kmc
transport planning

North-West Cambridge Masterplan

Future Phases

Transport Assessment Addendum

April 2026

UNIVERSITY OF CAMBRIDGE

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1 INTRODUCTION

1.1 Background

1.1.1 In September 2025, KMC Transport Planning (KMC) submitted a Transport Assessment (TA) on behalf of the University of Cambridge (UoC) in support of an outline planning application (planning reference: 25/03753/OUT and 25/03746/OUT) for the North West Cambridge Masterplan (NWCM) future phases on Land Between Huntingdon Road, Madingley Road and M11, Eddington, North West Cambridge, Cambridgeshire.

1.1.2 The full description of development is as follows:

"*Outline planning application (all matters reserved except for means of access to the public highway) for a phased mixed use development, including demolition of existing buildings and structures, such development comprising: Living Uses, comprising residential floorspace (Class C3/C4, up to 3,800 dwellings), student accommodation (Sui Generis), co-living (Sui Generis) and senior living (Class C2), flexible employment floorspace (Class E(g) / Sui Generis research uses), academic floorspace (Class F1), and floorspace for supporting retail, nursery, health and indoor sports and recreation uses (Class E (a) - E (f)), public open space, public realm, sports facilities, amenity space, outdoor play, allotments and hard and soft landscaping works alongside supporting facilities, car and cycle parking, formation of new pedestrian, cyclist and vehicular accesses and means of access and circulation routes within the site, highway works, site clearance, preparation and enabling works, supporting infrastructure, plant, drainage, utility, earthworks and engineering works*."

1.1.3 In response to the planning application, statutory and non-statutory consultees have reviewed the TA and supporting documentation and provided a number of transport related comments. The consultees are as follows:

- Cambridgeshire County Council
  - Transport Assessment Team
  - Active Travel Team
  - Public Rights of Way
- National Highways
- Active Travel England
- Greater Cambridge Shared Planning Urban Design
- Greater Cambridge Shared Waste Service
- British Horse Society

1.2 Report Purpose

1.2.1 The purpose of this Transport Assessment Addendum (TA Addendum) is to provide further information requested within consultee responses. This report should be considered as supplementary to, and to be read alongside, the original TA prepared by KMC. Where any

information provided superseded that contained within the original TA, it will be explicitly stated.

1.2.2 It should be noted that KMC are discussing highway design changes to Huntingdon Road along with a revised Huntingdon West Access[1] directly with CCC Highways Development Management. These are ongoing design related discussions and are not covered by this Transport Assessment Addendum.

1.2.3 In addition to Highway Development Management comments, CCC's modelling team have also provided comments on the highways modelling submitted. These modelling comments are again being addressed separately to this TAA.

1.3 Report Structure

1.3.1 There were a number of comments presented by consultees to the planning application. All comments received and been summarised and addressed within this report. The remainder of this report is structured as follows:

- Section 2: Cambridgeshire County Council
- Section 3: National Highways
- Section 4: Active Travel England
- Section 5: Greater Cambridge Shared Waste Service
- Section 6: British Horse Society
- Section 7: Greater Cambridge Shared Planning – Urban Design

1.3.2 All consultee comments addressed within this TA addendum are available on the planning portal (planning reference: 25/03753/OUT and 25/03746/OUT).

1.3.3 KMC and CCC have collaborated in the production of a Transport issues tracker. This has been used to agree matters and pre-application stage and into this determination period. This Tracker is included in **Appendix A**.

[1] The 2013 NWC planning consent included a new access on Huntingdon Road which will be superseded by the access arrangements for which consent is being sought. The changes therefore represent a revision to a consent rather than an entirely new proposition.

2 CAMBRIDGESHIRE COUNTY COUNCIL

2.1 Introduction

2.1.1 This Section of the report provides comments received from the following Cambridgeshire County Council teams:

- Transport Assessment Team
- Active Travel Team
- Public Rights of Way Team

2.1.2 The CCC comment is provided in full and KMC's response to the comments are then provided.

2.2 Transport Assessment Team

Site Context

CCC TA Team Comment

2.2.1 *"Eddington is currently considered to be a very sustainable development in terms of travel. The 2024 Eddington Travel Surveys show that 79.1% of journeys to work from existing Eddington residents can be considered to be undertaken by 'sustainable modes' of transport."*

KMC Response

2.2.2 KMC welcome this positive comment and agree Eddington is an exemplar sustainable site.

2.2.3 As concluded within the TA, in transport terms Eddington is exceptional due to the high uptake in sustainable modes of travel, as evidenced through Phase 1 surveys to date. The Chartered Institution of Highways and Transportation highly commended the development within the Creating Better Places award, as a real-world example of a 'Decide and Provide' approach to transport planning, where the outcomes sought were designed for, and the benefits have been subsequently reaped. These benefits are comprehensively monitored and reported by the Eddington transport team to Cambridgeshire County Council (CCC) and have provided the foundation for this Transport Assessment.

2.2.4 Following on from and using evidence from the Exemplar Phase 1 and the implementation of the Transport Strategy, NWCM is forecast to have a negligible impact on the operation of the local highway network. Safe and suitable access is already provided in addition to the new access provision.

2.2.5 NWCM is expected to follow in the path of Eddington and produce a high proportion of Sustainable Trips and a low proportion of SOVs. With the Transport Strategy focusing on Active Travel and other Sustainable Modes, such as Public Transport, the TA demonstrates that the high demand in walking, cycling, wheeling and Public Transport trips can be managed effectively.

CCC TA Team Comment

2.2.6 *"The table below, taken from the TA shows there will be a significant number of trips generated by this development; however, the majority will be by sustainable modes with only approximately 18% by car drivers."*

KMC Response

2.2.7 KMC note and agree this response from CCC.

Public Transport

CCC TA Team Comment

2.2.8 *"Various improvements to bus services have been proposed as part of this application, which are welcomed in principle. The bus proposals will be reviewed by public transport colleagues and comments will be forwarded on when available."*

KMC Response

2.2.9 KMC note the Bus Strategy being welcomed in principle.

2.2.10 KMC also note an additional comment on S106 contributions from public transport colleagues at CCC, and this comment is included at the end of this section. KMC seek confirmation from CCC that no further public transport comments will be made beyond those covered in this section.

CCC TA Team Comment

2.2.11 *"In section 16.5 It is not clear whether additional PT trips expected from committed developments in other areas have been taken into account. Information is required showing that there is sufficient capacity to accommodate additional trips expected from this development on top of other expected users."*

KMC Response

2.2.12 KMC can confirm that the analysis in Section 16.5 and Table 16.1 accounts for the committed growth areas of West Cambridge, CBC, NECAAP, Cambridge East, Cambourne & Hardwick, and Histon & Impington. The existing Gravity Model distribution of trips has been updated to account for additional weighting of jobs in these growth areas. Future growth in jobs (78,115) has been calculated as a percentage of existing jobs within the Cambridgeshire area (388,000) and split across each growth area according to Census Output Zones to determine an uplift in jobs by zone. This uplift in jobs across each Output Zone has then been multiplied by the existing demand in bus trips for each growth area. The updated supply and demand of bus capacity vs expected passengers was then compared, accounting for the proposed uplift in bus provision as part of the bus strategy. Table 16.1 concludes that the proposed future supply of buses, as part of the transport strategy, outstrips bus passenger demand. This additional analysis is presented in **Appendix B**.

CCC TA Team Comment

2.2.13 *"Paragraph 6.3.6 in the TA states, 'As outlined previously, queueing back along Huntingdon Road from Girton Road towards the A14 occurs infrequently, negating the need for the existing inbound bus lane in this location'. If any changes to existing bus lanes are proposed then hard evidence would be required showing this is the case, along with future scenario modelling demonstrating that the situation would not change in the future in order for the public transport team to take a view on this. Generally, CCC do not usually like to remove bus lane infrastructure."*

KMC Response

2.2.14 The proposals along Huntingdon Road in this location aim to meet the demands of various stakeholders to improve Active Travel to PRoW 5 and also along Huntingdon Road. Surveys undertaken in October 2024 showed queues extending back from Girton Road up to the end of the existing bus lane. Based on this survey, the removal of the bus lane for a short length, to better facilitate safe routes for NMUs, would not impact on bus delay. Further anecdotal evidence shows that queues rarely extend upstream of the bus lane, and only for a short period during the AM peak hour, thereby limiting the risk of impacting bus frequency.

2.2.15 KMC are working with CCC to undertake supplementary surveys and analysis, to collate further evidence to determine the impact and therefore support the removal of this short section of bus lane as part of the access proposals and Active Travel infrastructure improvements. This evidence and any updated plans will be provided as a separate report to this TAA in due course.

CCC TA Team Comment

2.2.16 *"I couldn't find any estimates about what sums the Section 106 was putting aside towards the services proposed. If this is because there is a simple commitment to support the services whatever the cost, this needs to be carefully worded in the Section 106 to ensure robustness. There may be sums in the appendices, but I couldn't open those – can you let me know if there are?*

There needs to be the ability for Section 106 bus funds to be placed on an alternative bus route if the network develops in an unexpected way before the supported bus services begin.

Also, funds for any local bus services (other than the U routes) should go to the Local Transport Authority (the CPCA) which will tender the new services or negotiate with existing operators."

KMC Response

2.2.17 Below is the S106 commitments from the original outline planning condition documents. There are two contributions for improving bus services as noted below:

Public Bus Transport Improvements Contributions*: means the sum of £600,000 (six hundred thousand pounds) Index Linked in accordance with Clause 19.1 hereof payable in accordance with paragraph 4.9 of Part 2 of Schedule 3 hereof for the purposes set out in Schedule 12 of this Deed;*

Public Bus Transport Subsidy

4.9 the Public Bus Transport Subsidy by way of the following instalments:-

4.9.1 £300,000 (three hundred thousand pounds) to be paid on Commencement of the First Dwelling to be constructed;

4.9.2 £300,000 (three hundred thousand pounds) to be paid either:

4.9.3 on Commencement of the 800th Dwelling to be constructed ;or

4.9.4 on First Occupation of any part of the Employment Floorspace whichever is the earliest;

*"**Public Bus Transport Improvements**" means the strategy prepared by the University as approved by the Shared Authorities and appended at Part 8 of Schedule 5 to this Deed; means the following bus service improvements:-*

(a) On the First Dwelling Occupation Date the enhancement of a bus service running between the Site and Cambridge city centre along the route shown coloured green on drawing number 10 annexed at Schedule 2 and operating at least every 20 minutes and the introduction of at least a 30 minute frequency Saturday service;

(b) on the 800th Dwelling Occupation Date the provision of a new service running between the Site and Cambridge city centre along the route shown coloured blue on drawing number 10 annexed at Schedule 2 and operating at least every 20 minutes Monday-Saturday daytimes and hourly in the evenings and on Sunday;

(c) from the First Occupation of the Employment Floorspace increasing the frequency of the bus service referred to in paragraph (a) above from at least every 20 minutes to at least every 10 minutes Monday to Friday and retaining the Saturday service of at least every 30 minutes;

(d) following the First Occupation of the Employment Floorspace and on completion of the radial route through the Site to increase the frequency of the service provided under paragraph (b) hereof to at least every 10 minutes on Monday-Saturday daytimes and at least every 30 minutes in the evening and on Sunday running the said service along the route shown dark blue on drawing number 10 annexed at Schedule 2;

2.2.18 The University contributed £300K, but under an agreement with Cambridgeshire County Council, it recovered £300K and agreed not to make the remaining contributions. This was on the back of evidence that the University has been funding the Stagecoach 4 route (which morphed into the Uni4), and ultimately the privately funded Universal route, open to all, including the general public, before the framework TP and the S106 requirements were set out. In 2023, an eight-year £13 million contract was awarded to Whippet to improve bus services in the north-west of Cambridge, linking the development, the central train station, and Addenbrooke's Hospital.

2.2.19 The approx. value. £1.6M per year (over the current term of the contract with Whippet), which exceeds the initial £600K value noted in the S106 document. There is no timeframe for our continued commitment to this service. However, the timeframe for the public bus improvements above, A and B, has passed in terms of occupations, but the rest (C and D) is not triggered at present, as we have not built out any employment floorspace.

2.2.20 UoC priced these requirements over a year ago to deliver (C and D) and were provided with an uplift in annual costs of £750K PA to implement the 10-minute frequency. Therefore, UoC maintain that they do not need to make any additional contributions beyond what they are already doing for public transport.

2.2.21 The second contribution is for a further substantial amount of £592K (index-linked from the 2013 - S106) to support the introduction of orbital bus improvement:

***Orbital bus contributions**: means the sum of £592,000 (five hundred and ninety-two thousand pounds) index-linked in accordance with Clause 19.1 hereof and payable in accordance with paragraph 4.10 of Part 2 of Schedule 3 hereof for the purposes set out in Schedule 12 of this Deed;*

***Orbital Bus Improvements**: means upon completion of the Through Road (which will complete the orbital route and have public transport priority) and after the 400th Dwelling Occupation Date and the provision of an orbital hourly service from the West Cambridge Site to the Cambridge Science Park along the route coloured orange on drawing number 10 annexed at Schedule 2;*

2.2.22 This ***Through Road*** has not been delivered by the developer of the NIAB development (Darwin Green) and remains an active S106 contribution requirement for the University towards public transport services. We have identified this as a potential U3 route in the Transport Assessment. Discussions between the University and the GCP are underway regarding a funding bid for the AV extension by the GCP, which would support this route, but this remains contingent on the Darwin Green route being available.

2.2.23 Based on the above, it is not considered that UoC should make any further contributions to public bus services as part of our future phase's application, as UoC have supplied a service above and beyond the original planning requirement of £600K, and benefits the wider communities around the NWCD and the city.

2.2.24 The 4/Uni4/Universal service has carried over 8.6 million passengers, 4.4 million of whom were non-university passengers, since it was funded by the University in 2003.

Car Parking

CCC TA Team Comment

2.2.25 *"11.5.3 states that based on the proposed split between Private Residential and Key Working Housing, an average of 0.43 spaces per dwelling would be realised. This as a level of provision is substantially lower than the North West Cambridge AAP and the previous 2013 consent. Further information should be given showing how this compares to the car ownership data collected for*

this application to show that this will be sufficient and avoid overspill parking in the Park and Ride for example. This should help the LPA to take a view on the parking levels."

KMC Response

2.2.26 The 2024 resident survey has informed the site-wide parking strategy. The table below summarises car ownership.

Number of Vehicles	Count	Percentage
0	53	50%
1	49	46%
2	4	4%
Total	106	100%

Table 2.1: Eddington Car Ownership 2024

2.2.27 The ratio of 0.43 spaces across the site is an average. All private residential dwellings will have a parking space (1:1 ratio). Therefore, the ratio of parking spaces on a plot-by-plot basis will vary depending on the mix of private and key worker housing.

2.2.28 Residents of the Key Worker Housing in Eddington are currently able to purchase monthly car parking permits for £85 per permit. The 2024 survey data from Eddington shows that there is only a 10% uptake in car parking permits amongst residents of Key Worker Housing (KWH). This demonstrates the relatively low demand for car parking on-site. There are still surplus parking spaces in Phase 1 for Key Worker parking permit holders. It is therefore not proposed to provide any additional parking for key workers. Key worker parking permits are monitored by UoC in the form of a Parking Monitoring Report which is submitted to CCC. The table below summarises the planning conditions relevant to the monitoring of parking associated with key worker housing.

Planning Ref:	Condition Ref:	Lot Ref:	Details of conditions advised.
13/1748/REM	13	1	Data shall be collected on an annual basis from the anniversary following the first occupation to identify the number of applicants for key worker housing parking spaces. The outcomes of this data shall be submitted with, and inform parking strategies for any key worker housing development within phases 2 to 7 as identified through the approved phasing strategy.
15/1553/S73	13	S73	
14/1722/REM	3	2	Data shall be collected on an annual basis from the anniversary following the first occupation until all Key
13/1827/REM	5	3	

S/1447/14/RM & 14/1028/REM	7	4	Worker homes are occupied within Phase 1, as identified through the approved site-wide phasing plan, to determine the number of applicants for Key Worker housing parking spaces. The outcomes of this data shall be submitted with, and inform parking strategies for any key worker housing development within phases 2 to 7 as identified through the approved phasing strategy.
14/0109/REM	4	8	
13/1400/REM	10	5	A report shall be submitted to the local planning authority detailing the number of license applications applied for to the University of Cambridge to own a motor vehicle from residents this development hereby approved, along with the number of these licenses approved. This shall be submitted on an annual basis from the anniversary following first occupation, until any further student accommodation is approved on the North West Cambridge Development Site. The outcomes of this review shall inform any subsequent reserved matters applications, and the parking strategy for subsequent applications for student accommodation shall address any under-provision.

2.2.29 Key workers are generally a transient population who stay in Eddington between 1 and 3 years. Car ownership for a such a short duration is seen as an inconvenience. Therefore, feedback at the various public consultations made it clear that this group is more interested in shared mobility, public transport and access to car clubs when a car trip is required.

CCC TA Team Comment

2.2.30 *"11.5.4 states that No specific visitor car parking for the residential neighbourhoods is proposed. Again, further info is required justifying that this will be sufficient to accommodate visitor and not lead to overspill parking."*

KMC Response

2.2.31 For visitors, Eddington currently offers cashless on-site car parking. The 'JustPark' or Ringo App' or a ticket from on-site car parking machines can be used. The first 60-minute of any stay is currently free of charge. For visitors to extend their stay beyond the first house, a payment is required. Most visitor car parking bays allow for a maximum period of 2 hours and no return with 1 hour. The tariffs are as follows:

- Up to 1 hour – free
- Up to 1 hour 30 minutes - £1
- Up to 2 hours - £2
- Up to 2 hours 30 minutes - £3

- Up to 3 hours - £4
- Up to 3 hours 30 minutes - £5
- Up to 4 hours - £6

2.2.32 Car parking charges currently apply between Monday-Friday 08:00-18:00 and Saturday-Sunday 10:00-17:00, both respectively including public holidays.

2.2.33 Visitors are also encouraged to park at the Madingley Road Park and Ride site to the south of the development. This is located just a 5-minute walk from Eddington local centre.

2.2.34 Visitor parking will therefore continue to be managed in this way across the entire site. Visitors will be able to park in empty resident parking bays and will be subject to the above charges for doing so.

2.2.35 All Eddington Residents are able to buy Visitor permits for their guests at a cost of £2.80 per day up to a maximum of 100 days per household per year. Visitor permits allow guests to park in any on-street pay-and-display space for up to 24 hours and can be used consecutively. Visitor permits are purchased through a phone app.

2.2.36 Blue badge holders can park for free, in designated bays only. Blue badge and clock must be displayed when parking. Parking bay maximum stay limits apply.

2.2.37 Free permits are available for residents who need health care visitors to receive medical treatments, using an application process which mirrors the process used by Cambridgeshire County Council.

2.2.38 The take-up of visitor parking permits has been low to date. This visitor permit system will apply to the future phases.

2.2.39 The parking details for each plot will be detailed at the Reserved Matters stage.

Cycle Parking

CCC TA Team Comment

2.2.40 *"The TA states in 11.6.11 that a minimum of 1,115 cycle parking spaces is likely to be required for the commercial element of the proposals. Additional visitor cycle parking will also be provided. Again, it would be helpful to cross reference this to the expected number of cycle trips generated by these uses."*

KMC Response

2.2.41 The trip generation calculations estimate 3,556 total daily person-trips to commercial land uses (academic + employment). 1,115 cycle spaces would accommodate 31% of total person trips by bike, plus a buffer allowing for daily crossover of trips (i.e. the same cycle stand being used more than once throughout the day). TRICs data collected for existing UoC employment/academic sites evidenced 30% cycle mode share.

CCC TA Team Comment

2.2.42 *"Two new primary mobility hubs are included within the masterplan for the Future Phases at NWCM, along with a series of neighbourhood Mobility Hubs, these are welcomed and will encourage sustainable transport within the site."*

KMC Response

2.2.43 This comment is welcomed, and KMC note how these will further encourage sustainable travel.

Active Travel

CCC TA Team Comment

2.2.44 *"Further information should be provided assessing how the cycle trips to/from the development reach Eddington from areas outside the development to ensure there are no missing links etc. E.g. from Huntingdon Road north west of the site."*

KMC Response

2.2.45 As outlined previously in this TAA, the ATE WRAT Tool has now been completed noting the very successful large Sainsbury's on-site for food and utilities. A note summarising the WRAT Tool is attached in **Appendix C.**

Trip Generation and Modelling

CCC TA Team Comment

2.2.46 *"Section 13.1.3 of the TA states that the trip modelling section deals with the trip generation of the worst-case development scenario, by accounting for the maximum GFA for land use scenarios that maximises car driver trip generation. This is agreed with CCC for assessment purposes."*

KMC Response

2.2.47 This agreement is noted and welcomed.

CCC TA Team Comment

2.2.48 *"When calculating the walking, cycling and public transport trips, and the distribution of these, has a worst case also been taken e.g. does this include the maximum number of sustainable mode trips or is it potentially lower due to assuming land uses with more car trips? Confirmation is required."*

KMC Response

2.2.49 KMC can confirm that a robust reasonable worst-case scenario has been assumed when calculating the impact of walking, cycling and public transport trips. Sustainable trip numbers,

used to assess the impact of NWCM, have been calculated based on the vehicle trip budget not being exceeded, and specifically the revised NWCM vehicle trips detailed in Table 13.9 of the TA.

CCC Team Comment

2.2.50 *"The 2012 NWC Transport Assessment, submitted in support of the NWCM outline planning application, included a Person Trip Analysis which was reviewed and approved by the CCC and forecast the following AM and PM peak hour development. This has been used as a vehicle trip budget for this 2025 application."*

"*These consented trips will have already been accounted for in any demand modelling undertaken and resulting transport infrastructure agreed and implemented in the area*."

KMC Response

2.2.51 This agreement from CCC is noted and welcomed. KMC specifically note CCC's helpful point that the consented trips (used as a trip budget for NWCM), which are shown within the NWCM TA to not be exceeded by this 2025 application across the local and wider road network, have already been accounted for in any demand modelling undertaken and resulting transport infrastructure agreed and implemented in the area. KMC therefore consider this position from CCC supports the NWCM Transport Strategy as currently proposed within the TA and TP.

CCC TA Team Comment

2.2.52 *"Surveys have been undertaken in 2024 by the university to establish trip generation and mode share etc by the existing development. The 2012 consent assessed 36% mode share by car driver, whereas the surveys show that a much lower mode share is being achieved with just 14% of trips being car drivers. This is a very positive outcome of the existing development and CCC agrees is a good basis for assessing future trips."*

KMC Response

2.2.53 This comment is noted and welcomed by KMC and supports the proposed NWCM Transport Strategy, which has been determined based on the assessment of future trips using the exemplar Eddington database.

CCC TA Team Comment

2.2.54 *"If the mode share targets for this development are not achieved, what measures are proposed to help bring this back down to achieve the targets and what funding is available to ensure this can happen? Further information is required."*

KMC Response

2.2.55 As outlined in the TA, CCC TA Comments and this TAA, NWCM offers an exemplar, already successful, sustainable infrastructure upfront that has been followed through into the Design Code and proposed Transport Strategy. The TA, successful and exemplary Travel Plan, Transport

Strategy, NWCM Design Code and precedent already set for low private car mode share, have all been used to determine, assess, encourage and provide for sustainable trips early as part of a Vision Led Approach.

2.2.56 Furthermore, as outlined in the TP, in having a long-term investment in NWCM, the UoC will continue to be the steward for the new community. Notwithstanding this, as per paragraph 10.72 of the S106 for the previous outline planning consent, the long-term aim is to hand over the stewardship of the Travel Plan to residents after a 20-year period after the start of construction.

2.2.57 The UoC is dedicated to fostering long-term stewardship at NWCM, ensuring a continuous commitment to maintain the quality and integrity of the development and its public spaces. This effort aims to establish a more sustainable and improved development model for future generations, and this has already been demonstrated through the success of Phase 1.

2.2.58 Going forward, a Monitor & Manage Strategy, which forms part of the TP and has already been developed and implemented as part of Phase 1, will be developed and enhanced to bring forward parts of the already proposed and committed Transport Strategy, in the phasing programme, should they be deemed necessary. This will be done through regular reviews and updates undertaken by the Site Wide Travel Plan Coordinator (and Site Specific Travel Plan Coordinators/Representatives), to reflect the evolving needs of NWCM, as outlined in the TP. For example, as the UoC will continue to operate the Universal buses to serve NWCM, this offers the benefit of allowing these services to be monitored and managed accordingly through the TP and used as a direct measure to meet future phased demand in real time.

CCC Team Comment

2.2.59 "In order to ensure the trip cap/budget is not exceeded a robust monitoring scheme should be agreed with CCC. If the cap is being approached, then additional measures should be put in place to improve sustainable trip numbers."

KMC Response

2.2.60 See comment above.

CCC TA Team Comment

2.2.61 "Appendix H outlines the Trip Generation methodology. H 1.20 states that an alternative first principle-based approach to trip generation has been taken for the employment uses given the bespoke nature of the proposals when compared to a typical office or commercial scheme. This is based on evidence used and approved for other similar employment sites around Cambridgeshire. Further details should be provided along with a TRICS comparison."

KMC Response

2.2.62 UoC have been working closely with the team at TRICs to provide calibrated survey data, to populate the TRICs database, with UoC sites across Cambridge.

2.2.63 KMC can confirm that the employment sites used to determine trip rates are sites now included within the TRICs database (and therefore calibrated by TRICs), including the employment plots within West Cambridge that shares the same characteristics as NWCM and used to formulate the trip rates used.

CCC TA Team Comment

2.2.64 *"H 1.164 states that Primary education trips are assumed to be focused at the UoC Primary School, which was purpose-built to serve North West Cambridge. A 90% distribution is therefore assigned to this school. Further information is required showing that the predicted 90% of trips to the UoC school can be accommodated and would not have to go further away to other external schools which could have an impact on the mode shares."*

KMC Response

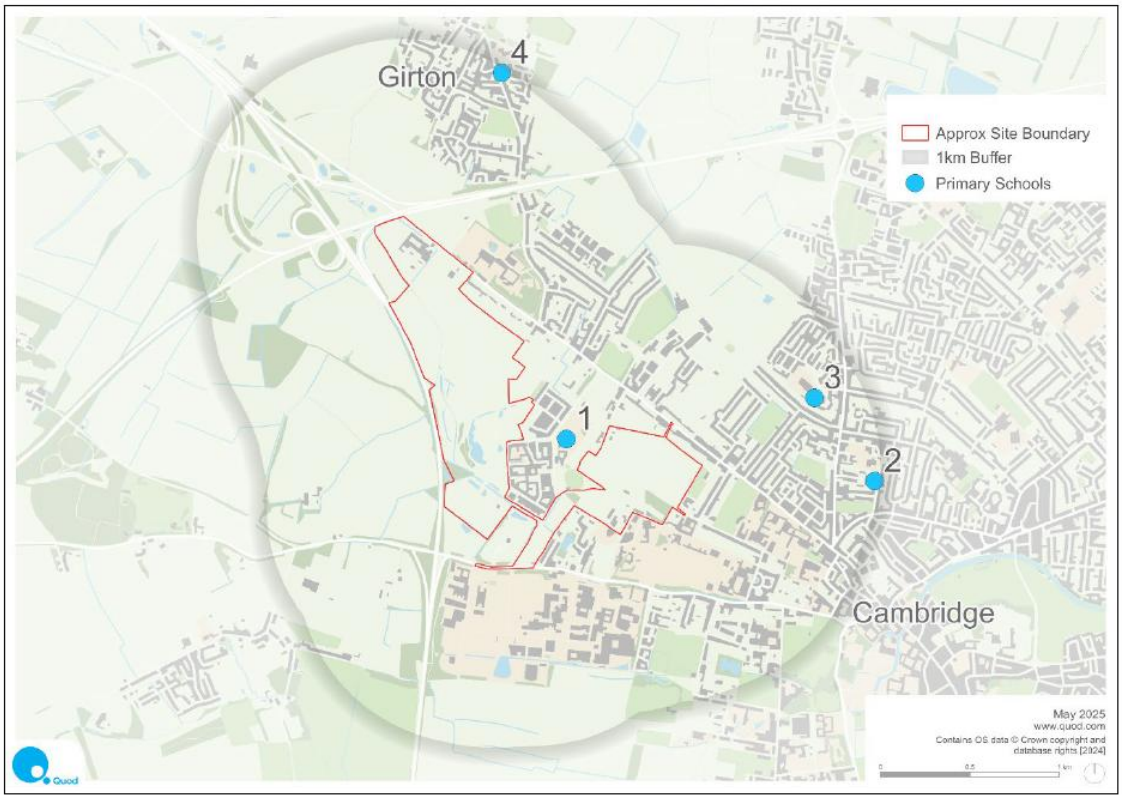
2.2.65 The closest primary school to the site is University of Cambridge Primary School which was delivered within Phase 1 of the 2013 OPP. This school currently has a surplus capacity of 4 places, equivalent to 1% of capacity. The school has a capacity for 630 pupils. At the moment, the school is serving a wide catchment, but over time, this will be phased to prioritise pupils living within the site.

2.2.66 The new residents living within the Proposed Development would increase the local demand on school places. The estimated child yield for the Proposed Development (under Maximum Parameters using the two methodologies outlined in the 'Assessment Methodology' section of the Socio-Economics ES Chapter 6) indicates there would be 351 to 747 children of primary school age from the future phases of the site. The total primary school places expected to be accommodated across Phase 1 and the Proposed Development (under Maximum Parameters) is 463 to 860, equating to 2.2 to 4.1 FEs.

2.2.67 The Future Baseline outlines that places at the existing University of Cambridge Primary School (delivered within Phase 1) will prioritise residents of the site under the "distance to the school gate" principle.

2.2.68 There are three further primary schools within 1km of the site, which are therefore within walking and cycling distance of the site should pupils wish to attend an alternative primary school, as shown on **Figure 2.1**.

Figure 2.1: Primary Schools in Local Area



CCC Team Comment

2.2.69 *"With regards to mode shares for education trips, H1.81 states that the mode shares for education trips were derived from professional judgement, accounting for typical travel behaviour by age group and the proximity of schools to the site. This is likely but is there any survey information available from the school to back this up?"*

KMC Response

2.2.70 The mode split for the Primary School recorded by the travel survey is summarised in the **Table 2.2** which is from the 2024 Monitoring Report. The survey was asked of parents / guardians as a proxy for hour pupils travel to school. 51% cycled in 2024. This mode share has been broadly consistent across survey years. The pedestrian mode share has varied been broadly consistent around 20%, with the exception of 2024 where it dropped to 12%. As the future phases masterplan is built out, residents of the site will be prioritised under the "distance to the school gate" principle. It is forecast that the car mode share will shift to walking as a result.

Table 2.2: Primary School Mode Shares

Year, Number of Respondents and Percentage	Walking	Cycling (incl. tandem)	Bus (incl. U Bus)	Train	Taxi	Car (incl. car share)
2018	9 (12%)	24 (33%)	1 (1%)	0 (0%)	0 (0%)	39 (53%)
2019	39 (17%)	92 (39%)	7 (3%)	0 (0%)	0 (0%)	96 (41%)
2020	56 (17%)	149 (46%)	2 (1%)	1 (0%)	0 (0%)	114 (35%)
2021	13 (21%)	33 (52%)	0 (0%)	0 (0%)	0 (0%)	17 (27%)
2022	25 (21%)	48 (41%)	3 (3%)	0 (0%)	0 (0%)	41 (35%)
2023	34 (23%)	71 (49%)	2 (2%)	1 (1%)	1 (1%)	33 (23%)
2024	5 (12%)	21 (51%)	2 (5%)	0 (0%)	0 (0%)	13 (32%)
Travel Plan Targets Sustainable Travel Modes: 60>% Car (Inc. car share) mode: <40%	**Actual: 68%** (2023-76%, 2022- 65%, 2021- 73%, 2020-64%, 2019-59%, 2018-46%)				**Actual: 32%** (2023-24%, 2022-35%, 2021-27%, 2020-35%, 2019-41%, 2018-53%)	

CCC TA Team Comment

2.2.71 *"The TA states in H.1.78 For trips that begin and end within the site (internal trips), a blanket mode share of 50:50 walking and cycling has been applied. Are there any trips undertaken by other modes?"*

KMC Response

2.2.72 The National Travel Survey (England, 2024 data — published August 2025) shows that the majority of trips under 1mile are undertaken on foot. The future phases masterplan supports pedestrian and cycle connectivity, prioritising these desire lines over vehicular traffic. The mode share exhibited by existing residents of Eddington also supports the predicted pedestrian and cycle mode share. This approach allows for a worst-case test of active travel infrastructure. Travelling by car will not be desirable due to parking restrictions. If residents choose to travel by car for internal trips, this will not impact the off-site trip budget.

2.2.73 Residents with mobility needs will be able to use the bus to travel within the site if required.

CCC TA Team Comment

2.2.74 *"In table 13.9 it is not clear exactly what the 'future phases' element includes and how it has been calculated. Clarification is required."*

KMC Response

2.2.75 The 'future phases' element in this table accounts for vehicle trips associated with the proposed number of dwellings beyond the already occupied Phase 1 dwellings (i.e. those accounted for in the onsite trip generation surveys). The vehicle trip rates determined and used for these future phases then accounts for the exemplar evidence of sustainable trip making outlined throughout the TA.

CCC Team Comment

2.2.76 *"Appendix I includes the flow distribution diagrams. Some of the figures within these appear to be not showing. Clarification on these figures is required with amended information.*

Some of the flow diagrams state they are v's GCP scheme, please provide further clarification on what this means and includes. Observed Flows + West Cambridge (Comparison vs GCP Madingley Road Scheme): AM Peak"

KMC Response

2.2.77 This has arisen from producing a PDF direct from the excel spreadsheet. The relevant raw spreadsheet tabs have since been issued to CCC on 19/12/2025 for review.

2.2.78 The 'vs GCP scheme' provides a comparison between the vehicle flows calculated as part of the NWCM TA and the flows predicted by the GCP as part of the Madingley Road Scheme, which accounts for a significant uplift in public transport trip making and therefore much lower vehicle flows along Madingley Road than assessed within the NWCM TA – therefore meaning NWCM offers a reasonable robust worst case when estimating car trips. This comparison was included to highlight how the NWCM TA still accounts for a robust level of vehicle trip making, and existing vehicle movements along Madingley Road, compared to the planned strategic future of Madingley Road, which is currently designed to encourage an uplift sustainable trips – a matrix of walking & cycling trips across and along Madingley Road alongside better reliability and accessibility for buses. The NWCM ultimately provides a robust vehicle impact assessment, when compared to the future strategy of Madingley Road.

CCC TA Team Comment

2.2.79 *"Given the success of Phase 1 with vehicle trips falling well short of what was assessed and mitigated for in Highways capacity terms in the original Transport Assessment and application, the TA states that off-site highway schemes are limited, with a focus instead on sustainable travel improvements. This is acceptable in principle, however if the modelling shows certain capacity issues that have arisen since then with the amount of time that has passed then CCC reserve the right to ask for additional modelling and mitigation if necessary."*

KMC Response

2.2.80 This is welcomed. KMC seek a definitive response on capacity modelling, noting that the previously consented trip budget is not expected to be exceeded at any offsite junction, as evidenced in the TA. Whilst traffic and junction capacity has changed since the previous consent, the previous permission and therefore trip budget remain valid. And as confirmed by CCC in their response note (dated 21st November 2025), "…..these consented trips will have already been accounted for in any demand modelling undertaken and resulting transport infrastructure agreed and implemented in the area".

CCC TA Team Comment

2.2.81 *"Additional junctions along Madingley Road and Huntington Road have not currently been modelled. On the basis that the objective is not to exceed the trip cap and to ensure the high sustainable mode shares are achieved, additional junction models are not required at this time. This is on the basis that the mitigation for the development would go towards delivering improvements for sustainable modes along Madingley Road and Huntingdon Road. Should questions arise in the future about the operation of other junctions CCC may have to request additional data."*

KMC Response

2.2.82 Confirmation of additional models not being required is welcomed. As outlined above, KMC seek a definitive response on whether additional data is sort from CCC in a timely manner, noting that the previous planning consent and trip budget remain valid and the fact that consented trips will have already been accounted for in any demand modelling undertaken and resulting transport infrastructure agreed and implemented in the area.

CCC Team Comment

2.2.83 *"The modelling needs to be assessed by colleagues, once this has been undertaken the results and any resultant mitigation can be agreed."*

KMC Response

2.2.84 This is noted and KMC await further confirmation from CCC on this matter. Again KMC seek a definitive response on any forthcoming modelling comments, or not, and whether additional data is sought from CCC in a timely manner, noting that the previous planning consent and trip budget remain valid and the fact that consented trips will have already been accounted for in any demand modelling undertaken and resulting transport infrastructure agreed and implemented in the area.

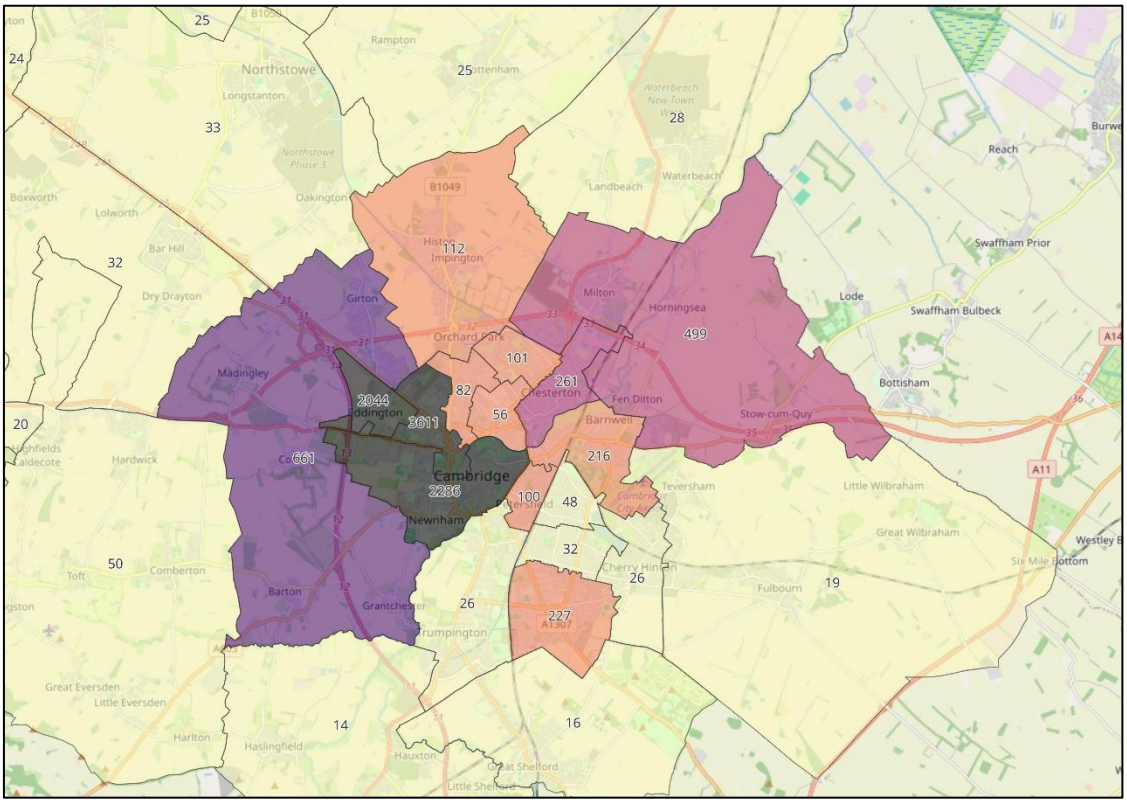
CCC TA Team Comment

2.2.85 *"The above table taken from the TA shows that there will be a significant number of cycle trips generated by this development. Around 8,800 additional cycle trips could potentially filter out onto Madingley Road via various routes and have an impact crossing and/ or along it. Further information showing the distribution of these trips onto Huntingdon Road and Madingley Road is requested."*

KMC Response

2.2.86 KMC have undertaken further analysis to show the expected off-site destinations of cycle trips. **Figure 2.2** below shows the daily two-way cycle trips expected to be generated by NWCM.

Figure 2.2: Daily Two-Way Cycle Trips (NWCM)



2.2.87 These key destinations have then been used to undertake an audit of potential off-site cycle routes from NWCM by KMC, as outlined in Paragraph 3.2.8 above. The full audit for off-site cycle routes is contained within **Appendix C**.

CCC TA Team Comment

2.2.88 "There is a GCP scheme proposed for improving the cycle and walking routes along Madingley Road. This requires funding from developers as well as other sources. Adding a significant number of additional trips onto this route will require a contribution towards its implementation to help mitigate the impact of the development. The amount should be secured via a S106 contribution and agreed with CCC prior to any permission being granted."

KMC Response

2.2.89 KMC note that the UoC are already contributing a significant sum towards Madingley Road improvements alongside West Cambridge. This comment will be discussed further through S106 discussions, to allow for all S106 monies being sought to be aligned appropriately to NWCM in regard to the need to be; necessary to make NWCM acceptable in planning terms, directly related to NWCM, and fairly and reasonably related in scale and kind to NWCM.

CCC Team Comment

2.2.90 "There is also a proposed cycle improvement scheme along Huntingdon Road. Contributions to this scheme would help mitigate the impact of the development once the trips leave the site. An amount should be secured via a S106 contribution and agreed with CCC prior to any permission being granted."

KMC Response

2.2.91 KMC can confirm that the proposed NWCM Transport Strategy already includes for a scheme to improve Active Travel along Hunts Road, including cycle lanes, crossings and points of access. In a post app meeting, CCC agreed these can be conditioned (or S106) on 08/01/2026 and therefore separate to Access Technical Approval, subject to improvements being shown to be viable.

2.2.92 Again, any S106 contribution being sort by CCC, will be discussed further through S106 discussions, to allow for all S106 monies being sought to be aligned appropriately to NWCM in regard to the need to be; necessary to make NWCM acceptable in planning terms, directly related to NWCM, and fairly and reasonably related in scale and kind to NWCM.

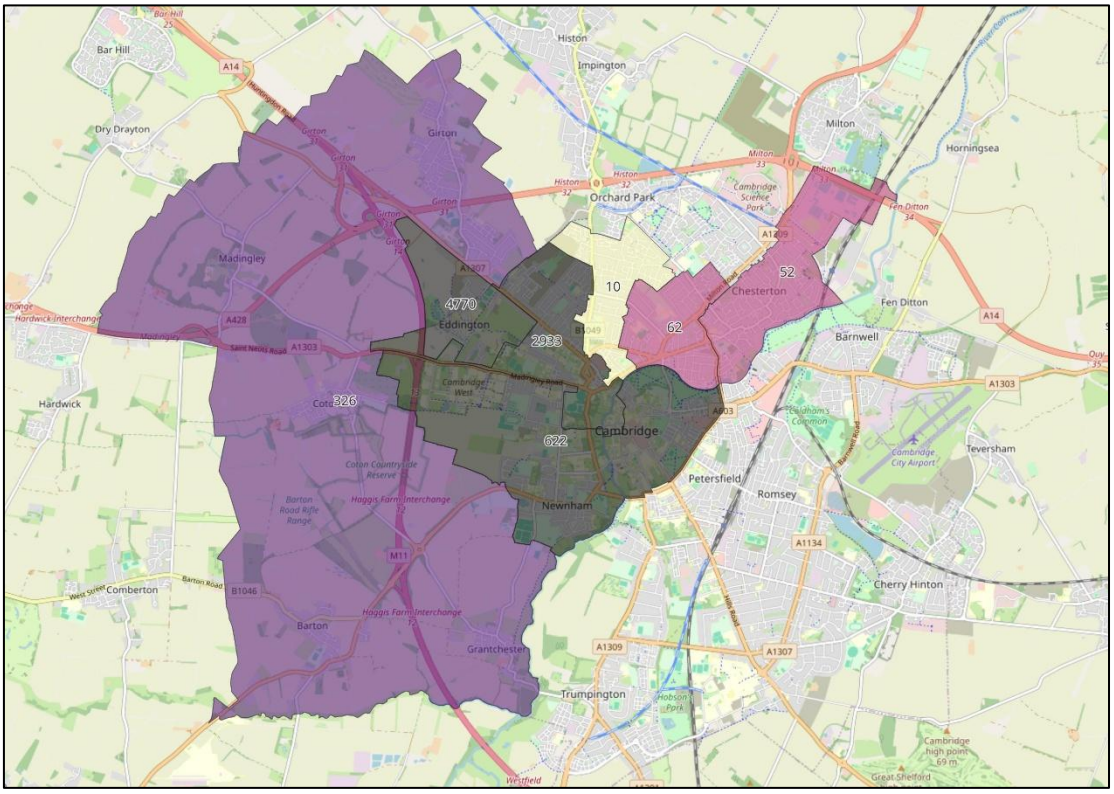
CCC TA Team Comment

2.2.93 "Table 13.6 of the TA states that an additional 6,004 walking trips would be generated by this proposed development. It would be useful to have a breakdown of the proposed routes these trips would take, similar to that which has been helpfully provided from cycle trips. Further information should be provided."

KMC Response

2.2.94 KMC have undertaken further analysis to show the expected off-site destinations of walking trips. **Figure 2.3** shows the daily two-way walking trips expected to be generated by NWCM. It should be noted that the 326 daily trips to the west of the site are mainly to/from Girton but have been grouped within this large MSOA that wraps around NWCM.

Figure 2.3: Daily off-site Walking Trips (NWCM)



2.2.95 These key destinations have then been used to undertake an audit of potential off-site walking routes from NWCM by KMC, as outlined in Paragraph 3.2.2 above, using the Walking Route Audit Tool (WRAT). The full audit for off-site cycle routes is contained within **Appendix C**.

CCC TA Team Comment

2.2.96 "The Cambourne to Cambridge bus route scheme will provide enhanced accessibility from the areas West of Cambridge, including new developments and settlements. This would be beneficial to NWC development, and a contribution may be required towards this scheme. Any contribution amount should be secured via a S106 contribution and agreed with CCC prior to any permission being granted"

KMC Response

2.2.97 The proposed NWCM bus strategy is shown within the TA to meet the exemplar and high bus demand of NWCM without C2C. Nevertheless, the benefits to the wider network generated by C2C are welcomed.

2.2.98 UoC therefore do not propose to provide additional S106 contributions towards C2C, as the proposed NWCM Bus Strategy sufficiently mitigates the demand for bus travel, as demonstrated by the TA. Furthermore, the C2C strategy is intended to support access by Cambourne residents to Cambridge employment locations, whereas NWCM strategy is to provide employment and residential units in one community adjacent to Cambridge. The C2C Strategy and NWCM Transport Strategy do not therefore align and the reasonable and sound trigger (necessary plus

directly, fairly and reasonably related in scale and kind to NWCM) required to justify a S106 contribution obligation to C2C is not met.

CCC TA Team Comment

2.2.99 *Following receipt of the above comments from CCC TA Team, CCC Signals Team have also provided comment on the LinSig junction modelling outputs provided with the NWCM TA.*

2.2.100 *These comments included for a RAG Tracker reviewing each model (NW / Huntingdon Road Site Access, Huntingdon Road / Eddington Avenue / LWR, and Madingley Road between Eddington Avenue & M11 Slips).*

KMC Response

2.2.101 KMC have reviewed the RAG Tracker comments and have updated each model accordingly - the key update being merging the Huntingdon Road and Madingley Road models, respectively as linked junctions.

2.2.102 KMC attach an updated RAG Tracker, accounting for the model updates, and the full output models in **Appendix D**. These models compare (1) Baseline + OPP Trip Budget, against (2) Baseline + NWCM Revised Trip Generation, accounting for the timeline of all committed development approved post the OPP being on the network after NWCM.

2.2.103 In conclusion, these updated models show that the Huntingdon Road and Madingley Road corridors operate within capacity when accounting for the full addition of NWCM and with significant betterment when compared to the OPP Trip Budget Scenario. The northwest Huntingdon Road site access is also shown to operate well within capacity in the future design years.

2.3 Active Travel Team

Access and Movement Framework

CCC Active Travel Team Comment

2.3.1 *"Phase 1 has proved to be successful in terms of modal share for active and sustainable transport, and the proposals are welcomed in terms of continuing the focus on active travel provision. Some amendments are, however, needed to make the application acceptable particularly with regard to the Access & Movement Parameter Plan."*

KMC Response

2.3.2 Noted. The comments on the Access and Movement Parameter Plans have been incorporated in the updated plans.

CCC Active Travel Team Comment

2.3.3 *"There are missing links on the plan, shown in red above, which should be included, particularly the link to Pheasant Drive and links to the sports pitches and allotments (as stated in the Design Code SW.54). The existing well-used link from Madingley Rise to Storey's Way is not mentioned or highlighted. Will this remain? There is a missed opportunity to improve this narrow link by providing a wider path across as shown. The alternative route via Gravel Hill is a longer detour and takes users via a potential conflict point where the road and shared used paths cross each other. The existing route, just opened, running parallel to Eddington Ave up to Storey's Field is also missing from the plan as is the ridgeway as it goes through Eddington Place"*

KMC Response

2.3.4 The link from Pheasant Drive to the sports pitches and allotments is now shown on the Parameter Plan.

2.3.5 The direct route through the academic area shown on the plan is to remove pressure from the substandard path which exists. It is slightly longer but through a more detailed design / RMA can be made more direct.

2.3.6 Noted regarding the existing route running parallel to Eddington Ave up to Storey's Field. This has been added to the Parameter Plan.

CCC Active Travel Team Comment

2.3.7 *"The section of the Ridgeway adjacent to the Common is shown on the Parameter Plan as shared use whilst on the indicative plan it is unclear what is proposed (marked in yellow below)*

This should continue the segregated provision either side – as highlighted in response to the 'Lessons for Phase 2' section within the active travel audit which states 'continue segregation on key desire lines'. The Parameter plan should be amended to reflect this.

The plan shows vehicular access from Madingley Rise into Gravel Hill but no connecting roads are shown on the movement diagram in the Design and Access Statement. Clarity is needed regarding vehicular access here and confirmation that this will not be a through route."

KMC Response

2.3.8 Noted. The Parameter Plan has been updated to show the Ridgeway as a continuous segregated cycle route.

2.3.9 The route between Madingley Rise into Gravel Hill is as per the previous consent and will not form a vehicular through route.

Access Considerations

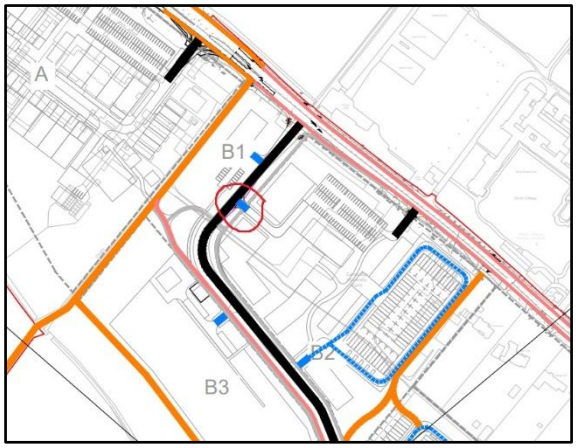
CCC Active Travel Team Comment

2.3.10 *"The access to the southeast of the Cartwright Ave access appears to be only to a car park Was a continuous footway considered at this location? Justification is needed as to why this is designed with vehicular priority. The shared path across the access into Innovation Street is set back which would allow most vehicles to turn in and give way to people crossing. Justification is needed as to why a priority crossing has not been proposed here"*

KMC Response

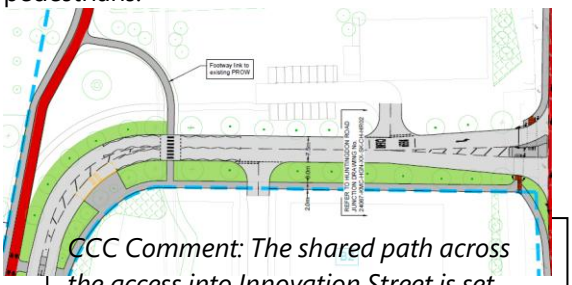
2.3.11 KMC sought clarification regarding this comment. The plans on the left.

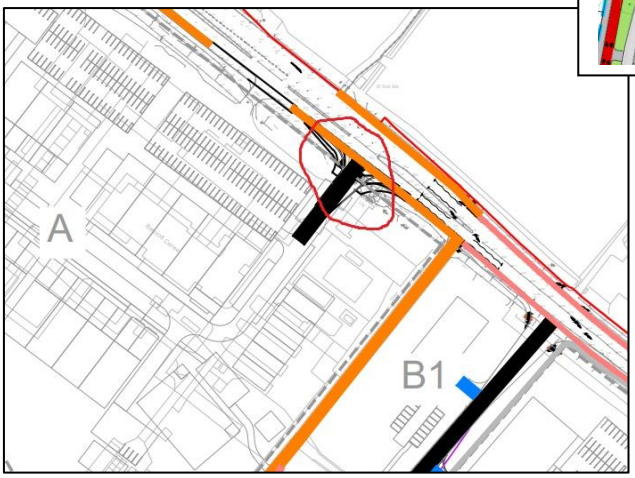
Figure 2.4: Cartwright Avenue Plans



CCC comment: The access to the southeast of the Cartwright Ave access appears to be only to a car park Was a continuous footway considered at this location?

KMC Response: The footway is set back in the location to provide the most direct route for pedestrians. As part of the reserved matters application, the junction into the car park from Cartwright Avenue will give priority to pedestrians.





CCC Comment: The shared path across the access into Innovation Street is set back which would allow most vehicles to turn in and give way to people crossing. Justification is needed as to why a priority crossing has not been proposed here.

KMC Response: The drawing has been updated to show a priority crossing in this location and at the commercial access north of the new junction with Cartwright Avenue.

Design Code

CCC Active Travel Team Comment

2.3.12 *"The Active Travel diagram is poor with different types of routes hard to distinguish. As above the existing route between Madingley Rise and Storey's Way is not shown."*

KMC Response

2.3.13 Note. The diagram has been refined to make the different routes clearly distinguishable.

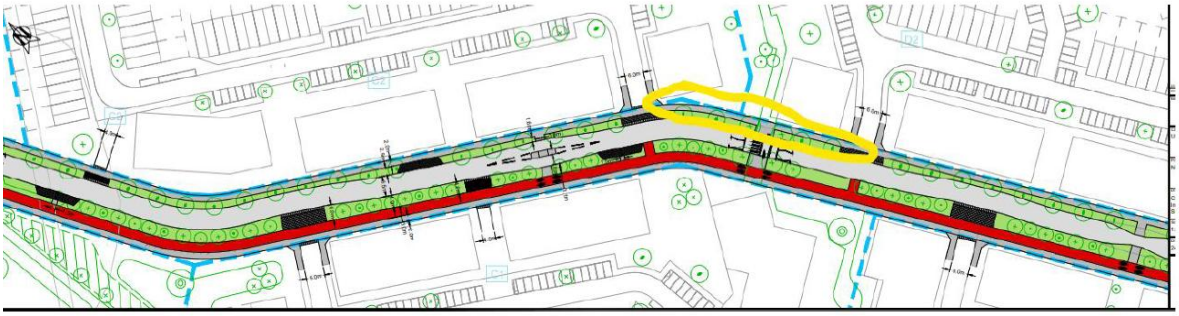
CCC Active Travel Team Comment

2.3.14 *"The use of a bi-directional cycleway, whilst not considered the optimum provision, is acceptable but leads to some complicated manoeuvres where it joins the existing uni-directional provision as set out in the indicative roundabout shown at the junction with Eddington Ave and Cartwright Ave which is confusing and does not cater for all movements. The bi-directional provision also means that connecting to crossing points from the side roads will be difficult and likely to lead to some users cycling on the footway – the location below for example." (Full image provided in consultation response)*

KMC Response

2.3.15 There considered to be few instances where cyclists would need to cross from the northern side of Cartwright Avenue to the southern side. The northern side will have routes east and west connecting to the Ridgeway and servicing desire lines. Where crossing may be required, there are clear crossing facilities provided as per the example include in the response comment.

Figure 2.5: Bidirectional Cycle Route



2.3.16 The neighbourhoods to the north of Cartwright Avenue are lower density. If uni-directional cycle lanes were provided on both sides of the road, cyclist would need to cross back and forth. Observations from Phase 1 shows that cyclists do not do this, instead they use the uni-directional cycleways as bi-directional.

2.3.17 The provision of a bi-directional route on the western side of Cartwright Avenue serves the vast majority of the future phases population, meaning that cyclists do not need to cross Cartwright Avenue.

CCC Active Travel Team Comment

2.3.18 *"Cycle Parking: the following needs to be added to para SW.60 or SW.62 'Visitor cycle parking must be provided for all apartment blocks and must be located close to main entrances."*

KMC Response

2.3.19 Noted. This has been added to the Design Code – SW.58.

CCC Active Travel Team Comment

2.3.20 "Community Lane: The illustrative diagram for CL.14 & CL.15 is not visible and it is not clear how the community lane will integrate with the neighbourhood movement loops in terms of active travel. CL.16 states that the lane must be a minimum of 3m wide. Whilst the stated overestimation of cycle numbers on each route is noted, consideration should be given to widening the shared path where there is no amenity space as LTN 1/20 recommends 4.5m for cycle movements above 300 per hour."

KMC Response

2.3.21 The majority of the length of the Community Lane will be more than 3m in width to accommodate the anticipated peak cycle flows of circa 500 cyclists in the AM and PM period (as a worst-case scenario). This wouldn't be on the entire route. The ability to reduce to 3m allows opportunities to create narrowed sections to keep the lane slow. This is not the only cycle route; cyclists can also use Cartwright Avenue and Brook Leys.

2.3.22 In addition to the shared user path sections the Community Lane will include separate play / public amenity space, reducing the demand on the movement corridor.

CCC Active Travel Team Comment

2.3.23 "The diagram labels on p155 for Cartwright Ave & the Common do not correspond with any of the above paragraph numbers."

KMC Response

2.3.24 Noted. This been updated.

Mitigation

CCC Active Travel Team Comment

2.3.25 "The mitigation measures proposed, including the re-surfacing and widening of footpath 99/4 and proposed changes to phase 1 are supported although additional crossing points have not been proposed for the Eddington Ave junction with Huntingdon Rd as suggested in the review:

Review the potential for incorporating crossing facilities at or near the Huntingdon Road junction in light of up-to-date traffic and travel mode survey data and capacity modelling."

KMC Response

2.3.26 A review of the corridor concluded that new and existing crossings are already provided along Huntingdon Road. Vanessa Kelly agreed on 08/01/2026 that crossings at the Eddington Avenue junction would not be appropriate.

CCC Active Travel Team Comment

2.3.27 "The audit of the surrounding infrastructure connecting the site to key destinations is limited in scope and does not identify gaps/poor provision which could be improved such as the crossing of Whitehouse Lane which forms part of the route from Eddington to Darwin Green and where visibility is poor and Madingley Rd west of the Greater Cambridge Partnership scheme, linking to the facilities in Coton and Madingley which is poor in terms of surfacing and width."

KMC Response

2.3.28 A further detailed audit of off-site walking and cycling routes has been undertaken by KMC. The audit has assessed routes to potential destinations such as Railway Stations, Schools and other day-to-day facilities/amenities.

2.3.29 The audit has been prepared in reference to the UK Government WRAT audit tool and other design guidance, such as LTN 1/20 and Manual for Streets. Please see section 3.2 of this TAA for the full response and findings of the audit.

CCC Active Travel Team Comment

2.3.30 "Changes to phase 1 should also include the addition of a flush kerb to allow better transition from the shared use on Madingley Rd to the segregated cycleway as below (image contained within full response document"

KMC Response

2.3.31 Noted. The Eddington Avenue / Madingley Road junction will be reconfigured in the future as part of the Cambridge West proposals. This will be picked up at that time. In the interim, some lining will be provided to guide cyclists to the level section with the cycleway.

Transport Strategy Plans

CCC Active Travel Team Comment

2.3.32 "It is acknowledged that these plans are only indicative but the design of the crossings of the road and active travel route across Horse Chestnut Ave needs some further thought as it appears confusing and likely to lead to conflict. Both road crossings should be priority crossings."

KMC Response

2.3.33 Noted. This will be addressed at the Reserved Matters stage.

2.4 Public Right of Ways TEAM

Girton Footpath 5

PROW Officer Comment

2.4.1 *"Request that Girton Footpath 5 be upgraded to bridleway status. Its status is currently only a footpath (providing access only on foot) and it is likely to be heavily used by cyclists as well as equestrian users connecting into the wider rights of way network."*

KMC Response

2.4.2 UoC can upgrade the section of Girton Footpath 5 within their ownership to a bridleway.

Planning Condition Request

PROW Officer Comment

2.4.3 "*Prior to development taking place, a public rights of way strategy shall be submitted to and approved in writing by the Local Highway Authority. The public rights of way strategy must include a proposal to upgrade the status of Girton Footpath 5 to a bridleway and detail on its proposed width and surfacing.*

Reason: To ensure that public rights of way are enhanced and protected."

KMC Response

2.4.4 Noted. A public right of way strategy will be submitted prior to the relevant part of the development taking place. The section of the Girton Footpath 5 that is within the red line will form a shared footway/cycleway and be of a bound, metalled surface to be suitable for all year-round use. This is also a route for agricultural vehicles, so the surface needs to be appropriate to cater for these vehicle access.

2.4.5 S106 Request

PROW Officer Comment

2.4.6 "*It may be necessary to agree the upgrade of Girton Footpath 5 to a bridleway through a S.106 agreement to ensure full connectivity to the Rights of Way network and surrounding settlements*."

KMC Response

2.4.7 Noted. As above UoC can upgrade the section of Girton Footpath 5 within their ownership to a bridleway.

Girton Footpath 4

PROW Officer Comment

2.4.8 "*The development is likely to lead to much increased use of Girton Footpath 4, which is located to the north of Huntingdon Road and connects to the new A14 bridleway via a bridge over the A14. Girton Footpath 4 needs to be widened and the status upgraded in order to accommodate current and anticipated additional use on bike and horse. Whilst this is outside of the development area, the development will have an impact on this footpath which requires improving and upgrading. In order to ensure full NMU connectivity for the development through to Girton, Bar Hill, Long Stanton and North Stowe via the new A14 paths and take the opportunity to provide a better facility in line with National Planning Policy Framework section 105, Girton Footpath 4 should be widened and status upgraded to bridleway potentially through S.106 agreement or an arrangement between the developers and the owners of the land crossed by Girton Footpath 4*"

KMC Response

2.4.9 Girton Footpath 4 is outside the red line boundary. UoC will make best endeavours with the landowner to widen the footpath between the bridge over the A14 and Huntingdon Road.

3 NATIONAL HIGHWAYS

3.1 Introduction

3.1.1 This Section of the TAA addresses National Highways comments on the application.

3.2 Planning Condition Requests

National Highways Comment

3.2.1 *"A review of the Transport Assessment and the Travel Plan has now been carried out. Whilst National Highways acknowledge the positive mode shift reducing the car trips to approximately 14% in the latest monitoring strategy, it is not understood what mechanisms are in place if the mode share targets are not achieved and therefore the resultant impact on the SRN. National Highways recognise the Framework Site Wide Travel Plan identifies several 'soft' measures which are in principle acceptable to National Highways. National Highways recommends the following condition to monitor the mode shift patterns and manage the impact appropriately including remedial measures that might be required should the trip budget not be met as the development progresses In summary, National Highways are now in a position to lift the holding objection and request that the following planning conditions form part of any grant of planning permission in relation to this planning application."*

KMC Response

3.2.2 KMC welcomes the lifting of the previously held objection from National Highways and the acknowledgement of the positive mode shift forecasts associated with the Site. Responses to the individual planning condition requests are set out below.

National Highways Comment

3.2.3 "*The development hereby permitted shall not be occupied unless and until a comprehensive Travel Plan has been submitted to and approved in writing by the Local Planning Authority (in consultation with the Highway Authority for M11). The Travel Plan shall be prepared in line with prevailing policy and best practice and shall include as a minimum:*

- *the identification of targets for trip reduction and modal shift;*
- *the measures to be implemented to meet these targets including an accessibility strategy to specifically address the needs of residents with limited mobility requirements;*
- *the timetable/ phasing of the implementation of the Travel Plan measures shall be alongside occupation of the development and its operation thereafter;*
- *the mechanisms for monitoring and review;*
- *the mechanisms for reporting;*
- *the remedial measures to be applied in the event that targets are not met;*
- *the mechanisms to secure variations to the Travel Plan following monitoring and reviews.*

The development shall only be occupied in accordance with the approved Travel Plan which shall remain in perpetuity unless otherwise amended in accordance with a review to be agreed in writing by the Local Planning Authority in conjunction with the Highway Authority.

Reason: In order to minimise the use of the private car and promote the use of sustainable modes of transport in accordance with the National Planning Policy Framework (December 2023) and paragraph 40 DfT Circular 01/2022."

KMC Response

3.2.4 National Highways has requested a planning condition requiring the implementation of a Travel Plan. The Applicant confirms that a Travel Plan planning condition is generally agreed to, subject to updating the reference regarding timescale. As per paragraph 10.72 of the S106 for the previous outline planning consent, the long-term aim is to hand over the stewardship of the Travel Plan to residents after a 20-year period after the start of construction.

National Highways Comment

3.2.5 "Prior to commencement of construction works, a Construction Traffic Management Plan (CTMP) for the proposed development shall be submitted to and approved in writing by the Local Planning Authority in consultation with National Highways. The approved plan shall be adhered to throughout the construction period.

Reason: To ensure the efficient and reliable operation of the Strategic Road Network during the construction stage."

KMC Response

3.2.6 The request from National Highways for a planning condition requiring a CTMP is acknowledged and agreed. The Applicant confirms that a CTMP planning condition is agreed to.

4 ACTIVE TRAVEL ENGLAND COMMENTS

4.1 Trip Generation and Assignment

ATE Comment

4.1.1 *"The Transport Assessment has provided multi-modal trip generation forecast which provide a robust basis upon which to build an effective strategy for a healthy and inclusive development. This is welcome and suggests a total daily trip generation of 12699 journeys by cycle (of which 1551 will be internal) and 7555 on foot (of which 830 will be internal). There is therefore a strong justification for ensuring this development includes sufficient high quality active travel infrastructure both internally and offsite."*

KMC Response

4.1.2 This comment is noted. It provides the correct trip generation forecasts as per the submitted Transport Assessment.

4.2 Active Travel Route Audit

ATE Comment

4.2.1 *"ATE expects that local pedestrian and cycling routes are identified and assessed on whether these are safe, direct, convenient and accessible for people of all abilities (paragraph 82 of the National Design Guide) or coherent, direct, safe, comfortable and attractive (core design principles in LTN 1/20). Applications that include new dwellings must demonstrate how local schools and colleges will be accessed by active travel modes and the application must include a qualitative analysis to inform any necessary improvements to the design and accessibility of key routes which should include maps, photographs and comments with regard to the following guidance, tools and plans in the assessment key routes*

- *Inclusive Mobility (Chapters 3, 4, 6, 7 and 15; and Sections 5.2, 5.7, 9.1, 9.3, 9.4 and 9.7 as appropriate)*
- *PAS 6463: Design for the Mind (Sections 5.2.1, 5.2.3, 6.4, 7.6.2, 7.6.3, 7.7 and 11.12)*
- *LTN 1/20: Cycle Infrastructure Design (including Appendix A: Cycling Level of Service Tool; and Appendix B: Junction Assessment Tool)*
- *the government's Walking Route Audit Tool, and*
- *any adopted or emerging Local Cycling and Walking Infrastructure Plans (LCWIPs)*

The TA route audit appears to focus on Phase 1 cycling and walking infrastructure in order to ensure it is suitable both for the proposed development and future phases. The audit of Phase 1 is reasonably comprehensive and makes clear suggestions for improvements where necessary; it is expected that these will be implemented in discussion with the LHA.

It is acknowledged that Eddington itself does include a number of amenities, however, ATE would also expect the applicant to audit routes to key amenities beyond the site itself - for example,

routes to secondary school, larger food shops or rail stations. The TA maps existing active travel connectivity, including into wider Cambridge but further analysis of this is required, which will in turn better inform a decision around the extent of which off-site improvements are required."

KMC Response

Walking Route Audit

4.2.2 KMC has endeavoured to use the Walking Route Audit Tool (WRAT) to assess the condition and suitability of the existing walking routes from the Site to key facilities and destinations that may ultimately serve the development. This includes schools, public transport interchanges, areas of retail, leisure and potential employment.

4.2.3 The WRAT uses a scoring system against a range of metrics to assess how well a walking route meets five key criteria, which are as follows:

- Attractiveness;
- Comfort;
- Directness;
- Safety; and
- Coherence.

4.2.4 Routes have also been assessed in reference to key design criteria, such as LTN 1/20. A total score of 70% for each route respectively is regarded as the minimum level of provision that should be provided.

4.2.5 For the purpose of this assessment, six key routes have been assessed that, respectively, provide connections to nearby schools, shops / supermarkets, medical centres, and bus stops. The assessed routes are as follows:

- Route 1: Site to Castle Street via Madingley Road;
- Route 2: Site to Madingley Road via Storeys Way;
- Route 3: Site to Castle Street via Huntingdon Road Eastbound.
- Route 4: Huntingdon Road / Eddington Avenue Junction to Darwin Green via Whitehouse Lane;
- Route 5: Castle Street to Cambridge Railway Station via Hills Road and Station Road; and
- Route 6: Huntingdon Road / Eddington Avenue Junction Westbound.

4.2.6 A full figure illustrating the extent of the routes is contained within **Appendix C** as well as the full audit details, with a summary of the audit provided in **Table 3.1** below.

Table 3.1: Summary of WRAT Output

Route	Score	Score	Total Score	Percentage
1	Attractiveness	7/8	36	90%
	Comfort	11/12		
	Directness	10/12		
	Safety	6/6		
	Coherence	2/2		
2	Attractiveness	8/8	38	95%
	Comfort	11/12		
	Directness	12/12		
	Safety	6/6		
	Coherence	1/2		
3	Attractiveness	7/8	35	88%
	Comfort	11/12		
	Directness	10/12		
	Safety	5/6		
	Coherence	2/2		
4	Attractiveness	8/8	38	95%
	Comfort	12/12		
	Directness	10/12		
	Safety	6/6		
	Coherence	2/2		
5	Attractiveness	7/8	33	83%
	Comfort	11/12		
	Directness	8/12		
	Safety	6/6		
	Coherence	1/2		
6	Attractiveness	6/8	28	70%
	Comfort	10/12		
	Directness	7/12		
	Safety	4/6		
	Coherence	1/1		

4.2.7 As shown in **Table 3.1**, all routes assed as part of the WRAT exceeded the (minimum) 70% thresholds set for an acceptable route. Whilst Route 6 scored the lowest, there are development proposals include the provision of new active travel infrastructure at this location. The full WRAT output is contained within **Appendix C**.

Cycling Route Audit

4.2.8 An audit of potential off-site cycle routes has been undertaken from NWCM by KMC.

4.2.9 LTN 1/20 of cycling infrastructure design was published by the Department for Transport (DfT) in July 2020. The Note forms the latest guidance, which can be considered best-in-class, on the audit and implementation of new and existing cycle infrastructure.

4.2.10 This route assessment used criteria pertinent to LTN 1/20, focusing on five key factors / design criteria: Attractiveness, Comfort, Directness, Safety, and Coherence. These criteria were selected as they are considered to reflect the main principles of high-quality, safe, and convenient cycling routes and infrastructure, as well as presenting similar criteria to those used within the WRAT.

4.2.11 The full audit for off-site cycle routes is contained within **Appendix C**.

4.3 Pedestrian and Cycling Access to Local Amenities

ATE Comment

4.3.1 "*Pedestrian and cycling access to local amenities It is noted that there are several amenities within easy walking distance, including the UoC Primary school within 100m and the Darwin Green secondary school within 1km. A food shop is also available within 1km, with further food shops available within 2km. A GP is available within 100m, with sports pitches, a community centre and allotments also being available within 100m. Several restaurants are also available within 100m. Good pedestrian and cycling access is available in terms of local amenities, though as set out above further information is required regarding the quality of routes beyond the site itself in order to fully assess this.*"

KMC Response

4.3.2 KMC welcomes the comment from the ATE regarding the opportunities from the site to access nearby facilities and amenities by sustainable modes of transport. As per the comment contained in paragraph 3.2.1 of this TAA, an audit of off-site walking and cycling routes to nearby facilities and amenities has been undertaken.

4.4 Access to Public Transport

ATE Comment

4.4.1 "Residents will be able to access bus stops on site within 100m, with the Madingley Road P&R 550m away. There will be a travel hub serving Cambridge Station and Cambridge North station 100m away, while these stations are 5 - 5.5km away, a distance that is cyclable subject to continuous high-quality infrastructure being provided. It is noted that the applicant forecasts that predicted demand will be met, however its proposed Transport Strategy includes for the potential to provide a new Express bus service to and CBC and Cambridge station. Access to public transport is considered to be good.

ATE would expect that footpaths/ways to public transport nodes must conform to the National Design Guide standards of being safe, direct, convenient and accessible for people of all abilities, which includes but is not limited to routes that:

- *have a minimum width of 2m, with limited pinch points no less than 1.5m*
- *are step-free*
- *have a smooth, even surface*
- *have seating at regular intervals*
- *are uncluttered*
- *have good natural surveillance and clear lines of sight*
- *have street lighting*
- *have wayfinding, and*
- *have crossing points suitable for the speed and traffic flow of the road(s)"*

KMC Response

4.4.2 This comment regarding the public transport accessibility of the site is noted and welcomed by KMC. Whilst specific design measures will be dealt with at the detailed design stage, it is to be ensured that the National Design Guide, LTN 1/20 and other guidance will be adhered to.

4.5 Off-Site Transport Infrastructure

ATE Comment

4.5.1 As well as proposed improvements to Phase 1 of the site, the applicant has proposed various infrastructure in the vicinity of the northern site boundary. These include:

- *Proposed uni-directional cycle lanes along northwestern end of Huntingdon Road to fill gap between Girton Road and A14 bridge to serve existing active travel users and new residents.*
- *Proposed shared footway/cycleway provision between NW Huntingdon Road access and A14 bridge to fill existing active travel gap.*
- *Proposed signalised Toucan (with equestrian push buttons) PRoW crossing at the northwestern end of Huntingdon Road to serve PRoW through St Johns Land and over A14 bridge and link into the NWCM – (Figure 14.1 and Drawing 24067-KMCHGN-XX-SSK-CH-HR02-PL1)*
- *Proposed signalised Toucan crossing between NW Access and Girton Road, to link in to the NWCM (Figure 14.1 and Drawing 24067-KMC-HGN-XX-SSK-CH-HR10-PL01)*

It is noted that crossing infrastructure around Girton Road junction has also recently been improved.

ATE would expect that these proposals, including their detailed design, are agreed to the LHA's satisfaction. However, given that existing infrastructure beyond the site has not been comprehensively audited, it is not possible to determine whether what has been proposed is sufficient in light of the significant amount of cycling and walking journeys that will be generated

by this proposal as set out above, and this must be discussed further with the LHA in order to ensure that the off-site improvements proposed are satisfactory. This is particularly important in light of the large number of active travel trips that will be generated by this proposal."

KMC Response

4.5.2 As detailed in section 3.2.1 of this TAA, an off-site walking and cycling audit has been undertaken for potential routes to nearby key destinations. Please refer to this response.

4.6 Site Permeability and Access

ATE Comment

4.6.1 "The site is considered to have an excellent level of permeability, with numerous access points for walking and cycling, ATE considers it essential that these active travel access points' location and design is secured at this stage in order to ensure a good level of connectivity and permeability. The design of these access points in line with LTN 1/20 should also be secured at this stage via the Design Code. It is expected that cyclists and pedestrians will be prioritised as per NPPF requirements, including the provision of routes which are both direct and convenient. ATE would expect to see high quality links to all facilities including leisure facilities such as the allotments and sports pitches.

In terms of crossings within the site, these should be single stage. If single stage is not possible the full justification for this must be provided.

It is noted that a bidirectional cycle track is proposed. It is unclear why this has been chosen over single direction tracks given the space available and the fact that this presents some issues when connection with existing provision. Where cycle tracks cross side roads, the cycle track must have priority; this would not always appear the be the case from indicative drawings provided.

With regard to the proposed access point on Huntingdon Road, it is noted that this is to be shared with large vehicles, including agricultural vehicles. While these vehicles may only use this access occasionally, given the space available to the applicant here, it is unclear why they have not ensured that all active travel users have access to a dedicated access point not shared with these heavy vehicles.

It is expected that the LHA/LPA will have further detailed comments on the proposed provision and these must be fully taken into account and addressed."

KMC Response

Design Code

4.6.2 The applicant fully supports the design of all access points being in line with LTN1/20 and agrees that cyclists and pedestrians should be prioritised at all junctions and that routes are both direct and convenient.

Crossings within the site

4.6.3 The internal crossings on Cartwright Avenue will be single stage. The details of these crossings will form part of a forthcoming reserved matters application.

4.6.4 The only multi-stage crossing is located at the proposed Huntingdon Road junction. This is in order to maximise capacity at the site access junction in the peak hours and reduce delay for buses currently using Huntingdon Road.

4.6.5 NWCM provides numerous internal routes for pedestrians and cyclists that provide alternative active travel routes to this two-stage crossing. Cyclists are also given their own cycle lanes and Advanced Stop Line (ASL) on Huntingdon Road to prioritise these users and avoid cyclists having to use the crossing. Furthermore, the staging and cycle times of the traffic signals at this junction will be limited to reduce delay time for pedestrians, and this is allowed for by providing a two stage crossing to maximise capacity for all users. Overall, the two-stage crossing in this location is proposed to balance pedestrian delay against junction capacity by limiting cycle times, maximising pedestrian green for each stage and avoiding the need for an All Red period.

Bi-directional cycle track

4.6.6 The proposed cycle infrastructure has been informed by a review of the infrastructure provided as part of Phase 1.

4.6.7 The existing corridors within Phase 1 Eddington comprise of carriageway with footway and uni-directional cycleways on either side of the carriageway set back behind verge and footway. This creates a wide corridor. The existing cycle tracks are regularly used as bi-directional routes. This is in part for convenience but also because there is no provision for cyclists turning out of side roads junctions to access the cycleway on the opposite side of the road.

4.6.8 As part of the masterplan process, several different cycle routes and infrastructure types were considered in great detail. This included uni-directional cycle lanes, a bi-directional cycle lane on the eastern side of the road and a bi-directional cycle route on the western side of the road. This cycle infrastructure along Cartwright Avenue was considered in the context of the existing provision (the Ridgeway), the emerging plot layouts and the new cycle routes which would be formed on the western edge. After much optioneering the final decision is a bi-directional segregated cycleway on the western side of Cartwright Avenue (the new spine road). Located on the southern side of Cartwright Avenue, the cycleway relates well to the proposed neighbourhoods.

4.6.9 This is provided in combination with the existing Ridgeway, Shared Gardens and Community Street, along with the extension of existing leisure routes on the western edge of the development.

4.6.10 Given the larger population that will come forward to the west of Cartwright Avenue, the bi-directional cycle track has been placed to the west of the route. This provides optimal and direct

access to these residential areas with the parcels to the east being well served by connections to the Ridgeway.

4.6.11 The bi-directional track is consistent with the bi-directional working arrangement entering the site at Huntingdon Road West. Set behind a verge, it allows for cars to cross the track in two movements. It also allows Shared Gardens and Community Street through neighbourhoods to prioritise place over movement.

4.6.12 The Common area represents a convergence of the Ridgeway and any active travel infrastructure along Cartwright Avenue. The level differences, proximity and typology create challenges. The preferred arrangement to have a bi-directional track to west of Cartwright Avenue is most optimal for managing these design challenges. Other options considered including uni-directionals were determined to result in a complicated configuration of infrastructure in this location.

4.6.13 The provision of the bi-directional cycleway on Cartwright Avenue has the added advantage of removing the need for cyclists to cross Cartwright Avenue. The eastern plots are lower density and will be served by connections to the Ridgeway. This in turn reduces the impact on the landscaping and drainage strategy along the corridor as it negates the need to provide multiple separate cycle links from one side of the carriageway to the other at side road junctions.

Huntingdon Road Access Point

4.6.14 The pedestrian and cycle access located north of Cartwright Avenue is an existing PRoW. It does also serve the occasional agricultural vehicle, but this is a very common occurrence on PRoW routes.

4.6.15 As part of any forthcoming reserved matters applications, consideration will be given to providing an alternative route for agricultural accesses from Cartwright Avenue which may negate the need for vehicles to use some of the route.

4.6.16 Cambridgeshire County Council have requested that the proposed crossing on Huntingdon Road be moved away from the PRoW to avoid any conflict with pedestrians and cyclists waiting at the crossing and agricultural vehicles. This is being actioned as part of the site access design review.

4.7 Placemaking

ATE Comment

4.7.1 "*The proposed development is at outline stage, however the application documents suggest that placemaking principles have been taken into account, including a Design Code that references the National Model Design Code. The DAS states that it will use lessons learned from Phase 1 in order to build on its success, with a focus on social sustainability alongside the health and wellbeing of the community. This is welcome. The DAS also commits to providing hubs of activity distributed in order to serve the whole community, and the inclusion of play on the way, community growing*

and cycling and walking clustered together in order to foster social interaction. The development will be designed to make active travel choices the default, by providing cycles closer than cars, prioritising pedestrians and making active travel networks more interconnected than vehicular ones. This is welcome."

KMC Response

4.7.2 This comment is noted and welcomed by KMC.

4.8 Cycle Parking

ATE Comment

4.8.1 *"Cycle parking is proposed to be provided for 1 space per bedroom up to 3-bedroom dwellings, 3 spaces for 4 bedroom dwellings and 4 spaces for 5 bedroom dwellings. An additional 10% provision for visitor cycle parking will be made. Cycle parking will be secure, covered and lockable, at the front of the building if possible or at the rear with access to a cycle route if not. Parking within garages will be provided where cycle parking is not possible within frontages, though garages must allow cycles to be removed without the need to drive out a car. Cycle parking within apartments will be a communal store and be well lit, secure and covered. If provided externally it must be well overlooked rather than hidden. 5% of the total capacity of the residential cycle parking will be designed to accommodate oversized bikes such as tandems or cargo bikes. This is welcome."*

KMC Response

4.8.2 This comment is noted and welcomed by KMC.

4.9 Travel Planning

ATE Comment

4.9.1 *"A Framework Travel Plan has been submitted as part of this application and it is expected that a final travel plan will be secured either by way of a condition or via S106 agreement. ATE would expect the final document to take into account the Government aim that 50% of all short trips are walked, wheeled or cycled by 2030. ATE would suggest that the final document should contain specific targets, measures and sanctions should these not be achieved. The final document should also provide sufficient detail on the active travel and public transport infrastructure to be provided or improved both on-site and off-site and include detail on how its use will be embedded by initiatives and incentives to be secured through planning obligations and conditions. It should include details of effective and influential actions to be taken if targets are not met, with the intention for these to be secured and monitored (if triggered) through planning conditions and obligations."*

KMC Response

4.9.2 A Travel Plan for Phase 1 at Eddington is currently adopted, which is actively monitored, and is regularly updated. Phase 2 of the NWCM will continue to maintain and update this exemplar Travel Plan as part of its ongoing commitments, as set out within the Framework Travel Plan.

5 GREATER CAMBRIDGE SHARED WASTE SERVICE

5.1 Residential Element – Underground Bin System

GCSWP Comment

5.1.1 *"Thank you for the opportunity to comment on this application. Following a review of the Waste Strategy, Greater Cambridgeshire Shared Waste Services welcomes the opportunity to provide feedback on the proposed underground bin system.*

Vehicle Access & Safety

- *Single-Operator Collection: Vehicle tracking must allow for forward-only movement; reversing is not acceptable.*
- *Road Width: Roads must be wide enough to accommodate large vehicles passing the refuse vehicle, including buses.*
- *Layby Design: Laybys should be half-width or roads widened to discourage parking beside bins and ensure unobstructed access.*

Surface Requirements

- *Road Surface Quality: Cobbled or uneven surfaces are unsuitable. Collection vehicles require flat, durable surfaces to support stabilising feet and heavy loads.*

Parking Management

- *Enforcement & Signage: Laybys must have clear signage and active parking enforcement to prevent obstruction during collections.*
- *Bin & Platform Positioning o Proximity to Roadside: Bins must be positioned close to the kerb; crane reach is limited and cannot accommodate set-back installations.*
- *Distance from Buildings: Platforms must be at least 2 metres from buildings to prevent contact during bin lifting.*
- *RECAP Compliance: Bin locations must comply with RECAP guidelines to ensure acceptable walking distances for residents.*

Design Considerations

- *Bunker Opening Direction: Bunker lids must not open onto footpaths, parking spaces, or street furniture.*
- *Bin Lid Hinges: Lid opening direction must be carefully considered to avoid hinge damage.*
- *Street Furniture: No lamp posts, trees, or other obstructions should be placed adjacent to laybys.*
- *Bollards: Where required, bollards must be retractable or remotely operable to allow vehicle access."*

KMC Response

5.1.2 These comments regarding the Framework Waste Strategy are noted by KMC. It will be ensured that a Full Waste Management Strategy is prepared and provided to the Greater Cambridge Shared Waste Service, and detailed design as part of future reserved matters applications adheres to these design principles and standards.

5.2 Residential Element - Refuse Tracking

GCSWP Comment

"*Please provide a full refuse vehicle tracking design for the proposed development. The tracking provided is for Dennis Eagle Elite 6 8x4 chassis 32-tonne refuse vehicle, GCSWS Operate 32T 8x4MS with Ol27W body and Terberg OmniDel Underground bin vehicle, please amend tracking to reflect this*"

KMC Response

5.2.1 The Auto-tracking has been re-provided. The correct vehicle was used.

5.3 Residential Element - Waste Management Strategy

GCSWP Comment

5.3.1 "*Once full refuse strategy has been developed, we would be happy to comment and offer further guidance.*"

KMC Response

5.3.2 This comment is noted and agreed. A full refuse strategy will be prepared and provided to the GCSWS for comment, and further liaison should planning consent be granted.

5.4 Commercial Element – Waste Management Plan

GCSWP Comment

5.4.1 A complete Waste Management Plan should evidence that sufficient consideration has been given to the following:

- *Frequent HGV access outside of office-hours means HGVs need to be able to easily reach bin stores or bin presentation points without having to navigate multiple entry points, booms or gates.*
- *Areas should be suitably tracked (GCSWS operate Dennis Eagle Elite 6 8x4 32 tonne chassis vehicle) and clear of any obstructions, trees, lampposts, cycle racks, benches and bollards.*
- *Parking restriction measures should be adopted to avoid vehicle obstruction of bin stores and collection points.*

- *Reversing is not permitted more than 12m into loading spaces. HGVs should be able to drive forwards into and out of site.*

Waste storage areas should comply with the following standard requirements:

- *Bin stores should be street accessible, open onto the public highway or wide access road, with no slopes, gravel or steps.*
- *For both two and four-wheeled containers, the collection point must be within 10 meters of the nearest accessible point for the refuse vehicle.*
- *Doors should open back along the wall at 180, be provided with door hooks or doors that remain in the open position while collection takes place to prevent damage or injury.*
- *Interior walls/doors should have metal strips to prevent damage from bins.*
- *Bin stores should be provided with key-code locks rather than keys.*
- *There should be no more than one door or gate between vehicle and bin store.*
- *A separate door can be provided for access by users of the building to access bins. Automatic lighting should be installed to operate with door opening and closing.*
- *Bin stores should have washdown facilities (a cage protected or recessed tap) and drainage central to the store for occasional maintenance and cleansing.*

Consideration of bulky item storage should be given, it is not uncommon for sites to require occasional storage for items such as pallets, broken furniture and electrical equipment whilst safe and legal disposal arrangements are made. These cannot be disposed of in regular scheduled bin collections and the management company will need to make arrangements with contractors to dispose of these items.

We suggest a suitably worded condition is applied until such time as a satisfactory Waste Management Plan is shown to have been considered in accordance with The Controlled Waste (England and Wales) Regulations 2012.

KMC Response

5.4.2 This comment is noted by KMC. A condition regarding the production of a full Waste Management Plan as part of any planning consent is welcomed. This will build upon the Outline Waste Management Plan submitted alongside this planning application.

6 BRITISH HORSE SOCIETY

6.1 Girton Footpaths

BHS Comment

6.1.1 "*The BHS supports the comments made by the Definitive Map Team and which have been submitted to both applications. Specifically, the BHS supports the DM Team call for Footpath 4 and 5 Girton to be upgraded to bridleway status and for this to be added as a requirement to the Planning Permission for delivery, if necessary, through a S.106 agreement since not all the route is within the application site boundary nor under the same ownership. The need for a Change of Surface application to be made prior to any change to the right of way surface is repeated. These routes will become part of the PROW network. It is essential that any surface change is appropriate for equestrian use. The BHS website has advice on its website about suitable surfacing for bridleways: https://www.bhs.org.uk/go-riding-and-learn/access-and-bridleways-advice/ Structures and Surfaces*"

KMC Response

6.1.2 The section of the Girton Footpath 5 that is within the red line can be upgraded to a Bridleway. This is also an existing route for agricultural vehicles so the surface needs to be appropriate to cater for these vehicle access.

6.2 Toucan Crossing

BHS Comment

6.2.1 "*The BHS also notes the proposals within the application for a proposed multiuser crossing of Huntingdon Road to link the two new bridleways: This proposal is much appreciated and supported. However, Appendix F referred to in this clause appears to be missing from the application documents. It is requested that the applicant provides this drawing to the BHS to enable further comment. The reason for this request is the wording of the proposal. Whilst the BHS supports the provision as proposed, if Cambridgeshire policy resulted in this type of structure not being approved e.g. by the RSA Team, this safe access linking two bridleways could be lost for equestrians endangering their safety. It is important that the intention of this proposal is not restricted by specific wording.*"

KMC Response

6.2.2 Further consideration on the ability to provide a multi-user crossing is underway as part of the work being undertaken to address comments on the site access and Huntingdon Road corridor by Cambridgeshire County Council. The intention is to incorporate an equestrian crossing, or at least demonstrate how one could be incorporated at a later date, subject to the bridleway status of the surrounding routes.

6.3 Bridleway Loop

BHS Comment

6.3.1 "*It is clear from the map included with the application that there is a significant gap for equestrians in the rights of way network which this development could mitigate – the lack of connection between Bridleway 39/30 Cambridge and the new bridleway proposed at Footpath 99/5 Girton. It is also noted that there are no rights of way proposed for the development. There is plenty of pedestrian and cycle infrastructure proposed but no doubt that will be protected by signage excluding equestrians – or maybe that is not the intention? To the west of the development is the 'green' area. This could accommodate a public bridleway which could provide part of the missing link between the two bridleways. Inclusion of bridleways within new, high-density developments is not new in Cambridgeshire. Examples are the Marleigh Development off Newmarket Road, Cambridge and the Wintringham Development in St. Neots. Both these developments have multiuser / bridleway access.*

A bridleway 'loop' could be accommodated on this green area.

The reason this request is important, despite the obvious major barrier of Madingley Road crossing, is what is that bridleway provision would enable horse owners without access to transport, to hack safely to the Vet School from north of Madingley Road. The Vet School veterinary practice is where many, many horses are registered for their veterinary services. Call out fees add significantly to what is already an expensive part of horse ownership.

A safe crossing of Madingley Road will be challenging but who knows, at some point in the future there could be a safe crossing created if this route is heavily used by pedestrian / cyclists. With a bridleway already in place on the other side of the road, there would be an opportunity for equestrian inclusion. This is all about trying to future proof safe access for all users."

KMC Response

6.3.2 The requested bridleway loop would require designating existing infrastructure as Bridleway to form a connection between Madingley Road and Huntingdon Road. This is not possible.

7 GREATER CAMBRIGDESHIRE SHARED PLANNING – URBAN DESIGN

7.1 Access and Movement Frameworks

GCSP - Urban Design Comment

7.1.1 *"The overall approach is supported from an urban design perspective. It builds on the successful active travel behaviours established in Phase 1, with improvements where possible that respond to lessons learned. The principle of access to the site remains as per the 2013 OPP consent."*

KMC Response

7.1.2 This comment is noted and welcomed by KMC. It is agreed that the principle of access to the site remains as per the 2013 OPP consent.

GCSP - Urban Design Comment

7.1.3 *"The realignment of Cartwright Avenue is supported as it works better with the existing site topography and enables more flexible development parcels. The narrowing of Cartwright Avenue in compared to the 2013 outline is particularly welcomed and will enhance the character of the street and facilitate shorter and easier pedestrian crossings."*

KMC Response

7.1.4 This comment regarding the realignment of Cartwright Avenue is noted and welcomed by KMC. The benefits of this approach are agreed.

GCSP - Urban Design Comment

"*We also support the approach to consolidating and rationalise car vehicle movement compared to the 2013 OPP. The future phases are characterised by single points of vehicle access into neighbourhoods supported by low-speed internal loops (~10mph) that prevent through movement for cars between one residential area to another. This creates a low traffic neighbourhood baseline that supports streets as places, encourages doorstep play and strengthens the active travel network*."

KMC Response

7.1.5 This comment is welcomed and agreed with by KMC.

GCSP - Urban Design Comment

7.1.6 *"Despite the low car parking ratios proposed, reducing the impact of the car parking will remain a challenge at reserved matters stage. The design code sets out principles for locating parking close to junctions within the neighbourhoods, encouraging residents who own a car to park as soon as they leave the main street and therefore reducing vehicle movements within the residential areas.*

We have recommended some further refinements to the car parking coding in Table 1, and subject to these, we would be satisfied that the design code strategies can provide a robust framework for visually integrating the parked car and minimising the impact on the public realm."

KMC Response

7.1.7 Noted. The design codes have been updated accordingly as per the recommendations to the parking coding in Table 1.

GCSP - Urban Design Comment

7.1.8 "One area requiring further attention, is the Ridgeway along the northern edge of 'The Common', which is currently identified on PP3 as a shared user path. The parameter plan should be amended to secure the Ridgeway's continuity as a segregated cycle way. Subject to this refinement, and those set out in Table 1 (related to end of trip facilities, achieving low speed etc) urban design consider the Access and Movement Parameter Plan establishes a well-structured framework and a sound basis for the reserved matters stage:

Amend PP3 to secure the Ridgeway as a continuous segregated cycle way."

KMC Response

7.1.9 Noted. The Ridgeway has always been intended to be a continuous segregated cycle way. This has been updated in the Access and Movement Parameter Plan.

Appendix A Comments Tracker

Consultee	Consultee Doc Reference	Date Raised	Topic	Comment	Action Required	Lead	Action / KMC Response	Actioned	Date Completed
ATE	ATE/25/01501/OUT	14/11/2025	Active Travel Connectivity	It is acknowledged that Eddington itself does include a number of amenities, however ATE would also expect the applicant to audit routes to key amenities beyond the site itself - for example, routes to secondary school, larger food shops or rail stations. The TA maps existing active travel connectivity, including into wider Cambridge but further analysis of this is required, which will in turn better inform a decision around the extent of which off-site improvements are required. Further information is required regarding the quality of routes beyond the site itself in order to fully assess this.	Yes	KMC	ATE WRAT Tool has been completed. To be included in TAA.		01.04.2026
ATE	ATE/25/01501/OUT	14/11/2025	Site permeability and access	With regard to the proposed access point on Huntingdon Road, it is noted that this is to be shared with large vehicles, including agricultural vehicles. While these vehicles may only use this access occasionally, given the space available to the applicant here, it is unclear why they have not ensured all active travel users have access to a dedicated access point not shared with these heavy vehicles.	Yes	KMC	Currently being reviewed as part ofsite access design review. Crossing relocated from ProW.		01.04.2026
ATE	ATE/25/01501/OUT	14/11/2025	Travel Plan	A Framework Travel Plan has been submitted as part of this application and it is expected that a final travel plan will be secured either by way of a condition or via S106 agreement. ATE would expect the final document to take into account the Government aim that 50% of all short trips are walked, wheeled or cycled by 2030. ATE would suggest that the final document should contain specific targets, Measures and sanctions should these not be achieved. The final document should also provide sufficient detail on the active travel and public transport infrastructure to be provided or improved both on-site and off-site and include detail on how its use will be embedded by initiatives and incentives to be secured through planning obligations and conditions. It should include details of effective and influential actions to be taken if targets are not met, with the intention for these to be secured and monitored (if triggered) through planning conditions and obligations.	Yes	KMC	Eddington already frequently provides an updated exemplar TP and NWCM will continue this.		14/11/2025
ATE	ATE/25/01501/OUT	14/11/2025	Off-site Active Travel Infrastructure	As well as proposed improvements to Phase 1 of the site, the applicant has proposed various infrastructure in the vicinity of the northern site boundary. ATE would expect that these proposals, including their detailed design, are agreed to the LHA's satisfaction. However, given that existing infrastructure beyond the site has not been comprehensively audited, it is not possible to determine whether what has been proposed is sufficient in light of the significant amount of cycling and walking journeys that will be generated by this proposal as set out above, and this must be discussed further with the LHA in order to ensure that the off-site improvements proposed are satisfactory. This is particularly important in light of the large number of active travel trips that will be generated by this proposal.	Yes	KMC	ATE WRAT Tool has been completed. To be included in TAA.		01.04.2026
ATE	ATE/25/01501/OUT	14/11/2025	Site permeability and access	It is noted that a bidirectional cycle track is proposed. It is unclear why this has been chosen over single direction tracks given the space available and the fact that this presents some issues when connecting with existing provision. Where cycle tracks cross side roads, the cycle track must have priority; this would not always appear to be the case from indicative drawings provided.	Yes	KMC	Evidence to be included in TAA		01.04.2026
ATE	ATE/25/01501/OUT	14/11/2025	Site permeability and access	With regard to the proposed access point on Huntingdon Road, it is noted that this is to be shared with large vehicles, including agricultural vehicles. While these vehicles may only use this access occasionally, given the space available to the applicant here, it is unclear why they have not ensured that all active travel users have access to a dedicated access point not shared with these heavy vehicles. In terms of crossings within the site, these should be single stage. If single stage is not possible then full justification for this must be provided."In terms of crossings within the site, these should be single stage. If single stage is not possible then full justification for this must be provided.	Yes	KMC	KMC inputted to HB response.	Parameter Plan and Access Movement Plan update	01.04.2026
GCSWS	N/A	15/10/2025	Refuse Tracking	Please provide a full refuse vehicle tracking design for the proposed development. The tracking provided is for Dennis Eagle Elite 6 8x4 chassis 32-tonne refuse vehicle, GCSWS Operate 32T 8x4MS with OI27W body and Terberg OmniDel Underground bin vehicle, please amend tracking to reflect this	Yes	KMC	Completed. Used correct vehicle.		15/10/2025
GCSWS	N/A	15/10/2025	Waste Management Plan	Request for a detailed Waste Management Plan as a planning condition. Full response contains requirements for this.	Yes	N/A	Agreed.		15/10/2025

National Highways	NH/25/13233	31/10/2025	Request for non-determination	Due to the scale of the proposed development, National Highways need to understand the impact on the SRN, notably the M11 Junction 13. A review of the Transport Assessment and the Travel Plan are currently being carried out. National Highways are currently reviewing to ensure the impact on the SRN can be appropriately and proportionately mitigated should the trip budget for the site is not achieved.	No	KMC	Updated response from NH received 01/12/25 lifting holding objection subject to Conditions. Updated response below.		01/12/2025
CCC (LHA)	N/A	30/10/2025	RSA	In accordance with GG119 of the Design Manual for Roads and Bridges (DMRB), a Stage 1 Road Safety Audit is required for the proposed junctions, controlled crossing points, and the proposed layout of Huntingdon Road. This audit must be submitted to and agreed with the Highway Authority prior to the determination of the application.	Yes	KMC	Independent RSA complete. RSA and pack of drawings reissued to David Lines . County to undertake own RSA. CCC to confirm timescale for updated response? David Lines confirmed receipt of all required info.		06/11/2025
CCC (LHA)	N/A	30/10/2025	Request for information on junctions	The applicant has not provided sufficient detail regarding the design and layout of the proposed junctions, pedestrian/cycle crossing points, and the overall treatment of Huntingdon Road. Without this information, the Highway Authority is unable to fully assess the potential impact of the development on the highway network and its users.	Yes	KMC	Pack reissued to CCC with this information. David Lines confirmed receipt of all required info.		06/11/2025
CCC (LHA)	N/A	30/10/2025	Standalone Drawing Request	Any revised details, including junction layouts, crossing points, and general highway arrangements, must be submitted as standalone drawings. These drawings should be clearly referenced and suitable for approval as part of any planning permission granted. This ensures clarity and enforceability of the agreed highway works.	Yes	KMC	Pack reissued to CCC with this information. David Lines confirmed receipt of all required info.		06/11/2025
PROW Officer	N/A	22/10/2205	Girton Footpath 5 Status	Request that Girton Footpath 5 be upgraded to bridleway status. Its status is currently only a footpath (providing access only on foot) and it is likely to be heavily used by cyclists as well as equestrian users connecting into the wider rights of way network.	Yes	KMC	TBC following internal meeting re PRoW. UoC making best endeavours to discuss with relevant landowners.		01.04.2026
PROW Officer	N/A	22/10/2205	Condition Request	Prior to development taking place, a public rights of way strategy shall be submitted to and approved in writing by the Local Highway Authority. The public rights of way strategy must include a proposal to upgrade the status of Girton Footpath 5 to a bridleway and detail on its proposed width and surfacing. Reason: To ensure that public rights of way are enhanced and protected.	Yes	KMC	TBC following internal meeting re PRoW. UoC making best endeavours to discuss with relevant landowners.		01.04.2026
PROW Officer	N/A	22/10/2205	S106 Request	It may be necessary to agree the upgrade of Girton Footpath 5 to a bridleway through a S.106 agreement to ensure full connectivity to the Rights of Way network and surrounding settlements.	Yes	KMC	TBC following internal meeting re PRoW. UoC making best endeavours to discuss with relevant landowners.		01.04.2026

PROW Officer	N/A	22/10/2205	Girton Footpath 4 Status	The development is likely to lead to much increased use of Girton Footpath 4, which is located to the north of Huntingdon Road and connects to the new A14 bridleway via a bridge over the A14. Girton Footpath 4 needs to be widened and the status upgraded in order to accommodate current and anticipated additional use on bike and horse. Whilst this is outside of the development area, the development will have an impact on this footpath which requires improving and upgrading. In order to ensure full NMU connectivity for the development through to Girton, Bar Hill, Long Stanton and North Stowe via the new A14 paths and take the opportunity to provide a better facility in line with National Planning Policy Framework section 105, Girton Footpath 4 should be widened and status upgraded to bridleway potentially through S.106 agreement or an arrangement between the developers and the owners of the land crossed by Girton Footpath 4	Yes	KMC	TBC following internal meeting re PRoW. UoC making best endeavours to discuss with relevant landowners.		01.04.2026
British Horse Society	N/A	29/10/2025	Girton Footpaths	The BHS supports the comments made by the Definitive Map Team and which have been submitted to both applications. Specifically, the BHS supports the DM Team call for Footpath 4 and 5 Girton to be upgraded to bridleway status and for this to be added as a requirement to the Planning Permission for delivery, if necessary, through a S.106 agreement since not all the route is within the application site boundary nor under the same ownership. The need for a Change of Surface application to be made prior to any change to the right of way surface is repeated. These routes will become part of the PROW network. It is essential that any surface change is appropriate for equestrian use. The BHS website has advice on its website about suitable surfacing for bridleways: https://www.bhs.org.uk/go-riding-and-learn/access-and-bridleways-advice/ Structures and Surfaces	Yes	KMC	TBC following internal meeting re PRoW. UoC making best endeavours to discuss with relevant landowners.		01.04.2026
British Horse Society	N/A	29/10/2025	Appendix F - Toucan Crossing	The BHS also notes the proposals within the application for a proposed multiuser crossing of Huntingdon Road to link the two new bridleways: This proposal is much appreciated and supported. However, Appendix F referred to in this clause appears to be missing from the application documents. It is requested that the applicant provides this drawing to the BHS to enable further comment. The reason for this request is the wording of the proposal. Whilst the BHS supports the provision as proposed, if Cambridgeshire policy resulted in this type of structure not being approved e.g. by the RSA Team, this safe access linking two bridleways could be lost for equestrians endangering their safety. It is important that the intention of this proposal is not restricted by specific wording.	Yes	KMC	Appendix F is on planning portal.		29/10/2025
British Horse Society	N/A	29/10/2025	Bridleway Loop	It is clear from the map included with the application that there is a significant gap for equestrians in the rights of way network which this development could mitigate – the lack of connection between Bridleway 39/30 Cambridge and the new bridleway proposed at Footpath 99/5 Girton. It is also noted that there are no rights of way proposed for the development. There is plenty of pedestrian and cycle infrastructure proposed but no doubt that will be protected by signage excluding equestrians – or maybe that is not the intention? To the west of the development is the 'green' area. This could accommodate a public bridleway which could provide part of the missing link between the two bridleways. Inclusion of bridleways within new, high-density developments is not new in Cambridgeshire. Examples are the Marleigh Development off Newmarket Road, Cambridge and the Wintringham Development in St. Neots. Both these developments have multiuser / bridleway access. A bridleway 'loop' could be accommodated on this green area. The reason this request is important, despite the obvious major barrier of Madingley Road crossing, is that is that bridleway provision would enable horse owners without access to transport, to hack safely to the Vet School from north of Madingley Road. The Vet School veterinary practice is where many, many horses are registered for their veterinary services. Call out fees add significantly to what is already an expensive part of horse ownership. A safe crossing of Madingley Road will be challenging but who knows, at some point in the future there could be a safe crossing created if this route is heavily used by pedestrian / cyclists. With a bridleway already in place on the other side of the road, there would be an opportunity for equestrian inclusion. This is all about trying to future proof safe access for all users.	Yes	KMC	Bridleway not to form part of internal proposals.		29/10/2025
GCSP Urban Design	N/A	21/11/2025	Access and Movements Framework	The overall approach is supported from an urban design perspective. It builds on the successful active travel behaviours established in Phase 1, with improvements where possible that respond to lessons learned. The principle of access to the site remains as per the 2013 OPP consent.	No	KMC /HB	Welcomed.		21/11/2025
GCSP Urban Design	N/A	21/11/2025	Access and Movements Framework	The realignment of Cartwright Avenue is supported as it works better with the existing site topography and enables more flexible development parcels. The narrowing of Cartwright Avenue in compared to the 2013 outline is particularly welcomed and will enhance the character of the street and facilitate shorter and easier pedestrian crossings.	No	KMC /HB	Welcomed.		21/11/2025

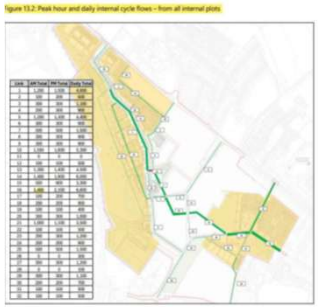
GCSP Urban Design	N/A	21/11/2025	Access and Movements Framework	We also support the approach to consolidating and rationalise car vehicle movement compared to the 2013 OPP. The future phases are characterised by single points of vehicle access into neighbourhoods supported by low speed internal loops (~10mph) that prevent through movement for cars between one residential area to another. This creates a low traffic neighbourhood baseline that supports streets as places, encourages doorstep play and strengthens the active travel network.	No	KMC /HB	Welcomed.		21/11/2025
GCSP Urban Design	N/A	21/11/2025	Access and Movements Framework	Despite the low car parking ratios proposed, reducing the impact of the car parking will remain a challenge at reserved matters stage. The design code sets out principles for locating parking close to junctions within the neighbourhoods, encouraging residents who own a car to park as soon as they leave the main street and therefore reducing vehicle movements within the residential areas. We have recommended some further refinements to the car parking coding in Table 1, and subject to these, we would be satisfied that the design code strategies can provide a robust framework for visually integrating the parked car and minimising the impact on the public realm.	Yes	HB	To be detailed through Reserved Matters. Design codes updated to reflect comments in Table 1.		21/11/2025
GCSP Urban Design	N/A	21/11/2025	Access and Movements Framework	One area requiring further attention, is the Ridgeway along the northern edge of 'The Common', which is currently identified on PP3 as a shared user path. The parameter plan should be amended to secure the Ridgeway's continuity as a segregated cycle way. Subject to this refinement, and those set out in Table 1 (related to end of trip facilities, achieving low speed etc) urban design consider the Access and Movement Parameter Plan establishes a well-structured framework and a sound basis for the reserved matters stage: Amend PP3 to secure the Ridgeway as a continuous segregated cycle way.	Yes	KMC / HB	KMC inputted to HB response.	Design Code	01.04.2026
CCC Active Travel Team	N/A	14/11/2025	Access and Movements Framework	Phase 1 has proved to be successful in terms of modal share for active and sustainable transport and the proposals are welcomed in terms of continuing the focus on active travel provision. Some amendments are, however, needed to make the application acceptable particularly with regard to the Access & Movement Parameter Plan.	Yes	HB / KMC	KMC inputted to HB response.	Parameter Plan update	01.04.2026
CCC Active Travel Team	N/A	14/11/2025	Access and Movements Framework	There are missing links on the plan, shown in red above, which should be included, particularly the link to Pheasant Drive and links to the sports pitches and allotments (as stated in the Design Code SW.54). The existing well-used link from Madingley Rise to Storey's Way is not mentioned or highlighted. Will this remain? There is a missed opportunity to improve this narrow link by providing a wider path across as shown. The alternative route via Gravel Hill is a longer detour and takes users via a potential conflict point where the road and shared used paths cross each other. The existing route, just opened, running parallel to Eddington Ave up to Storey's Field is also missing from the plan as is the ridgeway as it goes through Eddington Place	Yes	HB	KMC inputted to HB response.	Parameter Plan and Access Movement Plan update	01.04.2026
CCC Active Travel Team	N/A	14/11/2025	Access and Movements Framework	The section of the Ridgeway adjacent to the Common is shown on the Parameter Plan as shared use whilst on the indicative plan it is unclear what is proposed (marked in yellow below) This should continue the segregated provision either side – as highlighted in response to the 'Lessons for Phase 2' section within the active travel audit which states 'continue segregation on key desire lines'. The Parameter plan should be amended to reflect this. The plan shows vehicular access from Madingley Rise into Gravel Hill but no connecting roads are shown on the movement diagram in the Design and Access Statement. Clarity is needed regarding vehicular access here and confirmation that this will not be a through route.	Yes	HB	KMC inputted to HB response.	Parameter Plan and Access Movement Plan update	01.04.2026

CCC Active Travel Team	N/A	14/11/2025	Access	The access to the south east of the Cartwright Ave access appears to be only to a car park Was a continuous footway considered at this location? Justification is needed as to why this is designed with vehicular priority. The shared path across the access into Innovation Street is set back which would allow most vehicles to turn in and give way to people crossing. Justification is needed as to why a priority crossing has not been proposed here.	Yes	KMC	Respond in TAA - clarification sort from Vanessa Kelly on 08/01/2026		01.04.2026
CCC Active Travel Team	N/A	14/11/2025	Design Code	The Active Travel diagram is poor with different types of route hard to distinguish. As above the existing route between Madingley Rise and Storey's Way is not shown.	Yes	HB	KMC inputted to HB response.	Design Code	01.04.2026
CCC Active Travel Team	N/A	14/11/2025	Design Code	The use of a bi-directional cycleway, whilst not considered the optimum provision, is acceptable but leads to some complicated manoeuvres where it joins the existing uni-directional provision as set out in the indicative roundabout shown at the junction with Eddington Ave and Cartwright Ave which is confusing and does not cater for all movements. The bi-directional provision also means that connecting to crossing points from the side roads will be difficult and likely to lead to some users cycling on the footway – the location below for example.	Yes	KMC	KMC inputted to HB response and further detail at RM.	Design Code	01.04.2026
CCC Active Travel Team	N/A	14/11/2025	Design Code	Cycle Parking: the following needs to be added to para SW.60 or SW.62 'Visitor cycle parking must be provided for all apartment blocks and must be located close to main entrances.'	Yes	HB	KMC inputted to HB response.	Design Code	01.04.2026
CCC Active Travel Team	N/A	14/11/2025	Design Code	Community Lane: The illustrative diagram for CL.14 & CL.15 is not visible and it is not clear how the community lane will integrate with the neighbourhood movement loops in terms of active travel. CL.16 states that the lane must be a minimum of 3m wide. Whilst the stated overestimation of cycle numbers on each route is noted, consideration should be given to widening the shared path where there is no amenity space as LTN 1/20 recommends 4.5m for cycle movements above 300 per hour.	Yes	HB	KMC inputted to HB response.	Design Code	01.04.2026
CCC Active Travel Team	N/A	14/11/2025	Design Code	The diagram labels on p155 for Cartwright Ave & the Common do not correspond with any of the above paragraph numbers.	Yes	HB	KMC inputted to HB response.	Design Code	01.04.2026
CCC Active Travel Team	N/A	14/11/2025	Mitigation	The audit of the surrounding infrastructure connecting the site to key destinations is limited in scope and does not identify gaps/poor provision which could be improved such as the crossing of Whitehouse Lane which forms part of the route from Eddington to Darwin Green and where visibility is poor and Madingley Rd west of the Greater Cambridge Partnership scheme, linking to the facilities in Coton and Madingley which is poor in terms of surfacing and width.	Yes	KMC	ATE WRAT Tool has been completed. To be included in TAA referencing Madingley Road Scheme (GCP)		01.04.2026
CCC Active Travel Team	N/A	14/11/2025	Mitigation	The mitigation measures proposed, including the re-surfacing and widening of footpath 99/4 and proposed changes to phase 1 are supported although additional crossing points have not been proposed for the Eddington Ave junction with Huntingdon Rd as suggested in the review: Review the potential for incorporating crossing facilities at or near the Huntingdon Road junction in light of up to date traffic and travel mode survey data and capacity modelling	Yes	KMC	Review concluded new and existing crossings already provided along Hunts Road. Vanessa Kelly agreed on 08/01/2026 that crossings at junction would not be appropriate.		08/01/2026
CCC Active Travel Team	N/A	14/11/2025	Mitigation	Changes to phase 1 should also include the addition of a flush kerb to allow better transition from the shared use on Madingley Rd to the segregated cycleway as below: 	Yes	KMC	Improvement to this junction in future as part of West Camb. Proposed to be picked up aspart of wider junction improvement. Monies already set aside.		01.04.2026

CCC Active Travel Team	N/A	14/11/2025	Transport Strategy Plans	It is acknowledged that these plans are only indicative but the design of the crossings of the road and active travel route across Horse Chestnut Ave needs some further thought as it appears confusing and likely to lead to conflict. Both road crossings should be priority crossings 	Yes	KMC	Noted TBA at various RM		08/01/2026
CCC Transport Assessment Team	N/A	24/11/2025	Background	Eddington is currently considered to be a very sustainable development in terms of travel. The 2024 Eddington Travel Surveys show that 79.1% of journeys to work from existing Eddington residents can be considered to be undertaken by 'sustainable modes' of transport.	No		Agreed and noted.		24/11/2025
CCC Transport Assessment Team	N/A	24/11/2025	Background	The table below, taken from the TA shows there will be a significant number of trips generated by this development; however, the majority will be by sustainable modes with only approximately 18% by car drivers.	No		Agreed and noted.		24/11/2025

CCC Transport Assessment Team	N/A	24/11/2025	Public Transport	Various improvements to bus services have been proposed as part of this application, which are welcomed in principle. The bus proposals will be reviewed by public transport colleagues and comments will be forwarded on when available.	No		Noted.		24/11/2025
CCC Transport Assessment Team	N/A	24/11/2025	Public Transport	In section 16.5 It is not clear whether additional PT trips expected from committed developments in other areas have been taken into account. Information is required showing that there is sufficient capacity to accommodate additional trips expected from this development on top of other expected users.	Yes	KMC	KMC can confirm that the analysis in Section 16.5 and Table 16.1 accounts for the committed growth areas of West Cambridge, CBC, NECAAP, Cambridge East, Cambourne & Hardwick, and Histon & Impington. This has been done by revising the existing Gravity Model distribution weighting to account for an uplift in jobs in these growth areas, as a proportion of total existing jobs accessible from NWCM. The updated supply and demand of bus capacity vs passengers have then been compared accounting for the proposed bus strategy. Table 16.1 concludes that future bus strategy supply outstrips bus passenger demand.		08/12/2025
CCC Transport Assessment Team	N/A	24/11/2025	Public Transport	Paragraph 6.3.6 in the TA states, 'As outlined previously, queueing back along Huntingdon Road from Girton Road towards the A14 occurs infrequently, negating the need for the existing inbound bus lane in this location'. If any changes to existing bus lanes are proposed then hard evidence would be required showing this is the case, along with future scenario modelling demonstrating that the situation would not change in the future in order for the public transport team to take a view on this. Generally, CCC do not usually like to remove bus lane infrastructure.	Yes	KMC	Ongoing meetings with CCC development control team to discuss this comments and the retention of the bus lane.	TBD with LHA	08/12/2025
CCC Transport Assessment Team	N/A	24/11/2025	Highways Development Management	Please refer to comments made by the Highways DM Team for comments on accesses and other Highways related areas.	No		Pack reissued to CCC with this information. David Lines confirmed receipt of all required info.		06/11/2025
CCC Transport Assessment Team	N/A	24/11/2025	Car Parking	11.5.3 states that based on the proposed split between Private Residential and Key Working Housing, an average of 0.43 spaces per dwelling would be realised. This as a level of provision is substantially lower than the North West Cambridge AAP and the previous 2013 consent. Further information should be given showing how this compares to the car ownership data collected for this application to show that this will be sufficient and avoid overspill parking in the Park and Ride for example. This should help the LPA to take a view on the parking levels.	Yes	KMC	TBD with LHA and further evidence to be included in TAA.		01.04.2026
CCC Transport Assessment Team	N/A	24/11/2025	Car Parking	11.5.4 states that No specific visitor car parking for the residential neighbourhoods is proposed. Again, further info is required justifying that this will be sufficient to accommodate visitor and not lead to overspill parking.	Yes	KMC	TBD with LHA and further evidence to be included in TAA.		01.04.2026
CCC Transport Assessment Team	N/A	24/11/2025	Cycle Parking	11.5.4 states that No specific visitor car parking for the residential neighbourhoods is proposed. Again, further info is required justifying that this will be sufficient to accommodate visitor and not lead to overspill parking.	Yes	KMC	TBD with LHA and further evidence to be included in TAA.		01.04.2026
CCC Transport Assessment Team	N/A	24/11/2025	Cycle Parking	The TA states in 11.6.11 that a minimum of 1,115 cycle parking spaces is likely to be required for the commercial element of the proposals. Additional visitor cycle parking will also be provided. Again, it would be helpful to cross reference this to the expected number of cycle trips generated by these uses.	Yes	KMC	RM and more evidence provided in TAA		01.04.2026
CCC Transport Assessment Team	N/A	24/11/2025	Cycle Parking	Two new primary mobility hubs are included within the masterplan for the Future Phases at NWCM, along with a series of neighbourhood Mobility Hubs, these are welcomed and will encourage sustainable transport within the site.	No		Noted and welcomed.		24/11/2025
CCC Transport Assessment Team	N/A	24/11/2025	Active Travel	Further information should be provided assessing how the cycle trips to/from the development reach Eddington from areas outside the development to ensure there are no missing links etc. E.g. from Huntingdon Road north west of the site.	Yes	KMC	ATE WRAT Tool has been completed noting very successful large Sainsbury's on site for food and utilities. To be included in TAA.		01.04.2026
CCC Transport Assessment Team	N/A	24/11/2025	Trip Gen and Modelling	Section 13.1.3 of the TA states that the trip modelling section deals with the trip generation of the worst-case development scenario, by accounting for the maximum GFA for land use scenarios that maximises car driver trip generation. This is agreed with CCC for assessment purposes.	No		Noted and welcomed.		24/11/2025

CCC Transport Assessment Team	N/A	24/11/2025	Trip Gen and Modelling	When calculating the walking, cycling and public transport trips, and the distribution of these, has a worst case also been taken e.g. does this include the maximum number of sustainable mode trips or is it potentially lower due to assuming land uses with more car trips? Confirmation is required.	Yes	KMC	KMC can confirm that a robust reasonable worst case scenario has been assumed when calculating the impact of walking, cycling and public transport trips. Sustainable trip numbers have been calculated based on the vehicle trip budget not being exceeded and the NWCM revised vehicle trips detailed in Table 13.9 of the TA.		24/11/2025
CCC Transport Assessment Team	N/A	24/11/2025	Trip Gen and Modelling	The 2012 NWC Transport Assessment, submitted in support of the NWCM outline planning application, included a Person Trip Analysis which was reviewed and approved by the CCC and forecast the following AM and PM peak hour development. This has been used as a vehicle trip budget for this 2025 application.	No		Agreed and noted.		24/11/2025
CCC Transport Assessment Team	N/A	24/11/2025	Trip Gen and Modelling	These consented trips will have already been accounted for in any demand modelling undertaken and resulting transport infrastructure agreed and implemented in the area.	No		Agreed and noted.		24/11/2025
CCC Transport Assessment Team	N/A	24/11/2025	Trip Gen and Modelling	Surveys have been undertaken in 2024 by the university to establish trip generation and mode share etc by the existing development. The 2012 consent assessed 36% mode share by car driver, whereas the surveys show that a much lower mode share is being achieved with just 14% of trips being car drivers. This is a very positive outcome of the existing development and CCC agrees is a good basis for assessing future trips.	No		Agreed and noted.		24/11/2025
CCC Transport Assessment Team	N/A	24/11/2025	Trip Gen and Modelling	If the mode share targets for this development are not achieved, what measures are proposed to help bring this back down to achieve the targets and what funding is available to ensure this can happen? Further information is required.	Yes	KMC	To be included in TAA but noting exemplar, already successful, sustainable infra upfront. NWCM Design Code, successful and exemplar Travel Plan, Transport Strategy and precedent already set for low private car mode share.	S106 discussions	
CCC Transport Assessment Team	N/A	24/11/2025	Trip Gen and Modelling	In order to ensure the trip cap/budget is not exceeded a robust monitoring scheme should be agreed with CCC. If the cap is being approached, then additional measures should be put in place to improve sustainable trip numbers.	Yes	KMC	Exemplar sustainable infra proposed up front. Exemplar successful TP.	S106 discussions	
CCC Transport Assessment Team	N/A	24/11/2025	Trip Gen and Modelling	Appendix H outlines the Trip Generation methodology. H 1.20 states that an alternative first principle-based approach to trip generation has been taken for the employment uses given the bespoke nature of the proposals when compared to a typical office or commercial scheme. This is based on evidence used and approved for other similar employment sites around Cambridgeshire. Further details should be provided along with a TRICS comparison.	Yes	KMC	UoC have been working closely with the team at TRICS to provide calibrated survey data, to populate the TRICS database, with UoC sites across Cambridge. KMC can confirm that the employment sites used to determine trip rates are sites now included within the TRICS database (and therefore calibrated by TRICS), including employment plots within West Cambridge that shares the same characteristics as NWCM.		08/12/2025
CCC Transport Assessment Team	N/A	24/11/2025	Trip Gen and Modelling	H 1.164 states that Primary education trips are assumed to be focused at the UoC Primary School, which was purpose-built to serve North West Cambridge. A 90% distribution is therefore assigned to this school. Further information is required showing that the predicted 90% of trips to the UoC school can be accommodated and would not have to go further away to other external schools which could have an impact on the mode shares.	Yes	KMC	Statement provided by Quod. Phasing of school years. Evidence to be included in TAA.		01.04.2026
CCC Transport Assessment Team	N/A	24/11/2025	Trip Gen and Modelling	With regards to mode shares for education trips, H1.81 states that the mode shares for education trips were derived from professional judgement, accounting for typical travel behaviour by age group and the proximity of schools to the site. This is likely but is there any survey information available from the school to back this up?	Yes	KMC	To be included in TAA.		01.04.2026
CCC Transport Assessment Team	N/A	24/11/2025	Trip Gen and Modelling	The TA states in H.1.78 For trips that begin and end within the site (internal trips), a blanket mode share of 50:50 walking and cycling has been applied. Are there any trips undertaken by other modes?	Yes	KMC	To be included in TAA.		01.04.2026
CCC Transport Assessment Team	N/A	24/11/2025	Trip Gen and Modelling	In table 13.9 it is not clear exactly what the 'future phases' element includes and how it has been calculated. Clarification is required.	Yes	KMC	The 'future phases' element accounts for vehicle trips associated with the proposed number of dwellings beyond already occupied Phase 1 dwellings (i.e. those accounted for in the on site trip gen surveys). The vehicle trip rates used for these future phases then accounts for the exemplar evidence of sustainable trip making outlined throughout the TA.		01.04.2026

CCC Transport Assessment Team	N/A	24/11/2025	Trip Gen and Modelling	Appendix I includes the flow distribution diagrams. Some of the figures within these appear to be not showing. Clarification on these figures is required with amended information. 6 Some of the flow diagrams state they are v's GCP scheme, please provide further clarification on what this means and includes. Observed Flows + West Cambridge (Comparison vs GCP Madingley Road Scheme): AM Peak	Yes	KMC	This has arisen from producing a PDF from the excel spreadsheet. The relevant spreadsheet tabs were issued to CCC on 19/12/2025. The 'vs GCP scheme' provides a comparison between the vehicle flows calculated as part of the NWCM TA and the flows predicted by the GCP as part of the Madingley Road Scheme, which accounts for a significant uplift in public transport trip making and therefore much lower vehicle flows along Madingley Road than assessed within the NWCM TA. This comparison was included to highlight how the NWCM TA still accounts for a robust level of vehicle trip making, and existing vehicle movements along Madingley Road, compared to the planned strategic future of Madingley Road. The NWCM ultimately provides a robust vehicle impact assessment.		19/12/2025
CCC Transport Assessment Team	N/A	24/11/2025	Trip Gen and Modelling	Given the success of Phase 1 with vehicle trips falling well short of what was assessed and mitigated for in Highways capacity terms in the original Transport Assessment and application, the TA states that off-site highway schemes are limited, with a focus instead on sustainable travel improvements. This is acceptable in principle, however if the modelling shows certain capacity issues that have arisen since then with the amount of time that has passed then CCC reserve the right to ask for additional modelling and mitigation if necessary.	Yes	KMC	This is welcomed. KMC seek a definitive response on capacity modelling noting that the previously consented trip budget is not expected to be exceeded at any offsite junction. Whilst traffic and junction capacity has changed since the previous consent, the previous permission and therefore trip budget remain valid.		08/12/2025
CCC Transport Assessment Team	N/A	24/11/2025	Trip Gen and Modelling	Additional junctions along Madingley Road and Huntington Road have not currently been modelled. On the basis that the objective is not to exceed the trip cap and to ensure the high sustainable mode shares are achieved, additional junction models are not required at this time. This is on the basis that the mitigation for the development would go towards delivering improvements for sustainable modes along Madingley Road and Huntingdon Road. Should questions arise in the future about the operation of other junctions CCC may have to request additional data.	Yes	KMC	Confirmation of additional models not being required is welcomed. KMC seek a definitive response on whether additional data is sort from CCC, noting that the previous planning consent and trip budget remain valid.		08/12/2025
CCC Transport Assessment Team	N/A	24/11/2025	Trip Gen and Modelling	The modelling needs to be assessed by colleagues, once this has been undertaken the results and any resultant mitigation can be agreed.	No	KMC	Noted and KMC await further comment from CCC on this matter.	Further comment received from CCC & response prepared	08/12/2025
CCC Transport Assessment Team	N/A	24/11/2025	Trip Gen and Modelling	The above table taken from the TA shows that there will be a significant number of cycle trips generated by this development. Around 8,800 additional cycle trips could potentially filter out onto Madingley Road via various routes and have an impact crossing and/ or along it. Further information showing the distribution of these trips onto Huntingdon Road and Madingley Road is requested. 	Yes	KMC	Evidence to be included in TAA		31.03.2026
CCC Transport Assessment Team	N/A	24/11/2025	Trip Gen and Modelling	There is a GCP scheme proposed for improving the cycle and walking routes along Madingley Road. This requires funding from developers as well as other sources. Adding a significant number of additional trips onto this route will require a contribution towards its implementation to help mitigate the impact of the development. The amount should be secured via a S106 contribution and agreed with CCC prior to any permission being granted.	Yes	KMC	Already contributing alongside West Cambridge. To form part of S106 discussions.	S106 discussions	TBC at S106 agreement stage

CCC Transport Assessment Team	N/A	24/11/2025	Trip Gen and Modelling	There is also a proposed cycle improvement scheme along Huntingdon Road. Contributions to this scheme would help mitigate the impact of the development once the trips leave the site. An amount should be secured via a S106 contribution and agreed with CCC prior to any permission being granted.	Yes	KMC	Strategy already includes for scheme to improve Active Travel along Hunts Rd. CCC agreed these can be conditioned (or S106) on 08/01/2026 and therefore separate to access Tech Approval, subject to improvements being shown to be viable.	S106 discussions	08/01/2026
CCC Transport Assessment Team	N/A	24/11/2025	Trip Gen and Modelling	Table 13.6 of the TA states that an additional 6,004 walking trips would be generated by this proposed development. It would be useful to have a breakdown of the proposed routes these trips would take, similar to that which has been helpfully provided from cycle trips. Further information should be provided.	Yes	KMC	Evidence to be included in TAA		01.04.2026
CCC Transport Assessment Team	N/A	24/11/2025	Trip Gen and Modelling	The Cambourne to Cambridge bus route scheme will provide enhanced accessibility from the areas West of Cambridge, including new developments and settlements. This would be beneficial to NWC development, and a contribution may be required towards this scheme. Any contribution amount should be secured via a S106 contribution and agreed with CCC prior to any permission being granted	Yes	KMC	The proposed bus strategy is shown within the TA to meet the exemplar and high bus demand of NWCM without C2C. Nevertheless, the C2C benefits are welcomed. UoC therefore do not propose to provide additional S106 contributions towards C2C, as the proposed NWCM Bus Strategy sufficiently mitigates the demand for bus travel. Furthermore, C2C strategy is intended to support Cambourne resident access to Cambridge employment, whereas NWCM strategy is to provide employment and residential units in one community adjacent to Cambridge. So strategies do not align and therefore reasonable sound trigger not met to justify S106 obligation. Further detail to be provided in in TAA.	S106 discussions	08/01/2026
CCC Transport Assessment Team - Public Transport	N/A	04/12/2026	Public Transport	I couldn't find any estimates about what sums the Section 106 was putting aside towards the services proposed. If this is because there is a simple commitment to support the services whatever the cost, this needs to be carefully worded in the Section 106 to ensure robustness. There may be sums in the appendices but I couldn't open those – can you let me know if there are? There needs to be the ability for Section 106 bus funds to be placed on an alternative bus route if the network develops in an unexpected way before the supported bus services begin. Also, funds for any local bus services (other than the U routes) should go to the Local Transport Authority (the CPCA) which will tender the new services or negotiate with existing operators.	Yes	KMC		S106 discussions	
National Highways	NHPR 25-01	01/12/2025	Condition Request	A review of the Transport Assessment and the Travel Plan has now been carried out. Whilst National Highways acknowledge the positive mode shift reducing the car trips to approximately 14% in the latest monitoring strategy, it is not understood what mechanisms are in place if the mode share targets are not achieved and therefore the resultant impact on the SRN. National Highways recognise the Framework Site Wide Travel Plan identifies several 'soft' measures which are in principle acceptable to National Highways. National Highways recommends the following condition to monitor the mode shift patterns and manage the impact appropriately including remedial measures that might be required should the trip budget not be met as the development progresses. In summary, National Highways are now in a position to lift the holding objection and request that the following planning conditions form part of any grant of planning permission in relation to this planning application.	No	KMC	Comment Noted and Conditions agreed.		01/12/2025
National Highways	NHPR 25-01	01/12/2025	Condition 1 - TP	The development hereby permitted shall not be occupied unless and until a comprehensive Travel Plan has been submitted to and approved in writing by the Local Planning Authority (in consultation with the Highway Authority for M11). The Travel Plan shall be prepared in line with prevailing policy and best practice and shall include as a minimum: • the identification of targets for trip reduction and modal shift; • the measures to be implemented to meet these targets including an accessibility strategy to specifically address the needs of residents with limited mobility requirements; • the timetable/ phasing of the implementation of the Travel Plan measures shall be alongside occupation of the development and its operation thereafter; • the mechanisms for monitoring and review; • the mechanisms for reporting; • the remedial measures to be applied in the event that targets are not met; • the mechanisms to secure variations to the Travel Plan following monitoring and reviews. The development shall only be occupied in accordance with the approved Travel Plan which shall remain in perpetuity unless otherwise amended in accordance with a review to be agreed in writing by the Local Planning Authority in conjunction with the Highway Authority. Reason: In order to minimise the use of the private car and promote the use of sustainable modes of transport in accordance with the National Planning Policy Framework (December 2023) and paragraph 40 DfT Circular 01/2022.	No	KMC	Comment Noted and Conditions agreed		01/12/2025

National Highways	NHPR 25-01	01/12/2025	Condition 2 - CTMP	Prior to commencement of construction works, a Construction Traffic Management Plan (CTMP) for the proposed development shall be submitted to and approved in writing by the Local Planning Authority in consultation with National Highways. The approved plan shall be adhered to throughout the construction period. Reason: To ensure the efficient and reliable operation of the Strategic Road Network during the construction stage	No	KMC	Comment Noted and Conditions agreed		01/12/2025

Appendix B Distribution Sensitivity Test

Zone	Future Employees (Net)	%	Weighted Additional Distribution from Employment Growth (% Change)	Growth Location
Cambridge 001	0	0.0%	0.0%	
Cambridge 002	0	0.0%	0.0%	
Cambridge 003	8,401	10.8%	1.8%	NECAAP
Cambridge 004	0	0.0%	0.0%	
Cambridge 005	0	0.0%	0.0%	
Cambridge 006	9,000	11.5%	1.9%	Camb East
Cambridge 007	23,947	30.7%	5.1%	Camb West
Cambridge 008	0	0.0%	0.0%	
Cambridge 009	0	0.0%	0.0%	
Cambridge 010	0	0.0%	0.0%	
Cambridge 011	0	0.0%	0.0%	
Cambridge 012	0	0.0%	0.0%	
Cambridge 013	28,573	36.6%	6.1%	CBC
South Cambridgeshire 001	0	0.0%	0.0%	
South Cambridgeshire 002	0	0.0%	0.0%	
South Cambridgeshire 003	581	0.7%	0.1%	
South Cambridgeshire 004	2,462	3.2%	0.5%	
South Cambridgeshire 005	0	0.0%	0.0%	
South Cambridgeshire 006	0	0.0%	0.0%	
South Cambridgeshire 007	1,017	1.3%	0.2%	NECAAP
South Cambridgeshire 009	0	0.0%	0.0%	
South Cambridgeshire 010	0	0.0%	0.0%	
South Cambridgeshire 011	0	0.0%	0.0%	
South Cambridgeshire 012	0	0.0%	0.0%	
South Cambridgeshire 013	0	0.0%	0.0%	
South Cambridgeshire 014	0	0.0%	0.0%	
South Cambridgeshire 015	0	0.0%	0.0%	
South Cambridgeshire 016	0	0.0%	0.0%	
South Cambridgeshire 017	0	0.0%	0.0%	
South Cambridgeshire 018	0	0.0%	0.0%	
South Cambridgeshire 019	0	0.0%	0.0%	
South Cambridgeshire 020	4,134	5.3%	0.9%	
South Cambridgeshire 021	0	0.0%	0.0%	
East Cambridgeshire	0	0.0%	0.0%	
Fenland	0	0.0%	0.0%	
Huntingdonshire	0	0.0%	0.0%	
Peterborough	0	0.0%	0.0%	
Outside Cambridgeshire	0	0.0%	0.0%	
Total	78,115	100.0%	17%	

	Weighting
Existing Employees	83%
Future Employees	17%
388,000	Existing Cambridgshire Jobs

	Current Assumed PT Trips		Sens Test PT AdditionalTrips		Sens Test Total PT Trips	
	AM	PM	AM	PM	AM	PM
Total PT Trips in Peak Hour	232	320	232	320	232	320
NECAAP	52	38	5	6	57	44
CBC	28	36	14	20	42	56
Total	312	394	251	346	331	420

Key Destination By Bus	Passenger Demand		Future Sensitivity Passenger Demand		Future Sensitivity Passenger Demand (combined bus routes)	
	AM	PM	AM	PM	AM	PM
West Cambridge	185	281	185	281	227	337
CBC	28	36	42	56		
NE Growth Area	52	38	57	44	57	44
Cambridge East	16	31	16	31	16	31
Girton	Nominal	Nominal	Nominal	Nominal	Nominal	Nominal
Cambourne & Hardwick	6	7	6	7	6	6
Histon & Impington	7	6	7	6	7	6

Figure 13.8: AM peak hour trips by origin/destination

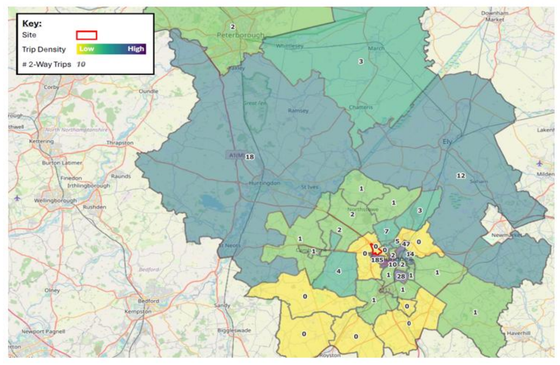
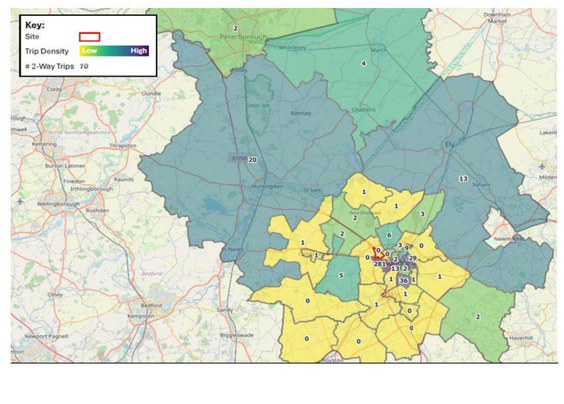


Figure 13.9: PM peak hour trips by origin/destination



Appendix C Walking and Cycling Route Audits

Local Cycling and Walking Infrastructure Plans

Walking Route Audit Tool

Overview

The primary function of the Walking Route Audit Tool (WRAT) is to assess the current condition and suitability of a walking route. The WRAT is intended to be used during or following a site visit and provides a means of ensuring that all of the factors are considered.

Walking Route Audit Tool Criteria

The WRAT uses a range of criteria to assess how well a route meets the core design outcomes, with scoring ranging from 2, being the highest, to 0, being the lowest.

The criteria are:

- attractiveness
- comfort
- directness
- safety
- coherence

How to use the RST

The WRAT requires the auditor to score the route against the following criteria:

0 for poor provision (RED)
1 for provision which is adequate but should be improved if possible (AMBER)
2 for good quality provision (GREEN)

A score of 70% (i.e. a score of 28 out of a potential 40 points) should normally be regarded as a minimum level of provision overall. Routes which score less than this, and factors which are scored as zero should be used to identify where improvements are required. As the scoring is sometimes qualitative the tool also allows the auditor to add comments explaining their score allocation. The actions column allows auditors to record solutions to any of the issues identified on the route e.g.

Summary

General information regarding the route can be entered at the bottom of the tool.

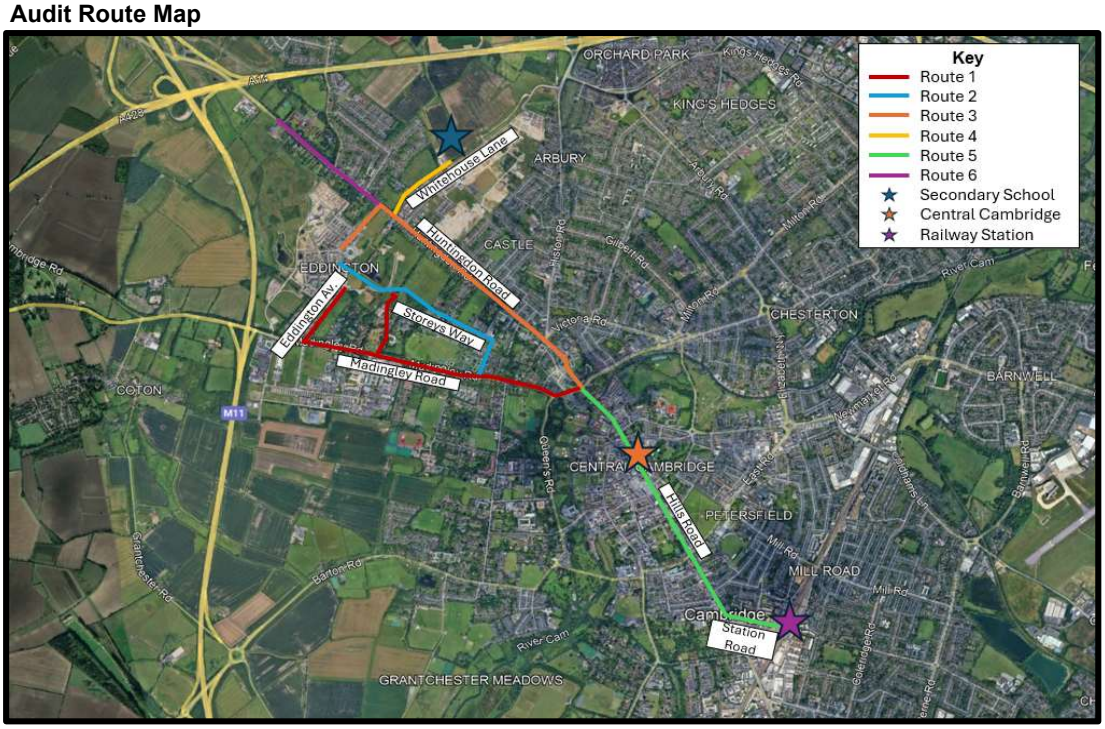
Further Information

LCWIP Guidance (Annex C) provides further information about the WRAT.

Acknowledgement

The WRAT was developed by Local Transport Projects Ltd. as part of the Active Travel Wales Guidance.

Audit Route Map



WRAT Summary

Route Number	Score	%
Route 1	36	90%
Route 2	38	95%
Route 3	35	88%
Route 4	38	95%
Route 5	33	83%
Route 6	28	70%

A score of 70% + means the route is considered acceptable.

Walking Route Audit Tool

Audit Categories	2 (Green)	1 (Amber)	0 (Red)	Score	Comments	Actions
1. ATTRACTIVENESS - maintenance	Footways well maintained, with no significant issues noted.	Minor littering, Overgrown vegetation. Street furniture falling into minor disrepair (for example, peeling paint).	Littering and/or dog mess prevalent. Seriously overgrown vegetation, including low branches. Street furniture falling into major disrepair.	2	Footways appear well maintained across Eddington Avneue and Madingley Rise, with no issues noted. GCP scheme will improve footways along Madingley Road.	
2. ATTRACTIVENESS - fear of crime	No evidence of vandalism with appropriate natural surveillance.	Minor vandalism. Lack of active frontage and natural surveillance (e.g. houses set back or back onto street).	Major or prevalent vandalism. Evidence of criminal/antisocial activity. Route is isolated, not subject to natural surveillance (including where sight lines are inadequate).	2	No evidence of vandalism noted on this route.	
3. ATTRACTIVENESS - traffic noise and pollution	Traffic noise and pollution do not affect the attractiveness	Levels of traffic noise and/or pollution could be improved	Severe traffic pollution and/or severe traffic noise	2	Madingley Road Park and Ride intercepts a number of vehicles that would be otherwise be travelling along this route. No traffic noise or pollution noted on Madingley Rise.	
4. ATTRACTIVENESS - other	Examples of 'other' attractiveness issues include: - Evidence that lighting is not present, or is deficient; - Temporary features affecting the attractiveness of routes (e.g. refuse sacks). - Excessive use of guardrail or bollards			1	No other significant instances of attractiveness noted. Street lighting is provided along most of this route. Select instances where street lighting may currently be limited for example along Madingley Rise.	
ATTRACTIVENESS				7		
5. COMFORT - condition	Footways level and in good condition, with no trip hazards.	Some defects noted, typically isolated (such as trenching or patching) or minor (such as cracked, but level pavers). Defects unlikely to result in trips or difficulty for wheelchairs, prams etc. Some footway crossovers resulting in	Large number of footway crossovers resulting in uneven surface, subsided or fretted pavement, or significant uneven patching or trenching.	2	Footways on Eddington Avenue are considered to be in good condition and well maintained. Footways on Madingley Rise are well maintained and appear recently resurfaced. GCP scheme will include new and resurfaced footways along Madingley Road.	
6. COMFORT - footway width	Able to accommodate all users without 'give and take' between users or walking on roads. Footway widths generally in excess of 2m.	Footway widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Footway widths of less than 1.5m (i.e. standard wheelchair width). Limited footway width requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay.	2	Footways on Eddington Avenue have widths in excess of 2.0m meters. It is expected that footways associated with GCP Scheme on Madingley Road will be 2.0m or wider. Footways on Madingley Rise have widths equal to or in excess of 2.0m.	
7. COMFORT - width on staggered crossings/ pedestrian islands/refuges	Able to accommodate all users without 'give and take' between users or walking on roads. Widths generally in excess of 2m to accommodate wheel-chair users.	Widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Widths of less than 1.5m (i.e. standard wheelchair width). Limited width requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay.	2	Pedestrian island / refuge on Eddington Avenue signalised crossing has width in excess of 2.0m. GCP scheme on Madingley Road includes a number of new controlled and Copenhagen crossings. These are expected to be designed in accordance with LTN 1/20 and local design standards.	
8. COMFORT - footway parking	No instances of vehicles parking on footways noted. Clearance widths generally in excess of 2m between permanent obstructions.	Clearance widths between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads due to footway parking. Footway parking causes some deviation from desire lines.	Clearance widths less than 1.5m. Footway parking requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay. Footway parking causes significant deviation from desire lines.	2	No instances of vehicles parking on footways at all routes recorded.	
9. COMFORT - gradient	There are no slopes on footway.	Slopes exist but gradients do not exceed 8 per cent (1 in 12).	Gradients exceed 8 per cent (1 in 12).	1	No slopes noted on Eddington Avenue or Madingley Rise. Limited, isolated gradients along Madingley Road. GCP scheme, whilst awaiting full detail, may address these.	
10.COMFORT - other	Examples of 'other' comfort issues include: - Temporary obstructions restricting clearance width for pedestrians (e.g. driveway gates opened into footway); - Barriers/gates restricting access; and - Bus shelters restricting clearance width. - Poorly drained footways resulting in noticeable ponding issues/slippery surfaces			2	No other significant issues that may affect comfort noted on this route.	
COMFORT				11		
11.DIRECTNESS - footway provision	Footways are provided to cater for pedestrian desire lines (e.g. adjacent to road).	Footway provision could be improved to better cater for pedestrian desire lines.	Footways are not provided to cater for pedestrian desire lines.	2	Footways are provided to cater for key pedestrian desire lines, towards Cambridge Citty Centre, local bus stops, P&R and West Cambridge.	
12.DIRECTNESS - location of crossings in relation to desire lines	Crossings follow desire lines.	Crossings partially diverting pedestrians away from desire lines.	Crossings deviate significantly from desire lines.	2	Pedestrian crossings along Eddington Avenue are considered to be provided for the key desire lines. GCP scheme on Madingley Road includes a number of new crossings for pedestrians and cyclists that cater for likley desire lines.	
13.DIRECTNESS - gaps in traffic (where no controlled crossings present or if likely to cross outside of controlled crossing)	Crossing of road easy, direct, and comfortable and without delay (< 5s average).	Crossing of road direct, but associated with some delay (up to 15s average).	Crossing of road associated indirect, or associated with significant delay (>15s average).	1	Due to signalised nature, some delay may be expected when crossing Huntington Road but unllikley to deter users from crossing.	
14.DIRECTNESS - impact of controlled crossings on journey time	Crossings are single phase pelican/puffin or zebra crossings.	Crossings are staggered but do not add significantly to journey time. Unlikely to wait >5s in pedestrian island.	Staggered crossings add significantly to journey time. Likely to wait >10s in pedestrian island.	2	Pedestrian crossings are mostly single phase signalised crossings. Signalised crossing at Eddington Avenue is staggered.	
15. DIRECTNESS - green man time	Green man time is of sufficient length to cross comfortably.	Pedestrians would benefit from extended green man time but current time unlikely to deter users.	Green man time would not give vulnerable users sufficient time to cross comfortably.	1	Due to signalised nature, some delay may be expected when crossing Madingley Road or Eddington Avenue but unllikley to deter users from crossing.	
16.DIRECTNESS - other	Examples of 'other' directness issues include: - Routes to/from bus stops not accommodated; - Steps restricting access for all users; - Confusing layout for pedestrians creating severance issues for users.			2	No other significant issues of directness noted. Route is step free.	
DIRECTNESS				10		
17.SAFETY - traffic volume	Traffic volume low, or pedestrians can keep distance from moderate traffic volumes.	Traffic volume moderate and pedestrians in close proximity.	High traffic volume, with pedestrians unable to keep their distance from traffic.	2	Madingley Road is a primary route into Cambridge for vehicles, however pedestrians will be seperated from the carraigeway by verges and / or cycle lanes meaning moderate distance can be kept from moving traffic. Footways alongside Eddington Avenue has verge seperation from the carraigeway so pedestrians can keep moderate distance from moving traffic. Madingley Rise has limited vehicle movements as it is an access only.	
18.SAFETY - traffic speed	Traffic speeds low, or pedestrians can keep distance from moderate traffic speeds.	Traffic speeds moderate and pedestrians in close proximity.	High traffic speeds, with pedestrians unable to keep their distance from traffic.	2	Eddington Avenue has a speed limit of 20mph, and the design promotes low traffic speeds. Madingley Road has a speed limit of 40mph to the west and 30mph to the east. GCP scheme includes improved verge seperation for those travelling on foot as well as cycle lane provision between footway and carraigeway.	
19.SAFETY - visibility	Good visibility for all users.	Visibility could be somewhat improved but unlikely to result in collisions.	Poor visibility, likely to result in collisions.	2	Visibility appears good across the route for all users. The TA presented a full road saftey analysis of junctions on this route where no common causation or inherent road saftey issues were noted.	
SAFETY				6		
20. COHERENCE - dropped kerbs and tactile paving	Adequate dropped kerb and tactile paving provision.	Dropped kerbs and tactile paving provided, albeit not to current standards.	Dropped kerbs and tactile paving absent or incorrect.	2	Adeuqate dropped kerb provision and tactile paving along this route. GCP Scheme will further enhance this.	
COHERENCE				2		
			Total Score	36		

ROUTE SUMMARY

Route Name	Route 1
Length	2.5km
Name of Assessor(s)	KMC
Date of Assessment	November 2025

Criterion	**Performance Scores**
Attractiveness	7
Comfort	11
Directness	10
Safety	6
Coherence	2
Total	36

Comments	This route should be considered with the GCP Madingley Road corridor improvements in place, which are a committed active travel improvement scheme along this route. Therefore, this walking route audit has been undertaken with these improvements in situ.
Actions	

Walking Route Audit Tool

Audit Categories	2 (Green)	1 (Amber)	0 (Red)	Score	Comments	Actions
1. ATTRACTIVENESS - maintenance	Footways well maintained, with no significant issues noted.	Minor littering. Overgrown vegetation. Street furniture falling into minor disrepair (for example, peeling paint).	Littering and/or dog mess prevalent. Seriously overgrown vegetation, including low branches. Street furniture falling into major disrepair.	**2**	Footways appears well maintained across the route on both sides of the carraigeway. No significant issues noted.	
2. ATTRACTIVENESS - fear of crime	No evidence of vandalism with appropriate natural surveillance.	Minor vandalism. Lack of active frontage and natural surveillance (e.g. houses set back or back onto street).	Major or prevalent vandalism. Evidence of criminal/antisocial activity. Route is isolated, not subject to natural surveillance (including where sight lines are inadequate).	**2**	No evidence of vandelism or cime noted along this route. Natural survielence is considered to be appropriate for the route.	
3. ATTRACTIVENESS - traffic noise and pollution	Traffic noise and pollution do not affect the attractiveness	Levels of traffic noise and/or pollution could be improved	Severe traffic pollution and/or severe traffic noise	**2**	The route predominantly passes through residential areas. There is a modal filter present on Storey's Way to limit traffic movements between Huntington Road and Madingley Road, therefore through traffic is limited.	
4. ATTRACTIVENESS - other	Examples of 'other' attractiveness issues include: - Evidence that lighting is not present, or is deficient; - Temporary features affecting the attractiveness of routes (e.g. refuse sacks). - Excessive use of guardrail or bollards			**2**	Street lighting is present within Eddington and along Storey's Way. Greenery such as planting along the route at Storey's Way make this an attractice route for walking.	
ATTRACTIVENESS				**8**		
5. COMFORT - condition	Footways level and in good condition, with no trip hazards.	Some defects noted, typically isolated (such as trenching or patching) or minor (such as cracked, but level pavers). Defects unlikely to result in trips or difficulty for wheelchairs, prams etc. Some footway crossovers resulting in uneven surface.	Large number of footway crossovers resulting in uneven surface, subsided or fretted pavement, or significant uneven patching or trenching.	**2**	Footways on Storey's Way appear to be in good condition with no significant trip hazards noted. Footways appear level.All new footways from the site along Garrod Street and into Storeys Way will be maintained.	
6. COMFORT - footway width	Able to accommodate all users without 'give and take' between users or walking on roads. Footway widths generally in excess of 2m.	Footway widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Footway widths of less than 1.5m (i.e. standard wheelchair width). Limited footway width requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay.	**2**	Footway widths are generaly 2m or wider, with only minor pinch points. At the south of the route adjcent to Churchhill College the footways connect into public realm where increased pedestrian space is provided.	
7. COMFORT - width on staggered crossings/ pedestrian islands/refuges	Able to accommodate all users without 'give and take' between users or walking on roads. Widths generally in excess of 2m to accommodate wheel-chair users.	Widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Widths of less than 1.5m (i.e. standard wheelchair width). Limited width requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay.	**1**	There is limited vehicle movements on this route due to the modal filter in place. Dropped kerbs are provided to facilate crossing over private driveways and access roads.	
8. COMFORT - footway parking	No instances of vehicles parking on footways noted. Clearance widths generally in excess of 2m between permanent obstructions.	Clearance widths between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads due to footway parking. Footway parking causes some deviation from desire lines.	Clearance widths less than 1.5m. Footway parking requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay. Footway parking causes significant deviation from desire lines.	**2**	Very limited instances of vehicle parking on footways noted. Designated off-footway on-street parking bays are provided when required.	
9. COMFORT - gradient	There are no slopes on footway.	Slopes exist but gradients do not exceed 8 per cent (1 in 12).	Gradients exceed 8 per cent (1 in 12).	**2**	Limited slopes on footway across route.	
10.COMFORT - other	Examples of 'other' comfort issues include: - Temporary obstructions restricting clearance width for pedestrians (e.g. driveway gates opened into footway); - Barriers/gates restricting access; and - Bus shelters restricting clearance width. - Poorly drained footways resulting in noticeable ponding issues/slippery surfaces			**2**	No other comfort issues noted across this route. The route along Storey's Way benefits from the modal filters which greatly improve the comfort of this route for those travelling on foot.	
COMFORT				**11**		
11.DIRECTNESS - footway provision	Footways are provided to cater for pedestrian desire lines (e.g. adjacent to road).	Footway provision could be improved to better cater for pedestrian desire lines.	Footways are not provided to cater for pedestrian desire lines.	**2**	Footways cater for desire lines between Eddington and Madingley Road	
12.DIRECTNESS - location of crossings in relation to desire lines	Crossings follow desire lines.	Crossings partially diverting pedestrians away from desire lines.	Crossings deviate significantly from desire lines.	**2**	Crossing and dropped kerb provision provided where desire lines are located.	
13.DIRECTNESS - gaps in traffic (where no controlled crossings present or if likely to cross outside of controlled crossing)	Crossing of road easy, direct, and comfortable and without delay (< 5s average).	Crossing of road direct, but associated with some delay (up to 15s average).	Crossing of road associated indirect, or associated with significant delay (>15s average).	**2**	As there is no through route for traffic on this link, it is considered that crossing of the road will be easy and direct.	
14.DIRECTNESS - impact of controlled crossings on journey time	Crossings are single phase pelican/puffin or zebra crossings.	Crossings are staggered but do not add significantly to journey time. Unlikely to wait >5s in pedestrian island.	Staggered crossings add significantly to journey time. Likely to wait >10s in pedestrian island.	**2**	No signalised crossings.	
15. DIRECTNESS - green man time	Green man time is of sufficient length to cross comfortably.	Pedestrians would benefit from extended green man time but current time unlikely to deter users.	Green man time would not give vulnerable users sufficient time to cross comfortably.	**2**	No signalised crossings.	
16.DIRECTNESS - other	Examples of 'other' directness issues include: - Routes to/from bus stops not accommodated; - Steps restricting access for all users; - Confusing layout for pedestrians creating severance issues for users.			**2**	Route is considered to be direct between Eddington and Madingley Road, where further pedestrian access to either Cambridge City Centre or West Cambridge is provided from Madingley Road.	
DIRECTNESS				**12**		
17.SAFETY - traffic volume	Traffic volume low, or pedestrians can keep distance from moderate traffic volumes.	Traffic volume moderate and pedestrians in close proximity.	High traffic volume, with pedestrians unable to keep their distance from traffic.	**2**	Storeys Way benefits from a modal filter. There is no through route between Madingley Road and Huntington Road for traffic. Therefore, this is considered a low traffic environment.	
18.SAFETY - traffic speed	Traffic speeds low, or pedestrians can keep distance from moderate traffic speeds.	Traffic speeds moderate and pedestrians in close proximity.	High traffic speeds, with pedestrians unable to keep their distance from traffic.	**2**	Storeys Way benefits from a modal filter. There is no through route between Madingley Road and Huntington Road for traffic. The posted speed limit on Storeys Way is 20mph.	
19.SAFETY - visibility	Good visibility for all users.	Visibility could be somewhat improved but unlikely to result in collisions.	Poor visibility, likely to result in collisions.	**2**	Visibilty appears to be good across the route.	
SAFETY				**6**		
20. COHERENCE - dropped kerbs and tactile paving	Adequate dropped kerb and tactile paving provision.	Dropped kerbs and tactile paving provided, albeit not to current standards.	Dropped kerbs and tactile paving absent or incorrect.	**1**	Dropped kerb and tacticle paving provided. There are some isolated instances where tactile is limited, such as over the Churchill College access road off Storey's Way. Any on-site infrastructure will be designed in accordance with the latest standards regarding dropped kerbs and tactile paving.	
COHERENCE				**1**		
			Total Score	**38**		

ROUTE SUMMARY

Route Name	Route 2
Length	1.5km
Name of Assessor(s)	KMC
Date of Assessment	November 2025

Criterion	**Performance Scores**
Attractiveness	8
Comfort	11
Directness	12
Safety	6
Coherence	1
Total	38

Comments	
Actions	

Walking Route Audit Tool

Audit Categories	2 (Green)	1 (Amber)	0 (Red)	Score	Comments	Actions
1. ATTRACTIVENESS - maintenance	Footways well maintained, with no significant issues noted.	Minor littering, Overgrown vegetation. Street furniture falling into minor disrepair (for example, peeling paint).	Littering and/or dog mess prevalent. Seriously overgrown vegetation, including low branches. Street furniture falling into major disrepair.	**2**	Footways appear well maintained across the route with no significant issues.	
2. ATTRACTIVENESS - fear of crime	No evidence of vandalism with appropriate natural surveillance.	Minor vandalism. Lack of active frontage and natural surveillance (e.g. houses set back or back onto street).	Major or prevalent vandalism. Evidence of criminal/antisocial activity. Route is isolated, not subject to natural surveillance (including where sight lines are inadequate).	**2**	No evidence of vandlism or petty crime on this route. The route is considered to have natural surveilence.	
3. ATTRACTIVENESS - traffic noise and pollution	Traffic noise and pollution do not affect the attractiveness	Levels of traffic noise and/or pollution could be improved	Severe traffic pollution and/or severe traffic noise	**1**	Huntington Road forms one of the key radial routes for vehicles into Cambridge city centre therefore traffic noise is likley to be higher than other routes. This route does not appear to be polluted when travelling along by active modes of transport.	
4. ATTRACTIVENESS - other	Examples of 'other' attractiveness issues include: - Evidence that lighting is not present, or is deficient; - Temporary features affecting the attractiveness of routes (e.g. refuse sacks). - Excessive use of guardrail or bollards			**2**	Street lighting is provided along this route on both Eddington Avenue and Huntington Road. No other features present that might reduce the routes percivied attractiveness.	
ATTRACTIVENESS				**7**		
5. COMFORT - condition	Footways level and in good condition, with no trip hazards.	Some defects noted, typically isolated (such as trenching or patching) or minor (such as cracked, but level pavers). Defects unlikely to result in trips or difficulty for wheelchairs, prams etc. Some footway crossovers resulting in uneven surface.	Large number of footway crossovers resulting in uneven surface, subsided or fretted pavement, or significant uneven patching or trenching.	**2**	Footways along both Eddington Avenue and Huntingdon Road appear in good condition across the route. Limited defects noted in isolated areas. It is not evisaged that defects will result in a trip hazard.	
6. COMFORT - footway width	Able to accommodate all users without 'give and take' between users or walking on roads. Footway widths generally in excess of 2m.	Footway widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Footway widths of less than 1.5m (i.e. standard wheelchair width). Limited footway width requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay.	**2**	Pedestrian footways at Eddington Avenue have a width of 2.0m in accordance with LTN 1/20. Along Huntington Road, fotoways are predominantly in excess of 2.0m wide to accommodate give or take movements. There is no instances where walking on the road would be required given footway width.	
7. COMFORT - width on staggered crossings/ pedestrian islands/refuges	Able to accommodate all users without 'give and take' between users or walking on roads. Widths generally in excess of 2m to accommodate wheel-chair users.	Widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Widths of less than 1.5m (i.e. standard wheelchair width). Limited width requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay.	**2**	Widths on pedestrian crossings/islands are appropraite. At the controlled crossing over Eddington Avenue, the pedestrian island has a measured width of approximatley 4.0m.There are additional signalised crossings on Huntington Road that have measured widths that are in excess of 2.0m which provides sufficent room for crossing.Whilst there are instances of uncontrolled crossings (to the east of the route on Huntingdon Road) it is expected most users would use the signalised crossings due to desire lines.	
8. COMFORT - footway parking	No instances of vehicles parking on footways noted. Clearance widths generally in excess of 2m between permanent obstructions.	Clearance widths between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads due to footway parking. Footway parking causes some deviation from desire lines.	Clearance widths less than 1.5m. Footway parking requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay. Footway parking causes significant deviation from desire lines.	**2**	Very limited instances of vehicles parking on pedestrian footways. Dedicated on-street parking bays are provided to serve any car parking, which is off the footways.	
9. COMFORT - gradient	There are no slopes on footway.	Slopes exist but gradients do not exceed 8 per cent (1 in 12).	Gradients exceed 8 per cent (1 in 12).	**2**	No slopes on footway. Gradient is not considered to be an issue along this route.	
10.COMFORT - other	Examples of 'other' comfort issues include: - Temporary obstructions restricting clearance width for pedestrians (e.g. driveway gates opened into footway); - Barriers/gates restricting access; and - Bus shelters restricting clearance width. - Poorly drained footways resulting in noticeable ponding issues/slippery surfaces			**1**	No significant instances of obstruction noted on this route that could obstruct comfort. Minor instances where street signage may obstruct footway width to the east of the route on Huntingdon Road near Histon Road.	
COMFORT				**11**		
11.DIRECTNESS - footway provision	Footways are provided to cater for pedestrian desire lines (e.g. adjacent to road).	Footway provision could be improved to better cater for pedestrian desire lines.	Footways are not provided to cater for pedestrian desire lines.	**2**	Footways cater for the pedestrian desire lines - adjcent to the carraigeway on both sides of the road.	
12.DIRECTNESS - location of crossings in relation to desire lines	Crossings follow desire lines.	Crossings partially diverting pedestrians away from desire lines.	Crossings deviate significantly from desire lines.	**2**	Pedestrians crossings along this route follow desire lines along and across Huntington Road.	
13.DIRECTNESS - gaps in traffic (where no controlled crossings present or if likely to cross outside of controlled crossing)	Crossing of road easy, direct, and comfortable and without delay (< 5s average).	Crossing of road direct, but associated with some delay (up to 15s average).	Crossing of road associated indirect, or associated with significant delay (>15s average).	**1**	Due to signalised nature, some delay may be expected when crossing Huntington Road but unlilikley to deter users from crossing.	
14.DIRECTNESS - impact of controlled crossings on journey time	Crossings are single phase pelican/puffin or zebra crossings.	Crossings are staggered but do not add significantly to journey time. Unlikely to wait >5s in pedestrian island.	Staggered crossings add significantly to journey time. Likely to wait >10s in pedestrian island.	**2**	Pedestrian crossings are mostly single phase signalised crossings.	
15. DIRECTNESS - green man time	Green man time is of sufficient length to cross comfortably.	Pedestrians would benefit from extended green man time but current time unlikely to deter users.	Green man time would not give vulnerable users sufficient time to cross comfortably.	**1**	Due to signalised nature, some delay may be expected when crossing Huntington Road but unlilikley to deter users from crossing.	
16.DIRECTNESS - other	Examples of 'other' directness issues include: - Routes to/from bus stops not accommodated; - Steps restricting access for all users; - Confusing layout for pedestrians creating severance issues for users.			**2**	The route provides a direct route to bus stops along Huntington Road. The route is step free. This is also one of the most direct routes into Cambridge city centre from Eddington, along with Madingley Road.	
DIRECTNESS				**10**		
17.SAFETY - traffic volume	Traffic volume low, or pedestrians can keep distance from moderate traffic volumes.	Traffic volume moderate and pedestrians in close proximity.	High traffic volume, with pedestrians unable to keep their distance from traffic.	**1**	Huntington Road is a key route into Cambridge for traffic, however pedestrians are seperated from the carraigeway by verges and / or cycle lanes or parking cars (in bays) meaning moderate distance can be kept from moving traffic.	
18.SAFETY - traffic speed	Traffic speeds low, or pedestrians can keep distance from moderate traffic speeds.	Traffic speeds moderate and pedestrians in close proximity.	High traffic speeds, with pedestrians unable to keep their distance from traffic.	**2**	Eddington Avenue is subject to a 20mph speed limit, with footways having verge seperation from the carriageway. Huntington Road has a speed limit of 30mph. There is verge seperatation from the footway to the carriageway across the route so pedestrians can keep moderate seperation from traffic.	
19.SAFETY - visibility	Good visibility for all users.	Visibility could be somewhat improved but unlikely to result in collisions.	Poor visibility, likely to result in collisions.	**2**	Visibility appears good across the route for all users. The TA presented a full road saftey analysis of junctions on this route where no common causation or inherent road saftey issues were noted.	
SAFETY				**5**		
20. COHERENCE - dropped kerbs and tactile paving	Adequate dropped kerb and tactile paving provision.	Dropped kerbs and tactile paving provided, albeit not to current standards.	Dropped kerbs and tactile paving absent or incorrect.	**2**	Dropped kerb and tacticle paving adequatley provided at junction or crossing points over minor roads for example Thorton Road or Whitehouse Lane.	
COHERENCE				**2**		
			Total Score	**35**		

ROUTE SUMMARY

Route Name	Route 3
Length	2.4km
Name of Assessor(s)	KMC
Date of Assessment	November 2025

Criterion	Performance Scores
Attractiveness	7
Comfort	11
Directness	10
Safety	5
Coherence	2
Total	35

Comments	
Actions	

Walking Route Audit Tool

Audit Categories	2 (Green)	1 (Amber)	0 (Red)	Score	Comments	Actions
1. ATTRACTIVENESS - maintenance	Footways well maintained, with no significant issues noted.	Minor littering. Overgrown vegetation. Street furniture falling into minor disrepair (for example, peeling paint).	Littering and/or dog mess prevalent. Seriously overgrown vegetation, including low branches. Street furniture falling into major disrepair.	**2**	Footways on Huntingdon Road appear well maintained. The shared pedestrian cyclist facilty adjcent to Whitehouse Lane is well maintained, as it is a recent addition to the local cycling infrastructure.	
2. ATTRACTIVENESS - fear of crime	No evidence of vandalism with appropriate natural surveillance.	Minor vandalism. Lack of active frontage and natural surveillance (e.g. houses set back or back onto street).	Major or prevalent vandalism. Evidence of criminal/antisocial activity. Route is isolated, not subject to natural surveillance (including where sight lines are inadequate).	**2**	No evidence of vandalism on this route. Appropraite natural surveillance is provided.	
3. ATTRACTIVENESS - traffic noise and pollution	Traffic noise and pollution do not affect the attractiveness	Levels of traffic noise and/or pollution could be improved	Severe traffic pollution and/or severe traffic noise	**2**	Majoirty of the route is traffic free, therefore no issues with traffic noise and pollution.	
4. ATTRACTIVENESS - other	Examples of 'other' attractiveness issues include: - Evidence that lighting is not present, or is deficient; - Temporary features affecting the attractiveness of routes (e.g. refuse sacks). - Excessive use of guardrail or bollards			**2**	No other issues with attractiveness noted on this route.	
ATTRACTIVENESS				**8**		
5. COMFORT - condition	Footways level and in good condition, with no trip hazards.	Some defects noted, typically isolated (such as trenching or patching) or minor (such as cracked, but level pavers). Defects unlikely to result in trips or difficulty for wheelchairs, prams etc. Some footway crossovers resulting in uneven surface.	Large number of footway crossovers resulting in uneven surface, subsided or fretted pavement, or significant uneven patching or trenching.	**2**	Footways on Huntingdon Road appear in good condition, with very limited instances of patching and cracks. However, these are isolated. The shared pedeestrian / cyclist facility is in good condition, with no trip hazards, as this is recently constructed link. Maintaince of this link should be ensured by the relevant stakeholders.	
6. COMFORT - footway width	Able to accommodate all users without 'give and take' between users or walking on roads. Footway widths generally in excess of 2m.	Footway widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Footway widths of less than 1.5m (i.e. standard wheelchair width). Limited footway width requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay.	**2**	The shared pedestrian / cyclist facility has a measured width of approximatley 4.0m with additional verge in places. Therefore, no issues with 'give-or-take' envisaged here. The footways on both sides of Huntingdon Road also have widths generally in excess of 2.5m.	
7. COMFORT - width on staggered crossings/ pedestrian islands/refuges	Able to accommodate all users without 'give and take' between users or walking on roads. Widths generally in excess of 2m to accommodate wheel-chair users.	Widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Widths of less than 1.5m (i.e. standard wheelchair width). Limited width requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay.	**2**	The shared pedestrian / cyclist facility has a measured width of approximatley 4.0m with additional verge in places. Therefore, no issues with 'give-or-take' envisaged here. The footways on both sides of Huntingdon Road also have widths generally in excess of 2.5m.	
8. COMFORT - footway parking	No instances of vehicles parking on footways noted. Clearance widths generally in excess of 2m between permanent obstructions.	Clearance widths between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads due to footway parking. Footway parking causes some deviation from desire lines.	Clearance widths less than 1.5m. Footway parking requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay. Footway parking causes significant deviation from desire lines.	**2**	Due to the nature of Huntingdon Road, no vehicles are parked here and obstructing footway. Vehicle access is restricted onto the shared pedestrian cycle path so no instances of vehicles parking on this segement of the route.	
9. COMFORT - gradient	There are no slopes on footway.	Slopes exist but gradients do not exceed 8 per cent (1 in 12).	Gradients exceed 8 per cent (1 in 12).	**2**	No slopes noted on footway.	
10.COMFORT - other	Examples of 'other' comfort issues include: - Temporary obstructions restricting clearance width for pedestrians (e.g. driveway gates opened into footway); - Barriers/gates restricting access; and - Bus shelters restricting clearance width. - Poorly drained footways resulting in noticeable ponding issues/slippery surfaces			**2**	No other issues with comfort noted on this route.	
COMFORT				**12**		
11.DIRECTNESS - footway provision	Footways are provided to cater for pedestrian desire lines (e.g. adjacent to road).	Footway provision could be improved to better cater for pedestrian desire lines.	Footways are not provided to cater for pedestrian desire lines.	**2**	Footways provided adjcent to both sides of Huntingdon Road that cater for key desire lines.The shared pedestrian / cyclist route northbound provides direct access into Darwin Green and the proposed secondary school here.	
12.DIRECTNESS - location of crossings in relation to desire lines	Crossings follow desire lines.	Crossings partially diverting pedestrians away from desire lines.	Crossings deviate significantly from desire lines.	**2**	Pedestrian crossing at Huntington Road follows key desire line (e.g., across Huntingdon Road).	
13.DIRECTNESS - gaps in traffic (where no controlled crossings present or if likely to cross outside of controlled crossing)	Crossing of road easy, direct, and comfortable and without delay (< 5s average).	Crossing of road direct, but associated with some delay (up to 15s average).	Crossing of road associated indirect, or associated with significant delay (>15s average).	**1**	Pedestrian crossing at Huntington Road is direct, but as this is a signalised crossing there may be some delay with crossing.	
14.DIRECTNESS - impact of controlled crossings on journey time	Crossings are single phase pelican/puffin or zebra crossings.	Crossings are staggered but do not add significantly to journey time. Unlikely to wait >5s in pedestrian island.	Staggered crossings add significantly to journey time. Likely to wait >10s in pedestrian island.	**2**	Crossing at Huntingdon Road is single phase. Pedestrian cross over at Whitehouse Lane is also unlikley to lead to delay.	
15. DIRECTNESS - green man time	Green man time is of sufficient length to cross comfortably.	Pedestrians would benefit from extended green man time but current time unlikely to deter users.	Green man time would not give vulnerable users sufficient time to cross comfortably.	**1**	Green Man time is considered sufficent to allow pedestrians to cross and not deter users.	
16.DIRECTNESS - other	Examples of 'other' directness issues include: - Routes to/from bus stops not accommodated; - Steps restricting access for all users; - Confusing layout for pedestrians creating severance issues for users.			**2**	No other issues of directness noted. The route is step free with signage provided.	
DIRECTNESS				**10**		
17.SAFETY - traffic volume	Traffic volume low, or pedestrians can keep distance from moderate traffic volumes.	Traffic volume moderate and pedestrians in close proximity.	High traffic volume, with pedestrians unable to keep their distance from traffic.	**2**	The route from the northern side of Huntington Road is traffic free.	
18.SAFETY - traffic speed	Traffic speeds low, or pedestrians can keep distance from moderate traffic speeds.	Traffic speeds moderate and pedestrians in close proximity.	High traffic speeds, with pedestrians unable to keep their distance from traffic.	**2**	The route from the northern side of Huntington Road is traffic free.	
19.SAFETY - visibility	Good visibility for all users.	Visibility could be somewhat improved but unlikely to result in collisions.	Poor visibility, likely to result in collisions.	**2**	Visibilty is considered good for all users.	
SAFETY				**6**		
20. COHERENCE - dropped kerbs and tactile paving	Adequate dropped kerb and tactile paving provision.	Dropped kerbs and tactile paving provided, albeit not to current standards.	Dropped kerbs and tactile paving absent or incorrect.	**2**	Aqdequate dropped kerb and tacile paving is provided. The pedestrian crossing across Huntington Road has provision for both, as well as the pedestrian crossover at the mouth of Whitehouse Lane.	
COHERENCE				**2**		
			Total Score	**38**		

ROUTE SUMMARY

Route Name	Route 4
Length	0.75km
Name of Assessor(s)	KMC
Date of Assessment	November 2025

Criterion	Performance Scores
Attractiveness	8
Comfort	12
Directness	10
Safety	6
Coherence	2
Total	38

Comments	
Actions	

Walking Route Audit Tool

Audit Categories	2 (Green)	1 (Amber)	0 (Red)	Score	Comments	Actions
1. ATTRACTIVENESS - maintenance	Footways well maintained, with no significant issues noted.	Minor littering, Overgrown vegetation. Street furniture falling into minor disrepair (for example, peeling paint).	Littering and/or dog mess prevalent. Seriously overgrown vegetation, including low branches. Street furniture falling into major disrepair.	2	Footways within the centre of Cambridge and along Hills Road / Station Road appear to be well maintained, with no significant issues noted.The public realm within the city centre is also well maintained, with no issues noted that would reduce the attractiveness of the route.	
2. ATTRACTIVENESS - fear of crime	No evidence of vandalism with appropriate natural surveillance.	Minor vandalism. Lack of active frontage and natural surveillance (e.g. houses set back or back onto street).	Major or prevalent vandalism. Evidence of criminal/antisocial activity. Route is isolated, not subject to natural surveillance (including where sight lines are inadequate).	2	No evidence of vandalism on this route. Due to the urban nature of this route, the route is not isolated and there is good natural survilence and lighting along this route.	
3. ATTRACTIVENESS - traffic noise and pollution	Traffic noise and pollution do not affect the attractiveness	Levels of traffic noise and/or pollution could be improved	Severe traffic pollution and/or severe traffic noise	1	Levels of traffic noise or pollution could be improved along Hills Road to the east of the route. However, it is considered this is out of the scope of the Proposed Development and a wider city issue.	
4. ATTRACTIVENESS - other	Examples of 'other' attractiveness issues include: - Evidence that lighting is not present, or is deficient; - Temporary features affecting the attractiveness of routes (e.g. refuse sacks). - Excessive use of guardrail or bollards			2	Route appears attractive, with planting in places and public realm. There are isolated uses of guardrails at junctions on Hills Road, however these are limited and are not considered to reduce the overall attractiveness of the route.	
ATTRACTIVENESS				7		
5. COMFORT - condition	Footways level and in good condition, with no trip hazards.	Some defects noted, typically isolated (such as trenching or patching) or minor (such as cracked, but level pavers). Defects unlikely to result in trips or difficulty for wheelchairs, prams etc. Some footway crossovers resulting in uneven surface.	Large number of footway crossovers resulting in uneven surface, subsided or fretted pavement, or significant uneven patching or trenching.	2	Footways across the whole route appear to be in overall good condition, with very limited instances of trip hazards noted.	
6. COMFORT - footway width	Able to accommodate all users without 'give and take' between users or walking on roads. Footway widths generally in excess of 2m.	Footway widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Footway widths of less than 1.5m (i.e. standard wheelchair width). Limited footway width requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay.	2	Footways on Station Road have an approximate measured width of 2.5m meteres. Whilst Hills Road and Regent Street a large segement of the route, footways are in excess of 2.0m with many areas having an approximate width of 3.0m both sides of the carriageway. Footways on the remainder of the route are also generally in excess of 2.0m wide, with very minor areas of local narrowing.	
7. COMFORT - width on staggered crossings/ pedestrian islands/refuges	Able to accommodate all users without 'give and take' between users or walking on roads. Widths generally in excess of 2m to accommodate wheel-chair users.	Widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Widths of less than 1.5m (i.e. standard wheelchair width). Limited width requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay.	2	Pedestrian crossing islands generally in excess of 2.0m wide to accommodate for wheel-chair users.	
8. COMFORT - footway parking	No instances of vehicles parking on footways noted. Clearance widths generally in excess of 2m between permanent obstructions.	Clearance widths between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads due to footway parking. Footway parking causes some deviation from desire lines.	Clearance widths less than 1.5m. Footway parking requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay. Footway parking causes significant deviation from desire lines.	2	No instances of vehicles parking on footways noted. Parking restrictions in place for large sections of this route (e.g., double yellow lines or no waiting zones).	
9. COMFORT - gradient	There are no slopes on footway.	Slopes exist but gradients do not exceed 8 per cent (1 in 12).	Gradients exceed 8 per cent (1 in 12).	1	There is a gradient on Madgalene Street where pedestrian footways are located both sides of the carriageway.	
10.COMFORT - other	Examples of 'other' comfort issues include: - Temporary obstructions restricting clearance width for pedestrians (e.g. driveway gates opened into footway); - Barriers/gates restricting access; and - Bus shelters restricting clearance width. - Poorly drained footways resulting in noticeable ponding issues/slippery surfaces			2	No other issues relating to comfort noted that are deemed to be significant.	
COMFORT				11		
11.DIRECTNESS - footway provision	Footways are provided to cater for pedestrian desire lines (e.g. adjacent to road).	Footway provision could be improved to better cater for pedestrian desire lines.	Footways are not provided to cater for pedestrian desire lines.	2	Footways are present along the route to cater for desire lines adjcent to the carriageways of Castle Street, Magdalene Street, Bridge Street, Sidney Street, Regent Street, Hills Road and Station Road.	
12.DIRECTNESS - location of crossings in relation to desire lines	Crossings follow desire lines.	Crossings partially diverting pedestrians away from desire lines.	Crossings deviate significantly from desire lines.	2	The provided pedestrian crossings cater for desire lines (e.g., crossing carraigeway to access retail facilies, eateries, places of rest etc)	
13.DIRECTNESS - gaps in traffic (where no controlled crossings present or if likely to cross outside of controlled crossing)	Crossing of road easy, direct, and comfortable and without delay (< 5s average).	Crossing of road direct, but associated with some delay (up to 15s average).	Crossing of road associated indirect, or associated with significant delay (>15s average).	1	Within Central Cambridge, prior to Hills Road, crossing of the road is considered easy, direct and comfortable due to the pedestrianised nature of segments of the route. Along Hills Road, a number of crossings are signalised. Therefore, there may be some delay.	
14.DIRECTNESS - impact of controlled crossings on journey time	Crossings are single phase pelican/puffin or zebra crossings.	Crossings are staggered but do not add significantly to journey time. Unlikely to wait >5s in pedestrian island.	Staggered crossings add significantly to journey time. Likely to wait >10s in pedestrian island.	0	On Hills Road, a number of pedestrian crossings are staggered that may add delay to journey times. However east and west of this on the route, a number of the crossings are single phase.	
15. DIRECTNESS - green man time	Green man time is of sufficient length to cross comfortably.	Pedestrians would benefit from extended green man time but current time unlikely to deter users.	Green man time would not give vulnerable users sufficient time to cross comfortably.	1	As per the comment in Column D, it is considered that pedestrians would benefit from extended green man time or less delay crossing on Hills Road. However this is considered out of the scope of the Proposed Development.	
16.DIRECTNESS - other	Examples of 'other' directness issues include: - Routes to/from bus stops not accommodated; - Steps restricting access for all users; - Confusing layout for pedestrians creating severance issues for users.			2	The route provides the primary most direct route into the city centre and onto Cambridge Railway Station. The route is direct with appropriate signage provided throughout to nearby destinations and interchanges.	
DIRECTNESS				8		
17.SAFETY - traffic volume	Traffic volume low, or pedestrians can keep distance from moderate traffic volumes.	Traffic volume moderate and pedestrians in close proximity.	High traffic volume, with pedestrians unable to keep their distance from traffic.	2	This route traverses through Central Cambridge which is a predominantly urban envirornment. Segements of the route are traffic free (other than some service vehicles and access only routes) within the City Centre. Where walking routes are alongside vehicular routes, pedestrians can generally keep a distance from traffic due to the provision of footways.	
18.SAFETY - traffic speed	Traffic speeds low, or pedestrians can keep distance from moderate traffic speeds.	Traffic speeds moderate and pedestrians in close proximity.	High traffic speeds, with pedestrians unable to keep their distance from traffic.	2	This route traveres through Central Cambridge which is a predominantly urban envirornment. Segements of the route are traffic free (other than some service vehicles and access only routes) within the City Centre. Traffic speeds are akin to this environment. Hills Road and Station Road are also low traffic speed envirornments with 20mph - 30mph speed limits. Pedestrians can keep moderate distance too.	
19.SAFETY - visibility	Good visibility for all users.	Visibility could be somewhat improved but unlikely to result in collisions.	Poor visibility, likely to result in collisions.	2	It is considered that visibilty throughout this route is good.	
SAFETY				6		
20. COHERENCE - dropped kerbs and tactile paving	Adequate dropped kerb and tactile paving provision.	Dropped kerbs and tactile paving provided, albeit not to current standards.	Dropped kerbs and tactile paving absent or incorrect.	1	Dropped kerb povision and tactile paving is provided along this route. There are instances on Hills Road to the east where droopped kerb and tactile paving is not akin to current standard, for example at the Station Road / Tenison Road junction near to the railway station.	
COHERENCE				1		
			Total Score	33		

ROUTE SUMMARY

Route Name	Route 5
Length	2.3km
Name of Assessor(s)	KMC
Date of Assessment	November 2025

Criterion	Performance Scores
Attractiveness	7
Comfort	11
Directness	8
Safety	6
Coherence	1
Total	33

Comments	
Actions	

Walking Route Audit Tool

Audit Categories	2 (Green)	1 (Amber)	0 (Red)	Score	Comments	Actions
1. ATTRACTIVENESS - maintenance	Footways well maintained, with no significant issues noted.	Minor littering. Overgrown vegetation. Street furniture falling into minor disrepair (for example, peeling paint).	Littering and/or dog mess prevalent. Seriously overgrown vegetation, including low branches. Street furniture falling into major disrepair.	**1**	Pedestrian footways along this area of Huntingdon Road appear well generally well maintained, however there are instances where vegetation is overgrown.	
2. ATTRACTIVENESS - fear of crime	No evidence of vandalism with appropriate natural surveillance.	Minor vandalism. Lack of active frontage and natural surveillance (e.g. houses set back or back onto street).	Major or prevalent vandalism. Evidence of criminal/antisocial activity. Route is isolated, not subject to natural surveillance (including where sight lines are inadequate).	**2**	No evidence of vandalism noted on this route.	
3. ATTRACTIVENESS - traffic noise and pollution	Traffic noise and pollution do not affect the attractiveness	Levels of traffic noise and/or pollution could be improved	Severe traffic pollution and/or severe traffic noise	**1**	Levels of traffic noise or pollution could be improved along this route, hwoever it is envisaged that this is a wider Greater Cambridge challenge. The proposed development will provide new active travel infrastructure along this stretch of Huntingdon Road, as well as the wider supporting sustainable transport srategy.	
4. ATTRACTIVENESS - other	Examples of 'other' attractiveness issues include: - Evidence that lighting is not present, or is deficient; - Temporary features affecting the attractiveness of routes (e.g. refuse sacks). - Excessive use of guardrail or bollards			**2**	No other signficant issues regarding attractiveness noted on this route. Street lighting is provided that appears adequate and sufficent too.	
ATTRACTIVENESS				**6**		
5. COMFORT - condition	Footways level and in good condition, with no trip hazards.	Some defects noted, typically isolated (such as trenching or patching) or minor (such as cracked, but level pavers). Defects unlikely to result in trips or difficulty for wheelchairs, prams etc. Some footway crossovers resulting in uneven surface.	Large number of footway crossovers resulting in uneven surface, subsided or fretted pavement, or significant uneven patching or trenching.	**2**	Whilst there are some instances of overgrown vegetation (as per audit catergory 1), footways overall appear in good condition with limited instances of trip hazards.	
6. COMFORT - footway width	Able to accommodate all users without 'give and take' between users or walking on roads. Footway widths generally in excess of 2m.	Footway widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Footway widths of less than 1.5m (i.e. standard wheelchair width). Limited footway width requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay.	**2**	Footways on northern side of Huntingdon Road have widths genreally in excess of 2.0m. Therefore, no requirement to give or take. The proposed shared footway and cycleway on the southern side of Huntingdon Road will have a width of 3.0m, in accordnace with LTN 1/20.	
7. COMFORT - width on staggered crossings/ pedestrian islands/refuges	Able to accommodate all users without 'give and take' between users or walking on roads. Widths generally in excess of 2m to accommodate wheel-chair users.	Widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Widths of less than 1.5m (i.e. standard wheelchair width). Limited width requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay.	**1**	Existing crossing facilties on this section of the route are considered to have sufficent widths in general, with limited instances of 'give-or-take'. The proposed crosisng on Huntingdon Road will be designed for all users (including equestrians) to ensure crossing is safe, and this the score for audit catergory 7 may improve.	
8. COMFORT - footway parking	No instances of vehicles parking on footways noted. Clearance widths generally in excess of 2m between permanent obstructions.	Clearance widths between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads due to footway parking. Footway parking causes some deviation from desire lines.	Clearance widths less than 1.5m. Footway parking requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay. Footway parking causes significant deviation from desire lines.	**2**	No instances of vehicles parking on footways noted along this route at time of assessment, likely due to the nature of Huntingdon Road.	
9. COMFORT - gradient	There are no slopes on footway.	Slopes exist but gradients do not exceed 8 per cent (1 in 12).	Gradients exceed 8 per cent (1 in 12).	**2**	No slopes noted on existing footway provision along this route.	
10.COMFORT - other	Examples of 'other' comfort issues include: - Temporary obstructions restricting clearance width for pedestrians (e.g. driveway gates opened into footway); - Barriers/gates restricting access; and - Bus shelters restricting clearance width. - Poorly drained footways resulting in noticeable ponding issues/slippery surfaces			**1**	Under existing conditons, there are some other comfort issues noted on this route due to the limited pedestrian footway on the southern side of northwestern Huntingdon Road. This is proposed to be 'gap-filled' by the proposed development, and the score to catergory 10 is expected to improve.	
COMFORT				**10**		
11.DIRECTNESS - footway provision	Footways are provided to cater for pedestrian desire lines (e.g. adjacent to road).	Footway provision could be improved to better cater for pedestrian desire lines.	Footways are not provided to cater for pedestrian desire lines.	**1**	Footway provision on the southern side of the northwestern section of Huntingdon Road is missing. The proposed development includes the provision of new footway here (as detailed within the TA), which will fil the gap for existing provision. Thus, it is expected the score will improve here following the implementation of the proposed development. Remainder of the route is considered sufficent.	
12.DIRECTNESS - location of crossings in relation to desire lines	Crossings follow desire lines.	Crossings partially diverting pedestrians away from desire lines.	Crossings deviate significantly from desire lines.	**1**	There are a number of existing pedestrian crossings along this section of Huntingdon Road and junctions on this route that directly serve desire lines. However, there is currently no crossing at the northwestern end of Huntingdon Road. As part of the proposed development, a new signalised toucan (with equestrian push buttons) PRoW crossing northwestern end of Huntingdon Road to serve PRoW through St Johns Land and over A14 bridge and link into the NWCM is proposed. This is fully detailed within the Transport Assessment. It is expected that with the provision of this proposed crossing, the score as existing would improve.	
13.DIRECTNESS - gaps in traffic (where no controlled crossings present or if likely to cross outside of controlled crossing)	Crossing of road easy, direct, and comfortable and without delay (< 5s average).	Crossing of road direct, but associated with some delay (up to 15s average).	Crossing of road associated indirect, or associated with significant delay (>15s average).	**0**	Crossing of the road at present may result in delay, due to the absence of any pedestrian crossing at the northwest of the route between the PRoW though St Jons Land and into the proposed development.It is expected that with the provision of this proposed crossing, the score as existing would improve.	
14.DIRECTNESS - impact of controlled crossings on journey time	Crossings are single phase pelican/puffin or zebra crossings.	Crossings are staggered but do not add significantly to journey time. Unlikely to wait >5s in pedestrian island.	Staggered crossings add significantly to journey time. Likely to wait >10s in pedestrian island.	**1**	Existing crossings are staggered but are not envisaged to signfificantly add to journey time.	
15. DIRECTNESS - green man time	Green man time is of sufficient length to cross comfortably.	Pedestrians would benefit from extended green man time but current time unlikely to deter users.	Green man time would not give vulnerable users sufficient time to cross comfortably.	**2**	Exact green man time at time of audit unknown, however crosisng time appears sufficicent and unlikley to deter users.	
16.DIRECTNESS - other	Examples of 'other' directness issues include: - Routes to/from bus stops not accommodated; - Steps restricting access for all users; - Confusing layout for pedestrians creating severance issues for users.			**2**	No other significant issues of directness noted. Route is step free and direct - not considered confusing.	
DIRECTNESS				**7**		
17.SAFETY - traffic volume	Traffic volume low, or pedestrians can keep distance from moderate traffic volumes.	Traffic volume moderate and pedestrians in close proximity.	High traffic volume, with pedestrians unable to keep their distance from traffic.	**1**	Huntington Road is a key route into Cambridge for traffic, however there is existing footway provision on the northern side of Huntingdon Road to allow pedestrians to keep moderate distance from traffic. As part of the development proposals, a new shared footway/cycleway is proposed to the northwest to full existing gaps in active travel provision here that provide new footways for pedestrians. Therefore it is expected this score would improve with the development in place.	
18.SAFETY - traffic speed	Traffic speeds low, or pedestrians can keep distance from moderate traffic speeds.	Traffic speeds moderate and pedestrians in close proximity.	High traffic speeds, with pedestrians unable to keep their distance from traffic.	**1**	The section Huntingdon Road is subject to a posted speed limit of 40mph at the western side of the route, reducing to 30mph towards to east. Under existing conditions, pedestrians can good / moderate distance from traffic on the existing pedestrian footways. As part of the development proposals, a new shared footway/cycleway is proposed to the northwest to full existing gaps in active travel provision here.	
19.SAFETY - visibility	Good visibility for all users.	Visibility could be somewhat improved but unlikely to result in collisions.	Poor visibility, likely to result in collisions.	**2**	Visibilty is considered good for all users in this location.	
SAFETY				**4**		
20. COHERENCE - dropped kerbs and tactile paving	Adequate dropped kerb and tactile paving provision.	Dropped kerbs and tactile paving provided, albeit not to current standards.	Dropped kerbs and tactile paving absent or incorrect.	**1**	Across the route, dropped kerb and tactile is provided that is generally to current standard - notably at larger junctions such as Huntingdon Road / Eddington Avenue and at existing pedestrian crossings over Huntingdon Road. The proposed access and improvements to Huntingdon Road as pat of the development proposals includes dropped kerb and tactile paving provision, that will be designed to current standards.	
COHERENCE				**1**		
			Total Score	**28**		

ROUTE SUMMARY

Route Name	Route 6
Length	1.0km
Name of Assessor(s)	KMC
Date of Assessment	November 2025

Criterion	**Performance Scores**
Attractiveness	6
Comfort	10
Directness	7
Safety	4
Coherence	1
Total	28

Comments	As part of the off-site active travel strategy, a number of improvements are proposed along this area of Huntingdon Road as part of the planning application. These are fully detailed within the Transport Assessment.
Actions	

An audit of potential cycle routes has been undertaken for NWCM by KMC.

Local Transport Note (LTN) 1/20 of cycling infrastructure design was published by the Department for Transport (DfT) in July 2020. The Note forms the latest guidance, which can be considered best-in class, on the audit and implementation of new and existing cycle infrastructure.

The assessment used criteria pertinent to LTN 1/20, focusing on five key factors / design criteria: Attractiveness, Comfort, Directness, Safety, and Coherence. These criteria were selected as are considered to reflect the main principles of high-quality, safe, and convenient cycling routes and infrastructure

Professional judgment was applied throughout the audit to evaluate features that could not be directly measured off-site, including the adequacy of junction layouts, route continuity, and overall user experience.

Each criteria was evaluated based on observable features, including surface condition, infrastructure provision, junctions, traffic volumes, lighting, and signage. Limitations of tany audit are acknowledged, including inability to verify temporary obstructions, or detailed surface conditions.

Audit Catergories	**Criteria To Consider**
Attractiveness	Maintenance (e.g., presence of vegetation, uneven surface) Crime (e.g., vandalism) Off-carraigeway / segerated cycle routes Traffic noise and pollution Lighing quality and coverage
Comfort	Surface condition Widths of routes Vehicles Parking on cycleway Gradient Drainage
Directness	Cycle infrastructure follows desire lines Priority at junctions Location of crossings
Safety	Traffic volumes Traffic speeds
Coherance	Visbibity for all users Any gaps along route

The audit of cycle routes and infrastructure has been undertaken for the same 6 routes as per the walking route audit.

Route 1 - Cycle

Audit Catergories	Criteria To Consider	Qualative Audit Comments
Attractiveness	Maintenance (e.g., presence of vegetation, uneven surface) Crime (e.g., vandalism) Off-carraigeway / segerated cycle routes Traffic noise and pollution Lighing quality and coverage	There is existing off-road cycling infrastructure along this route, through the provision of shared user path adjcent to Madingley Road. These are verge seperated from the main carriageway. As part of the GCP scheme, one-way cycle ways will be provided on either side of Madingley Road to provide dedicated cycling infrastructure.The cycleways are currently proposed to include 'Cambridge Kerb', which is a concretete kerbs ection on a slight slope creating segeration from traffic. The GCP scheme also proposed new planting, verge and promotes opportunities for landscaping which may improve the attractiveness of this route. There is existing tree's and hedgerows along this route too. Street-lighting is also provided across the length of the route. No instances of crime or vandalism noted at time of assessment.
Comfort	Surface condition Widths of routes / infrastructure Vehicles Parking on cycleway Gradient Drainage	There are a number of instances of cracking / uneven surfaces at the time of assessment on the shared-user paths adjcent to Madingley Road. However, it is anticipated that these will be improved as part of the GCP scheme. Madingley Rise appears well maintained with smooth surfacing. No drainge issues noted at the time of assessment, however these should be monitored following the implemenation of the GCP scheme. Existing shared user facility adjcent to Madingley Road has a width generally in excess of 2.0m. As part of the GCP scheme, cyclists and pedestrians will be seperated to reduce the risk of collisions. Overall the route is flat, with isolated small gradident increases. However, these are unlikley to deter users. As the existing shared-user facilties are off-carriageway, no instances of vehicle parking were recorded on Madingley Road. No instances noted on Madingley Rise.
Directness	Cycle infrastructure follows desire lines Priority at junctions Location of crossings	The route follows a desire line from the site to West Cambridge and Cambridge City Centre. There is existing infrastructure provision to cater for this desire line, which will be improved under the GCP scheme. There are crossings in situ for cyclists across Madingley Road. However, the GCP scheme also proposes a number of crossings for cyclists along Madingley Road to cater for demand between the north and south. A number of 'Copenhagen Crossings' are proposed, as well as controlled crossings for both those travelling on-foot and by wheeling. The exact typology of all crossings will be finalised at the detailed design stage of the scheme.
Safety	Traffic volumes Traffic speeds Road Safety	Madingley Road has a posted speed limit the vicinity of the route of 30mph. At present, cyclists are advised to use the shared user facility adjcent to the carriageway. Therefore users are segerated from traffic. As part of the GCP scheme, dedicated cycle lanes either side of the carriageway will be provided. Cambridge Kerb seperation will be used to keep cyclists seperated from traffic. Madingley Rise is subject to a posted speed limit of 15mph, which is considered conducive to cycling. There is limited traffic on Madingley Rise due to the route being access only with no through route for vehicles.
Coherance	Visbibity for all users Any gaps along route Provision of signage / guidance	Existing visibilty along this route is considered sufficent. Any existing gaps in provision along Madingley Road are to be adressed as part of the GCP scheme. This seeks to provide a continious and cohesive cycling route adjcent to Madingley Road. The GCP scheme also proposes new signage on this route.

Route 2 - Cycle

Audit Catergories	Criteria To Consider	Qualative Audit Comments
Attractiveness	Maintenance (e.g., presence of vegetation, uneven surface) Crime (e.g., vandalism) Off-carraigeway / segerated cycle routes Traffic noise and pollution Lighing quality and coverage	The Storey's Way carriageway appears reasonably well maintained and the surfaces are even at the time of assessment. However, there are some instances of leaf presence on the carraigeway which may present a hazard to cyclists. To the west of the route, between Storey's Way and the proposed devleopment, there are some instances where it should be ensured vegetation cut back/maintained along the cycle desire lines. No instances of vandalism or other petty crime noted on this route. Traffic noise / pollution here is not considered to be an issue, due to the in-situ modal filter at the northwest of Storey's Way which restricts through traffic movement. Street lighting is provided along Storey's Way which makes it an attractive route in the winter / when dark too. Coveage of this appears sufficent for the nature of the route, combinded with natural surviellence.
Comfort	Surface condition Widths of routes / infrastructure Vehicles Parking on cycleway Gradient Drainage	Storey's Way is a tarmaced surface, and therefore may be suitable for cycling in all weather conditions. The carriageway has an approximate measured width of 7.0m. The route is well utilised by cyclists travelling to a number of destinations across Cambridge, and all users would likley expect to see cyclusts on the carriageway. There are some instances of vehicles parked on the carriageway in designated parking bays. However, due to the nature of the route and it's utilisation, drivers will expect to see cyclists on the carriageway when manourving. There is no steep gradient on this route which promotes cycling. No drainge issues noted at time of assessment.
Directness	Cycle route/ infrastructure follows desire lines Priority at junctions Location of crossings	The route is considered to provide a relativley direct route from the Proposed Development to Madingley Road. The route is mostly straight with limited corners/junctions which creates a direct route. A modal filter is located at the northwest of Storey's Way which allows cyclists to pass through, but limits access to motor vehicles and general traffic. Cyclists can access the route from Madingley Road via the cycle infrastructure on the northern side (a shared - user path), which is also subject to improvements under the GCP Madingley Road Walk and Cycle scheme.
Safety	Traffic volumes Traffic speeds Road Safety	There is an existing modal filter to the northwest of Storey's Way which promotes a lower traffic environment, with no through route for vehicles. The rotue is access only. Therefore, it is common here for cyclists to cycle on carriageway. This route appears to be well utilised for these purposes. At the west of the route (e.g., from Garrod Street), appropriate cycle infrastructure will be provided as part of the development proposals as detailed within the Transport Asssessment. Storey's Way is subject to a posted speed limit of 20mph, which promotes a low traffic speed environment. Traffic calming features are also present such as speed bumps.
Coherance	Visbibity for all users Any gaps along route Provision of signage / guidance	No gaps in infrastructure noted along this route. The route appears cohesive and simple to follow. Visibilty appears good, as the route is predominantly 'straight' with few turn offs. Modal filter signage provides users with information about the route, as well as when cyclists could expect to join routes with general traffic. Limited directional signage on this route at the north west of the route.

Route 3 - Cycle

Audit Categories	Criteria To Consider	Qualative Audit Comments
Attractiveness	Maintenance (e.g., presence of vegetation, uneven surface) Crime (e.g., vandalism) Off-carriageway / segregated cycle routes Traffic noise and pollution Lighting quality and coverage	Maintenance of cycle routes on this route appears sufficient. Surfaces are smooth with isolated local instances of cracking. Vegetation is also not considered an issue - however there are some instances along Huntingdon Road where leaves are present on the cycleways. Cycle routes are segregated from general traffic. Street lighting is present along the route. The route is predominantly urban. No instances of vandalism or crime noted at time of assessment.
Comfort	Surface condition Widths of routes / infrastructure Vehicles Parking on cycleway Gradient Drainage	Cycle routes are hard-standing / tarmac along this route. On Eddington Avenue, cycle lanes have a width of approximately 2.0m. Along Huntington Road, the cycle lanes in this area of the route have a continuous width of approximately 2.0m. Limited / no instances of vehicle parking on cycle routes at the time of assessment. The route is relatively flat, with limited increases in gradient. At the time of assessment, no drainage issues noted.
Directness	Cycle infrastructure follows desire lines Priority at junctions Location of crossings	Cycle infrastructure along Eddington Avenue follows desire lines, with connectivity towards the city centre and further destinations to the east. Existing cycle lanes on Huntingdon Road also provide direct links towards the city centre that are continuous. These are also well utilised by existing residents and cyclists within Cambridge. Cyclists have priority over motor vehicles at a number of junctions and crossings on this route.
Safety	Traffic volumes Traffic speeds Road Safety	Whilst it is acknowledged Huntingdon Road is a key radial route into Cambridge, cyclists are segregated from traffic due to the provision of cycle lanes. On Eddington Avenue, cyclists are also separated from traffic. Eddington Avenue is subject to a posted speed limit of 30mph. There is off-road cycle infrastructure so cyclists are separated from motor traffic. This section of Huntingdon Road is subject to a posted speed limit of 30mph. Cycleways are provided on both sides of the carriageway with kerb separation to allow cyclists to keep distance from general traffic. The Transport Assessment provided a road safety assessment of this segment of Huntingdon Road, including key junctions such as Huntingdon Road / Eddington Avenue. No common causation factors or inherent road safety issues were identified within this assessment.
Coherence	Visibility for all users Any gaps along route Provision of signage / guidance	Due to the nature of Eddington Avenue and Huntingdon Road, visibility is considered good for all users. From both ends of the route, there is continuous cycle infrastructure / routes with no gaps in provision. Signage on the cycle routes provides users with direction. The use of red asphalt (or similar) on cycle lanes on Huntingdon Road increases awareness.

Route 4 - Cycle

Audit Catergories	Criteria To Consider	Qualative Audit Comments
Attractiveness	Maintenance (e.g., presence of vegetation, uneven surface) Crime (e.g., vandalism) Off-carraigeway / segerated cycle routes Traffic noise and pollution Lighing quality and coverage	As the shared pedestrian / cyclist path was constructed within recent years, as part of the Cambridge Orbital Cycle Route associated with the Darwin Green Development, it appears to be in good condition.The shared pedestrian / cyclist route is seperate from any carriageway, therefore traffic noise and pollution is limited to a small number of access-only movements along Whitehouse Lane. The route appears well maintained with no noted instances of uneven surfaces or overgrown vegetation. Maintaince appears to occur with evidence of trimmed vergelines. No instances of vanalism, anti-social behaviour or petty crime noted on this route. Street lighting is provided along the stretch of route adjcent to White House Lane, although limit lighting appears to be provided north into the Darwin Green development - however this may be due to ecological reasonings. Further north, lighting is provided as part of the wider Darwin Green Development.
Comfort	Surface condition Widths of routes / infrastructure Vehicles Parking on cycleway Gradient Drainage	As the shared pedestrian / cycle path adjcent to Whitehouse Lane was constructed in recent years, the surface condition still apepars overall good. The route is tarmac based, which supports cycling all year round and acorss the day. The shared-pedestrian user path adjcent to Whitehouse Lane has a width in excess of 3.0m. The shared pedestrian / cyclist path adjcent to the southern side of Huntington Road, providing access from the site to the north, has a width in excess of 3.0m. No instances of vehicles parking on the shared pedestrian / cyclist route. Vehicle access is limited to segment of the route, with only limited access only deliveries. No graident noted on this cycle route. The route appears relativley flat profiled which supports cycling for all users. At the time of assessment, no drainge issues were noted on this route.
Directness	Cycle infrastructure follows desire lines Priority at junctions Location of crossings	The cycling infrastructure provided supports forecast desire lines, with a direct off-carriageway route towards the Darwin Green development which will include the provison of a secondary school (the closest to NWC). Crossings for cyclists across Huntingdon Road are existing that facilate movement across this corridor.
Safety	Traffic volumes Traffic speeds Road Safety	Whilst segregated cyclist infrastructure is provided along the entirety of this route, Huntingdon Road is also subject to a posted speed limit of 30mph within the vicinity of the site. Whilst Huntingdon Road also forms a key radial route into Cambridge for vehicles, segregated cyclist infrastructure is provided which keeps cyclists a moderate distance from Traffic. The shared pedestrian / cyclist path north towards the Darwin Green development is predominantly traffic free, which benefits cyclist. The Transport Assessment provided an assessment of road saftey with a focus on vulnerable users along Huntingdon Road, where no common causation factors or inherent road saftey issues were indentified.
Coherance	Visbibity for all users Any gaps along route Provision of signage / guidance	Visibility is considered good across the route for all users. There are currently no infrastructure gaps identified along this route. Signage appears to be provided at relevent points, with shared-user signs warning cyclists that pedestrians may also be on the route. Colourisation of routes (e.g., orange/red) is also provided to ensure users are aware this route will be used by cyclists.

Route 5 - Cycle

Audit Catergories	Criteria To Consider	Qualative Audit Comments
Attractiveness	Maintenance (e.g., presence of vegetation, uneven surface) Crime (e.g., vandalism) Off-carraigeway / segerated cycle routes Traffic noise and pollution Lighing quality and coverage	The route is relativley well maintained, with some instances of uneven surfaces and cracking within Cambridge City Centre. Due to the utilisation of these routes, regular maintenance is required. No instances of vandalism noted on this route. The route comprises of a mixture of dedicated cycle infrastrcuture (e.g., cycle lanes), and on-carriageway cycle lanes within the city centre. It is expected that within Cambridge, drivers would expect to see cyclists on the carriageway. Cycle parking is provided throughout the City Centre and at the Railway Station. Due to this route passing through the City Centre (an urban area), lighting is provided. Improvements to traffic noise and pollution with the City Centre are under consideration and proposed by the GCP. The links that comprise this route are well utilised by existing residents and visitors to Cambridge on a daily basis.
Comfort	Surface condition Widths of routes / infrastructure Vehicles Parking on cycleway Gradient Drainage	Due to the urban nature of this route, the route is predominantly hardstanding / tarmac which promotes all weather / condition cycling. Some instances to the west of vehicles parking on cycleways, and on Station Road. Some instances of temporary obstructions on the route such as refuse containers on cyclways or road works. However, these should be considered limited. Whilst the route is considered to have a gentle gradient, there are some instances where the graident increases such as at Magdalene Street within the City Centre. At the time of assessment, drainage at any cycle infrastructure appeared to be sufficent.
Directness	Cycle infrastructure follows desire lines Priority at junctions Location of crossings	The route follows a forecast direct desire line from the proposed development to the City Centre and Cambridge Railway station. There are a number of other routes avaliable for cyclists too. Cycling infrastructure is provided along the route to faciliate these movements. At junctions and crossings along Hills Road and Regent Street, cyclists are given priority over motor-vehicles in a numbers of locations.
Safety	Traffic volumes Traffic speeds Road Safety	Within the City Centre, there is limited traffic on the route due to restrictions to general vehicle access. Vehicle movements are limited to access/delivery only in places. Along Regent Street / Hills Road, on marked carriageway cycle lanes are in-situ.
Coherance	Visbibity for all users Any gaps along route Provision of signage / guidance	Visibility is considered good for all users. There are some gaps in infrastructure provision to the east of the City Centre along Regent Road, but it is considered that within Cambridge drivers should expect to see cyclists on the carriageway. Signage is provided across the route (e.g., direction to railway station).

Route 6 - Cycle

Audit Catergories	Criteria To Consider	Qualative Audit Comments
Attractiveness	Maintenance (e.g., presence of vegetation, uneven surface) Crime (e.g., vandalism) Off-carraigeway / segerated cycle routes Traffic noise and pollution Lighing quality and coverage	It should be ensured that new footway and cycleways that form part of the proposed development mitigation package will be maintained to an acceptable standard. Existing cycling infrastructure on this route comprises of a mixture of on-road and segerated cycleways. As part of the proposed development, additional cycling infratructure will be provided here that will improve the attractiveness of the route. No evidence of crime or vanlism along this route at the time of assessment. Street lighting is present, which is deemed to have sufficent coverage.
Comfort	Surface condition Widths and provision of routes / infrastructure Vehicles Parking on cycleway Gradient Drainage	The condition of the cycle infrastrucutre along this area of the route appears generally well maintained, with some isolated instances of overgrown vegetation / verge that encroaches on the existing shared-user facility. The existing shared user facility on the northern side of Huntingdon Road on this route has measured widths of approximatley 2.0m-3.0m, with a transition to an existing on carriageway cycle route to the east which has a measured width of approximatley 2.0m. As part of the proposed development, a new shared pedestrian / cyclist route is proposed on the southern side of Huntingdon Road which will have a width of 3.0m, in reference with LTN 1/20. This will improve the existing facilities for cyclists along this segment of the route. Unidirectional cycle lanes are also proposed on the northwestern end of Huntingdon Road that will also be designed in reference to LTN 1/20. The proposed crossing over Huntingdon Road will also be designed to the appropriate widths, as detailed within the Transport Assessment. This will limit / negate the need for any 'give-or-take' on the carriageway. Due to the nature of Huntingdon Road, there is very limited instances of vehicles parking on the carriageway, or on cycle infrastructure in the vicinity of the route. The route is relativley flat and considered appropriate to all users in respect of gradient. No instances of drainge issues or similar noted during the time of assessment. Any improvements associated with the proposed development will be designed with appropriate highway drainage.
Directness	Cycle infrastructure follows desire lines Priority at junctions Location of crossings	The existing cycle infrastructure follows key desire lines along Huntingdon Road from the proposed development towards the city centre and further afield. On the southern side of Huntingdon Road in the vicinity of the site, there is limited dedicated cycling infraststucture meaning users currently have to cross informally, or travel a different way. The proposed development includes the provision of the following to improve the infrastructure and route at this location: Signalised Toucan (with equestrian push buttons) PRoW crossing northwestern end of Huntingdon Road to serve PRoW through St Johns Land and over A14 bridge and link into the proposed development. Signalised Toucan crossing between NW Access and Girton Road, to link in to the proposed development. The full details of these crossings including technical drawings is provided within Appendix F of the Transport Assessment.
Safety	Traffic volumes Traffic speeds Road Safety	Huntingdon Road is a key radial route into Cambridge for traffic. The posted speed limit of Huntingdon Road to the west, where the shared-user facility is provided to the north, is 40mph. Cyclists are segreated from traffic through verge seperation and the provision of a shared user path. Where on-carraigeway cycle infrastructure is located, the posted speed limit of Huntingdon Road is 30mph. The proposed development will provided a shared footway cycleway at the south of Huntingdon Road, as detailed within the Transport Assessment, which will be seperated from free-moving traffic and therefore ensure cyclists are a moderate distance away. Unidirectional cycle lanes along the northwestern end of Huntingdon Road between Girton Road and the A14 bridge are also proposed. This stretch of Huntingdon Road has also been subject a road saftey analysis within the Transport Assessment for vulnerable road users. No common causation factors or inherent road saftey issues were identified.
Coherance	Visbibity for all users Any gaps along route Provision of signage / guidance	Visibility for all users is considered sufficent along this route, as Huntingdon Road is a long, straight road. Signage for all users is provided, however may be considered limited in some areas. The proposed development will seek to gap fill existing 'missing-links' in the cycle infratructure along this segment of Huntingdon Road. The proposals are as follows: Uni-directional cycle lanes along northwestern end of Huntingdon Road to fill gap between Girton Road and A14 bridge to serve existing active travel users and new residents; Shared footway/cycleway provision between NW Huntingdon Road access and A14 bridge to fill existing active travel gap.

Appendix D Updated LinSig Modelling Outputs and Modelling RAG Tracker

	CCC LinSig 3 Model Review		**Template Version 2.1**	**Key**	
General	Project Description	North West Cambridge Masterplan (NWCM), Eddington. Plan app ref 25/03746/OUT		Red	Potential/likely error
	File Description	Model covering new proposed signals at Huntingdon Rd/New NW Access to NW Cambridge site. New access is to NW of Girton Rd, approx opposite Grange Dr.		Amber	Comment that may require clarification or minor error
	Model Filename	North West Access - without Hunt Rd Peds - RT Giveway.lsg3x		Green	No significant errors identified
	Associated Drawing	Dwg in App G of TA. Ref 24067-KMC-HGN-XX-SK-CH-HR02-PL01			
	Associated Signal Data				
	Associated Traffic Flows				
	Date Received (CCC Modelling Team)	19-Dec-25		12-Mar-26	Date Comments Received (KMC)
	Date Audited	15-Jan-26		13-Feb-26	Date Updated following Audit
	Audit Version	v1		V2	Model Version
	Audited By	Steve Newby		Nigel Pettitt	Audit Response by

		Cambridgeshire County Council Signals Team		KMC	
	Checklist	**Red/Amber/Green**	**CCC Comments**	**RAG**	**KMC Response**
Layout	Lane Structure	Green		Green	
	Short lanes / flares	Green		Green	
	Lane lengths	Green		Green	
	Lane connectors	Green		Green	
	Cruise times / speeds	Green		Green	
	Pedestrian links	Green		Green	
Signals	Phases / Phase types	Green		Green	
	Phase minimums	Green		Green	
	Intergreens	Green		Green	
	Stages	Green		Green	
	Stage sequences	Green		Green	
	Phase delays	Green		Green	
	Prohibited movements	Green		Green	
Lane Data	Lanes connected to phases	Green		Green	
	Start/end displacements	Green		Green	
	Giveways modelled?	Green		Green	
	Max flow while giving way	Red	Max flow while giving way should be used, not saturation flow	Green	Updated and no change to outputs.
	Coefficients	Green		Green	
	Opposing lanes	Green		Green	
	Storage - turns in intergreen / non-blocking	Green		Green	
	Saturation flows	Green		Green	
	Turning radii	Green		Green	
	Nearside lanes	Green		Green	
Traffic flows	Start/end times	Green		Green	
	Flows correct / in pcu?	Red	Flows match those in TA App I but are not expressed in PCU.	Green	PCUs input to model using 'Total Vehicles + HGVs' (allowing for HGVs as 2 PCUs) from flow diagrams - see flow matrix in flow diagram spreadsheet on far right.
	Flow assignment / routes	Green		Green	
	Scenarios	Green		Green	
Results	Cycle times	Green		Green	
	Degrees of Saturation	Green		Green	
	Mean Max Queues	Green		Green	
	Co-ordination	Green		Green	
	Results summarised in TA	Green		Green	
Other information / assumptions	Bonus greens	Green		Green	
	De-sliver thresholds	Green		Green	
	Optimiser weightings	Green		Green	
	Ignore random delay	Green		Green	
	Check model warnings	Green		Green	
	Double/triple cycling	Green		Green	
	Bus modelling	Green		Green	
	Other assumptions	Green		Green	

Notes

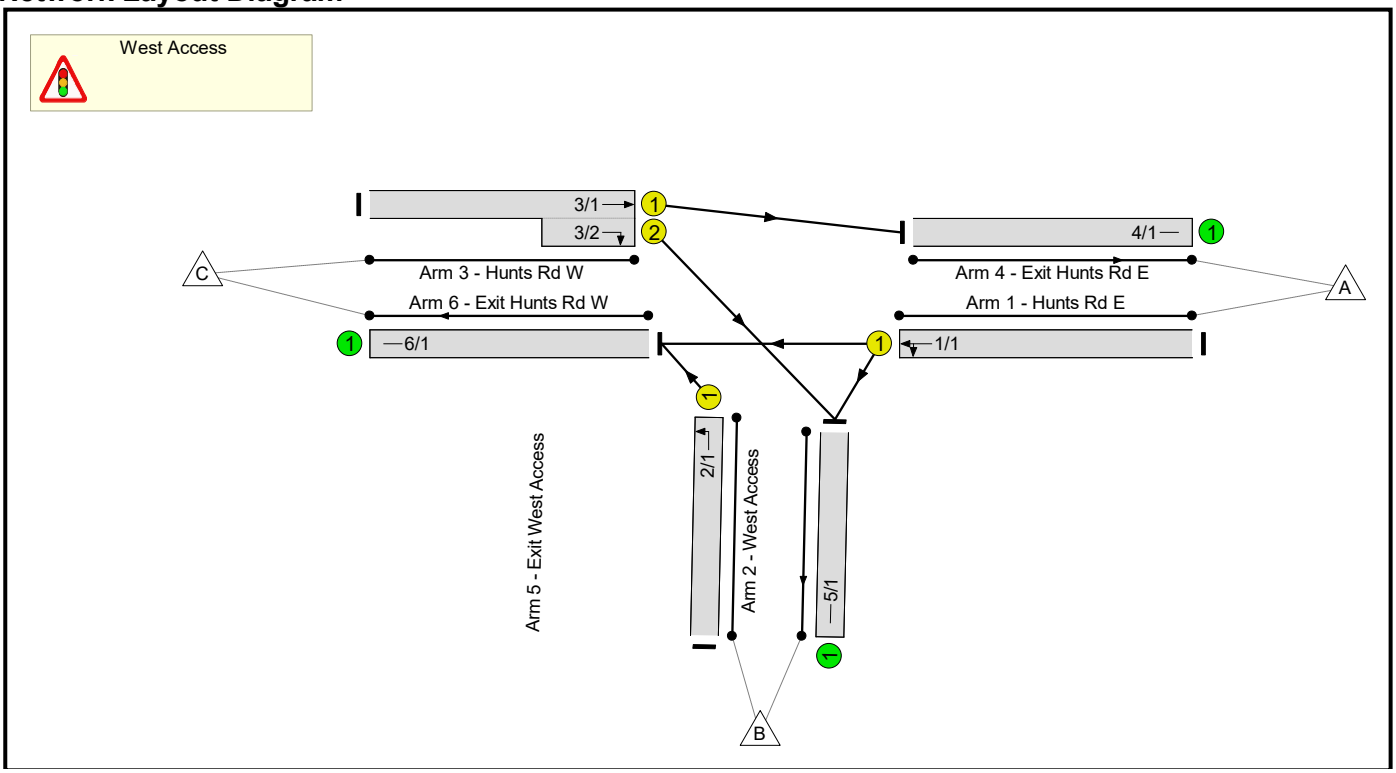
There are some specific areas that need addressing as noted in the comments above.
Most notably though, the model should be joined with the adjacent signalised pedestrian crossing.

Full Input Data And Results

User and Project Details

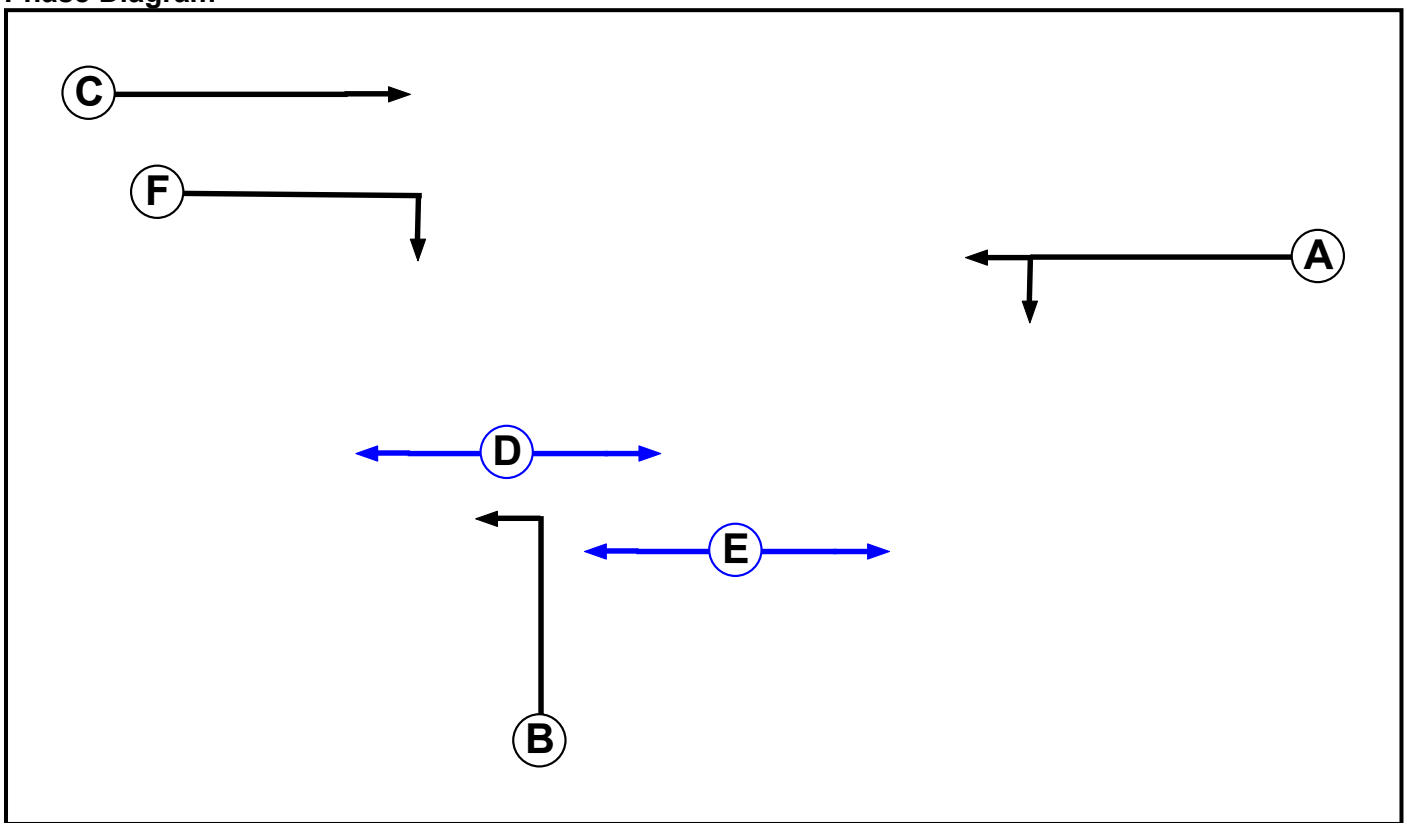
Project:	**North West Cambridge**
Title:	**North West Access**
Client:	UoC
Design Layout Ref:	Proposed Layout
File name:	North West Access - without Hunt Rd Peds - Remove RT Giveway.lsg3x
Company:	KMC
Address:	Cambridge

Network Layout Diagram



Full Input Data And Results

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min (s)	Cont Min (s)
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Pedestrian		4	4
E	Pedestrian		4	4
F	Traffic		7	7

Full Input Data And Results

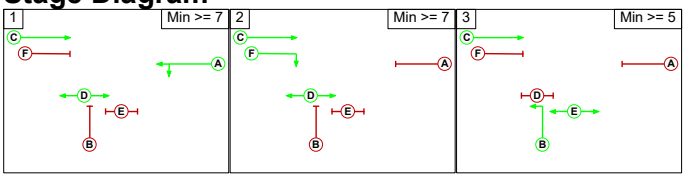
Phase Intergreens Matrix

Terminating Phase \ Starting Phase	A	B	C	D	E	F
A		6	-	-	8	5
B	5		-	5	-	5
C	-	-		-	-	-
D	-	8	-		-	-
E	7	-	-	-		7
F	5	5	-	-	10	

Phases in Stage

Stage No.	Phases in Stage
1	A C D
2	C D F
3	B C E

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

From Stage \ To Stage	1	2	3
1		5	8
2	5		10
3	7	7	

Full Input Data And Results

Give-Way Lane Input Data

Junction: West Access
There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: West Access												
Lane	**Lane Type**	**Phases**	**Start Disp. (s)**	**End Disp. (s)**	**Physical Length (PCU)**	**Sat Flow Type**	**Def User Saturation Flow (PCU/Hr)**	**Lane Width (m)**	**Gradient (%)**	**Nearside Lane**	**Turns**	**Turning Radius (m)**
1/1 (Hunts Rd E)	U	A	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 5 Left	10.00
											Arm 6 Ahead	Inf
2/1 (West Access)	U	B	2	3	60.0	Geom	-	4.00	0.00	Y	Arm 6 Left	10.00
3/1 (Hunts Rd W)	U	C	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 4 Ahead	Inf
3/2 (Hunts Rd W)	U	F	2	3	5.0	Geom	-	3.50	0.00	N	Arm 5 Right	15.00
4/1 (Exit Hunts Rd E)	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1 (Exit West Access)	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (Exit Hunts Rd W)	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2038 + Comm + NWC AM'	08:00	09:00	01:00	
2: '2038 + Comm + NWC PM'	17:00	18:00	01:00	

Scenario 1: '2038 + Comm + NWC AM' (FG1: '2038 + Comm + NWC AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	40	251	291
	B	0	0	116	116
	C	596	274	0	870
	Tot.	596	314	367	1277

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: 2038 + Comm + NWC AM
Junction: West Access	
1/1	291
2/1	116
3/1 (with short)	870(In) 596(Out)
3/2 (short)	274
4/1	596
5/1	314
6/1	367

Lane Saturation Flows

Junction: West Access								
Lane	**Lane Width (m)**	**Gradient (%)**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Hunts Rd E)	3.50	0.00	Y	Arm 5 Left	10.00	13.7 %	1925	1925
				Arm 6 Ahead	Inf	86.3 %		
2/1 (West Access)	4.00	0.00	Y	Arm 6 Left	10.00	100.0 %	1752	1752
3/1 (Hunts Rd W)	3.50	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1965	1965
3/2 (Hunts Rd W)	3.50	0.00	N	Arm 5 Right	15.00	100.0 %	1914	1914
4/1 (Exit Hunts Rd E Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Exit West Access Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Exit Hunts Rd W Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 2: '2038 + Comm + NWC PM' (FG2: '2038 + Comm + NWC PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	23	787	810
	B	0	0	159	159
	C	372	57	0	429
	Tot.	372	80	946	1398

Full Input Data And Results

Traffic Lane Flows

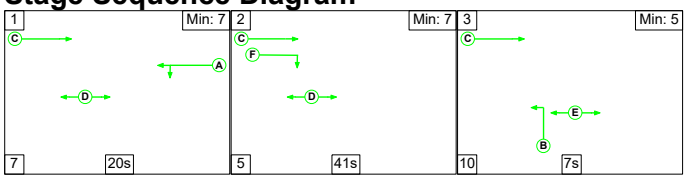
Lane	Scenario 2: 2038 + Comm + NWC PM
Junction: West Access	
1/1	810
2/1	159
3/1 (with short)	429(In) 372(Out)
3/2 (short)	57
4/1	372
5/1	80
6/1	946

Lane Saturation Flows

Junction: West Access								
Lane	**Lane Width (m)**	**Gradient (%)**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Hunts Rd E)	3.50	0.00	Y	Arm 5 Left	10.00	2.8 %	1957	1957
				Arm 6 Ahead	Inf	97.2 %		
2/1 (West Access)	4.00	0.00	Y	Arm 6 Left	10.00	100.0 %	1752	1752
3/1 (Hunts Rd W)	3.50	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1965	1965
3/2 (Hunts Rd W)	3.50	0.00	N	Arm 5 Right	15.00	100.0 %	1914	1914
4/1 (Exit Hunts Rd E Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Exit West Access Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Exit Hunts Rd W Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 1: '2038 + Comm + NWC AM' (FG1: '2038 + Comm + NWC AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

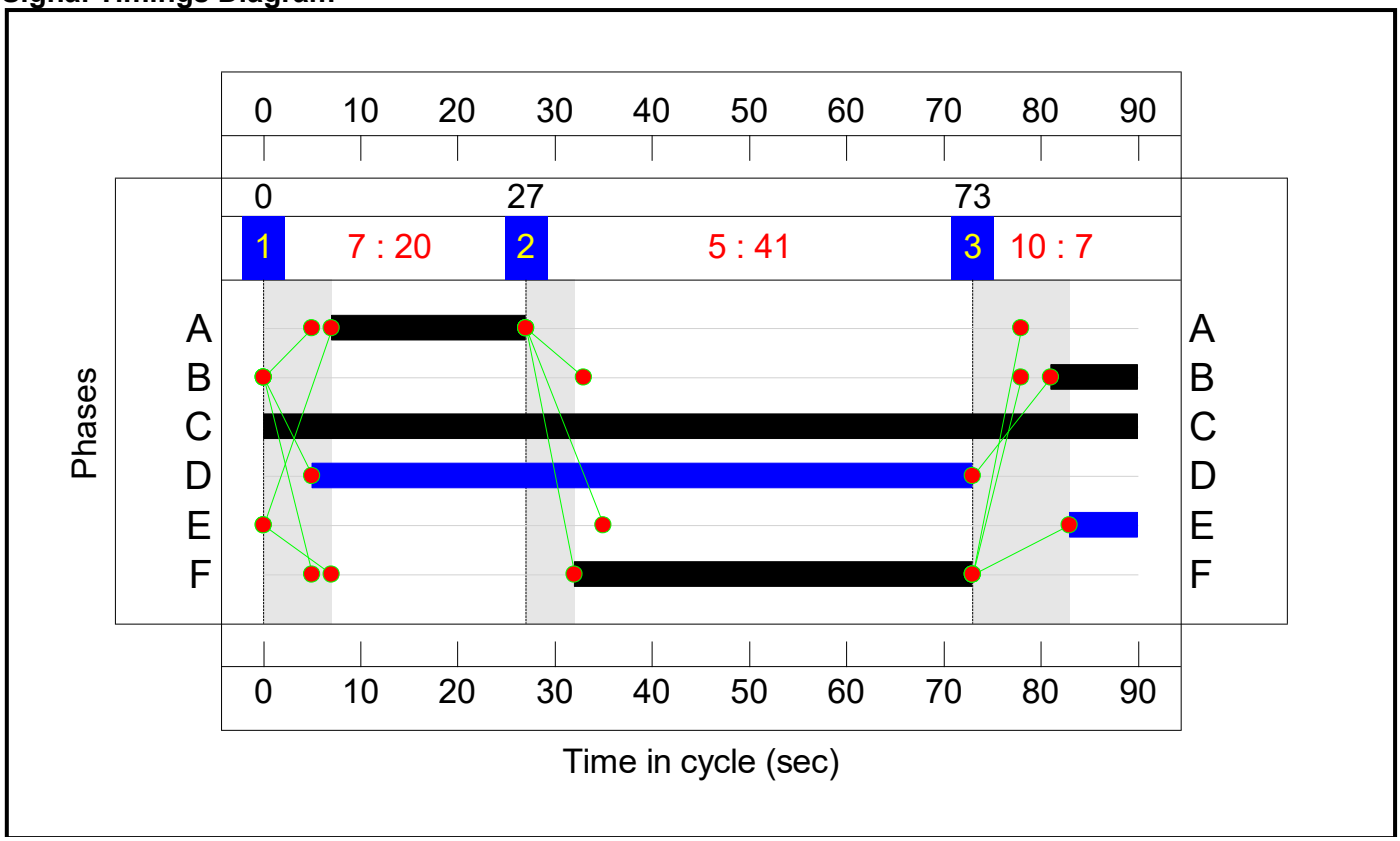


Stage Timings

Stage	1	2	3
Duration	20	41	7
Change Point	0	27	73

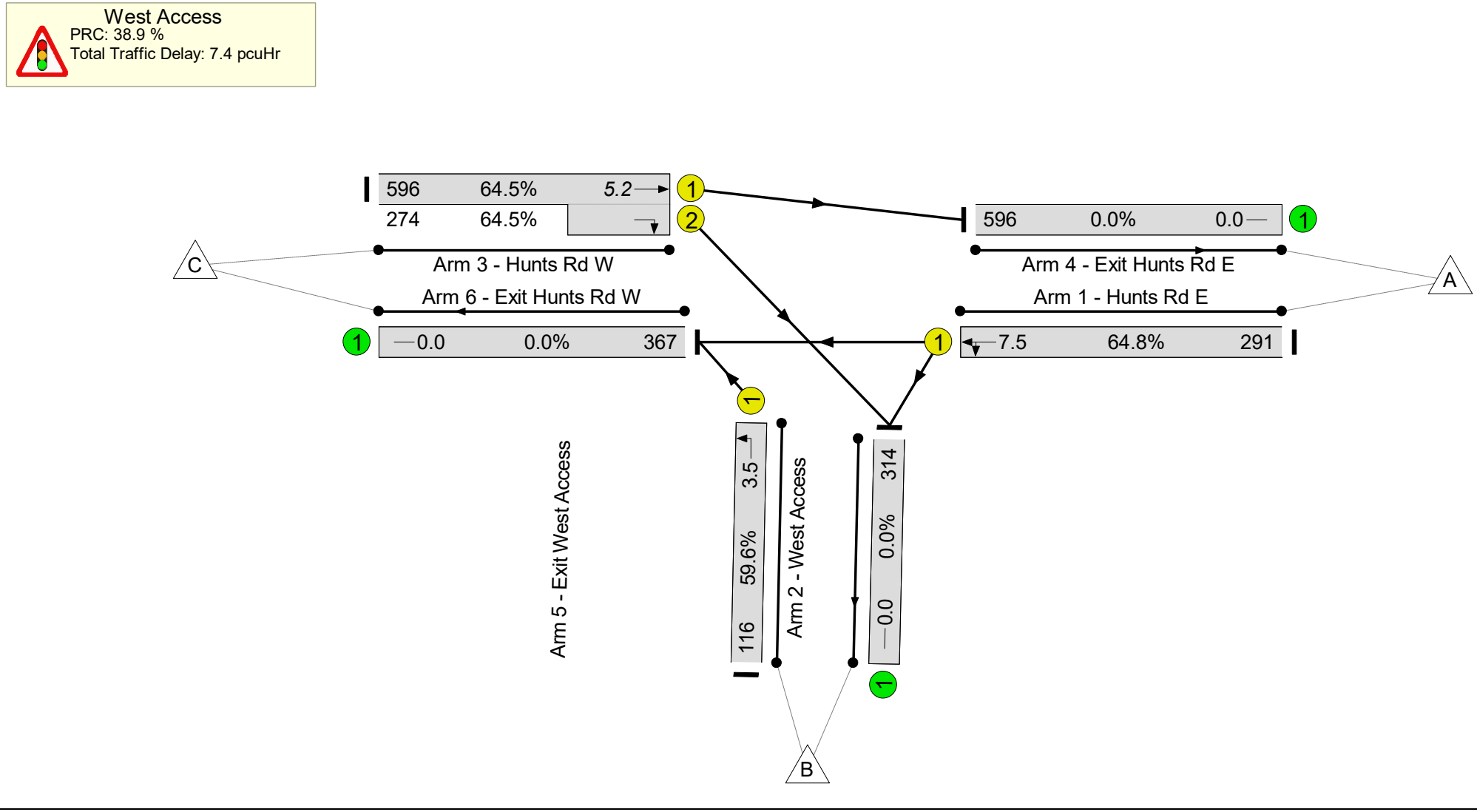
Full Input Data And Results

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: North West Access	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**64.8%**
West Access	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**64.8%**
1/1	Hunts Rd E Left Ahead	U	N/A	N/A	A		1	20	-	291	1925	449	64.8%
2/1	West Access Left	U	N/A	N/A	B		1	9	-	116	1752	195	59.6%
3/1+3/2	Hunts Rd W Ahead Right	U	N/A	N/A	C F		1	90:41	-	870	1965:1914	925+425	64.5 : 64.5%
4/1	Exit Hunts Rd E	U	N/A	N/A	-		-	-	-	596	Inf	Inf	0.0%
5/1	Exit West Access	U	N/A	N/A	-		-	-	-	314	Inf	Inf	0.0%
6/1	Exit Hunts Rd W	U	N/A	N/A	-		-	-	-	367	Inf	Inf	0.0%

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: North West Access	**-**	**-**	**0**	**0**	**0**	**4.9**	**2.5**	**0.0**	**7.4**	**-**	**-**	**-**	**-**
West Access	**-**	**-**	**0**	**0**	**0**	**4.9**	**2.5**	**0.0**	**7.4**	**-**	**-**	**-**	**-**
1/1	291	291	-	-	-	2.5	0.9	-	3.4	42.4	6.5	0.9	7.5
2/1	116	116	-	-	-	1.2	0.7	-	2.0	60.6	2.7	0.7	3.5
3/1+3/2	870	870	-	-	-	1.1	0.9	-	2.0	8.4	4.3	0.9	5.2
4/1	596	596	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	314	314	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	367	367	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

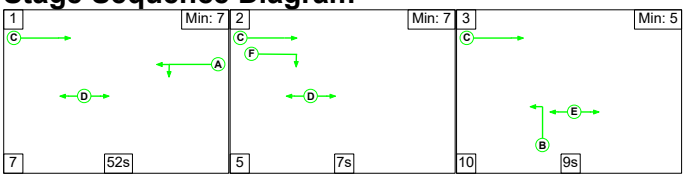
C1 PRC for Signalled Lanes (%): 38.9 Total Delay for Signalled Lanes (pcuHr): 7.42 Cycle Time (s): 90
PRC Over All Lanes (%): 38.9 Total Delay Over All Lanes(pcuHr): 7.42

Full Input Data And Results

Full Input Data And Results

Scenario 2: '2038 + Comm + NWC PM' (FG2: '2038 + Comm + NWC PM', Plan 1: 'Network Control Plan 1')

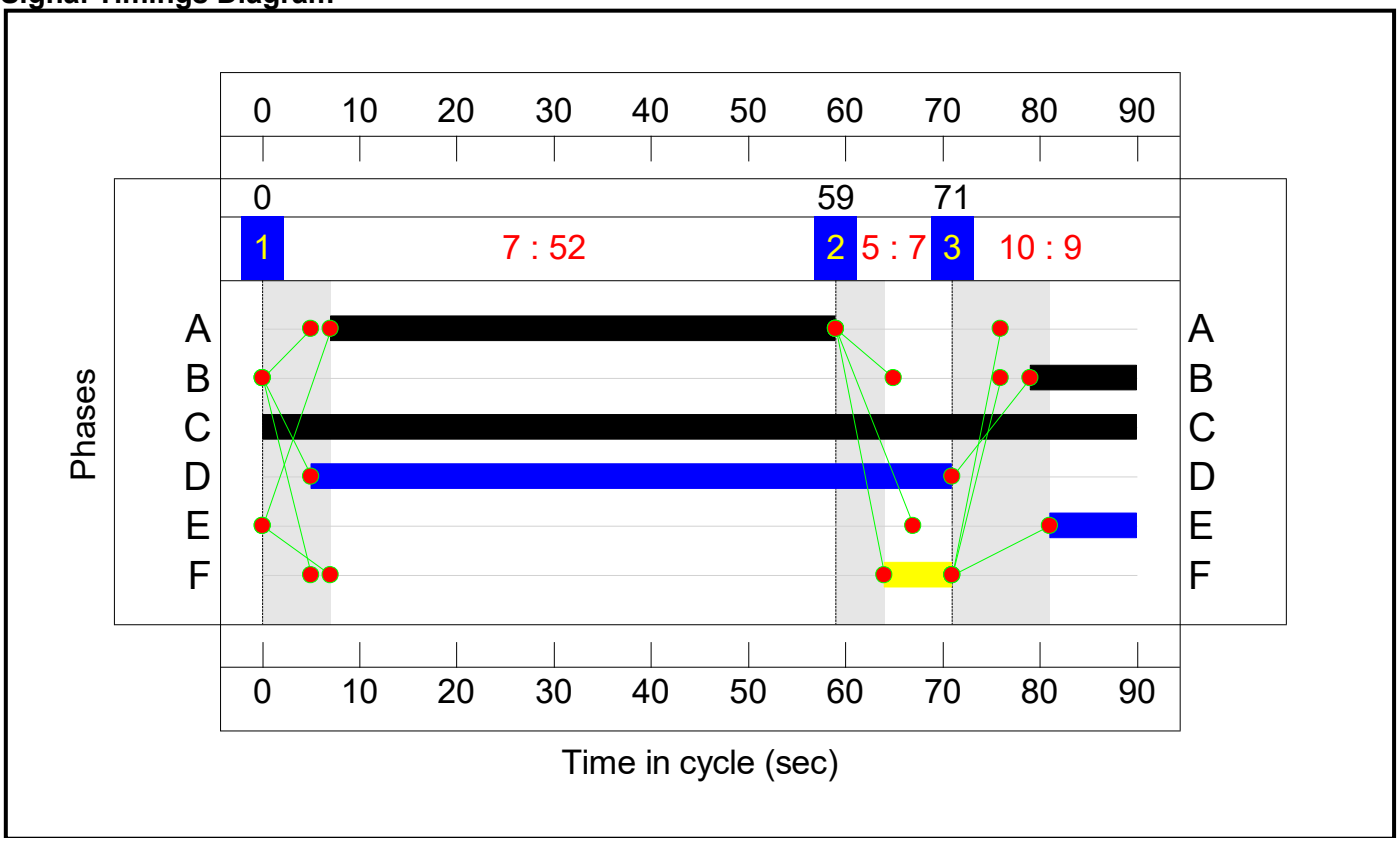
Stage Sequence Diagram



Stage Timings

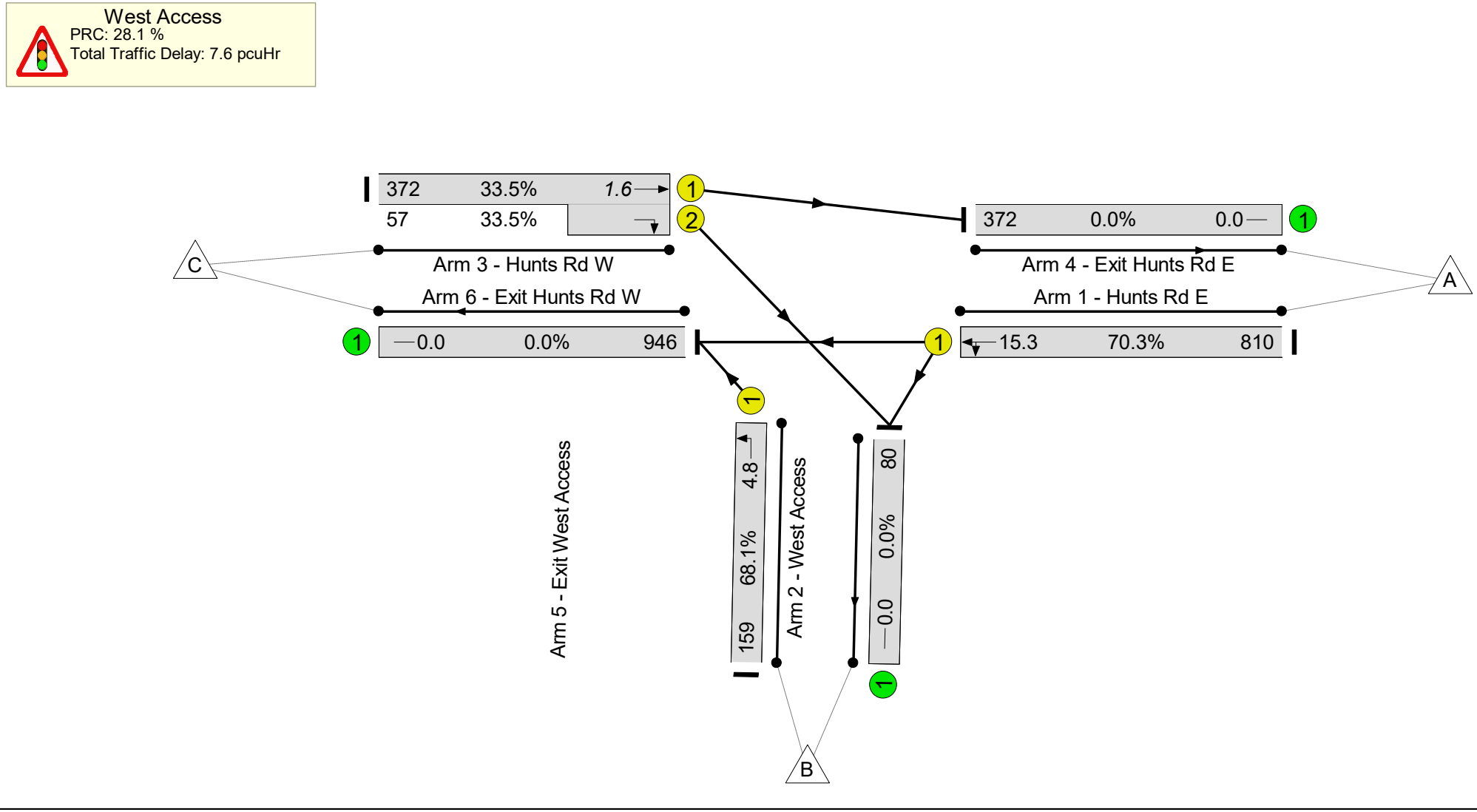
Stage	1	2	3
Duration	52	7	9
Change Point	0	59	71

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: North West Access	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**70.3%**
West Access	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**70.3%**
1/1	Hunts Rd E Left Ahead	U	N/A	N/A	A		1	52	-	810	1957	1152	70.3%
2/1	West Access Left	U	N/A	N/A	B		1	11	-	159	1752	234	68.1%
3/1+3/2	Hunts Rd W Ahead Right	U	N/A	N/A	C F		1	90:7	-	429	1965:1914	1110+170	33.5 : 33.5%
4/1	Exit Hunts Rd E	U	N/A	N/A	-		-	-	-	372	Inf	Inf	0.0%
5/1	Exit West Access	U	N/A	N/A	-		-	-	-	80	Inf	Inf	0.0%
6/1	Exit Hunts Rd W	U	N/A	N/A	-		-	-	-	946	Inf	Inf	0.0%

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: North West Access	**-**	**-**	**0**	**0**	**0**	**5.2**	**2.5**	**0.0**	**7.6**	**-**	**-**	**-**	**-**
West Access	**-**	**-**	**0**	**0**	**0**	**5.2**	**2.5**	**0.0**	**7.6**	**-**	**-**	**-**	**-**
1/1	810	810	-	-	-	2.9	1.2	-	4.1	18.2	14.2	1.2	15.3
2/1	159	159	-	-	-	1.6	1.0	-	2.7	60.7	3.8	1.0	4.8
3/1+3/2	429	429	-	-	-	0.6	0.3	-	0.9	7.2	1.3	0.3	1.6
4/1	372	372	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	80	80	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	946	946	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 28.1 Total Delay for Signalled Lanes (pcuHr): 7.64 Cycle Time (s): 90
PRC Over All Lanes (%): 28.1 Total Delay Over All Lanes(pcuHr): 7.64

Full Input Data And Results

CCC LinSig 3 Model Review	**Template Version 2.1**	**Key**	
Project Description	North West Cambridge Masterplan (NWCM), Eddington. Plan app ref 25/03746/OUT	Red	Potential/likely error
File Description	Model covering existing signals at Huntingdon Rd/Eddington Ave	Amber	Comment that may require clarification or minor error
Model Filename	Hunts Rd - Eddington Ave.lsg3x	Green	No significant errors identified
Associated Drawing			
Associated Signal Data	Existing CCC site 549 (J14111, J14112) and 500 (J14121).		
Associated Traffic Flows			
Date Received (CCC Modelling Team)	19-Dec-25	12-Mar-26	Date Comments Received (KMC)
Date Audited	16-Jan-26	13-Feb-26	Date Updated following Audit
Audit Version	v1	V2	Model Version
Audited By	Steve Newby	Nigel Pettitt	Audit Response by

		Cambridgeshire County Council Signals Team		KMC	
	Checklist	**Red/Amber/Green**	**CCC Comments**	**RAG**	**KMC Response**
Layout	Lane Structure	Red	The model is effectively two individual models in the same file with individual turning movements at each junction modelled. Any interaction between the junctions is therefore not modelled and this is not acceptable. The junctions should be modelled as a network in LinSig.	Green	Updated to include flows as part of network in LinSig
	Short lanes / flares	Red	See above	Green	Updated as per above
	Lane lengths	Red	Internal lane lengths have not been coded. Flare lengths are reasonably accurate.	Green	Updated and internal lane lengths now coded and unnecessary lanes/links removed
	Lane connectors	Red	See above	Green	Unnecessary lane connectors removed.
	Cruise times / speeds	Red	See above	Green	Cruise speed kept at 35kph and default lane lengths updated as per above.
	Pedestrian links	Green		Green	
Signals	Phases / Phase types	Green		Green	
	Phase minimums	Green		Green	
	Intergreens	Green		Green	
	Stages	Green		Green	
	Stage sequences	Green	Note the SSGM logs show that stage 3 at Huntingdon Rd/Lawrence Weaver Rd gets called infrequently during AM and PM peak hours	Green	Noted and therefore results provide reasonable robust outputs assuming called every cycle.
	Phase delays	Green		Green	
	Prohibited movements	Green		Green	
Lane Data	Lanes connected to phases	Green		Green	
	Start/end displacements	Green		Green	
	Giveways modelled?	Red	Giveways are modelled but there is no demand in the model	Green	Demand flows updated to account for above network changes.
	Max flow while giving way	Green		Green	
	Coefficients	Green		Green	
	Opposing lanes	Green		Green	
	Storage - turns in intergreen / non-blocking	Green		Green	
	Saturation flows	Red	Sat flows will need checking again in the revised model	Green	Checked and unchanged
	Turning radii	Red	See above	Green	Checked and unchanged
	Nearside lanes	Red	See above	Green	Checked and unchanged
Traffic flows	Start/end times	Green		Green	
	Flows correct / in pcu?	Red	A spot check of flows in the model compared with those in TA App I shows good correlation but the flows are not expressed in PCU though	Green	PCUs input to model using 'Total Vehicles + HGVs' (allowing for HGVs as 2 PCUs) from flow diagrams - see flow matrix in flow diagram spreadsheet on far right. Flows also updated to account for one network (as per above) and turning movements split proportionally from upstream movements between junctions).
	Flow assignment / routes	Red	These will need checking in the revised model	Green	
	Scenarios	Green		Green	
Results	Cycle times	Green		Green	
	Degrees of Saturation	Red	Results from the revised model will be assessed	Amber	Updated results to be reviewed by CCC. DoS lower for NWCM when compared with OPP Trip Budget Scenario run.
	Mean Max Queues	Red	Results from the revised model will be assessed	Amber	Updated results to be reviewed by CCC. MMQ lower for NWCM when compared with OPP Trip Budget Scenario run
	Co-ordination	Red	Results from the revised model will be assessed	Amber	Updated results to be reviewed by CCC
	Results summarised in TA	Red	Results from the revised model will be assessed	Amber	Summarised in outputs and email. Results show '2038 + Comm + NWCM' operates significantly better than '2038 + Comm + OPP Trip Budget accounting for Phase 1 dwellings occupied'
Other information / assumptions	Bonus greens	Red	Results from the revised model will be assessed	Amber	Updated results to be reviewed by CCC
	De-sliver thresholds	Red	Results from the revised model will be assessed	Amber	Updated results to be reviewed by CCC
	Optimiser weightings	Red	Results from the revised model will be assessed	Amber	Updated results to be reviewed by CCC
	Ignore random delay	Red	Results from the revised model will be assessed	Amber	Updated results to be reviewed by CCC
	Check model warnings	Red	Results from the revised model will be assessed	Amber	Updated results to be reviewed by CCC
	Double/triple cycling	Red	Results from the revised model will be assessed	Amber	Updated results to be reviewed by CCC
	Bus modelling	Green		Green	
	Other assumptions	Green		Green	

Notes

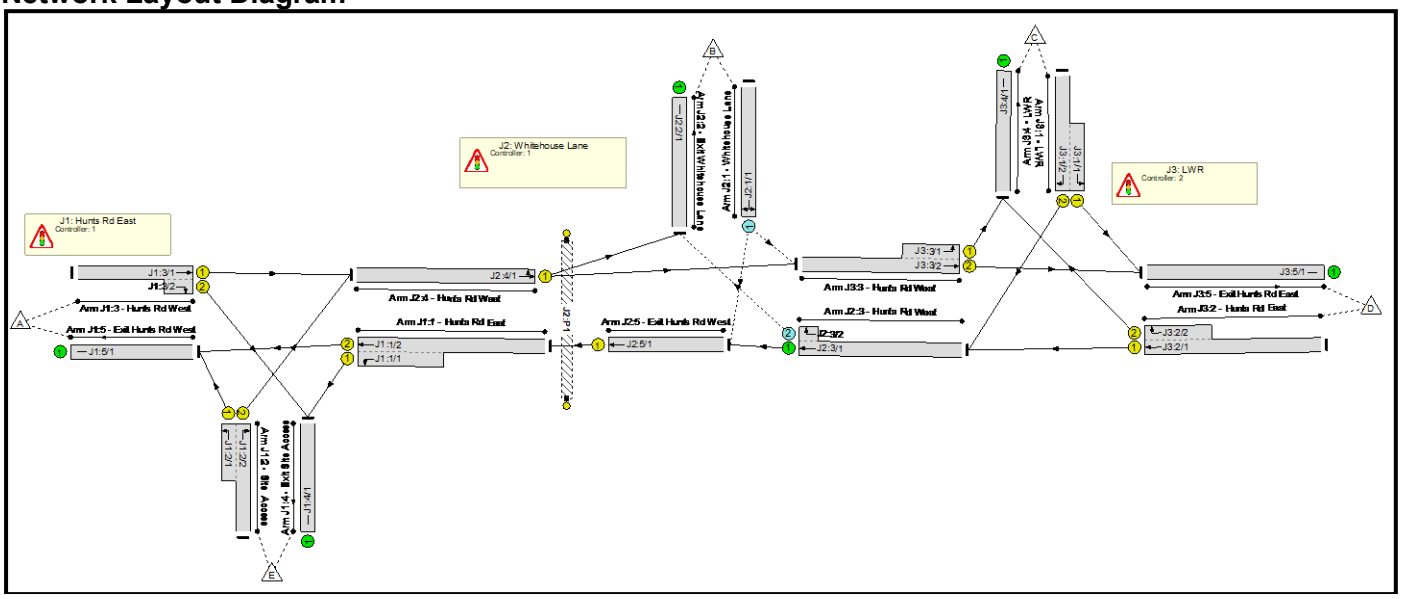
There are some specific areas that need addressing as noted in the comments above.
Most notably though, the model should be joined up internally and modelled as a network.

Full Input Data And Results

User and Project Details

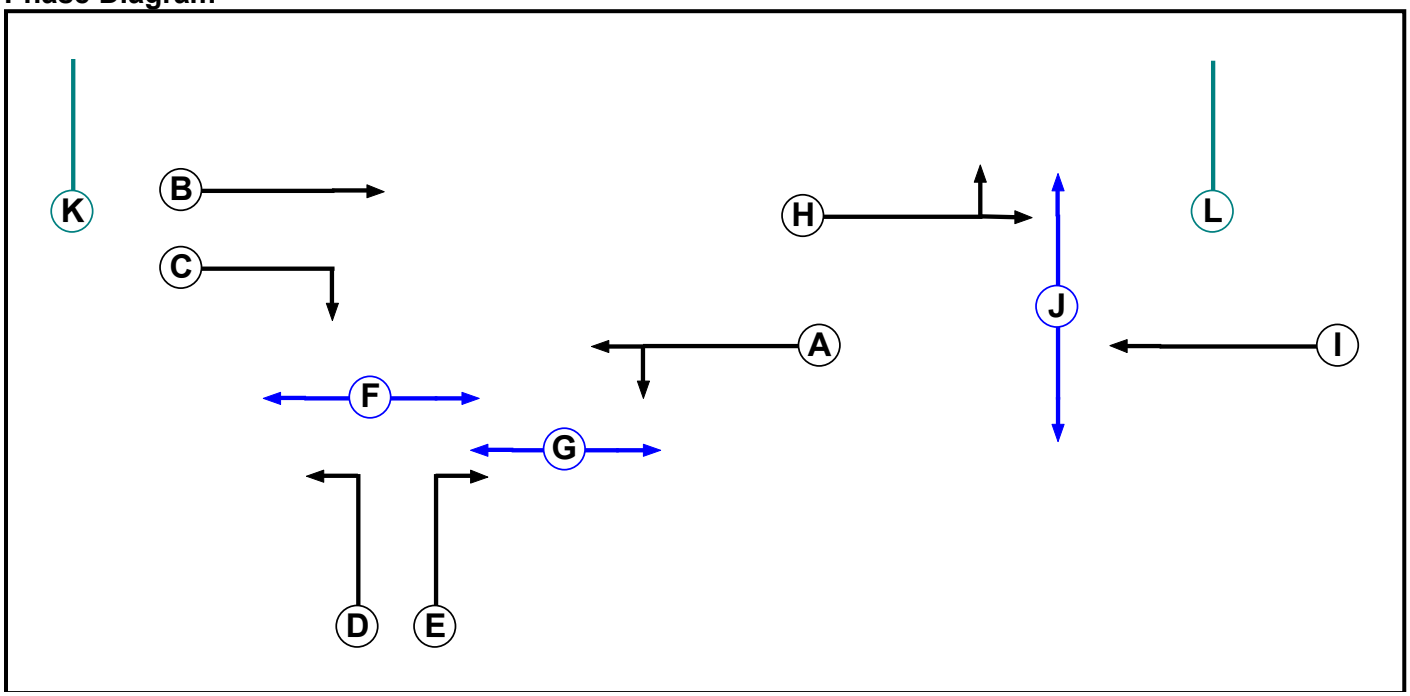
Project:	**North West Cambridge**
Title:	**Eddington Ave / Hunts Rd**
Client:	UoC
File name:	Hunts Rd - Eddington Ave_V1 - Baseline + Dev.lsg3x
Company:	KMC
Address:	Cambridge

Network Layout Diagram



Controller :C1

Phase Diagram



Full Input Data And Results

Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min (s)	Cont Min (s)
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Traffic	1		7	7
D	Traffic	1		7	7
E	Traffic	1		7	7
F	Pedestrian	1		5	5
G	Pedestrian	1		4	4
H	Traffic	2		7	7
I	Traffic	2		7	7
J	Pedestrian	2		5	5
K	Dummy	1		5	5
L	Dummy	2		7	7

Phase Intergreens Matrix

		Starting Phase											
		A	B	C	D	E	F	G	H	I	J	K	L
Terminating Phase	A		-	6	7	7	-	7	-	-	-	7	-
	B	-		-	-	6	-	-	-	-	-	-	-
	C	6	-		-	6	-	9	-	-	-	-	-
	D	5	-	-		-	5	-	-	-	-	-	-
	E	5	5	5	-		5	-	-	-	-	-	-
	F	-	-	-	5	5		-	-	-	-	5	-
	G	8	-	8	-	-	-		-	-	-	-	-
	H	-	-	-	-	-	-	-		-	5	-	-
	I	-	-	-	-	-	-	-	-		5	-	-
	J	-	-	-	-	-	-	-	5	5		-	-
	K	5	-	-	-	-	5	-	-	-	-		-
	L	-	-	-	-	-	-	-	-	-	-	-	

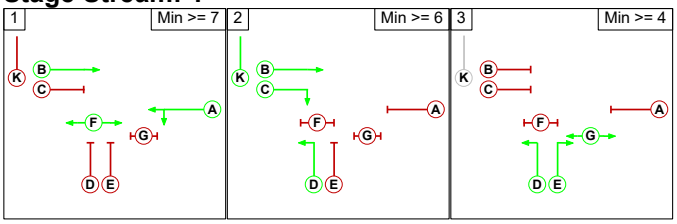
Phases in Stage

Stream	Stage No.	Phases in Stage
1	1	A B F
1	2	B C D K
1	3	D E G
2	1	H I L
2	2	J

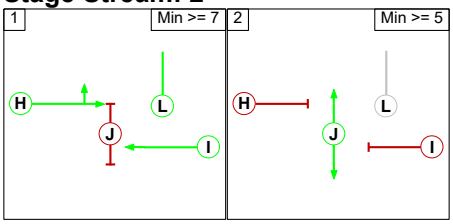
Full Input Data And Results

Stage Diagram

Stage Stream: 1



Stage Stream: 2



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					

Prohibited Stage Change

Stage Stream: 1

		To Stage		
		1	2	3
From Stage	1		7	7
	2	6		9
	3	8	8	

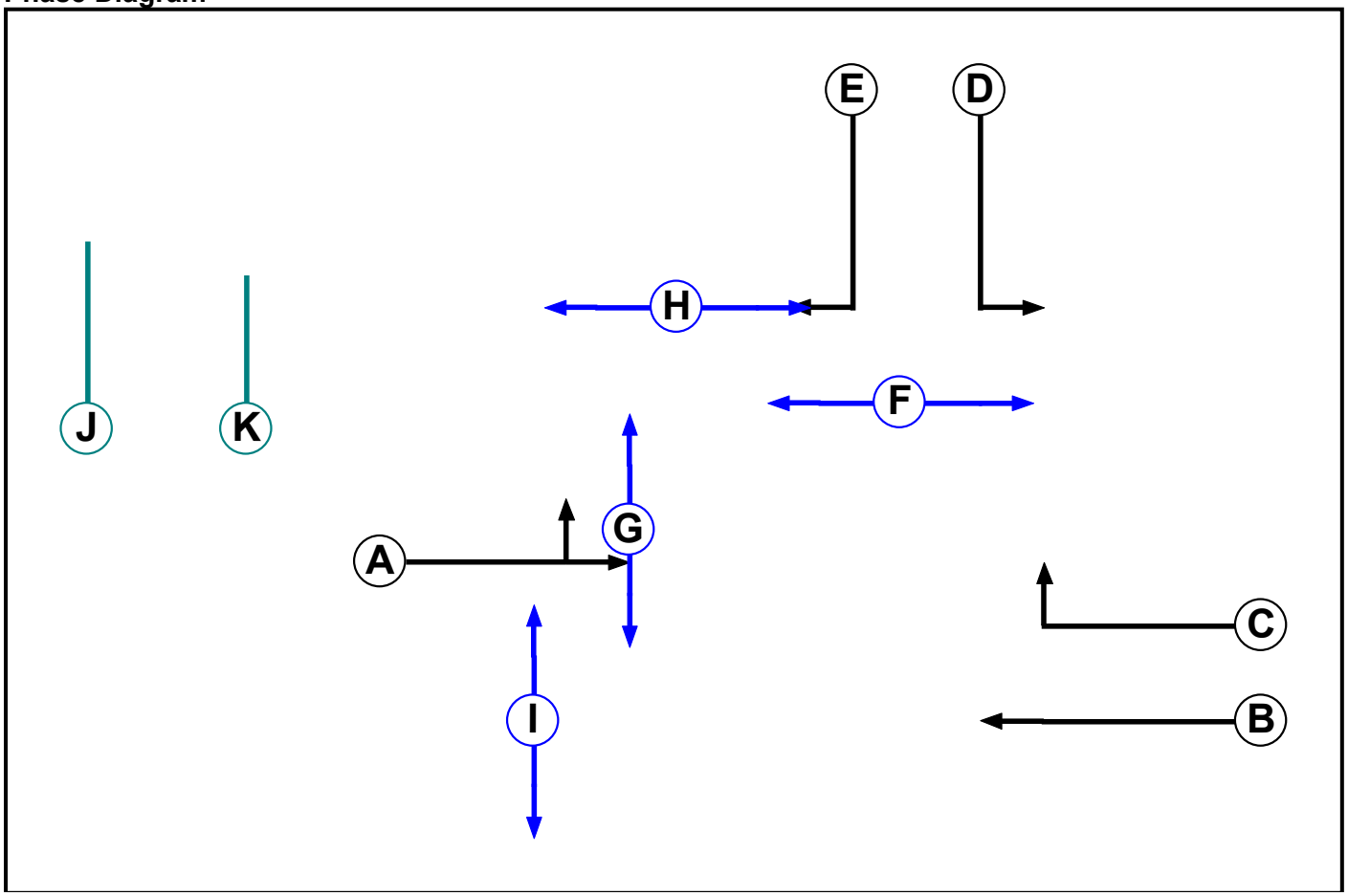
Stage Stream: 2

		To Stage	
		1	2
From Stage	1		5
	2	5	

Full Input Data And Results

Controller :C2

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min (s)	Cont Min (s)
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Traffic		7	7
F	Pedestrian		4	4
G	Pedestrian		5	5
H	Pedestrian		4	4
I	Pedestrian		4	4
J	Dummy		4	4
K	Dummy		4	4

Full Input Data And Results

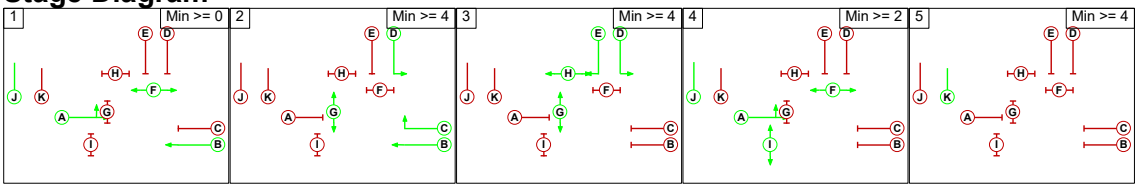
Phase Intergreens Matrix

Terminating Phase \ Starting Phase	A	B	C	D	E	F	G	H	I	J	K
A		-	5	7	7	-	5	7	-	-	3
B	-		-	-	5	-	-	-	8	-	3
C	8	-		-	5	-	-	9	-	-	3
D	5	-	-		-	5	-	-	-	5	3
E	5	7	7	-		5	-	-	10	5	3
F	-	-	-	8	8		-	-	-	-	3
G	10	-	-	-	-	-		-	-	-	3
H	5	-	4	-	-	-	-		-	-	3
I	-	4	-	-	3	-	-	-		-	3
J	-	-	-	8	8	-	-	-	-		3
K	2	2	2	2	2	2	2	2	2	2	

Phases in Stage

Stage No.	Phases in Stage
1	A B F J
2	B C D G
3	D E G H
4	A F I J
5	K

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

From Stage \ To Stage	1	2	3	4	5
1		8	8	8	3
2	10		9	10	3
3	10	7		10	3
4	4	8	8		3
5	2	2	2	2	

Full Input Data And Results

Give-Way Lane Input Data

Junction: J1: Hunts Rd East
There are no Opposed Lanes in this Junction

Junction: J2: Whitehouse Lane											
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)**
J2:1/1 (Whitehouse Lane)	J3:3/2 (Left)	715	0	J2:4/1	0.22	To J3:3/2 (Ahead)	-	-	-	-	-
	J2:5/1 (Right)	600	0	J2:3/1	0.19	All					
				J2:3/2	0.19	All					
				J2:4/1	0.22	None					
J2:3/2 (Hunts Rd West)	J2:2/1 (Right)	850	0	J2:4/1	0.35	All	-	-	-	-	-

Junction: J3: LWR
There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: J1: Hunts Rd East												
Lane	**Lane Type**	**Phases**	**Start Disp. (s)**	**End Disp. (s)**	**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 (Hunts Rd East)	U	A	2	3	9.0	Geom	-	3.25	0.00	Y	Arm J1:4 Left	15.00
J1:1/2 (Hunts Rd East)	U	A	2	3	14.3	Geom	-	3.25	0.00	N	Arm J1:5 Ahead	Inf
J1:2/1 (Site Access)	U	D	2	3	6.0	Geom	-	3.25	0.00	Y	Arm J1:5 Left	15.00
J1:2/2 (Site Access)	U	E	2	3	60.0	Geom	-	3.25	0.00	N	Arm J2:4 Right	Inf
J1:3/1 (Hunts Rd West)	U	B	2	3	60.0	Geom	-	3.00	0.00	Y	Arm J2:4 Ahead	Inf
J1:3/2 (Hunts Rd West)	U	C	2	3	3.0	Geom	-	3.00	0.00	N	Arm J1:4 Right	20.00
J1:4/1 (Exit Site Access)	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:5/1 (Exit Hunts Rd West)	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

Junction: J2: Whitehouse Lane												
Lane	**Lane Type**	**Phases**	**Start Disp. (s)**	**End Disp. (s)**	**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 (Whitehouse Lane)	O		2	3	60.0	Geom	-	3.50	0.00	Y	Arm J3:3 Left	Inf
											Arm J2:5 Right	15.00
J2:2/1 (Exit Whitehouse Lane)	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:3/1 (Hunts Rd West)	U		2	3	22.6	Geom	-	3.40	0.00	N	Arm J2:5 Ahead	Inf
J2:3/2 (Hunts Rd West)	O		2	3	2.0	Geom	-	3.20	0.00	N	Arm J2:2 Right	10.00
J2:4/1 (Hunts Rd West)	U	H	2	3	22.8	Geom	-	3.50	0.00	Y	Arm J3:3 Ahead	Inf
											Arm J2:2 Left	15.00
J2:5/1 (Exit Hunts Rd West)	U	I	2	3	5.2	Geom	-	3.50	0.00	Y	Arm J1:1 Ahead	Inf

Full Input Data And Results

Junction: J3: LWR

Lane	Lane Type	Phases	Start Disp. (s)	End Disp. (s)	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 (LWR)	U	D	2	3	7.0	Geom	-	3.00	0.00	Y	Arm J3:5 Left	10.00
J3:1/2 (LWR)	U	E	2	3	60.0	Geom	-	3.00	0.00	N	Arm J2:3 Right	Inf
J3:2/1 (Hunts Rd East)	U	B	2	3	60.0	Geom	-	3.00	0.00	Y	Arm J2:3 Ahead	Inf
J3:2/2 (Hunts Rd East)	U	C	2	3	7.0	Geom	-	3.00	0.00	N	Arm J3:4 Right	15.00
J3:3/1 (Hunts Rd West)	U	A	2	3	6.0	Geom	-	3.00	0.00	Y	Arm J3:4 Left	10.00
J3:3/2 (Hunts Rd West)	U	A	2	3	17.4	Geom	-	3.00	0.00	N	Arm J3:5 Ahead	Inf
J3:4/1 (LWR)	U		2	3	60.0	Inf	-	-	-	-	-	-
J3:5/1 (Exit Hunts Rd East)	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'Baseline + Comm + OPP Trip budget - Phase 1 trips on network during baseline surveys: AM Peak'	08:00	09:00	01:00	
2: 'Baseline + Comm + OPP Trip budget - Phase 1 trips on network during baseline surveys: PM Peak'	17:00	18:00	01:00	
3: 'Baseline + Comm + NWC AM'	08:00	09:00	01:00	
4: 'Baseline + Comm + NWC PM'	17:00	18:00	01:00	

Scenario 1: 'Baseline + Comm + OPP Trip budget - Phase 1 trips on network during baseline surveys: AM Peak' (FG1: 'Baseline + Comm + OPP Trip budget - Phase 1 trips on network during baseline surveys: AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	6	26	648	362	1042
	B	0	0	0	4	0	4
	C	26	0	0	40	17	83
	D	337	3	20	0	238	598
	E	139	2	9	219	0	369
	Tot.	502	11	55	911	617	2096

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: Baseline + Comm + OPP Trip budget - Phase 1 trips on network during baseline surveys: AM Peak
Junction: J1: Hunts Rd East	
J1:1/1 (short)	255
J1:1/2 (with short)	618(In) 363(Out)
J1:2/1 (short)	139
J1:2/2 (with short)	369(In) 230(Out)
J1:3/1 (with short)	1042(In) 680(Out)
J1:3/2 (short)	362
J1:4/1	617
J1:5/1	502
Junction: J2: Whitehouse Lane	
J2:1/1	4
J2:2/1	11
J2:3/1 (with short)	621(In) 618(Out)
J2:3/2 (short)	3
J2:4/1	910
J2:5/1	618
Junction: J3: LWR	
J3:1/1 (short)	40
J3:1/2 (with short)	83(In) 43(Out)
J3:2/1 (with short)	598(In) 578(Out)
J3:2/2 (short)	20
J3:3/1 (short)	35
J3:3/2 (with short)	906(In) 871(Out)
J3:4/1	55
J3:5/1	911

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Hunts Rd East								
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 (Hunts Rd East)	3.25	0.00	Y	Arm J1:4 Left	15.00	100.0 %	1764	1764
J1:1/2 (Hunts Rd East)	3.25	0.00	N	Arm J1:5 Ahead	Inf	100.0 %	2080	2080
J1:2/1 (Site Access)	3.25	0.00	Y	Arm J1:5 Left	15.00	100.0 %	1764	1764
J1:2/2 (Site Access)	3.25	0.00	N	Arm J2:4 Right	Inf	100.0 %	2080	2080
J1:3/1 (Hunts Rd West)	3.00	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1915	1915
J1:3/2 (Hunts Rd West)	3.00	0.00	N	Arm J1:4 Right	20.00	100.0 %	1912	1912
J1:4/1 (Exit Site Access Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (Exit Hunts Rd West Lane 1)	Infinite Saturation Flow						Inf	Inf

Junction: J2: Whitehouse Lane								
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 (Whitehouse Lane)	3.50	0.00	Y	Arm J3:3 Left	Inf	100.0 %	1965	1965
				Arm J2:5 Right	15.00	0.0 %		
J2:2/1 (Exit Whitehouse Lane Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:3/1 (Hunts Rd West)	3.40	0.00	N	Arm J2:5 Ahead	Inf	100.0 %	2095	2095
J2:3/2 (Hunts Rd West)	3.20	0.00	N	Arm J2:2 Right	10.00	100.0 %	1804	1804
J2:4/1 (Hunts Rd West)	3.50	0.00	Y	Arm J3:3 Ahead	Inf	99.1 %	1963	1963
				Arm J2:2 Left	15.00	0.9 %		
J2:5/1 (Exit Hunts Rd West)	3.50	0.00	Y	Arm J1:1 Ahead	Inf	100.0 %	1965	1965

Full Input Data And Results

Junction: J3: LWR								
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 (LWR)	3.00	0.00	Y	Arm J3:5 Left	10.00	100.0 %	1665	1665
J3:1/2 (LWR)	3.00	0.00	N	Arm J2:3 Right	Inf	100.0 %	2055	2055
J3:2/1 (Hunts Rd East)	3.00	0.00	Y	Arm J2:3 Ahead	Inf	100.0 %	1915	1915
J3:2/2 (Hunts Rd East)	3.00	0.00	N	Arm J3:4 Right	15.00	100.0 %	1868	1868
J3:3/1 (Hunts Rd West)	3.00	0.00	Y	Arm J3:4 Left	10.00	100.0 %	1665	1665
J3:3/2 (Hunts Rd West)	3.00	0.00	N	Arm J3:5 Ahead	Inf	100.0 %	2055	2055
J3:4/1 (LWR Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:5/1 (Exit Hunts Rd East Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 2: 'Baseline + Comm + OPP Trip budget - Phase 1 trips on network during baseline surveys: PM Peak' (FG2: 'Baseline + Comm + OPP Trip budget - Phase 1 trips on network during baseline surveys: PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	1	25	440	173	639
	B	5	0	0	6	1	12
	C	21	0	0	30	7	58
	D	657	2	37	0	203	899
	E	273	1	12	208	0	494
	Tot.	956	4	74	684	384	2102

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: Baseline + Comm + OPP Trip budget - Phase 1 trips on network during baseline surveys: PM Peak
Junction: J1: Hunts Rd East	
J1:1/1 (short)	211
J1:1/2 (with short)	894(In) 683(Out)
J1:2/1 (short)	273
J1:2/2 (with short)	494(In) 221(Out)
J1:3/1 (with short)	639(In) 466(Out)
J1:3/2 (short)	173
J1:4/1	384
J1:5/1	956
Junction: J2: Whitehouse Lane	
J2:1/1	12
J2:2/1	4
J2:3/1 (with short)	890(In) 888(Out)
J2:3/2 (short)	2
J2:4/1	687
J2:5/1	894
Junction: J3: LWR	
J3:1/1 (short)	30
J3:1/2 (with short)	58(In) 28(Out)
J3:2/1 (with short)	899(In) 862(Out)
J3:2/2 (short)	37
J3:3/1 (short)	37
J3:3/2 (with short)	691(In) 654(Out)
J3:4/1	74
J3:5/1	684

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Hunts Rd East								
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 (Hunts Rd East)	3.25	0.00	Y	Arm J1:4 Left	15.00	100.0 %	1764	1764
J1:1/2 (Hunts Rd East)	3.25	0.00	N	Arm J1:5 Ahead	Inf	100.0 %	2080	2080
J1:2/1 (Site Access)	3.25	0.00	Y	Arm J1:5 Left	15.00	100.0 %	1764	1764
J1:2/2 (Site Access)	3.25	0.00	N	Arm J2:4 Right	Inf	100.0 %	2080	2080
J1:3/1 (Hunts Rd West)	3.00	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1915	1915
J1:3/2 (Hunts Rd West)	3.00	0.00	N	Arm J1:4 Right	20.00	100.0 %	1912	1912
J1:4/1 (Exit Site Access Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (Exit Hunts Rd West Lane 1)	Infinite Saturation Flow						Inf	Inf

Junction: J2: Whitehouse Lane								
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 (Whitehouse Lane)	3.50	0.00	Y	Arm J3:3 Left	Inf	50.0 %	1871	1871
				Arm J2:5 Right	15.00	50.0 %		
J2:2/1 (Exit Whitehouse Lane Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:3/1 (Hunts Rd West)	3.40	0.00	N	Arm J2:5 Ahead	Inf	100.0 %	2095	2095
J2:3/2 (Hunts Rd West)	3.20	0.00	N	Arm J2:2 Right	10.00	100.0 %	1804	1804
J2:4/1 (Hunts Rd West)	3.50	0.00	Y	Arm J3:3 Ahead	Inf	99.7 %	1964	1964
				Arm J2:2 Left	15.00	0.3 %		
J2:5/1 (Exit Hunts Rd West)	3.50	0.00	Y	Arm J1:1 Ahead	Inf	100.0 %	1965	1965

Full Input Data And Results

Junction: J3: LWR								
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 (LWR)	3.00	0.00	Y	Arm J3:5 Left	10.00	100.0 %	1665	1665
J3:1/2 (LWR)	3.00	0.00	N	Arm J2:3 Right	Inf	100.0 %	2055	2055
J3:2/1 (Hunts Rd East)	3.00	0.00	Y	Arm J2:3 Ahead	Inf	100.0 %	1915	1915
J3:2/2 (Hunts Rd East)	3.00	0.00	N	Arm J3:4 Right	15.00	100.0 %	1868	1868
J3:3/1 (Hunts Rd West)	3.00	0.00	Y	Arm J3:4 Left	10.00	100.0 %	1665	1665
J3:3/2 (Hunts Rd West)	3.00	0.00	N	Arm J3:5 Ahead	Inf	100.0 %	2055	2055
J3:4/1 (LWR Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:5/1 (Exit Hunts Rd East Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 3: 'Baseline + Comm + Dev AM' (FG3: 'Baseline + Comm + NWC AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	6	25	571	313	915
	B	0	0	0	4	0	4
	C	24	0	0	40	19	83
	D	288	3	20	0	235	546
	E	111	2	10	223	0	346
	Tot.	423	11	55	838	567	1894

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: Baseline + Comm + Dev AM
Junction: J1: Hunts Rd East	
J1:1/1 (short)	254
J1:1/2 (with short)	566(In) 312(Out)
J1:2/1 (short)	111
J1:2/2 (with short)	346(In) 235(Out)
J1:3/1 (with short)	915(In) 602(Out)
J1:3/2 (short)	313
J1:4/1	567
J1:5/1	423
Junction: J2: Whitehouse Lane	
J2:1/1	4
J2:2/1	11
J2:3/1 (with short)	569(In) 566(Out)
J2:3/2 (short)	3
J2:4/1	837
J2:5/1	566
Junction: J3: LWR	
J3:1/1 (short)	40
J3:1/2 (with short)	83(In) 43(Out)
J3:2/1 (with short)	546(In) 526(Out)
J3:2/2 (short)	20
J3:3/1 (short)	35
J3:3/2 (with short)	833(In) 798(Out)
J3:4/1	55
J3:5/1	838

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Hunts Rd East								
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 (Hunts Rd East)	3.25	0.00	Y	Arm J1:4 Left	15.00	100.0 %	1764	1764
J1:1/2 (Hunts Rd East)	3.25	0.00	N	Arm J1:5 Ahead	Inf	100.0 %	2080	2080
J1:2/1 (Site Access)	3.25	0.00	Y	Arm J1:5 Left	15.00	100.0 %	1764	1764
J1:2/2 (Site Access)	3.25	0.00	N	Arm J2:4 Right	Inf	100.0 %	2080	2080
J1:3/1 (Hunts Rd West)	3.00	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1915	1915
J1:3/2 (Hunts Rd West)	3.00	0.00	N	Arm J1:4 Right	20.00	100.0 %	1912	1912
J1:4/1 (Exit Site Access Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (Exit Hunts Rd West Lane 1)	Infinite Saturation Flow						Inf	Inf

Junction: J2: Whitehouse Lane								
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 (Whitehouse Lane)	3.50	0.00	Y	Arm J3:3 Left	Inf	100.0 %	1965	1965
				Arm J2:5 Right	15.00	0.0 %		
J2:2/1 (Exit Whitehouse Lane Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:3/1 (Hunts Rd West)	3.40	0.00	N	Arm J2:5 Ahead	Inf	100.0 %	2095	2095
J2:3/2 (Hunts Rd West)	3.20	0.00	N	Arm J2:2 Right	10.00	100.0 %	1804	1804
J2:4/1 (Hunts Rd West)	3.50	0.00	Y	Arm J3:3 Ahead	Inf	99.0 %	1963	1963
				Arm J2:2 Left	15.00	1.0 %		
J2:5/1 (Exit Hunts Rd West)	3.50	0.00	Y	Arm J1:1 Ahead	Inf	100.0 %	1965	1965

Full Input Data And Results

Junction: J3: LWR								
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 (LWR)	3.00	0.00	Y	Arm J3:5 Left	10.00	100.0 %	1665	1665
J3:1/2 (LWR)	3.00	0.00	N	Arm J2:3 Right	Inf	100.0 %	2055	2055
J3:2/1 (Hunts Rd East)	3.00	0.00	Y	Arm J2:3 Ahead	Inf	100.0 %	1915	1915
J3:2/2 (Hunts Rd East)	3.00	0.00	N	Arm J3:4 Right	15.00	100.0 %	1868	1868
J3:3/1 (Hunts Rd West)	3.00	0.00	Y	Arm J3:4 Left	10.00	100.0 %	1665	1665
J3:3/2 (Hunts Rd West)	3.00	0.00	N	Arm J3:5 Ahead	Inf	100.0 %	2055	2055
J3:4/1 (LWR Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:5/1 (Exit Hunts Rd East Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 4: 'Baseline + Comm + Dev PM' (FG4: 'Baseline + Comm + NWC PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	1	23	370	106	500
	B	5	0	0	6	1	12
	C	22	0	0	30	6	58
	D	615	2	37	0	152	806
	E	304	1	14	228	0	547
	Tot.	946	4	74	634	265	1923

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: Baseline + Comm + Dev PM
Junction: J1: Hunts Rd East	
J1:1/1 (short)	159
J1:1/2 (with short)	801(In) 642(Out)
J1:2/1 (short)	304
J1:2/2 (with short)	547(In) 243(Out)
J1:3/1 (with short)	500(In) 394(Out)
J1:3/2 (short)	106
J1:4/1	265
J1:5/1	946
Junction: J2: Whitehouse Lane	
J2:1/1	12
J2:2/1	4
J2:3/1 (with short)	797(In) 795(Out)
J2:3/2 (short)	2
J2:4/1	637
J2:5/1	801
Junction: J3: LWR	
J3:1/1 (short)	30
J3:1/2 (with short)	58(In) 28(Out)
J3:2/1 (with short)	806(In) 769(Out)
J3:2/2 (short)	37
J3:3/1 (short)	37
J3:3/2 (with short)	641(In) 604(Out)
J3:4/1	74
J3:5/1	634

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Hunts Rd East								
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 (Hunts Rd East)	3.25	0.00	Y	Arm J1:4 Left	15.00	100.0 %	1764	1764
J1:1/2 (Hunts Rd East)	3.25	0.00	N	Arm J1:5 Ahead	Inf	100.0 %	2080	2080
J1:2/1 (Site Access)	3.25	0.00	Y	Arm J1:5 Left	15.00	100.0 %	1764	1764
J1:2/2 (Site Access)	3.25	0.00	N	Arm J2:4 Right	Inf	100.0 %	2080	2080
J1:3/1 (Hunts Rd West)	3.00	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1915	1915
J1:3/2 (Hunts Rd West)	3.00	0.00	N	Arm J1:4 Right	20.00	100.0 %	1912	1912
J1:4/1 (Exit Site Access Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (Exit Hunts Rd West Lane 1)	Infinite Saturation Flow						Inf	Inf

Junction: J2: Whitehouse Lane								
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 (Whitehouse Lane)	3.50	0.00	Y	Arm J3:3 Left	Inf	50.0 %	1871	1871
				Arm J2:5 Right	15.00	50.0 %		
J2:2/1 (Exit Whitehouse Lane Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:3/1 (Hunts Rd West)	3.40	0.00	N	Arm J2:5 Ahead	Inf	100.0 %	2095	2095
J2:3/2 (Hunts Rd West)	3.20	0.00	N	Arm J2:2 Right	10.00	100.0 %	1804	1804
J2:4/1 (Hunts Rd West)	3.50	0.00	Y	Arm J3:3 Ahead	Inf	99.7 %	1964	1964
				Arm J2:2 Left	15.00	0.3 %		
J2:5/1 (Exit Hunts Rd West)	3.50	0.00	Y	Arm J1:1 Ahead	Inf	100.0 %	1965	1965

Full Input Data And Results

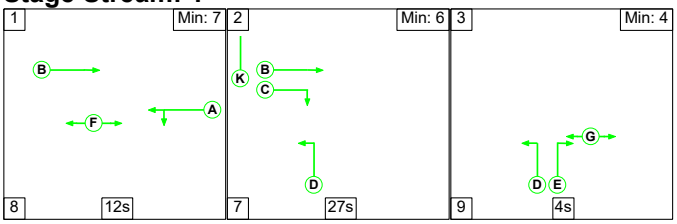
Junction: J3: LWR								
Lane	**Lane Width (m)**	**Gradient (%)**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J3:1/1 (LWR)	3.00	0.00	Y	Arm J3:5 Left	10.00	100.0 %	1665	1665
J3:1/2 (LWR)	3.00	0.00	N	Arm J2:3 Right	Inf	100.0 %	2055	2055
J3:2/1 (Hunts Rd East)	3.00	0.00	Y	Arm J2:3 Ahead	Inf	100.0 %	1915	1915
J3:2/2 (Hunts Rd East)	3.00	0.00	N	Arm J3:4 Right	15.00	100.0 %	1868	1868
J3:3/1 (Hunts Rd West)	3.00	0.00	Y	Arm J3:4 Left	10.00	100.0 %	1665	1665
J3:3/2 (Hunts Rd West)	3.00	0.00	N	Arm J3:5 Ahead	Inf	100.0 %	2055	2055
J3:4/1 (LWR Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:5/1 (Exit Hunts Rd East Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 1: 'Baseline + Comm + OPP Trip budget - Phase 1 trips on network during baseline surveys: AM Peak' (FG1: 'Baseline + Comm + OPP Trip budget - Phase 1 trips on network during baseline surveys: AM Peak', Plan 1: 'Network Control Plan 1')

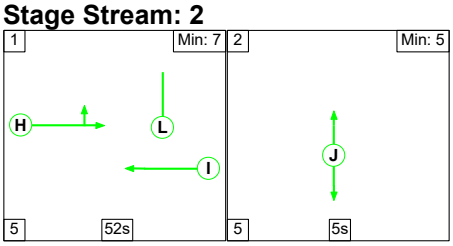
Controller :C1

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

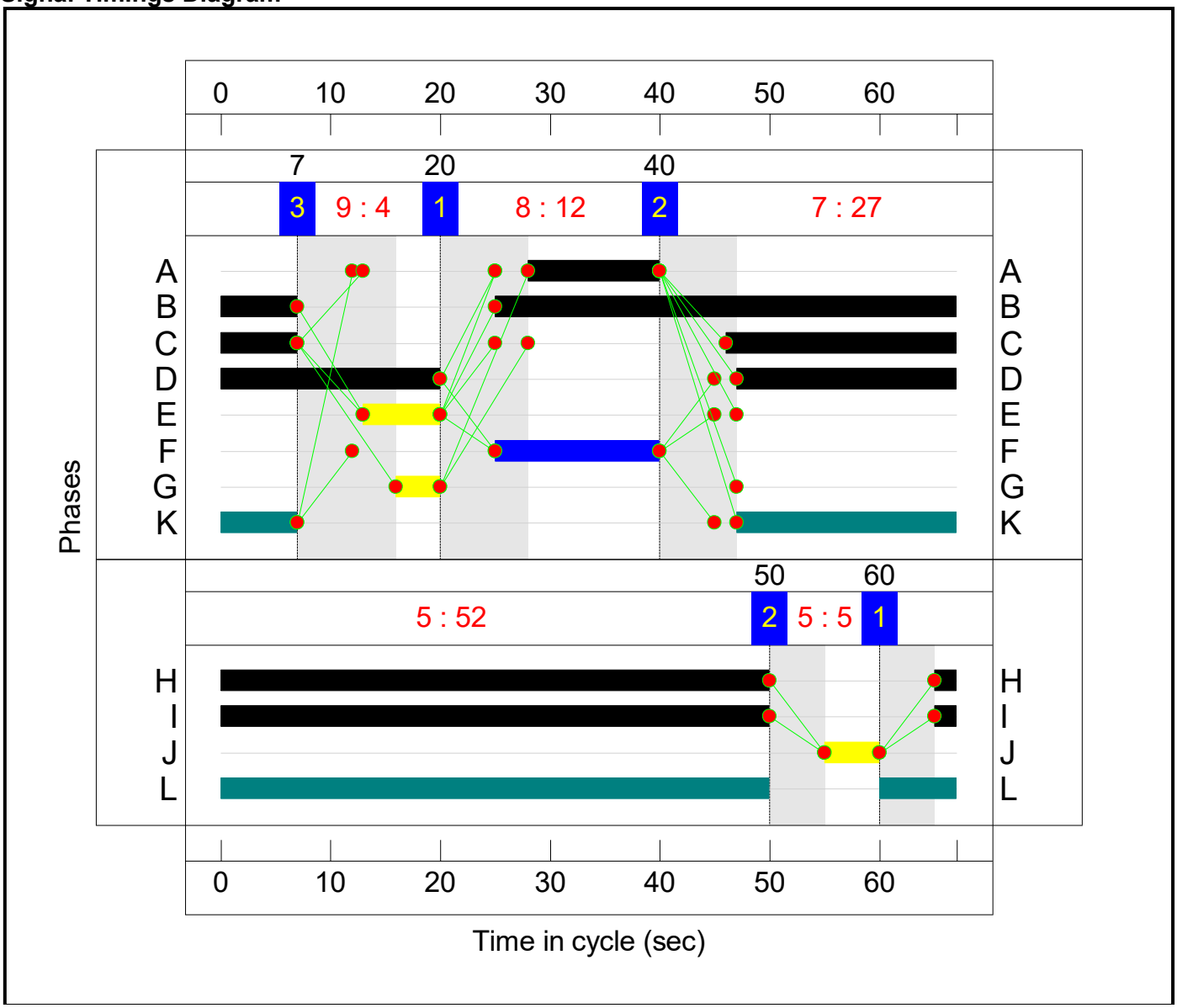
Stage	1	2	3
Duration	12	27	4
Change Point	20	40	7

Stage Stream: 2

Stage	1	2
Duration	52	5
Change Point	60	50

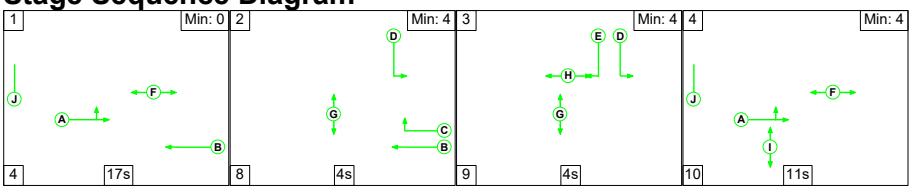
Full Input Data And Results

Signal Timings Diagram



Controller :C2

Stage Sequence Diagram

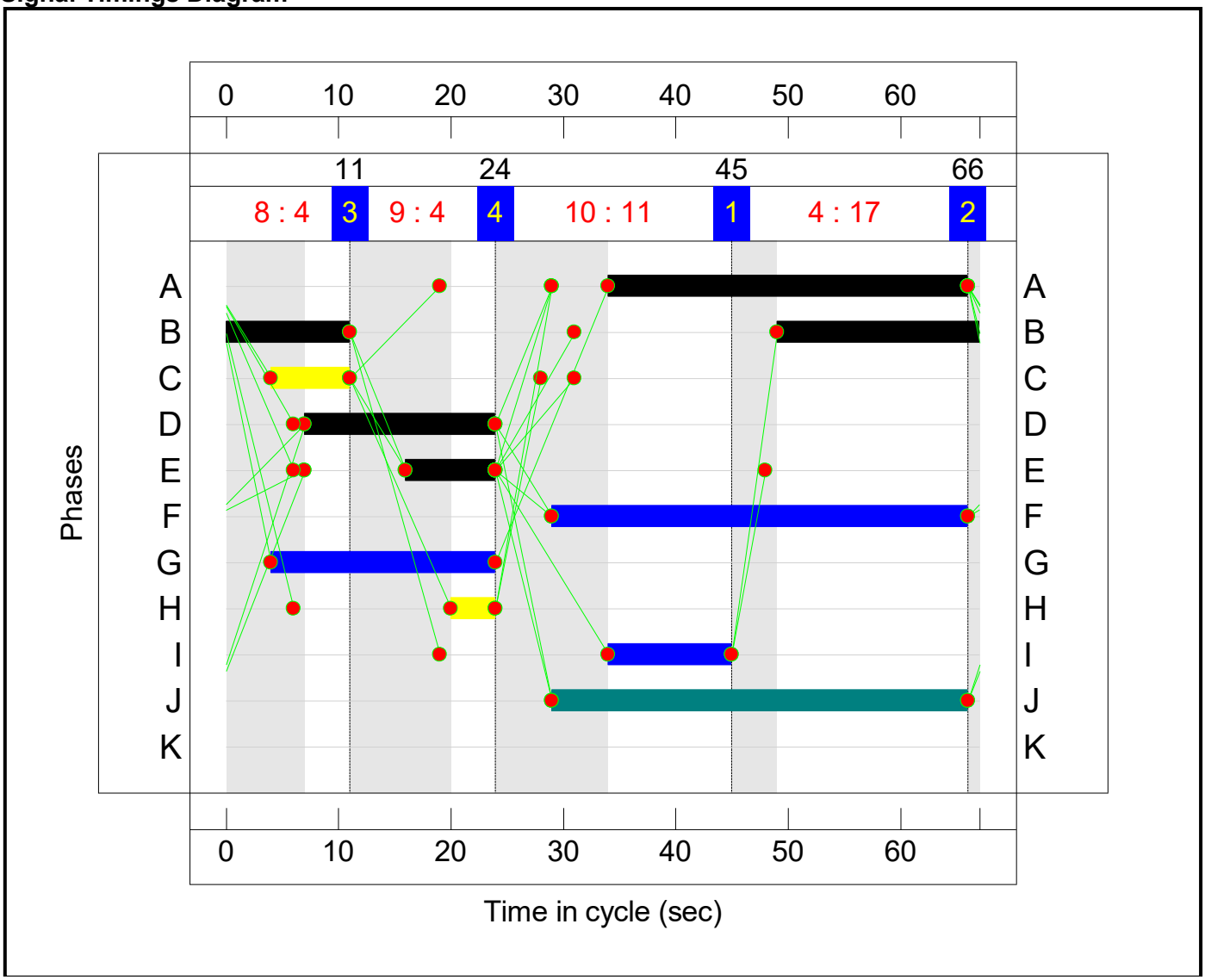


Stage Timings

Stage	1	2	3	4
Duration	17	4	4	11
Change Point	45	66	11	24

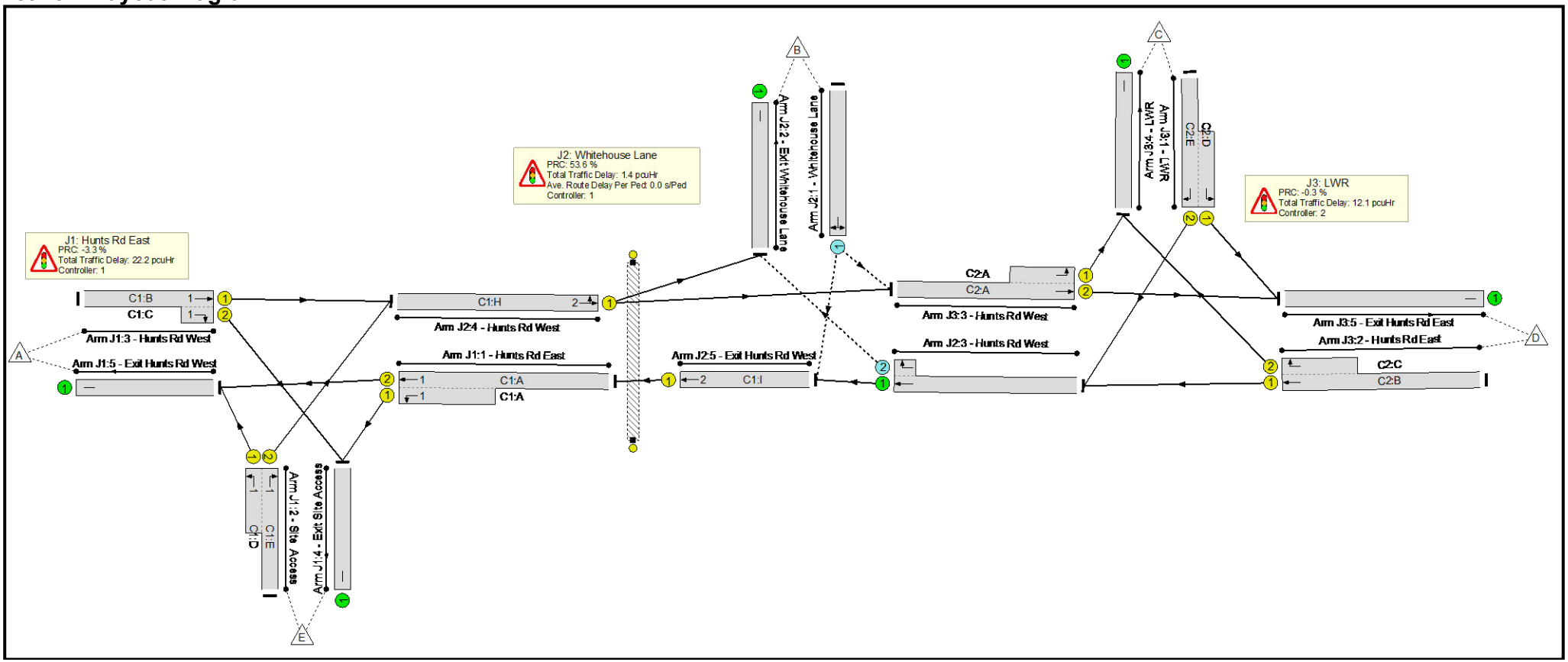
Full Input Data And Results

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: Eddington Ave / Hunts Rd	-	-	**N/A**	-	-		-	-	-	-	-	-	**93.0%**
J1: Hunts Rd East	-	-	**N/A**	-	-		-	-	-	-	-	-	**93.0%**
1/2+1/1	Hunts Rd East Left Ahead	U	1:1	N/A	C1:A		1	12	-	618	2080:1764	404+284	89.9 : 89.9%
2/2+2/1	Site Access Left Right	U	1:1	N/A	C1:E C1:D		1	7:40	-	369	2080:1764	248+150	92.6 : 92.6%
3/1+3/2	Hunts Rd West Right Ahead	U	1:1	N/A	C1:B C1:C		1	49:28	-	1042	1915:1912	732+389	93.0 : 93.0%
4/1	Exit Site Access	U	N/A	N/A	-		-	-	-	617	Inf	Inf	0.0%
5/1	Exit Hunts Rd West	U	N/A	N/A	-		-	-	-	502	Inf	Inf	0.0%
J2: Whitehouse Lane	-	-	**N/A**	-	-		-	-	-	-	-	-	**58.6%**
1/1	Whitehouse Lane Left Right	O	N/A	N/A	-		-	-	-	4	1965	517	0.8%
2/1	Exit Whitehouse Lane	U	N/A	N/A	-		-	-	-	11	Inf	Inf	0.0%
3/1+3/2	Hunts Rd West Right Ahead	U+O	N/A	N/A	-		-	-	-	621	2095:1804	2083+10	29.7 : 29.7%
4/1	Hunts Rd West Ahead Left	U	1:2	N/A	C1:H		1	52	-	910	1963	1553	58.6%
5/1	Exit Hunts Rd West Ahead	U	1:2	N/A	C1:I		1	52	-	618	1965	1554	39.8%
Ped Link: P1	Unnamed Ped Link	-	1:2	-	C1:J		1	5	-	0	-	0	0.0%
J3: LWR	-	-	**N/A**	-	-		-	-	-	-	-	-	**90.2%**
1/2+1/1	LWR Left Right	U	N/A	N/A	C2:E C2:D		1	8:17	-	83	2055:1665	276+257	15.6 : 15.6%
2/1+2/2	Hunts Rd East Right Ahead	U	N/A	N/A	C2:B C2:C		1	29:7	-	598	1915:1868	845+29	68.4 : 68.4%

Full Input Data And Results

3/2+3/1	Hunts Rd West Left Ahead	U	N/A	N/A	C2:A		1	32	-	906	2055:1665	965+39	90.2 : 90.2%
4/1	LWR	U	N/A	N/A	-		-	-	-	55	Inf	Inf	0.0%
5/1	Exit Hunts Rd East	U	N/A	N/A	-		-	-	-	911	Inf	Inf	0.0%

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: Eddington Ave / Hunts Rd	**-**	**-**	**6**	**1**	**0**	**14.5**	**21.2**	**0.0**	**35.7**	**-**	**-**	**-**	**-**
J1: Hunts Rd East	**-**	**-**	**0**	**0**	**0**	**7.7**	**14.5**	**0.0**	**22.2**	**-**	**-**	**-**	**-**
1/2+1/1	618	618	-	-	-	2.8	4.0	-	6.8	39.6	6.6	4.0	10.6
2/2+2/1	369	369	-	-	-	2.1	4.7	-	6.8	66.5	4.2	4.7	9.0
3/1+3/2	1042	1042	-	-	-	2.8	5.8	-	8.6	29.6	15.8	5.8	21.5
4/1	617	617	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	502	502	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Whitehouse Lane	**-**	**-**	**6**	**1**	**0**	**0.2**	**1.3**	**0.0**	**1.4**	**-**	**-**	**-**	**-**
1/1	4	4	3	1	0	0.0	0.0	-	0.0	3.5	0.0	0.0	0.0
2/1	11	11	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1+3/2	621	621	2	1	0	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
4/1	910	910	-	-	-	0.1	0.7	-	0.9	3.4	1.8	0.7	2.5
5/1	618	618	-	-	-	0.0	0.3	-	0.3	2.0	0.7	0.3	1.1
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
J3: LWR	**-**	**-**	**0**	**0**	**0**	**6.7**	**5.4**	**0.0**	**12.1**	**-**	**-**	**-**	**-**
1/2+1/1	83	83	-	-	-	0.5	0.1	-	0.6	26.2	0.7	0.1	0.8
2/1+2/2	598	598	-	-	-	2.5	1.1	-	3.6	21.5	8.5	1.1	9.6
3/2+3/1	906	906	-	-	-	3.6	4.3	-	7.9	31.4	16.5	4.3	20.8
4/1	55	55	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	911	911	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

C1	Stream: 1	PRC for Signalled Lanes (%):	-3.3	Total Delay for Signalled Lanes (pcuHr):	22.17	Cycle Time (s):	67
C1	Stream: 2	PRC for Signalled Lanes (%):	53.6	Total Delay for Signalled Lanes (pcuHr):	1.20	Cycle Time (s):	67
C2		PRC for Signalled Lanes (%):	-0.3	Total Delay for Signalled Lanes (pcuHr):	12.07	Cycle Time (s):	67
		PRC Over All Lanes (%):	-3.3	Total Delay Over All Lanes(pcuHr):	35.65		

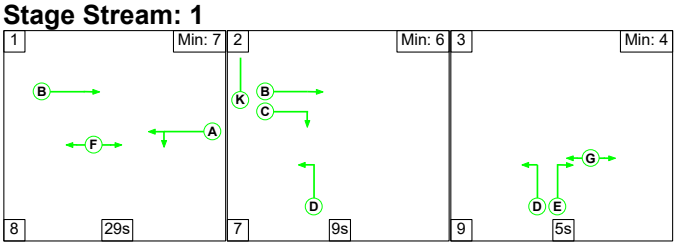
Full Input Data And Results

Scenario 2: 'Baseline + Comm + OPP Trip budget - Phase 1 trips on network during baseline surveys: PM Peak' (FG2: 'Baseline + Comm + OPP Trip budget - Phase 1 trips on network during baseline surveys: PM Peak', Plan 1: 'Network Control Plan 1')

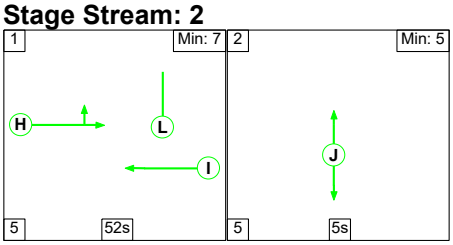
Controller :C1

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

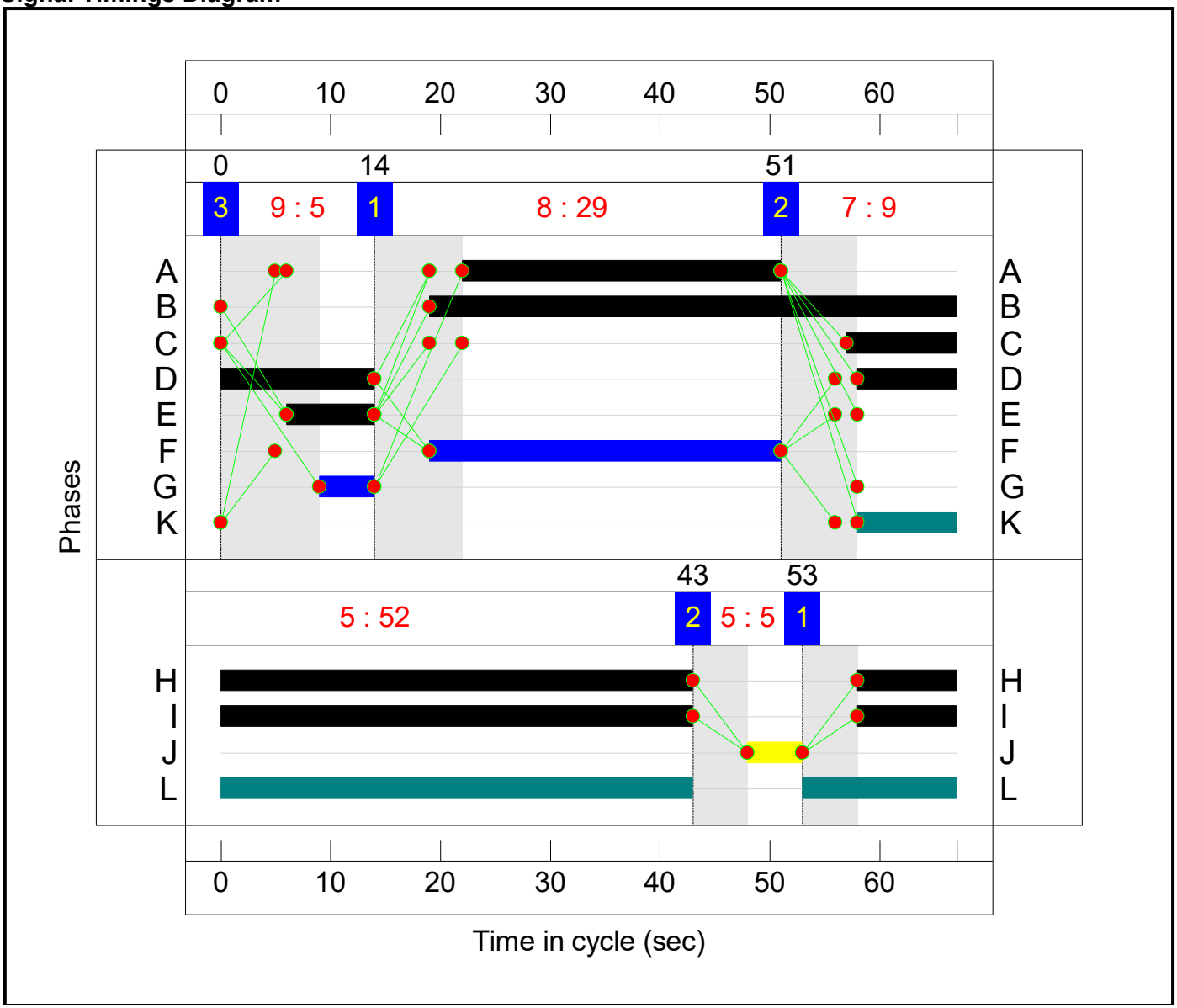
Stage	1	2	3
Duration	29	9	5
Change Point	14	51	0

Stage Stream: 2

Stage	1	2
Duration	52	5
Change Point	53	43

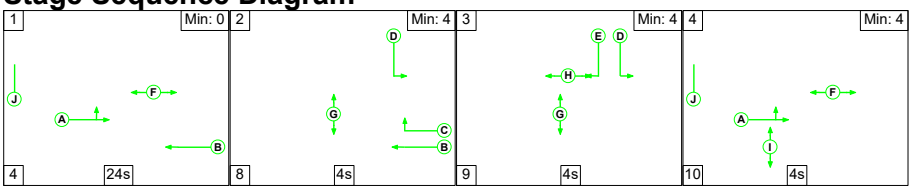
Full Input Data And Results

Signal Timings Diagram



Controller :C2

Stage Sequence Diagram

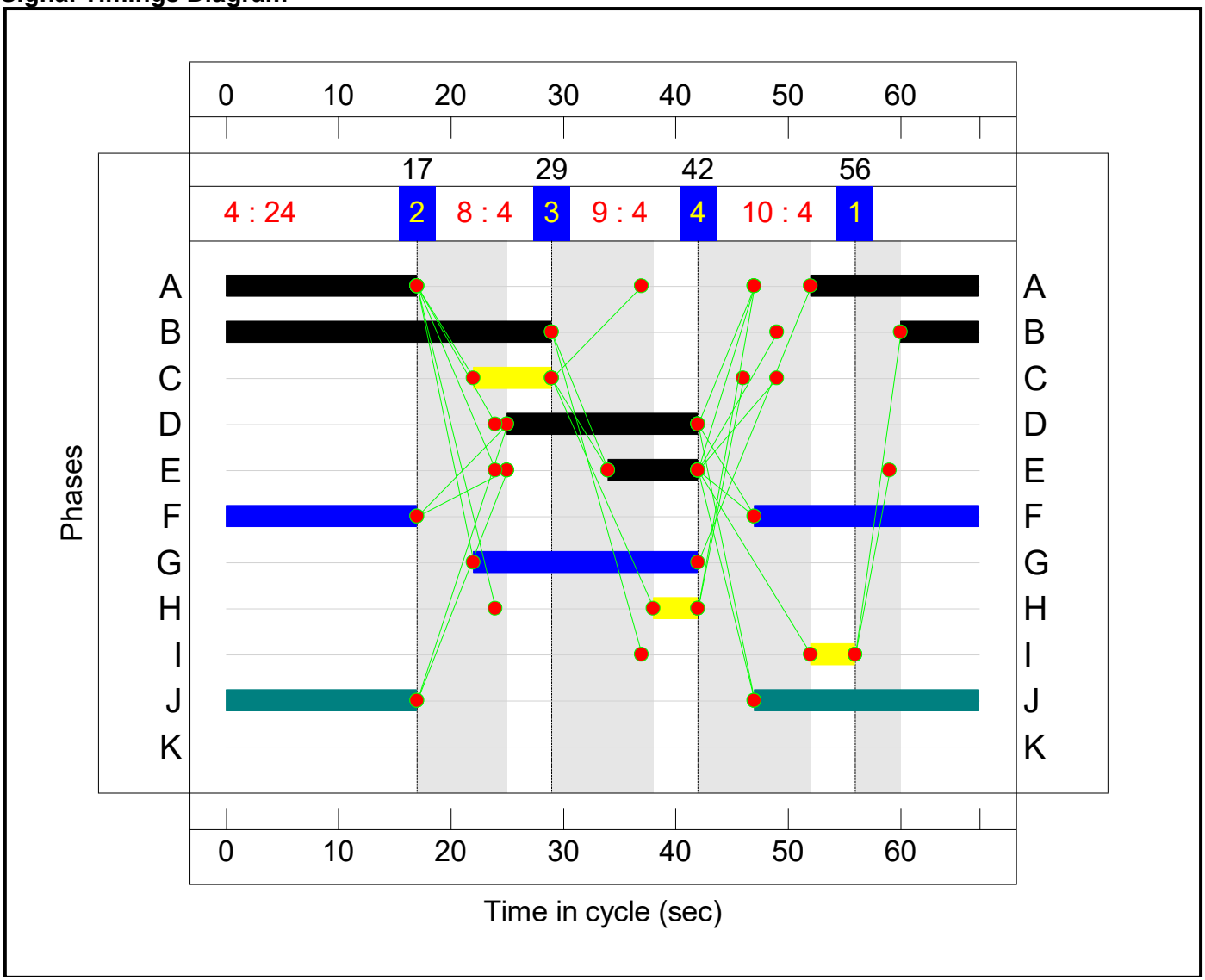


Stage Timings

Stage	1	2	3	4
Duration	24	4	4	4
Change Point	56	17	29	42

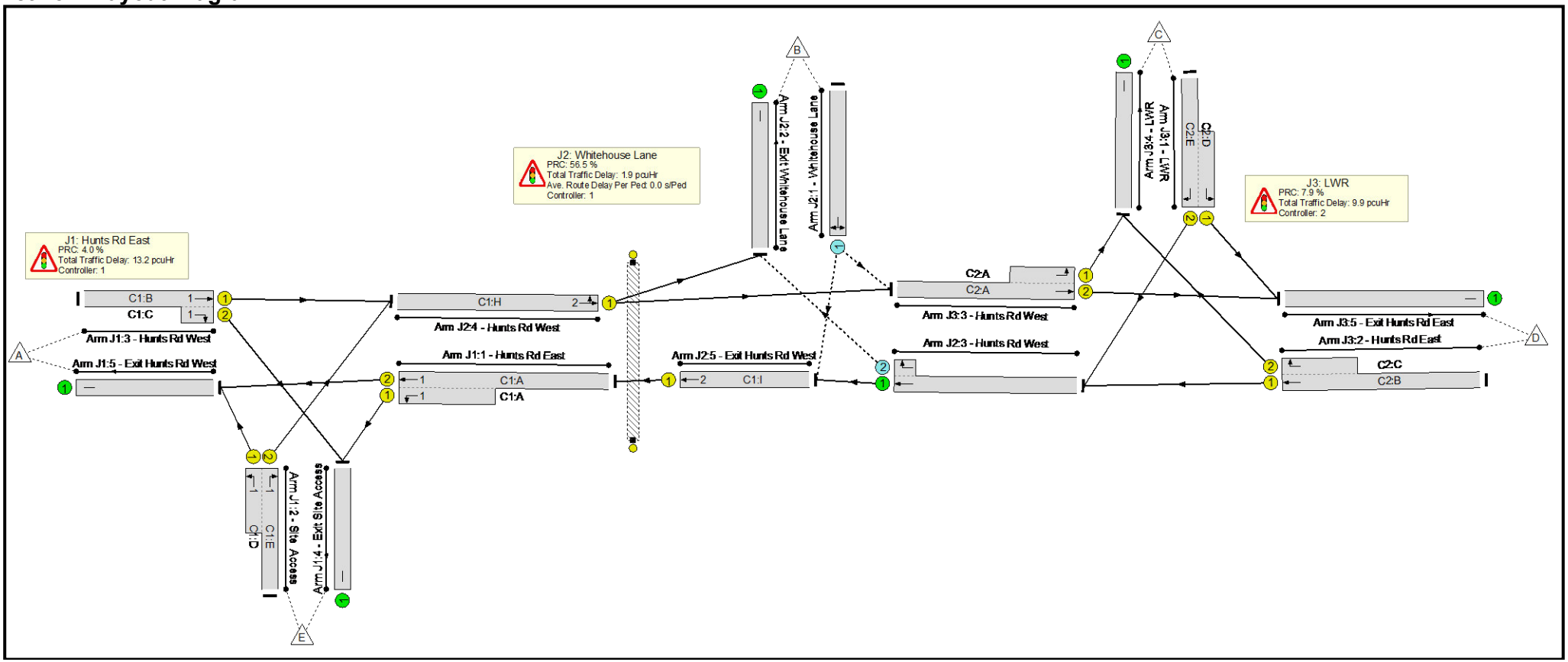
Full Input Data And Results

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: Eddington Ave / Hunts Rd	-	-	**N/A**	-	-		-	-	-	-	-	-	**86.6%**
J1: Hunts Rd East	-	-	**N/A**	-	-		-	-	-	-	-	-	**86.6%**
1/2+1/1	Hunts Rd East Left Ahead	U	1:1	N/A	C1:A		1	29	-	894	2080:1764	802+248	85.1 : 85.1%
2/2+2/1	Site Access Left Right	U	1:1	N/A	C1:E C1:D		1	8:23	-	494	2080:1764	279+345	79.1 : 79.1%
3/1+3/2	Hunts Rd West Right Ahead	U	1:1	N/A	C1:B C1:C		1	48:10	-	639	1915:1912	538+200	86.6 : 86.6%
4/1	Exit Site Access	U	N/A	N/A	-		-	-	-	384	Inf	Inf	0.0%
5/1	Exit Hunts Rd West	U	N/A	N/A	-		-	-	-	956	Inf	Inf	0.0%
J2: Whitehouse Lane	-	-	**N/A**	-	-		-	-	-	-	-	-	**57.5%**
1/1	Whitehouse Lane Left Right	O	N/A	N/A	-		-	-	-	12	1871	473	2.5%
2/1	Exit Whitehouse Lane	U	N/A	N/A	-		-	-	-	4	Inf	Inf	0.0%
3/1+3/2	Hunts Rd West Right Ahead	U+O	N/A	N/A	-		-	-	-	890	2095:1804	2090+5	42.5 : 42.5%
4/1	Hunts Rd West Ahead Left	U	1:2	N/A	C1:H		1	52	-	687	1964	1554	44.2%
5/1	Exit Hunts Rd West Ahead	U	1:2	N/A	C1:I		1	52	-	894	1965	1554	57.5%
Ped Link: P1	Unnamed Ped Link	-	1:2	-	C1:J		1	5	-	0	-	0	0.0%
J3: LWR	-	-	**N/A**	-	-		-	-	-	-	-	-	**83.4%**
1/2+1/1	LWR Left Right	U	N/A	N/A	C2:E C2:D		1	8:17	-	58	2055:1665	276+296	10.1 : 10.1%
2/1+2/2	Hunts Rd East Right Ahead	U	N/A	N/A	C2:B C2:C		1	36:7	-	899	1915:1868	1033+44	83.4 : 83.4%

Full Input Data And Results

3/2+3/1	Hunts Rd West Left Ahead	U	N/A	N/A	C2:A		1	32	-	691	2055:1665	953+54	68.6 : 68.6%
4/1	LWR	U	N/A	N/A	-		-	-	-	74	Inf	Inf	0.0%
5/1	Exit Hunts Rd East	U	N/A	N/A	-		-	-	-	684	Inf	Inf	0.0%

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: Eddington Ave / Hunts Rd	**-**	**-**	**13**	**1**	**0**	**12.3**	**12.7**	**0.0**	**25.0**	**-**	**-**	**-**	**-**
J1: Hunts Rd East	**-**	**-**	**0**	**0**	**0**	**5.5**	**7.6**	**0.0**	**13.2**	**-**	**-**	**-**	**-**
1/2+1/1	894	894	-	-	-	0.9	2.8	-	3.7	14.8	8.2	2.8	11.0
2/2+2/1	494	494	-	-	-	3.0	1.8	-	4.8	35.0	3.9	1.8	5.8
3/1+3/2	639	639	-	-	-	1.7	3.0	-	4.7	26.4	3.2	3.0	6.2
4/1	384	384	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	956	956	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Whitehouse Lane	**-**	**-**	**13**	**1**	**0**	**0.5**	**1.5**	**0.0**	**1.9**	**-**	**-**	**-**	**-**
1/1	12	12	11	1	0	0.0	0.0	-	0.0	3.9	0.0	0.0	0.0
2/1	4	4	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1+3/2	890	890	2	0	0	0.0	0.4	-	0.4	1.5	0.0	0.4	0.4
4/1	687	687	-	-	-	0.3	0.4	-	0.7	3.5	2.4	0.4	2.8
5/1	894	894	-	-	-	0.2	0.7	-	0.9	3.5	1.3	0.7	2.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
J3: LWR	**-**	**-**	**0**	**0**	**0**	**6.4**	**3.6**	**0.0**	**9.9**	**-**	**-**	**-**	**-**
1/2+1/1	58	58	-	-	-	0.4	0.1	-	0.4	25.3	0.5	0.1	0.5
2/1+2/2	899	899	-	-	-	3.2	2.5	-	5.7	22.7	13.4	2.5	15.9
3/2+3/1	691	691	-	-	-	2.8	1.1	-	3.9	20.2	8.4	1.1	9.5
4/1	74	74	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	684	684	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

C1	Stream: 1	PRC for Signalled Lanes (%):	4.0	Total Delay for Signalled Lanes (pcuHr):	13.16	Cycle Time (s):	67
C1	Stream: 2	PRC for Signalled Lanes (%):	56.5	Total Delay for Signalled Lanes (pcuHr):	1.55	Cycle Time (s):	67
C2		PRC for Signalled Lanes (%):	7.9	Total Delay for Signalled Lanes (pcuHr):	9.94	Cycle Time (s):	67
		PRC Over All Lanes (%):	4.0	Total Delay Over All Lanes(pcuHr):	25.04		

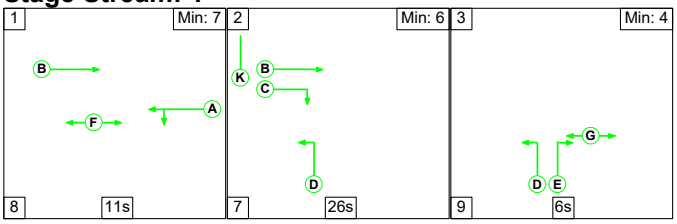
Full Input Data And Results

Scenario 3: 'Baseline + Comm + Dev AM' (FG3: 'Baseline + Comm + NWC AM', Plan 1: 'Network Control Plan 1')

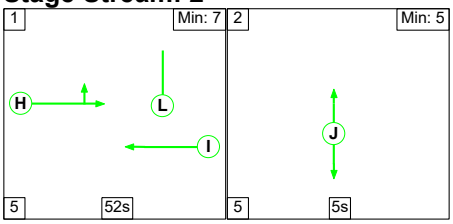
Controller :C1

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

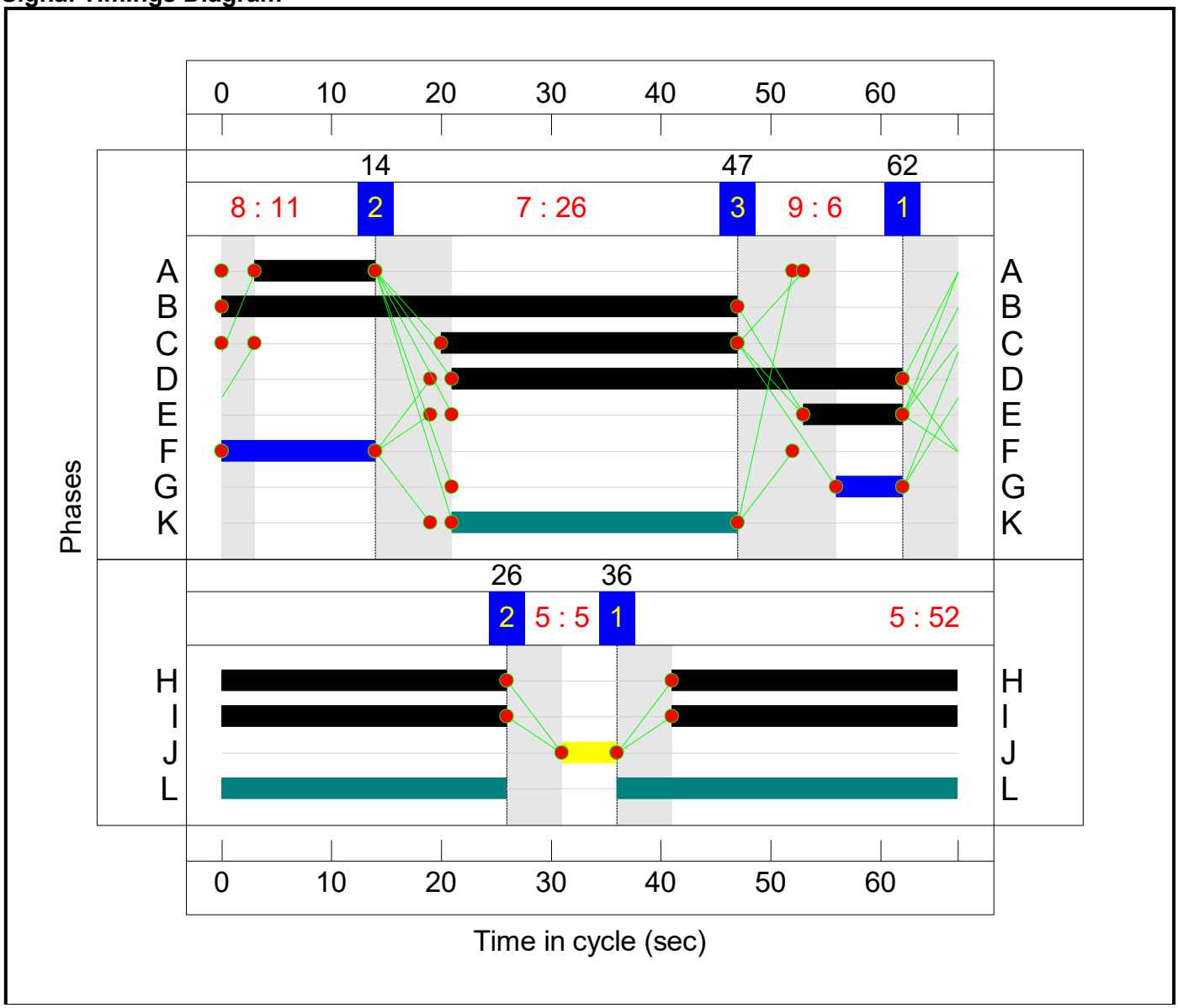
Stage	1	2	3
Duration	11	26	6
Change Point	62	14	47

Stage Stream: 2

Stage	1	2
Duration	52	5
Change Point	36	26

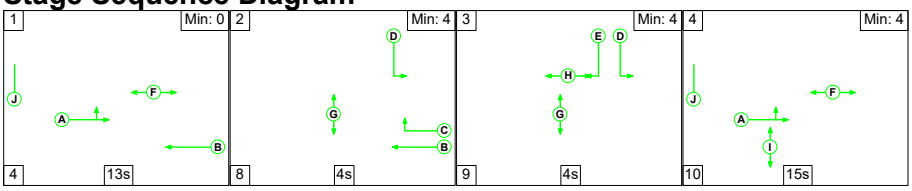
Full Input Data And Results

Signal Timings Diagram



Controller :C2

Stage Sequence Diagram

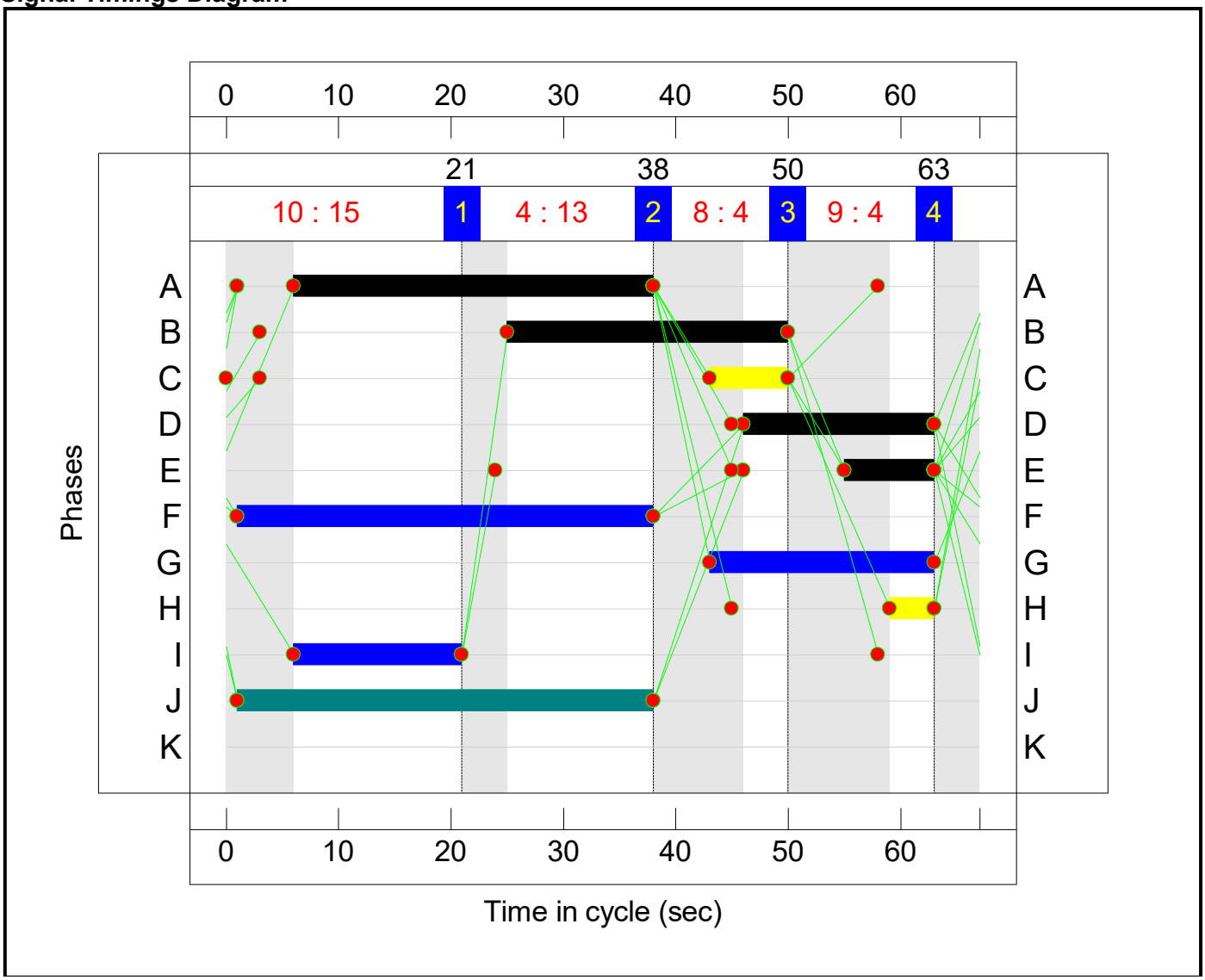


Stage Timings

Stage	1	2	3	4
Duration	13	4	4	15
Change Point	21	38	50	63

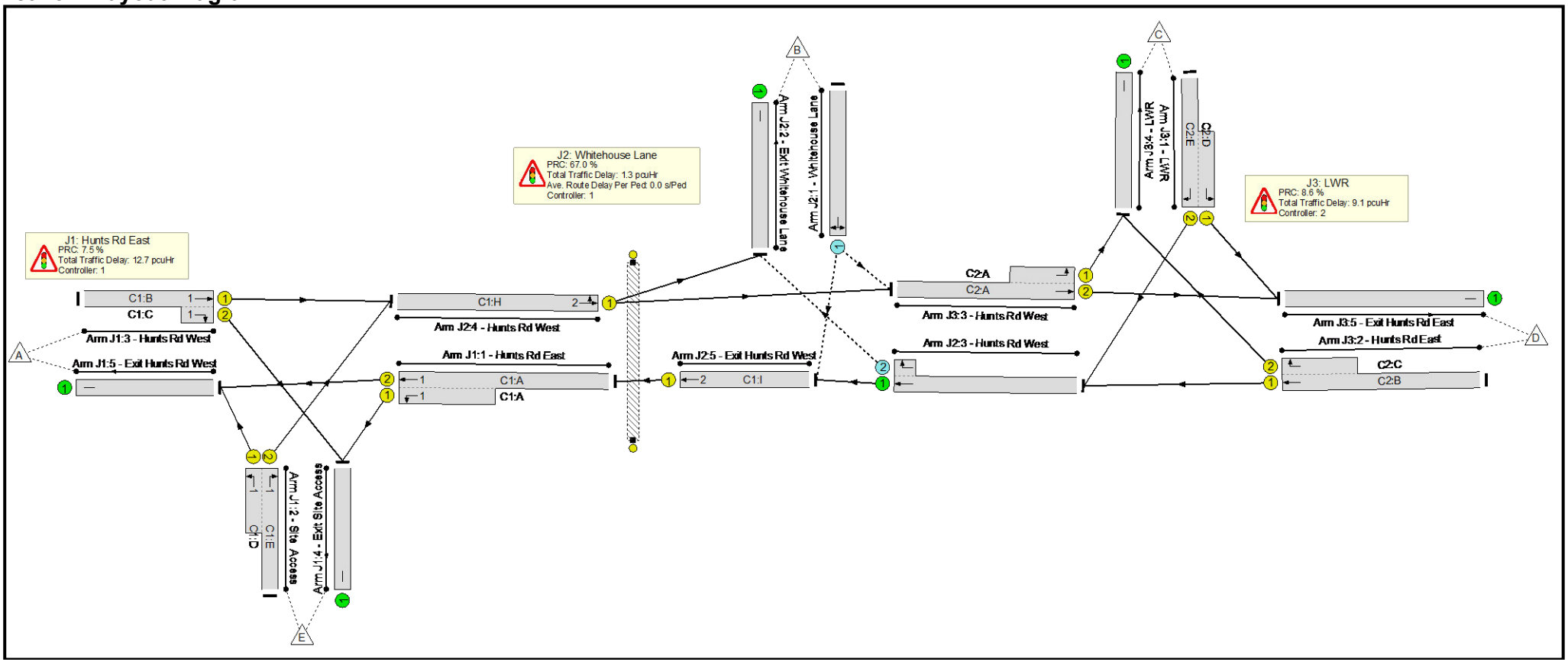
Full Input Data And Results

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: Eddington Ave / Hunts Rd	-	-	**N/A**	-	-		-	-	-	-	-	-	**83.8%**
J1: Hunts Rd East	-	-	**N/A**	-	-		-	-	-	-	-	-	**83.8%**
1/2+1/1	Hunts Rd East Left Ahead	U	1:1	N/A	C1:A		1	11	-	566	2080:1764	373+316	83.8 : 80.4%
2/2+2/1	Site Access Left Right	U	1:1	N/A	C1:E C1:D		1	9:41	-	346	2080:1764	310+147	75.7 : 75.7%
3/1+3/2	Hunts Rd West Right Ahead	U	1:1	N/A	C1:B C1:C		1	47:27	-	915	1915:1912	724+376	83.2 : 83.2%
4/1	Exit Site Access	U	N/A	N/A	-		-	-	-	567	Inf	Inf	0.0%
5/1	Exit Hunts Rd West	U	N/A	N/A	-		-	-	-	423	Inf	Inf	0.0%
J2: Whitehouse Lane	-	-	**N/A**	-	-		-	-	-	-	-	-	**53.9%**
1/1	Whitehouse Lane Left Right	O	N/A	N/A	-		-	-	-	4	1965	533	0.8%
2/1	Exit Whitehouse Lane	U	N/A	N/A	-		-	-	-	11	Inf	Inf	0.0%
3/1+3/2	Hunts Rd West Right Ahead	U+O	N/A	N/A	-		-	-	-	569	2095:1804	2082+11	27.2 : 27.2%
4/1	Hunts Rd West Ahead Left	U	1:2	N/A	C1:H		1	52	-	837	1963	1553	53.9%
5/1	Exit Hunts Rd West Ahead	U	1:2	N/A	C1:I		1	52	-	566	1965	1554	36.4%
Ped Link: P1	Unnamed Ped Link	-	1:2	-	C1:J		1	5	-	0	-	0	0.0%
J3: LWR	-	-	**N/A**	-	-		-	-	-	-	-	-	**82.9%**
1/2+1/1	LWR Left Right	U	N/A	N/A	C2:E C2:D		1	8:17	-	83	2055:1665	276+257	15.6 : 15.6%
2/1+2/2	Hunts Rd East Right Ahead	U	N/A	N/A	C2:B C2:C		1	25:7	-	546	1915:1868	734+28	71.7 : 71.7%

Full Input Data And Results

3/2+3/1	Hunts Rd West Left Ahead	U	N/A	N/A	C2:A		1	32	-	833	2055:1665	963+42	82.9 : 82.9%
4/1	LWR	U	N/A	N/A	-		-	-	-	55	Inf	Inf	0.0%
5/1	Exit Hunts Rd East	U	N/A	N/A	-		-	-	-	838	Inf	Inf	0.0%

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: Eddington Ave / Hunts Rd	**-**	**-**	**5**	**2**	**0**	**12.1**	**10.9**	**0.0**	**23.1**	**-**	**-**	**-**	**-**
J1: Hunts Rd East	**-**	**-**	**0**	**0**	**0**	**6.5**	**6.2**	**0.0**	**12.7**	**-**	**-**	**-**	**-**
1/2+1/1	566	566	-	-	-	2.4	2.2	-	4.6	29.3	5.6	2.2	7.9
2/2+2/1	346	346	-	-	-	1.9	1.5	-	3.5	36.0	4.2	1.5	5.7
3/1+3/2	915	915	-	-	-	2.2	2.4	-	4.6	18.1	8.1	2.4	10.5
4/1	567	567	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	423	423	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Whitehouse Lane	**-**	**-**	**5**	**2**	**0**	**0.2**	**1.1**	**0.0**	**1.3**	**-**	**-**	**-**	**-**
1/1	4	4	3	1	0	0.0	0.0	-	0.0	3.4	0.0	0.0	0.0
2/1	11	11	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1+3/2	569	569	2	1	0	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
4/1	837	837	-	-	-	0.2	0.6	-	0.8	3.3	3.0	0.6	3.6
5/1	566	566	-	-	-	0.0	0.3	-	0.3	1.9	0.7	0.3	1.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
J3: LWR	**-**	**-**	**0**	**0**	**0**	**5.4**	**3.7**	**0.0**	**9.1**	**-**	**-**	**-**	**-**
1/2+1/1	83	83	-	-	-	0.5	0.1	-	0.6	26.2	0.7	0.1	0.8
2/1+2/2	546	546	-	-	-	2.7	1.3	-	3.9	25.9	8.4	1.3	9.6
3/2+3/1	833	833	-	-	-	2.2	2.4	-	4.6	19.9	12.4	2.4	14.8
4/1	55	55	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	838	838	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

C1	Stream: 1	PRC for Signalled Lanes (%):	7.5	Total Delay for Signalled Lanes (pcuHr):	12.67	Cycle Time (s):	67
C1	Stream: 2	PRC for Signalled Lanes (%):	67.0	Total Delay for Signalled Lanes (pcuHr):	1.07	Cycle Time (s):	67
C2		PRC for Signalled Lanes (%):	8.6	Total Delay for Signalled Lanes (pcuHr):	9.13	Cycle Time (s):	67
		PRC Over All Lanes (%):	7.5	Total Delay Over All Lanes(pcuHr):	23.06		

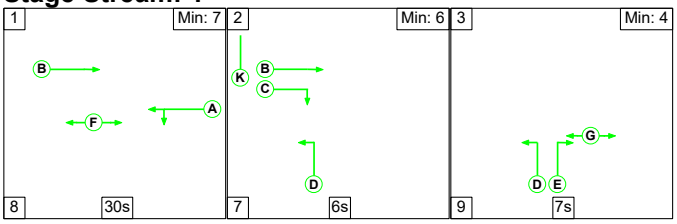
Full Input Data And Results

Scenario 4: 'Baseline + Comm + Dev PM' (FG4: 'Baseline + Comm + NWC PM', Plan 1: 'Network Control Plan 1')

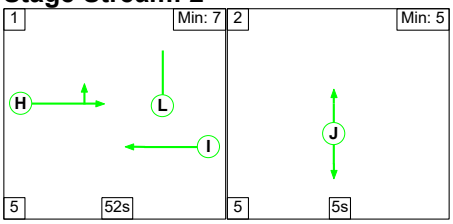
Controller :C1

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

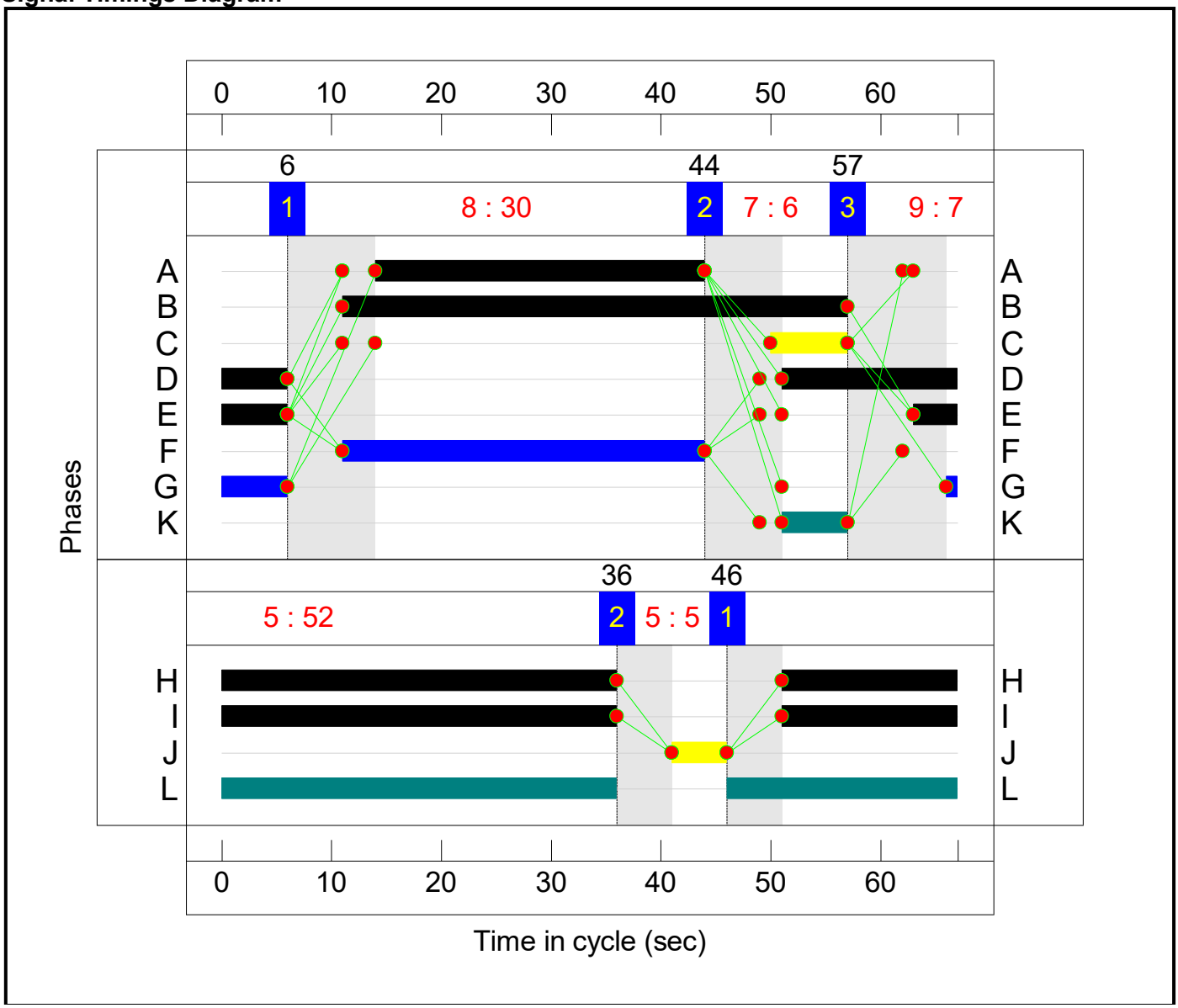
Stage	1	2	3
Duration	30	6	7
Change Point	6	44	57

Stage Stream: 2

Stage	1	2
Duration	52	5
Change Point	46	36

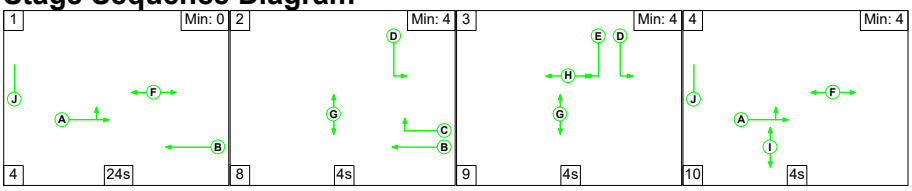
Full Input Data And Results

Signal Timings Diagram



Controller :C2

Stage Sequence Diagram

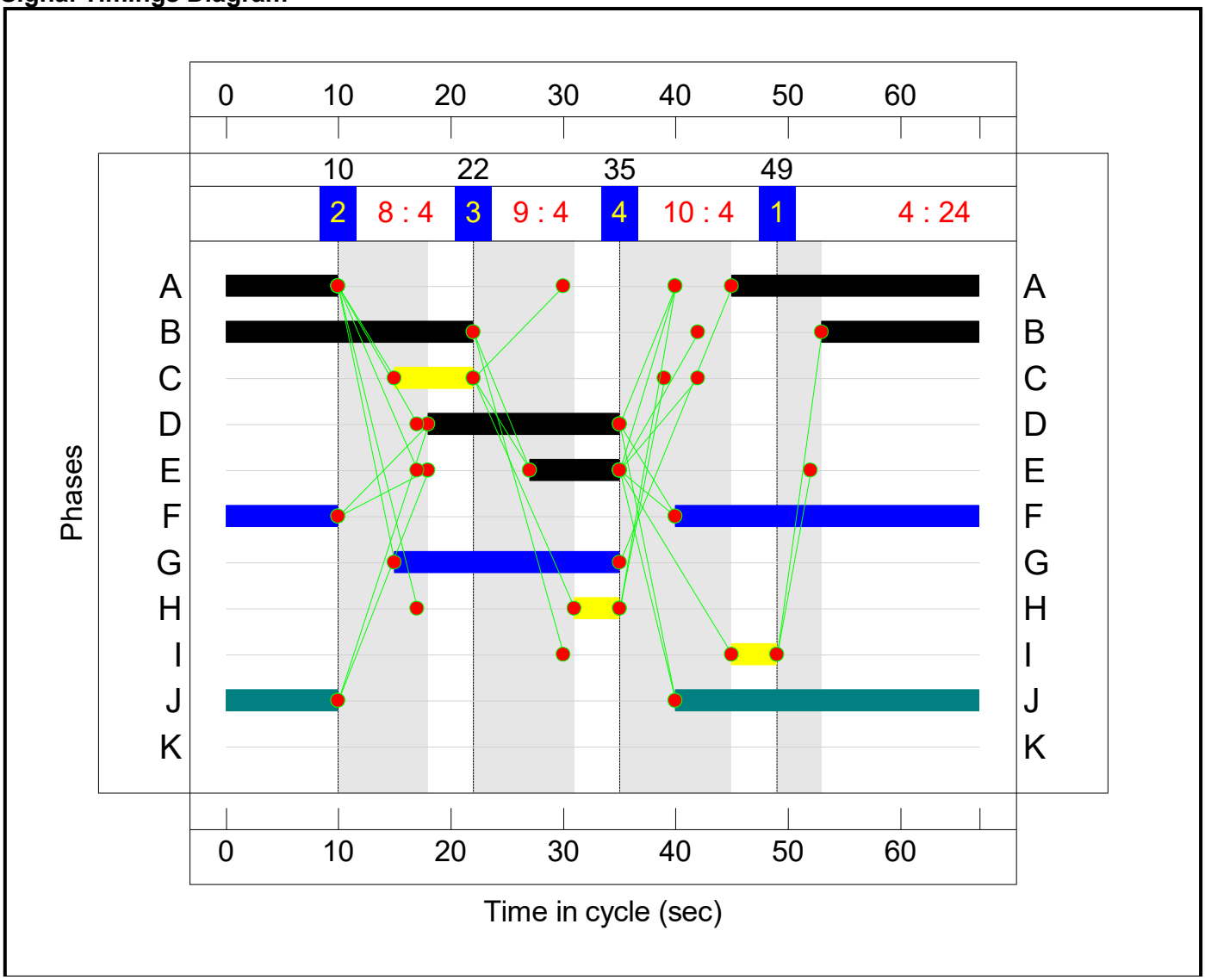


Stage Timings

Stage	1	2	3	4
Duration	24	4	4	4
Change Point	49	10	22	35

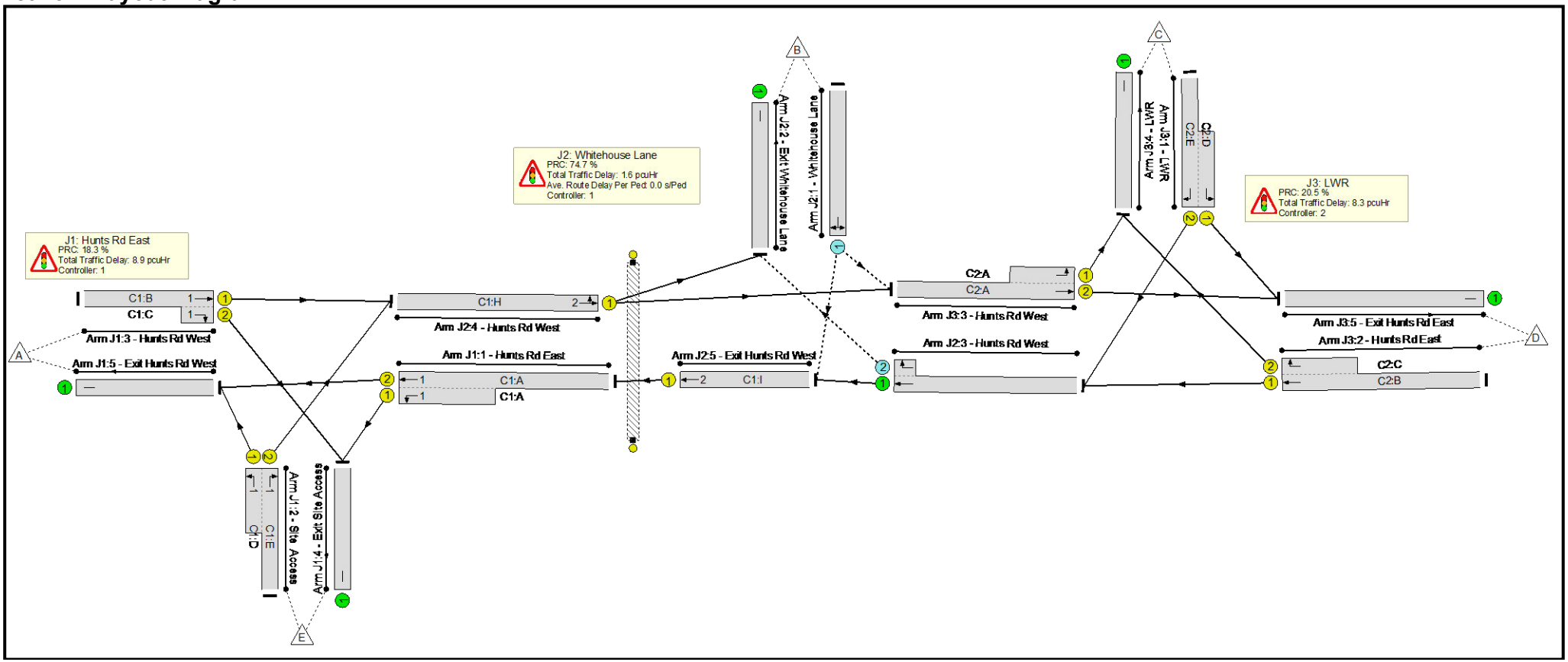
Full Input Data And Results

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: Eddington Ave / Hunts Rd	-	-	**N/A**	-	-		-	-	-	-	-	-	**76.1%**
J1: Hunts Rd East	-	-	**N/A**	-	-		-	-	-	-	-	-	**76.1%**
1/2+1/1	Hunts Rd East Left Ahead	U	1:1	N/A	C1:A		1	30	-	801	2080:1764	844+209	76.1 : 76.1%
2/2+2/1	Site Access Left Right	U	1:1	N/A	C1:E C1:D		1	10:22	-	547	2080:1764	335+419	72.5 : 72.5%
3/1+3/2	Hunts Rd West Right Ahead	U	1:1	N/A	C1:B C1:C		1	46:7	-	500	1915:1912	644+173	61.2 : 61.2%
4/1	Exit Site Access	U	N/A	N/A	-		-	-	-	265	Inf	Inf	0.0%
5/1	Exit Hunts Rd West	U	N/A	N/A	-		-	-	-	946	Inf	Inf	0.0%
J2: Whitehouse Lane	-	-	**N/A**	-	-		-	-	-	-	-	-	**51.5%**
1/1	Whitehouse Lane Left Right	O	N/A	N/A	-		-	-	-	12	1871	492	2.4%
2/1	Exit Whitehouse Lane	U	N/A	N/A	-		-	-	-	4	Inf	Inf	0.0%
3/1+3/2	Hunts Rd West Right Ahead	U+O	N/A	N/A	-		-	-	-	797	2095:1804	2089+5	38.1 : 38.1%
4/1	Hunts Rd West Ahead Left	U	1:2	N/A	C1:H		1	52	-	637	1964	1554	41.0%
5/1	Exit Hunts Rd West Ahead	U	1:2	N/A	C1:I		1	52	-	801	1965	1554	51.5%
Ped Link: P1	Unnamed Ped Link	-	1:2	-	C1:J		1	5	-	0	-	0	0.0%
J3: LWR	-	-	**N/A**	-	-		-	-	-	-	-	-	**74.7%**
1/2+1/1	LWR Left Right	U	N/A	N/A	C2:E C2:D		1	8:17	-	58	2055:1665	276+296	10.1 : 10.1%
2/1+2/2	Hunts Rd East Right Ahead	U	N/A	N/A	C2:B C2:C		1	36:7	-	806	1915:1868	1030+50	74.7 : 74.7%

Full Input Data And Results

3/2+3/1	Hunts Rd West Left Ahead	U	N/A	N/A	C2:A		1	32	-	641	2055:1665	950+58	63.6 : 63.6%
4/1	LWR	U	N/A	N/A	-		-	-	-	74	Inf	Inf	0.0%
5/1	Exit Hunts Rd East	U	N/A	N/A	-		-	-	-	634	Inf	Inf	0.0%

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: Eddington Ave / Hunts Rd	**-**	**-**	**13**	**1**	**0**	**11.5**	**7.2**	**0.0**	**18.7**	**-**	**-**	**-**	**-**
J1: Hunts Rd East	**-**	**-**	**0**	**0**	**0**	**5.2**	**3.7**	**0.0**	**8.9**	**-**	**-**	**-**	**-**
1/2+1/1	801	801	-	-	-	0.8	1.6	-	2.3	10.4	7.7	1.6	9.3
2/2+2/1	547	547	-	-	-	3.3	1.3	-	4.6	30.1	4.5	1.3	5.8
3/1+3/2	500	500	-	-	-	1.2	0.8	-	2.0	14.4	2.7	0.8	3.5
4/1	265	265	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	946	946	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Whitehouse Lane	**-**	**-**	**13**	**1**	**0**	**0.4**	**1.2**	**0.0**	**1.6**	**-**	**-**	**-**	**-**
1/1	12	12	11	1	0	0.0	0.0	-	0.0	3.8	0.0	0.0	0.0
2/1	4	4	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1+3/2	797	797	2	0	0	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
4/1	637	637	-	-	-	0.2	0.3	-	0.6	3.2	1.9	0.3	2.3
5/1	801	801	-	-	-	0.2	0.5	-	0.7	3.2	1.2	0.5	1.8
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
J3: LWR	**-**	**-**	**0**	**0**	**0**	**5.9**	**2.4**	**0.0**	**8.3**	**-**	**-**	**-**	**-**
1/2+1/1	58	58	-	-	-	0.4	0.1	-	0.4	25.3	0.5	0.1	0.5
2/1+2/2	806	806	-	-	-	2.7	1.5	-	4.1	18.5	10.9	1.5	12.3
3/2+3/1	641	641	-	-	-	2.8	0.9	-	3.7	20.9	8.1	0.9	9.0
4/1	74	74	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	634	634	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

C1	Stream: 1	PRC for Signalled Lanes (%):	18.3	Total Delay for Signalled Lanes (pcuHr):	8.90	Cycle Time (s):	67
C1	Stream: 2	PRC for Signalled Lanes (%):	74.7	Total Delay for Signalled Lanes (pcuHr):	1.27	Cycle Time (s):	67
C2		PRC for Signalled Lanes (%):	20.5	Total Delay for Signalled Lanes (pcuHr):	8.26	Cycle Time (s):	67
		PRC Over All Lanes (%):	18.3	Total Delay Over All Lanes(pcuHr):	18.75		

CCC LinSig 3 Model Review | **Template Version 2.1**

Project Description	North West Cambridge Masterplan (NWCM), Eddington. Plan app ref 25/03746/OUT		
File Description	Model covering existing signals at Madingley Rd/M11 Jn 13		
Model Filename	Madingley Rd - M11 Slip.lsg3x		
Associated Drawing	243-lay.pdf		
Associated Signal Data	Existing NH site, CCC ref 243		
Associated Traffic Flows			
Date Received (CCC Modelling Team)	19-Dec-25	12-Mar-26	Date Comments Received (KMC)
Date Audited	14-Jan-26	13-Feb-26	Date Updated following Audit
Audit Version	v1	V2	Model Version
Audited By	Steve Newby	Nigel Pettitt	Audit Response by

Key

Red	Potential/likely error
Amber	Comment that may require clarification or minor error
Green	No significant errors identified

		Cambridgeshire County Council Signals Team		KMC	
	Checklist	**Red/Amber/Green**	**Comments**	**RAG**	**KMC Response**
General	Lane Structure	Green		Green	
	Short lanes / flares	Green		Green	
	Lane lengths	Red	Internal lane lengths are not correct and should be coded. For example J1:4 and J1:2 but all should be checked and updated accordingly	Green	All updated as part of merge with upstream junction.
	Lane connectors	Green		Green	
	Cruise times / speeds	Green		Green	
	Pedestrian links	Green		Green	
Signals	Phases / Phase types	Green		Green	
	Phase minimums	Green		Green	
	Intergreens	Red	Intergreens are not coded as per signal spec	Green	Previously based on measurements. All updated to 6 secs based on site visit.
	Stages	Green		Green	
	Stage sequences	Green		Green	
	Phase delays	Green		Green	
	Prohibited movements	Green		Green	
Lane Data	Lanes connected to phases	Green		Green	
	Start/end displacements	Green		Green	
	Giveways modelled?	Green		Green	
	Max flow while giving way	Red	J2:1/2 give way should use Max Flow while giving way	Green	Updated
	Coefficients	Green		Green	
	Opposing lanes	Green		Green	
	Storage - turns in intergreen / non-blocking	Green		Green	
	Saturation flows	Green		Green	
	Turning radii	Green		Green	
	Nearside lanes	Red	J2:1/1 should be nearside	Green	Updated
Traffic flows	Start/end times	Green		Green	
	Flows correct / in pcu?	Red	Flows for this jn are as shown in TA App I but no account has been made for conversion to PCU for LinSig modelling. Please supply revised flow diagrams with PCU shown for all LinSig modelled junctions. Flow for A-B in scenario F16 should be 801 veh not 533 veh according to Fig 185 in App I.	Green	PCUs input to model using 'Total Vehicles + HGVs' (allowing for HGVs as 2 PCUs) from flow diagrams - see flow matrix in flow diagram spreadsheet on far right. Flows chgecked and updated.
	Flow assignment / routes	Green		Green	
	Scenarios	Green		Green	
Results	Cycle times	Green		Green	
	Degrees of Saturation	Red	The junction even modelled in standalone form is over capacity in future year scenarios. Queues from Wbnd traffic would restrict egress from M11 slip road, potentially resulting in queues stretching onto the M11 NB carriageway	Amber	Queues currently shown to fall well within slip lane length. KMC don't understand why westbound queues would impact on M11 slip egress? This would block access to onslip not off slip. Updated results to be reviewed by CCC. DoS lower for NWCM when compared with OPP Trip Budget Scenario run.
	Mean Max Queues	Red	See above	Amber	Updated results to be reviewed by CCC. MMQ lower for NWCM when compared with OPP Trip Budget Scenario run.
	Co-ordination	Green		Green	
	Results summarised in TA	Red	Results will change once the junction is re-modelled.	Amber	Model updated as per above. Results to be summarised when model signed off.
Other information / assumptions	Bonus greens	Green		Green	
	De-sliver thresholds	Red	Justification for use of de-sliver queue on J1:4/2 should be provided	Green	De-sliver queue removed and lane geometry updated accordingly. Therefore no De-Sliver Queue. De-Sliver instead added to upstream junction (J4:1) to account for upstream sat flow being greater and therefore inflow > outflow. Whereas in practice this lane will be free flow.
	Optimiser weightings	Green		Green	
	Ignore random delay	Green		Green	
	Check model warnings	Green		Green	
	Double/triple cycling	Green		Green	
	Bus modelling	Green		Green	
	Other assumptions	Green		Green	

Notes

There are some specific areas that need addressing as noted in the comments above.
Most notably though, the model should be joined with the Madingley Rd/Eddington Ave model.

CCC LinSig 3 Model Review	**Template Version 2.1**	**Key**	
Project Description	North West Cambridge Masterplan (NWCM), Eddington. Plan app ref 25/03746/OUT	Red	Potential/likely error
File Description	Model covering existing signals at Madingley Rd/Park & Ride access and Madingley Rd/Eddington Ave	Amber	Comment that may require clarification or minor error
Model Filename	Madingley Rd - Eddington Ave_every other cycle.lsg3x	Green	No significant errors identified
Associated Drawing			
Associated Signal Data	Existing CCC site 286 (J13111 & J13112).		
Associated Traffic Flows			
Date Received (CCC Modelling Team)	19-Dec-25	12-Mar-26	Date Comments Received (KMC)
Date Audited	14-Jan-26	13-Feb-26	Date Updated following Audit
Audit Version	v1	V2	Model Version
Audited By	Steve Newby	Nigel Pettitt	Audit Response by

		Cambridgeshire County Council Signals Team		KMC	
	Checklist	**Red/Amber/Green**	**Comments**	**RAG**	**KMC Response.**
Layout	Lane Structure	Red	The model is effectively two individual models in the same file with individual turning movements at each junction modelled. Any interaction between the junctions is therefore not modelled and this is not acceptable. The two junctions need joining within this model and extending to include the Madingley Rd/M11 Jn 13 model as a network model.	Green	Updated to include flows as part of network in LinSig with Mad Rd / M11 junction model
	Short lanes / flares	Red	See above	Green	Updated as per above
	Lane lengths	Red	Some flare lengths appear slightly too short	Green	Reviewed and updated
	Lane connectors	Green		Green	
	Cruise times / speeds	Green		Green	
	Pedestrian links	Green		Green	
Signals	Phases / Phase types	Green		Green	
	Phase minimums	Green		Green	
	Intergreens	Green		Green	
	Stages	Green		Green	
	Stage sequences	Red	Refer to SSGM logs on adjacent sheets. Eddington Ave junction operates differently in AM and PM peaks. Only 5 stages are run according to SSGM log although the signal spec has 6 stages. Which 5 stages are run will need verifying with CCC Signals Team. Park & Ride junction never calls stage 2 during peak hours.	Green	Stage 3 (Edd Ave LT + Mad Rd East) removed from model following site visit. AM & PM appears to operate with different stage sequence during 2023 SSGM, but recent site visit (2026) shows AM and PM run same sequence but differing cycle times. Model updated accordingly to match 2026 site visit, rather than 2023 SSGM - KMC assume onsite timings have changed since 2023. CCC to confirm. Stage 2 removed from P&R junction and stage 3 called every other in PM.
	Phase delays	Green		Green	
	Prohibited movements	Green		Green	
Lane Data	Lanes connected to phases	Green		Green	
	Start/end displacements	Green		Green	
	Giveways modelled?	Green		Green	
	Max flow while giving way	Green		Green	
	Coefficients	Green		Green	
	Opposing lanes	Green		Green	
	Storage - turns in intergreen / non-blocking	Green		Green	
	Saturation flows	Green		Green	
	Turning radii	Red	Arm J2:1 right turn has no turning radius applied	Green	Updated to 10m radii
	Nearside lanes	Green		Green	
Traffic flows	Start/end times	Green		Green	
	Flows correct / in pcu?	Red	A spot check of flows shows a good match against flow diagrams in App I. Flows in the model are expressed in vehicles though, when they should be in PCU.	Green	PCUs input to model using 'Total Vehicles + HGVs' (allowing for HGVs as 2 PCUs) from flow diagrams - see flow matrix in flow diagram spreadsheet on far right.
	Flow assignment / routes	Red		Green	Updated following junction merge with upstream junction.
	Scenarios	Green		Green	
Results	Cycle times	Red	See comments about SSGM logs above.	Amber	Results updated following site visit
	Degrees of Saturation	Red	Results will change once the model is changed	Amber	Results updated following site visit
	Mean Max Queues	Red	Results will change once the model is changed	Amber	Results updated following site visit
	Co-ordination	Red	Results will change once the model is changed	Amber	Results updated following site visit
	Results summarised in TA	Red	Results will change once the model is changed	Amber	Results updated following site visit
Other information / assumptions	Bonus greens	Green		Green	
	De-sliver thresholds	Green		Green	
	Optimiser weightings	Green		Green	
	Ignore random delay	Green		Green	
	Check model warnings	Green		Green	
	Double/triple cycling	Green		Green	
	Bus modelling	Green		Green	
	Other assumptions	Green		Green	

Notes - edited 11 Feb 2026

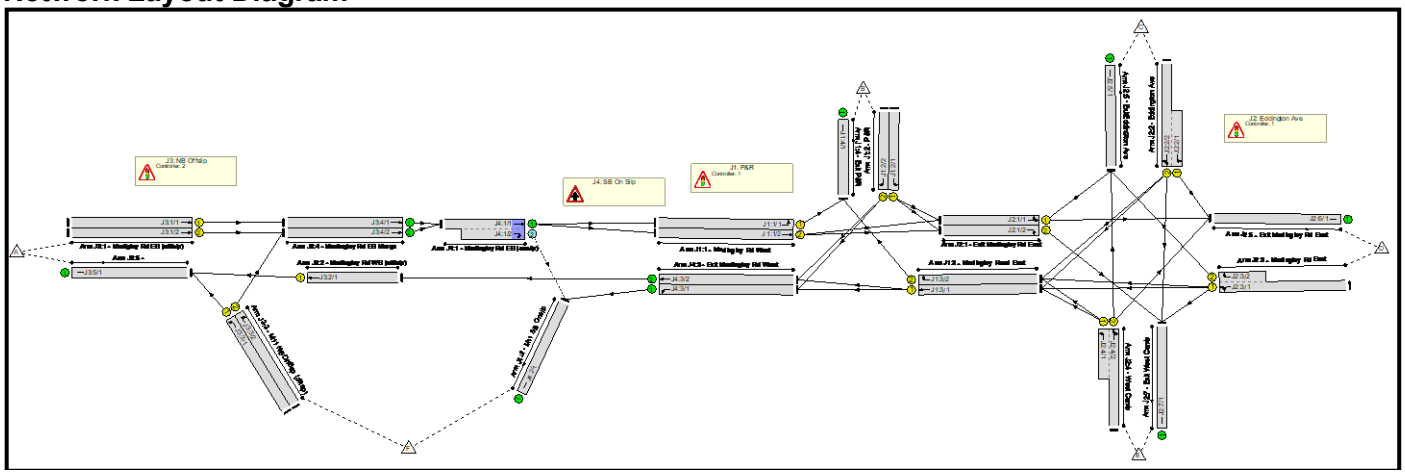
There are some specific areas that need addressing as noted in the comments above.
Most notably though, the model should be joined with the Madingley Rd/M11 Jn 13 model.

Full Input Data And Results

User and Project Details

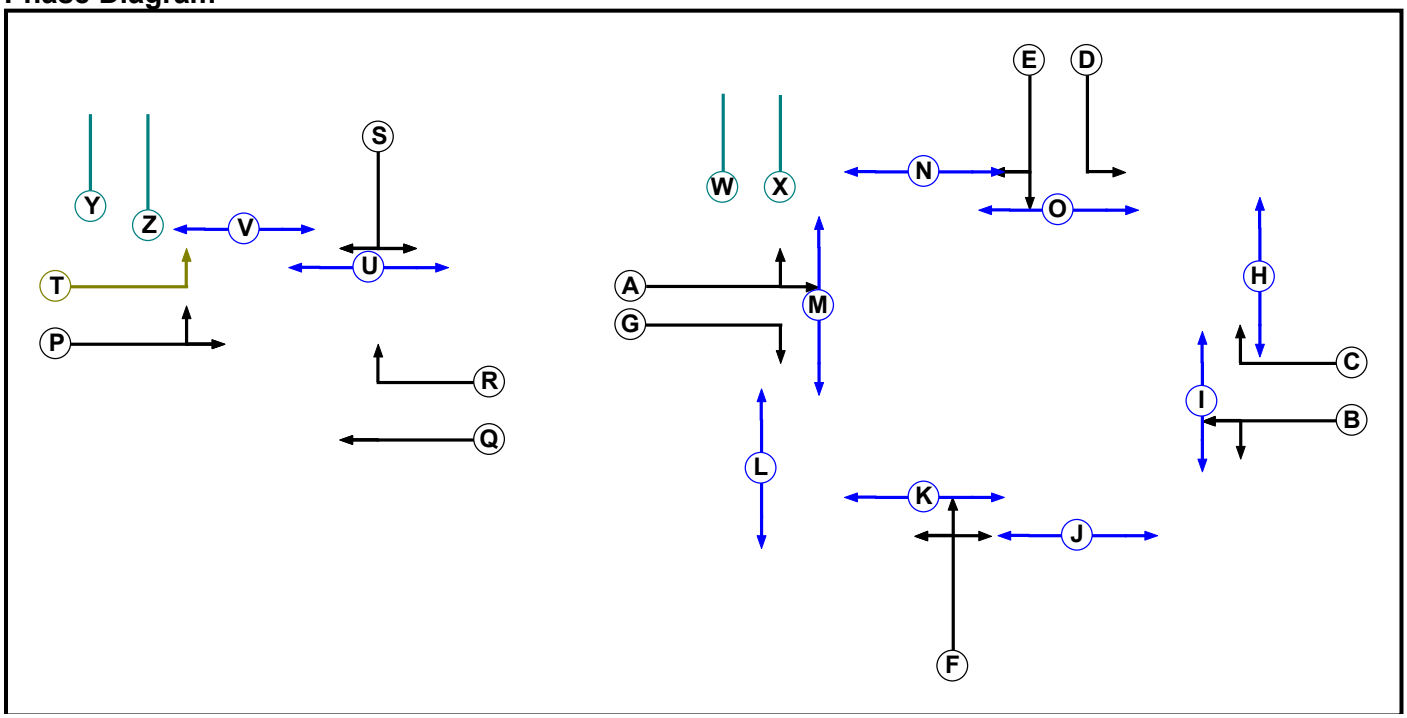
Project:	**North West Cambridge**
Title:	**Madingley Road / Eddington Avenue Junction**
Client:	UoC
Design Layout Ref:	Existing Layout
File name:	M11 - Mad Rd - Edd Ave_every other cycle_REV 1 - Baseline + Dev.lsg3x
Company:	KMC
Address:	Cambridge

Network Layout Diagram



Controller :C1

Phase Diagram



Full Input Data And Results

Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min (s)	Cont Min (s)
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Traffic	1		7	7
D	Traffic	1		7	7
E	Traffic	1		7	7
F	Traffic	1		7	7
G	Traffic	1		7	7
H	Pedestrian	1		4	4
I	Pedestrian	1		5	5
J	Pedestrian	1		4	4
K	Pedestrian	1		5	5
L	Pedestrian	1		4	4
M	Pedestrian	1		5	5
N	Pedestrian	1		4	4
O	Pedestrian	1		5	5
P	Traffic	2		7	7
Q	Traffic	2		7	7
R	Traffic	2		7	7
S	Traffic	2		7	7
T	Filter	2	P	1	0
U	Pedestrian	2		4	4
V	Pedestrian	2		4	4
W	Dummy	1		3	3
X	Dummy	1		3	3
Y	Dummy	2		7	7
Z	Dummy	2		3	3

Full Input Data And Results

Phase Intergreens Matrix

Terminating Phase \ Starting Phase	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
A		-	6	8	8	5	-	12	-	-	-	-	5	12	-	-	-	-	-	-	-	-	-	8	-	-
B	-		-	-	5	7	5	-	6	10	-	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C	5	-		-	5	5	5	-	5	-	-	-	-	12	-	-	-	-	-	-	-	-	-	5	-	-
D	5	-	-		-	5	6	9	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	5	-	-
E	5	7	7	-		8	6	-	-	11	-	12	-	-	5	-	-	-	-	-	-	-	-	7	7	-
F	5	5	5	6	5		5	12	-	-	5	8	-	9	-	-	-	-	-	-	-	-	-	5	6	-
G	-	5	5	5	5	5		-	-	11	-	-	5	-	-	-	-	-	-	-	-	-	-	5	5	-
H	6	-	-	6	-	6	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	6	-
I	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	6	-
J	-	6	-	-	6	-	6	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	6	6	-
K	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
L	-	6	-	-	6	6	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	6	6	-
M	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	6	-	-
N	6	-	6	-	-	6	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	6	6	-
O	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	6	-
P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	5	7	-	-	7	-	-	-	7
Q	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	5	-	-	-	-	-	-	5
R	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-		5	5	-	10	-	-	5	5
S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	5	5		-	5	-	-	-	-	-
T	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-		-	7	-	-	-	-
U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-		-	-	-	-	8
V	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	5	-	6	-		-	-	6	-
W	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-
X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-
Y	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
Z	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

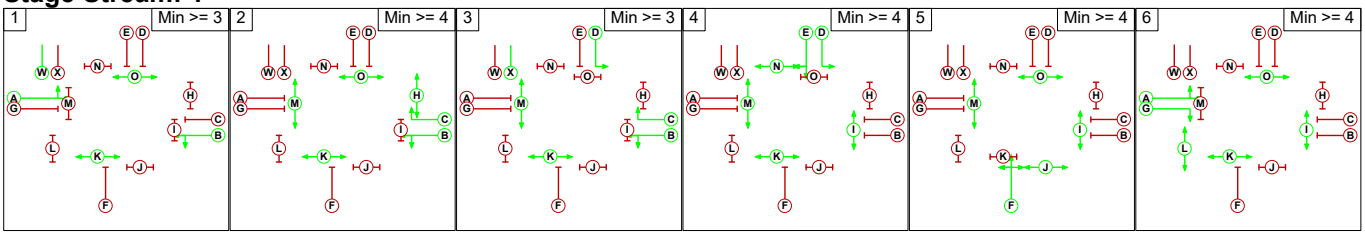
Phases in Stage

Stream	Stage No.	Phases in Stage
1	1	A B K O W
1	2	B C H K M O
1	3	B C D K M X
1	4	D E I K M N
1	5	F I J M O
1	6	A G I K L O
2	1	P Q U Y
2	2	Q U V
2	3	Q R U
2	4	S T Y Z

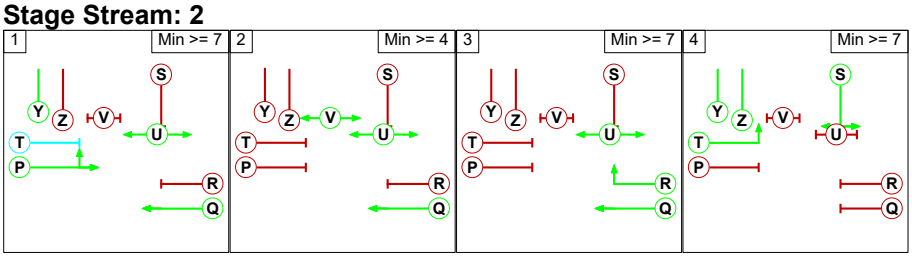
Full Input Data And Results

Stage Diagram

Stage Stream: 1



Stage Stream: 2



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					

Prohibited Stage Change

Stage Stream: 1

		To Stage					
		1	2	3	4	5	6
From Stage	1		12	8	12	10	11
	2	6		6	12	10	11
	3	6	9		12	10	11
	4	7	9	7		11	12
	5	6	12	6	9		8
	6	6	12	8	12	11	

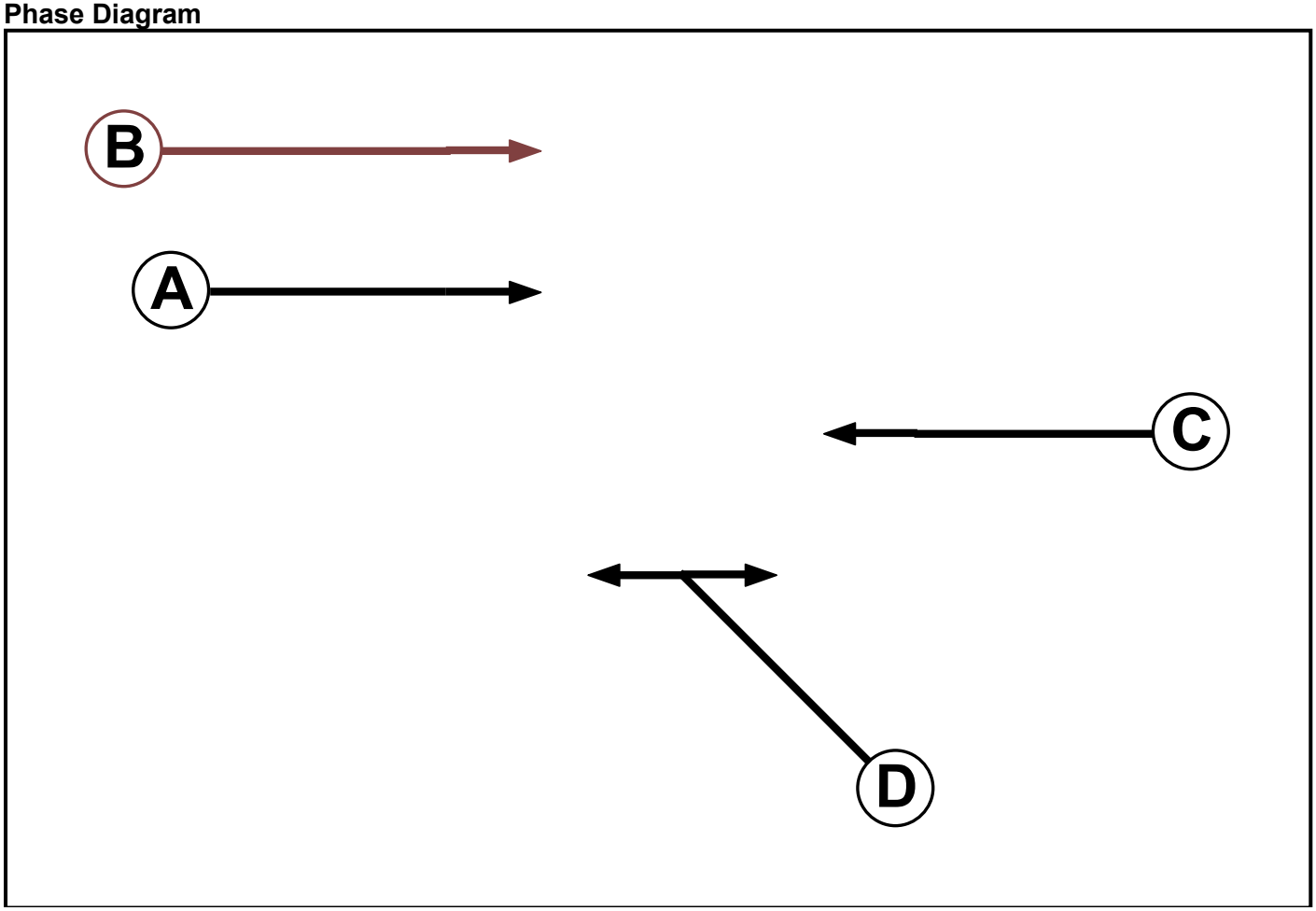
Stage Stream: 2

		To Stage			
		1	2	3	4
From Stage	1		7	5	8
	2	6		5	8
	3	5	10		8
	4	6	X	X	

Full Input Data And Results

Controller :C2

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min (s)	Cont Min (s)
A	Traffic		7	7
B	Bus		7	7
C	Traffic		7	7
D	Traffic		7	7

Phase Intergreens Matrix

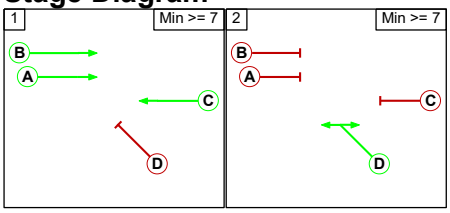
		Starting Phase			
		A	B	C	D
Terminating Phase	A		-	-	6
	B	-		-	6
	C	-	-		6
	D	6	6	6	

Phases in Stage

Stage No.	Phases in Stage
1	A B C
2	D

Full Input Data And Results

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		6
	2	6	

Full Input Data And Results

Give-Way Lane Input Data

Junction: J1: P&&R
There are no Opposed Lanes in this Junction

Junction: J2: Eddington Ave
There are no Opposed Lanes in this Junction

Junction: J3: NB Offslip
There are no Opposed Lanes in this Junction

Junction: J4: SB On Slip											
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)**
J4:1/2 (Madingley Rd EB (onslip))	J4:2/1 (Right)	850	0	J4:3/2	0.35	All	-	-	-	-	-

Full Input Data And Results

Lane Input Data

Junction: J1: P&&R												
Lane	**Lane Type**	**Phases**	**Start Disp. (s)**	**End Disp. (s)**	**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 (Madingley Rd West)	U	P T	2	3	42.1	Geom	-	3.00	0.00	Y	Arm J1:4 Left	15.00
J1:1/2 (Madingley Rd West)	U	P	2	3	33.7	Geom	-	3.00	0.00	N	Arm J2:1 Ahead	Inf
J1:2/1 (P&R)	U	S	2	3	60.0	Geom	-	3.25	0.00	Y	Arm J2:1 Left	Inf
J1:2/2 (P&R)	U	S	2	3	60.0	Geom	-	3.25	0.00	N	Arm J4:3 Right	20.00
J1:3/1 (Madingley Road East)	U	Q	2	3	19.1	Geom	-	3.50	0.00	Y	Arm J4:3 Ahead	Inf
J1:3/2 (Madingley Road East)	U	R	2	3	60.0	Geom	-	3.50	0.00	N	Arm J1:4 Right	30.00
J1:4/1 (Exit P&R)	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

Junction: J2: Eddington Ave												
Lane	**Lane Type**	**Phases**	**Start Disp. (s)**	**End Disp. (s)**	**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 (Exit Madingley Rd East)	U	A	2	3	17.4	User	2100	-	-	-	-	-
J2:1/2 (Exit Madingley Rd East)	U	G	2	3	17.4	Geom	-	3.00	0.00	N	Arm J2:7 Right	10.00
J2:2/1 (Eddington Ave)	U	D	2	3	8.3	Geom	-	3.20	0.00	Y	Arm J2:6 Left	10.00
J2:2/2 (Eddington Ave)	U	E	2	3	60.0	Geom	-	3.20	0.00	N	Arm J1:3 Right	Inf
											Arm J2:7 Ahead	Inf
J2:3/1 (Madingley Rd East)	U	B	2	3	60.0	Geom	-	3.50	0.00	Y	Arm J1:3 Ahead	Inf
											Arm J2:7 Left	15.00
J2:3/2 (Madingley Rd East)	U	C	2	3	7.0	Geom	-	3.50	0.00	N	Arm J2:5 Right	10.00
J2:4/1 (West Camb)	U	F	2	3	7.5	Geom	-	3.00	0.00	Y	Arm J1:3 Left	Inf
J2:4/2 (West Camb)	U	F	2	3	60.0	Geom	-	3.00	0.00	N	Arm J2:5 Ahead	Inf
											Arm J2:6 Right	15.00
J2:5/1 (ExitEddington Ave)	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:6/1 (Exit Madingley Rd East)	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:7/1 (Exit West Camb)	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

Junction: J3: NB Offslip												
Lane	**Lane Type**	**Phases**	**Start Disp. (s)**	**End Disp. (s)**	**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 (Madigley Rd EB (offlsip))	U	B	2	3	60.0	Geom	-	4.00	0.00	Y	Arm J3:4 Ahead	Inf
J3:1/2 (Madigley Rd EB (offlsip))	U	A	2	3	60.0	Geom	-	4.00	0.00	N	Arm J3:4 Ahead	Inf
J3:2/1 (Madingley Rd WB (offlsip))	U	C	2	3	29.6	Geom	-	3.20	0.00	Y	Arm J3:5 Ahead	Inf
J3:3/1 (M11 NB OffSlip (offlsip))	U	D	2	3	60.0	Geom	-	3.10	0.00	Y	Arm J3:5 Left	30.00
J3:3/2 (M11 NB OffSlip (offlsip))	U	D	2	3	60.0	Geom	-	3.10	0.00	N	Arm J3:4 Right	10.00
J3:4/1 (Madingley Rd EB Merge)	U		2	3	13.9	Geom	-	3.40	0.00	Y	Arm J4:1 Ahead	Inf
J3:4/2 (Madingley Rd EB Merge)	U		2	3	13.9	Geom	-	4.20	0.00	N	Arm J4:1 Ahead	Inf
J3:5/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Junction: J4: SB On Slip												
Lane	**Lane Type**	**Phases**	**Start Disp. (s)**	**End Disp. (s)**	**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 (Madingley Rd EB (onslip))	U		2	3	21.4	Geom	-	3.60	0.00	N	Arm J1:1 Ahead	Inf
J4:1/2 (Madingley Rd EB (onslip))	O		2	3	11.0	Geom	-	3.00	0.00	N	Arm J4:2 Right	10.00
J4:2/1 (M11 SB Onslip)	U		2	3	60.0	Inf	-	-	-	-	-	-
J4:3/1 (Exit Madingley Rd West)	U		2	3	47.7	Inf	-	-	-	-	-	-
J4:3/2 (Exit Madingley Rd West)	U		2	3	47.7	Inf	-	-	-	-	-	-

Full Input Data And Results

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'Baseline + Comm + OPP Trip budget - Phase 1 trips on network during baseline surveys: AM Peak'	08:00	09:00	01:00	
2: 'Baseline + Comm + OPP Trip budget - Phase 1 trips on network during baseline surveys: PMPeak'	17:00	18:00	01:00	
3: 'Baseline + Comm + NWC AM'	08:00	09:00	01:00	
4: 'Baseline + Comm + NWC AM'	17:00	18:00	01:00	
5: '2038 Baseline + SATURN + Comm + NWC AM'	08:00	09:00	01:00	
6: '2038 Baseline + SATURN + Comm + NWC AM'	17:00	18:00	01:00	

Scenario 1: 'Baseline + Comm + OPP Trip budget - Phase 1 trips on network during baseline surveys: AM Peak' (FG1: 'Baseline + Comm + OPP Trip budget - Phase 1 trips on network during baseline surveys: AM Peak', Plan 1: 'AM')

Traffic Flows, Desired

Desired Flow :

		Destination						
		A	B	C	D	E	F	Tot.
Origin	A	0	108	147	302	98	76	731
	B	3	0	5	14	3	6	31
	C	99	42	0	152	76	190	559
	D	74	34	93	0	26	141	368
	E	6	2	21	2	0	11	42
	F	233	131	179	362	120	0	1025
	Tot.	415	317	445	832	323	424	2756

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: Baseline + Comm + OPP Trip budget - Phase 1 trips on network during baseline surveys: AM Peak
Junction: J1: P&&R	
J1:1/1	239
J1:1/2	1208
J1:2/1	22
J1:2/2	9
J1:3/1	521
J1:3/2	78
J1:4/1	317
Junction: J2: Eddington Ave	
J2:1/1	1009
J2:1/2	221
J2:2/1 (short)	152
J2:2/2 (with short)	559(In) 407(Out)
J2:3/1 (with short)	368(In) 275(Out)
J2:3/2 (short)	93
J2:4/1 (short)	19
J2:4/2 (with short)	42(In) 23(Out)
J2:5/1	445
J2:6/1	832
J2:7/1	323
Junction: J3: NB Offslip	
J3:1/1	12
J3:1/2	719
J3:2/1	182
J3:3/1	233
J3:3/2	792
J3:4/1	12
J3:4/2	1511
J3:5/1	415
Junction: J4: SB On Slip	
J4:1/1 (with short)	1523(In) 1447(Out)
J4:1/2 (short)	76
J4:2/1	424
J4:3/1	348
J4:3/2	182

Full Input Data And Results

Lane Saturation Flows

Junction: J1: P&&R								
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 (Madingley Rd West)	3.00	0.00	Y	Arm J1:4 Left	15.00	100.0 %	1741	1741
J1:1/2 (Madingley Rd West)	3.00	0.00	N	Arm J2:1 Ahead	Inf	100.0 %	2055	2055
J1:2/1 (P&R)	3.25	0.00	Y	Arm J2:1 Left	Inf	100.0 %	1940	1940
J1:2/2 (P&R)	3.25	0.00	N	Arm J4:3 Right	20.00	100.0 %	1935	1935
J1:3/1 (Madingley Road East)	3.50	0.00	Y	Arm J4:3 Ahead	Inf	100.0 %	1965	1965
J1:3/2 (Madingley Road East)	3.50	0.00	N	Arm J1:4 Right	30.00	100.0 %	2005	2005
J1:4/1 (Exit P&R Lane 1)	Infinite Saturation Flow						Inf	Inf

Junction: J2: Eddington Ave								
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 (Exit Madingley Rd East Lane 1)	This lane uses a directly entered Saturation Flow						2100	2100
J2:1/2 (Exit Madingley Rd East)	3.00	0.00	N	Arm J2:7 Right	10.00	100.0 %	1787	1787
J2:2/1 (Eddington Ave)	3.20	0.00	Y	Arm J2:6 Left	10.00	100.0 %	1683	1683
J2:2/2 (Eddington Ave)	3.20	0.00	N	Arm J1:3 Right	Inf	81.3 %	2075	2075
				Arm J2:7 Ahead	Inf	18.7 %		
J2:3/1 (Madingley Rd East)	3.50	0.00	Y	Arm J1:3 Ahead	Inf	90.5 %	1947	1947
				Arm J2:7 Left	15.00	9.5 %		
J2:3/2 (Madingley Rd East)	3.50	0.00	N	Arm J2:5 Right	10.00	100.0 %	1830	1830
J2:4/1 (West Camb)	3.00	0.00	Y	Arm J1:3 Left	Inf	100.0 %	1915	1915
J2:4/2 (West Camb)	3.00	0.00	N	Arm J2:5 Ahead	Inf	91.3 %	2037	2037
				Arm J2:6 Right	15.00	8.7 %		
J2:5/1 (ExitEddington Ave Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:6/1 (Exit Madingley Rd East Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:7/1 (Exit West Camb Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J3: NB Offslip								
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 (Madigley Rd EB (offlsip))	4.00	0.00	Y	Arm J3:4 Ahead	Inf	100.0 %	2015	2015
J3:1/2 (Madigley Rd EB (offlsip))	4.00	0.00	N	Arm J3:4 Ahead	Inf	100.0 %	2155	2155
J3:2/1 (Madingley Rd WB (offlsip))	3.20	0.00	Y	Arm J3:5 Ahead	Inf	100.0 %	1935	1935
J3:3/1 (M11 NB OffSlip (offlsip))	3.10	0.00	Y	Arm J3:5 Left	30.00	100.0 %	1833	1833
J3:3/2 (M11 NB OffSlip (offlsip))	3.10	0.00	N	Arm J3:4 Right	10.00	100.0 %	1796	1796
J3:4/1 (Madingley Rd EB Merge)	3.40	0.00	Y	Arm J4:1 Ahead	Inf	100.0 %	1955	1955
J3:4/2 (Madingley Rd EB Merge)	4.20	0.00	N	Arm J4:1 Ahead	Inf	100.0 %	2175	2175
J3:5/1	Infinite Saturation Flow						Inf	Inf

Junction: J4: SB On Slip								
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 (Madingley Rd EB (onslip))	3.60	0.00	N	Arm J1:1 Ahead	Inf	100.0 %	2115	2115
J4:1/2 (Madingley Rd EB (onslip))	3.00	0.00	N	Arm J4:2 Right	10.00	100.0 %	1787	1787
J4:2/1 (M11 SB Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
J4:3/1 (Exit Madingley Rd West Lane 1)	Infinite Saturation Flow						Inf	Inf
J4:3/2 (Exit Madingley Rd West Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 2: 'Baseline + Comm + OPP Trip budget - Phase 1 trips on network during baseline surveys: PM Peak' (FG2: 'Baseline + Comm + OPP Trip budget - Phase 1 trips on network during baseline surveys: PMPeak', Plan 2: 'PM')

Traffic Flows, Desired

Desired Flow :

		Destination						
		A	B	C	D	E	F	Tot.
Origin	A	0	14	175	138	20	169	516
	B	122	0	41	36	5	107	311
	C	182	4	0	101	26	161	474
	D	328	12	114	0	4	283	741
	E	103	2	81	29	0	91	306
	F	339	13	162	121	19	0	654
	Tot.	1074	45	573	425	74	811	3002

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: Baseline + Comm + OPP Trip budget - Phase 1 trips on network during baseline surveys: PM Peak
Junction: J1: P&&R	
J1:1/1	27
J1:1/2	635
J1:2/1	82
J1:2/2	229
J1:3/1	1148
J1:3/2	18
J1:4/1	45
Junction: J2: Eddington Ave	
J2:1/1	673
J2:1/2	44
J2:2/1 (short)	101
J2:2/2 (with short)	474(In) 373(Out)
J2:3/1 (with short)	741(In) 627(Out)
J2:3/2 (short)	114
J2:4/1 (short)	196
J2:4/2 (with short)	306(In) 110(Out)
J2:5/1	573
J2:6/1	425
J2:7/1	74
Junction: J3: NB Offslip	
J3:1/1	12
J3:1/2	504
J3:2/1	735
J3:3/1	339
J3:3/2	315
J3:4/1	12
J3:4/2	819
J3:5/1	1074
Junction: J4: SB On Slip	
J4:1/1 (with short)	831(In) 662(Out)
J4:1/2 (short)	169
J4:2/1	811
J4:3/1	642
J4:3/2	735

Full Input Data And Results

Lane Saturation Flows

Junction: J1: P&&R								
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 (Madingley Rd West)	3.00	0.00	Y	Arm J1:4 Left	15.00	100.0 %	1741	1741
J1:1/2 (Madingley Rd West)	3.00	0.00	N	Arm J2:1 Ahead	Inf	100.0 %	2055	2055
J1:2/1 (P&R)	3.25	0.00	Y	Arm J2:1 Left	Inf	100.0 %	1940	1940
J1:2/2 (P&R)	3.25	0.00	N	Arm J4:3 Right	20.00	100.0 %	1935	1935
J1:3/1 (Madingley Road East)	3.50	0.00	Y	Arm J4:3 Ahead	Inf	100.0 %	1965	1965
J1:3/2 (Madingley Road East)	3.50	0.00	N	Arm J1:4 Right	30.00	100.0 %	2005	2005
J1:4/1 (Exit P&R Lane 1)	Infinite Saturation Flow						Inf	Inf

Junction: J2: Eddington Ave								
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 (Exit Madingley Rd East Lane 1)	This lane uses a directly entered Saturation Flow						2100	2100
J2:1/2 (Exit Madingley Rd East)	3.00	0.00	N	Arm J2:7 Right	10.00	100.0 %	1787	1787
J2:2/1 (Eddington Ave)	3.20	0.00	Y	Arm J2:6 Left	10.00	100.0 %	1683	1683
J2:2/2 (Eddington Ave)	3.20	0.00	N	Arm J1:3 Right	Inf	93.0 %	2075	2075
				Arm J2:7 Ahead	Inf	7.0 %		
J2:3/1 (Madingley Rd East)	3.50	0.00	Y	Arm J1:3 Ahead	Inf	99.4 %	1964	1964
				Arm J2:7 Left	15.00	0.6 %		
J2:3/2 (Madingley Rd East)	3.50	0.00	N	Arm J2:5 Right	10.00	100.0 %	1830	1830
J2:4/1 (West Camb)	3.00	0.00	Y	Arm J1:3 Left	Inf	100.0 %	1915	1915
J2:4/2 (West Camb)	3.00	0.00	N	Arm J2:5 Ahead	Inf	73.6 %	2002	2002
				Arm J2:6 Right	15.00	26.4 %		
J2:5/1 (ExitEddington Ave Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:6/1 (Exit Madingley Rd East Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:7/1 (Exit West Camb Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J3: NB Offslip								
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 (Madigley Rd EB (offlsip))	4.00	0.00	Y	Arm J3:4 Ahead	Inf	100.0 %	2015	2015
J3:1/2 (Madigley Rd EB (offlsip))	4.00	0.00	N	Arm J3:4 Ahead	Inf	100.0 %	2155	2155
J3:2/1 (Madingley Rd WB (offlsip))	3.20	0.00	Y	Arm J3:5 Ahead	Inf	100.0 %	1935	1935
J3:3/1 (M11 NB OffSlip (offlsip))	3.10	0.00	Y	Arm J3:5 Left	30.00	100.0 %	1833	1833
J3:3/2 (M11 NB OffSlip (offlsip))	3.10	0.00	N	Arm J3:4 Right	10.00	100.0 %	1796	1796
J3:4/1 (Madingley Rd EB Merge)	3.40	0.00	Y	Arm J4:1 Ahead	Inf	100.0 %	1955	1955
J3:4/2 (Madingley Rd EB Merge)	4.20	0.00	N	Arm J4:1 Ahead	Inf	100.0 %	2175	2175
J3:5/1	Infinite Saturation Flow						Inf	Inf

Junction: J4: SB On Slip								
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 (Madingley Rd EB (onslip))	3.60	0.00	N	Arm J1:1 Ahead	Inf	100.0 %	2115	2115
J4:1/2 (Madingley Rd EB (onslip))	3.00	0.00	N	Arm J4:2 Right	10.00	100.0 %	1787	1787
J4:2/1 (M11 SB Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
J4:3/1 (Exit Madingley Rd West Lane 1)	Infinite Saturation Flow						Inf	Inf
J4:3/2 (Exit Madingley Rd West Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 3: 'Baseline + Comm + NWC AM' (FG3: 'Baseline + Comm + NWC AM', Plan 1: 'AM')

Traffic Flows, Desired

Desired Flow :

		Destination						
		A	B	C	D	E	F	Tot.
Origin	A	0	110	136	308	100	77	731
	B	3	0	5	14	3	6	31
	C	78	37	0	126	76	130	447
	D	79	39	89	0	26	131	364
	E	6	3	21	2	0	10	42
	F	233	129	159	356	118	0	995
	Tot.	399	318	410	806	323	354	2610

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: Baseline + Comm + NWC AM
Junction: J1: P&&R	
J1:1/1	239
J1:1/2	1177
J1:2/1	22
J1:2/2	9
J1:3/1	434
J1:3/2	79
J1:4/1	318
Junction: J2: Eddington Ave	
J2:1/1	978
J2:1/2	221
J2:2/1 (short)	126
J2:2/2 (with short)	447(In) 321(Out)
J2:3/1 (with short)	364(In) 275(Out)
J2:3/2 (short)	89
J2:4/1 (short)	19
J2:4/2 (with short)	42(In) 23(Out)
J2:5/1	410
J2:6/1	806
J2:7/1	323
Junction: J3: NB Offslip	
J3:1/1	12
J3:1/2	719
J3:2/1	166
J3:3/1	233
J3:3/2	762
J3:4/1	12
J3:4/2	1481
J3:5/1	399
Junction: J4: SB On Slip	
J4:1/1 (with short)	1493(In) 1416(Out)
J4:1/2 (short)	77
J4:2/1	354
J4:3/1	277
J4:3/2	166

Full Input Data And Results

Lane Saturation Flows

Junction: J1: P&&R								
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 (Madingley Rd West)	3.00	0.00	Y	Arm J1:4 Left	15.00	100.0 %	1741	1741
J1:1/2 (Madingley Rd West)	3.00	0.00	N	Arm J2:1 Ahead	Inf	100.0 %	2055	2055
J1:2/1 (P&R)	3.25	0.00	Y	Arm J2:1 Left	Inf	100.0 %	1940	1940
J1:2/2 (P&R)	3.25	0.00	N	Arm J4:3 Right	20.00	100.0 %	1935	1935
J1:3/1 (Madingley Road East)	3.50	0.00	Y	Arm J4:3 Ahead	Inf	100.0 %	1965	1965
J1:3/2 (Madingley Road East)	3.50	0.00	N	Arm J1:4 Right	30.00	100.0 %	2005	2005
J1:4/1 (Exit P&R Lane 1)	Infinite Saturation Flow						Inf	Inf

Junction: J2: Eddington Ave								
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 (Exit Madingley Rd East Lane 1)	This lane uses a directly entered Saturation Flow						2100	2100
J2:1/2 (Exit Madingley Rd East)	3.00	0.00	N	Arm J2:7 Right	10.00	100.0 %	1787	1787
J2:2/1 (Eddington Ave)	3.20	0.00	Y	Arm J2:6 Left	10.00	100.0 %	1683	1683
J2:2/2 (Eddington Ave)	3.20	0.00	N	Arm J1:3 Right	Inf	76.3 %	2075	2075
				Arm J2:7 Ahead	Inf	23.7 %		
J2:3/1 (Madingley Rd East)	3.50	0.00	Y	Arm J1:3 Ahead	Inf	90.5 %	1947	1947
				Arm J2:7 Left	15.00	9.5 %		
J2:3/2 (Madingley Rd East)	3.50	0.00	N	Arm J2:5 Right	10.00	100.0 %	1830	1830
J2:4/1 (West Camb)	3.00	0.00	Y	Arm J1:3 Left	Inf	100.0 %	1915	1915
J2:4/2 (West Camb)	3.00	0.00	N	Arm J2:5 Ahead	Inf	91.3 %	2037	2037
				Arm J2:6 Right	15.00	8.7 %		
J2:5/1 (ExitEddington Ave Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:6/1 (Exit Madingley Rd East Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:7/1 (Exit West Camb Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J3: NB Offslip								
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 (Madigley Rd EB (offlsip))	4.00	0.00	Y	Arm J3:4 Ahead	Inf	100.0 %	2015	2015
J3:1/2 (Madigley Rd EB (offlsip))	4.00	0.00	N	Arm J3:4 Ahead	Inf	100.0 %	2155	2155
J3:2/1 (Madingley Rd WB (offlsip))	3.20	0.00	Y	Arm J3:5 Ahead	Inf	100.0 %	1935	1935
J3:3/1 (M11 NB OffSlip (offlsip))	3.10	0.00	Y	Arm J3:5 Left	30.00	100.0 %	1833	1833
J3:3/2 (M11 NB OffSlip (offlsip))	3.10	0.00	N	Arm J3:4 Right	10.00	100.0 %	1796	1796
J3:4/1 (Madingley Rd EB Merge)	3.40	0.00	Y	Arm J4:1 Ahead	Inf	100.0 %	1955	1955
J3:4/2 (Madingley Rd EB Merge)	4.20	0.00	N	Arm J4:1 Ahead	Inf	100.0 %	2175	2175
J3:5/1	Infinite Saturation Flow						Inf	Inf

Junction: J4: SB On Slip								
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 (Madingley Rd EB (onslip))	3.60	0.00	N	Arm J1:1 Ahead	Inf	100.0 %	2115	2115
J4:1/2 (Madingley Rd EB (onslip))	3.00	0.00	N	Arm J4:2 Right	10.00	100.0 %	1787	1787
J4:2/1 (M11 SB Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
J4:3/1 (Exit Madingley Rd West Lane 1)	Infinite Saturation Flow						Inf	Inf
J4:3/2 (Exit Madingley Rd West Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 4: 'Baseline + Comm + NWC PM' (FG4: 'Baseline + Comm + NWC AM', Plan 2: 'PM')

Traffic Flows, Desired

Desired Flow :

		Destination						
		A	B	C	D	E	F	Tot.
Origin	A	0	15	126	149	22	184	496
	B	126	0	33	43	6	103	311
	C	161	4	0	95	26	133	419
	D	338	12	86	0	4	273	713
	E	106	2	81	29	0	88	306
	F	339	11	96	109	17	0	572
	Tot.	1070	44	422	425	75	781	2817

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: Baseline + Comm + NWC PM
Junction: J1: P&&R	
J1:1/1	26
J1:1/2	519
J1:2/1	82
J1:2/2	229
J1:3/1	1099
J1:3/2	18
J1:4/1	44
Junction: J2: Eddington Ave	
J2:1/1	556
J2:1/2	45
J2:2/1 (short)	95
J2:2/2 (with short)	419(In) 324(Out)
J2:3/1 (with short)	713(In) 627(Out)
J2:3/2 (short)	86
J2:4/1 (short)	196
J2:4/2 (with short)	306(In) 110(Out)
J2:5/1	422
J2:6/1	425
J2:7/1	75
Junction: J3: NB Offslip	
J3:1/1	12
J3:1/2	484
J3:2/1	731
J3:3/1	339
J3:3/2	233
J3:4/1	12
J3:4/2	717
J3:5/1	1070
Junction: J4: SB On Slip	
J4:1/1 (with short)	729(In) 545(Out)
J4:1/2 (short)	184
J4:2/1	781
J4:3/1	597
J4:3/2	731

Full Input Data And Results

Lane Saturation Flows

Junction: J1: P&&R								
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 (Madingley Rd West)	3.00	0.00	Y	Arm J1:4 Left	15.00	100.0 %	1741	1741
J1:1/2 (Madingley Rd West)	3.00	0.00	N	Arm J2:1 Ahead	Inf	100.0 %	2055	2055
J1:2/1 (P&R)	3.25	0.00	Y	Arm J2:1 Left	Inf	100.0 %	1940	1940
J1:2/2 (P&R)	3.25	0.00	N	Arm J4:3 Right	20.00	100.0 %	1935	1935
J1:3/1 (Madingley Road East)	3.50	0.00	Y	Arm J4:3 Ahead	Inf	100.0 %	1965	1965
J1:3/2 (Madingley Road East)	3.50	0.00	N	Arm J1:4 Right	30.00	100.0 %	2005	2005
J1:4/1 (Exit P&R Lane 1)	Infinite Saturation Flow						Inf	Inf

Junction: J2: Eddington Ave								
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 (Exit Madingley Rd East Lane 1)	This lane uses a directly entered Saturation Flow						2100	2100
J2:1/2 (Exit Madingley Rd East)	3.00	0.00	N	Arm J2:7 Right	10.00	100.0 %	1787	1787
J2:2/1 (Eddington Ave)	3.20	0.00	Y	Arm J2:6 Left	10.00	100.0 %	1683	1683
J2:2/2 (Eddington Ave)	3.20	0.00	N	Arm J1:3 Right	Inf	92.0 %	2075	2075
				Arm J2:7 Ahead	Inf	8.0 %		
J2:3/1 (Madingley Rd East)	3.50	0.00	Y	Arm J1:3 Ahead	Inf	99.4 %	1964	1964
				Arm J2:7 Left	15.00	0.6 %		
J2:3/2 (Madingley Rd East)	3.50	0.00	N	Arm J2:5 Right	10.00	100.0 %	1830	1830
J2:4/1 (West Camb)	3.00	0.00	Y	Arm J1:3 Left	Inf	100.0 %	1915	1915
J2:4/2 (West Camb)	3.00	0.00	N	Arm J2:5 Ahead	Inf	73.6 %	2002	2002
				Arm J2:6 Right	15.00	26.4 %		
J2:5/1 (ExitEddington Ave Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:6/1 (Exit Madingley Rd East Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:7/1 (Exit West Camb Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J3: NB Offslip								
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 (Madigley Rd EB (offlsip))	4.00	0.00	Y	Arm J3:4 Ahead	Inf	100.0 %	2015	2015
J3:1/2 (Madigley Rd EB (offlsip))	4.00	0.00	N	Arm J3:4 Ahead	Inf	100.0 %	2155	2155
J3:2/1 (Madingley Rd WB (offlsip))	3.20	0.00	Y	Arm J3:5 Ahead	Inf	100.0 %	1935	1935
J3:3/1 (M11 NB OffSlip (offlsip))	3.10	0.00	Y	Arm J3:5 Left	30.00	100.0 %	1833	1833
J3:3/2 (M11 NB OffSlip (offlsip))	3.10	0.00	N	Arm J3:4 Right	10.00	100.0 %	1796	1796
J3:4/1 (Madingley Rd EB Merge)	3.40	0.00	Y	Arm J4:1 Ahead	Inf	100.0 %	1955	1955
J3:4/2 (Madingley Rd EB Merge)	4.20	0.00	N	Arm J4:1 Ahead	Inf	100.0 %	2175	2175
J3:5/1	Infinite Saturation Flow						Inf	Inf

Junction: J4: SB On Slip								
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 (Madingley Rd EB (onslip))	3.60	0.00	N	Arm J1:1 Ahead	Inf	100.0 %	2115	2115
J4:1/2 (Madingley Rd EB (onslip))	3.00	0.00	N	Arm J4:2 Right	10.00	100.0 %	1787	1787
J4:2/1 (M11 SB Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
J4:3/1 (Exit Madingley Rd West Lane 1)	Infinite Saturation Flow						Inf	Inf
J4:3/2 (Exit Madingley Rd West Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 5: '2038 Baseline + SATURN + Comm + NWC AM' (FG5: '2038 Baseline + SATURN + Comm + NWC AM', Plan 1: 'AM')

Traffic Flows, Desired

Desired Flow :

		Destination						
		A	B	C	D	E	F	Tot.
Origin	A	0	123	103	133	157	100	616
	B	4	0	5	10	7	5	31
	C	135	28	0	153	190	141	647
	D	70	17	162	0	58	75	382
	E	37	7	111	9	0	38	202
	F	275	138	115	144	177	0	849
	Tot.	521	313	496	449	589	359	2727

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 5: 2038 Baseline + SATURN + Comm + NWC AM
Junction: J1: P&&R	
J1:1/1	261
J1:1/2	829
J1:2/1	22
J1:2/2	9
J1:3/1	496
J1:3/2	52
J1:4/1	313
Junction: J2: Eddington Ave	
J2:1/1	510
J2:1/2	341
J2:2/1 (short)	153
J2:2/2 (with short)	647(In) 494(Out)
J2:3/1 (with short)	382(In) 220(Out)
J2:3/2 (short)	162
J2:4/1 (short)	82
J2:4/2 (with short)	202(In) 120(Out)
J2:5/1	496
J2:6/1	449
J2:7/1	589
Junction: J3: NB Offslip	
J3:1/1	12
J3:1/2	604
J3:2/1	246
J3:3/1	275
J3:3/2	574
J3:4/1	12
J3:4/2	1178
J3:5/1	521
Junction: J4: SB On Slip	
J4:1/1 (with short)	1190(In) 1090(Out)
J4:1/2 (short)	100
J4:2/1	359
J4:3/1	259
J4:3/2	246

Full Input Data And Results

Lane Saturation Flows

Junction: J1: P&&R								
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 (Madingley Rd West)	3.00	0.00	Y	Arm J1:4 Left	15.00	100.0 %	1741	1741
J1:1/2 (Madingley Rd West)	3.00	0.00	N	Arm J2:1 Ahead	Inf	100.0 %	2055	2055
J1:2/1 (P&R)	3.25	0.00	Y	Arm J2:1 Left	Inf	100.0 %	1940	1940
J1:2/2 (P&R)	3.25	0.00	N	Arm J4:3 Right	20.00	100.0 %	1935	1935
J1:3/1 (Madingley Road East)	3.50	0.00	Y	Arm J4:3 Ahead	Inf	100.0 %	1965	1965
J1:3/2 (Madingley Road East)	3.50	0.00	N	Arm J1:4 Right	30.00	100.0 %	2005	2005
J1:4/1 (Exit P&R Lane 1)	Infinite Saturation Flow						Inf	Inf

Junction: J2: Eddington Ave								
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 (Exit Madingley Rd East Lane 1)	This lane uses a directly entered Saturation Flow						2100	2100
J2:1/2 (Exit Madingley Rd East)	3.00	0.00	N	Arm J2:7 Right	10.00	100.0 %	1787	1787
J2:2/1 (Eddington Ave)	3.20	0.00	Y	Arm J2:6 Left	10.00	100.0 %	1683	1683
J2:2/2 (Eddington Ave)	3.20	0.00	N	Arm J1:3 Right	Inf	61.5 %	2075	2075
				Arm J2:7 Ahead	Inf	38.5 %		
J2:3/1 (Madingley Rd East)	3.50	0.00	Y	Arm J1:3 Ahead	Inf	73.6 %	1915	1915
				Arm J2:7 Left	15.00	26.4 %		
J2:3/2 (Madingley Rd East)	3.50	0.00	N	Arm J2:5 Right	10.00	100.0 %	1830	1830
J2:4/1 (West Camb)	3.00	0.00	Y	Arm J1:3 Left	Inf	100.0 %	1915	1915
J2:4/2 (West Camb)	3.00	0.00	N	Arm J2:5 Ahead	Inf	92.5 %	2040	2040
				Arm J2:6 Right	15.00	7.5 %		
J2:5/1 (ExitEddington Ave Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:6/1 (Exit Madingley Rd East Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:7/1 (Exit West Camb Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J3: NB Offslip								
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 (Madigley Rd EB (offlsip))	4.00	0.00	Y	Arm J3:4 Ahead	Inf	100.0 %	2015	2015
J3:1/2 (Madigley Rd EB (offlsip))	4.00	0.00	N	Arm J3:4 Ahead	Inf	100.0 %	2155	2155
J3:2/1 (Madingley Rd WB (offlsip))	3.20	0.00	Y	Arm J3:5 Ahead	Inf	100.0 %	1935	1935
J3:3/1 (M11 NB OffSlip (offlsip))	3.10	0.00	Y	Arm J3:5 Left	30.00	100.0 %	1833	1833
J3:3/2 (M11 NB OffSlip (offlsip))	3.10	0.00	N	Arm J3:4 Right	10.00	100.0 %	1796	1796
J3:4/1 (Madingley Rd EB Merge)	3.40	0.00	Y	Arm J4:1 Ahead	Inf	100.0 %	1955	1955
J3:4/2 (Madingley Rd EB Merge)	4.20	0.00	N	Arm J4:1 Ahead	Inf	100.0 %	2175	2175
J3:5/1	Infinite Saturation Flow						Inf	Inf

Junction: J4: SB On Slip								
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 (Madingley Rd EB (onslip))	3.60	0.00	N	Arm J1:1 Ahead	Inf	100.0 %	2115	2115
J4:1/2 (Madingley Rd EB (onslip))	3.00	0.00	N	Arm J4:2 Right	10.00	100.0 %	1787	1787
J4:2/1 (M11 SB Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
J4:3/1 (Exit Madingley Rd West Lane 1)	Infinite Saturation Flow						Inf	Inf
J4:3/2 (Exit Madingley Rd West Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 6: '2038 Baseline + SATURN + Comm + NWC PM' (FG6: '2038 Baseline + SATURN + Comm + NWC AM', Plan 2: 'PM')

Traffic Flows, Desired

Desired Flow :

		Destination						
		A	B	C	D	E	F	Tot.
Origin	A	0	45	86	125	39	126	421
	B	143	0	27	42	12	86	310
	C	197	2	0	126	93	118	536
	D	126	7	108	0	13	72	326
	E	257	3	188	61	0	155	664
	F	486	23	44	63	20	0	636
	Tot.	1209	80	453	417	177	557	2893

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: 2038 Baseline + SATURN + Comm + NWC PM
Junction: J1: P&&R	
J1:1/1	68
J1:1/2	377
J1:2/1	81
J1:2/2	229
J1:3/1	925
J1:3/2	12
J1:4/1	80
Junction: J2: Eddington Ave	
J2:1/1	387
J2:1/2	71
J2:2/1 (short)	126
J2:2/2 (with short)	536(In) 410(Out)
J2:3/1 (with short)	326(In) 218(Out)
J2:3/2 (short)	108
J2:4/1 (short)	415
J2:4/2 (with short)	664(In) 249(Out)
J2:5/1	453
J2:6/1	417
J2:7/1	177
Junction: J3: NB Offslip	
J3:1/1	12
J3:1/2	409
J3:2/1	723
J3:3/1	486
J3:3/2	150
J3:4/1	12
J3:4/2	559
J3:5/1	1209
Junction: J4: SB On Slip	
J4:1/1 (with short)	571(In) 445(Out)
J4:1/2 (short)	126
J4:2/1	557
J4:3/1	431
J4:3/2	723

Full Input Data And Results

Lane Saturation Flows

Junction: J1: P&&R								
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 (Madingley Rd West)	3.00	0.00	Y	Arm J1:4 Left	15.00	100.0 %	1741	1741
J1:1/2 (Madingley Rd West)	3.00	0.00	N	Arm J2:1 Ahead	Inf	100.0 %	2055	2055
J1:2/1 (P&R)	3.25	0.00	Y	Arm J2:1 Left	Inf	100.0 %	1940	1940
J1:2/2 (P&R)	3.25	0.00	N	Arm J4:3 Right	20.00	100.0 %	1935	1935
J1:3/1 (Madingley Road East)	3.50	0.00	Y	Arm J4:3 Ahead	Inf	100.0 %	1965	1965
J1:3/2 (Madingley Road East)	3.50	0.00	N	Arm J1:4 Right	30.00	100.0 %	2005	2005
J1:4/1 (Exit P&R Lane 1)	Infinite Saturation Flow						Inf	Inf

Junction: J2: Eddington Ave								
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 (Exit Madingley Rd East Lane 1)	This lane uses a directly entered Saturation Flow						2100	2100
J2:1/2 (Exit Madingley Rd East)	3.00	0.00	N	Arm J2:7 Right	10.00	100.0 %	1787	1787
J2:2/1 (Eddington Ave)	3.20	0.00	Y	Arm J2:6 Left	10.00	100.0 %	1683	1683
J2:2/2 (Eddington Ave)	3.20	0.00	N	Arm J1:3 Right	Inf	77.3 %	2075	2075
				Arm J2:7 Ahead	Inf	22.7 %		
J2:3/1 (Madingley Rd East)	3.50	0.00	Y	Arm J1:3 Ahead	Inf	94.0 %	1953	1953
				Arm J2:7 Left	15.00	6.0 %		
J2:3/2 (Madingley Rd East)	3.50	0.00	N	Arm J2:5 Right	10.00	100.0 %	1830	1830
J2:4/1 (West Camb)	3.00	0.00	Y	Arm J1:3 Left	Inf	100.0 %	1915	1915
J2:4/2 (West Camb)	3.00	0.00	N	Arm J2:5 Ahead	Inf	75.5 %	2006	2006
				Arm J2:6 Right	15.00	24.5 %		
J2:5/1 (ExitEddington Ave Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:6/1 (Exit Madingley Rd East Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:7/1 (Exit West Camb Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J3: NB Offslip								
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 (Madigley Rd EB (offlsip))	4.00	0.00	Y	Arm J3:4 Ahead	Inf	100.0 %	2015	2015
J3:1/2 (Madigley Rd EB (offlsip))	4.00	0.00	N	Arm J3:4 Ahead	Inf	100.0 %	2155	2155
J3:2/1 (Madingley Rd WB (offlsip))	3.20	0.00	Y	Arm J3:5 Ahead	Inf	100.0 %	1935	1935
J3:3/1 (M11 NB OffSlip (offlsip))	3.10	0.00	Y	Arm J3:5 Left	30.00	100.0 %	1833	1833
J3:3/2 (M11 NB OffSlip (offlsip))	3.10	0.00	N	Arm J3:4 Right	10.00	100.0 %	1796	1796
J3:4/1 (Madingley Rd EB Merge)	3.40	0.00	Y	Arm J4:1 Ahead	Inf	100.0 %	1955	1955
J3:4/2 (Madingley Rd EB Merge)	4.20	0.00	N	Arm J4:1 Ahead	Inf	100.0 %	2175	2175
J3:5/1	Infinite Saturation Flow						Inf	Inf

Junction: J4: SB On Slip								
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 (Madingley Rd EB (onslip))	3.60	0.00	N	Arm J1:1 Ahead	Inf	100.0 %	2115	2115
J4:1/2 (Madingley Rd EB (onslip))	3.00	0.00	N	Arm J4:2 Right	10.00	100.0 %	1787	1787
J4:2/1 (M11 SB Onslip Lane 1)	Infinite Saturation Flow						Inf	Inf
J4:3/1 (Exit Madingley Rd West Lane 1)	Infinite Saturation Flow						Inf	Inf
J4:3/2 (Exit Madingley Rd West Lane 2)	Infinite Saturation Flow						Inf	Inf

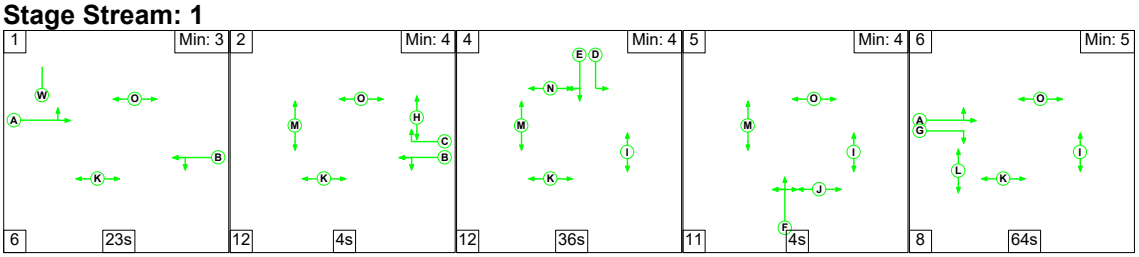
Full Input Data And Results

Scenario 1: 'Baseline + Comm + OPP Trip budget - Phase 1 trips on network during baseline surveys: AM Peak' (FG1: 'Baseline + Comm + OPP Trip budget - Phase 1 trips on network during baseline surveys: AM Peak', Plan 1: 'AM')

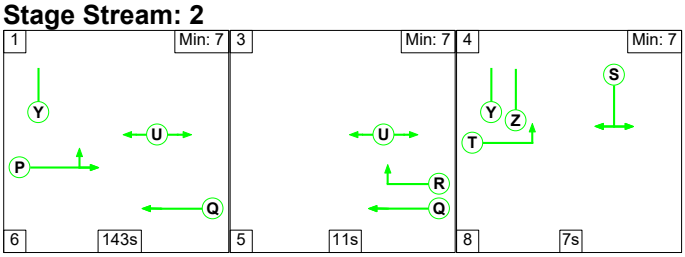
Controller :C1

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

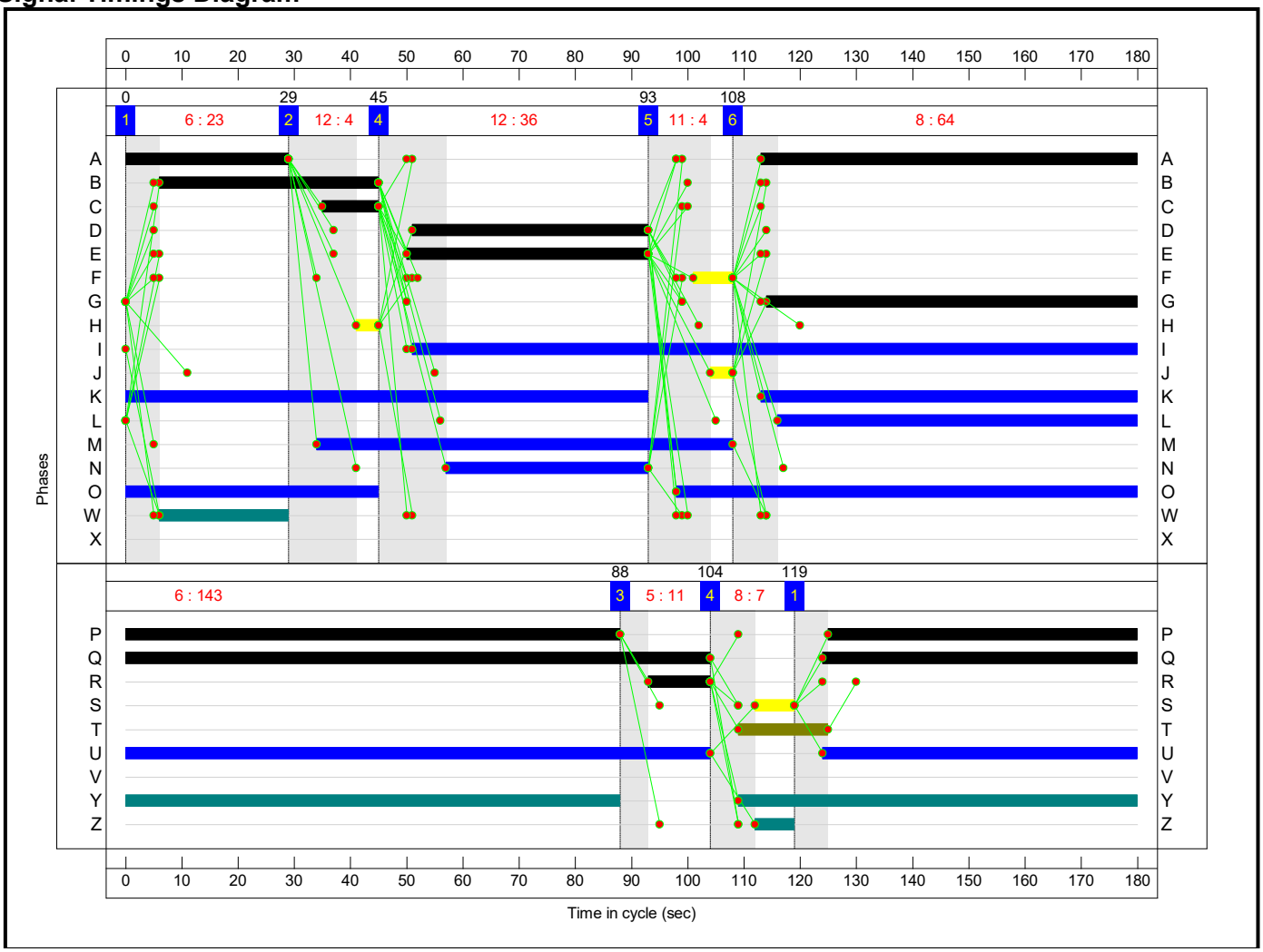
Stage	1	2	4	5	6
Duration	23	4	36	4	64
Change Point	0	29	45	93	108

Stage Stream: 2

Stage	1	3	4
Duration	143	11	7
Change Point	119	88	104

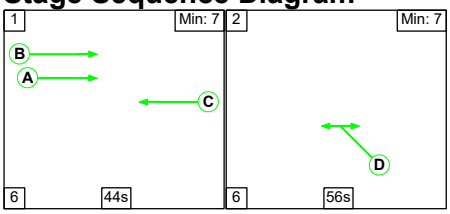
Full Input Data And Results

Signal Timings Diagram



Controller :C2

Stage Sequence Diagram

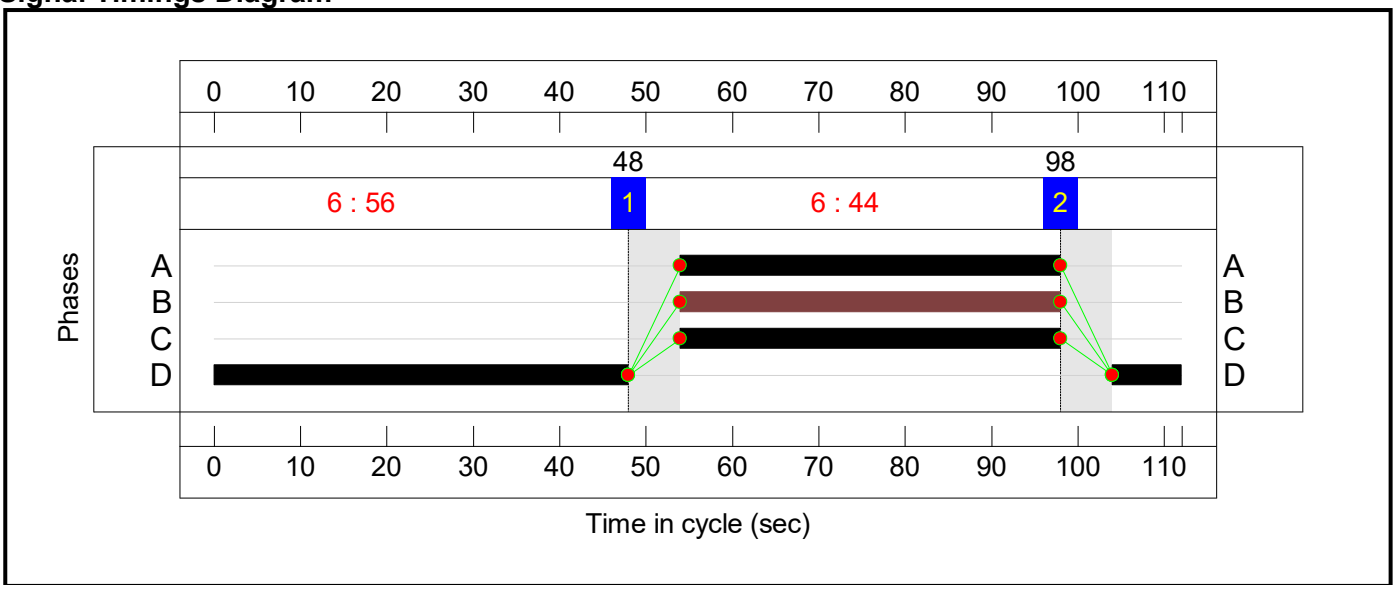


Stage Timings

Stage	1	2
Duration	44	56
Change Point	48	98

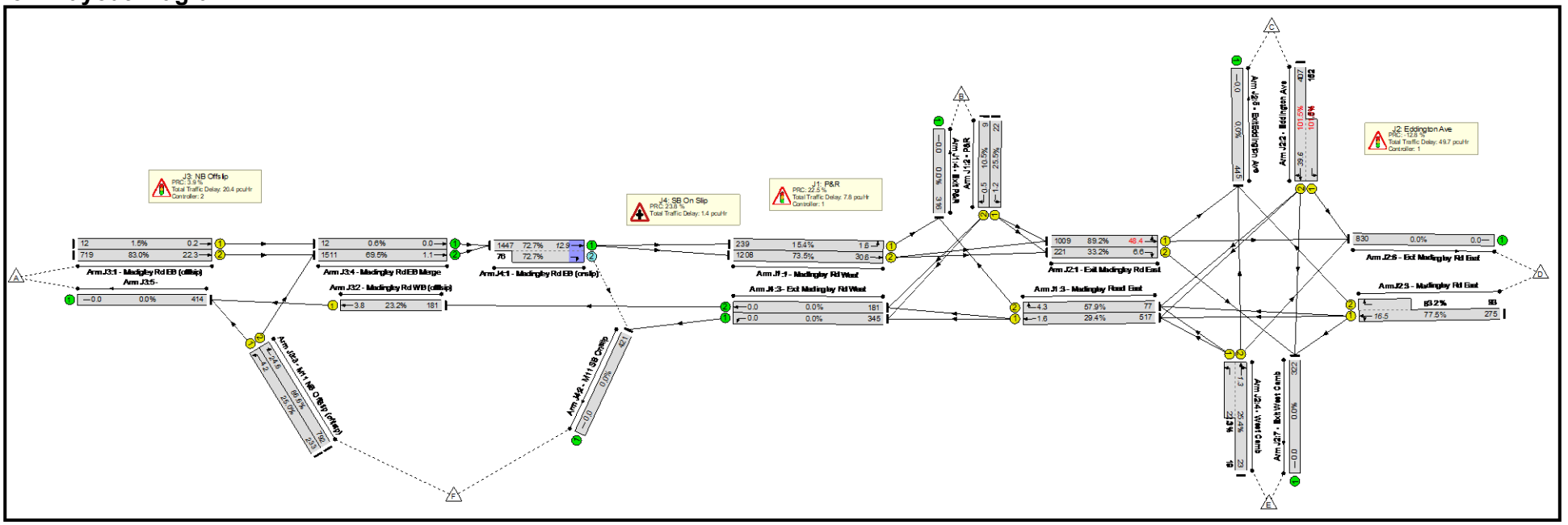
Full Input Data And Results

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: Madingley Road / Eddington Avenue Junction	-	-	**N/A**	-	-		-	-	-	-	-	-	**101.5%**
J1: P&&R	-	-	**N/A**	-	-		-	-	-	-	-	-	**73.5%**
1/1	Madingley Rd West Left	U	1:2	N/A	C1:P	C1:T	1	159	16	239	1741	1548	15.4%
1/2	Madingley Rd West Ahead	U	1:2	N/A	C1:P		1	143	-	1208	2055	1644	73.5%
2/1	P&R Left	U	1:2	N/A	C1:S		1	7	-	22	1940	86	25.5%
2/2	P&R Right	U	1:2	N/A	C1:S		1	7	-	9	1935	86	10.5%
3/1	Madingley Road East Ahead	U	1:2	N/A	C1:Q		1	160	-	521	1965	1758	29.4%
3/2	Madingley Road East Right	U	1:2	N/A	C1:R		1	11	-	78	2005	134	57.9%
4/1	Exit P&R	U	N/A	N/A	-		-	-	-	317	Inf	Inf	0.0%
J2: Eddington Ave	-	-	**N/A**	-	-		-	-	-	-	-	-	**101.5%**
1/1	Exit Madingley Rd East Left Ahead	U	1:1	N/A	C1:A		1	96	-	1009	2100	1132	89.2%
1/2	Exit Madingley Rd East Right	U	1:1	N/A	C1:G		1	66	-	221	1787	665	33.2%
2/2+2/1	Eddington Ave Right Left Ahead	U	1:1	N/A	C1:E C1:D		1	43:42	-	559	2075:1683	401+150	101.5 : 101.5%
3/1+3/2	Madingley Rd East Ahead Right Left	U	1:1	N/A	C1:B C1:C		1	39:10	-	368	1947:1830	355+112	77.5 : 83.2%
4/2+4/1	West Camb Left Ahead Right	U	1:1	N/A	C1:F		1	7	-	42	2037:1915	91+85	25.4 : 22.3%
5/1	ExitEddington Ave	U	N/A	N/A	-		-	-	-	445	Inf	Inf	0.0%
6/1	Exit Madingley Rd East	U	N/A	N/A	-		-	-	-	832	Inf	Inf	0.0%
7/1	Exit West Camb	U	N/A	N/A	-		-	-	-	323	Inf	Inf	0.0%
J3: NB Offslip	-	-	**N/A**	-	-		-	-	-	-	-	-	**86.6%**

Full Input Data And Results

1/1	Madigley Rd EB (offlsip) Ahead	U	N/A	N/A	C2:B		1	44	-	12	2015	810	1.5%
1/2	Madigley Rd EB (offlsip) Ahead	U	N/A	N/A	C2:A		1	44	-	719	2155	866	83.0%
2/1	Madingley Rd WB (offlsip) Ahead	U	N/A	N/A	C2:C		1	44	-	182	1935	777	23.2%
3/1	M11 NB OffSlip (offlsip) Left	U	N/A	N/A	C2:D		1	56	-	233	1833	933	25.0%
3/2	M11 NB OffSlip (offlsip) Right	U	N/A	N/A	C2:D		1	56	-	792	1796	914	86.6%
4/1	Madingley Rd EB Merge Ahead	U	N/A	N/A	-		-	-	-	12	1955	1955	0.6%
4/2	Madingley Rd EB Merge Ahead	U	N/A	N/A	-		-	-	-	1511	2175	2175	69.5%
5/1		U	N/A	N/A	-		-	-	-	415	Inf	Inf	0.0%
J4: SB On Slip	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**72.7%**
1/1+1/2	Madingley Rd EB (onslip) Ahead Right	U+O	N/A	N/A	-		-	-	-	1523	2115:1787	1991+105	72.7 : 72.7%
2/1	M11 SB Onslip	U	N/A	N/A	-		-	-	-	424	Inf	Inf	0.0%
3/1	Exit Madingley Rd West Left	U	N/A	N/A	-		-	-	-	348	Inf	Inf	0.0%
3/2	Exit Madingley Rd West Ahead	U	N/A	N/A	-		-	-	-	182	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Madingley Road / Eddington Avenue Junction	**-**	**-**	**76**	**0**	**0**	**48.4**	**31.0**	**0.0**	**79.4**	**-**	**-**	**-**	**-**
J1: P&&R	**-**	**-**	**0**	**0**	**0**	**5.3**	**2.6**	**0.0**	**7.8**	**-**	**-**	**-**	**-**
1/1	239	239	-	-	-	0.1	0.1	-	0.2	2.7	1.5	0.1	1.6
1/2	1208	1208	-	-	-	2.9	1.4	-	4.3	12.8	29.2	1.4	30.6
2/1	22	22	-	-	-	0.5	0.2	-	0.7	111.0	1.1	0.2	1.2
2/2	9	9	-	-	-	0.2	0.1	-	0.3	106.0	0.4	0.1	0.5
3/1	517	517	-	-	-	0.1	0.2	-	0.3	2.1	1.3	0.2	1.6
3/2	77	77	-	-	-	1.4	0.7	-	2.1	97.7	3.6	0.7	4.3
4/1	316	316	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Eddington Ave	**-**	**-**	**0**	**0**	**0**	**29.6**	**20.1**	**0.0**	**49.7**	**-**	**-**	**-**	**-**
1/1	1009	1009	-	-	-	7.9	3.9	-	11.8	42.0	44.5	3.9	48.4
1/2	221	221	-	-	-	2.5	0.2	-	2.7	44.6	6.4	0.2	6.6
2/2+2/1	559	551	-	-	-	11.2	14.1	-	25.2	162.4	25.6	14.1	39.6
3/1+3/2	368	368	-	-	-	7.1	1.8	-	8.9	86.7	14.7	1.8	16.5
4/2+4/1	42	42	-	-	-	1.0	0.2	-	1.1	96.5	1.1	0.2	1.3
5/1	445	445	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	830	830	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	322	322	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J3: NB Offslip	**-**	**-**	**0**	**0**	**0**	**13.5**	**6.9**	**0.0**	**20.4**	**-**	**-**	**-**	**-**
1/1	12	12	-	-	-	0.1	0.0	-	0.1	22.6	0.2	0.0	0.2
1/2	719	719	-	-	-	6.0	2.4	-	8.4	42.0	20.0	2.4	22.3
2/1	181	181	-	-	-	1.1	0.2	-	1.3	25.1	3.7	0.2	3.8
3/1	233	233	-	-	-	1.0	0.2	-	1.2	18.0	4.1	0.2	4.2
3/2	792	792	-	-	-	5.3	3.1	-	8.4	38.2	21.6	3.1	24.6

Full Input Data And Results

4/1	12	12	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
4/2	1511	1511	-	-	-	0.0	1.1	-	1.1	2.7	0.0	1.1	1.1
5/1	414	414	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J4: SB On Slip	**-**	**-**	**76**	**0**	**0**	**0.1**	**1.3**	**0.0**	**1.4**	**-**	**-**	**-**	**-**
1/1+1/2	1523	1523	76	0	0	0.1	1.3	-	1.4	3.3	11.6	1.3	12.9
2/1	421	421	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	345	345	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2	181	181	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1	Stream: 1	PRC for Signalled Lanes (%):	-12.8	Total Delay for Signalled Lanes (pcuHr):	49.71	Cycle Time (s):	180	
C1	Stream: 2	PRC for Signalled Lanes (%):	22.5	Total Delay for Signalled Lanes (pcuHr):	7.84	Cycle Time (s):	180	
C2		PRC for Signalled Lanes (%):	3.9	Total Delay for Signalled Lanes (pcuHr):	19.28	Cycle Time (s):	112	
		PRC Over All Lanes (%):	-12.8	Total Delay Over All Lanes(pcuHr):	79.38			

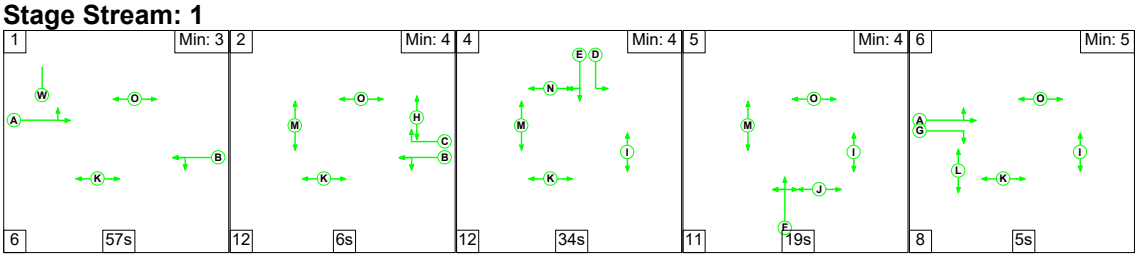
Full Input Data And Results

Scenario 2: 'Baseline + Comm + OPP Trip budget - Phase 1 trips on network during baseline surveys: PM Peak' (FG2: 'Baseline + Comm + OPP Trip budget - Phase 1 trips on network during baseline surveys: PMPeak', Plan 2: 'PM')

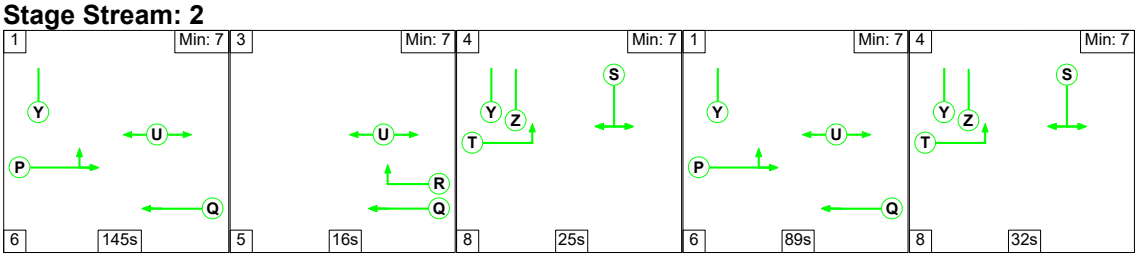
Controller :C1

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

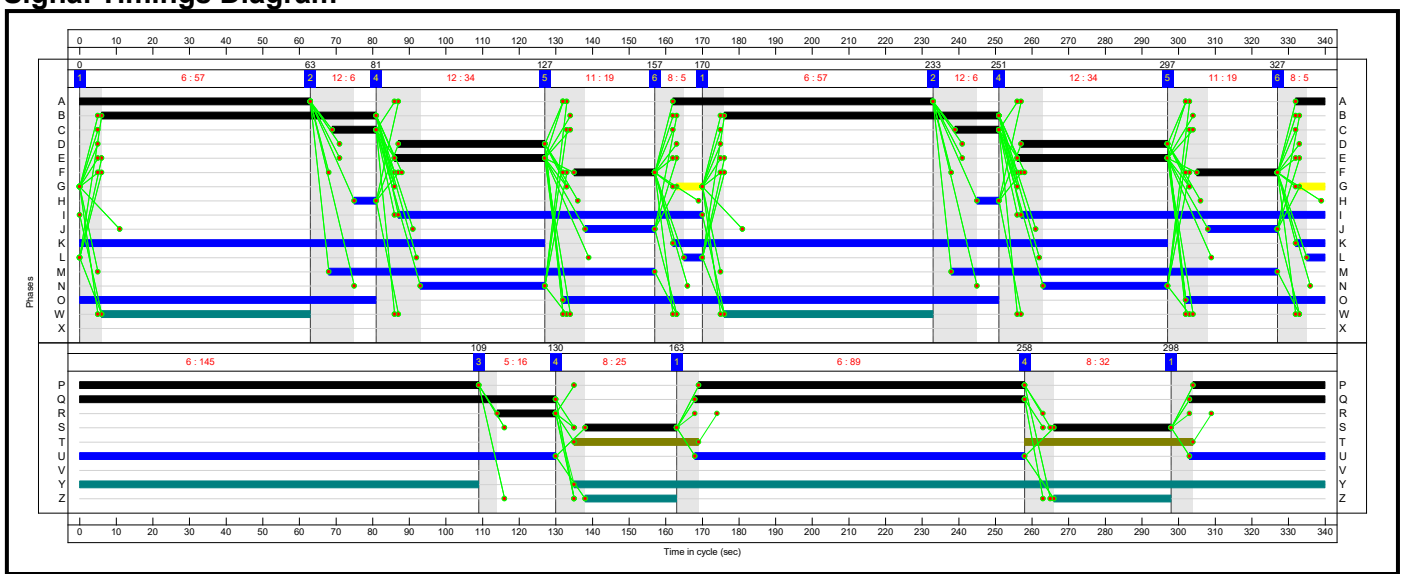
Stage Stream: 1

Stage	1	2	4	5	6	1	2	4	5	6
Duration	57	6	34	19	5	57	6	34	19	5
Change Point	0	63	81	127	157	170	233	251	297	327

Stage Stream: 2

Stage	1	3	4	1	4
Duration	145	16	25	89	32
Change Point	298	109	130	163	258

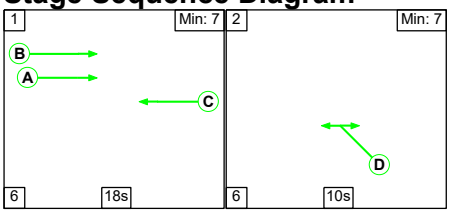
Signal Timings Diagram



Full Input Data And Results

Controller :C2

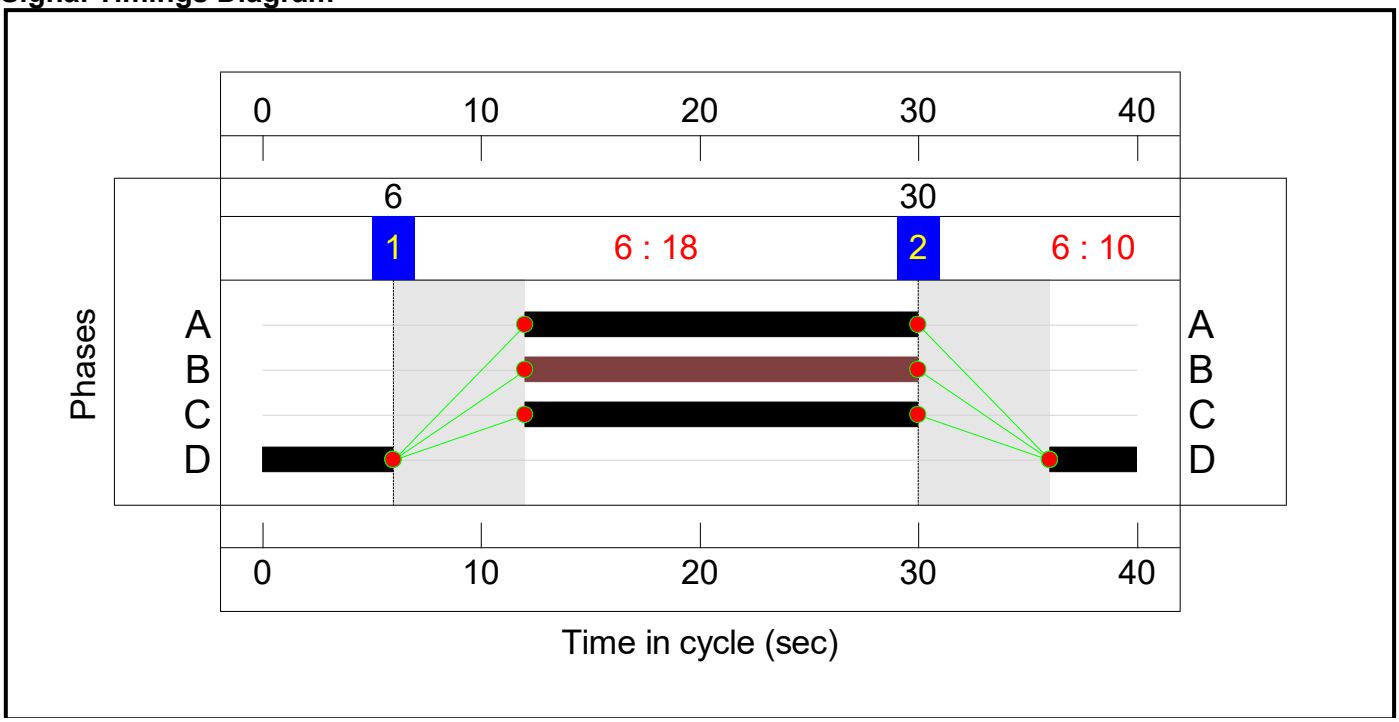
Stage Sequence Diagram



Stage Timings

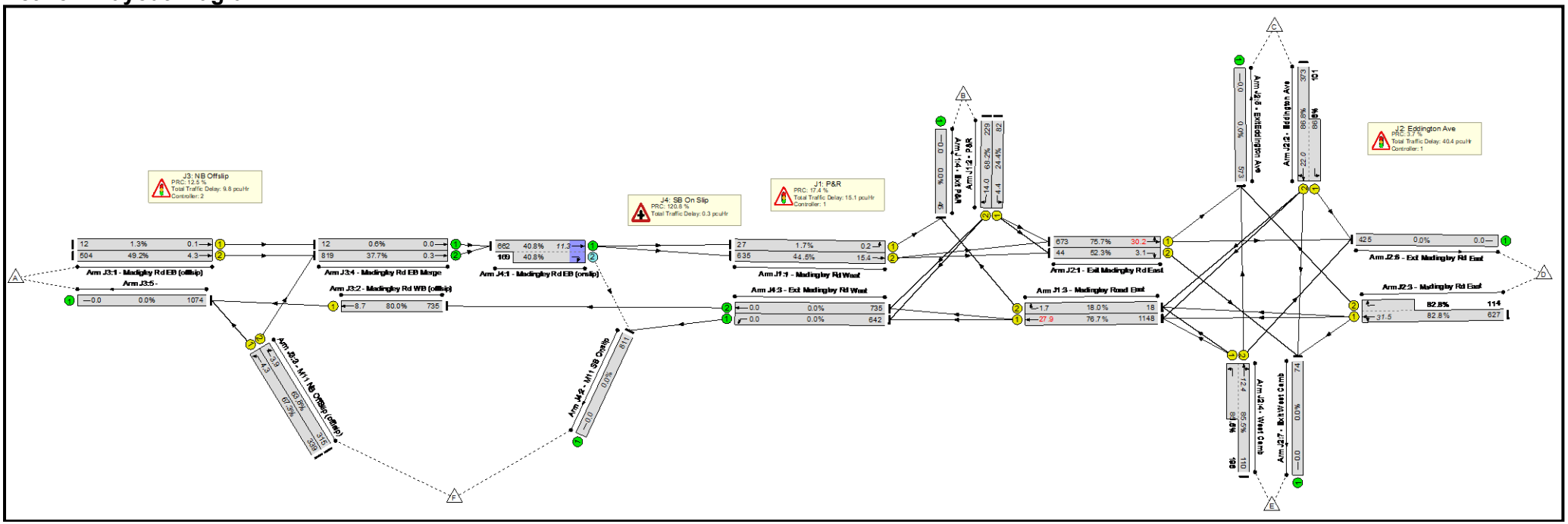
Stage	1	2
Duration	18	10
Change Point	6	30

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: Madingley Road / Eddington Avenue Junction	-	-	**N/A**	-	-		-	-	-	-	-	-	**86.8%**
J1: P&&R	-	-	**N/A**	-	-		-	-	-	-	-	-	**76.7%**
1/1	Madingley Rd West Left	U	1:2	N/A	C1:P	C1:T	2	314	80	27	1741	1613	1.7%
1/2	Madingley Rd West Ahead	U	1:2	N/A	C1:P		2	234	-	635	2055	1426	44.5%
2/1	P&R Left	U	1:2	N/A	C1:S		2	57	-	82	1940	337	24.4%
2/2	P&R Right	U	1:2	N/A	C1:S		2	57	-	229	1935	336	68.2%
3/1	Madingley Road East Ahead	U	1:2	N/A	C1:Q		2	257	-	1148	1965	1497	76.7%
3/2	Madingley Road East Right	U	1:2	N/A	C1:R		1	16	-	18	2005	100	18.0%
4/1	Exit P&R	U	N/A	N/A	-		-	-	-	45	Inf	Inf	0.0%
J2: Eddington Ave	-	-	**N/A**	-	-		-	-	-	-	-	-	**86.8%**
1/1	Exit Madingley Rd East Left Ahead	U	1:1	N/A	C1:A		2	142	-	673	2100	889	75.7%
1/2	Exit Madingley Rd East Right	U	1:1	N/A	C1:G		2	14	-	44	1787	84	52.3%
2/2+2/1	Eddington Ave Right Left Ahead	U	1:1	N/A	C1:E C1:D		2	82:80	-	474	2075:1683	430+116	86.8 : 86.8%
3/1+3/2	Madingley Rd East Ahead Right Left	U	1:1	N/A	C1:B C1:C		2	150:24	-	741	1964:1830	757+138	82.8 : 82.8%
4/2+4/1	West Camb Left Ahead Right	U	1:1	N/A	C1:F		2	44	-	306	2002:1915	129+229	85.5 : 85.5%
5/1	ExitEddington Ave	U	N/A	N/A	-		-	-	-	573	Inf	Inf	0.0%
6/1	Exit Madingley Rd East	U	N/A	N/A	-		-	-	-	425	Inf	Inf	0.0%
7/1	Exit West Camb	U	N/A	N/A	-		-	-	-	74	Inf	Inf	0.0%
J3: NB Offslip	-	-	**N/A**	-	-		-	-	-	-	-	-	**80.0%**

Full Input Data And Results

1/1	Madigley Rd EB (offlsip) Ahead	U	N/A	N/A	C2:B		1	18	-	12	2015	957	1.3%
1/2	Madigley Rd EB (offlsip) Ahead	U	N/A	N/A	C2:A		1	18	-	504	2155	1024	49.2%
2/1	Madingley Rd WB (offlsip) Ahead	U	N/A	N/A	C2:C		1	18	-	735	1935	919	80.0%
3/1	M11 NB OffSlip (offlsip) Left	U	N/A	N/A	C2:D		1	10	-	339	1833	504	67.3%
3/2	M11 NB OffSlip (offlsip) Right	U	N/A	N/A	C2:D		1	10	-	315	1796	494	63.8%
4/1	Madingley Rd EB Merge Ahead	U	N/A	N/A	-		-	-	-	12	1955	1955	0.6%
4/2	Madingley Rd EB Merge Ahead	U	N/A	N/A	-		-	-	-	819	2175	2175	37.7%
5/1		U	N/A	N/A	-		-	-	-	1074	Inf	Inf	0.0%
J4: SB On Slip	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**40.8%**
1/1+1/2	Madingley Rd EB (onslip) Ahead Right	U+O	N/A	N/A	-		-	-	-	831	2115:1787	1624+415	40.8 : 40.8%
2/1	M11 SB Onslip	U	N/A	N/A	-		-	-	-	811	Inf	Inf	0.0%
3/1	Exit Madingley Rd West Left	U	N/A	N/A	-		-	-	-	642	Inf	Inf	0.0%
3/2	Exit Madingley Rd West Ahead	U	N/A	N/A	-		-	-	-	735	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Madingley Road / Eddington Avenue Junction	**-**	**-**	**169**	**0**	**0**	**47.3**	**18.4**	**0.0**	**65.7**	**-**	**-**	**-**	**-**
J1: P&&R	**-**	**-**	**0**	**0**	**0**	**11.8**	**3.4**	**0.0**	**15.1**	**-**	**-**	**-**	**-**
1/1	27	27	-	-	-	0.0	0.0	-	0.0	2.1	0.2	0.0	0.2
1/2	635	635	-	-	-	2.1	0.4	-	2.5	14.0	15.0	0.4	15.4
2/1	82	82	-	-	-	1.5	0.2	-	1.6	72.2	4.2	0.2	4.4
2/2	229	229	-	-	-	4.5	1.1	-	5.6	87.3	12.9	1.1	14.0
3/1	1148	1148	-	-	-	3.0	1.6	-	4.6	14.4	26.2	1.6	27.9
3/2	18	18	-	-	-	0.7	0.1	-	0.8	167.8	1.6	0.1	1.7
4/1	45	45	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Eddington Ave	**-**	**-**	**0**	**0**	**0**	**30.3**	**10.1**	**0.0**	**40.4**	**-**	**-**	**-**	**-**
1/1	673	673	-	-	-	6.0	1.5	-	7.6	40.5	28.6	1.5	30.2
1/2	44	44	-	-	-	1.0	0.5	-	1.6	129.4	2.5	0.5	3.1
2/2+2/1	474	474	-	-	-	7.8	3.0	-	10.9	82.6	19.0	3.0	22.0
3/1+3/2	741	741	-	-	-	9.5	2.3	-	11.8	57.3	29.2	2.3	31.5
4/2+4/1	306	306	-	-	-	5.9	2.7	-	8.6	101.3	9.7	2.7	12.4
5/1	573	573	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	425	425	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	74	74	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J3: NB Offslip	**-**	**-**	**0**	**0**	**0**	**5.2**	**4.6**	**0.0**	**9.8**	**-**	**-**	**-**	**-**
1/1	12	12	-	-	-	0.0	0.0	-	0.0	7.7	0.1	0.0	0.1
1/2	504	504	-	-	-	1.0	0.5	-	1.5	10.7	3.8	0.5	4.3
2/1	735	735	-	-	-	1.8	2.0	-	3.8	18.5	6.7	2.0	8.7
3/1	339	339	-	-	-	1.2	1.0	-	2.2	23.7	3.3	1.0	4.3
3/2	315	315	-	-	-	1.1	0.9	-	2.0	22.7	3.1	0.9	3.9

Full Input Data And Results

4/1	12	12	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
4/2	819	819	-	-	-	0.0	0.3	-	0.3	1.3	0.0	0.3	0.3
5/1	1074	1074	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J4: SB On Slip	**-**	**-**	**169**	**0**	**0**	**0.0**	**0.3**	**0.0**	**0.3**	**-**	**-**	**-**	**-**
1/1+1/2	831	831	169	0	0	0.0	0.3	-	0.3	1.5	11.0	0.3	11.3
2/1	811	811	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	642	642	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2	735	735	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1	Stream: 1	PRC for Signalled Lanes (%):	3.7	Total Delay for Signalled Lanes (pcuHr):	40.44	Cycle Time (s):	340
C1	Stream: 2	PRC for Signalled Lanes (%):	17.4	Total Delay for Signalled Lanes (pcuHr):	15.11	Cycle Time (s):	340
C2		PRC for Signalled Lanes (%):	12.5	Total Delay for Signalled Lanes (pcuHr):	9.51	Cycle Time (s):	40
		PRC Over All Lanes (%):	3.7	Total Delay Over All Lanes(pcuHr):	65.71		

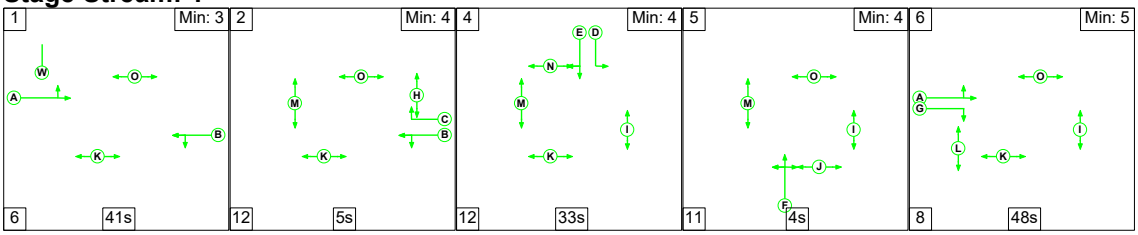
Full Input Data And Results

Scenario 3: 'Baseline + Comm + NWC AM' (FG3: 'Baseline + Comm + NWC AM', Plan 1: 'AM')

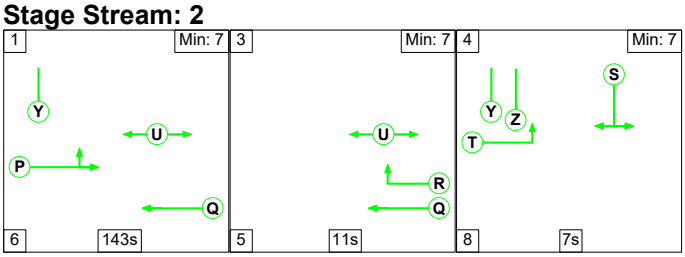
Controller :C1

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

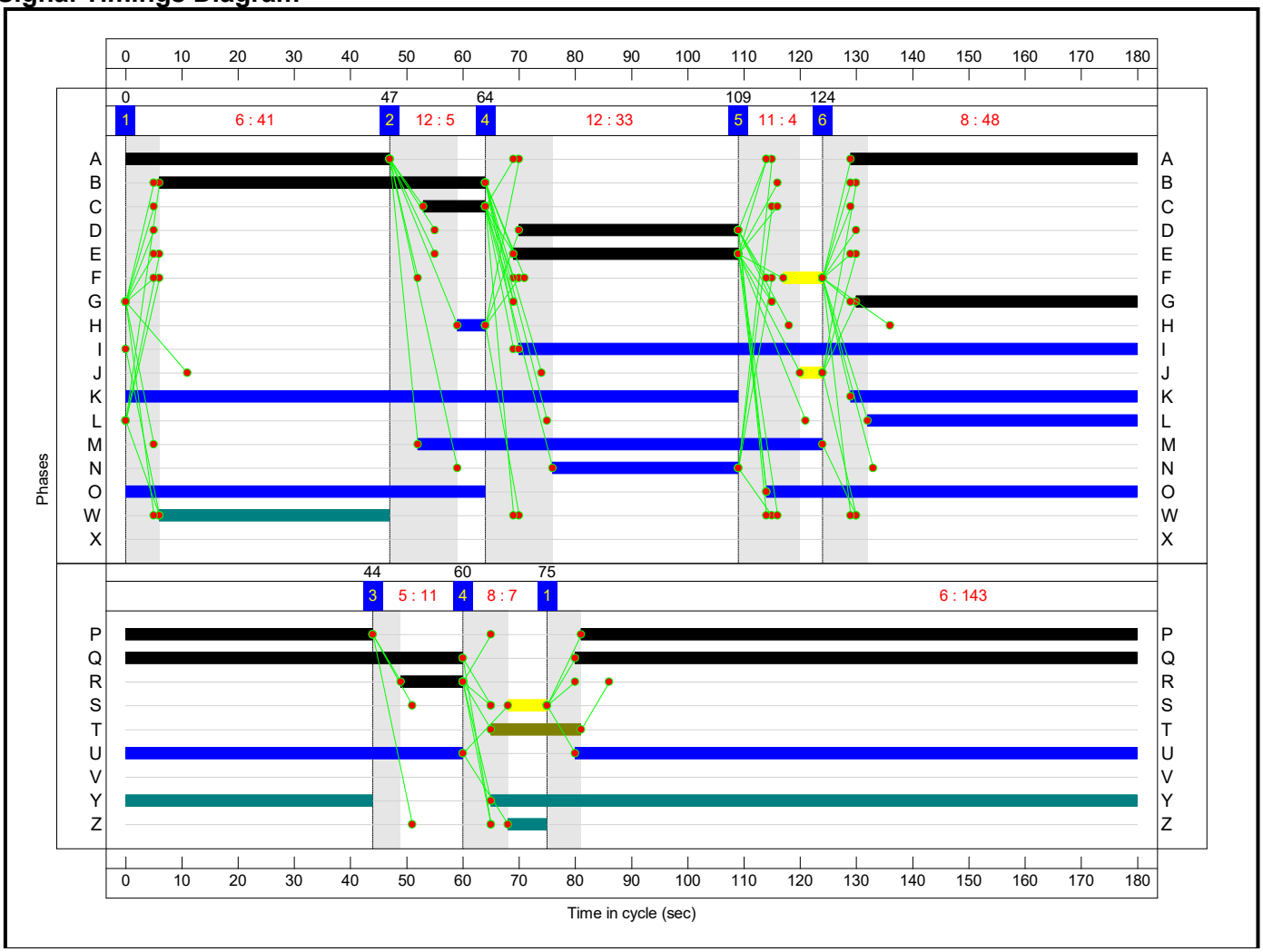
Stage	1	2	4	5	6
Duration	41	5	33	4	48
Change Point	0	47	64	109	124

Stage Stream: 2

Stage	1	3	4
Duration	143	11	7
Change Point	75	44	60

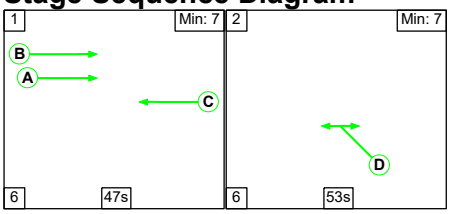
Full Input Data And Results

Signal Timings Diagram



Controller :C2

Stage Sequence Diagram

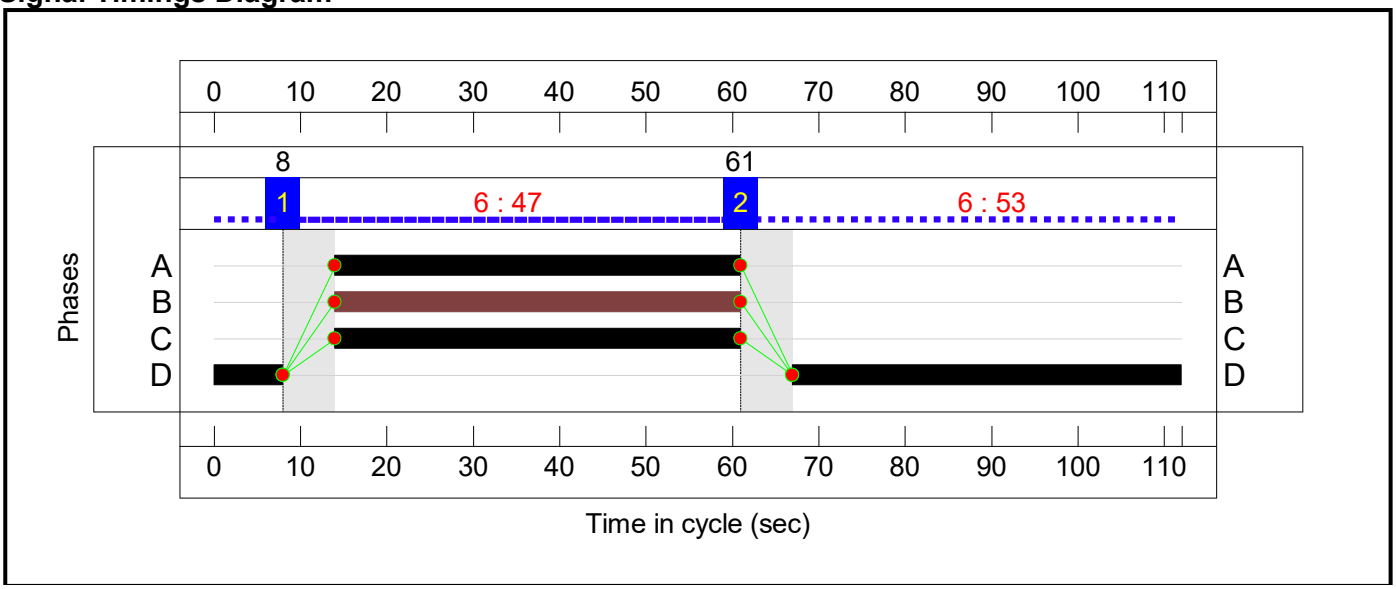


Stage Timings

Stage	1	2
Duration	47	53
Change Point	8	61

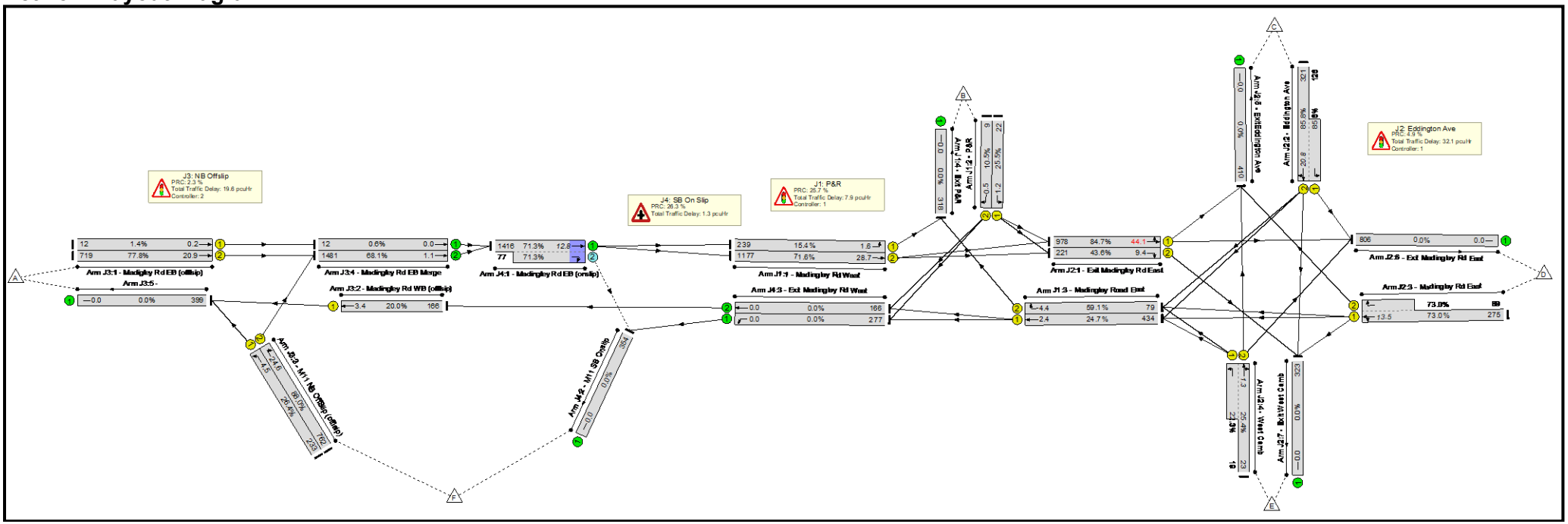
Full Input Data And Results

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: Madingley Road / Eddington Avenue Junction	-	-	**N/A**	-	-		-	-	-	-	-	-	**88.0%**
J1: P&&R	-	-	**N/A**	-	-		-	-	-	-	-	-	**71.6%**
1/1	Madingley Rd West Left	U	1:2	N/A	C1:P	C1:T	1	159	16	239	1741	1548	15.4%
1/2	Madingley Rd West Ahead	U	1:2	N/A	C1:P		1	143	-	1177	2055	1644	71.6%
2/1	P&R Left	U	1:2	N/A	C1:S		1	7	-	22	1940	86	25.5%
2/2	P&R Right	U	1:2	N/A	C1:S		1	7	-	9	1935	86	10.5%
3/1	Madingley Road East Ahead	U	1:2	N/A	C1:Q		1	160	-	434	1965	1758	24.7%
3/2	Madingley Road East Right	U	1:2	N/A	C1:R		1	11	-	79	2005	134	59.1%
4/1	Exit P&R	U	N/A	N/A	-		-	-	-	318	Inf	Inf	0.0%
J2: Eddington Ave	-	-	**N/A**	-	-		-	-	-	-	-	-	**85.8%**
1/1	Exit Madingley Rd East Left Ahead	U	1:1	N/A	C1:A		1	98	-	978	2100	1155	84.7%
1/2	Exit Madingley Rd East Right	U	1:1	N/A	C1:G		1	50	-	221	1787	506	43.6%
2/2+2/1	Eddington Ave Right Left Ahead	U	1:1	N/A	C1:E C1:D		1	40:39	-	447	2075:1683	374+147	85.8 : 85.8%
3/1+3/2	Madingley Rd East Ahead Right Left	U	1:1	N/A	C1:B C1:C		1	58:11	-	364	1947:1830	377+122	73.0 : 73.0%
4/2+4/1	West Camb Left Ahead Right	U	1:1	N/A	C1:F		1	7	-	42	2037:1915	91+85	25.4 : 22.3%
5/1	ExitEddington Ave	U	N/A	N/A	-		-	-	-	410	Inf	Inf	0.0%
6/1	Exit Madingley Rd East	U	N/A	N/A	-		-	-	-	806	Inf	Inf	0.0%
7/1	Exit West Camb	U	N/A	N/A	-		-	-	-	323	Inf	Inf	0.0%
J3: NB Offslip	-	-	**N/A**	-	-		-	-	-	-	-	-	**88.0%**

Full Input Data And Results

1/1	Madigley Rd EB (offlsip) Ahead	U	N/A	N/A	C2:B		1	47	-	12	2015	864	1.4%
1/2	Madigley Rd EB (offlsip) Ahead	U	N/A	N/A	C2:A		1	47	-	719	2155	924	77.8%
2/1	Madingley Rd WB (offlsip) Ahead	U	N/A	N/A	C2:C		1	47	-	166	1935	829	20.0%
3/1	M11 NB OffSlip (offlsip) Left	U	N/A	N/A	C2:D		1	53	-	233	1833	884	26.4%
3/2	M11 NB OffSlip (offlsip) Right	U	N/A	N/A	C2:D		1	53	-	762	1796	866	88.0%
4/1	Madingley Rd EB Merge Ahead	U	N/A	N/A	-		-	-	-	12	1955	1955	0.6%
4/2	Madingley Rd EB Merge Ahead	U	N/A	N/A	-		-	-	-	1481	2175	2175	68.1%
5/1		U	N/A	N/A	-		-	-	-	399	Inf	Inf	0.0%
J4: SB On Slip	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**71.3%**
1/1+1/2	Madingley Rd EB (onslip) Ahead Right	U+O	N/A	N/A	-		-	-	-	1493	2115:1787	1987+108	71.3 : 71.3%
2/1	M11 SB Onslip	U	N/A	N/A	-		-	-	-	354	Inf	Inf	0.0%
3/1	Exit Madingley Rd West Left	U	N/A	N/A	-		-	-	-	277	Inf	Inf	0.0%
3/2	Exit Madingley Rd West Ahead	U	N/A	N/A	-		-	-	-	166	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Madingley Road / Eddington Avenue Junction	**-**	**-**	**77**	**0**	**0**	**43.4**	**17.6**	**0.0**	**61.0**	**-**	**-**	**-**	**-**
J1: P&&R	**-**	**-**	**0**	**0**	**0**	**5.5**	**2.4**	**0.0**	**7.9**	**-**	**-**	**-**	**-**
1/1	239	239	-	-	-	0.1	0.1	-	0.2	2.7	1.5	0.1	1.6
1/2	1177	1177	-	-	-	2.8	1.3	-	4.0	12.3	27.5	1.3	28.7
2/1	22	22	-	-	-	0.5	0.2	-	0.7	111.0	1.1	0.2	1.2
2/2	9	9	-	-	-	0.2	0.1	-	0.3	106.0	0.4	0.1	0.5
3/1	434	434	-	-	-	0.1	0.2	-	0.2	1.9	2.2	0.2	2.4
3/2	79	79	-	-	-	1.9	0.7	-	2.6	117.1	3.7	0.7	4.4
4/1	318	318	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Eddington Ave	**-**	**-**	**0**	**0**	**0**	**24.7**	**7.4**	**0.0**	**32.1**	**-**	**-**	**-**	**-**
1/1	978	978	-	-	-	7.3	2.7	-	10.0	36.8	41.4	2.7	44.1
1/2	221	221	-	-	-	2.7	0.4	-	3.1	50.8	9.0	0.4	9.4
2/2+2/1	447	447	-	-	-	8.0	2.8	-	10.8	87.1	18.0	2.8	20.8
3/1+3/2	364	364	-	-	-	5.7	1.3	-	7.0	69.3	12.2	1.3	13.5
4/2+4/1	42	42	-	-	-	1.0	0.2	-	1.1	96.5	1.1	0.2	1.3
5/1	410	410	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	806	806	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	323	323	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J3: NB Offslip	**-**	**-**	**0**	**0**	**0**	**13.1**	**6.5**	**0.0**	**19.6**	**-**	**-**	**-**	**-**
1/1	12	12	-	-	-	0.1	0.0	-	0.1	20.7	0.2	0.0	0.2
1/2	719	719	-	-	-	5.5	1.7	-	7.2	36.1	19.2	1.7	20.9
2/1	166	166	-	-	-	0.9	0.1	-	1.0	22.7	3.2	0.1	3.4
3/1	233	233	-	-	-	1.1	0.2	-	1.3	20.0	4.3	0.2	4.5
3/2	762	762	-	-	-	5.5	3.4	-	9.0	42.3	21.2	3.4	24.6

Full Input Data And Results

4/1	12	12	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
4/2	1481	1481	-	-	-	0.0	1.1	-	1.1	2.6	0.0	1.1	1.1
5/1	399	399	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J4: SB On Slip	**-**	**-**	**77**	**0**	**0**	**0.1**	**1.2**	**0.0**	**1.3**	**-**	**-**	**-**	**-**
1/1+1/2	1493	1493	77	0	0	0.1	1.2	-	1.3	3.2	11.6	1.2	12.8
2/1	354	354	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	277	277	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2	166	166	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1	Stream: 1	PRC for Signalled Lanes (%):	4.9	Total Delay for Signalled Lanes (pcuHr):	32.07	Cycle Time (s):	180
C1	Stream: 2	PRC for Signalled Lanes (%):	25.7	Total Delay for Signalled Lanes (pcuHr):	7.93	Cycle Time (s):	180
C2		PRC for Signalled Lanes (%):	2.3	Total Delay for Signalled Lanes (pcuHr):	18.58	Cycle Time (s):	112
		PRC Over All Lanes (%):	2.3	Total Delay Over All Lanes(pcuHr):	60.95		

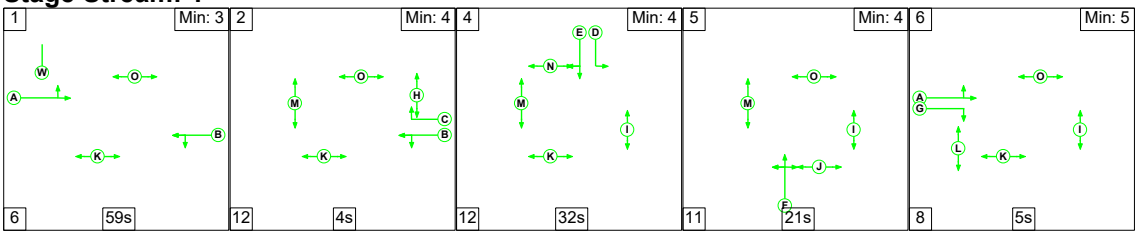
Full Input Data And Results

Scenario 4: 'Baseline + Comm + NWC PM' (FG4: 'Baseline + Comm + NWC AM', Plan 2: 'PM')

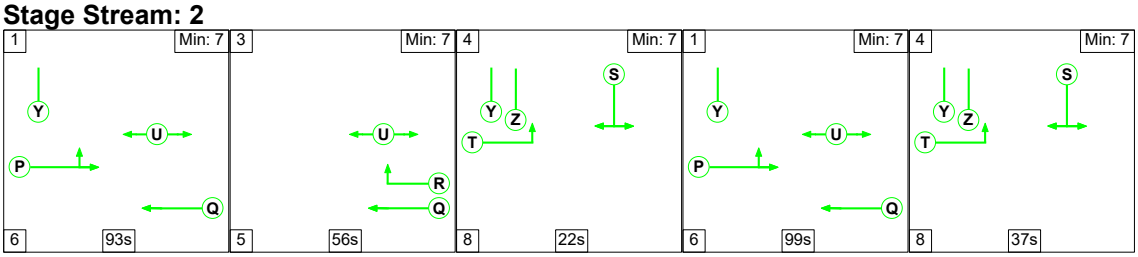
Controller :C1

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

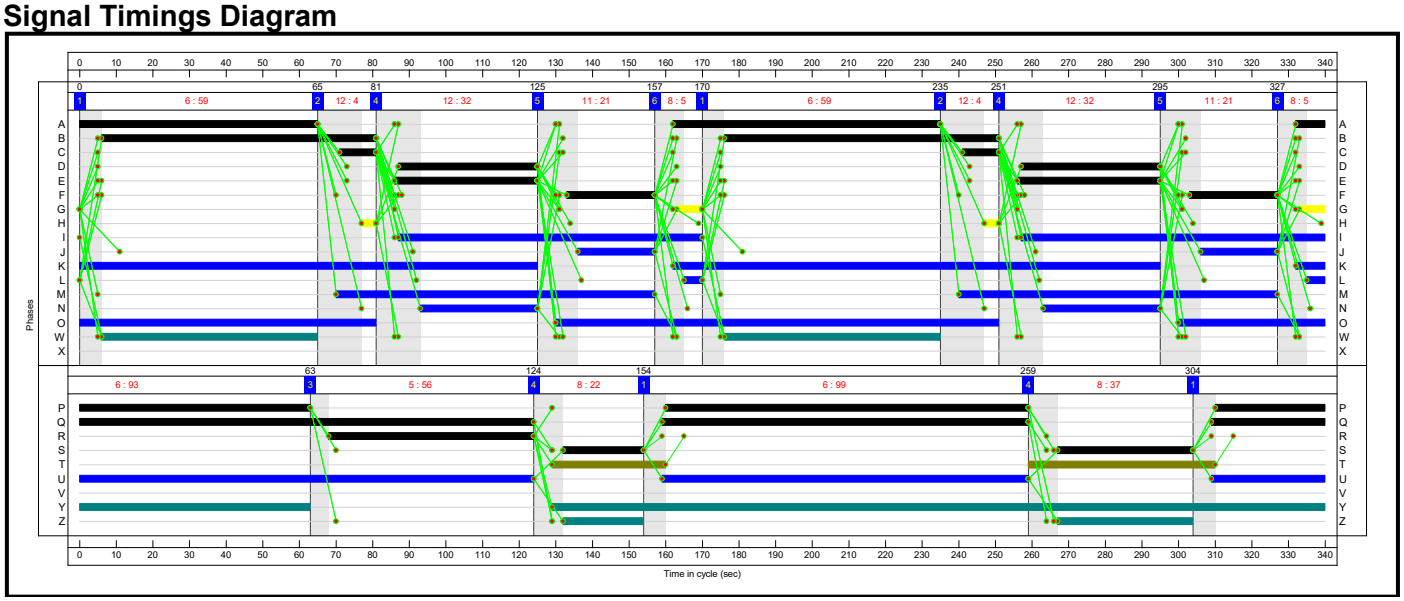
Stage Stream: 1

Stage	1	2	4	5	6	1	2	4	5	6
Duration	59	4	32	21	5	59	4	32	21	5
Change Point	0	65	81	125	157	170	235	251	295	327

Stage Stream: 2

Stage	1	3	4	1	4
Duration	93	56	22	99	37
Change Point	304	63	124	154	259

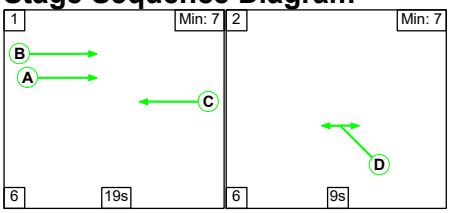
Signal Timings Diagram



Full Input Data And Results

Controller :C2

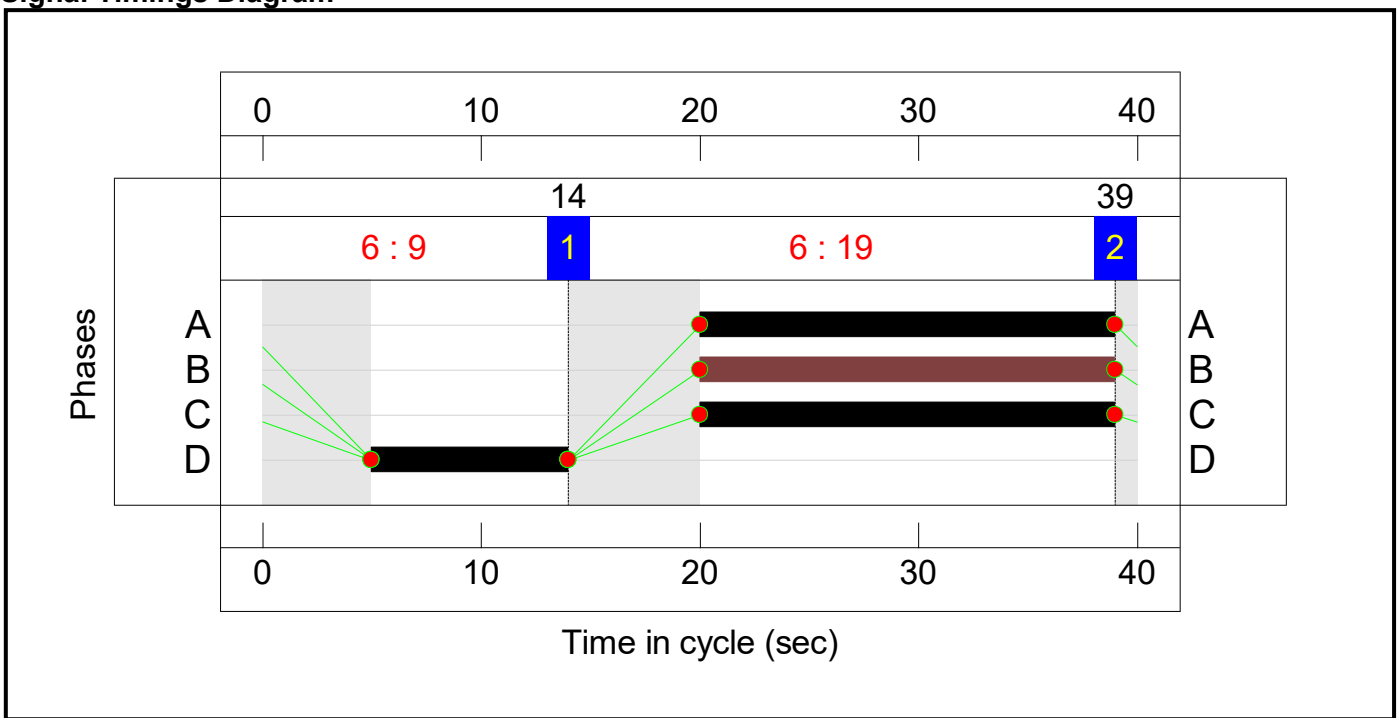
Stage Sequence Diagram



Stage Timings

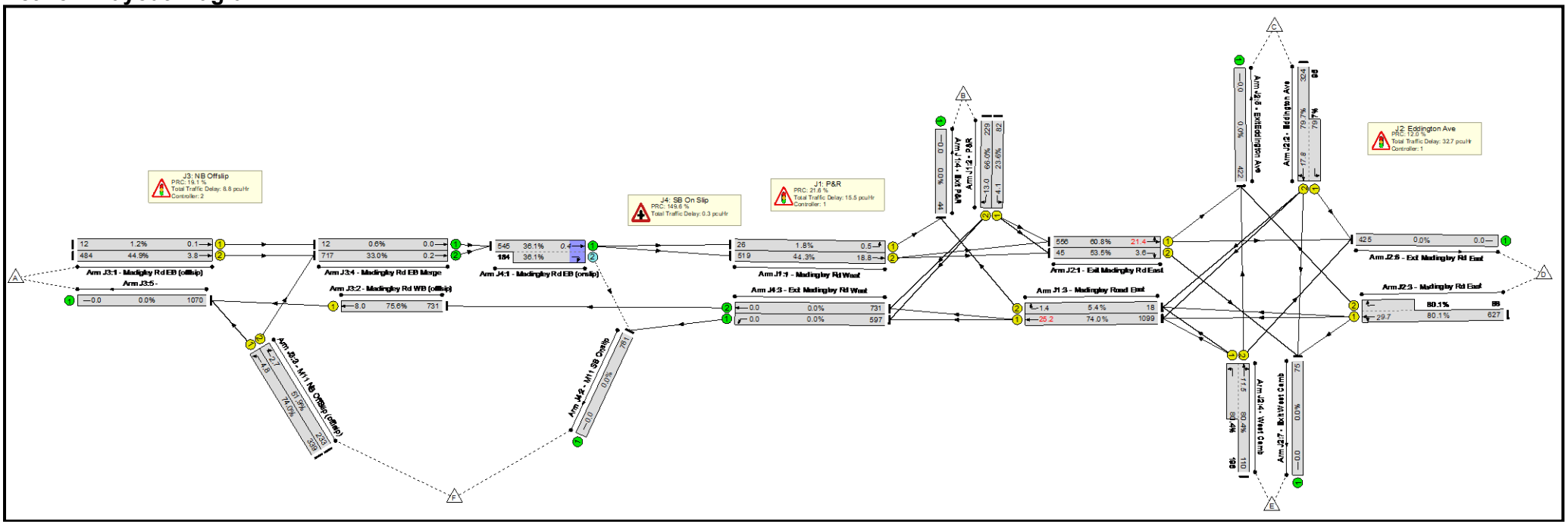
Stage	1	2
Duration	19	9
Change Point	14	39

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: Madingley Road / Eddington Avenue Junction	-	-	**N/A**	-	-		-	-	-	-	-	-	**80.4%**
J1: P&&R	-	-	**N/A**	-	-		-	-	-	-	-	-	**74.0%**
1/1	Madingley Rd West Left	U	1:2	N/A	C1:P	C1:T	2	274	82	26	1741	1408	1.8%
1/2	Madingley Rd West Ahead	U	1:2	N/A	C1:P		2	192	-	519	2055	1173	44.3%
2/1	P&R Left	U	1:2	N/A	C1:S		2	59	-	82	1940	348	23.6%
2/2	P&R Right	U	1:2	N/A	C1:S		2	59	-	229	1935	347	66.0%
3/1	Madingley Road East Ahead	U	1:2	N/A	C1:Q		2	255	-	1099	1965	1485	74.0%
3/2	Madingley Road East Right	U	1:2	N/A	C1:R		1	56	-	18	2005	336	5.4%
4/1	Exit P&R	U	N/A	N/A	-		-	-	-	44	Inf	Inf	0.0%
J2: Eddington Ave	-	-	**N/A**	-	-		-	-	-	-	-	-	**80.4%**
1/1	Exit Madingley Rd East Left Ahead	U	1:1	N/A	C1:A		2	146	-	556	2100	914	60.8%
1/2	Exit Madingley Rd East Right	U	1:1	N/A	C1:G		2	14	-	45	1787	84	53.5%
2/2+2/1	Eddington Ave Right Left Ahead	U	1:1	N/A	C1:E C1:D		2	78:76	-	419	2075:1683	407+119	79.7 : 79.7%
3/1+3/2	Madingley Rd East Ahead Right Left	U	1:1	N/A	C1:B C1:C		2	150:20	-	713	1964:1830	783+107	80.1 : 80.1%
4/2+4/1	West Camb Left Ahead Right	U	1:1	N/A	C1:F		2	48	-	306	2002:1915	137+244	80.4 : 80.4%
5/1	ExitEddington Ave	U	N/A	N/A	-		-	-	-	422	Inf	Inf	0.0%
6/1	Exit Madingley Rd East	U	N/A	N/A	-		-	-	-	425	Inf	Inf	0.0%
7/1	Exit West Camb	U	N/A	N/A	-		-	-	-	75	Inf	Inf	0.0%
J3: NB Offslip	-	-	**N/A**	-	-		-	-	-	-	-	-	**75.6%**

Full Input Data And Results

1/1	Madigley Rd EB (offlsip) Ahead	U	N/A	N/A	C2:B		1	19	-	12	2015	1007	1.2%
1/2	Madigley Rd EB (offlsip) Ahead	U	N/A	N/A	C2:A		1	19	-	484	2155	1077	44.9%
2/1	Madingley Rd WB (offlsip) Ahead	U	N/A	N/A	C2:C		1	19	-	731	1935	968	75.6%
3/1	M11 NB OffSlip (offlsip) Left	U	N/A	N/A	C2:D		1	9	-	339	1833	458	74.0%
3/2	M11 NB OffSlip (offlsip) Right	U	N/A	N/A	C2:D		1	9	-	233	1796	449	51.9%
4/1	Madingley Rd EB Merge Ahead	U	N/A	N/A	-		-	-	-	12	1955	1955	0.6%
4/2	Madingley Rd EB Merge Ahead	U	N/A	N/A	-		-	-	-	717	2175	2175	33.0%
5/1		U	N/A	N/A	-		-	-	-	1070	Inf	Inf	0.0%
J4: SB On Slip	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**36.1%**
1/1+1/2	Madingley Rd EB (onslip) Ahead Right	U+O	N/A	N/A	-		-	-	-	729	2115:1787	1511+510	36.1 : 36.1%
2/1	M11 SB Onslip	U	N/A	N/A	-		-	-	-	781	Inf	Inf	0.0%
3/1	Exit Madingley Rd West Left	U	N/A	N/A	-		-	-	-	597	Inf	Inf	0.0%
3/2	Exit Madingley Rd West Ahead	U	N/A	N/A	-		-	-	-	731	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Madingley Road / Eddington Avenue Junction	**-**	**-**	**184**	**0**	**0**	**42.8**	**14.5**	**0.0**	**57.3**	**-**	**-**	**-**	**-**
J1: P&&R	**-**	**-**	**0**	**0**	**0**	**12.5**	**3.0**	**0.0**	**15.5**	**-**	**-**	**-**	**-**
1/1	26	26	-	-	-	0.0	0.0	-	0.1	7.6	0.5	0.0	0.5
1/2	519	519	-	-	-	3.3	0.4	-	3.7	25.8	18.5	0.4	18.8
2/1	82	82	-	-	-	1.4	0.2	-	1.6	68.9	4.0	0.2	4.1
2/2	229	229	-	-	-	4.3	1.0	-	5.2	82.4	12.0	1.0	13.0
3/1	1099	1099	-	-	-	2.9	1.4	-	4.3	14.0	23.7	1.4	25.2
3/2	18	18	-	-	-	0.6	0.0	-	0.6	116.1	1.4	0.0	1.4
4/1	44	44	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Eddington Ave	**-**	**-**	**0**	**0**	**0**	**25.6**	**7.1**	**0.0**	**32.7**	**-**	**-**	**-**	**-**
1/1	556	556	-	-	-	3.0	0.8	-	3.8	24.3	20.6	0.8	21.4
1/2	45	45	-	-	-	1.2	0.6	-	1.7	138.2	3.0	0.6	3.6
2/2+2/1	419	419	-	-	-	6.9	1.9	-	8.8	75.5	16.0	1.9	17.8
3/1+3/2	713	713	-	-	-	8.8	2.0	-	10.7	54.3	27.8	2.0	29.7
4/2+4/1	306	306	-	-	-	5.8	1.9	-	7.7	90.8	9.6	1.9	11.5
5/1	422	422	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	425	425	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	75	75	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J3: NB Offslip	**-**	**-**	**0**	**0**	**0**	**4.7**	**4.1**	**0.0**	**8.8**	**-**	**-**	**-**	**-**
1/1	12	12	-	-	-	0.0	0.0	-	0.0	7.1	0.1	0.0	0.1
1/2	484	484	-	-	-	0.9	0.4	-	1.3	9.5	3.4	0.4	3.8
2/1	731	731	-	-	-	1.6	1.5	-	3.2	15.6	6.5	1.5	8.0
3/1	339	339	-	-	-	1.3	1.4	-	2.7	28.6	3.4	1.4	4.8
3/2	233	233	-	-	-	0.8	0.5	-	1.4	21.2	2.2	0.5	2.7

Full Input Data And Results

4/1	12	12	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
4/2	717	717	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
5/1	1070	1070	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J4: SB On Slip	**-**	**-**	**184**	**0**	**0**	**0.0**	**0.3**	**0.0**	**0.3**	**-**	**-**	**-**	**-**
1/1+1/2	729	729	184	0	0	0.0	0.3	-	0.3	1.4	0.1	0.3	0.4
2/1	781	781	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	597	597	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2	731	731	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1	Stream: 1 PRC for Signalled Lanes (%):	12.0	Total Delay for Signalled Lanes (pcuHr):	32.75	Cycle Time (s):	340
C1	Stream: 2 PRC for Signalled Lanes (%):	21.6	Total Delay for Signalled Lanes (pcuHr):	15.45	Cycle Time (s):	340
C2	PRC for Signalled Lanes (%):	19.1	Total Delay for Signalled Lanes (pcuHr):	8.52	Cycle Time (s):	40
	PRC Over All Lanes (%):	12.0	Total Delay Over All Lanes(pcuHr):	57.26		

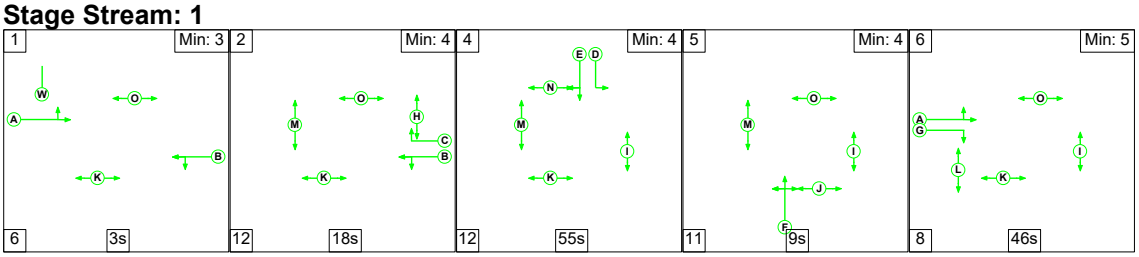
Full Input Data And Results

Scenario 5: '2038 Baseline + SATURN + Comm + NWC AM' (FG5: '2038 Baseline + SATURN + Comm + NWC AM', Plan 1: 'AM')

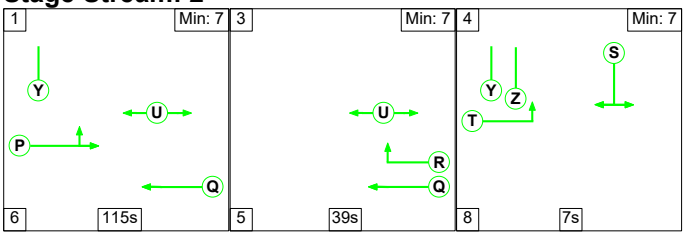
Controller :C1

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

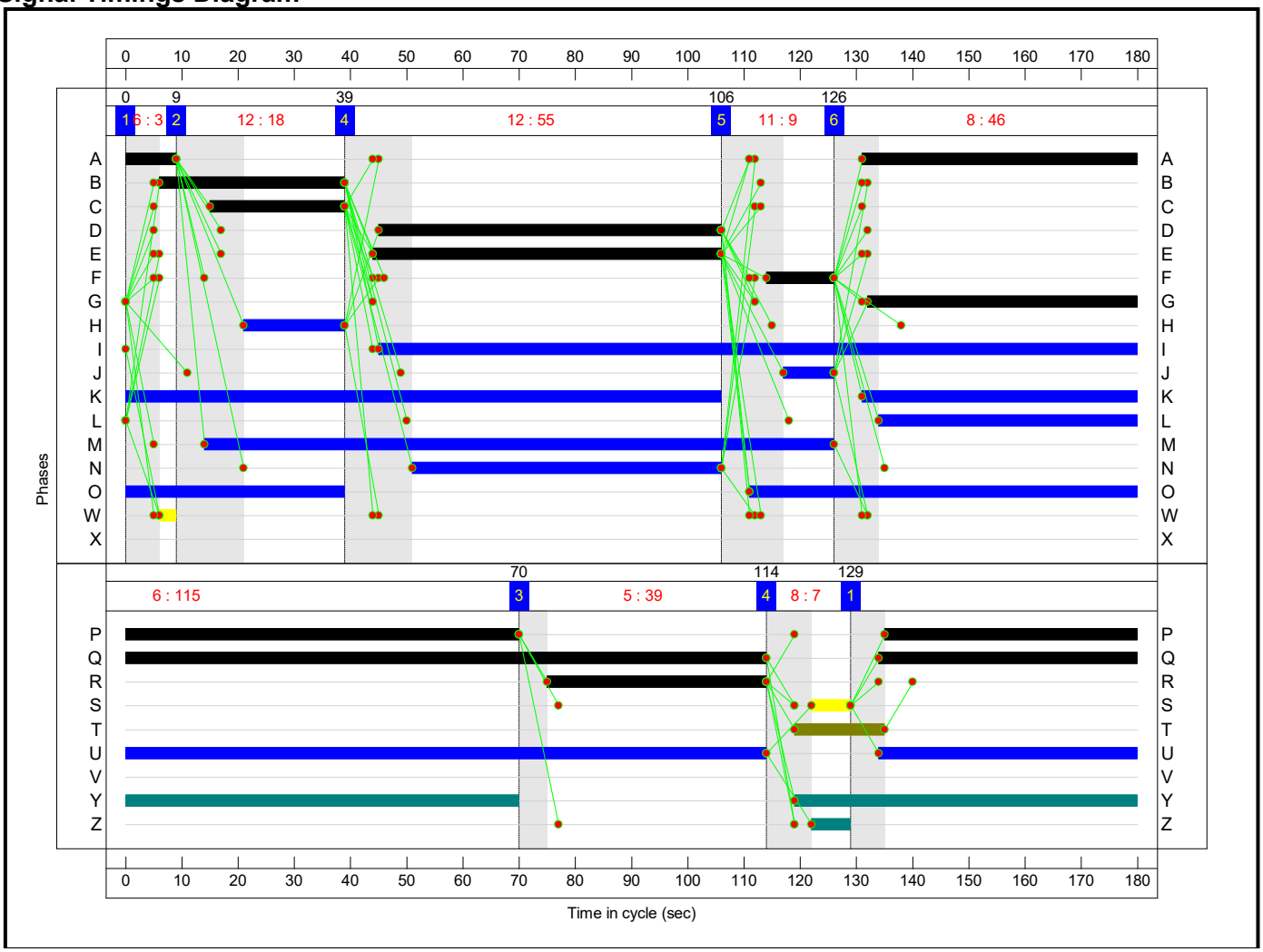
Stage	1	2	4	5	6
Duration	3	18	55	9	46
Change Point	0	9	39	106	126

Stage Stream: 2

Stage	1	3	4
Duration	115	39	7
Change Point	129	70	114

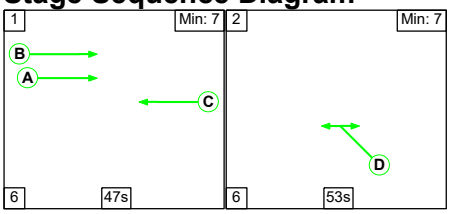
Full Input Data And Results

Signal Timings Diagram



Controller :C2

Stage Sequence Diagram

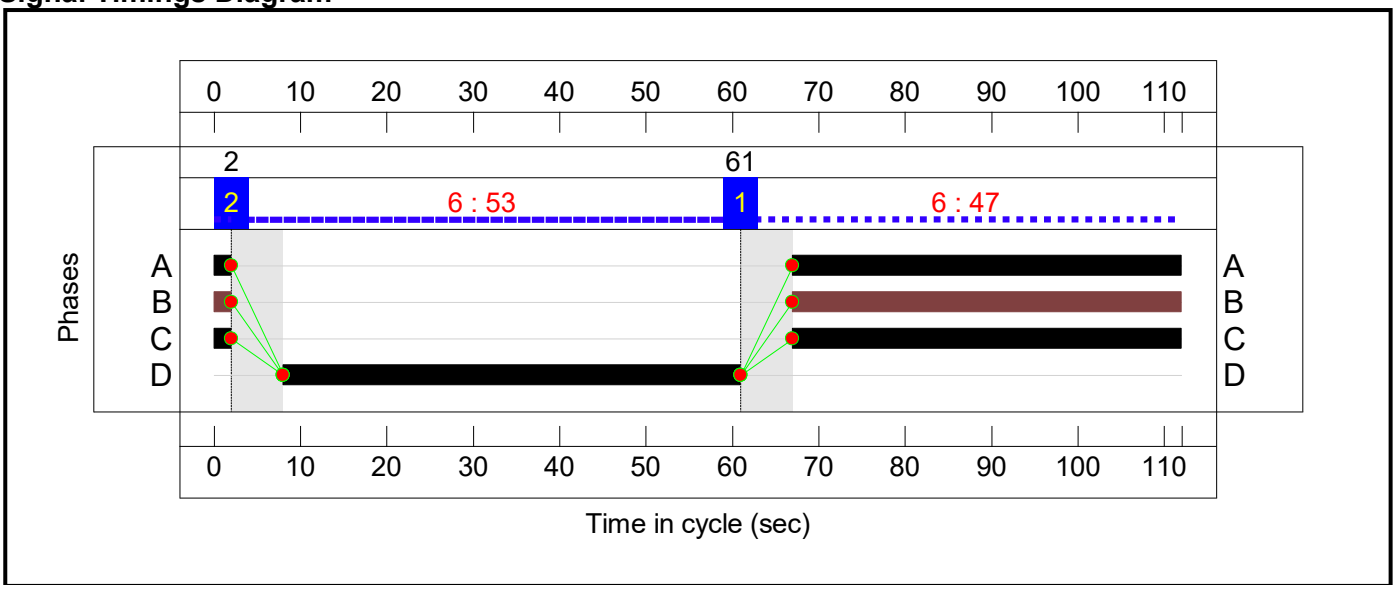


Stage Timings

Stage	1	2
Duration	47	53
Change Point	61	2

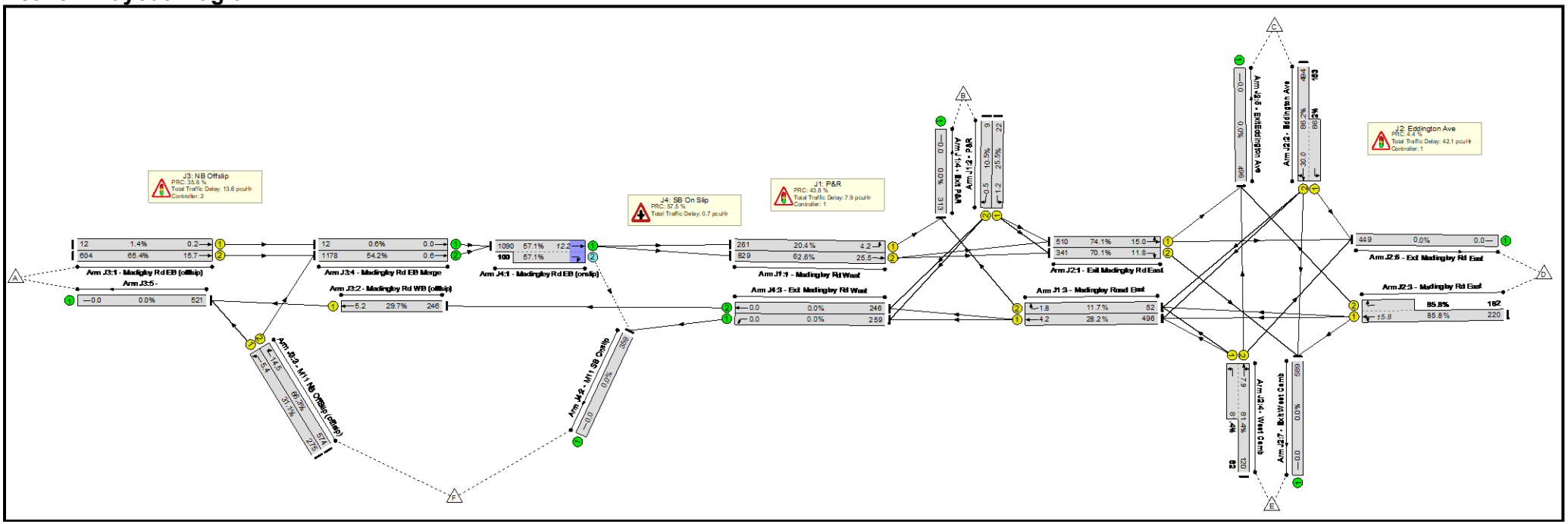
Full Input Data And Results

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: Madingley Road / Eddington Avenue Junction	-	-	**N/A**	-	-		-	-	-	-	-	-	**86.2%**
J1: P&&R	-	-	**N/A**	-	-		-	-	-	-	-	-	**62.6%**
1/1	Madingley Rd West Left	U	1:2	N/A	C1:P	C1:T	1	131	16	261	1741	1277	20.4%
1/2	Madingley Rd West Ahead	U	1:2	N/A	C1:P		1	115	-	829	2055	1324	62.6%
2/1	P&R Left	U	1:2	N/A	C1:S		1	7	-	22	1940	86	25.5%
2/2	P&R Right	U	1:2	N/A	C1:S		1	7	-	9	1935	86	10.5%
3/1	Madingley Road East Ahead	U	1:2	N/A	C1:Q		1	160	-	496	1965	1758	28.2%
3/2	Madingley Road East Right	U	1:2	N/A	C1:R		1	39	-	52	2005	446	11.7%
4/1	Exit P&R	U	N/A	N/A	-		-	-	-	313	Inf	Inf	0.0%
J2: Eddington Ave	-	-	**N/A**	-	-		-	-	-	-	-	-	**86.2%**
1/1	Exit Madingley Rd East Left Ahead	U	1:1	N/A	C1:A		1	58	-	510	2100	688	74.1%
1/2	Exit Madingley Rd East Right	U	1:1	N/A	C1:G		1	48	-	341	1787	486	70.1%
2/2+2/1	Eddington Ave Right Left Ahead	U	1:1	N/A	C1:E C1:D		1	62:61	-	647	2075:1683	573+177	86.2 : 86.2%
3/1+3/2	Madingley Rd East Ahead Right Left	U	1:1	N/A	C1:B C1:C		1	33:24	-	382	1915:1830	257+189	85.8 : 85.8%
4/2+4/1	West Camb Left Ahead Right	U	1:1	N/A	C1:F		1	12	-	202	2040:1915	147+101	81.4 : 81.4%
5/1	ExitEddington Ave	U	N/A	N/A	-		-	-	-	496	Inf	Inf	0.0%
6/1	Exit Madingley Rd East	U	N/A	N/A	-		-	-	-	449	Inf	Inf	0.0%
7/1	Exit West Camb	U	N/A	N/A	-		-	-	-	589	Inf	Inf	0.0%
J3: NB Offslip	-	-	**N/A**	-	-		-	-	-	-	-	-	**66.3%**

Full Input Data And Results

1/1	Madigley Rd EB (offlsip) Ahead	U	N/A	N/A	C2:B		1	47	-	12	2015	864	1.4%
1/2	Madigley Rd EB (offlsip) Ahead	U	N/A	N/A	C2:A		1	47	-	604	2155	924	65.4%
2/1	Madingley Rd WB (offlsip) Ahead	U	N/A	N/A	C2:C		1	47	-	246	1935	829	29.7%
3/1	M11 NB OffSlip (offlsip) Left	U	N/A	N/A	C2:D		1	53	-	275	1833	884	31.1%
3/2	M11 NB OffSlip (offlsip) Right	U	N/A	N/A	C2:D		1	53	-	574	1796	866	66.3%
4/1	Madingley Rd EB Merge Ahead	U	N/A	N/A	-		-	-	-	12	1955	1955	0.6%
4/2	Madingley Rd EB Merge Ahead	U	N/A	N/A	-		-	-	-	1178	2175	2175	54.2%
5/1		U	N/A	N/A	-		-	-	-	521	Inf	Inf	0.0%
J4: SB On Slip	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**57.1%**
1/1+1/2	Madingley Rd EB (onslip) Ahead Right	U+O	N/A	N/A	-		-	-	-	1190	2115:1787	1908+175	57.1 : 57.1%
2/1	M11 SB Onslip	U	N/A	N/A	-		-	-	-	359	Inf	Inf	0.0%
3/1	Exit Madingley Rd West Left	U	N/A	N/A	-		-	-	-	259	Inf	Inf	0.0%
3/2	Exit Madingley Rd West Ahead	U	N/A	N/A	-		-	-	-	246	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Madingley Road / Eddington Avenue Junction	**-**	**-**	**100**	**0**	**0**	**49.0**	**15.4**	**0.0**	**64.4**	**-**	**-**	**-**	**-**
J1: P&&R	**-**	**-**	**0**	**0**	**0**	**6.5**	**1.5**	**0.0**	**7.9**	**-**	**-**	**-**	**-**
1/1	261	261	-	-	-	0.5	0.1	-	0.7	9.3	4.1	0.1	4.2
1/2	829	829	-	-	-	4.4	0.8	-	5.2	22.7	24.6	0.8	25.5
2/1	22	22	-	-	-	0.5	0.2	-	0.7	111.0	1.1	0.2	1.2
2/2	9	9	-	-	-	0.2	0.1	-	0.3	106.0	0.4	0.1	0.5
3/1	496	496	-	-	-	0.2	0.2	-	0.4	2.9	4.0	0.2	4.2
3/2	52	52	-	-	-	0.6	0.1	-	0.7	49.0	1.7	0.1	1.8
4/1	313	313	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Eddington Ave	**-**	**-**	**0**	**0**	**0**	**31.8**	**10.3**	**0.0**	**42.1**	**-**	**-**	**-**	**-**
1/1	510	510	-	-	-	5.4	1.4	-	6.8	47.8	13.6	1.4	15.0
1/2	341	341	-	-	-	5.0	1.2	-	6.2	65.2	10.6	1.2	11.8
2/2+2/1	647	647	-	-	-	9.4	3.0	-	12.4	68.8	27.1	3.0	30.0
3/1+3/2	382	382	-	-	-	7.4	2.8	-	10.2	96.1	13.0	2.8	15.8
4/2+4/1	202	202	-	-	-	4.6	2.0	-	6.6	117.7	5.9	2.0	7.9
5/1	496	496	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	449	449	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	589	589	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J3: NB Offslip	**-**	**-**	**0**	**0**	**0**	**10.6**	**3.0**	**0.0**	**13.6**	**-**	**-**	**-**	**-**
1/1	12	12	-	-	-	0.1	0.0	-	0.1	20.7	0.2	0.0	0.2
1/2	604	604	-	-	-	4.3	0.9	-	5.2	31.0	14.8	0.9	15.7
2/1	246	246	-	-	-	1.4	0.2	-	1.6	24.0	5.0	0.2	5.2
3/1	275	275	-	-	-	1.4	0.2	-	1.6	20.6	5.2	0.2	5.4
3/2	574	574	-	-	-	3.5	1.0	-	4.5	28.2	13.6	1.0	14.5

Full Input Data And Results

4/1	12	12	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
4/2	1178	1178	-	-	-	0.0	0.6	-	0.6	1.8	0.0	0.6	0.6
5/1	521	521	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J4: SB On Slip	**-**	**-**	**100**	**0**	**0**	**0.0**	**0.7**	**0.0**	**0.7**	**-**	**-**	**-**	**-**
1/1+1/2	1190	1190	100	0	0	0.0	0.7	-	0.7	2.2	11.5	0.7	12.2
2/1	359	359	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	259	259	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2	246	246	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1	Stream: 1	PRC for Signalled Lanes (%):	4.4	Total Delay for Signalled Lanes (pcuHr):	42.12	Cycle Time (s):	180
C1	Stream: 2	PRC for Signalled Lanes (%):	43.8	Total Delay for Signalled Lanes (pcuHr):	7.94	Cycle Time (s):	180
C2		PRC for Signalled Lanes (%):	35.8	Total Delay for Signalled Lanes (pcuHr):	12.99	Cycle Time (s):	112
		PRC Over All Lanes (%):	4.4	Total Delay Over All Lanes(pcuHr):	64.35		

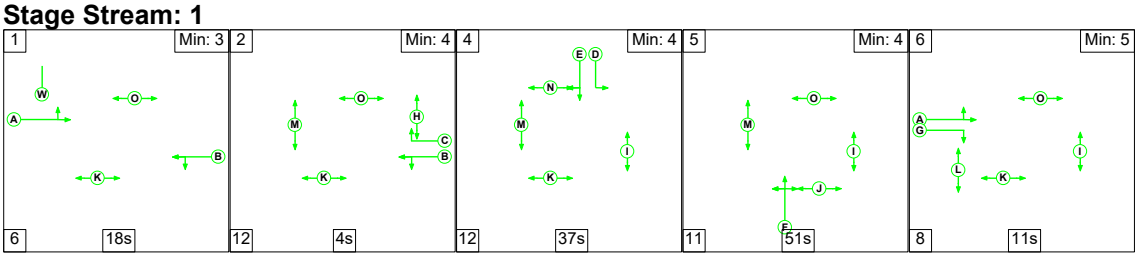
Full Input Data And Results

Scenario 6: '2038 Baseline + SATURN + Comm + NWC PM' (FG6: '2038 Baseline + SATURN + Comm + NWC AM', Plan 2: 'PM')

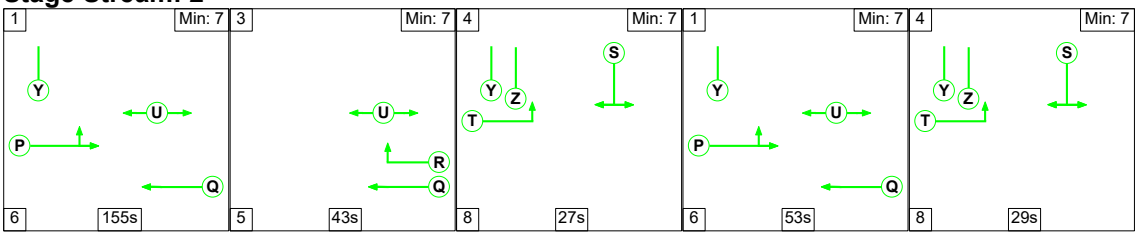
Controller :C1

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

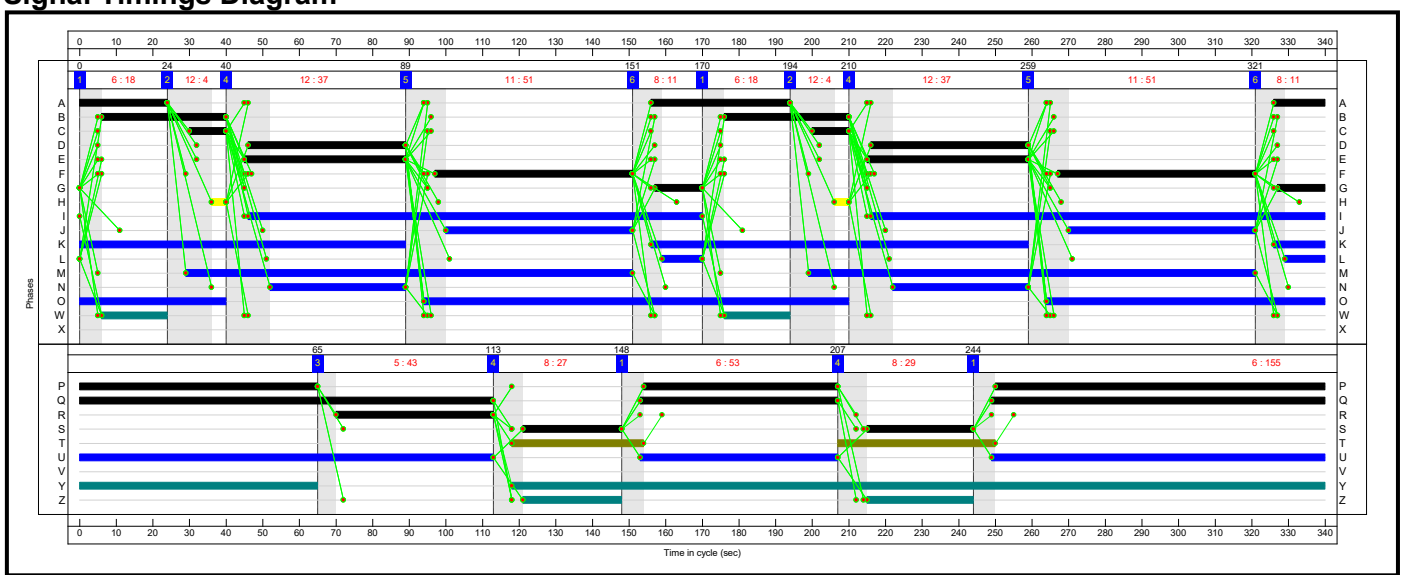
Stage Stream: 1

Stage	1	2	4	5	6	1	2	4	5	6
Duration	18	4	37	51	11	18	4	37	51	11
Change Point	0	24	40	89	151	170	194	210	259	321

Stage Stream: 2

Stage	1	3	4	1	4
Duration	155	43	27	53	29
Change Point	244	65	113	148	207

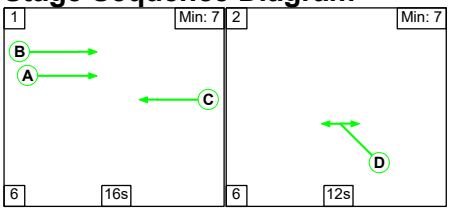
Signal Timings Diagram



Full Input Data And Results

Controller :C2

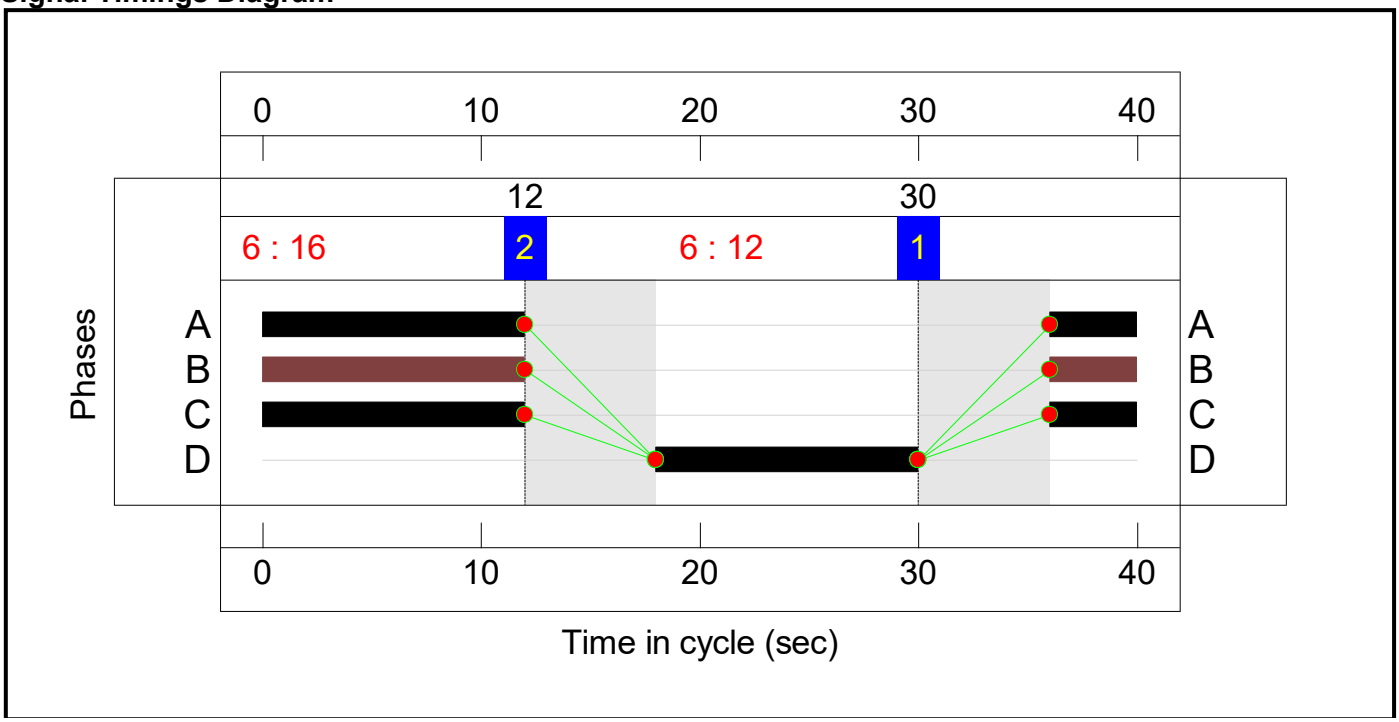
Stage Sequence Diagram



Stage Timings

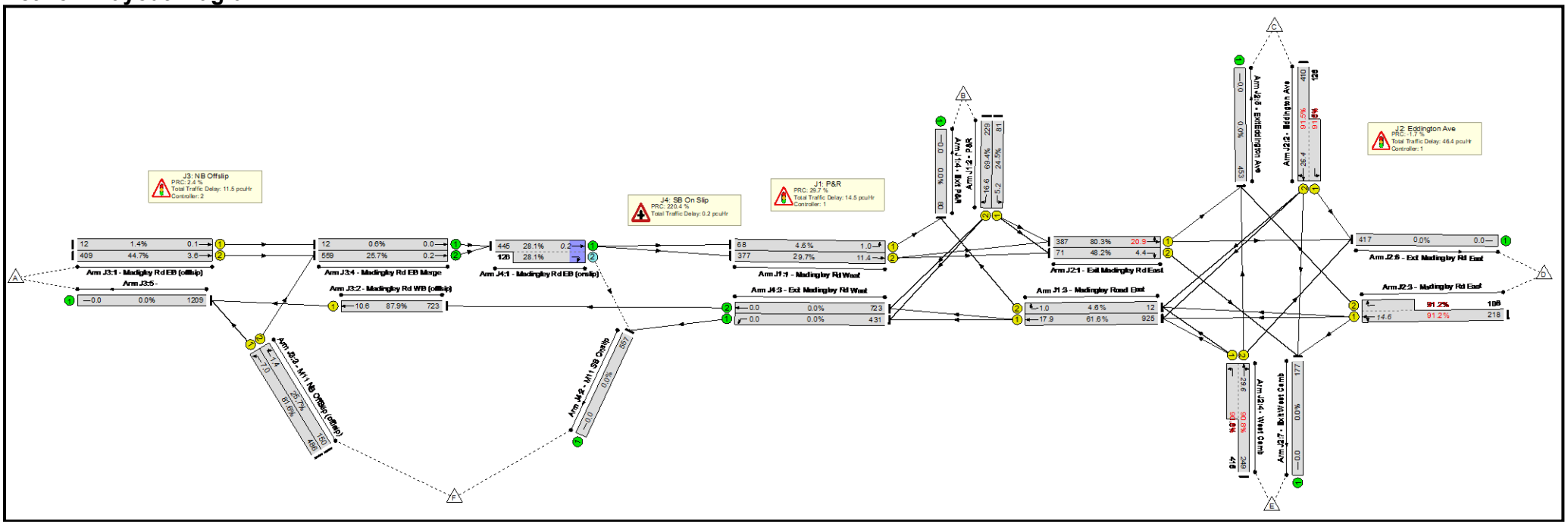
Stage	1	2
Duration	16	12
Change Point	30	12

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: Madingley Road / Eddington Avenue Junction	-	-	**N/A**	-	-		-	-	-	-	-	-	**91.5%**
J1: P&&R	-	-	**N/A**	-	-		-	-	-	-	-	-	**69.4%**
1/1	Madingley Rd West Left	U	1:2	N/A	C1:P	C1:T	2	287	79	68	1741	1475	4.6%
1/2	Madingley Rd West Ahead	U	1:2	N/A	C1:P		2	208	-	377	2055	1269	29.7%
2/1	P&R Left	U	1:2	N/A	C1:S		2	56	-	81	1940	331	24.5%
2/2	P&R Right	U	1:2	N/A	C1:S		2	56	-	229	1935	330	69.4%
3/1	Madingley Road East Ahead	U	1:2	N/A	C1:Q		2	258	-	925	1965	1503	61.6%
3/2	Madingley Road East Right	U	1:2	N/A	C1:R		1	43	-	12	2005	259	4.6%
4/1	Exit P&R	U	N/A	N/A	-		-	-	-	80	Inf	Inf	0.0%
J2: Eddington Ave	-	-	**N/A**	-	-		-	-	-	-	-	-	**91.5%**
1/1	Exit Madingley Rd East Left Ahead	U	1:1	N/A	C1:A		2	76	-	387	2100	482	80.3%
1/2	Exit Madingley Rd East Right	U	1:1	N/A	C1:G		2	26	-	71	1787	147	48.2%
2/2+2/1	Eddington Ave Right Left Ahead	U	1:1	N/A	C1:E C1:D		2	88:86	-	536	2075:1683	448+138	91.5 : 91.5%
3/1+3/2	Madingley Rd East Ahead Right Left	U	1:1	N/A	C1:B C1:C		2	68:20	-	326	1953:1830	239+118	91.2 : 91.2%
4/2+4/1	West Camb Left Ahead Right	U	1:1	N/A	C1:F		2	108	-	664	2006:1915	274+457	90.8 : 90.8%
5/1	ExitEddington Ave	U	N/A	N/A	-		-	-	-	453	Inf	Inf	0.0%
6/1	Exit Madingley Rd East	U	N/A	N/A	-		-	-	-	417	Inf	Inf	0.0%
7/1	Exit West Camb	U	N/A	N/A	-		-	-	-	177	Inf	Inf	0.0%
J3: NB Offslip	-	-	**N/A**	-	-		-	-	-	-	-	-	**87.9%**

Full Input Data And Results

1/1	Madigley Rd EB (offlsip) Ahead	U	N/A	N/A	C2:B		1	16	-	12	2015	856	1.4%
1/2	Madigley Rd EB (offlsip) Ahead	U	N/A	N/A	C2:A		1	16	-	409	2155	916	44.7%
2/1	Madingley Rd WB (offlsip) Ahead	U	N/A	N/A	C2:C		1	16	-	723	1935	822	87.9%
3/1	M11 NB OffSlip (offlsip) Left	U	N/A	N/A	C2:D		1	12	-	486	1833	596	81.6%
3/2	M11 NB OffSlip (offlsip) Right	U	N/A	N/A	C2:D		1	12	-	150	1796	584	25.7%
4/1	Madingley Rd EB Merge Ahead	U	N/A	N/A	-		-	-	-	12	1955	1955	0.6%
4/2	Madingley Rd EB Merge Ahead	U	N/A	N/A	-		-	-	-	559	2175	2175	25.7%
5/1		U	N/A	N/A	-		-	-	-	1209	Inf	Inf	0.0%
J4: SB On Slip	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**28.1%**
1/1+1/2	Madingley Rd EB (onslip) Ahead Right	U+O	N/A	N/A	-		-	-	-	571	2115:1787	1584+449	28.1 : 28.1%
2/1	M11 SB Onslip	U	N/A	N/A	-		-	-	-	557	Inf	Inf	0.0%
3/1	Exit Madingley Rd West Left	U	N/A	N/A	-		-	-	-	431	Inf	Inf	0.0%
3/2	Exit Madingley Rd West Ahead	U	N/A	N/A	-		-	-	-	723	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Madingley Road / Eddington Avenue Junction	**-**	**-**	**126**	**0**	**0**	**48.3**	**24.3**	**0.0**	**72.6**	**-**	**-**	**-**	**-**
J1: P&&R	**-**	**-**	**0**	**0**	**0**	**12.2**	**2.3**	**0.0**	**14.5**	**-**	**-**	**-**	**-**
1/1	68	68	-	-	-	0.1	0.0	-	0.1	5.4	1.0	0.0	1.0
1/2	377	377	-	-	-	1.8	0.2	-	2.0	19.1	11.2	0.2	11.4
2/1	81	81	-	-	-	1.8	0.2	-	1.9	85.5	5.1	0.2	5.2
2/2	229	229	-	-	-	5.5	1.1	-	6.6	104.1	15.5	1.1	16.6
3/1	925	925	-	-	-	2.6	0.8	-	3.4	13.2	17.1	0.8	17.9
3/2	12	12	-	-	-	0.4	0.0	-	0.4	125.8	1.0	0.0	1.0
4/1	80	80	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Eddington Ave	**-**	**-**	**0**	**0**	**0**	**31.0**	**15.5**	**0.0**	**46.4**	**-**	**-**	**-**	**-**
1/1	387	387	-	-	-	5.0	2.0	-	7.0	65.1	18.9	2.0	20.9
1/2	71	71	-	-	-	1.6	0.5	-	2.0	103.8	4.0	0.5	4.4
2/2+2/1	536	536	-	-	-	8.7	4.6	-	13.3	89.3	21.9	4.6	26.4
3/1+3/2	326	326	-	-	-	6.0	4.1	-	10.2	112.1	10.5	4.1	14.6
4/2+4/1	664	664	-	-	-	9.5	4.4	-	13.9	75.5	25.2	4.4	29.6
5/1	453	453	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	417	417	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	177	177	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J3: NB Offslip	**-**	**-**	**0**	**0**	**0**	**5.2**	**6.3**	**0.0**	**11.5**	**-**	**-**	**-**	**-**
1/1	12	12	-	-	-	0.0	0.0	-	0.0	9.0	0.1	0.0	0.1
1/2	409	409	-	-	-	0.9	0.4	-	1.3	11.7	3.2	0.4	3.6
2/1	723	723	-	-	-	2.1	3.4	-	5.5	27.5	7.2	3.4	10.6
3/1	486	486	-	-	-	1.7	2.1	-	3.8	28.2	4.9	2.1	7.0
3/2	150	150	-	-	-	0.4	0.2	-	0.6	14.1	1.2	0.2	1.4

Full Input Data And Results

4/1	12	12	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
4/2	559	559	-	-	-	0.0	0.2	-	0.2	1.1	0.0	0.2	0.2
5/1	1209	1209	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J4: SB On Slip	**-**	**-**	**126**	**0**	**0**	**0.0**	**0.2**	**0.0**	**0.2**	**-**	**-**	**-**	**-**
1/1+1/2	571	571	126	0	0	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
2/1	557	557	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	431	431	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2	723	723	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1	Stream: 1	PRC for Signalled Lanes (%):	-1.7	Total Delay for Signalled Lanes (pcuHr):	46.42	Cycle Time (s):	340
C1	Stream: 2	PRC for Signalled Lanes (%):	29.7	Total Delay for Signalled Lanes (pcuHr):	14.48	Cycle Time (s):	340
C2		PRC for Signalled Lanes (%):	2.4	Total Delay for Signalled Lanes (pcuHr):	11.28	Cycle Time (s):	40
		PRC Over All Lanes (%):	-1.7	Total Delay Over All Lanes(pcuHr):	72.55		