C Circ1 Ahead Right	U	N/A	N/A	-		-	-	-	47	2149	2149	2.2%
11/1	C Circ 3 Ahead	U	N/A	N/A	-		-	-	-	626	1900	1900	29.8%
11/2	C Circ 3 Ahead Right	U	N/A	N/A	-		-	-	-	823	2035	2035	36.1%
12/1	C Circ 5 Ahead Right	U	N/A	N/A	-		-	-	-	512	2013	2013	25.4%
12/2	C Circ 5 Right	U	N/A	N/A	-		-	-	-	540	2148	2148	25.1%
13/1	Ahead	U	N/A	N/A	-		-	-	-	1681	Inf	Inf	0.0%
J4: Hennef Way_Southam Rd	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**124.0%**
1/2+1/1	Hennef Way East Ahead Left	O	N/A	N/A	-		-	-	-	686	1800:1800	772+146	68.9 : 68.8%
1/3	Hennef Way East Ahead	O	N/A	N/A	-		-	-	-	995	1800	772	117.9%
2/1	Ahead	U	N/A	N/A	-		-	-	-	43	Inf	Inf	0.0%
2/2	Ahead	U	N/A	N/A	-		-	-	-	289	Inf	Inf	0.0%
2/3	Right	U	N/A	N/A	-		-	-	-	5	Inf	Inf	0.0%
3/2+3/1	Southam Rd Sth Ahead Left	O	N/A	N/A	-		-	-	-	862	1800:1800	554+401	90.3 : 90.3%
3/3	Southam Rd Sth Ahead	O	N/A	N/A	-		-	-	-	70	1800	567	12.3%
4/1	Ahead	U	N/A	N/A	-		-	-	-	577	Inf	Inf	0.0%
4/2	Ahead	U	N/A	N/A	-		-	-	-	7	Inf	Inf	0.0%
4/3	Right	U	N/A	N/A	-		-	-	-	993	Inf	Inf	0.0%
5/2+5/1	Ruscote Ave Ahead Left	O	N/A	N/A	-		-	-	-	464	1800:1800	540+0	85.9 : 0.0%

Full Input Data And Results

5/3	Ruscote Ave Ahead	O	N/A	N/A	-		-	-	-	468	1800	540	86.6%
6/1	Ahead	U	N/A	N/A	-		-	-	-	1493	Inf	Inf	0.0%
6/2	Right	U	N/A	N/A	-		-	-	-	70	Inf	Inf	0.0%
7/2+7/1	Southam Rd Nth Ahead Left	O	N/A	N/A	-		-	-	-	571	1800:1800	0+616	0.0 : 92.6%
7/3	Southam Rd Nth Ahead	O	N/A	N/A	-		-	-	-	250	1800	616	40.6%
8/1	Ahead	U	N/A	N/A	-		-	-	-	496	Inf	Inf	0.0%
8/2	Ahead	U	N/A	N/A	-		-	-	-	419	Inf	Inf	0.0%
8/3	Right	U	N/A	N/A	-		-	-	-	87	Inf	Inf	0.0%
9/1	Ahead	U	N/A	N/A	-		-	-	-	1493	Inf	Inf	0.0%
10/1	Ahead	U	3:2	N/A	C3:C		1	27	-	755	1980	1232	61.3%
10/2	Ahead	U	3:2	N/A	C3:C		1	27	-	731	1980	1232	59.3%
11/1		U	N/A	N/A	-		-	-	-	152	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	289	Inf	Inf	0.0%
12/1	Ahead	U	3:4	N/A	C3:I		1	23	-	939	1865	995	89.8%
12/2	Ahead	U	3:4	N/A	C3:I		1	23	-	7	1865	995	0.7%
13/1	Ahead	U	3:1	N/A	C3:A		1	27	-	686	1980	1232	51.3%
13/2	Ahead	U	3:1	N/A	C3:A		1	27	-	995	1980	1232	73.9%
14/1	Ahead	U	N/A	N/A	-		-	-	-	1486	Inf	Inf	0.0%
15/1	Ahead	U	3:3	N/A	C3:F		1	23	-	1493	2015	1075	124.0%
16/1	Ahead	U	3:3	N/A	C3:E		1	23	-	821	2015	1075	76.4%
17/1		U	N/A	N/A	-		-	-	-	1493	Inf	Inf	0.0%
18/1		U	N/A	N/A	-		-	-	-	939	Inf	Inf	0.0%
18/2		U	N/A	N/A	-		-	-	-	7	Inf	Inf	0.0%
19/1	Ahead	U	3:4	N/A	C3:H		1	23	-	932	2015	1075	86.7%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M40/Hennef Way Junction Base Model	**-**	**-**	**20140**	**1305**	**0**	**125.8**	**1157.9**	**0.0**	**1283.7**	**-**	**-**	**-**	**-**
J1: M40 J11/Hennef Way	**-**	**-**	**1004**	**1305**	**0**	**61.8**	**555.9**	**0.0**	**617.7**	**-**	**-**	**-**	**-**
1/1	260	260	-	-	-	1.3	1.6	-	2.9	39.5	3.0	1.6	4.6
1/2+1/3	651	651	-	-	-	3.3	3.9	-	7.2	39.7	4.3	3.9	8.2
2/1+2/2	502	502	1004	0	0	0.6	0.9	-	1.6	11.2	3.0	0.9	3.9
3/2+3/1	863	786	-	-	-	5.1	43.5	-	48.6	202.6	11.9	43.5	55.4
3/3	824	755	-	-	-	4.8	39.8	-	44.5	194.6	11.2	39.8	50.9
4/1	391	350	-	-	-	2.7	24.7	-	27.4	252.6	5.4	24.7	30.1
4/2+4/3	738	695	-	-	-	4.5	33.1	-	37.6	183.4	5.8	33.1	38.8
5/2+5/1	1507	1123	0	652	0	11.6	194.4	-	206.1	492.2	17.8	194.4	212.2
5/3	1040	652	0	652	0	11.7	195.3	-	207.0	716.3	17.9	195.3	213.1
6/1	470	470	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	408	408	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	628	628	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	709	709	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	406	406	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	522	522	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	198	198	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	1450	1450	-	-	-	0.2	2.0	-	2.3	5.6	0.8	2.0	2.8
10/2	982	982	-	-	-	0.0	0.6	-	0.6	2.3	0.3	0.6	0.9
11/1	1053	1053	-	-	-	1.4	2.4	-	3.9	13.2	11.0	2.4	13.5
11/2	812	812	-	-	-	0.9	0.7	-	1.6	7.3	7.8	0.7	8.5
12/1	684	684	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
12/2	406	406	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1

Full Input Data And Results

12/3	761	761	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
12/4	297	297	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
13/1	441	441	-	-	-	1.6	0.5	-	2.0	16.7	5.2	0.5	5.7
13/2	593	593	-	-	-	1.5	0.8	-	2.3	14.1	4.8	0.8	5.6
13/3	500	500	-	-	-	0.9	0.5	-	1.4	10.4	2.8	0.5	3.3
14/1	1101	1101	-	-	-	3.0	3.2	-	6.2	20.4	12.7	3.2	15.9
14/2	1255	1255	-	-	-	3.5	5.7	-	9.2	26.3	15.2	5.7	20.9
15/1	408	408	-	-	-	1.9	0.5	-	2.4	20.9	4.3	0.5	4.8
15/2	560	560	-	-	-	1.3	0.9	-	2.2	13.9	5.5	0.9	6.4
J2: Hennef Way/ Ermont Way	**-**	**-**	**5406**	**0**	**0**	**33.2**	**352.4**	**0.0**	**385.6**	**-**	**-**	**-**	**-**
1/1	223	223	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
1/2	144	144	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
2/1	2432	2432	-	-	-	0.0	1.0	-	1.0	1.5	0.0	0.5	0.5
3/1+3/2	369	369	738	0	0	0.0	1.2	-	1.2	11.9	0.0	1.2	1.2
4/1	97	97	97	0	0	0.0	0.1	-	0.1	2.2	0.3	0.1	0.4
4/2	1193	931	931	0	0	11.0	133.0	-	144.0	434.6	44.7	133.0	177.7
4/3	1201	929	929	0	0	11.4	138.0	-	149.3	447.7	45.0	138.0	183.0
5/1	202	202	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	97	97	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	2548	2548	-	-	-	0.0	1.2	-	1.2	1.7	0.0	0.6	0.6
7/1	355	355	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	21	21	21	0	0	0.0	0.0	-	0.0	4.4	0.0	0.0	0.0
8/2	144	144	144	0	0	0.0	0.2	-	0.2	6.2	0.0	0.2	0.2
9/1	202	202	202	0	0	0.0	0.4	-	0.4	6.5	0.0	0.4	0.4
10/1	1074	1074	-	-	-	0.0	0.6	-	0.6	1.9	0.0	0.6	0.6
10/2	1118	1118	-	-	-	0.0	0.5	-	0.5	1.7	0.0	0.5	0.5
11/1	970	922	922	0	0	1.7	31.4	-	33.1	122.9	36.4	31.4	67.8
11/2	964	922	922	0	0	1.4	29.0	-	30.3	113.4	36.1	29.0	65.1
11/3	167	167	167	0	0	0.0	0.1	-	0.1	2.4	0.0	0.1	0.1

Full Input Data And Results

12/1	332	332	332	0	0	0.0	0.2	-	0.2	1.7	0.0	0.2	0.2
13/1	23	23	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
14/1	1074	1074	-	-	-	0.0	0.6	-	0.6	2.1	0.0	0.6	0.6
14/2	1118	1118	-	-	-	0.0	0.6	-	0.6	1.9	0.0	0.6	0.6
14/3	2	2	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
15/1	23	23	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
15/2	49	49	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
15/3	95	95	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
16/1	971	971	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
16/2	1017	1017	-	-	-	0.0	0.5	-	0.5	1.6	0.0	0.5	0.5
16/3	167	167	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
17/1	105	105	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
17/2	240	240	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
17/3	191	191	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
18/2+18/1	1290	1290	-	-	-	2.3	5.6	-	7.9	22.1	13.9	5.6	19.5
18/3	1201	1201	-	-	-	2.4	3.9	-	6.3	18.9	13.3	3.9	17.3
19/1	971	971	-	-	-	1.5	1.4	-	2.9	10.8	8.1	1.4	9.5
19/2	1017	1017	-	-	-	1.5	1.4	-	2.9	10.3	8.5	1.4	9.9
20/1	1989	1989	-	-	-	0.1	0.6	-	0.7	1.4	0.4	0.3	0.7
J3: Hennef Way/ Concord Ave	**-**	**-**	**7112**	**0**	**0**	**0.8**	**16.9**	**0.0**	**17.7**	**-**	**-**	**-**	**-**
1/1	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/1	687	687	687	0	0	0.0	0.8	-	0.8	4.2	0.0	0.8	0.8
2/3+2/2	1301	1301	2603	0	0	0.0	0.9	-	0.9	2.5	0.0	0.9	0.9
3/1	232	232	232	0	0	0.0	0.4	-	0.4	5.6	0.0	0.4	0.4
3/2+3/3	1052	1052	2104	0	0	0.2	7.7	-	7.9	27.1	5.4	7.7	13.1
4/1	737	737	737	0	0	0.3	1.7	-	1.9	9.5	7.2	1.7	8.9
4/2	749	749	749	0	0	0.3	1.8	-	2.1	10.3	7.5	1.8	9.3
5/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	2491	2491	-	-	-	0.0	1.1	-	1.1	1.6	0.0	0.6	0.6

Full Input Data And Results

7/1	734	734	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	683	683	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	850	850	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	1249	1249	-	-	-	0.0	0.9	-	0.9	2.7	0.0	0.9	0.9
9/2	1242	1242	-	-	-	0.0	0.8	-	0.8	2.2	0.0	0.8	0.8
9/3	47	47	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
10/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	47	47	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
11/1	566	566	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
11/2	735	735	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
12/1	512	512	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
12/2	540	540	-	-	-	0.0	0.2	-	0.2	1.1	0.0	0.2	0.2
13/1	1542	1542	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J4: Hennef Way_Southam Rd	**-**	**-**	**6618**	**0**	**0**	**30.0**	**232.7**	**0.0**	**262.7**	**-**	**-**	**-**	**-**
1/2+1/1	632	632	1264	0	0	0.7	1.1	-	1.8	10.0	9.1	1.1	10.2
1/3	911	772	772	0	0	5.7	72.4	-	78.1	308.7	30.1	72.4	102.5
2/1	43	43	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/2	289	289	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/3	5	5	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2+3/1	862	862	1724	0	0	0.0	4.3	-	4.3	17.9	3.6	4.3	7.9
3/3	70	70	70	0	0	0.0	0.1	-	0.1	3.6	0.0	0.1	0.1
4/1	532	532	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	6	6	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/3	771	771	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2+5/1	464	464	928	0	0	1.0	2.8	-	3.9	30.0	5.8	2.8	8.6
5/3	468	468	468	0	0	0.9	3.0	-	3.9	30.2	5.8	3.0	8.7
6/1	1332	1332	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	70	70	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2+7/1	571	571	1142	0	0	1.8	5.1	-	6.9	43.3	7.1	5.1	12.3

Full Input Data And Results

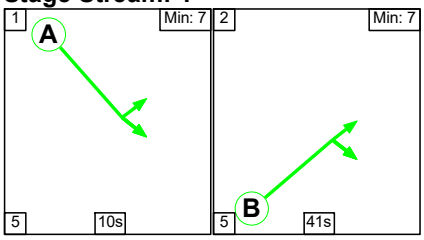
7/3	250	250	250	0	0	0.0	0.3	-	0.3	5.0	1.7	0.3	2.0
8/1	496	496	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	419	419	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/3	87	87	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	1332	1332	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	755	755	-	-	-	1.1	0.8	-	1.9	9.0	5.2	0.8	6.0
10/2	731	731	-	-	-	1.1	0.7	-	1.8	8.8	5.2	0.7	5.9
11/1	143	143	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	289	289	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	894	894	-	-	-	2.0	4.1	-	6.0	24.4	10.6	4.1	14.7
12/2	6	6	-	-	-	0.0	0.0	-	0.0	6.3	0.0	0.0	0.0
13/1	632	632	-	-	-	0.7	0.5	-	1.2	6.9	3.9	0.5	4.4
13/2	911	911	-	-	-	1.3	1.4	-	2.7	10.5	7.7	1.4	9.1
14/1	1486	1486	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	1332	1075	-	-	-	9.6	131.3	-	140.9	380.9	19.9	131.3	151.2
16/1	821	821	-	-	-	1.9	1.6	-	3.5	15.3	8.0	1.6	9.6
17/1	1075	1075	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	894	894	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/2	6	6	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/1	932	932	-	-	-	2.4	3.1	-	5.5	21.2	10.1	3.1	13.2

C1 - M40 J11	Stream: 1 PRC for Signalled Lanes (%):	-8.2	Total Delay for Signalled Lanes (pcuHr):	15.52	Cycle Time (s): 45
C1 - M40 J11	Stream: 2 PRC for Signalled Lanes (%):	-22.0	Total Delay for Signalled Lanes (pcuHr):	98.92	Cycle Time (s): 45
C1 - M40 J11	Stream: 3 PRC for Signalled Lanes (%):	-24.3	Total Delay for Signalled Lanes (pcuHr):	80.43	Cycle Time (s): 45
C1 - M40 J11	Stream: 4 PRC for Signalled Lanes (%):	-77.2	Total Delay for Signalled Lanes (pcuHr):	417.60	Cycle Time (s): 45
C2 - Hennef Way Pedestrian Crossing	PRC for Signalled Lanes (%):	-2.9	Total Delay for Signalled Lanes (pcuHr):	20.04	Cycle Time (s): 45
C3 - Southam Rd	Stream: 1 PRC for Signalled Lanes (%):	21.8	Total Delay for Signalled Lanes (pcuHr):	3.87	Cycle Time (s): 45
C3 - Southam Rd	Stream: 2 PRC for Signalled Lanes (%):	46.9	Total Delay for Signalled Lanes (pcuHr):	3.68	Cycle Time (s): 45
C3 - Southam Rd	Stream: 3 PRC for Signalled Lanes (%):	-37.7	Total Delay for Signalled Lanes (pcuHr):	144.43	Cycle Time (s): 45
C3 - Southam Rd	Stream: 4 PRC for Signalled Lanes (%):	0.2	Total Delay for Signalled Lanes (pcuHr):	11.55	Cycle Time (s): 45
	PRC Over All Lanes (%):	-77.2	Total Delay Over All Lanes(pcuHr):	1283.75	

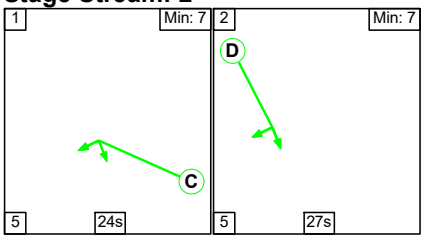
Full Input Data And Results
Scenario 4: '2026 PM With Dev' (FG4: '2026 PM With Dev', Plan 1: 'Control Plan 1')
C1 - M40 J11

Stage Sequence Diagram

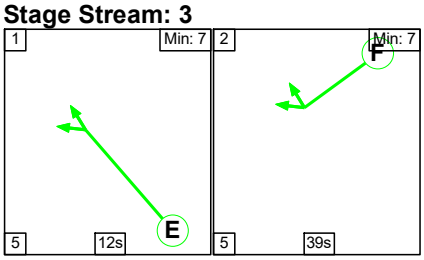
Stage Stream: 1



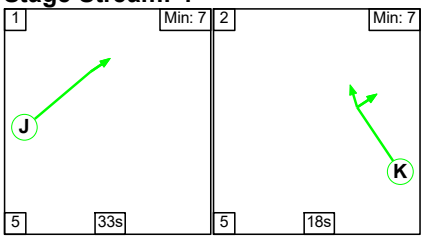
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	10	41
Change Point	23	38

Stage Stream: 2

Stage	1	2
Duration	24	27
Change Point	5	34

Stage Stream: 3

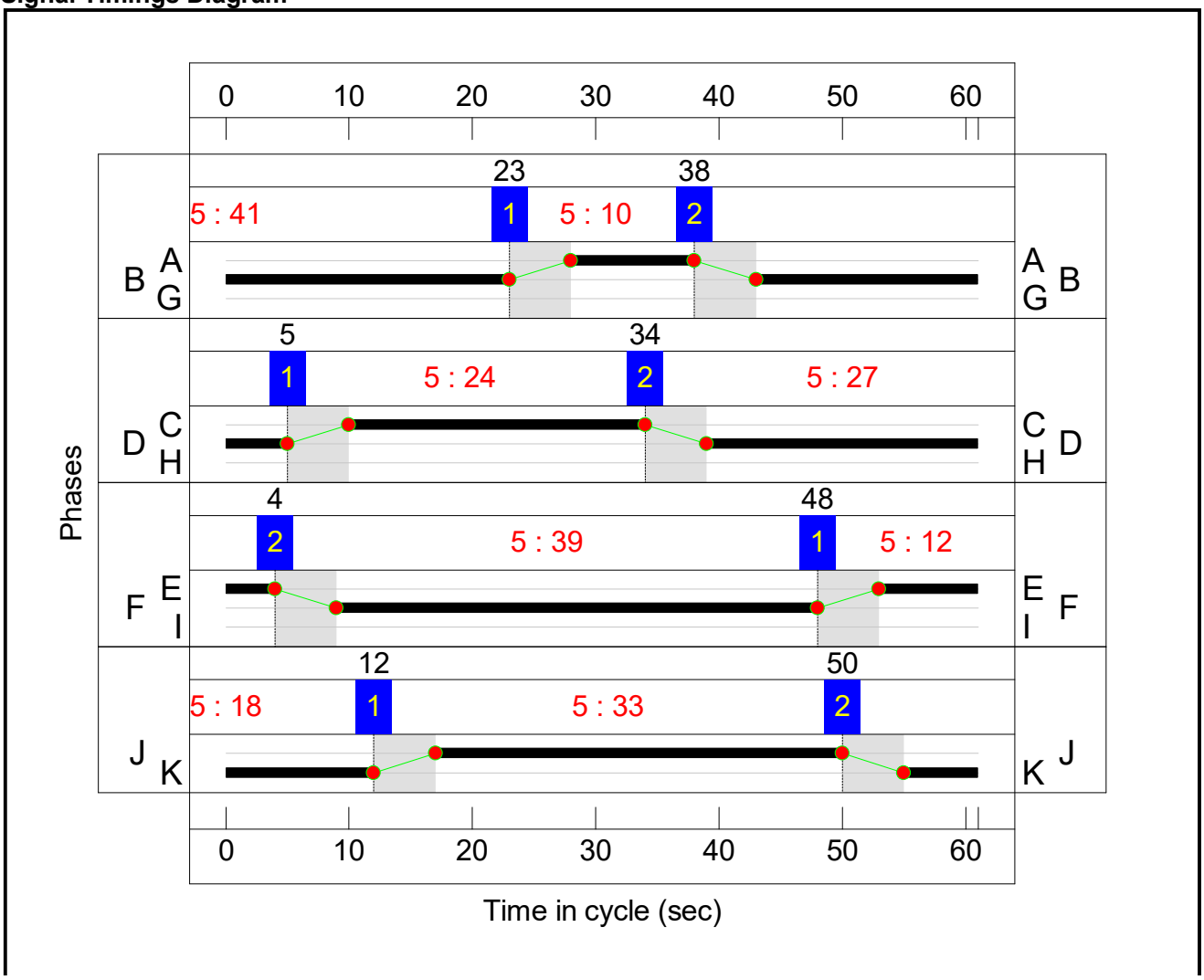
Stage	1	2
Duration	12	39
Change Point	48	4

Full Input Data And Results

Stage Stream: 4

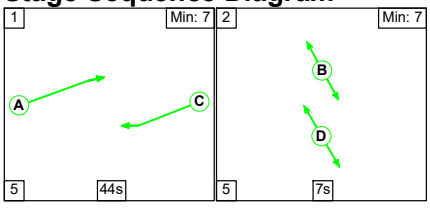
Stage	1	2
Duration	33	18
Change Point	12	50

Signal Timings Diagram



C2 - Hennef Way Pedestrian Crossing

Stage Sequence Diagram

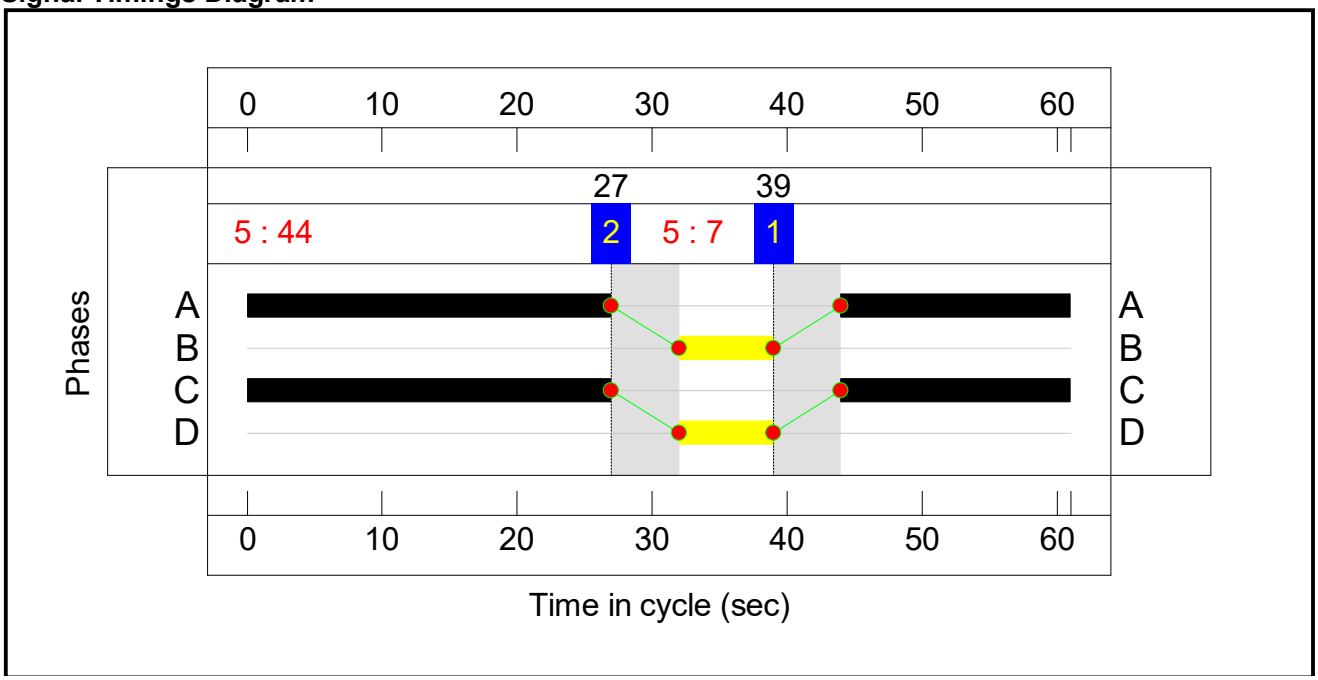


Stage Timings

Stage	1	2
Duration	44	7
Change Point	39	27

Full Input Data And Results

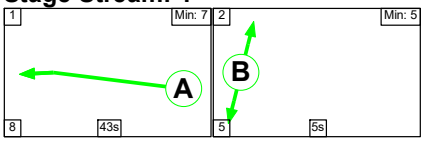
Signal Timings Diagram



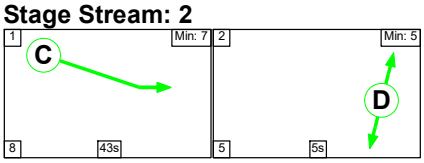
C3 - Southam Rd

Stage Sequence Diagram

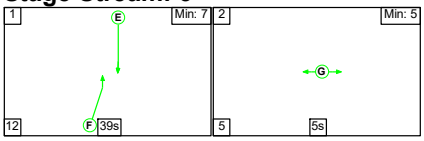
Stage Stream: 1



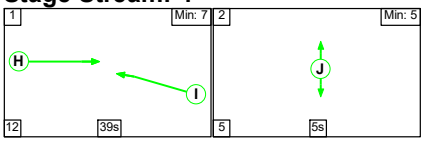
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	43	5
Change Point	27	17

Full Input Data And Results

Stage Stream: 2

Stage	1	2
Duration	43	5
Change Point	1	52

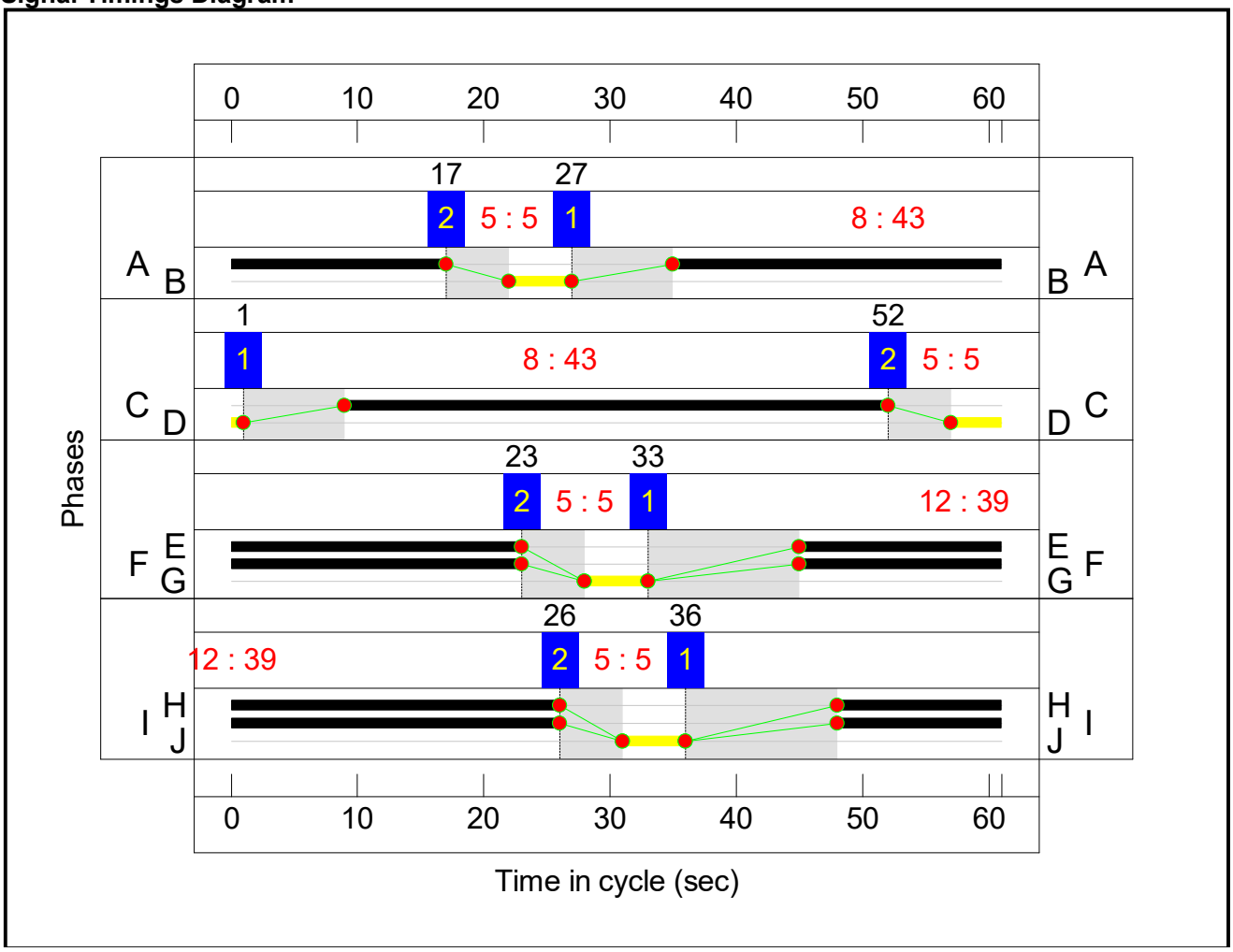
Stage Stream: 3

Stage	1	2
Duration	39	5
Change Point	33	23

Stage Stream: 4

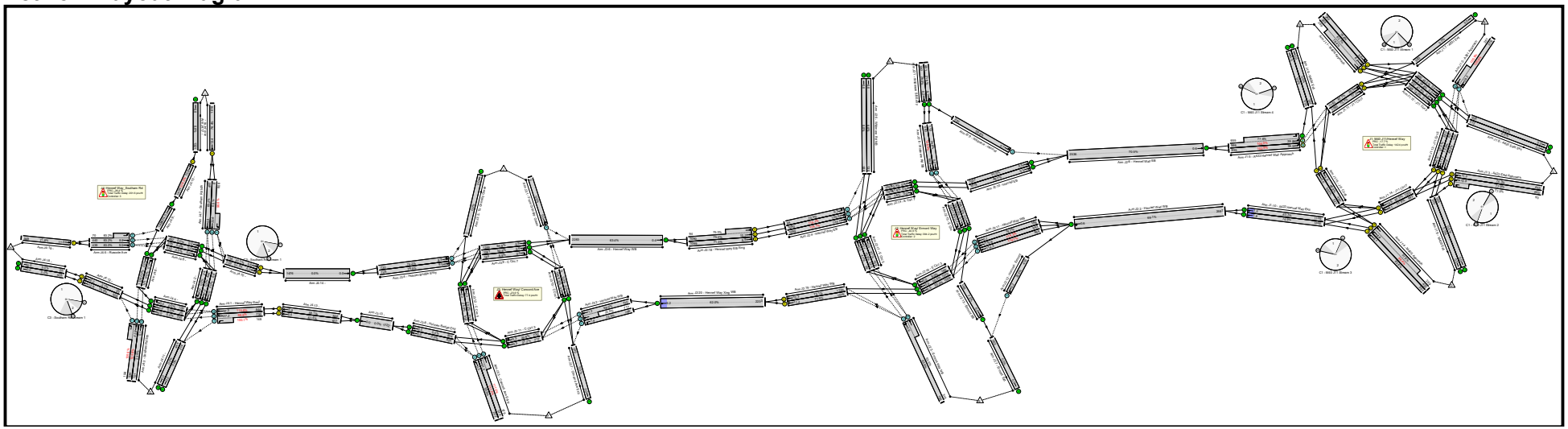
Stage	1	2
Duration	39	5
Change Point	36	26

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: M40/Hennef Way Junction Base Model	-	-	**N/A**	-	-		-	-	-	-	-	-	**126.5%**
J1: M40 J11/Hennef Way	-	-	**N/A**	-	-		-	-	-	-	-	-	**105.9%**
1/1	M40N Approach Left Ahead	U	1:1	N/A	C1:A		1	10	-	260	1908	344	75.6%
1/2+1/3	M40N Approach Ahead	U	1:1	N/A	C1:A		1	10	-	594	2044:2044	369+369	82.7 : 78.4%
2/1+2/2	A361 Approach Left Ahead	O	N/A	N/A	-		-	-	-	640	1966:2101	358+246	105.9 : 105.9%
3/2+3/1	A422 East Approach Left Ahead	U	1:2	N/A	C1:C		1	24	-	690	1985:1985	771+116	77.9 : 77.9%
3/3	A422 East Approach Ahead	U	1:2	N/A	C1:C		1	24	-	655	2123	870	75.3%
4/1	M40S Approach Ahead	U	1:3	N/A	C1:E		1	12	-	351	1966	419	83.8%
4/2+4/3	M40S Approach Ahead Ahead2	U	1:3	N/A	C1:E		1	12	-	691	2102:2102	448+448	96.4 : 57.8%
5/2+5/1	A422 Hennef Way Approach Left Ahead	O+U	1:4	N/A	C1:J -		1	33	-	1791	2143:1943	909+845	104.0 : 77.6%
5/3	A422 Hennef Way Approach Ahead	O	1:4	N/A	C1:J		1	33	-	1056	2143	909	102.9%
6/1	M40N Exit	U	N/A	N/A	-		-	-	-	736	Inf	Inf	0.0%
6/2	M40N Exit	U	N/A	N/A	-		-	-	-	327	Inf	Inf	0.0%
7/1	A631 Exit	U	N/A	N/A	-		-	-	-	628	Inf	Inf	0.0%
8/1	A422 East Exit	U	N/A	N/A	-		-	-	-	1033	Inf	Inf	0.0%
8/2	A422 East Exit	U	N/A	N/A	-		-	-	-	564	Inf	Inf	0.0%
9/1	M40S Exit	U	N/A	N/A	-		-	-	-	595	Inf	Inf	0.0%
9/2	M40S Exit	U	N/A	N/A	-		-	-	-	348	Inf	Inf	0.0%
10/1	A422 Hennef Way Exit Ahead	U	N/A	N/A	-		-	-	-	1358	1800	1800	74.9%

Full Input Data And Results

10/2	A422 Hennef Way Exit Ahead	U	N/A	N/A	-		-	-	-	1139	1800	1800	63.3%
11/1	J11 Circ1 Ahead Right	U	1:1	N/A	C1:B		1	41	-	1329	1960	1350	87.7%
11/2	J11 Circ1 Right	U	1:1	N/A	C1:B		1	41	-	1212	2099	1445	73.7%
12/1	J11 Circ3 Ahead	U	N/A	N/A	-		-	-	-	961	1932	1932	44.5%
12/2	J11 Circ3 Ahead	U	N/A	N/A	-		-	-	-	564	2070	2070	24.8%
12/3	J11 Circ3 Right	U	N/A	N/A	-		-	-	-	953	2070	2070	41.4%
12/4	J11 Circ3 Right	U	N/A	N/A	-		-	-	-	289	2070	2070	14.0%
13/1	J11 Circ5 Ahead	U	1:2	N/A	C1:D		1	27	-	505	1946	893	49.2%
13/2	J11 Circ5 Ahead Right	U	1:2	N/A	C1:D		1	27	-	755	2084	957	73.9%
13/3	J11 Circ5 Right	U	1:2	N/A	C1:D		1	27	-	550	2084	957	57.5%
14/1	J11 Circ7 Ahead	U	1:3	N/A	C1:F		1	39	-	1007	1961	1286	77.6%
14/2	J11 Circ7 Ahead Right	U	1:3	N/A	C1:F		1	39	-	1205	2100	1377	87.5%
15/1	J11 Circ9 Ahead	U	1:4	N/A	C1:K		1	18	-	327	1927	600	54.5%
15/2	J11 Circ9 Right	U	1:4	N/A	C1:K		1	18	-	430	2065	643	66.9%
J2: Hennef Way/ Ermont Way	-	-	**N/A**	-	-		-	-	-	-	-	-	**126.5%**
1/1	Wildmere SB Entry Ahead Left	U	N/A	N/A	-		-	-	-	401	1865	1865	21.5%
1/2	Wildmere SB Entry Ahead	U	N/A	N/A	-		-	-	-	562	2005	2005	28.0%
2/1	Hennef Way WB Ahead Left	U	N/A	N/A	-		-	-	-	2497	3600	3600	69.1%
3/1+3/2	Ermont Way NB Ahead Left	O	N/A	N/A	-		-	-	-	475	1990:2099	245+502	63.6 : 63.6%
4/1	Hennef Way EB Left	O	N/A	N/A	-		-	-	-	101	1973	947	10.0%
4/2	Hennef Way EB Ahead	O	N/A	N/A	-		-	-	-	1168	2110	947	115.1%
4/3	Hennef Way EB Ahead	O	N/A	N/A	-		-	-	-	1176	2110	947	116.1%
5/1	Wildmere Rd NB	U	N/A	N/A	-		-	-	-	193	Inf	Inf	0.0%

Full Input Data And Results

5/2	Wildmere Rd NB	U	N/A	N/A	-		-	-	-	135	Inf	Inf	0.0%
6/1	Hennef Way EB Ahead	U	N/A	N/A	-		-	-	-	2847	3600	3600	70.5%
7/1	Ermont Exit	U	N/A	N/A	-		-	-	-	574	Inf	Inf	0.0%
8/1	Wildmere Rd SB Ahead	O	N/A	N/A	-		-	-	-	110	1942	444	24.8%
8/2	Wildmere Rd SB Ahead	O	N/A	N/A	-		-	-	-	562	2077	444	126.5%
9/1	Wildmere - Hennef Ahead	O	N/A	N/A	-		-	-	-	291	1956	487	59.8%
10/1	Hennef EB Ahead	U	N/A	N/A	-		-	-	-	1258	2031	2031	51.0%
10/2	Hennef EB Ahead	U	N/A	N/A	-		-	-	-	1298	2169	2169	49.7%
11/1	Hennef Way WB Ahead	O	N/A	N/A	-		-	-	-	966	1854	841	114.7%
11/2	Hennef Way WB Ahead	O	N/A	N/A	-		-	-	-	948	1986	825	114.3%
11/3	Hennef Way WB Ahead	O	N/A	N/A	-		-	-	-	166	1986	841	19.7%
12/1	Hennef - Ermont Left	O	N/A	N/A	-		-	-	-	417	2044	1278	32.5%
13/1	Ermont SB Ahead	U	N/A	N/A	-		-	-	-	157	2053	2053	7.2%
14/1	E Circ 7 Ahead	U	N/A	N/A	-		-	-	-	1258	1943	1943	53.4%
14/2	E Circ 7 Ahead	U	N/A	N/A	-		-	-	-	1298	2079	2079	51.8%
14/3	E Circ 7 Right	U	N/A	N/A	-		-	-	-	47	2079	2079	1.8%
15/1	E Circ Ahead	U	N/A	N/A	-		-	-	-	157	1950	1950	7.6%
15/2	E Circ Right	U	N/A	N/A	-		-	-	-	252	2085	2085	9.6%
15/3	E Circ Right	U	N/A	N/A	-		-	-	-	310	2085	2085	11.8%
16/1	E Circ 3 Ahead	U	N/A	N/A	-		-	-	-	1218	1998	1998	50.5%
16/2	E Circ 3 Ahead	U	N/A	N/A	-		-	-	-	1258	2138	2138	50.0%
16/3	E Circ 3 Right	U	N/A	N/A	-		-	-	-	166	2069	2069	8.0%
17/1	E Circ 5 Ahead	U	N/A	N/A	-		-	-	-	92	1943	1943	4.7%

Full Input Data And Results

17/2	E Circ 5 Ahead Right	U	N/A	N/A	-		-	-	-	225	2079	2079	10.8%
17/3	E Circ 5 Right	U	N/A	N/A	-		-	-	-	169	2079	2079	8.1%
18/2+18/1	Hennef Way EB Xing Ahead	U	N/A	N/A	C2:A		1	44	-	1269	2088:1948	1449+125	75.2 : 75.2%
18/3	Hennef Way EB Xing Ahead	U	N/A	N/A	C2:A		1	44	-	1176	2088	1540	71.3%
19/1	Hennef Way WB Ahead	U	N/A	N/A	C2:C		1	44	-	1284	2025	1494	71.9%
19/2	Hennef Way WB Ahead	U	N/A	N/A	C2:C		1	44	-	1347	2149	1585	73.1%
20/1	Hennef Way Xing WB Ahead	U	N/A	N/A	-		-	-	-	2631	3600	3600	62.0%
J3: Hennef Way/ Concord Ave	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**111.2%**
1/1	From Grimsby Green Left Ahead	O	N/A	N/A	-		-	-	-	0	2115	276	0.0%
2/1	Hennef Way WB Left	O	N/A	N/A	-		-	-	-	925	1953	1074	73.2%
2/3+2/2	Hennef Way WB Ahead	O	N/A	N/A	-		-	-	-	1706	2089:2089	1074+996	68.0 : 72.0%
3/1	Concord Ave Entry Left	O	N/A	N/A	-		-	-	-	207	1868	519	39.9%
3/2+3/3	Concord Ave Entry Ahead	O	N/A	N/A	-		-	-	-	1153	2002:2002	519+519	111.2 : 111.0%
4/1	Holman Bridge Entry Left Ahead	O	N/A	N/A	-		-	-	-	730	1976	958	76.2%
4/2	Holman Bridge Entry Ahead	O	N/A	N/A	-		-	-	-	746	2111	975	76.5%
5/1	To Grimsby Green	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
6/1	Hennef Way WB Ahead	U	N/A	N/A	-		-	-	-	2445	3600	3600	63.4%
7/1	Concord Ave Exit	U	N/A	N/A	-		-	-	-	1109	Inf	Inf	0.0%
8/1	Holman Bridge Exit Ahead	U	N/A	N/A	-		-	-	-	916	Inf	Inf	0.0%

Full Input Data And Results

8/2	Holman Bridge Exit Ahead	U	N/A	N/A	-		-	-	-	997	Inf	Inf	0.0%
9/1	C Circ 7 Ahead	U	N/A	N/A	-		-	-	-	1307	1923	1923	64.9%
9/2	C Circ 7 Ahead Right	U	N/A	N/A	-		-	-	-	1138	2058	2058	52.5%
9/3	C Circ 7 Right	U	N/A	N/A	-		-	-	-	184	2058	2058	8.9%
10/1	C Circ1 Ahead	U	N/A	N/A	-		-	-	-	0	2009	2009	0.0%
10/2	C Circ1 Ahead Right	U	N/A	N/A	-		-	-	-	184	2149	2149	8.6%
11/1	C Circ 3 Ahead	U	N/A	N/A	-		-	-	-	813	1900	1900	37.7%
11/2	C Circ 3 Ahead Right	U	N/A	N/A	-		-	-	-	893	2035	2035	35.9%
12/1	C Circ 5 Ahead Right	U	N/A	N/A	-		-	-	-	577	2013	2013	25.8%
12/2	C Circ 5 Right	U	N/A	N/A	-		-	-	-	576	2148	2148	24.2%
13/1	Ahead	U	N/A	N/A	-		-	-	-	1913	Inf	Inf	0.0%
J4: Hennef Way_Southam Rd	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**115.6%**
1/2+1/1	Hennef Way East Ahead Left	O	N/A	N/A	-		-	-	-	977	1800:1800	731+147	99.9 : 100.1%
1/3	Hennef Way East Ahead	O	N/A	N/A	-		-	-	-	936	1800	731	115.6%
2/1	Ahead	U	N/A	N/A	-		-	-	-	66	Inf	Inf	0.0%
2/2	Ahead	U	N/A	N/A	-		-	-	-	444	Inf	Inf	0.0%
2/3	Right	U	N/A	N/A	-		-	-	-	24	Inf	Inf	0.0%
3/2+3/1	Southam Rd Sth Ahead Left	O	N/A	N/A	-		-	-	-	733	1800:1800	507+188	105.6 : 105.6%
3/3	Southam Rd Sth Ahead	O	N/A	N/A	-		-	-	-	121	1800	528	22.9%
4/1	Ahead	U	N/A	N/A	-		-	-	-	813	Inf	Inf	0.0%
4/2	Ahead	U	N/A	N/A	-		-	-	-	26	Inf	Inf	0.0%
4/3	Right	U	N/A	N/A	-		-	-	-	934	Inf	Inf	0.0%
5/2+5/1	Ruscote Ave Ahead Left	O	N/A	N/A	-		-	-	-	510	1800:1800	529+84	83.2 : 83.2%

Full Input Data And Results

5/3	Ruscote Ave Ahead	O	N/A	N/A	-		-	-	-	439	1800	529	83.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	1469	Inf	Inf	0.0%
6/2	Right	U	N/A	N/A	-		-	-	-	121	Inf	Inf	0.0%
7/2+7/1	Southam Rd Nth Ahead Left	O	N/A	N/A	-		-	-	-	608	1800:1800	0+617	0.0 : 98.6%
7/3	Southam Rd Nth Ahead	O	N/A	N/A	-		-	-	-	402	1800	617	65.2%
8/1	Ahead	U	N/A	N/A	-		-	-	-	492	Inf	Inf	0.0%
8/2	Ahead	U	N/A	N/A	-		-	-	-	376	Inf	Inf	0.0%
8/3	Right	U	N/A	N/A	-		-	-	-	132	Inf	Inf	0.0%
9/1	Ahead	U	N/A	N/A	-		-	-	-	1539	Inf	Inf	0.0%
10/1	Ahead	U	3:2	N/A	C3:C		1	43	-	738	1980	1428	51.7%
10/2	Ahead	U	3:2	N/A	C3:C		1	43	-	738	1980	1428	51.7%
11/1		U	N/A	N/A	-		-	-	-	230	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	444	Inf	Inf	0.0%
12/1	Ahead	U	3:4	N/A	C3:I		1	39	-	1011	1865	1223	75.9%
12/2	Ahead	U	3:4	N/A	C3:I		1	39	-	26	1865	1223	2.1%
13/1	Ahead	U	3:1	N/A	C3:A		1	43	-	977	1980	1428	61.4%
13/2	Ahead	U	3:1	N/A	C3:A		1	43	-	936	1980	1428	59.1%
14/1	Ahead	U	N/A	N/A	-		-	-	-	1476	Inf	Inf	0.0%
15/1	Ahead	U	3:3	N/A	C3:F		1	39	-	1539	2015	1321	106.3%
16/1	Ahead	U	3:3	N/A	C3:E		1	39	-	1010	2015	1321	76.4%
17/1		U	N/A	N/A	-		-	-	-	1539	Inf	Inf	0.0%
18/1		U	N/A	N/A	-		-	-	-	1011	Inf	Inf	0.0%
18/2		U	N/A	N/A	-		-	-	-	26	Inf	Inf	0.0%
19/1	Ahead	U	3:4	N/A	C3:H		1	39	-	949	2015	1321	71.8%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M40/Hennef Way Junction Base Model	**-**	**-**	**21800**	**1818**	**0**	**113.2**	**702.4**	**0.0**	**815.6**	**-**	**-**	**-**	**-**
J1: M40 J11/Hennef Way	**-**	**-**	**1238**	**1818**	**0**	**43.4**	**99.0**	**0.0**	**142.4**	**-**	**-**	**-**	**-**
1/1	260	260	-	-	-	1.7	1.5	-	3.2	44.4	4.1	1.5	5.6
1/2+1/3	594	594	-	-	-	4.0	2.0	-	6.0	36.2	4.9	2.0	6.9
2/1+2/2	640	619	1238	0	0	2.7	24.5	-	27.1	152.5	14.8	24.5	39.3
3/2+3/1	690	690	-	-	-	2.9	1.7	-	4.6	24.0	9.1	1.7	10.8
3/3	655	655	-	-	-	2.8	1.5	-	4.3	23.6	9.5	1.5	11.0
4/1	351	351	-	-	-	2.2	2.4	-	4.7	47.7	5.7	2.4	8.1
4/2+4/3	691	691	-	-	-	4.4	1.7	-	6.1	31.6	7.2	1.7	8.9
5/2+5/1	1601	1564	0	909	0	4.4	23.2	-	27.6	62.0	16.6	23.2	39.8
5/3	935	909	0	909	0	4.1	23.2	-	27.4	105.4	16.3	23.2	39.5
6/1	655	655	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	327	327	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	583	583	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	928	928	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	513	513	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	529	529	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	310	310	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	1348	1348	-	-	-	0.0	1.5	-	1.5	4.1	0.3	1.5	1.8
10/2	1139	1139	-	-	-	0.1	0.9	-	0.9	3.0	0.6	0.9	1.5
11/1	1183	1183	-	-	-	1.9	3.4	-	5.3	16.1	17.5	3.4	20.9
11/2	1065	1065	-	-	-	1.7	1.4	-	3.1	10.5	15.8	1.4	17.2
12/1	860	860	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
12/2	513	513	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2

Full Input Data And Results

12/3	857	857	-	-	-	0.0	0.4	-	0.4	1.5	0.0	0.4	0.4
12/4	289	289	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
13/1	439	439	-	-	-	2.3	0.5	-	2.8	23.1	6.4	0.5	6.9
13/2	707	707	-	-	-	2.1	1.4	-	3.5	17.7	9.9	1.4	11.3
13/3	550	550	-	-	-	0.3	0.7	-	1.0	6.3	2.9	0.7	3.6
14/1	997	997	-	-	-	1.0	1.7	-	2.8	9.9	7.4	1.7	9.1
14/2	1205	1205	-	-	-	2.1	3.4	-	5.5	16.4	11.2	3.4	14.6
15/1	327	327	-	-	-	1.7	0.6	-	2.3	25.1	5.4	0.6	6.0
15/2	430	430	-	-	-	0.9	1.0	-	1.9	16.0	3.3	1.0	4.3
J2: Hennef Way/ Ermont Way	**-**	**-**	**6030**	**0**	**0**	**35.6**	**358.6**	**0.0**	**394.2**	**-**	**-**	**-**	**-**
1/1	401	401	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
1/2	562	562	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
2/1	2487	2487	-	-	-	0.0	1.1	-	1.1	1.6	0.0	0.6	0.6
3/1+3/2	475	475	950	0	0	0.0	0.9	-	0.9	6.6	0.0	0.9	0.9
4/1	94	94	94	0	0	0.0	0.1	-	0.1	2.1	0.3	0.1	0.3
4/2	1090	947	947	0	0	7.5	75.3	-	82.8	273.5	44.9	75.3	120.2
4/3	1099	947	947	0	0	7.8	79.5	-	87.3	286.0	45.2	79.5	124.7
5/1	186	186	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	135	135	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	2536	2536	-	-	-	0.0	1.2	-	1.2	1.7	0.0	0.6	0.6
7/1	563	563	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	110	110	110	0	0	0.0	0.2	-	0.2	5.4	0.0	0.2	0.2
8/2	562	444	444	0	0	5.0	61.2	-	66.2	424.2	28.6	61.2	89.8
9/1	291	291	291	0	0	0.0	0.7	-	0.7	9.1	0.0	0.7	0.7
10/1	1037	1037	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
10/2	1078	1078	-	-	-	0.0	0.5	-	0.5	1.6	0.0	0.5	0.5
11/1	964	841	841	0	0	5.0	65.3	-	70.3	262.7	49.0	65.3	114.3
11/2	943	825	825	0	0	5.1	62.7	-	67.8	259.0	47.9	62.7	110.6
11/3	166	166	166	0	0	0.0	0.1	-	0.1	2.7	0.0	0.1	0.1

Full Input Data And Results

12/1	416	416	416	0	0	0.0	0.2	-	0.2	2.1	0.0	0.2	0.2
13/1	148	148	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
14/1	1037	1037	-	-	-	0.0	0.6	-	0.6	2.0	0.0	0.6	0.6
14/2	1078	1078	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
14/3	38	38	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
15/1	148	148	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
15/2	199	199	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
15/3	245	245	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
16/1	1009	1009	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
16/2	1070	1070	-	-	-	0.0	0.5	-	0.5	1.7	0.0	0.5	0.5
16/3	166	166	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
17/1	92	92	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
17/2	225	225	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
17/3	169	169	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
18/2+18/1	1184	1184	-	-	-	1.1	1.5	-	2.6	7.9	8.6	1.5	10.1
18/3	1099	1099	-	-	-	1.1	1.2	-	2.3	7.5	8.7	1.2	9.9
19/1	1075	1075	-	-	-	1.3	1.3	-	2.6	8.7	10.2	1.3	11.4
19/2	1159	1159	-	-	-	1.5	1.3	-	2.8	8.7	10.9	1.3	12.3
20/1	2233	2233	-	-	-	0.2	0.8	-	1.1	1.7	4.8	0.4	5.2
J3: Hennef Way/ Concord Ave	**-**	**-**	**7439**	**0**	**0**	**5.8**	**71.7**	**0.0**	**77.4**	**-**	**-**	**-**	**-**
1/1	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/1	786	786	786	0	0	0.0	1.4	-	1.4	6.2	0.0	1.4	1.4
2/3+2/2	1447	1447	2895	0	0	0.0	1.2	-	1.2	2.9	0.0	1.2	1.2
3/1	207	207	207	0	0	0.0	0.3	-	0.3	5.8	0.0	0.3	0.3
3/2+3/3	1153	1038	2075	0	0	5.5	62.3	-	67.7	211.4	29.0	62.3	91.3
4/1	730	730	730	0	0	0.2	1.6	-	1.7	8.5	7.3	1.6	8.9
4/2	746	746	746	0	0	0.2	1.6	-	1.8	8.6	7.9	1.6	9.5
5/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	2283	2283	-	-	-	0.0	0.9	-	0.9	1.4	0.0	0.4	0.4

Full Input Data And Results

7/1	970	970	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	820	820	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	834	834	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	1249	1249	-	-	-	0.0	0.9	-	0.9	2.7	0.0	0.9	0.9
9/2	1081	1081	-	-	-	0.0	0.6	-	0.6	1.8	0.0	0.6	0.6
9/3	184	184	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
10/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	184	184	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
11/1	717	717	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
11/2	730	730	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
12/1	519	519	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
12/2	519	519	-	-	-	0.0	0.2	-	0.2	1.1	0.0	0.2	0.2
13/1	1722	1722	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J4: Hennef Way_Southam Rd	**-**	**-**	**7093**	**0**	**0**	**28.4**	**173.1**	**0.0**	**201.6**	**-**	**-**	**-**	**-**
1/2+1/1	877	877	1755	0	0	2.3	14.8	-	17.1	70.0	12.4	14.8	27.2
1/3	844	731	731	0	0	6.1	60.3	-	66.4	283.1	36.9	60.3	97.3
2/1	66	66	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/2	444	444	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/3	24	24	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2+3/1	733	705	1410	0	0	1.1	26.3	-	27.4	134.7	26.5	26.3	52.8
3/3	121	121	121	0	0	0.0	0.1	-	0.1	4.4	0.0	0.1	0.1
4/1	730	730	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	25	25	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/3	729	729	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2+5/1	510	510	1020	0	0	1.0	2.4	-	3.4	23.9	7.5	2.4	9.8
5/3	439	439	439	0	0	0.9	2.3	-	3.2	26.4	7.2	2.3	9.5
6/1	1334	1334	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	121	121	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2+7/1	608	608	1216	0	0	2.1	10.3	-	12.3	73.1	10.3	10.3	20.6

Full Input Data And Results

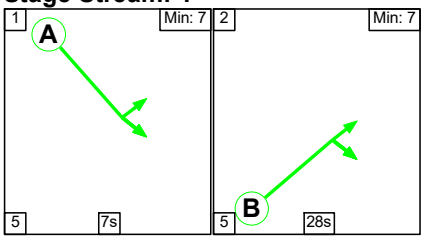
7/3	402	402	402	0	0	0.1	0.9	-	1.0	9.2	3.8	0.9	4.8
8/1	492	492	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	376	376	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/3	132	132	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	1404	1404	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	738	738	-	-	-	0.5	0.5	-	1.0	5.0	4.1	0.5	4.6
10/2	738	738	-	-	-	0.6	0.5	-	1.1	5.4	4.7	0.5	5.2
11/1	214	214	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	444	444	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	928	928	-	-	-	1.8	1.6	-	3.4	13.1	11.0	1.6	12.6
12/2	25	25	-	-	-	0.0	0.0	-	0.0	6.6	0.2	0.0	0.2
13/1	877	877	-	-	-	0.8	0.8	-	1.6	6.4	5.6	0.8	6.4
13/2	844	844	-	-	-	0.7	0.7	-	1.5	6.2	5.2	0.7	5.9
14/1	1476	1476	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	1404	1321	-	-	-	6.7	48.6	-	55.3	141.8	25.2	48.6	73.8
16/1	1010	1010	-	-	-	2.0	1.6	-	3.6	13.0	11.8	1.6	13.4
17/1	1321	1321	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	928	928	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/2	25	25	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/1	949	949	-	-	-	1.8	1.3	-	3.1	11.6	10.3	1.3	11.5

C1 - M40 J11	Stream: 1 PRC for Signalled Lanes (%):	2.7	Total Delay for Signalled Lanes (pcuHr):	17.61	Cycle Time (s):	61
C1 - M40 J11	Stream: 2 PRC for Signalled Lanes (%):	15.6	Total Delay for Signalled Lanes (pcuHr):	16.15	Cycle Time (s):	61
C1 - M40 J11	Stream: 3 PRC for Signalled Lanes (%):	-7.2	Total Delay for Signalled Lanes (pcuHr):	18.94	Cycle Time (s):	61
C1 - M40 J11	Stream: 4 PRC for Signalled Lanes (%):	-15.6	Total Delay for Signalled Lanes (pcuHr):	59.15	Cycle Time (s):	61
C2 - Hennef Way Pedestrian Crossing	PRC for Signalled Lanes (%):	19.6	Total Delay for Signalled Lanes (pcuHr):	10.31	Cycle Time (s):	61
C3 - Southam Rd	Stream: 1 PRC for Signalled Lanes (%):	46.5	Total Delay for Signalled Lanes (pcuHr):	3.02	Cycle Time (s):	61
C3 - Southam Rd	Stream: 2 PRC for Signalled Lanes (%):	74.2	Total Delay for Signalled Lanes (pcuHr):	2.12	Cycle Time (s):	61
C3 - Southam Rd	Stream: 3 PRC for Signalled Lanes (%):	-18.1	Total Delay for Signalled Lanes (pcuHr):	58.94	Cycle Time (s):	61
C3 - Southam Rd	Stream: 4 PRC for Signalled Lanes (%):	18.6	Total Delay for Signalled Lanes (pcuHr):	6.49	Cycle Time (s):	61
	PRC Over All Lanes (%):	-40.6	Total Delay Over All Lanes(pcuHr):	815.61		

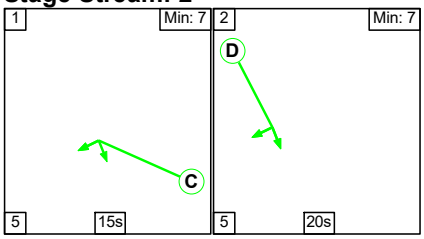
Full Input Data And Results
Scenario 5: '2031 AM No Dev' (FG5: '2031 AM No Dev', Plan 1: 'Control Plan 1')
C1 - M40 J11

Stage Sequence Diagram

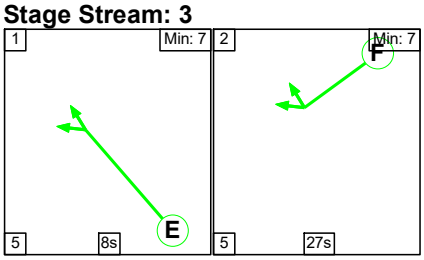
Stage Stream: 1



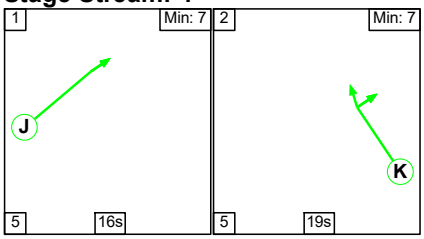
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	7	28
Change Point	14	26

Stage Stream: 2

Stage	1	2
Duration	15	20
Change Point	44	19

Stage Stream: 3

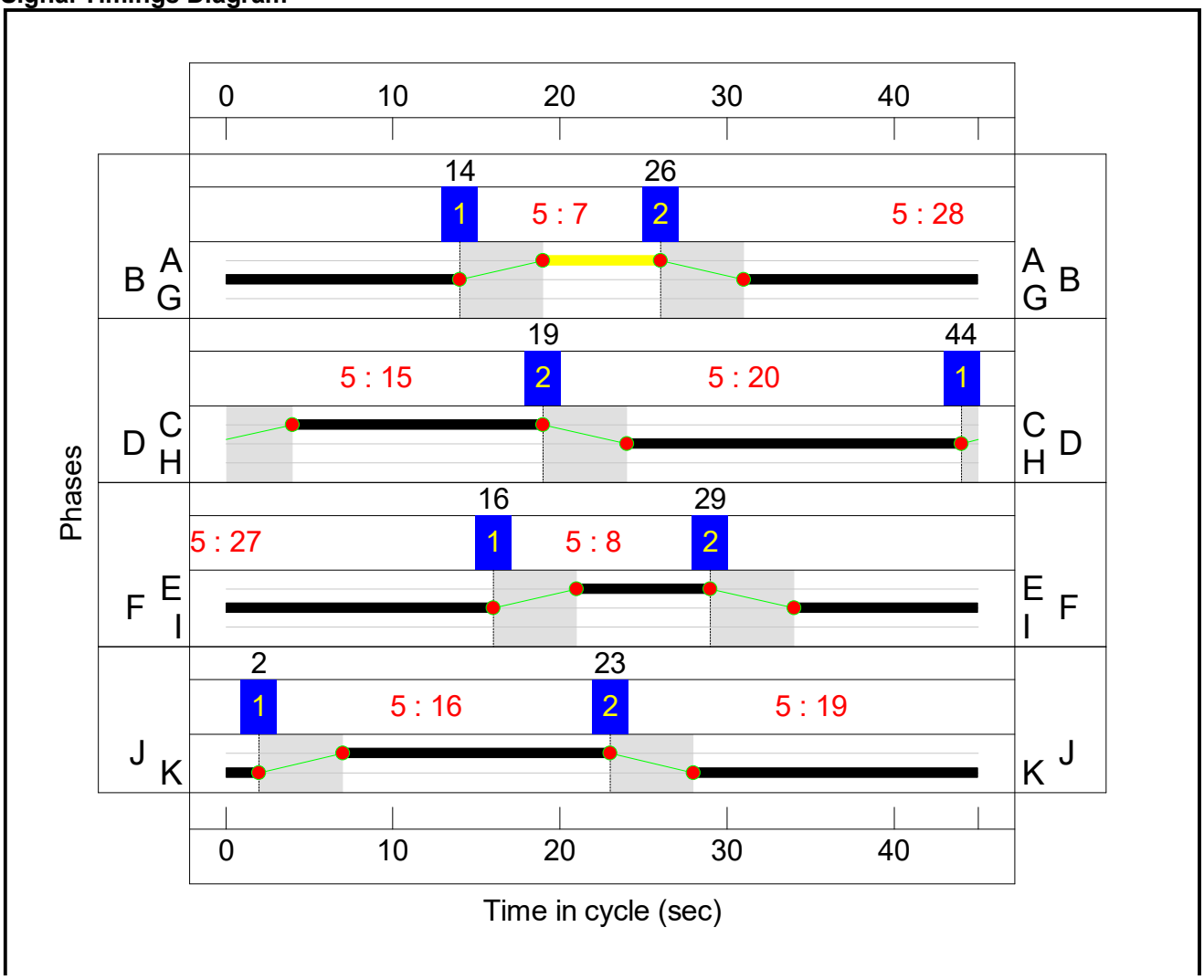
Stage	1	2
Duration	8	27
Change Point	16	29

Full Input Data And Results

Stage Stream: 4

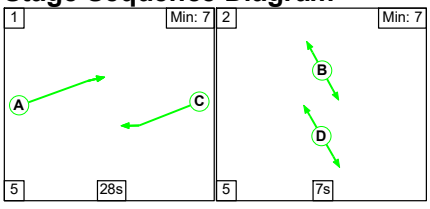
Stage	1	2
Duration	16	19
Change Point	2	23

Signal Timings Diagram



C2 - Hennef Way Pedestrian Crossing

Stage Sequence Diagram

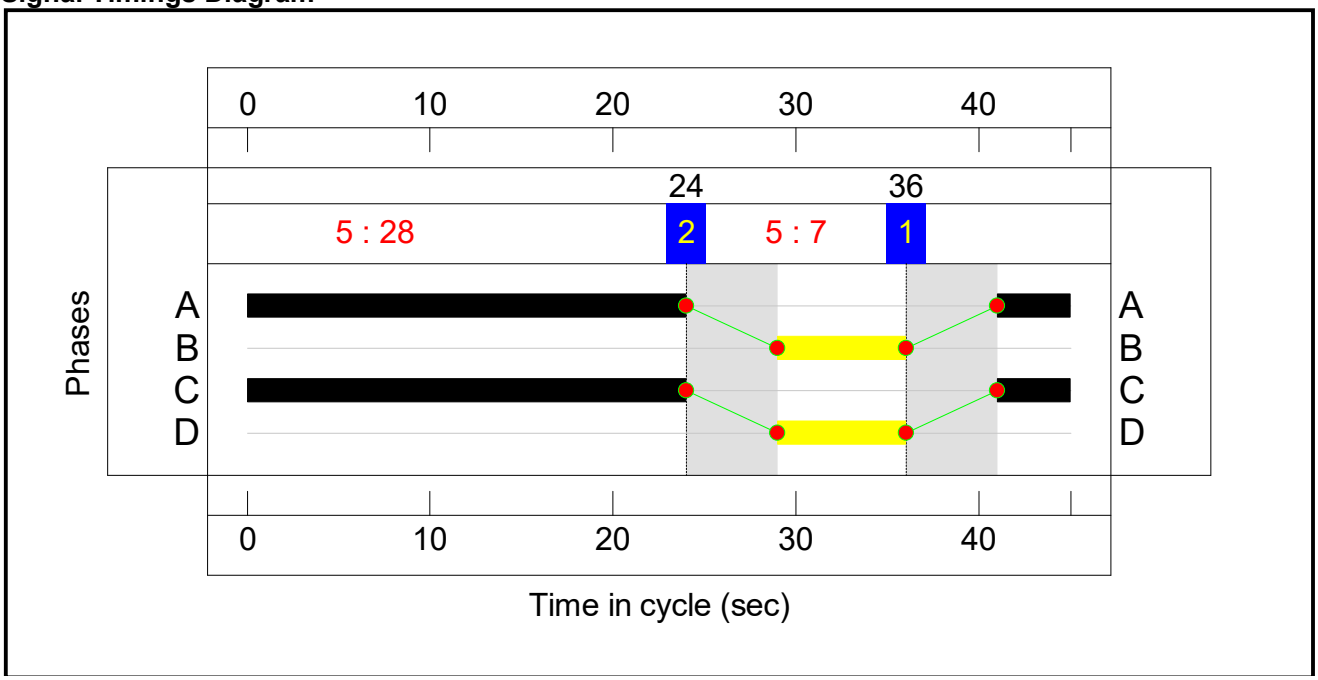


Stage Timings

Stage	1	2
Duration	28	7
Change Point	36	24

Full Input Data And Results

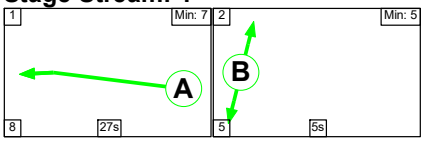
Signal Timings Diagram



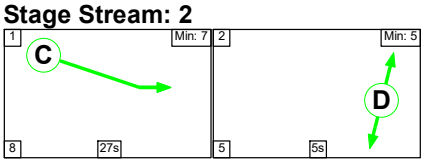
C3 - Southam Rd

Stage Sequence Diagram

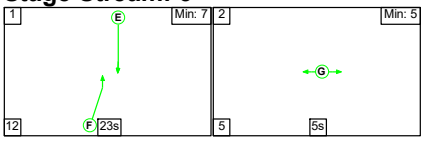
Stage Stream: 1



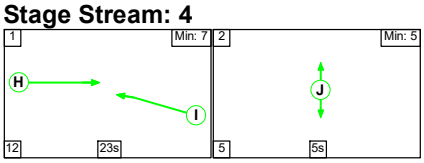
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	27	5
Change Point	18	8

Full Input Data And Results

Stage Stream: 2

Stage	1	2
Duration	27	5
Change Point	16	6

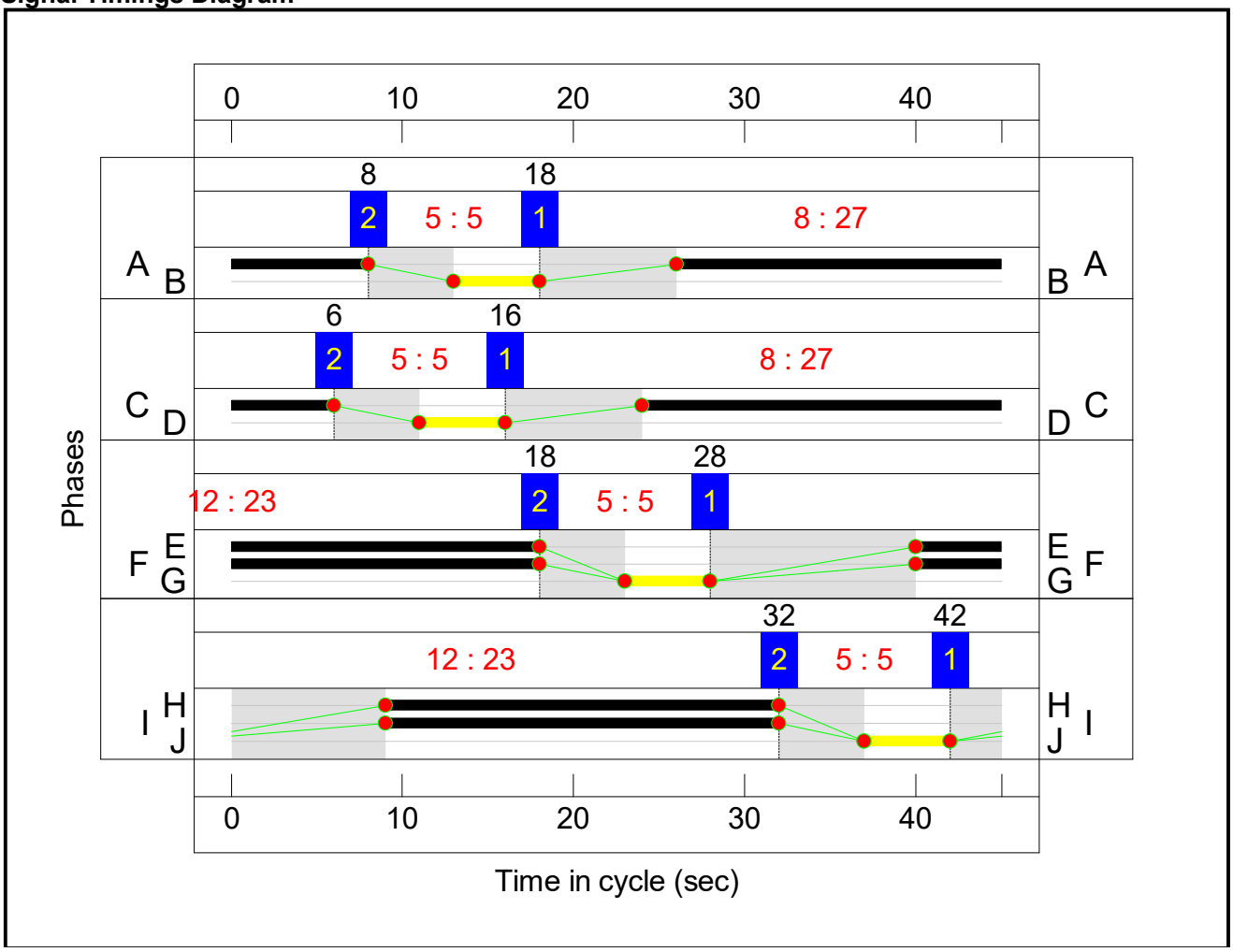
Stage Stream: 3

Stage	1	2
Duration	23	5
Change Point	28	18

Stage Stream: 4

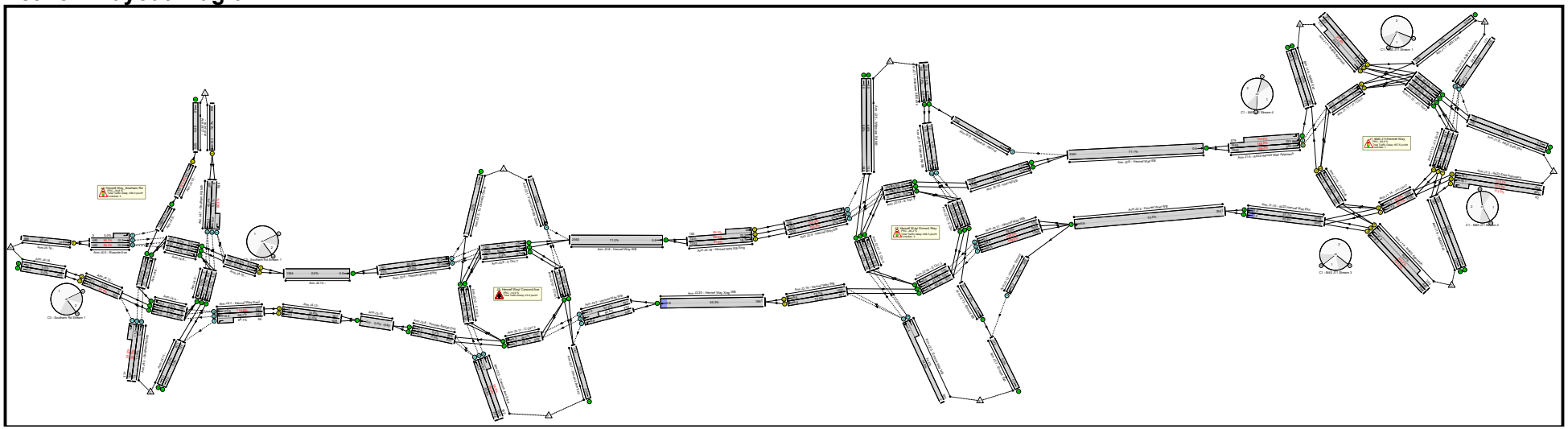
Stage	1	2
Duration	23	5
Change Point	42	32

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: M40/Hennef Way Junction Base Model	-	-	**N/A**	-	-		-	-	-	-	-	-	**169.2%**
J1: M40 J11/Hennef Way	-	-	**N/A**	-	-		-	-	-	-	-	-	**169.2%**
1/1	M40N Approach Left Ahead	U	1:1	N/A	C1:A		1	7	-	271	1908	339	79.9%
1/2+1/3	M40N Approach Ahead	U	1:1	N/A	C1:A		1	7	-	664	2044:2044	363+363	97.4 : 85.3%
2/1+2/2	A361 Approach Left Ahead	O	N/A	N/A	-		-	-	-	449	1966:2101	473+291	58.8 : 58.8%
3/2+3/1	A422 East Approach Left Ahead	U	1:2	N/A	C1:C		1	15	-	893	1985:1985	706+81	113.5 : 113.5%
3/3	A422 East Approach Ahead	U	1:2	N/A	C1:C		1	15	-	854	2123	755	113.1%
4/1	M40S Approach Ahead	U	1:3	N/A	C1:E		1	8	-	398	1966	393	101.2%
4/2+4/3	M40S Approach Ahead Ahead2	U	1:3	N/A	C1:E		1	8	-	733	2102:2102	420+420	105.4 : 69.0%
5/2+5/1	A422 Hennef Way Approach Left Ahead	O+U	1:4	N/A	C1:J -		1	16	-	1784	2143:1943	616+475	168.8 : 100.8%
5/3	A422 Hennef Way Approach Ahead	O	1:4	N/A	C1:J		1	16	-	1236	2143	616	169.2%
6/1	M40N Exit	U	N/A	N/A	-		-	-	-	566	Inf	Inf	0.0%
6/2	M40N Exit	U	N/A	N/A	-		-	-	-	426	Inf	Inf	0.0%
7/1	A631 Exit	U	N/A	N/A	-		-	-	-	751	Inf	Inf	0.0%
8/1	A422 East Exit	U	N/A	N/A	-		-	-	-	1154	Inf	Inf	0.0%
8/2	A422 East Exit	U	N/A	N/A	-		-	-	-	521	Inf	Inf	0.0%
9/1	M40S Exit	U	N/A	N/A	-		-	-	-	827	Inf	Inf	0.0%
9/2	M40S Exit	U	N/A	N/A	-		-	-	-	357	Inf	Inf	0.0%
10/1	A422 Hennef Way Exit Ahead	U	N/A	N/A	-		-	-	-	1593	1800	1800	82.9%

Full Input Data And Results

10/2	A422 Hennef Way Exit Ahead	U	N/A	N/A	-		-	-	-	1087	1800	1800	57.7%
11/1	J11 Circ1 Ahead Right	U	1:1	N/A	C1:B		1	28	-	1609	1960	1263	77.2%
11/2	J11 Circ1 Right	U	1:1	N/A	C1:B		1	28	-	1400	2099	1353	57.7%
12/1	J11 Circ3 Ahead	U	N/A	N/A	-		-	-	-	1129	1932	1932	36.3%
12/2	J11 Circ3 Ahead	U	N/A	N/A	-		-	-	-	521	2070	2070	18.6%
12/3	J11 Circ3 Right	U	N/A	N/A	-		-	-	-	1233	2070	2070	36.2%
12/4	J11 Circ3 Right	U	N/A	N/A	-		-	-	-	310	2070	2070	15.0%
13/1	J11 Circ5 Ahead	U	1:2	N/A	C1:D		1	20	-	735	1946	908	46.7%
13/2	J11 Circ5 Ahead Right	U	1:2	N/A	C1:D		1	20	-	751	2084	973	59.5%
13/3	J11 Circ5 Right	U	1:2	N/A	C1:D		1	20	-	481	2084	973	49.5%
14/1	J11 Circ7 Ahead	U	1:3	N/A	C1:F		1	27	-	1195	1961	1220	90.1%
14/2	J11 Circ7 Ahead Right	U	1:3	N/A	C1:F		1	27	-	1335	2100	1307	94.6%
15/1	J11 Circ9 Ahead	U	1:4	N/A	C1:K		1	19	-	426	1927	856	45.0%
15/2	J11 Circ9 Right	U	1:4	N/A	C1:K		1	19	-	555	2065	918	57.0%
J2: Hennef Way/ Ermont Way	-	-	**N/A**	-	-		-	-	-	-	-	-	**133.4%**
1/1	Wildmere SB Entry Ahead Left	U	N/A	N/A	-		-	-	-	230	1865	1865	12.3%
1/2	Wildmere SB Entry Ahead	U	N/A	N/A	-		-	-	-	150	2005	2005	7.5%
2/1	Hennef Way WB Ahead Left	U	N/A	N/A	-		-	-	-	2680	3600	3600	70.3%
3/1+3/2	Ermont Way NB Ahead Left	O	N/A	N/A	-		-	-	-	384	1961:2099	1+514	74.5 : 74.4%
4/1	Hennef Way EB Left	O	N/A	N/A	-		-	-	-	100	1973	926	10.8%
4/2	Hennef Way EB Ahead	O	N/A	N/A	-		-	-	-	1231	2110	925	133.0%
4/3	Hennef Way EB Ahead	O	N/A	N/A	-		-	-	-	1236	2110	924	133.4%
5/1	Wildmere Rd NB	U	N/A	N/A	-		-	-	-	203	Inf	Inf	0.0%

Full Input Data And Results

5/2	Wildmere Rd NB	U	N/A	N/A	-		-	-	-	118	Inf	Inf	0.0%
6/1	Hennef Way EB Ahead	U	N/A	N/A	-		-	-	-	3020	3600	3600	71.1%
7/1	Ermont Exit	U	N/A	N/A	-		-	-	-	394	Inf	Inf	0.0%
8/1	Wildmere Rd SB Ahead	O	N/A	N/A	-		-	-	-	22	1942	432	5.1%
8/2	Wildmere Rd SB Ahead	O	N/A	N/A	-		-	-	-	150	2077	432	34.7%
9/1	Wildmere - Hennef Ahead	O	N/A	N/A	-		-	-	-	208	1956	485	42.9%
10/1	Hennef EB Ahead	U	N/A	N/A	-		-	-	-	1351	2031	2031	51.5%
10/2	Hennef EB Ahead	U	N/A	N/A	-		-	-	-	1461	2169	2169	53.0%
11/1	Hennef Way WB Ahead	O	N/A	N/A	-		-	-	-	1067	1854	921	109.0%
11/2	Hennef Way WB Ahead	O	N/A	N/A	-		-	-	-	1059	1986	921	109.0%
11/3	Hennef Way WB Ahead	O	N/A	N/A	-		-	-	-	185	1986	921	19.0%
12/1	Hennef - Ermont Left	O	N/A	N/A	-		-	-	-	369	2044	1413	24.7%
13/1	Ermont SB Ahead	U	N/A	N/A	-		-	-	-	25	2053	2053	1.2%
14/1	E Circ 7 Ahead	U	N/A	N/A	-		-	-	-	1351	1943	1943	53.8%
14/2	E Circ 7 Ahead	U	N/A	N/A	-		-	-	-	1461	2079	2079	55.3%
14/3	E Circ 7 Right	U	N/A	N/A	-		-	-	-	3	2079	2079	0.1%
15/1	E Circ Ahead	U	N/A	N/A	-		-	-	-	25	1950	1950	1.2%
15/2	E Circ Right	U	N/A	N/A	-		-	-	-	50	2085	2085	2.4%
15/3	E Circ Right	U	N/A	N/A	-		-	-	-	100	2085	2085	4.8%
16/1	E Circ 3 Ahead	U	N/A	N/A	-		-	-	-	1117	1998	1998	48.6%
16/2	E Circ 3 Ahead	U	N/A	N/A	-		-	-	-	1159	2138	2138	47.7%
16/3	E Circ 3 Right	U	N/A	N/A	-		-	-	-	185	2069	2069	8.4%
17/1	E Circ 5 Ahead	U	N/A	N/A	-		-	-	-	103	1943	1943	5.0%

Full Input Data And Results

17/2	E Circ 5 Ahead Right	U	N/A	N/A	-		-	-	-	238	2079	2079	11.2%
17/3	E Circ 5 Right	U	N/A	N/A	-		-	-	-	228	2079	2079	11.0%
18/2+18/1	Hennef Way EB Xing Ahead	U	N/A	N/A	C2:A		1	28	-	1331	2088:1948	1288+105	95.5 : 95.5%
18/3	Hennef Way EB Xing Ahead	U	N/A	N/A	C2:A		1	28	-	1236	2088	1346	91.6%
19/1	Hennef Way WB Ahead	U	N/A	N/A	C2:C		1	28	-	1117	2025	1305	74.4%
19/2	Hennef Way WB Ahead	U	N/A	N/A	C2:C		1	28	-	1159	2149	1385	73.7%
20/1	Hennef Way Xing WB Ahead	U	N/A	N/A	-		-	-	-	2276	3600	3600	55.3%
J3: Hennef Way/ Concord Ave	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**99.8%**
1/1	From Grimsby Green Left Ahead	O	N/A	N/A	-		-	-	-	0	2115	225	0.0%
2/1	Hennef Way WB Left	O	N/A	N/A	-		-	-	-	791	1953	1112	62.3%
2/3+2/2	Hennef Way WB Ahead	O	N/A	N/A	-		-	-	-	1485	2089:2089	1112+869	67.2 : 63.6%
3/1	Concord Ave Entry Left	O	N/A	N/A	-		-	-	-	242	1868	553	43.8%
3/2+3/3	Concord Ave Entry Ahead	O	N/A	N/A	-		-	-	-	1082	2002:2002	553+553	95.9 : 99.8%
4/1	Holman Bridge Entry Left Ahead	O	N/A	N/A	-		-	-	-	761	1976	941	80.8%
4/2	Holman Bridge Entry Ahead	O	N/A	N/A	-		-	-	-	773	2111	943	82.0%
5/1	To Grimsby Green	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
6/1	Hennef Way WB Ahead	U	N/A	N/A	-		-	-	-	2567	3600	3600	71.2%
7/1	Concord Ave Exit	U	N/A	N/A	-		-	-	-	840	Inf	Inf	0.0%
8/1	Holman Bridge Exit Ahead	U	N/A	N/A	-		-	-	-	741	Inf	Inf	0.0%

Full Input Data And Results

8/2	Holman Bridge Exit Ahead	U	N/A	N/A	-		-	-	-	986	Inf	Inf	0.0%
9/1	C Circ 7 Ahead	U	N/A	N/A	-		-	-	-	1291	1923	1923	67.1%
9/2	C Circ 7 Ahead Right	U	N/A	N/A	-		-	-	-	1276	2058	2058	62.0%
9/3	C Circ 7 Right	U	N/A	N/A	-		-	-	-	49	2058	2058	2.4%
10/1	C Circ1 Ahead	U	N/A	N/A	-		-	-	-	0	2009	2009	0.0%
10/2	C Circ1 Ahead Right	U	N/A	N/A	-		-	-	-	49	2149	2149	2.3%
11/1	C Circ 3 Ahead	U	N/A	N/A	-		-	-	-	620	1900	1900	29.1%
11/2	C Circ 3 Ahead Right	U	N/A	N/A	-		-	-	-	865	2035	2035	36.7%
12/1	C Circ 5 Ahead Right	U	N/A	N/A	-		-	-	-	530	2013	2013	26.3%
12/2	C Circ 5 Right	U	N/A	N/A	-		-	-	-	552	2148	2148	25.7%
13/1	Ahead	U	N/A	N/A	-		-	-	-	1727	Inf	Inf	0.0%
J4: Hennef Way_Southam Rd	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**125.9%**
1/2+1/1	Hennef Way East Ahead Left	O	N/A	N/A	-		-	-	-	698	1800:1800	769+139	69.1 : 69.1%
1/3	Hennef Way East Ahead	O	N/A	N/A	-		-	-	-	1029	1800	769	119.8%
2/1	Ahead	U	N/A	N/A	-		-	-	-	45	Inf	Inf	0.0%
2/2	Ahead	U	N/A	N/A	-		-	-	-	301	Inf	Inf	0.0%
2/3	Right	U	N/A	N/A	-		-	-	-	5	Inf	Inf	0.0%
3/2+3/1	Southam Rd Sth Ahead Left	O	N/A	N/A	-		-	-	-	897	1800:1800	554+401	93.9 : 93.9%
3/3	Southam Rd Sth Ahead	O	N/A	N/A	-		-	-	-	73	1800	568	12.9%
4/1	Ahead	U	N/A	N/A	-		-	-	-	591	Inf	Inf	0.0%
4/2	Ahead	U	N/A	N/A	-		-	-	-	6	Inf	Inf	0.0%
4/3	Right	U	N/A	N/A	-		-	-	-	1028	Inf	Inf	0.0%
5/2+5/1	Ruscote Ave Ahead Left	O	N/A	N/A	-		-	-	-	483	1800:1800	535+0	90.2 : 0.0%

Full Input Data And Results

5/3	Ruscote Ave Ahead	O	N/A	N/A	-		-	-	-	483	1800	535	90.2%
6/1	Ahead	U	N/A	N/A	-		-	-	-	1548	Inf	Inf	0.0%
6/2	Right	U	N/A	N/A	-		-	-	-	73	Inf	Inf	0.0%
7/2+7/1	Southam Rd Nth Ahead Left	O	N/A	N/A	-		-	-	-	586	1800:1800	0+609	0.0 : 96.3%
7/3	Southam Rd Nth Ahead	O	N/A	N/A	-		-	-	-	260	1800	609	42.7%
8/1	Ahead	U	N/A	N/A	-		-	-	-	515	Inf	Inf	0.0%
8/2	Ahead	U	N/A	N/A	-		-	-	-	433	Inf	Inf	0.0%
8/3	Right	U	N/A	N/A	-		-	-	-	91	Inf	Inf	0.0%
9/1	Ahead	U	N/A	N/A	-		-	-	-	1548	Inf	Inf	0.0%
10/1	Ahead	U	3:2	N/A	C3:C		1	27	-	776	1980	1232	63.0%
10/2	Ahead	U	3:2	N/A	C3:C		1	27	-	758	1980	1232	61.5%
11/1		U	N/A	N/A	-		-	-	-	152	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	301	Inf	Inf	0.0%
12/1	Ahead	U	3:4	N/A	C3:I		1	23	-	968	1865	995	91.4%
12/2	Ahead	U	3:4	N/A	C3:I		1	23	-	6	1865	995	0.6%
13/1	Ahead	U	3:1	N/A	C3:A		1	27	-	698	1980	1232	51.0%
13/2	Ahead	U	3:1	N/A	C3:A		1	27	-	1029	1980	1232	74.8%
14/1	Ahead	U	N/A	N/A	-		-	-	-	1534	Inf	Inf	0.0%
15/1	Ahead	U	3:3	N/A	C3:F		1	23	-	1548	2015	1075	125.9%
16/1	Ahead	U	3:3	N/A	C3:E		1	23	-	846	2015	1075	78.7%
17/1		U	N/A	N/A	-		-	-	-	1548	Inf	Inf	0.0%
18/1		U	N/A	N/A	-		-	-	-	968	Inf	Inf	0.0%
18/2		U	N/A	N/A	-		-	-	-	6	Inf	Inf	0.0%
19/1	Ahead	U	3:4	N/A	C3:H		1	23	-	966	2015	1075	89.9%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M40/Hennef Way Junction Base Model	**-**	**-**	**20363**	**1232**	**0**	**135.0**	**1304.2**	**0.0**	**1439.2**	**-**	**-**	**-**	**-**
J1: M40 J11/Hennef Way	**-**	**-**	**898**	**1232**	**0**	**63.6**	**593.8**	**0.0**	**657.5**	**-**	**-**	**-**	**-**
1/1	271	271	-	-	-	1.3	1.9	-	3.2	42.7	3.2	1.9	5.1
1/2+1/3	664	664	-	-	-	3.4	4.6	-	8.0	43.2	4.3	4.6	8.9
2/1+2/2	449	449	898	0	0	0.5	0.7	-	1.2	10.0	2.6	0.7	3.3
3/2+3/1	893	787	-	-	-	5.8	57.0	-	62.8	253.1	12.7	57.0	69.7
3/3	854	755	-	-	-	5.5	53.6	-	59.1	249.2	11.9	53.6	65.5
4/1	398	393	-	-	-	2.1	11.2	-	13.3	120.5	5.0	11.2	16.3
4/2+4/3	733	710	-	-	-	4.0	14.5	-	18.5	90.7	5.8	14.5	20.3
5/2+5/1	1519	1095	0	616	0	12.6	215.6	-	228.2	540.8	18.3	215.6	233.9
5/3	1042	616	0	616	0	12.7	214.3	-	227.0	784.0	18.4	214.3	232.7
6/1	479	479	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	385	385	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	546	546	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	726	726	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	385	385	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	505	505	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	184	184	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	1493	1493	-	-	-	0.2	2.4	-	2.6	6.3	0.8	2.4	3.2
10/2	1038	1038	-	-	-	0.0	0.7	-	0.7	2.5	0.4	0.7	1.0
11/1	975	975	-	-	-	1.2	1.7	-	2.9	10.7	10.0	1.7	11.7
11/2	780	780	-	-	-	0.8	0.7	-	1.5	7.0	7.2	0.7	7.9
12/1	701	701	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
12/2	385	385	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1

Full Input Data And Results

12/3	750	750	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
12/4	310	310	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
13/1	424	424	-	-	-	1.6	0.4	-	2.0	16.9	5.0	0.4	5.5
13/2	578	578	-	-	-	1.5	0.7	-	2.2	13.8	4.6	0.7	5.3
13/3	481	481	-	-	-	0.9	0.5	-	1.4	10.3	2.6	0.5	3.1
14/1	1100	1100	-	-	-	3.1	4.3	-	7.4	24.1	12.7	4.3	17.0
14/2	1236	1236	-	-	-	3.5	7.2	-	10.8	31.4	14.8	7.2	22.1
15/1	385	385	-	-	-	1.7	0.4	-	2.1	19.6	4.1	0.4	4.5
15/2	523	523	-	-	-	1.2	0.7	-	1.8	12.6	5.2	0.7	5.9
J2: Hennef Way/ Ermont Way	**-**	**-**	**5461**	**0**	**0**	**38.4**	**430.1**	**0.0**	**468.5**	**-**	**-**	**-**	**-**
1/1	230	230	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
1/2	150	150	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
2/1	2531	2531	-	-	-	0.0	1.2	-	1.2	1.7	0.0	0.6	0.6
3/1+3/2	384	384	768	0	0	0.0	1.4	-	1.4	13.4	0.0	1.4	1.4
4/1	100	100	100	0	0	0.0	0.1	-	0.1	2.2	0.3	0.1	0.4
4/2	1231	925	925	0	0	12.4	154.7	-	167.2	489.0	46.1	154.7	200.9
4/3	1232	924	924	0	0	12.6	156.3	-	168.9	493.5	46.2	156.3	202.5
5/1	198	198	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	113	113	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	2561	2561	-	-	-	0.0	1.2	-	1.2	1.7	0.0	0.6	0.6
7/1	373	373	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	22	22	22	0	0	0.0	0.0	-	0.0	4.4	0.0	0.0	0.0
8/2	150	150	150	0	0	0.0	0.3	-	0.3	6.4	0.0	0.3	0.3
9/1	208	208	208	0	0	0.0	0.4	-	0.4	6.5	0.0	0.4	0.4
10/1	1045	1045	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
10/2	1149	1149	-	-	-	0.0	0.6	-	0.6	1.8	0.0	0.6	0.6
11/1	1004	921	921	0	0	2.7	46.9	-	49.7	178.2	37.6	46.9	84.6
11/2	1004	921	921	0	0	2.8	46.9	-	49.6	177.9	37.6	46.9	84.5
11/3	175	175	175	0	0	0.0	0.1	-	0.1	2.4	0.0	0.1	0.1

Full Input Data And Results

12/1	349	349	349	0	0	0.0	0.2	-	0.2	1.7	0.0	0.2	0.2
13/1	24	24	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
14/1	1045	1045	-	-	-	0.0	0.6	-	0.6	2.0	0.0	0.6	0.6
14/2	1149	1149	-	-	-	0.0	0.6	-	0.6	1.9	0.0	0.6	0.6
14/3	2	2	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
15/1	24	24	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
15/2	50	50	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
15/3	100	100	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
16/1	971	971	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
16/2	1021	1021	-	-	-	0.0	0.5	-	0.5	1.6	0.0	0.5	0.5
16/3	175	175	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
17/1	98	98	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
17/2	233	233	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
17/3	228	228	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
18/2+18/1	1330	1330	-	-	-	2.4	8.4	-	10.7	29.1	14.9	8.4	23.2
18/3	1232	1232	-	-	-	2.4	5.0	-	7.4	21.5	13.9	5.0	18.9
19/1	971	971	-	-	-	1.5	1.4	-	2.9	10.8	8.1	1.4	9.5
19/2	1021	1021	-	-	-	1.5	1.4	-	2.9	10.3	8.5	1.4	9.9
20/1	1991	1991	-	-	-	0.1	0.6	-	0.7	1.4	0.4	0.3	0.8
J3: Hennef Way/ Concord Ave	**-**	**-**	**7231**	**0**	**0**	**1.1**	**21.9**	**0.0**	**23.0**	**-**	**-**	**-**	**-**
1/1	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/1	692	692	692	0	0	0.0	0.8	-	0.8	4.3	0.0	0.8	0.8
2/3+2/2	1299	1299	2598	0	0	0.0	1.0	-	1.0	2.6	0.0	1.0	1.0
3/1	242	242	242	0	0	0.0	0.4	-	0.4	5.8	0.0	0.4	0.4
3/2+3/3	1082	1082	2164	0	0	0.3	11.5	-	11.9	39.4	6.4	11.5	18.0
4/1	761	761	761	0	0	0.4	2.1	-	2.4	11.4	8.0	2.1	10.0
4/2	773	773	773	0	0	0.4	2.2	-	2.6	12.3	8.2	2.2	10.4
5/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	2563	2563	-	-	-	0.0	1.2	-	1.2	1.7	0.0	0.6	0.6

Full Input Data And Results

7/1	741	741	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	673	673	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	868	868	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	1291	1291	-	-	-	0.0	1.0	-	1.0	2.8	0.0	1.0	1.0
9/2	1276	1276	-	-	-	0.0	0.8	-	0.8	2.3	0.0	0.8	0.8
9/3	49	49	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
10/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	49	49	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
11/1	552	552	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
11/2	747	747	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
12/1	530	530	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
12/2	552	552	-	-	-	0.0	0.2	-	0.2	1.1	0.0	0.2	0.2
13/1	1549	1549	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J4: Hennef Way_Southam Rd	**-**	**-**	**6773**	**0**	**0**	**31.9**	**258.4**	**0.0**	**290.3**	**-**	**-**	**-**	**-**
1/2+1/1	628	628	1256	0	0	0.7	1.1	-	1.8	10.3	9.2	1.1	10.3
1/3	921	769	769	0	0	6.1	79.1	-	85.2	332.8	30.9	79.1	110.0
2/1	45	45	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/2	301	301	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/3	5	5	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2+3/1	897	897	1794	0	0	0.1	6.3	-	6.4	25.7	4.6	6.3	11.0
3/3	73	73	73	0	0	0.0	0.1	-	0.1	3.6	0.0	0.1	0.1
4/1	532	532	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	6	6	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/3	768	768	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2+5/1	483	483	966	0	0	1.2	4.0	-	5.2	38.6	6.0	4.0	10.0
5/3	483	483	483	0	0	1.0	4.0	-	5.0	37.6	5.9	4.0	10.0
6/1	1353	1353	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	73	73	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2+7/1	586	586	1172	0	0	1.9	7.7	-	9.6	58.9	7.3	7.7	15.0

Full Input Data And Results

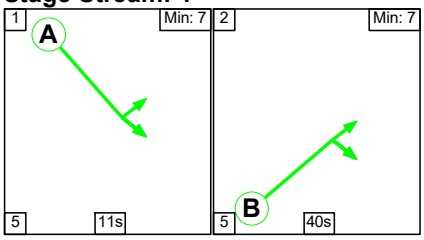
7/3	260	260	260	0	0	0.0	0.4	-	0.4	5.3	2.0	0.4	2.3
8/1	515	515	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	433	433	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/3	91	91	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	1353	1353	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	776	776	-	-	-	1.1	0.8	-	2.0	9.2	5.7	0.8	6.5
10/2	758	758	-	-	-	1.1	0.8	-	1.9	9.0	5.6	0.8	6.4
11/1	141	141	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	301	301	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	909	909	-	-	-	1.9	4.8	-	6.7	26.5	10.9	4.8	15.7
12/2	6	6	-	-	-	0.0	0.0	-	0.0	6.9	0.0	0.0	0.0
13/1	628	628	-	-	-	0.7	0.5	-	1.2	6.9	4.0	0.5	4.5
13/2	921	921	-	-	-	1.3	1.5	-	2.8	11.0	8.0	1.5	9.4
14/1	1534	1534	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	1353	1075	-	-	-	10.2	141.3	-	151.6	403.4	20.4	141.3	161.7
16/1	846	846	-	-	-	2.0	1.8	-	3.8	16.2	8.5	1.8	10.3
17/1	1075	1075	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	909	909	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/2	6	6	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/1	966	966	-	-	-	2.5	4.1	-	6.7	24.8	10.7	4.1	14.9

C1 - M40 J11	Stream: 1 PRC for Signalled Lanes (%):	-8.2	Total Delay for Signalled Lanes (pcuHr):	15.60	Cycle Time (s): 45
C1 - M40 J11	Stream: 2 PRC for Signalled Lanes (%):	-26.1	Total Delay for Signalled Lanes (pcuHr):	127.50	Cycle Time (s): 45
C1 - M40 J11	Stream: 3 PRC for Signalled Lanes (%):	-17.1	Total Delay for Signalled Lanes (pcuHr):	49.92	Cycle Time (s): 45
C1 - M40 J11	Stream: 4 PRC for Signalled Lanes (%):	-88.0	Total Delay for Signalled Lanes (pcuHr):	459.14	Cycle Time (s): 45
C2 - Hennef Way Pedestrian Crossing	PRC for Signalled Lanes (%):	-6.1	Total Delay for Signalled Lanes (pcuHr):	23.94	Cycle Time (s): 45
C3 - Southam Rd	Stream: 1 PRC for Signalled Lanes (%):	20.3	Total Delay for Signalled Lanes (pcuHr):	4.02	Cycle Time (s): 45
C3 - Southam Rd	Stream: 2 PRC for Signalled Lanes (%):	42.9	Total Delay for Signalled Lanes (pcuHr):	3.88	Cycle Time (s): 45
C3 - Southam Rd	Stream: 3 PRC for Signalled Lanes (%):	-39.8	Total Delay for Signalled Lanes (pcuHr):	155.36	Cycle Time (s): 45
C3 - Southam Rd	Stream: 4 PRC for Signalled Lanes (%):	-1.5	Total Delay for Signalled Lanes (pcuHr):	13.35	Cycle Time (s): 45
	PRC Over All Lanes (%):	-88.0	Total Delay Over All Lanes(pcuHr):	1439.23	

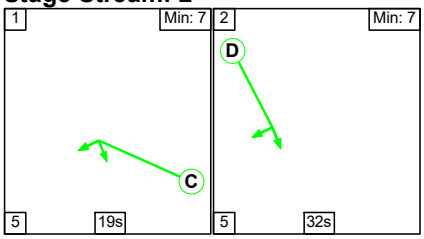
Full Input Data And Results
Scenario 6: '2031 PM No Dev' (FG6: '2031 PM No Dev', Plan 1: 'Control Plan 1')
C1 - M40 J11

Stage Sequence Diagram

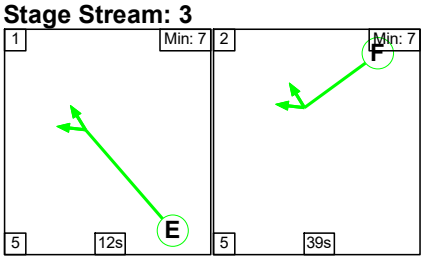
Stage Stream: 1



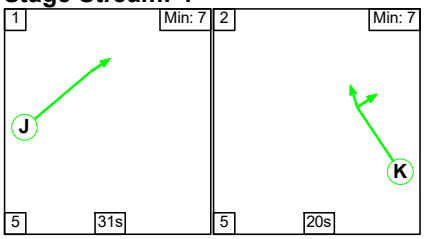
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	11	40
Change Point	0	16

Stage Stream: 2

Stage	1	2
Duration	19	32
Change Point	34	58

Stage Stream: 3

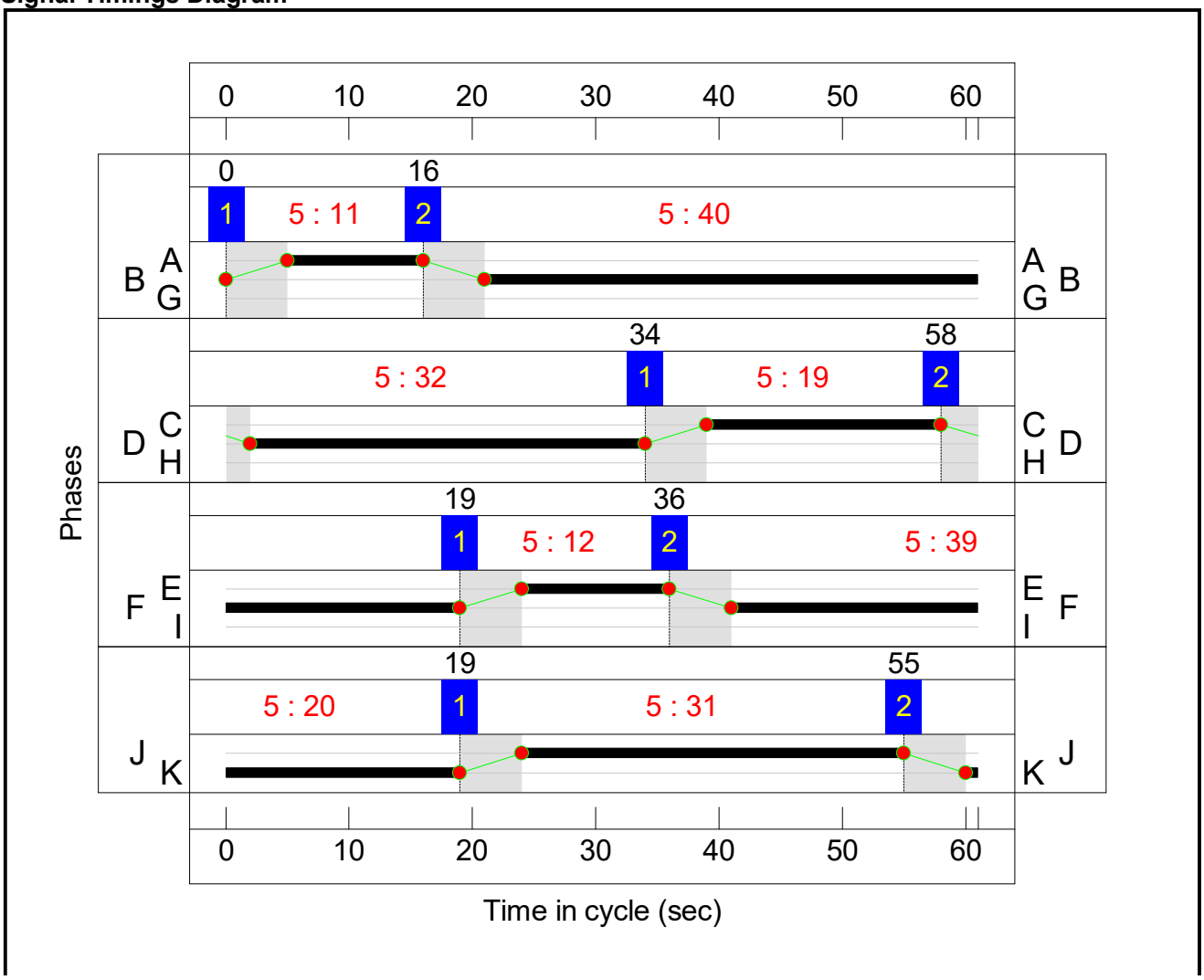
Stage	1	2
Duration	12	39
Change Point	19	36

Full Input Data And Results

Stage Stream: 4

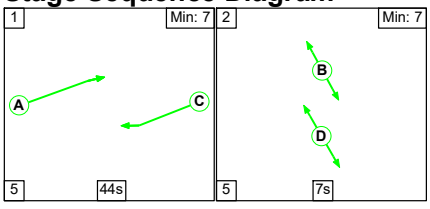
Stage	1	2
Duration	31	20
Change Point	19	55

Signal Timings Diagram



C2 - Hennef Way Pedestrian Crossing

Stage Sequence Diagram

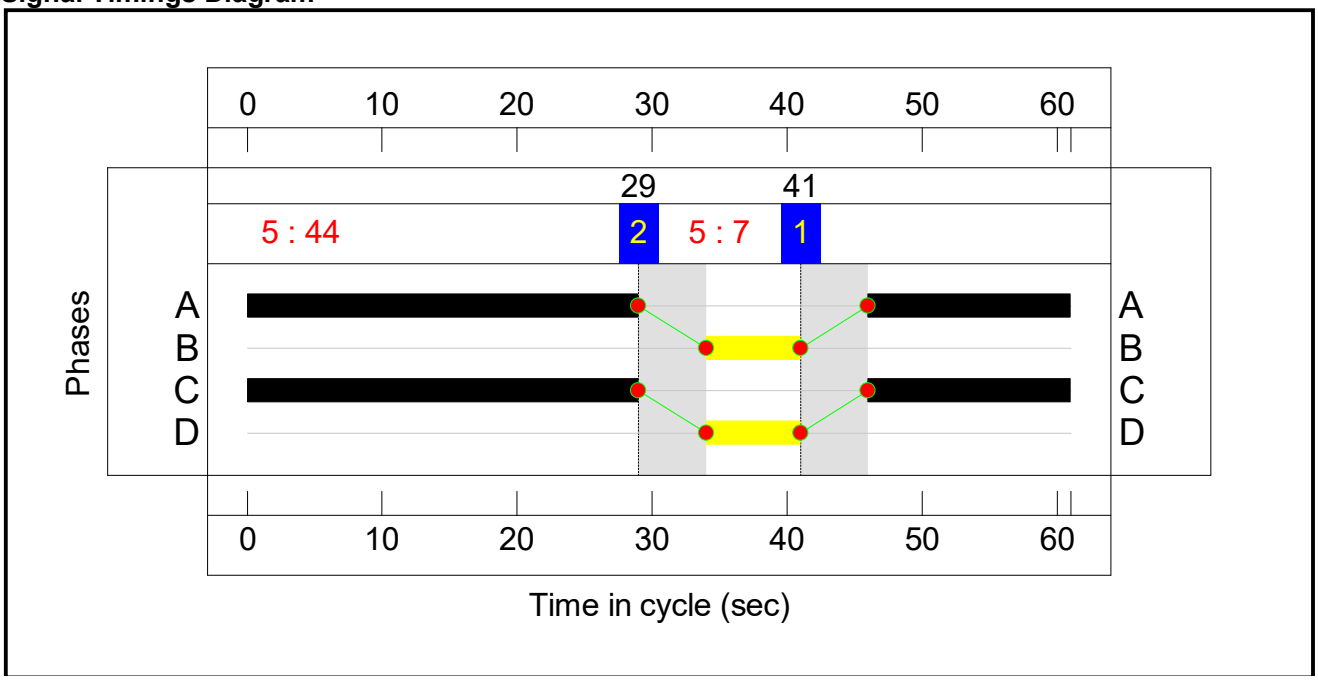


Stage Timings

Stage	1	2
Duration	44	7
Change Point	41	29

Full Input Data And Results

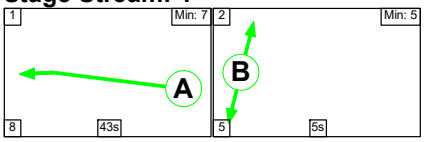
Signal Timings Diagram



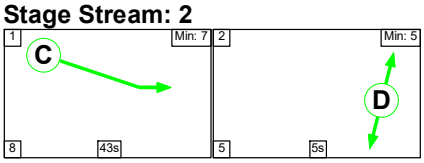
C3 - Southam Rd

Stage Sequence Diagram

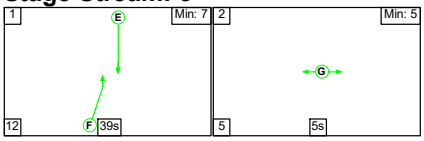
Stage Stream: 1



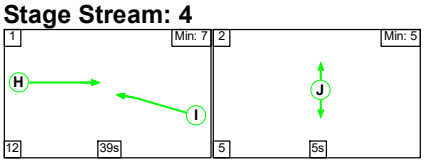
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	43	5
Change Point	26	16

Full Input Data And Results

Stage Stream: 2

Stage	1	2
Duration	43	5
Change Point	58	48

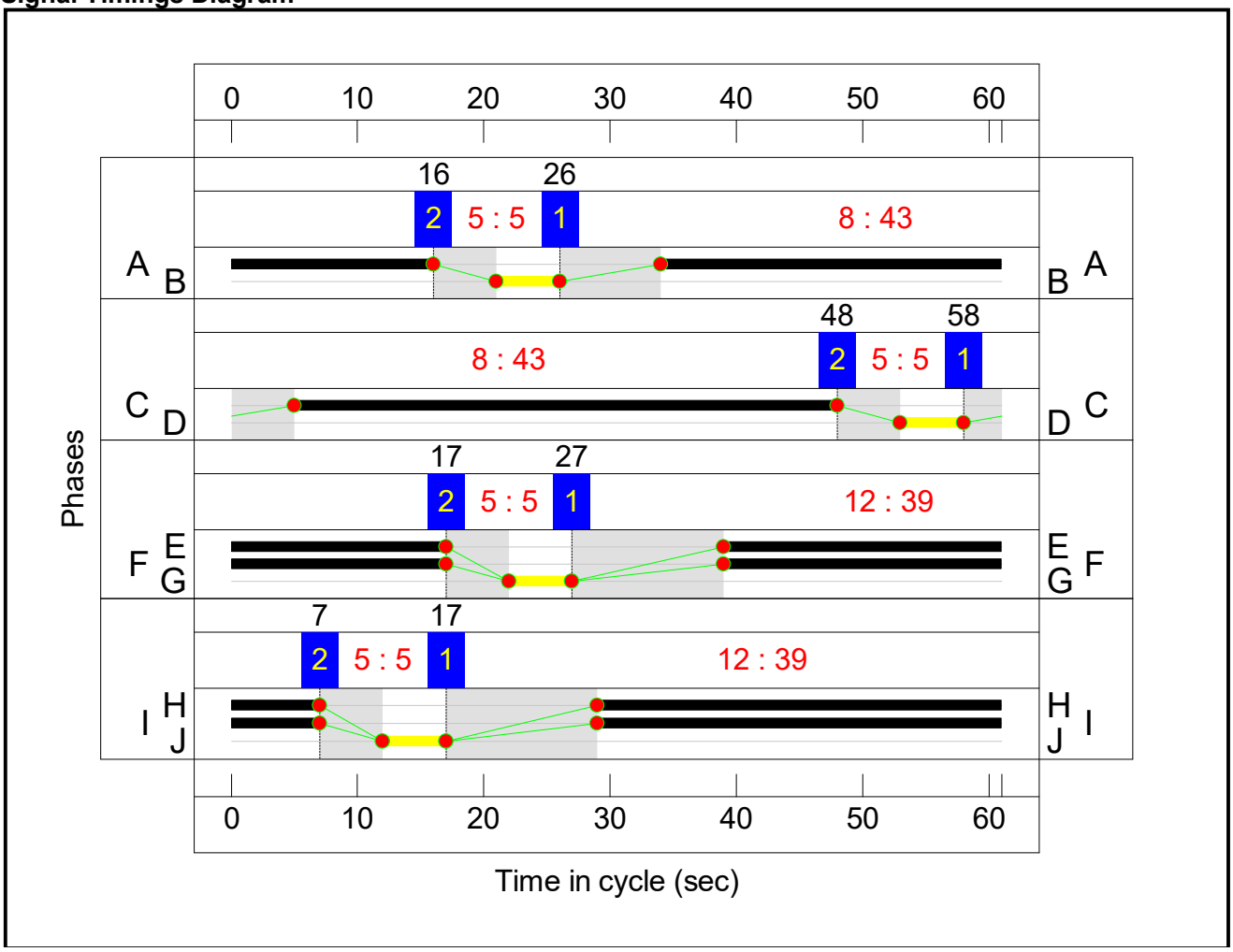
Stage Stream: 3

Stage	1	2
Duration	39	5
Change Point	27	17

Stage Stream: 4

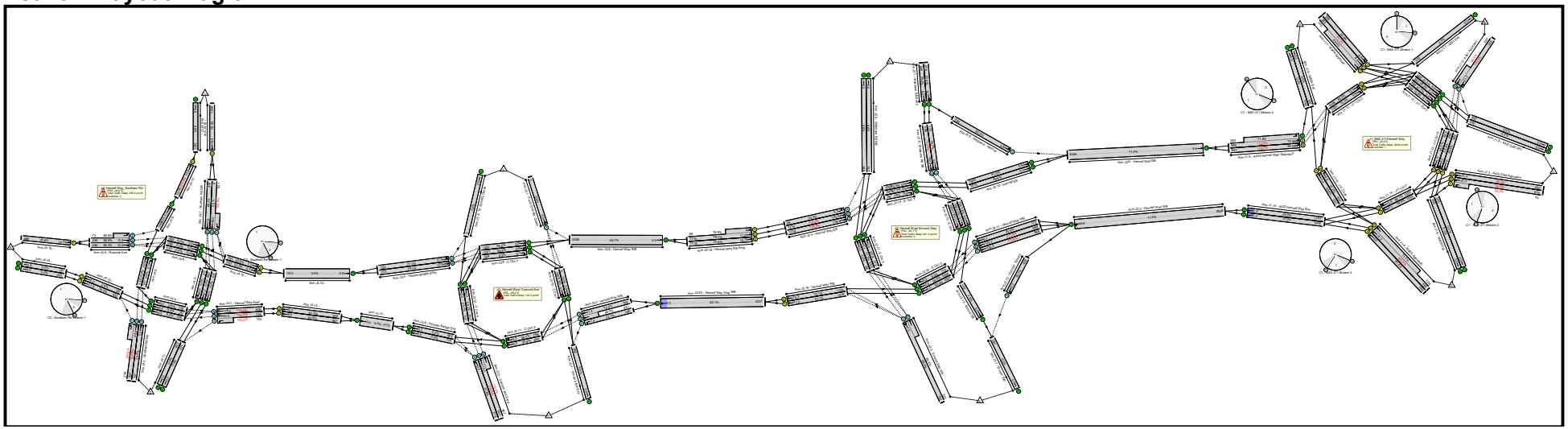
Stage	1	2
Duration	39	5
Change Point	17	7

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: M40/Hennef Way Junction Base Model	-	-	**N/A**	-	-		-	-	-	-	-	-	**132.0%**
J1: M40 J11/Hennef Way	-	-	**N/A**	-	-		-	-	-	-	-	-	**110.7%**
1/1	M40N Approach Left Ahead	U	1:1	N/A	C1:A		1	11	-	236	1908	375	62.9%
1/2+1/3	M40N Approach Ahead	U	1:1	N/A	C1:A		1	11	-	650	2044:2044	402+402	95.7 : 65.9%
2/1+2/2	A361 Approach Left Ahead	O	N/A	N/A	-		-	-	-	582	1966:2101	302+284	100.0 : 98.5%
3/2+3/1	A422 East Approach Left Ahead	U	1:2	N/A	C1:C		1	19	-	713	1985:1985	629+95	98.5 : 98.5%
3/3	A422 East Approach Ahead	U	1:2	N/A	C1:C		1	19	-	682	2123	696	98.0%
4/1	M40S Approach Ahead	U	1:3	N/A	C1:E		1	12	-	366	1966	419	87.4%
4/2+4/3	M40S Approach Ahead Ahead2	U	1:3	N/A	C1:E		1	12	-	686	2102:2102	448+329	100.5 : 71.7%
5/2+5/1	A422 Hennef Way Approach Left Ahead	O+U	1:4	N/A	C1:J -		1	31	-	1853	2143:1943	856+851	110.6 : 77.8%
5/3	A422 Hennef Way Approach Ahead	O	1:4	N/A	C1:J		1	31	-	1104	2143	856	110.7%
6/1	M40N Exit	U	N/A	N/A	-		-	-	-	767	Inf	Inf	0.0%
6/2	M40N Exit	U	N/A	N/A	-		-	-	-	337	Inf	Inf	0.0%
7/1	A631 Exit	U	N/A	N/A	-		-	-	-	601	Inf	Inf	0.0%
8/1	A422 East Exit	U	N/A	N/A	-		-	-	-	1011	Inf	Inf	0.0%
8/2	A422 East Exit	U	N/A	N/A	-		-	-	-	626	Inf	Inf	0.0%
9/1	M40S Exit	U	N/A	N/A	-		-	-	-	692	Inf	Inf	0.0%
9/2	M40S Exit	U	N/A	N/A	-		-	-	-	280	Inf	Inf	0.0%
10/1	A422 Hennef Way Exit Ahead	U	N/A	N/A	-		-	-	-	1389	1800	1800	77.2%

Full Input Data And Results

10/2	A422 Hennef Way Exit Ahead	U	N/A	N/A	-		-	-	-	1169	1800	1800	64.8%
11/1	J11 Circ1 Ahead Right	U	1:1	N/A	C1:B		1	40	-	1328	1960	1317	83.3%
11/2	J11 Circ1 Right	U	1:1	N/A	C1:B		1	40	-	1269	2099	1411	72.3%
12/1	J11 Circ3 Ahead	U	N/A	N/A	-		-	-	-	963	1932	1932	41.5%
12/2	J11 Circ3 Ahead	U	N/A	N/A	-		-	-	-	626	2070	2070	26.2%
12/3	J11 Circ3 Right	U	N/A	N/A	-		-	-	-	1028	2070	2070	41.7%
12/4	J11 Circ3 Right	U	N/A	N/A	-		-	-	-	265	2070	2070	12.8%
13/1	J11 Circ5 Ahead	U	1:2	N/A	C1:D		1	32	-	598	1946	1053	45.8%
13/2	J11 Circ5 Ahead Right	U	1:2	N/A	C1:D		1	32	-	684	2084	1127	56.4%
13/3	J11 Circ5 Right	U	1:2	N/A	C1:D		1	32	-	545	2084	1127	48.3%
14/1	J11 Circ7 Ahead	U	1:3	N/A	C1:F		1	39	-	1023	1961	1286	79.6%
14/2	J11 Circ7 Ahead Right	U	1:3	N/A	C1:F		1	39	-	1227	2100	1377	89.1%
15/1	J11 Circ9 Ahead	U	1:4	N/A	C1:K		1	20	-	337	1927	663	50.8%
15/2	J11 Circ9 Right	U	1:4	N/A	C1:K		1	20	-	407	2065	711	57.3%
J2: Hennef Way/ Ermont Way	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**132.0%**
1/1	Wildmere SB Entry Ahead Left	U	N/A	N/A	-		-	-	-	418	1865	1865	22.4%
1/2	Wildmere SB Entry Ahead	U	N/A	N/A	-		-	-	-	586	2005	2005	29.2%
2/1	Hennef Way WB Ahead Left	U	N/A	N/A	-		-	-	-	2558	3600	3600	71.0%
3/1+3/2	Ermont Way NB Ahead Left	O	N/A	N/A	-		-	-	-	495	1990:2099	244+501	66.4 : 66.4%
4/1	Hennef Way EB Left	O	N/A	N/A	-		-	-	-	107	1973	941	10.4%
4/2	Hennef Way EB Ahead	O	N/A	N/A	-		-	-	-	1213	2110	941	118.0%
4/3	Hennef Way EB Ahead	O	N/A	N/A	-		-	-	-	1218	2110	941	118.9%
5/1	Wildmere Rd NB	U	N/A	N/A	-		-	-	-	205	Inf	Inf	0.0%

Full Input Data And Results

5/2	Wildmere Rd NB	U	N/A	N/A	-		-	-	-	137	Inf	Inf	0.0%
6/1	Hennef Way EB Ahead	U	N/A	N/A	-		-	-	-	2957	3600	3600	71.0%
7/1	Ermont Exit	U	N/A	N/A	-		-	-	-	592	Inf	Inf	0.0%
8/1	Wildmere Rd SB Ahead	O	N/A	N/A	-		-	-	-	114	1942	444	25.7%
8/2	Wildmere Rd SB Ahead	O	N/A	N/A	-		-	-	-	586	2077	444	132.0%
9/1	Wildmere - Hennef Ahead	O	N/A	N/A	-		-	-	-	304	1956	486	62.5%
10/1	Hennef EB Ahead	U	N/A	N/A	-		-	-	-	1312	2031	2031	51.2%
10/2	Hennef EB Ahead	U	N/A	N/A	-		-	-	-	1341	2169	2169	49.6%
11/1	Hennef Way WB Ahead	O	N/A	N/A	-		-	-	-	989	1854	840	117.6%
11/2	Hennef Way WB Ahead	O	N/A	N/A	-		-	-	-	968	1986	824	117.5%
11/3	Hennef Way WB Ahead	O	N/A	N/A	-		-	-	-	172	1986	840	20.5%
12/1	Hennef - Ermont Left	O	N/A	N/A	-		-	-	-	429	2044	1273	33.7%
13/1	Ermont SB Ahead	U	N/A	N/A	-		-	-	-	163	2053	2053	7.4%
14/1	E Circ 7 Ahead	U	N/A	N/A	-		-	-	-	1312	1943	1943	53.5%
14/2	E Circ 7 Ahead	U	N/A	N/A	-		-	-	-	1341	2079	2079	51.7%
14/3	E Circ 7 Right	U	N/A	N/A	-		-	-	-	49	2079	2079	1.8%
15/1	E Circ Ahead	U	N/A	N/A	-		-	-	-	163	1950	1950	7.8%
15/2	E Circ Right	U	N/A	N/A	-		-	-	-	262	2085	2085	9.5%
15/3	E Circ Right	U	N/A	N/A	-		-	-	-	324	2085	2085	11.8%
16/1	E Circ 3 Ahead	U	N/A	N/A	-		-	-	-	1251	1998	1998	50.4%
16/2	E Circ 3 Ahead	U	N/A	N/A	-		-	-	-	1292	2138	2138	50.0%
16/3	E Circ 3 Right	U	N/A	N/A	-		-	-	-	172	2069	2069	8.3%
17/1	E Circ 5 Ahead	U	N/A	N/A	-		-	-	-	98	1943	1943	5.0%

Full Input Data And Results

17/2	E Circ 5 Ahead Right	U	N/A	N/A	-		-	-	-	236	2079	2079	11.3%
17/3	E Circ 5 Right	U	N/A	N/A	-		-	-	-	172	2079	2079	8.3%
18/2+18/1	Hennef Way EB Xing Ahead	U	N/A	N/A	C2:A		1	44	-	1320	2088:1948	1448+128	76.7 : 76.9%
18/3	Hennef Way EB Xing Ahead	U	N/A	N/A	C2:A		1	44	-	1218	2088	1540	72.6%
19/1	Hennef Way WB Ahead	U	N/A	N/A	C2:C		1	44	-	1322	2025	1494	72.1%
19/2	Hennef Way WB Ahead	U	N/A	N/A	C2:C		1	44	-	1382	2149	1585	73.1%
20/1	Hennef Way Xing WB Ahead	U	N/A	N/A	-		-	-	-	2704	3600	3600	62.1%
J3: Hennef Way/ Concord Ave	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**115.5%**
1/1	From Grimsby Green Left Ahead	O	N/A	N/A	-		-	-	-	0	2115	284	0.0%
2/1	Hennef Way WB Left	O	N/A	N/A	-		-	-	-	941	1953	1073	72.7%
2/3+2/2	Hennef Way WB Ahead	O	N/A	N/A	-		-	-	-	1763	2089:2089	1072+959	74.2 : 69.0%
3/1	Concord Ave Entry Left	O	N/A	N/A	-		-	-	-	216	1868	517	41.8%
3/2+3/3	Concord Ave Entry Ahead	O	N/A	N/A	-		-	-	-	1194	2002:2002	517+517	115.5 : 115.5%
4/1	Holman Bridge Entry Left Ahead	O	N/A	N/A	-		-	-	-	751	1976	959	77.1%
4/2	Holman Bridge Entry Ahead	O	N/A	N/A	-		-	-	-	785	2111	978	79.1%
5/1	To Grimsby Green	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
6/1	Hennef Way WB Ahead	U	N/A	N/A	-		-	-	-	2538	3600	3600	64.7%
7/1	Concord Ave Exit	U	N/A	N/A	-		-	-	-	1133	Inf	Inf	0.0%
8/1	Holman Bridge Exit Ahead	U	N/A	N/A	-		-	-	-	918	Inf	Inf	0.0%

Full Input Data And Results

8/2	Holman Bridge Exit Ahead	U	N/A	N/A	-		-	-	-	1061	Inf	Inf	0.0%
9/1	C Circ 7 Ahead	U	N/A	N/A	-		-	-	-	1348	1923	1923	65.4%
9/2	C Circ 7 Ahead Right	U	N/A	N/A	-		-	-	-	1190	2058	2058	53.5%
9/3	C Circ 7 Right	U	N/A	N/A	-		-	-	-	192	2058	2058	9.2%
10/1	C Circ1 Ahead	U	N/A	N/A	-		-	-	-	0	2009	2009	0.0%
10/2	C Circ1 Ahead Right	U	N/A	N/A	-		-	-	-	192	2149	2149	8.8%
11/1	C Circ 3 Ahead	U	N/A	N/A	-		-	-	-	809	1900	1900	34.8%
11/2	C Circ 3 Ahead Right	U	N/A	N/A	-		-	-	-	954	2035	2035	39.1%
12/1	C Circ 5 Ahead Right	U	N/A	N/A	-		-	-	-	597	2013	2013	25.7%
12/2	C Circ 5 Right	U	N/A	N/A	-		-	-	-	597	2148	2148	24.1%
13/1	Ahead	U	N/A	N/A	-		-	-	-	1979	Inf	Inf	0.0%
J4: Hennef Way_Southam Rd	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**120.6%**
1/2+1/1	Hennef Way East Ahead Left	O	N/A	N/A	-		-	-	-	1010	1800:1800	726+148	102.5 : 103.4%
1/3	Hennef Way East Ahead	O	N/A	N/A	-		-	-	-	969	1800	726	120.6%
2/1	Ahead	U	N/A	N/A	-		-	-	-	68	Inf	Inf	0.0%
2/2	Ahead	U	N/A	N/A	-		-	-	-	462	Inf	Inf	0.0%
2/3	Right	U	N/A	N/A	-		-	-	-	25	Inf	Inf	0.0%
3/2+3/1	Southam Rd Sth Ahead Left	O	N/A	N/A	-		-	-	-	763	1800:1800	507+188	109.8 : 109.8%
3/3	Southam Rd Sth Ahead	O	N/A	N/A	-		-	-	-	127	1800	530	24.0%
4/1	Ahead	U	N/A	N/A	-		-	-	-	839	Inf	Inf	0.0%
4/2	Ahead	U	N/A	N/A	-		-	-	-	31	Inf	Inf	0.0%
4/3	Right	U	N/A	N/A	-		-	-	-	963	Inf	Inf	0.0%
5/2+5/1	Ruscote Ave Ahead Left	O	N/A	N/A	-		-	-	-	532	1800:1800	528+84	86.9 : 86.9%

Full Input Data And Results

5/3	Ruscote Ave Ahead	O	N/A	N/A	-		-	-	-	456	1800	528	86.3%
6/1	Ahead	U	N/A	N/A	-		-	-	-	1520	Inf	Inf	0.0%
6/2	Right	U	N/A	N/A	-		-	-	-	127	Inf	Inf	0.0%
7/2+7/1	Southam Rd Nth Ahead Left	O	N/A	N/A	-		-	-	-	631	1800:1800	0+608	0.0 : 103.8%
7/3	Southam Rd Nth Ahead	O	N/A	N/A	-		-	-	-	418	1800	608	68.7%
8/1	Ahead	U	N/A	N/A	-		-	-	-	509	Inf	Inf	0.0%
8/2	Ahead	U	N/A	N/A	-		-	-	-	396	Inf	Inf	0.0%
8/3	Right	U	N/A	N/A	-		-	-	-	137	Inf	Inf	0.0%
9/1	Ahead	U	N/A	N/A	-		-	-	-	1593	Inf	Inf	0.0%
10/1	Ahead	U	3:2	N/A	C3:C		1	43	-	773	1980	1428	53.5%
10/2	Ahead	U	3:2	N/A	C3:C		1	43	-	763	1980	1428	52.5%
11/1		U	N/A	N/A	-		-	-	-	239	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	462	Inf	Inf	0.0%
12/1	Ahead	U	3:4	N/A	C3:I		1	39	-	1045	1865	1223	76.2%
12/2	Ahead	U	3:4	N/A	C3:I		1	39	-	31	1865	1223	2.4%
13/1	Ahead	U	3:1	N/A	C3:A		1	43	-	1010	1980	1428	62.8%
13/2	Ahead	U	3:1	N/A	C3:A		1	43	-	969	1980	1428	61.3%
14/1	Ahead	U	N/A	N/A	-		-	-	-	1536	Inf	Inf	0.0%
15/1	Ahead	U	3:3	N/A	C3:F		1	39	-	1593	2015	1321	106.3%
16/1	Ahead	U	3:3	N/A	C3:E		1	39	-	1049	2015	1321	79.4%
17/1		U	N/A	N/A	-		-	-	-	1593	Inf	Inf	0.0%
18/1		U	N/A	N/A	-		-	-	-	1045	Inf	Inf	0.0%
18/2		U	N/A	N/A	-		-	-	-	31	Inf	Inf	0.0%
19/1	Ahead	U	3:4	N/A	C3:H		1	39	-	988	2015	1321	74.8%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M40/Hennef Way Junction Base Model	**-**	**-**	**21943**	**1711**	**0**	**131.9**	**896.4**	**0.0**	**1028.3**	**-**	**-**	**-**	**-**
J1: M40 J11/Hennef Way	**-**	**-**	**1164**	**1711**	**0**	**48.2**	**161.4**	**0.0**	**209.6**	**-**	**-**	**-**	**-**
1/1	236	236	-	-	-	1.5	0.8	-	2.3	35.2	3.6	0.8	4.4
1/2+1/3	650	650	-	-	-	4.3	2.1	-	6.3	35.0	6.4	2.1	8.5
2/1+2/2	582	582	1164	0	0	1.0	11.2	-	12.2	75.3	10.1	11.2	21.2
3/2+3/1	713	713	-	-	-	3.9	10.9	-	14.8	74.7	11.2	10.9	22.0
3/3	682	682	-	-	-	3.8	10.0	-	13.9	73.1	11.4	10.0	21.4
4/1	366	366	-	-	-	2.4	3.1	-	5.5	53.6	5.9	3.1	9.0
4/2+4/3	686	684	-	-	-	4.4	4.5	-	9.0	47.0	7.7	4.5	12.2
5/2+5/1	1608	1518	0	856	0	5.8	52.4	-	58.3	130.4	17.6	52.4	70.0
5/3	947	856	0	856	0	6.6	50.6	-	57.2	217.5	18.4	50.6	69.0
6/1	662	662	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	337	337	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	532	532	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	850	850	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	542	542	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	576	576	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	232	232	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	1389	1389	-	-	-	0.0	1.7	-	1.7	4.4	0.2	1.7	1.9
10/2	1167	1167	-	-	-	0.1	0.9	-	1.0	3.1	0.7	0.9	1.6
11/1	1098	1098	-	-	-	2.3	2.4	-	4.8	15.7	9.6	2.4	12.0
11/2	1021	1021	-	-	-	2.2	1.3	-	3.5	12.2	8.5	1.3	9.8
12/1	802	802	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4
12/2	542	542	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2

Full Input Data And Results

12/3	864	864	-	-	-	0.0	0.4	-	0.4	1.5	0.0	0.4	0.4
12/4	265	265	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
13/1	482	482	-	-	-	1.3	0.4	-	1.7	12.9	6.2	0.4	6.6
13/2	636	636	-	-	-	1.4	0.6	-	2.0	11.4	5.3	0.6	6.0
13/3	545	545	-	-	-	1.0	0.5	-	1.4	9.4	4.1	0.5	4.5
14/1	1023	1023	-	-	-	1.0	1.9	-	2.9	10.1	5.8	1.9	7.7
14/2	1227	1227	-	-	-	1.8	3.9	-	5.7	16.7	10.0	3.9	13.8
15/1	337	337	-	-	-	1.1	0.5	-	1.6	17.3	2.9	0.5	3.4
15/2	407	407	-	-	-	2.3	0.7	-	3.0	26.1	5.4	0.7	6.0
J2: Hennef Way/ Ermont Way	**-**	**-**	**6097**	**0**	**0**	**41.0**	**420.0**	**0.0**	**461.0**	**-**	**-**	**-**	**-**
1/1	418	418	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
1/2	586	586	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
2/1	2556	2556	-	-	-	0.0	1.2	-	1.2	1.7	0.0	0.6	0.6
3/1+3/2	495	495	990	0	0	0.0	1.0	-	1.0	7.1	0.0	1.0	1.0
4/1	98	98	98	0	0	0.0	0.1	-	0.1	2.1	0.3	0.1	0.3
4/2	1110	941	941	0	0	8.3	87.8	-	96.1	311.4	44.4	87.8	132.2
4/3	1119	941	941	0	0	8.6	91.9	-	100.5	323.3	44.7	91.9	136.6
5/1	196	196	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	137	137	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	2556	2556	-	-	-	0.0	1.2	-	1.2	1.7	0.0	0.6	0.6
7/1	581	581	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	114	114	114	0	0	0.0	0.2	-	0.2	5.5	0.0	0.2	0.2
8/2	586	444	444	0	0	6.0	73.0	-	79.1	485.9	29.8	73.0	102.8
9/1	304	304	304	0	0	0.0	0.8	-	0.8	9.8	0.0	0.8	0.8
10/1	1040	1040	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
10/2	1075	1075	-	-	-	0.0	0.5	-	0.5	1.6	0.0	0.5	0.5
11/1	988	840	840	0	0	6.6	77.0	-	83.6	304.6	49.4	77.0	126.3
11/2	968	824	824	0	0	6.3	75.1	-	81.4	303.0	48.6	75.1	123.7
11/3	172	172	172	0	0	0.0	0.1	-	0.1	2.7	0.0	0.1	0.1

Full Input Data And Results

12/1	429	429	429	0	0	0.0	0.3	-	0.3	2.1	0.0	0.3	0.3
13/1	152	152	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
14/1	1040	1040	-	-	-	0.0	0.6	-	0.6	2.0	0.0	0.6	0.6
14/2	1075	1075	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
14/3	38	38	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
15/1	152	152	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
15/2	198	198	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
15/3	245	245	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
16/1	1007	1007	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
16/2	1069	1069	-	-	-	0.0	0.5	-	0.5	1.7	0.0	0.5	0.5
16/3	172	172	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
17/1	98	98	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
17/2	236	236	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
17/3	172	172	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
18/2+18/1	1209	1209	-	-	-	1.0	1.6	-	2.7	7.9	9.4	1.6	11.0
18/3	1119	1119	-	-	-	1.1	1.3	-	2.4	7.7	9.4	1.3	10.7
19/1	1078	1078	-	-	-	1.3	1.3	-	2.6	8.8	10.2	1.3	11.5
19/2	1159	1159	-	-	-	1.5	1.4	-	2.8	8.8	10.9	1.4	12.3
20/1	2237	2237	-	-	-	0.2	0.8	-	1.1	1.7	4.8	0.4	5.2
J3: Hennef Way/ Concord Ave	**-**	**-**	**7490**	**0**	**0**	**8.6**	**93.8**	**0.0**	**102.3**	**-**	**-**	**-**	**-**
1/1	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/1	780	780	780	0	0	0.0	1.3	-	1.3	6.1	0.0	1.3	1.3
2/3+2/2	1457	1457	2914	0	0	0.0	1.3	-	1.3	3.1	0.0	1.3	1.3
3/1	216	216	216	0	0	0.0	0.4	-	0.4	6.0	0.0	0.4	0.4
3/2+3/3	1194	1033	2067	0	0	7.4	83.9	-	91.3	275.1	29.4	83.9	113.3
4/1	740	740	740	0	0	0.5	1.7	-	2.2	10.7	10.3	1.7	11.9
4/2	773	773	773	0	0	0.7	1.9	-	2.5	11.7	11.0	1.9	12.9
5/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	2328	2328	-	-	-	0.0	0.9	-	0.9	1.4	0.0	0.5	0.5

Full Input Data And Results

7/1	969	969	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	770	770	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	903	903	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	1257	1257	-	-	-	0.0	0.9	-	0.9	2.7	0.0	0.9	0.9
9/2	1101	1101	-	-	-	0.0	0.6	-	0.6	1.9	0.0	0.6	0.6
9/3	189	189	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
10/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	189	189	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
11/1	661	661	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
11/2	796	796	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
12/1	517	517	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
12/2	517	517	-	-	-	0.0	0.2	-	0.2	1.1	0.0	0.2	0.2
13/1	1773	1773	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J4: Hennef Way_Southam Rd	**-**	**-**	**7193**	**0**	**0**	**34.2**	**221.2**	**0.0**	**255.4**	**-**	**-**	**-**	**-**
1/2+1/1	897	879	1759	0	0	2.9	21.8	-	24.7	99.2	32.2	21.8	54.0
1/3	876	726	726	0	0	7.3	77.5	-	84.8	348.6	38.5	77.5	116.0
2/1	68	68	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/2	462	462	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/3	25	25	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2+3/1	763	713	1427	0	0	2.0	38.8	-	40.8	192.7	27.5	38.8	66.4
3/3	127	127	127	0	0	0.0	0.2	-	0.2	4.5	0.0	0.2	0.2
4/1	726	726	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	29	29	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/3	722	722	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2+5/1	532	532	1064	0	0	1.2	3.1	-	4.3	28.8	7.8	3.1	10.9
5/3	456	456	456	0	0	1.0	2.9	-	3.9	31.2	7.5	2.9	10.4
6/1	1331	1331	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	127	127	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2+7/1	631	608	1216	0	0	3.2	19.5	-	22.7	129.5	26.4	19.5	46.0

Full Input Data And Results

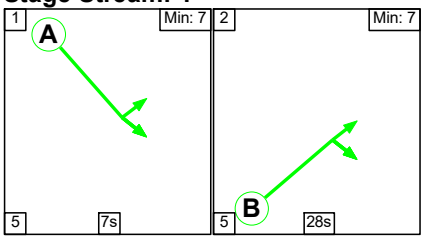
7/3	418	418	418	0	0	0.5	1.1	-	1.6	13.4	6.8	1.1	7.9
8/1	509	509	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	396	396	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/3	137	137	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	1404	1404	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	763	763	-	-	-	0.9	0.6	-	1.5	7.0	6.6	0.6	7.2
10/2	750	750	-	-	-	0.9	0.6	-	1.4	6.8	6.1	0.6	6.7
11/1	221	221	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	462	462	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	932	932	-	-	-	1.7	1.6	-	3.3	12.8	10.0	1.6	11.6
12/2	29	29	-	-	-	0.0	0.0	-	0.1	6.4	0.2	0.0	0.2
13/1	897	897	-	-	-	0.9	0.8	-	1.7	6.8	5.8	0.8	6.6
13/2	876	876	-	-	-	0.8	0.8	-	1.6	6.5	5.6	0.8	6.3
14/1	1513	1513	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	1404	1321	-	-	-	6.8	48.6	-	55.4	142.0	25.2	48.6	73.8
16/1	1049	1049	-	-	-	2.2	1.9	-	4.1	14.1	12.5	1.9	14.4
17/1	1321	1321	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	932	932	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/2	29	29	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/1	988	988	-	-	-	1.9	1.5	-	3.4	12.4	11.3	1.5	12.7

C1 - M40 J11	Stream: 1 PRC for Signalled Lanes (%):	-6.4	Total Delay for Signalled Lanes (pcuHr):	16.85	Cycle Time (s): 61
C1 - M40 J11	Stream: 2 PRC for Signalled Lanes (%):	-9.4	Total Delay for Signalled Lanes (pcuHr):	33.82	Cycle Time (s): 61
C1 - M40 J11	Stream: 3 PRC for Signalled Lanes (%):	-11.6	Total Delay for Signalled Lanes (pcuHr):	22.98	Cycle Time (s): 61
C1 - M40 J11	Stream: 4 PRC for Signalled Lanes (%):	-23.0	Total Delay for Signalled Lanes (pcuHr):	120.06	Cycle Time (s): 61
C2 - Hennef Way Pedestrian Crossing	PRC for Signalled Lanes (%):	17.0	Total Delay for Signalled Lanes (pcuHr):	10.50	Cycle Time (s): 61
C3 - Southam Rd	Stream: 1 PRC for Signalled Lanes (%):	43.3	Total Delay for Signalled Lanes (pcuHr):	3.28	Cycle Time (s): 61
C3 - Southam Rd	Stream: 2 PRC for Signalled Lanes (%):	68.4	Total Delay for Signalled Lanes (pcuHr):	2.90	Cycle Time (s): 61
C3 - Southam Rd	Stream: 3 PRC for Signalled Lanes (%):	-18.1	Total Delay for Signalled Lanes (pcuHr):	59.47	Cycle Time (s): 61
C3 - Southam Rd	Stream: 4 PRC for Signalled Lanes (%):	18.1	Total Delay for Signalled Lanes (pcuHr):	6.79	Cycle Time (s): 61
	PRC Over All Lanes (%):	-46.7	Total Delay Over All Lanes(pcuHr):	1028.25	

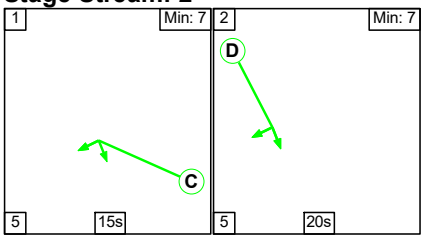
Full Input Data And Results
Scenario 7: '2031 AM With Dev' (FG7: '2031 AM With Dev', Plan 1: 'Control Plan 1')
C1 - M40 J11

Stage Sequence Diagram

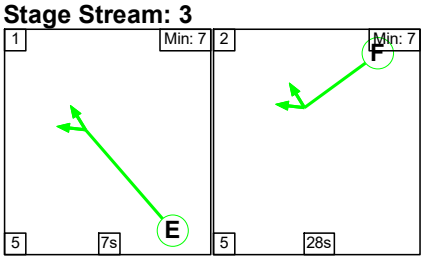
Stage Stream: 1



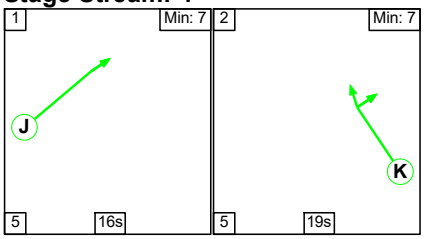
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	7	28
Change Point	14	26

Stage Stream: 2

Stage	1	2
Duration	15	20
Change Point	44	19

Stage Stream: 3

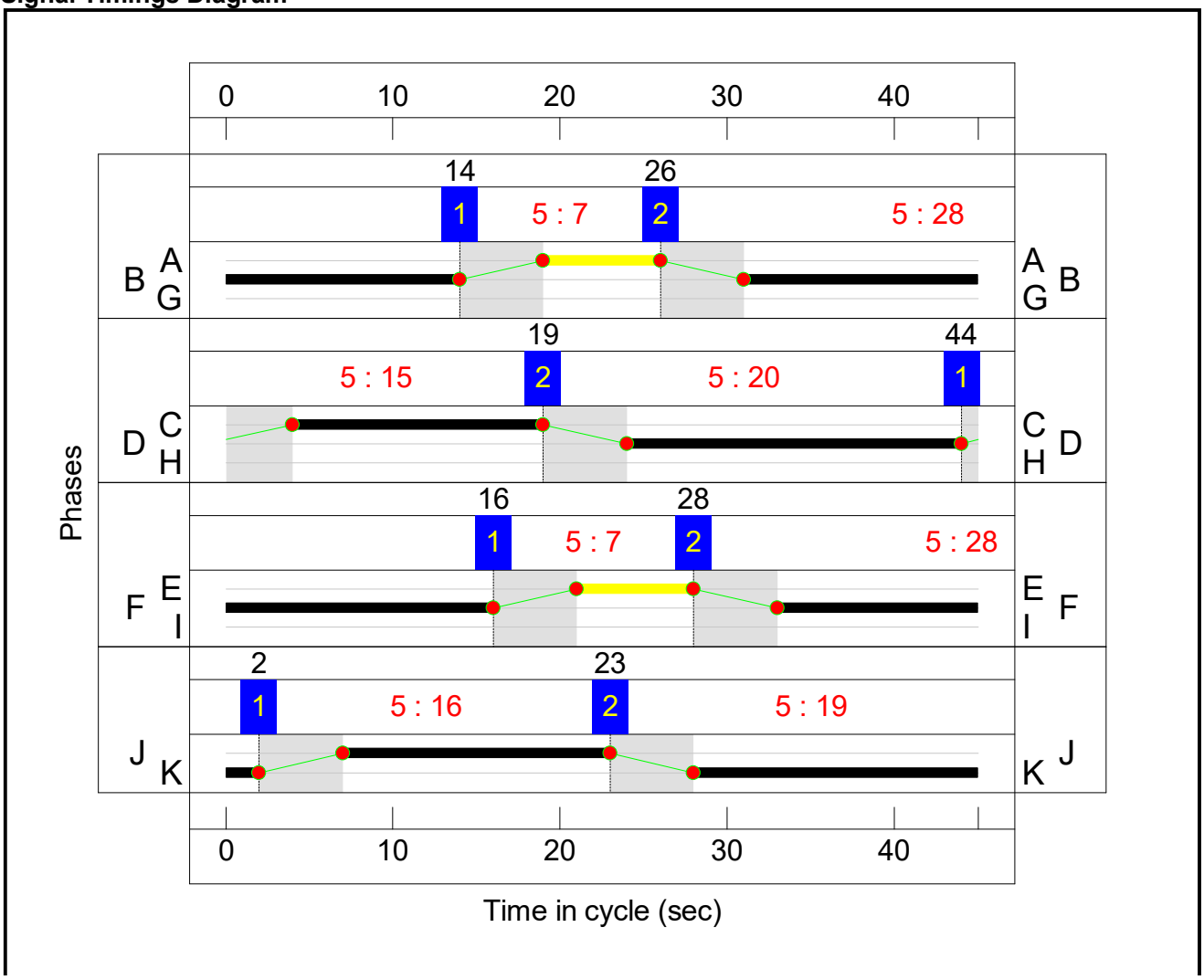
Stage	1	2
Duration	7	28
Change Point	16	28

Full Input Data And Results

Stage Stream: 4

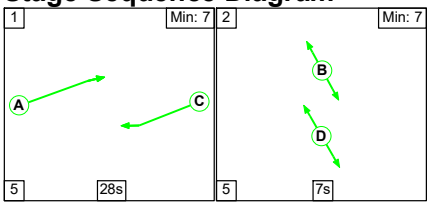
Stage	1	2
Duration	16	19
Change Point	2	23

Signal Timings Diagram



C2 - Hennef Way Pedestrian Crossing

Stage Sequence Diagram

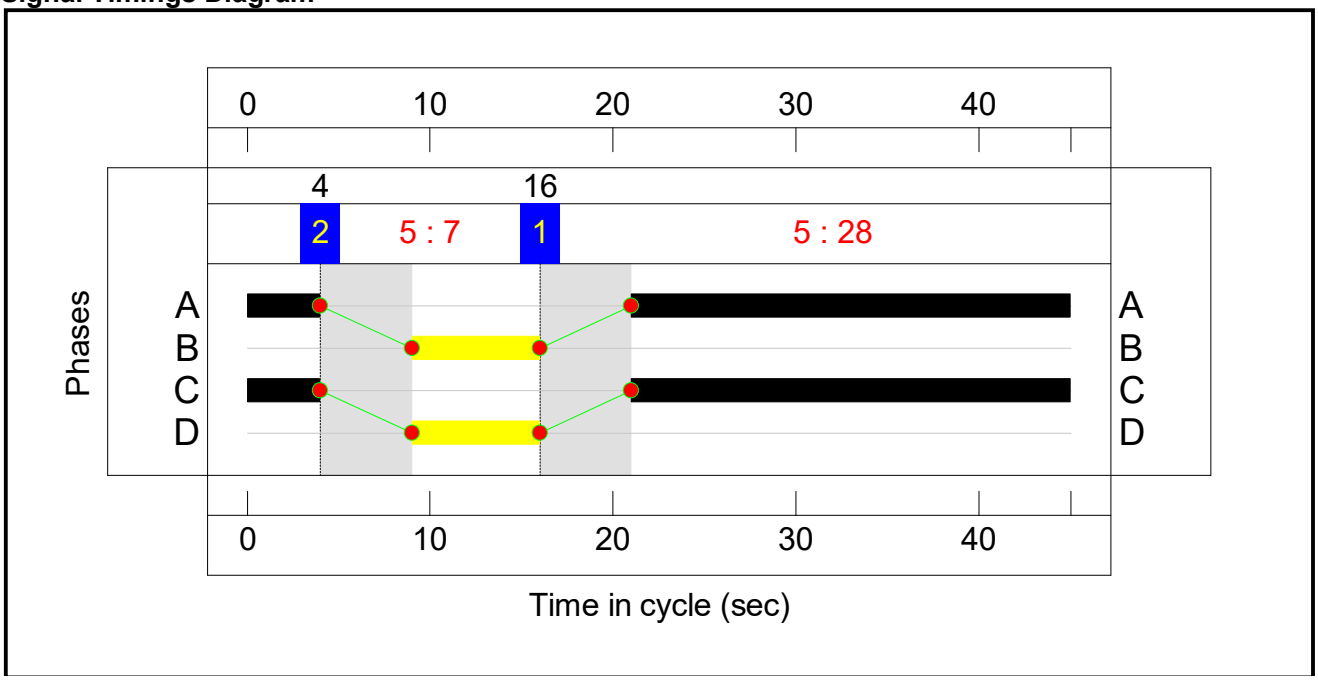


Stage Timings

Stage	1	2
Duration	28	7
Change Point	16	4

Full Input Data And Results

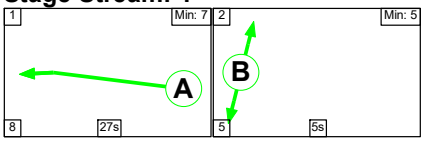
Signal Timings Diagram



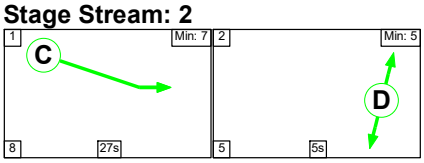
C3 - Southam Rd

Stage Sequence Diagram

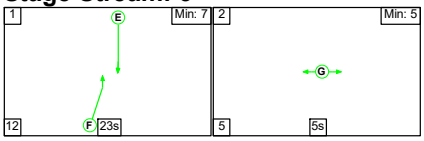
Stage Stream: 1



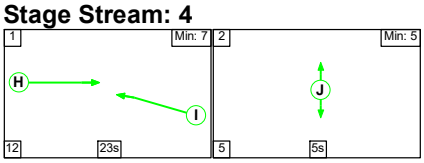
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	27	5
Change Point	22	12

Full Input Data And Results

Stage Stream: 2

Stage	1	2
Duration	27	5
Change Point	29	19

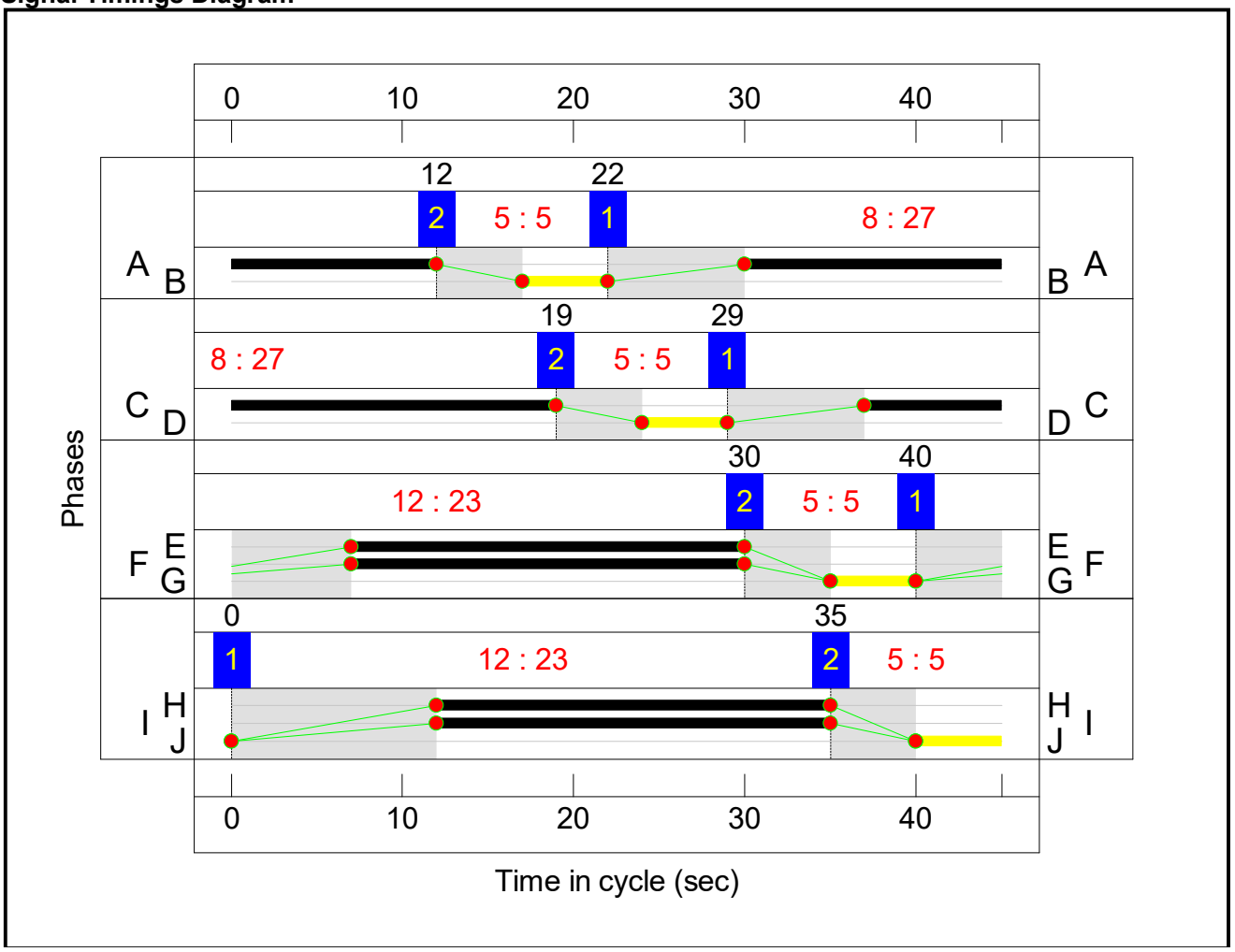
Stage Stream: 3

Stage	1	2
Duration	23	5
Change Point	40	30

Stage Stream: 4

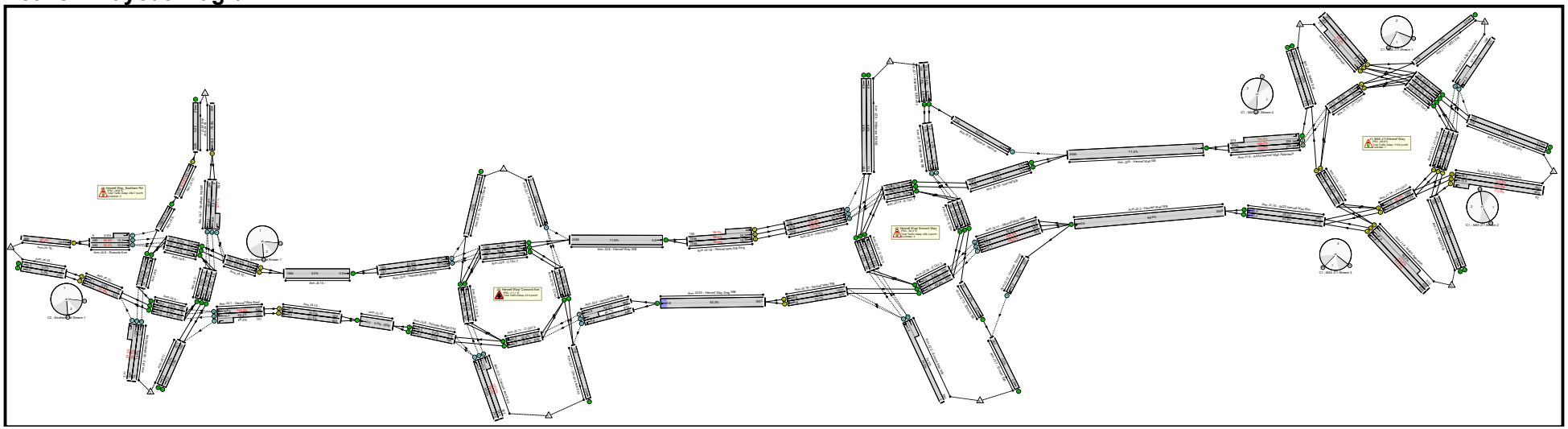
Stage	1	2
Duration	23	5
Change Point	0	35

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: M40/Hennef Way Junction Base Model	-	-	**N/A**	-	-		-	-	-	-	-	-	**170.0%**
J1: M40 J11/Hennef Way	-	-	**N/A**	-	-		-	-	-	-	-	-	**170.0%**
1/1	M40N Approach Left Ahead	U	1:1	N/A	C1:A		1	7	-	277	1908	339	81.7%
1/2+1/3	M40N Approach Ahead	U	1:1	N/A	C1:A		1	7	-	669	2044:2044	363+363	98.0 : 86.1%
2/1+2/2	A361 Approach Left Ahead	O	N/A	N/A	-		-	-	-	519	1966:2101	474+292	67.7 : 67.7%
3/2+3/1	A422 East Approach Left Ahead	U	1:2	N/A	C1:C		1	15	-	895	1985:1985	706+81	113.8 : 113.8%
3/3	A422 East Approach Ahead	U	1:2	N/A	C1:C		1	15	-	860	2123	755	113.9%
4/1	M40S Approach Ahead	U	1:3	N/A	C1:E		1	7	-	409	1966	350	117.0%
4/2+4/3	M40S Approach Ahead Ahead2	U	1:3	N/A	C1:E		1	7	-	763	2102:2102	374+374	115.9 : 88.3%
5/2+5/1	A422 Hennef Way Approach Left Ahead	O+U	1:4	N/A	C1:J -		1	16	-	1797	2143:1943	616+463	169.3 : 102.3%
5/3	A422 Hennef Way Approach Ahead	O	1:4	N/A	C1:J		1	16	-	1249	2143	616	170.0%
6/1	M40N Exit	U	N/A	N/A	-		-	-	-	564	Inf	Inf	0.0%
6/2	M40N Exit	U	N/A	N/A	-		-	-	-	452	Inf	Inf	0.0%
7/1	A631 Exit	U	N/A	N/A	-		-	-	-	843	Inf	Inf	0.0%
8/1	A422 East Exit	U	N/A	N/A	-		-	-	-	1124	Inf	Inf	0.0%
8/2	A422 East Exit	U	N/A	N/A	-		-	-	-	549	Inf	Inf	0.0%
9/1	M40S Exit	U	N/A	N/A	-		-	-	-	832	Inf	Inf	0.0%
9/2	M40S Exit	U	N/A	N/A	-		-	-	-	364	Inf	Inf	0.0%

Full Input Data And Results

10/1	A422 Hennef Way Exit Ahead	U	N/A	N/A	-		-	-	-	1630	1800	1800	81.8%
10/2	A422 Hennef Way Exit Ahead	U	N/A	N/A	-		-	-	-	1080	1800	1800	55.2%
11/1	J11 Circ1 Ahead Right	U	1:1	N/A	C1:B		1	28	-	1664	1960	1263	80.2%
11/2	J11 Circ1 Right	U	1:1	N/A	C1:B		1	28	-	1420	2099	1353	58.2%
12/1	J11 Circ3 Ahead	U	N/A	N/A	-		-	-	-	1098	1932	1932	34.8%
12/2	J11 Circ3 Ahead	U	N/A	N/A	-		-	-	-	549	2070	2070	19.5%
12/3	J11 Circ3 Right	U	N/A	N/A	-		-	-	-	1227	2070	2070	35.7%
12/4	J11 Circ3 Right	U	N/A	N/A	-		-	-	-	313	2070	2070	15.1%
13/1	J11 Circ5 Ahead	U	1:2	N/A	C1:D		1	20	-	740	1946	908	47.7%
13/2	J11 Circ5 Ahead Right	U	1:2	N/A	C1:D		1	20	-	782	2084	973	61.7%
13/3	J11 Circ5 Right	U	1:2	N/A	C1:D		1	20	-	511	2084	973	52.5%
14/1	J11 Circ7 Ahead	U	1:3	N/A	C1:F		1	28	-	1221	1961	1264	88.9%
14/2	J11 Circ7 Ahead Right	U	1:3	N/A	C1:F		1	28	-	1371	2100	1353	93.5%
15/1	J11 Circ9 Ahead	U	1:4	N/A	C1:K		1	19	-	452	1927	856	47.7%
15/2	J11 Circ9 Right	U	1:4	N/A	C1:K		1	19	-	602	2065	918	61.8%
J2: Hennef Way/ Ermont Way	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**135.0%**
1/1	Wildmere SB Entry Ahead Left	U	N/A	N/A	-		-	-	-	232	1865	1865	12.4%
1/2	Wildmere SB Entry Ahead	U	N/A	N/A	-		-	-	-	150	2005	2005	7.5%
2/1	Hennef Way WB Ahead Left	U	N/A	N/A	-		-	-	-	2710	3600	3600	68.5%
3/1+3/2	Ermont Way NB Ahead Left	O	N/A	N/A	-		-	-	-	385	1961:2099	1+516	74.5 : 74.5%
4/1	Hennef Way EB Left	O	N/A	N/A	-		-	-	-	100	1973	927	10.8%
4/2	Hennef Way EB Ahead	O	N/A	N/A	-		-	-	-	1240	2110	925	133.9%

Full Input Data And Results

4/3	Hennef Way EB Ahead	O	N/A	N/A	-		-	-	-	1250	2110	923	135.0%
5/1	Wildmere Rd NB	U	N/A	N/A	-		-	-	-	205	Inf	Inf	0.0%
5/2	Wildmere Rd NB	U	N/A	N/A	-		-	-	-	118	Inf	Inf	0.0%
6/1	Hennef Way EB Ahead	U	N/A	N/A	-		-	-	-	3046	3600	3600	71.2%
7/1	Ermont Exit	U	N/A	N/A	-		-	-	-	395	Inf	Inf	0.0%
8/1	Wildmere Rd SB Ahead	O	N/A	N/A	-		-	-	-	22	1942	432	5.1%
8/2	Wildmere Rd SB Ahead	O	N/A	N/A	-		-	-	-	150	2077	432	34.7%
9/1	Wildmere - Hennef Ahead	O	N/A	N/A	-		-	-	-	210	1956	485	43.3%
10/1	Hennef EB Ahead	U	N/A	N/A	-		-	-	-	1359	2031	2031	51.4%
10/2	Hennef EB Ahead	U	N/A	N/A	-		-	-	-	1477	2169	2169	53.0%
11/1	Hennef Way WB Ahead	O	N/A	N/A	-		-	-	-	1073	1854	921	106.2%
11/2	Hennef Way WB Ahead	O	N/A	N/A	-		-	-	-	1080	1986	921	106.6%
11/3	Hennef Way WB Ahead	O	N/A	N/A	-		-	-	-	187	1986	921	18.5%
12/1	Hennef - Ermont Left	O	N/A	N/A	-		-	-	-	370	2044	1413	23.8%
13/1	Ermont SB Ahead	U	N/A	N/A	-		-	-	-	25	2053	2053	1.2%
14/1	E Circ 7 Ahead	U	N/A	N/A	-		-	-	-	1359	1943	1943	53.7%
14/2	E Circ 7 Ahead	U	N/A	N/A	-		-	-	-	1477	2079	2079	55.3%
14/3	E Circ 7 Right	U	N/A	N/A	-		-	-	-	3	2079	2079	0.1%
15/1	E Circ Ahead	U	N/A	N/A	-		-	-	-	25	1950	1950	1.2%
15/2	E Circ Right	U	N/A	N/A	-		-	-	-	54	2085	2085	2.6%
15/3	E Circ Right	U	N/A	N/A	-		-	-	-	96	2085	2085	4.6%
16/1	E Circ 3 Ahead	U	N/A	N/A	-		-	-	-	1127	1998	1998	48.8%

Full Input Data And Results

16/2	E Circ 3 Ahead	U	N/A	N/A	-		-	-	-	1176	2138	2138	47.6%
16/3	E Circ 3 Right	U	N/A	N/A	-		-	-	-	187	2069	2069	8.2%
17/1	E Circ 5 Ahead	U	N/A	N/A	-		-	-	-	105	1943	1943	4.9%
17/2	E Circ 5 Ahead Right	U	N/A	N/A	-		-	-	-	237	2079	2079	11.0%
17/3	E Circ 5 Right	U	N/A	N/A	-		-	-	-	230	2079	2079	11.1%
18/2+18/1	Hennef Way EB Xing Ahead	U	N/A	N/A	C2:A		1	28	-	1340	2088:1948	1289+104	96.2 : 96.0%
18/3	Hennef Way EB Xing Ahead	U	N/A	N/A	C2:A		1	28	-	1250	2088	1346	92.6%
19/1	Hennef Way WB Ahead	U	N/A	N/A	C2:C		1	28	-	1127	2025	1305	74.7%
19/2	Hennef Way WB Ahead	U	N/A	N/A	C2:C		1	28	-	1176	2149	1385	73.4%
20/1	Hennef Way Xing WB Ahead	U	N/A	N/A	-		-	-	-	2303	3600	3600	55.3%
J3: Hennef Way/ Concord Ave	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**100.0%**
1/1	From Grimsby Green Left Ahead	O	N/A	N/A	-		-	-	-	0	2115	237	0.0%
2/1	Hennef Way WB Left	O	N/A	N/A	-		-	-	-	797	1953	1112	62.0%
2/3+2/2	Hennef Way WB Ahead	O	N/A	N/A	-		-	-	-	1506	2089:2089	1063+1026	62.0 : 62.7%
3/1	Concord Ave Entry Left	O	N/A	N/A	-		-	-	-	243	1868	552	44.0%
3/2+3/3	Concord Ave Entry Ahead	O	N/A	N/A	-		-	-	-	1093	2002:2002	552+552	98.0 : 100.0%
4/1	Holman Bridge Entry Left Ahead	O	N/A	N/A	-		-	-	-	765	1976	937	81.6%
4/2	Holman Bridge Entry Ahead	O	N/A	N/A	-		-	-	-	781	2111	939	83.2%
5/1	To Grimsby Green	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
6/1	Hennef Way WB Ahead	U	N/A	N/A	-		-	-	-	2590	3600	3600	71.8%

Full Input Data And Results

7/1	Concord Ave Exit	U	N/A	N/A	-		-	-	-	846	Inf	Inf	0.0%
8/1	Holman Bridge Exit Ahead	U	N/A	N/A	-		-	-	-	862	Inf	Inf	0.0%
8/2	Holman Bridge Exit Ahead	U	N/A	N/A	-		-	-	-	887	Inf	Inf	0.0%
9/1	C Circ 7 Ahead	U	N/A	N/A	-		-	-	-	1306	1923	1923	67.9%
9/2	C Circ 7 Ahead Right	U	N/A	N/A	-		-	-	-	1284	2058	2058	62.4%
9/3	C Circ 7 Right	U	N/A	N/A	-		-	-	-	49	2058	2058	2.4%
10/1	C Circ1 Ahead	U	N/A	N/A	-		-	-	-	0	2009	2009	0.0%
10/2	C Circ1 Ahead Right	U	N/A	N/A	-		-	-	-	49	2149	2149	2.3%
11/1	C Circ 3 Ahead	U	N/A	N/A	-		-	-	-	740	1900	1900	33.9%
11/2	C Circ 3 Ahead Right	U	N/A	N/A	-		-	-	-	766	2035	2035	32.3%
12/1	C Circ 5 Ahead Right	U	N/A	N/A	-		-	-	-	541	2013	2013	26.9%
12/2	C Circ 5 Right	U	N/A	N/A	-		-	-	-	552	2148	2148	25.7%
13/1	Ahead	U	N/A	N/A	-		-	-	-	1749	Inf	Inf	0.0%
J4: Hennef Way_Southam Rd	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**125.8%**
1/2+1/1	Hennef Way East Ahead Left	O	N/A	N/A	-		-	-	-	715	1800:1800	769+146	69.3 : 69.2%
1/3	Hennef Way East Ahead	O	N/A	N/A	-		-	-	-	1034	1800	769	120.2%
2/1	Ahead	U	N/A	N/A	-		-	-	-	45	Inf	Inf	0.0%
2/2	Ahead	U	N/A	N/A	-		-	-	-	301	Inf	Inf	0.0%
2/3	Right	U	N/A	N/A	-		-	-	-	5	Inf	Inf	0.0%
3/2+3/1	Southam Rd Sth Ahead Left	O	N/A	N/A	-		-	-	-	897	1800:1800	553+401	94.0 : 94.0%
3/3	Southam Rd Sth Ahead	O	N/A	N/A	-		-	-	-	74	1800	568	13.0%
4/1	Ahead	U	N/A	N/A	-		-	-	-	601	Inf	Inf	0.0%
4/2	Ahead	U	N/A	N/A	-		-	-	-	7	Inf	Inf	0.0%

Full Input Data And Results

4/3	Right	U	N/A	N/A	-		-	-	-	1032	Inf	Inf	0.0%
5/2+5/1	Ruscote Ave Ahead Left	O	N/A	N/A	-		-	-	-	485	1800:1800	535+0	90.6 : 0.0%
5/3	Ruscote Ave Ahead	O	N/A	N/A	-		-	-	-	484	1800	535	90.4%
6/1	Ahead	U	N/A	N/A	-		-	-	-	1552	Inf	Inf	0.0%
6/2	Right	U	N/A	N/A	-		-	-	-	74	Inf	Inf	0.0%
7/2+7/1	Southam Rd Nth Ahead Left	O	N/A	N/A	-		-	-	-	594	1800:1800	0+608	0.0 : 97.7%
7/3	Southam Rd Nth Ahead	O	N/A	N/A	-		-	-	-	260	1800	608	42.8%
8/1	Ahead	U	N/A	N/A	-		-	-	-	518	Inf	Inf	0.0%
8/2	Ahead	U	N/A	N/A	-		-	-	-	434	Inf	Inf	0.0%
8/3	Right	U	N/A	N/A	-		-	-	-	91	Inf	Inf	0.0%
9/1	Ahead	U	N/A	N/A	-		-	-	-	1552	Inf	Inf	0.0%
10/1	Ahead	U	3:2	N/A	C3:C		1	27	-	781	1980	1232	63.4%
10/2	Ahead	U	3:2	N/A	C3:C		1	27	-	765	1980	1232	62.1%
11/1		U	N/A	N/A	-		-	-	-	159	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	301	Inf	Inf	0.0%
12/1	Ahead	U	3:4	N/A	C3:I		1	23	-	978	1865	995	91.4%
12/2	Ahead	U	3:4	N/A	C3:I		1	23	-	7	1865	995	0.6%
13/1	Ahead	U	3:1	N/A	C3:A		1	27	-	715	1980	1232	51.4%
13/2	Ahead	U	3:1	N/A	C3:A		1	27	-	1034	1980	1232	75.0%
14/1	Ahead	U	N/A	N/A	-		-	-	-	1546	Inf	Inf	0.0%
15/1	Ahead	U	3:3	N/A	C3:F		1	23	-	1552	2015	1075	125.8%
16/1	Ahead	U	3:3	N/A	C3:E		1	23	-	854	2015	1075	79.5%
17/1		U	N/A	N/A	-		-	-	-	1552	Inf	Inf	0.0%
18/1		U	N/A	N/A	-		-	-	-	978	Inf	Inf	0.0%
18/2		U	N/A	N/A	-		-	-	-	7	Inf	Inf	0.0%
19/1	Ahead	U	3:4	N/A	C3:H		1	23	-	969	2015	1075	90.2%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M40/Hennef Way Junction Base Model	**-**	**-**	**20561**	**1232**	**0**	**133.1**	**1360.0**	**0.0**	**1493.2**	**-**	**-**	**-**	**-**
J1: M40 J11/Hennef Way	**-**	**-**	**1038**	**1232**	**0**	**66.1**	**652.4**	**0.0**	**718.5**	**-**	**-**	**-**	**-**
1/1	277	277	-	-	-	1.4	2.1	-	3.5	44.9	3.3	2.1	5.4
1/2+1/3	669	669	-	-	-	3.4	4.9	-	8.3	44.8	4.4	4.9	9.3
2/1+2/2	519	519	1038	0	0	0.7	1.0	-	1.8	12.2	3.2	1.0	4.3
3/2+3/1	895	787	-	-	-	5.9	58.0	-	63.9	257.0	12.7	58.0	70.8
3/3	860	755	-	-	-	5.7	56.4	-	62.1	259.9	12.1	56.4	68.5
4/1	409	350	-	-	-	3.2	32.9	-	36.0	316.9	5.9	32.9	38.7
4/2+4/3	763	704	-	-	-	4.9	40.1	-	45.0	212.5	6.2	40.1	46.3
5/2+5/1	1517	1090	0	616	0	12.7	220.7	-	233.4	553.8	18.4	220.7	239.1
5/3	1047	616	0	616	0	12.8	216.8	-	229.6	789.2	18.5	216.8	235.3
6/1	474	474	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	409	409	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	616	616	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	699	699	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	404	404	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	514	514	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	182	182	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	1473	1473	-	-	-	0.2	2.2	-	2.4	6.0	0.8	2.2	3.0
10/2	993	993	-	-	-	0.0	0.6	-	0.6	2.3	0.3	0.6	0.9
11/1	1013	1013	-	-	-	1.3	2.0	-	3.3	11.8	10.5	2.0	12.5
11/2	787	787	-	-	-	0.8	0.7	-	1.5	7.0	7.3	0.7	8.0
12/1	673	673	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
12/2	404	404	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1

Full Input Data And Results

12/3	739	739	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
12/4	313	313	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
13/1	433	433	-	-	-	1.5	0.5	-	2.0	16.5	5.1	0.5	5.6
13/2	600	600	-	-	-	1.5	0.8	-	2.3	13.9	4.8	0.8	5.6
13/3	511	511	-	-	-	1.0	0.6	-	1.5	10.7	2.9	0.6	3.5
14/1	1124	1124	-	-	-	2.9	3.8	-	6.7	21.3	12.8	3.8	16.6
14/2	1266	1266	-	-	-	3.3	6.3	-	9.6	27.4	15.2	6.3	21.5
15/1	409	409	-	-	-	1.7	0.5	-	2.2	19.3	4.2	0.5	4.6
15/2	568	568	-	-	-	1.2	0.8	-	2.0	12.4	5.4	0.8	6.2
J2: Hennef Way/ Ermont Way	**-**	**-**	**5448**	**0**	**0**	**34.4**	**421.6**	**0.0**	**456.0**	**-**	**-**	**-**	**-**
1/1	232	232	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
1/2	150	150	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
2/1	2466	2466	-	-	-	0.0	1.1	-	1.1	1.6	0.0	0.5	0.5
3/1+3/2	385	385	770	0	0	0.0	1.4	-	1.4	13.4	0.0	1.4	1.4
4/1	100	100	100	0	0	0.0	0.1	-	0.1	2.3	0.4	0.1	0.4
4/2	1239	925	925	0	0	10.7	158.9	-	169.6	492.7	42.6	158.9	201.6
4/3	1246	923	923	0	0	11.0	163.5	-	174.4	504.1	43.1	163.5	206.6
5/1	195	195	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	111	111	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	2565	2565	-	-	-	0.0	1.2	-	1.2	1.7	0.0	0.6	0.6
7/1	361	361	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	22	22	22	0	0	0.0	0.0	-	0.0	4.4	0.0	0.0	0.0
8/2	150	150	150	0	0	0.0	0.3	-	0.3	6.4	0.0	0.3	0.3
9/1	210	210	210	0	0	0.0	0.4	-	0.4	6.5	0.0	0.4	0.4
10/1	1044	1044	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
10/2	1150	1150	-	-	-	0.0	0.6	-	0.6	1.8	0.0	0.6	0.6
11/1	978	921	921	0	0	1.9	35.5	-	37.4	137.7	36.7	35.5	72.1
11/2	982	921	921	0	0	2.0	37.0	-	39.0	143.1	36.8	37.0	73.8
11/3	170	170	170	0	0	0.0	0.1	-	0.1	2.4	0.0	0.1	0.1

Full Input Data And Results

12/1	337	337	337	0	0	0.0	0.2	-	0.2	1.7	0.0	0.2	0.2
13/1	24	24	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
14/1	1044	1044	-	-	-	0.0	0.6	-	0.6	2.0	0.0	0.6	0.6
14/2	1150	1150	-	-	-	0.0	0.6	-	0.6	1.9	0.0	0.6	0.6
14/3	2	2	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
15/1	24	24	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
15/2	54	54	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
15/3	96	96	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
16/1	975	975	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
16/2	1017	1017	-	-	-	0.0	0.5	-	0.5	1.6	0.0	0.5	0.5
16/3	170	170	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
17/1	96	96	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
17/2	230	230	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
17/3	230	230	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
18/2+18/1	1339	1339	-	-	-	2.8	9.3	-	12.1	32.5	15.4	9.3	24.7
18/3	1246	1246	-	-	-	2.9	5.6	-	8.5	24.5	14.0	5.6	19.6
19/1	975	975	-	-	-	1.5	1.5	-	2.9	10.9	8.1	1.5	9.6
19/2	1017	1017	-	-	-	1.5	1.4	-	2.9	10.3	8.5	1.4	9.8
20/1	1991	1991	-	-	-	0.1	0.6	-	0.7	1.4	0.4	0.3	0.8
J3: Hennef Way/ Concord Ave	**-**	**-**	**7269**	**0**	**0**	**1.4**	**24.5**	**0.0**	**25.9**	**-**	**-**	**-**	**-**
1/1	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/1	689	689	689	0	0	0.0	0.8	-	0.8	4.2	0.0	0.8	0.8
2/3+2/2	1302	1302	2605	0	0	0.0	0.8	-	0.8	2.3	0.0	0.8	0.8
3/1	243	243	243	0	0	0.0	0.4	-	0.4	5.8	0.0	0.4	0.4
3/2+3/3	1093	1093	2186	0	0	0.4	13.9	-	14.3	47.0	6.6	13.9	20.5
4/1	765	765	765	0	0	0.5	2.2	-	2.6	12.4	8.0	2.2	10.2
4/2	781	781	781	0	0	0.5	2.4	-	2.9	13.6	8.3	2.4	10.7
5/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	2585	2585	-	-	-	0.0	1.3	-	1.3	1.8	0.0	0.6	0.6

Full Input Data And Results

7/1	738	738	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	766	766	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	779	779	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	1306	1306	-	-	-	0.0	1.1	-	1.1	2.9	0.0	1.1	1.1
9/2	1284	1284	-	-	-	0.0	0.8	-	0.8	2.3	0.0	0.8	0.8
9/3	49	49	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
10/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	49	49	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
11/1	644	644	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
11/2	658	658	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
12/1	541	541	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
12/2	552	552	-	-	-	0.0	0.2	-	0.2	1.1	0.0	0.2	0.2
13/1	1558	1558	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J4: Hennef Way_Southam Rd	**-**	**-**	**6806**	**0**	**0**	**31.2**	**261.5**	**0.0**	**292.7**	**-**	**-**	**-**	**-**
1/2+1/1	633	633	1267	0	0	0.7	1.1	-	1.8	10.3	9.6	1.1	10.7
1/3	924	769	769	0	0	5.9	80.4	-	86.4	336.4	28.8	80.4	109.2
2/1	45	45	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/2	301	301	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/3	5	5	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2+3/1	897	897	1794	0	0	0.1	6.4	-	6.4	25.8	4.5	6.4	10.9
3/3	74	74	74	0	0	0.0	0.1	-	0.1	3.6	0.0	0.1	0.1
4/1	533	533	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	6	6	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/3	768	768	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2+5/1	485	485	970	0	0	1.2	4.1	-	5.3	39.5	6.1	4.1	10.2
5/3	484	484	484	0	0	1.0	4.1	-	5.1	38.0	6.0	4.1	10.0
6/1	1352	1352	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	74	74	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2+7/1	594	594	1188	0	0	1.9	9.2	-	11.1	67.5	7.4	9.2	16.6

Full Input Data And Results

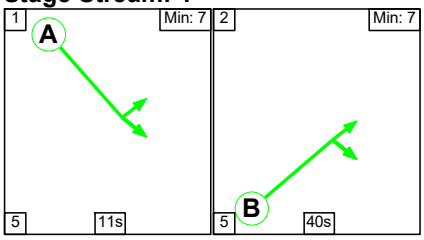
7/3	260	260	260	0	0	0.0	0.4	-	0.4	5.2	0.8	0.4	1.2
8/1	518	518	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	434	434	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/3	91	91	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	1352	1352	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	781	781	-	-	-	1.0	0.9	-	1.9	8.7	5.7	0.9	6.6
10/2	765	765	-	-	-	1.0	0.8	-	1.8	8.6	5.6	0.8	6.4
11/1	146	146	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	301	301	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	910	910	-	-	-	1.8	4.8	-	6.6	25.9	10.6	4.8	15.4
12/2	6	6	-	-	-	0.0	0.0	-	0.0	10.4	0.1	0.0	0.1
13/1	633	633	-	-	-	0.9	0.5	-	1.5	8.3	4.5	0.5	5.0
13/2	924	924	-	-	-	1.7	1.5	-	3.2	12.4	7.8	1.5	9.3
14/1	1546	1546	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	1352	1075	-	-	-	9.4	141.1	-	150.4	400.5	20.4	141.1	161.4
16/1	854	854	-	-	-	2.0	1.9	-	3.9	16.5	8.5	1.9	10.4
17/1	1075	1075	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	910	910	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/2	6	6	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/1	969	969	-	-	-	2.5	4.2	-	6.8	25.2	10.8	4.2	15.0

C1 - M40 J11	Stream: 1 PRC for Signalled Lanes (%):	-8.9	Total Delay for Signalled Lanes (pcuHr):	16.66	Cycle Time (s): 45
C1 - M40 J11	Stream: 2 PRC for Signalled Lanes (%):	-26.6	Total Delay for Signalled Lanes (pcuHr):	131.80	Cycle Time (s): 45
C1 - M40 J11	Stream: 3 PRC for Signalled Lanes (%):	-30.0	Total Delay for Signalled Lanes (pcuHr):	97.32	Cycle Time (s): 45
C1 - M40 J11	Stream: 4 PRC for Signalled Lanes (%):	-88.9	Total Delay for Signalled Lanes (pcuHr):	467.17	Cycle Time (s): 45
C2 - Hennef Way Pedestrian Crossing	PRC for Signalled Lanes (%):	-6.9	Total Delay for Signalled Lanes (pcuHr):	26.42	Cycle Time (s): 45
C3 - Southam Rd	Stream: 1 PRC for Signalled Lanes (%):	20.0	Total Delay for Signalled Lanes (pcuHr):	4.64	Cycle Time (s): 45
C3 - Southam Rd	Stream: 2 PRC for Signalled Lanes (%):	42.0	Total Delay for Signalled Lanes (pcuHr):	3.72	Cycle Time (s): 45
C3 - Southam Rd	Stream: 3 PRC for Signalled Lanes (%):	-39.8	Total Delay for Signalled Lanes (pcuHr):	154.32	Cycle Time (s): 45
C3 - Southam Rd	Stream: 4 PRC for Signalled Lanes (%):	-1.6	Total Delay for Signalled Lanes (pcuHr):	13.36	Cycle Time (s): 45
	PRC Over All Lanes (%):	-88.9	Total Delay Over All Lanes(pcuHr):	1493.17	

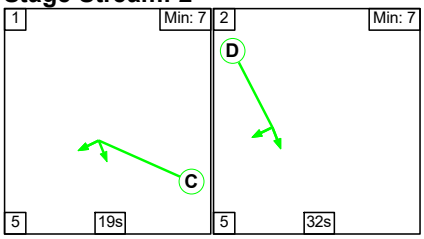
Full Input Data And Results
Scenario 8: '2031 PM With Dev' (FG8: '2031 PM With Dev', Plan 1: 'Control Plan 1')
C1 - M40 J11

Stage Sequence Diagram

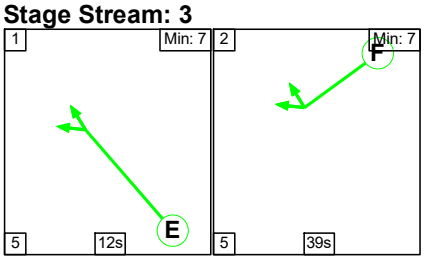
Stage Stream: 1



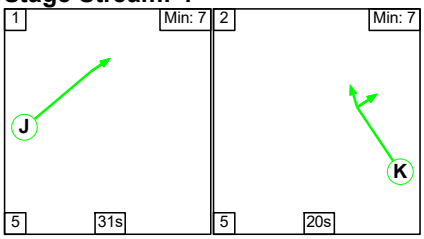
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	11	40
Change Point	0	16

Stage Stream: 2

Stage	1	2
Duration	19	32
Change Point	34	58

Stage Stream: 3

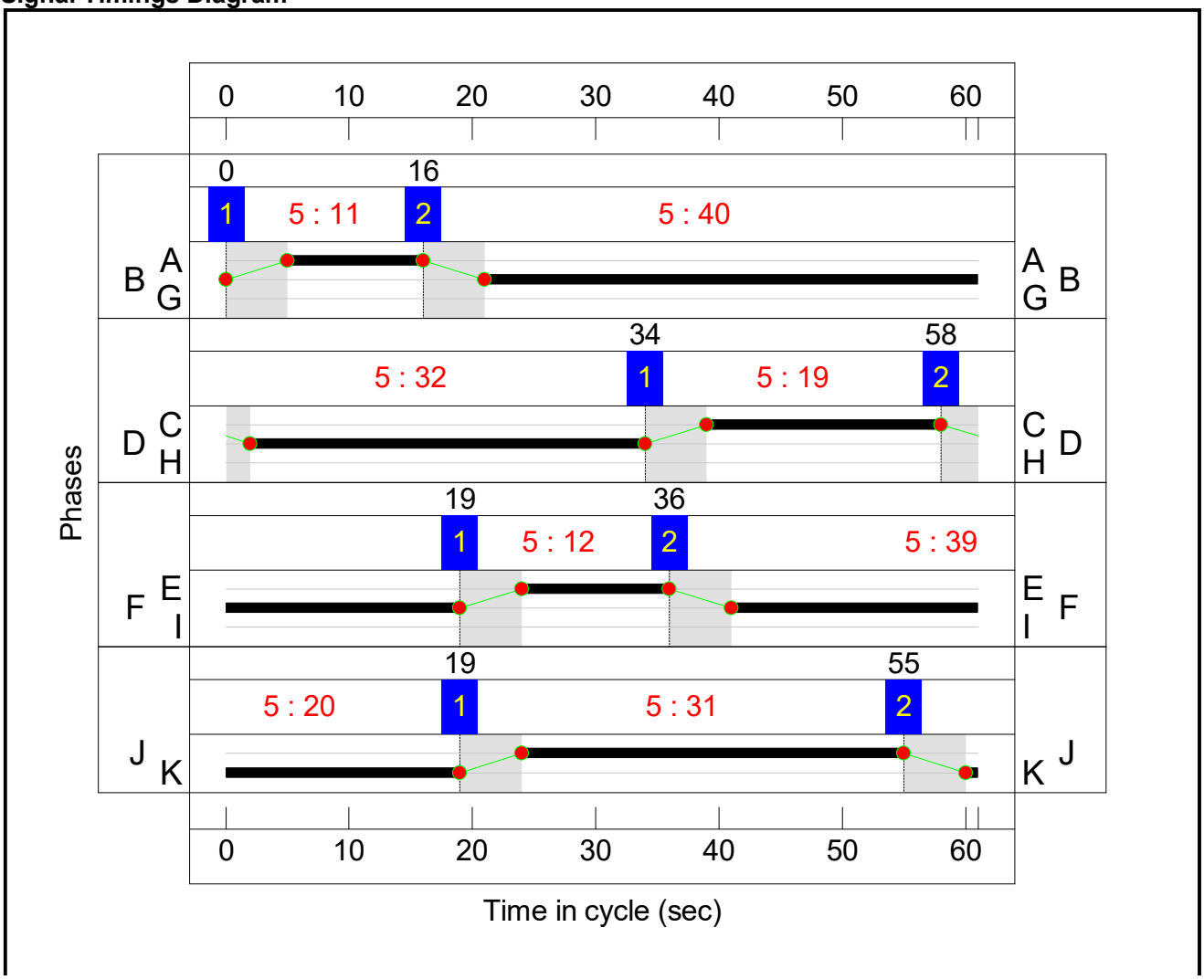
Stage	1	2
Duration	12	39
Change Point	19	36

Full Input Data And Results

Stage Stream: 4

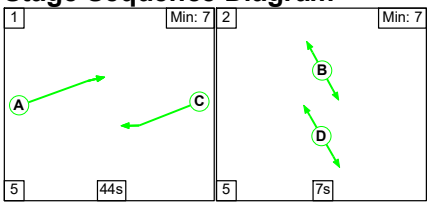
Stage	1	2
Duration	31	20
Change Point	19	55

Signal Timings Diagram



C2 - Hennef Way Pedestrian Crossing

Stage Sequence Diagram

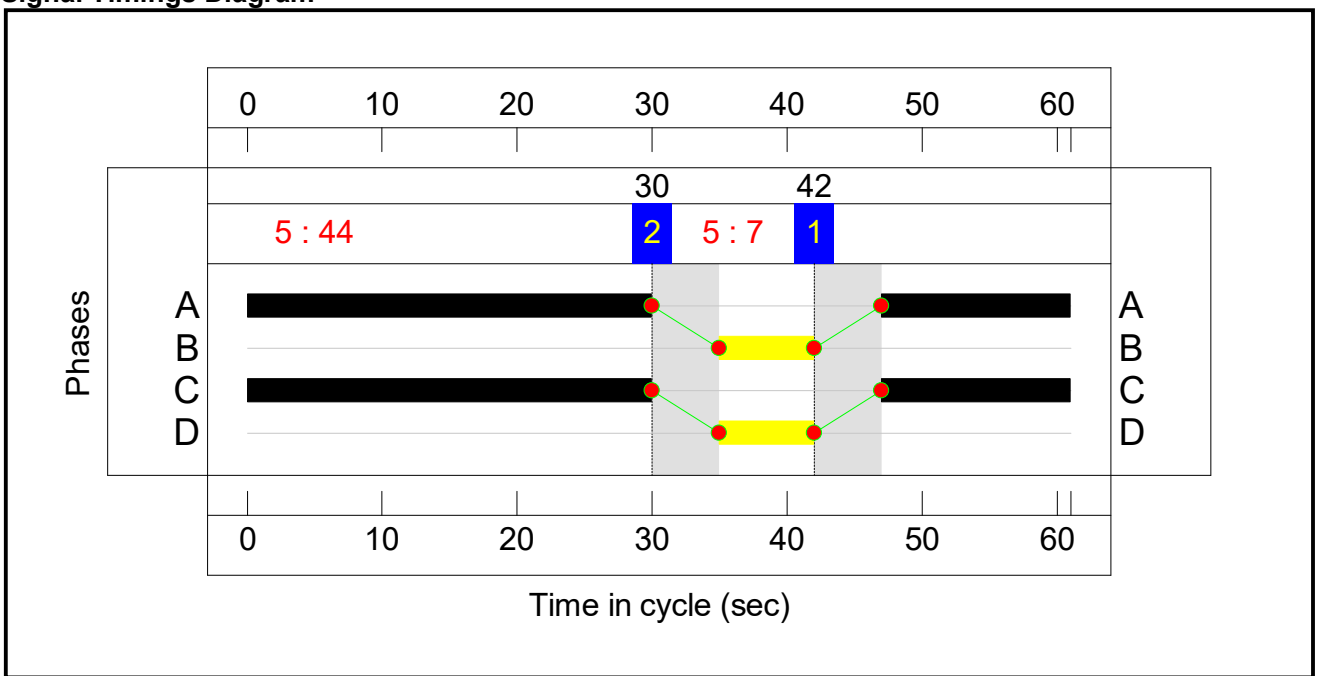


Stage Timings

Stage	1	2
Duration	44	7
Change Point	42	30

Full Input Data And Results

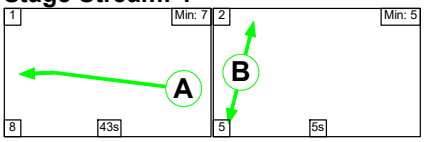
Signal Timings Diagram



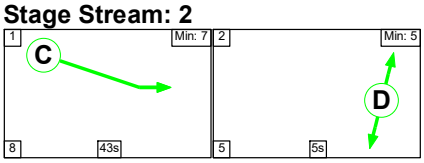
C3 - Southam Rd

Stage Sequence Diagram

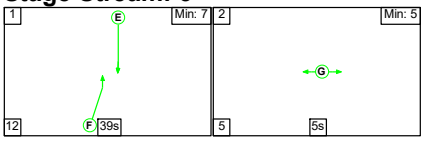
Stage Stream: 1



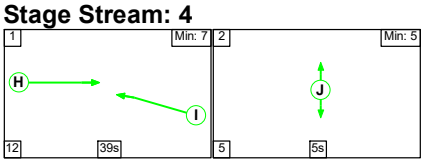
Stage Stream: 2



Stage Stream: 3



Stage Stream: 4



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	43	5
Change Point	32	22

Full Input Data And Results

Stage Stream: 2

Stage	1	2
Duration	43	5
Change Point	10	0

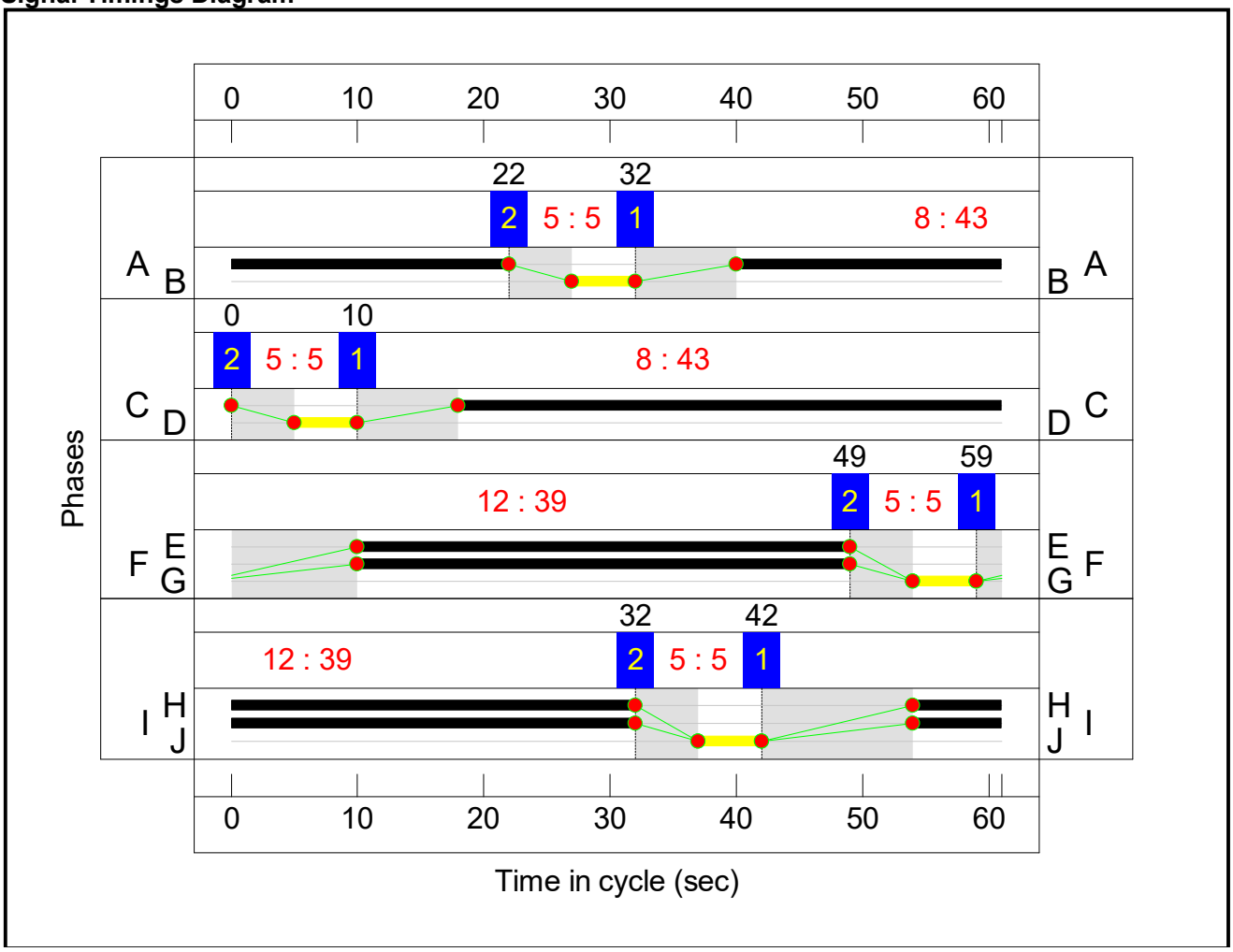
Stage Stream: 3

Stage	1	2
Duration	39	5
Change Point	59	49

Stage Stream: 4

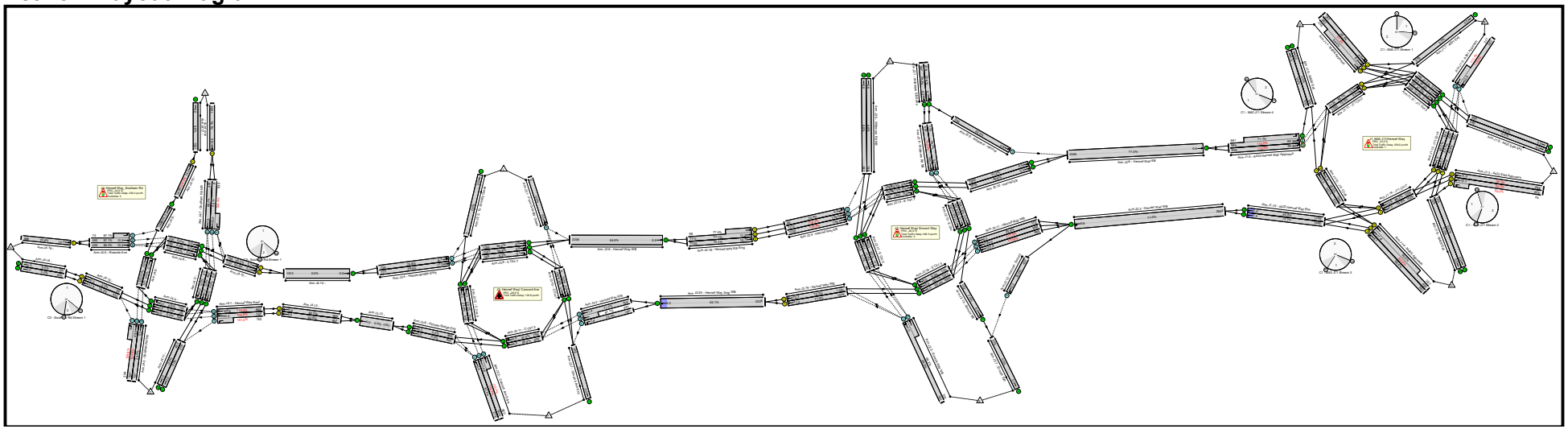
Stage	1	2
Duration	39	5
Change Point	42	32

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: M40/Hennef Way Junction Base Model	-	-	**N/A**	-	-		-	-	-	-	-	-	**132.2%**
J1: M40 J11/Hennef Way	-	-	**N/A**	-	-		-	-	-	-	-	-	**111.1%**
1/1	M40N Approach Left Ahead	U	1:1	N/A	C1:A		1	11	-	237	1908	375	63.1%
1/2+1/3	M40N Approach Ahead	U	1:1	N/A	C1:A		1	11	-	651	2044:2044	402+402	97.5 : 64.4%
2/1+2/2	A361 Approach Left Ahead	O	N/A	N/A	-		-	-	-	658	1966:2101	310+285	110.0 : 111.1%
3/2+3/1	A422 East Approach Left Ahead	U	1:2	N/A	C1:C		1	19	-	718	1985:1985	629+95	99.2 : 99.2%
3/3	A422 East Approach Ahead	U	1:2	N/A	C1:C		1	19	-	684	2123	696	98.3%
4/1	M40S Approach Ahead	U	1:3	N/A	C1:E		1	12	-	362	1966	419	86.4%
4/2+4/3	M40S Approach Ahead Ahead2	U	1:3	N/A	C1:E		1	12	-	719	2102:2102	448+441	100.9 : 60.5%
5/2+5/1	A422 Hennef Way Approach Left Ahead	O+U	1:4	N/A	C1:J -		1	31	-	1853	2143:1943	856+851	110.4 : 77.7%
5/3	A422 Hennef Way Approach Ahead	O	1:4	N/A	C1:J		1	31	-	1113	2143	856	110.9%
6/1	M40N Exit	U	N/A	N/A	-		-	-	-	767	Inf	Inf	0.0%
6/2	M40N Exit	U	N/A	N/A	-		-	-	-	339	Inf	Inf	0.0%
7/1	A631 Exit	U	N/A	N/A	-		-	-	-	652	Inf	Inf	0.0%
8/1	A422 East Exit	U	N/A	N/A	-		-	-	-	1022	Inf	Inf	0.0%
8/2	A422 East Exit	U	N/A	N/A	-		-	-	-	638	Inf	Inf	0.0%
9/1	M40S Exit	U	N/A	N/A	-		-	-	-	699	Inf	Inf	0.0%
9/2	M40S Exit	U	N/A	N/A	-		-	-	-	283	Inf	Inf	0.0%

Full Input Data And Results

10/1	A422 Hennef Way Exit Ahead	U	N/A	N/A	-		-	-	-	1400	1800	1800	77.1%
10/2	A422 Hennef Way Exit Ahead	U	N/A	N/A	-		-	-	-	1195	1800	1800	64.8%
11/1	J11 Circ1 Ahead Right	U	1:1	N/A	C1:B		1	40	-	1364	1960	1317	86.1%
11/2	J11 Circ1 Right	U	1:1	N/A	C1:B		1	40	-	1280	2099	1411	72.5%
12/1	J11 Circ3 Ahead	U	N/A	N/A	-		-	-	-	949	1932	1932	41.0%
12/2	J11 Circ3 Ahead	U	N/A	N/A	-		-	-	-	638	2070	2070	26.5%
12/3	J11 Circ3 Right	U	N/A	N/A	-		-	-	-	1034	2070	2070	41.9%
12/4	J11 Circ3 Right	U	N/A	N/A	-		-	-	-	259	2070	2070	12.5%
13/1	J11 Circ5 Ahead	U	1:2	N/A	C1:D		1	32	-	605	1946	1053	45.8%
13/2	J11 Circ5 Ahead Right	U	1:2	N/A	C1:D		1	32	-	697	2084	1127	55.7%
13/3	J11 Circ5 Right	U	1:2	N/A	C1:D		1	32	-	576	2084	1127	48.3%
14/1	J11 Circ7 Ahead	U	1:3	N/A	C1:F		1	39	-	1038	1961	1286	79.8%
14/2	J11 Circ7 Ahead Right	U	1:3	N/A	C1:F		1	39	-	1260	2100	1377	89.2%
15/1	J11 Circ9 Ahead	U	1:4	N/A	C1:K		1	20	-	339	1927	663	50.1%
15/2	J11 Circ9 Right	U	1:4	N/A	C1:K		1	20	-	445	2065	711	62.6%
J2: Hennef Way/ Ermont Way	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**132.2%**
1/1	Wildmere SB Entry Ahead Left	U	N/A	N/A	-		-	-	-	418	1865	1865	22.4%
1/2	Wildmere SB Entry Ahead	U	N/A	N/A	-		-	-	-	587	2005	2005	29.3%
2/1	Hennef Way WB Ahead Left	U	N/A	N/A	-		-	-	-	2595	3600	3600	71.0%
3/1+3/2	Ermont Way NB Ahead Left	O	N/A	N/A	-		-	-	-	493	1990:2099	243+501	66.2 : 66.2%
4/1	Hennef Way EB Left	O	N/A	N/A	-		-	-	-	107	1973	942	10.4%
4/2	Hennef Way EB Ahead	O	N/A	N/A	-		-	-	-	1222	2110	942	118.7%

Full Input Data And Results

4/3	Hennef Way EB Ahead	O	N/A	N/A	-		-	-	-	1219	2110	941	118.9%
5/1	Wildmere Rd NB	U	N/A	N/A	-		-	-	-	206	Inf	Inf	0.0%
5/2	Wildmere Rd NB	U	N/A	N/A	-		-	-	-	136	Inf	Inf	0.0%
6/1	Hennef Way EB Ahead	U	N/A	N/A	-		-	-	-	2966	3600	3600	71.0%
7/1	Ermont Exit	U	N/A	N/A	-		-	-	-	597	Inf	Inf	0.0%
8/1	Wildmere Rd SB Ahead	O	N/A	N/A	-		-	-	-	114	1942	444	25.7%
8/2	Wildmere Rd SB Ahead	O	N/A	N/A	-		-	-	-	587	2077	444	132.2%
9/1	Wildmere - Hennef Ahead	O	N/A	N/A	-		-	-	-	304	1956	486	62.5%
10/1	Hennef EB Ahead	U	N/A	N/A	-		-	-	-	1320	2031	2031	51.2%
10/2	Hennef EB Ahead	U	N/A	N/A	-		-	-	-	1342	2169	2169	49.6%
11/1	Hennef Way WB Ahead	O	N/A	N/A	-		-	-	-	1005	1854	840	117.8%
11/2	Hennef Way WB Ahead	O	N/A	N/A	-		-	-	-	984	1986	824	117.5%
11/3	Hennef Way WB Ahead	O	N/A	N/A	-		-	-	-	172	1986	840	20.4%
12/1	Hennef - Ermont Left	O	N/A	N/A	-		-	-	-	434	2044	1273	33.5%
13/1	Ermont SB Ahead	U	N/A	N/A	-		-	-	-	163	2053	2053	7.4%
14/1	E Circ 7 Ahead	U	N/A	N/A	-		-	-	-	1320	1943	1943	53.5%
14/2	E Circ 7 Ahead	U	N/A	N/A	-		-	-	-	1342	2079	2079	51.7%
14/3	E Circ 7 Right	U	N/A	N/A	-		-	-	-	49	2079	2079	1.8%
15/1	E Circ Ahead	U	N/A	N/A	-		-	-	-	163	1950	1950	7.8%
15/2	E Circ Right	U	N/A	N/A	-		-	-	-	260	2085	2085	9.4%
15/3	E Circ Right	U	N/A	N/A	-		-	-	-	327	2085	2085	11.9%
16/1	E Circ 3 Ahead	U	N/A	N/A	-		-	-	-	1265	1998	1998	50.3%

Full Input Data And Results

16/2	E Circ 3 Ahead	U	N/A	N/A	-		-	-	-	1311	2138	2138	50.1%
16/3	E Circ 3 Right	U	N/A	N/A	-		-	-	-	172	2069	2069	8.3%
17/1	E Circ 5 Ahead	U	N/A	N/A	-		-	-	-	99	1943	1943	5.1%
17/2	E Circ 5 Ahead Right	U	N/A	N/A	-		-	-	-	234	2079	2079	11.2%
17/3	E Circ 5 Right	U	N/A	N/A	-		-	-	-	172	2079	2079	8.3%
18/2+18/1	Hennef Way EB Xing Ahead	U	N/A	N/A	C2:A		1	44	-	1329	2088:1948	1448+127	77.1 : 77.4%
18/3	Hennef Way EB Xing Ahead	U	N/A	N/A	C2:A		1	44	-	1219	2088	1540	72.7%
19/1	Hennef Way WB Ahead	U	N/A	N/A	C2:C		1	44	-	1334	2025	1494	71.9%
19/2	Hennef Way WB Ahead	U	N/A	N/A	C2:C		1	44	-	1402	2149	1585	73.3%
20/1	Hennef Way Xing WB Ahead	U	N/A	N/A	-		-	-	-	2736	3600	3600	62.1%
J3: Hennef Way/ Concord Ave	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**115.7%**
1/1	From Grimsby Green Left Ahead	O	N/A	N/A	-		-	-	-	0	2115	236	0.0%
2/1	Hennef Way WB Left	O	N/A	N/A	-		-	-	-	960	1953	1073	73.3%
2/3+2/2	Hennef Way WB Ahead	O	N/A	N/A	-		-	-	-	1776	2089:2089	1059+1030	71.7 : 67.1%
3/1	Concord Ave Entry Left	O	N/A	N/A	-		-	-	-	216	1868	518	41.7%
3/2+3/3	Concord Ave Entry Ahead	O	N/A	N/A	-		-	-	-	1200	2002:2002	518+518	115.7 : 115.7%
4/1	Holman Bridge Entry Left Ahead	O	N/A	N/A	-		-	-	-	749	1976	958	76.8%
4/2	Holman Bridge Entry Ahead	O	N/A	N/A	-		-	-	-	791	2111	977	79.5%
5/1	To Grimsby Green	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
6/1	Hennef Way WB Ahead	U	N/A	N/A	-		-	-	-	2548	3600	3600	64.9%

Full Input Data And Results

7/1	Concord Ave Exit	U	N/A	N/A	-		-	-	-	1152	Inf	Inf	0.0%
8/1	Holman Bridge Exit Ahead	U	N/A	N/A	-		-	-	-	985	Inf	Inf	0.0%
8/2	Holman Bridge Exit Ahead	U	N/A	N/A	-		-	-	-	1007	Inf	Inf	0.0%
9/1	C Circ 7 Ahead	U	N/A	N/A	-		-	-	-	1349	1923	1923	65.2%
9/2	C Circ 7 Ahead Right	U	N/A	N/A	-		-	-	-	1199	2058	2058	53.8%
9/3	C Circ 7 Right	U	N/A	N/A	-		-	-	-	192	2058	2058	9.2%
10/1	C Circ1 Ahead	U	N/A	N/A	-		-	-	-	0	2009	2009	0.0%
10/2	C Circ1 Ahead Right	U	N/A	N/A	-		-	-	-	192	2149	2149	8.8%
11/1	C Circ 3 Ahead	U	N/A	N/A	-		-	-	-	876	1900	1900	36.4%
11/2	C Circ 3 Ahead Right	U	N/A	N/A	-		-	-	-	900	2035	2035	37.3%
12/1	C Circ 5 Ahead Right	U	N/A	N/A	-		-	-	-	600	2013	2013	25.8%
12/2	C Circ 5 Right	U	N/A	N/A	-		-	-	-	600	2148	2148	24.1%
13/1	Ahead	U	N/A	N/A	-		-	-	-	1992	Inf	Inf	0.0%
J4: Hennef Way_Southam Rd	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**119.0%**
1/2+1/1	Hennef Way East Ahead Left	O	N/A	N/A	-		-	-	-	1014	1800:1800	726+148	102.8 : 101.0%
1/3	Hennef Way East Ahead	O	N/A	N/A	-		-	-	-	978	1800	726	119.0%
2/1	Ahead	U	N/A	N/A	-		-	-	-	68	Inf	Inf	0.0%
2/2	Ahead	U	N/A	N/A	-		-	-	-	462	Inf	Inf	0.0%
2/3	Right	U	N/A	N/A	-		-	-	-	25	Inf	Inf	0.0%
3/2+3/1	Southam Rd Sth Ahead Left	O	N/A	N/A	-		-	-	-	763	1800:1800	507+188	109.8 : 109.8%
3/3	Southam Rd Sth Ahead	O	N/A	N/A	-		-	-	-	127	1800	530	24.0%
4/1	Ahead	U	N/A	N/A	-		-	-	-	842	Inf	Inf	0.0%
4/2	Ahead	U	N/A	N/A	-		-	-	-	30	Inf	Inf	0.0%

Full Input Data And Results

4/3	Right	U	N/A	N/A	-		-	-	-	973	Inf	Inf	0.0%
5/2+5/1	Ruscote Ave Ahead Left	O	N/A	N/A	-		-	-	-	533	1800:1800	528+84	87.1 : 87.1%
5/3	Ruscote Ave Ahead	O	N/A	N/A	-		-	-	-	455	1800	528	86.2%
6/1	Ahead	U	N/A	N/A	-		-	-	-	1530	Inf	Inf	0.0%
6/2	Right	U	N/A	N/A	-		-	-	-	127	Inf	Inf	0.0%
7/2+7/1	Southam Rd Nth Ahead Left	O	N/A	N/A	-		-	-	-	635	1800:1800	0+608	0.0 : 104.4%
7/3	Southam Rd Nth Ahead	O	N/A	N/A	-		-	-	-	418	1800	608	68.7%
8/1	Ahead	U	N/A	N/A	-		-	-	-	516	Inf	Inf	0.0%
8/2	Ahead	U	N/A	N/A	-		-	-	-	389	Inf	Inf	0.0%
8/3	Right	U	N/A	N/A	-		-	-	-	137	Inf	Inf	0.0%
9/1	Ahead	U	N/A	N/A	-		-	-	-	1603	Inf	Inf	0.0%
10/1	Ahead	U	3:2	N/A	C3:C		1	43	-	800	1980	1428	55.2%
10/2	Ahead	U	3:2	N/A	C3:C		1	43	-	740	1980	1428	50.8%
11/1		U	N/A	N/A	-		-	-	-	240	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	462	Inf	Inf	0.0%
12/1	Ahead	U	3:4	N/A	C3:I		1	39	-	1048	1865	1223	76.2%
12/2	Ahead	U	3:4	N/A	C3:I		1	39	-	30	1865	1223	2.3%
13/1	Ahead	U	3:1	N/A	C3:A		1	43	-	1014	1980	1428	62.8%
13/2	Ahead	U	3:1	N/A	C3:A		1	43	-	978	1980	1428	60.5%
14/1	Ahead	U	N/A	N/A	-		-	-	-	1540	Inf	Inf	0.0%
15/1	Ahead	U	3:3	N/A	C3:F		1	39	-	1603	2015	1321	106.3%
16/1	Ahead	U	3:3	N/A	C3:E		1	39	-	1053	2015	1321	79.7%
17/1		U	N/A	N/A	-		-	-	-	1603	Inf	Inf	0.0%
18/1		U	N/A	N/A	-		-	-	-	1048	Inf	Inf	0.0%
18/2		U	N/A	N/A	-		-	-	-	30	Inf	Inf	0.0%
19/1	Ahead	U	3:4	N/A	C3:H		1	39	-	988	2015	1321	74.8%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: M40/Hennef Way Junction Base Model	**-**	**-**	**21958**	**1711**	**0**	**133.7**	**925.2**	**0.0**	**1058.9**	**-**	**-**	**-**	**-**
J1: M40 J11/Hennef Way	**-**	**-**	**1190**	**1711**	**0**	**51.4**	**187.8**	**0.0**	**239.2**	**-**	**-**	**-**	**-**
1/1	237	237	-	-	-	1.5	0.8	-	2.3	35.3	3.6	0.8	4.5
1/2+1/3	651	651	-	-	-	4.3	2.1	-	6.3	35.1	6.5	2.1	8.6
2/1+2/2	658	595	1190	0	0	3.5	36.0	-	39.5	216.1	16.9	36.0	52.8
3/2+3/1	718	718	-	-	-	4.0	12.0	-	16.0	80.3	11.2	12.0	23.3
3/3	684	684	-	-	-	3.9	10.4	-	14.3	75.1	11.4	10.4	21.8
4/1	362	362	-	-	-	2.3	2.9	-	5.2	51.8	5.8	2.9	8.7
4/2+4/3	719	715	-	-	-	4.7	4.1	-	8.8	44.1	7.7	4.1	11.8
5/2+5/1	1606	1517	0	856	0	5.8	51.6	-	57.4	128.8	17.5	51.6	69.2
5/3	949	856	0	856	0	6.7	51.3	-	58.0	220.1	18.5	51.3	69.8
6/1	661	661	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	332	332	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	578	578	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	859	859	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	548	548	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	576	576	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	226	226	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	1388	1388	-	-	-	0.0	1.7	-	1.7	4.4	0.2	1.7	1.9
10/2	1166	1166	-	-	-	0.1	0.9	-	1.0	3.1	0.7	0.9	1.6
11/1	1134	1134	-	-	-	2.5	3.0	-	5.5	17.3	10.5	3.0	13.5
11/2	1023	1023	-	-	-	2.1	1.3	-	3.4	12.1	8.5	1.3	9.8
12/1	792	792	-	-	-	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
12/2	548	548	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2

Full Input Data And Results

12/3	867	867	-	-	-	0.0	0.4	-	0.4	1.5	0.0	0.4	0.4
12/4	259	259	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
13/1	482	482	-	-	-	1.3	0.4	-	1.7	12.9	6.2	0.4	6.6
13/2	628	628	-	-	-	1.3	0.6	-	2.0	11.3	5.1	0.6	5.7
13/3	544	544	-	-	-	0.9	0.5	-	1.4	9.3	4.1	0.5	4.6
14/1	1026	1026	-	-	-	0.9	1.9	-	2.9	10.1	5.8	1.9	7.7
14/2	1228	1228	-	-	-	1.8	3.9	-	5.7	16.8	10.0	3.9	13.9
15/1	332	332	-	-	-	1.1	0.5	-	1.6	17.2	2.8	0.5	3.3
15/2	445	445	-	-	-	2.6	0.8	-	3.4	27.5	6.0	0.8	6.9
J2: Hennef Way/ Ermont Way	**-**	**-**	**6092**	**0**	**0**	**41.5**	**424.9**	**0.0**	**466.5**	**-**	**-**	**-**	**-**
1/1	418	418	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
1/2	587	587	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
2/1	2554	2554	-	-	-	0.0	1.2	-	1.2	1.7	0.0	0.6	0.6
3/1+3/2	493	493	986	0	0	0.0	1.0	-	1.0	7.1	0.0	1.0	1.0
4/1	98	98	98	0	0	0.0	0.1	-	0.1	2.2	0.3	0.1	0.4
4/2	1117	942	942	0	0	8.3	90.9	-	99.3	319.8	44.0	90.9	135.0
4/3	1120	941	941	0	0	8.4	92.1	-	100.5	323.2	44.1	92.1	136.2
5/1	197	197	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	136	136	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	2555	2555	-	-	-	0.0	1.2	-	1.2	1.7	0.0	0.6	0.6
7/1	579	579	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	114	114	114	0	0	0.0	0.2	-	0.2	5.4	0.0	0.2	0.2
8/2	587	444	444	0	0	6.1	73.5	-	79.6	487.9	29.8	73.5	103.3
9/1	304	304	304	0	0	0.0	0.8	-	0.8	9.8	0.0	0.8	0.8
10/1	1040	1040	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
10/2	1076	1076	-	-	-	0.0	0.5	-	0.5	1.6	0.0	0.5	0.5
11/1	990	840	840	0	0	6.8	77.9	-	84.7	308.0	49.5	77.9	127.4
11/2	968	824	824	0	0	6.3	75.4	-	81.6	303.6	48.6	75.4	124.0
11/3	172	172	172	0	0	0.0	0.1	-	0.1	2.7	0.0	0.1	0.1

Full Input Data And Results

12/1	427	427	427	0	0	0.0	0.3	-	0.3	2.1	0.0	0.3	0.3
13/1	152	152	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
14/1	1040	1040	-	-	-	0.0	0.6	-	0.6	2.0	0.0	0.6	0.6
14/2	1076	1076	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
14/3	38	38	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
15/1	152	152	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
15/2	197	197	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
15/3	247	247	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
16/1	1005	1005	-	-	-	0.0	0.5	-	0.5	1.8	0.0	0.5	0.5
16/2	1071	1071	-	-	-	0.0	0.5	-	0.5	1.7	0.0	0.5	0.5
16/3	172	172	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
17/1	99	99	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
17/2	234	234	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
17/3	172	172	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
18/2+18/1	1215	1215	-	-	-	1.3	1.7	-	3.0	8.9	9.5	1.7	11.2
18/3	1120	1120	-	-	-	1.2	1.3	-	2.6	8.3	9.4	1.3	10.7
19/1	1074	1074	-	-	-	1.3	1.3	-	2.6	8.7	10.1	1.3	11.4
19/2	1162	1162	-	-	-	1.5	1.4	-	2.8	8.8	11.0	1.4	12.3
20/1	2236	2236	-	-	-	0.2	0.8	-	1.1	1.7	4.8	0.4	5.2
J3: Hennef Way/ Concord Ave	**-**	**-**	**7489**	**0**	**0**	**7.8**	**95.0**	**0.0**	**102.8**	**-**	**-**	**-**	**-**
1/1	0	0	0	0	0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/1	787	787	787	0	0	0.0	1.4	-	1.4	6.2	0.0	1.4	1.4
2/3+2/2	1449	1449	2899	0	0	0.0	1.1	-	1.1	2.8	0.3	1.1	1.4
3/1	216	216	216	0	0	0.0	0.4	-	0.4	5.9	0.0	0.4	0.4
3/2+3/3	1200	1037	2074	0	0	7.5	85.1	-	92.6	277.9	29.5	85.1	114.6
4/1	736	736	736	0	0	0.1	1.6	-	1.8	8.6	7.0	1.6	8.7
4/2	777	777	777	0	0	0.2	1.9	-	2.1	9.8	9.1	1.9	11.0
5/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	2335	2335	-	-	-	0.0	0.9	-	0.9	1.4	0.0	0.5	0.5

Full Input Data And Results

7/1	976	976	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	800	800	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	866	866	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	1255	1255	-	-	-	0.0	0.9	-	0.9	2.7	0.0	0.9	0.9
9/2	1107	1107	-	-	-	0.0	0.6	-	0.6	1.9	0.0	0.6	0.6
9/3	189	189	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
10/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	189	189	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
11/1	691	691	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
11/2	759	759	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
12/1	518	518	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
12/2	518	518	-	-	-	0.0	0.2	-	0.2	1.1	0.0	0.2	0.2
13/1	1761	1761	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J4: Hennef Way_Southam Rd	**-**	**-**	**7187**	**0**	**0**	**33.0**	**217.4**	**0.0**	**250.4**	**-**	**-**	**-**	**-**
1/2+1/1	897	876	1752	0	0	3.1	21.4	-	24.5	98.5	31.0	21.4	52.4
1/3	865	726	726	0	0	6.9	72.1	-	79.1	329.2	36.5	72.1	108.6
2/1	68	68	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/2	462	462	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/3	25	25	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2+3/1	763	713	1427	0	0	2.1	38.8	-	40.9	192.9	27.5	38.8	66.4
3/3	127	127	127	0	0	0.0	0.2	-	0.2	4.5	0.0	0.2	0.2
4/1	726	726	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	29	29	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/3	723	723	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2+5/1	533	533	1066	0	0	1.2	3.1	-	4.3	29.2	7.8	3.1	10.9
5/3	455	455	455	0	0	1.0	2.9	-	3.9	30.9	7.5	2.9	10.4
6/1	1332	1332	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	127	127	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2+7/1	635	608	1216	0	0	3.5	21.0	-	24.5	138.9	32.0	21.0	53.0

Full Input Data And Results

7/3	418	418	418	0	0	0.5	1.1	-	1.6	13.4	6.8	1.1	7.9
8/1	516	516	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	389	389	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/3	137	137	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	1405	1405	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	788	788	-	-	-	0.6	0.6	-	1.2	5.6	5.1	0.6	5.7
10/2	725	725	-	-	-	0.6	0.5	-	1.1	5.5	4.7	0.5	5.2
11/1	218	218	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	462	462	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	932	932	-	-	-	1.8	1.6	-	3.4	13.0	10.0	1.6	11.6
12/2	29	29	-	-	-	0.0	0.0	-	0.0	6.0	0.2	0.0	0.2
13/1	897	897	-	-	-	0.8	0.8	-	1.6	6.4	5.7	0.8	6.5
13/2	865	865	-	-	-	0.7	0.8	-	1.5	6.1	5.2	0.8	6.0
14/1	1513	1513	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	1405	1321	-	-	-	6.1	49.0	-	55.1	141.2	25.2	49.0	74.2
16/1	1053	1053	-	-	-	2.2	1.9	-	4.1	14.2	12.6	1.9	14.5
17/1	1321	1321	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	932	932	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/2	29	29	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/1	988	988	-	-	-	1.9	1.5	-	3.4	12.4	11.3	1.5	12.7

C1 - M40 J11	Stream: 1 PRC for Signalled Lanes (%):	-8.3	Total Delay for Signalled Lanes (pcuHr):	17.57	Cycle Time (s):	61
C1 - M40 J11	Stream: 2 PRC for Signalled Lanes (%):	-10.2	Total Delay for Signalled Lanes (pcuHr):	35.39	Cycle Time (s):	61
C1 - M40 J11	Stream: 3 PRC for Signalled Lanes (%):	-12.1	Total Delay for Signalled Lanes (pcuHr):	22.64	Cycle Time (s):	61
C1 - M40 J11	Stream: 4 PRC for Signalled Lanes (%):	-23.2	Total Delay for Signalled Lanes (pcuHr):	120.43	Cycle Time (s):	61
C2 - Hennef Way Pedestrian Crossing	PRC for Signalled Lanes (%):	16.3	Total Delay for Signalled Lanes (pcuHr):	11.01	Cycle Time (s):	61
C3 - Southam Rd	Stream: 1 PRC for Signalled Lanes (%):	43.4	Total Delay for Signalled Lanes (pcuHr):	3.07	Cycle Time (s):	61
C3 - Southam Rd	Stream: 2 PRC for Signalled Lanes (%):	63.1	Total Delay for Signalled Lanes (pcuHr):	2.34	Cycle Time (s):	61
C3 - Southam Rd	Stream: 3 PRC for Signalled Lanes (%):	-18.1	Total Delay for Signalled Lanes (pcuHr):	59.27	Cycle Time (s):	61
C3 - Southam Rd	Stream: 4 PRC for Signalled Lanes (%):	18.1	Total Delay for Signalled Lanes (pcuHr):	6.84	Cycle Time (s):	61
	PRC Over All Lanes (%):	-46.9	Total Delay Over All Lanes(pcuHr):	1058.89		