Bankside Phase 2, Banbury

Proposed Residential Development

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Project No. – 16050-01

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1.0 INTRODUCTION

1.1 Markides Associates Ltd (MA) has been appointed by Hallam Management Ltd to prepare a Transport Assessment (TA) in support of an outline planning application relating to a Scheme of up to 850 residential units ('Proposed Development') on land to the south of Banbury, Oxfordshire known as Bankside Phase 2 ('the Site'). In order to ensure a robust assessment, this TA is based upon a scheme of 900 residential dwellings.

1.2 The Site is located approximately 3.5km south east of Banbury, immediately adjacent to the Longford Park development that is currently under construction. The site location can be seen in **Figure 1.1**.

1.3 The site is identified within the Adopted Cherwell Local Plan 2011-2013 as Ban4 and is allocated for residential development. Adjacent to it is allocation Ban12, which is allocated for a replacement ground for Banbury Football Club and / or a new Secondary School.

1.4 An outline planning application for 700 units residential units on the BAN4 was submitted in June 2017 (application no 17/01408/OUT) and scoping discussions took place in advance of that application, with a meeting held with OCC on 28th January 2015 to discuss the Proposed Development and modelling methodology. Subsequent to that meeting, further feedback was been received from OCC in response to pre-application submissions to CDC in relation to the ES Scoping Submission. The feedback obtained can be seen in **Appendix A**.

1.5 Following submission of that application, further meetings were held with both OCC and CDC to discuss the application. Feedback given at the time was that the consideration should be given to the provision of access to the BAN4 site via BAN12, despite prior pre-application responses indicating that this was not required. As a result changes to the proposals to provide a new access into the BAN4 and BAN12 sites from Banbury Road, extension of the redline boundary for the site into the northern section of BAN12 and an increase in unit numbers to 850 has taken place.

1.6 Furthermore, in the interim a SATURN model of the whole of Banbury has been completed and is now being utilised to identify the changes in traffic flows that will occur as a result of all major development in Banbury. Rather than the previous methodology of forecasting future year traffic flow utilising TEMPRO growth factors, TRICS trip rates and data from Transport Assessment of committed development in the area, OCC have required that the Banbury SATURN model is used to obtain traffic flows forecasts. The results flows are then to be used in detailed junction capacity models. Correspondence related to this is also included in **Appendix A**.

1.7 This report is structured as follows:

- **Section 2.0 Planning Policy and Guidance** - considers the local, regional and national policy pertaining to transportation matters relevant to the development proposals.
- **Section 3.0 Site accessibility and baseline conditions-** describes the existing conditions in the area around the site including the surrounding highway, pedestrian and public transport network. Consideration is given to traffic surveys carried out as part of this assessment.
- **Section 4.0 Proposed Development** sets out the development proposals in traffic, transport and highway terms.
- **Section 5.0 SATURN Modelling** this section of the report describes the SATURN model, the brief for modelling the proposed development and the results provided.
- **Section 6.0 Junction Capacity Modelling -** presents the results of the impact of the development traffic on the capacity of nearby junctions.
- **Section 7.0 Proposed Mitigation -** describes the measures proposed to mitigate the impact of the development on the highway network and improve access to the site by sustainable modes of transport.
- **Section 8.0 Summary and Conclusion**.

2.0 PLANNING POLICY AND GUIDANCE

2.1 This section of the TA reviews and analyses the relevant current and emerging integrated land use and transport planning policy and guidance in the context of the Proposed Development. It examines the relevant national, regional and local policies.

2.2 The policies reviewed within this section demonstrate the ways in which the Proposed Development is consistent with policy objectives at all these levels. Relevant policies identified include the following:

National Policy

- National Planning Policy Framework (NPPF) (2019);

Regional Policy

- Oxfordshire County Council – Local Transport Plan 4 (2015);
- Connecting Oxfordshire: Local Transport Plan 2015 – 2031 Banbury, Bicester, Carterton, Science Vale & Science Vale Cycle Strategy and Witney Area Strategies
- Oxfordshire County Council Residential Road Design Guide (2003) second edition (2015)
- Oxfordshire County Council Transport for New Developments: Transport Assessment and Travel Plans 2014

Local Policy

- Cherwell Local Plan 2011-2031 Part 1 2015
- Cherwell Local Plan (Adopted January 1996)
- Draft Cherwell Local Plan 2011-2031 Part 2 Development Management Policies and Sites: Issues Paper 2016
- The Non-Statutory Cherwell Local Plan 2011
- Cherwell District Council Planning and Waste Management Design Advice 2009

National Policy

National Planning Policy Framework (NPPF)

1.1 The NPPF February 2019 sets out Government planning policy, provides a framework within which local planning policies should be produced and is a material consideration in planning decisions.

1.2 At the heart of the NPPF is a presumption in favour of sustainable development. Achieving sustainable development involved three overarching objectives; economic, social and

environmental. These are interdependent and need to be pursued in mutually supportive ways. The final aim is to achieve a strong, responsive and competitive economy, with strong, vibrant and healthy communities, whilst contributing to protecting and enhancing the natural, built and historic environment.

1.3 With regards to transport, the NPPF details that: "*Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.*"

1.4 Paragraph 110 continues that applications for development should:

- *give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second- so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;*
- *address the needs of people with disabilities and reduced mobility in relation to all modes of transport;*
- *create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;*
- *allow for the efficient delivery of goods, and access by service and emergency vehicles; and*
- *be designed to enable charging of plug-in and ultra-low emission vehicles in safe, accessible and convenient locations.*

1.5 Paragraph 111 states that all developments that will generate significant amounts of movement should be required to provide a travel plan and should be supported by a transport statement or transport assessment.

Regional Policy

Oxfordshire County Council – Local Transport Plan 4 (2015)

2.3 This document covers a period of over 20 years, and it is the key strategic policy tool through which the Council exercises its responsibilities for planning, management and development of transport in Oxfordshire, for the movement of both people and goods.

2.4 The ambitions for the Local Transport Plan 4 (LTP4) are as follows:

- *"To support the local economy and the growth and competitiveness of the county;*

- *To make it easier to get around the county and improve access to jobs and services for all by offering real choice;*
- *To reduce the impact of transport on the environment and help tackle climate change; and*
- *To promote healthy, safe and sustainable travel".* (Para 1.23)

2.5 Chapter 8 of the LTP relates to supporting developments. It is essential that planning applications for new developments are assessed in terms of their location, so that they reduce the need for travel and can be served by sustainable modes of travel other than the car. It should be demonstrated that any additional traffic produced because of development can be accommodated on the local highway network without any significant detriment to road safety or operation.

2.6 It is stated at Paragraph 8.3 that OCC will work in partnership with district councils and developers when making decisions on the location and layout of new developments, in reference to their connections with the existing transport network.

2.7 Objective 8 is to *"provide the whole county with a real choice of attractive, frequent and welcoming public transport*". Objective 9 of the LTP refers to walking, cycling and utilising Rights of Way. A core objective from OCC is to create the conditions where a greater proportion of trips can be made on foot or by bicycle, as an alternative to vehicular modes. Enhancing connectivity between walking routes and to/from bus stops is essential for achieving this goal, as is providing safe pedestrian crossings to avoid inconvenient detours. Cycling provides further benefits in that adopting this method of transport can reduce congestion on the local highway network. Secure cycle parking located in convenient positions as part of new developments can help to encourage the uptake of this mode. Furthermore, new residential or commercial developments should be linked up with signed cycle routes.

Connecting Oxfordshire: Local Transport Plan 2015 – 2031 Banbury, Bicester, Carterton, Science Vale & Science Vale Cycle Strategy and Witney Area Strategies

Banbury Area Strategy 2016

2.8 The aim of the Banbury Area Strategy 2016 is to strengthen the town centre and its economy by boosting its vitality and attractiveness through strategic investment and regeneration thereby providing a full range of facilities, whilst safeguarding the town's historical character. This Transport Strategy for Banbury supports delivery of the Cherwell Local Plan; the Banbury

Masterplan and its overall vision for Banbury; and the Canalside Supplementary Planning Document. The Area Strategy will deliver infrastructure improvements and facilities and promote sustainable travel. Specific infrastructure improvements are outlined within the Strategy which include:

- the promotion of Bankside including traffic calming, signalisation of Hightown Road/Bankside Junction and signal timing optimization at Swan Close Road.
- Traffic management along the A361 the South Bar Street/Horsefair Corridor- this is to encourage sustainable modes and reduce vehicles along this corridor which is now within an Air Quality Management Area.
- Developing Cherwell Street 'Eastern Corridor' as the preferred north-south route through the town- This is the main through-route due to the AQMA at North Bar and the weight limit restrictions at Queensway. A key consideration is to balance the conflicting travel needs of vehicular access north-south, pedestrians crossing east-west and bus movements.
- Provision of additional capacity at the Bloxham Road (A361)/South Bar Street Junction - this will be implemented by the Longford Park Development.
- A361 Bloxham Road to A4260 Oxford Road Spine Road through the residential development South of Salt Way.
- Capacity and traffic flow improvements along the Hennef Way to M40 Junction 11 corridor.
- As developments sites come forward, it is likely further capacity improvements will be required at other sensitive junctions. For example - Warwick Road (B4100) roundabout junctions with A422 Ruscote Avenue and Orchard Way - Bloxham Road (A361) junction with Queensway and Springfield Avenue - A361 Southam Road junction with Castle Street and Warwick Road.
- A new link road east of Junction 11.

2.9 Key Polices within the Area Strategy include BAN1, delivering transport schemes which will support the regeneration and growth of Banbury to 2031 and protect the historically sensitive areas of the town. Policy BAN2 covers working with CDC and bus operators to deliver Banbury Bus Strategy which seeks to deliver a commercial bus network for Banbury with increase bus mode share reviewing existing facilities. Policy BAN3 aims to promote Banbury's position on the rail network through revitalising the railway station area and improving pedestrian, cycle and bus access to the station, in develop Banbury Station as a transport interchange. BAN4 promotes developers to provide facilities for pedestrians and cyclists to fill in the gaps in the walking and cycling network, including Public Rights of Way through funding and network

assessment studies. BAN5 - Travel Plans, Delivery & Servicing Plans and Construction Logistics Plans will be secured for all new developments that meet OCC's thresholds.

2.10 This Area Strategy also identifies a package of transport measures that are required to mitigate the cumulative impact of development in Banbury. Developer contributions will therefore be sought towards schemes within the Area Strategy using a strategic transport infrastructure contribution rate to mitigate the cumulative impact of development. Additional funding for these strategic schemes may also be sought via the Local Enterprise Partnership and the Local Transport Board to the Local Growth Fund and other sources.

OCC's Residential Road Design Guide (2003) second edition (2015)

Car parking Standards

2.11 Oxfordshire's most recent parking standards were adopted in December 2011. It states that destination parking has a greater effect on vehicle trips than residential parking, but that location does have an impact on car use, with the urban areas of Cherwell and Oxford having lower car ownership.

2.12 It provides guidance on the design of parking spaces including on-street and off-street layouts, parking for the mobility impaired, garages, parking courts, and minimising parking on the footway.

2.13 Appendix B of the guidance provides the standards for residential developments in Cherwell Urban Areas. **Tables 2.1, 2.2** and **2.3** outline the parking standards. **Table 2.1** indicates the maximum level of unallocated parking that is allowed if each residential unit has the maximum number (two) of parking spaces allowed.

Table 2.1: Parking standards for development with maximum (2) allocated spaces

No of Beds per dwelling	Allocated	Unallocated
1	1	0.3
2	2	0.3
2/3	2	0.3
3	2	0.3
3/4	2	0.4
4	2	0.5

2.14 **Table 2.2** indicates the maximum level of unallocated parking that is allowed if each residential unit has only one allocated parking space.

Table 2.2 Parking standards for development with 1 allocated parking space

No of Beds per dwelling	Allocated	Unallocated
1	1	0.4
2	1	0.6
2/3	1	0.7
3	1	0.8
3/4	1	1.0
4	1	1.3

2.15 **Table 2.3** indicates the maximum level of parking allowed if none of the parking spaces are allocated to each residential unit.

Table 2.3: Parking standards for development with 100% unallocated spaces

No of Beds per dwelling	Unallocated
1	1.2
2	1.4
2/3	1.5
3	1.7
3/4	1.9
4	2.2

2.16 Regarding the level of parking for mobility impaired spaces should be within the curtilage of the property, or at the very least within 50m of the dwelling entrance. For flats with unallocated parking with an unknown level of mobility impaired residents then 5% of spaces should be allocated for their use. Bays should conform to the BS8300:2009 and the parking space be marked with a British Standard Disabled symbol.

Cycle Parking Standards

2.17 The Movement Strategy – Cycling section of OCC's Residential Design Guide contains the relevant cycle parking standards required for new development. **Table 2.4** identifies OCC's minimum cycle parking standards:

Table 2.4: Cycle parking minimum standards for residential development

Bedrooms	No of Cycle Spaces
1 Bed	1 Space
2+ Beds	2 Spaces
Visitor	1 stand per 2 units where more than 4 units

- Garages must include space for cycle parking
- 1 stand = 2 spaces (Sheffield type stands are preferred)
- All cycle parking to be located in convenient locations
- Residential visitor parking to be provided as communal parking at convenient and appropriate locations.

Oxfordshire County Council Transport for New Developments: Transport Assessments and Travel Plans 2014

2.18 The Transport for New Developments: Transport Assessments and Travel Plans provide guidance on when a transport assessment and travel plans are required to support new development and the typical information that should be included within those documents. This is largely in line with the now cancelled DCLG / DfT publication, Guidance on Transport Assessments (2007).

LOCAL POLICY

Cherwell Local Plan 2011-2031 Part 1 2015

2.19 Underpinning the Local Plan is a vision and a spatial strategy for Cherwell District. The spatial strategy for the Council will manage the growth of the District can be summarised as:

- Focusing the bulk of the proposed growth in and around Bicester and Banbury.
- Limiting growth in the rural areas and directing it towards larger and more sustainable villages.
- Aiming to strictly control development in open countryside

2.20 The District faces some critical challenges over the next two decades including:

- remaining economically competitive
- ensuring housing growth only takes place in appropriate locations
- avoiding sprawl and ensuring growth avoids adverse environmental impacts

- ensuring the changing needs of the population are properly planned for
- reducing the high cost of energy use
- ensuring that infrastructure needs are met.

2.21 The Local Plan assesses Banbury in Section C.3 and states that Banbury is the District's largest town with its own sub-region. Banbury is expected to see significant continued growth over the period of the Local Plan. Whilst most employment and housing growth will take place on the edge of the town, the Plan seeks to also take active steps to strengthen the town centre. The town centre of Banbury will adapt and evolve to meet the new growth and changing needs, demands and patterns of activity.

2.22 One of Banbury's key environmental challenges is the need to manage traffic congestion and to provide more opportunities to travel using more sustainable modes improving footpaths and cycle ways to encourage walking and cycling.

2.23 Policy Banbury 4: Bankside Phase 2 covers the Proposed Development Site. A Phase 2 development in this area would enable the consolidation of new infrastructure such as school provision, sport facilities and public open space together with the Phase 1 scheme. Land adjacent to the site would also be available to provide a new football ground for Banbury United to replace the existing ground which would be redeveloped as part of the proposals for Canalside (Policy Banbury 1: Banbury Canalside). This would provide the potential for some joint sharing of facilities such as car parks with the Banbury Rugby Club already located off Oxford Road at Bodicote.

2.24 Policy Banbury 4 states that a Transport Assessment and Travel Plan is required to accompany development proposals.

2.25 Policy SLE4 – Improved Transport and Connections states that:

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

We will support key transport proposals including:

- *Transport Improvements at Banbury and Bicester in accordance with the County Council's Local*
- *Transport Plan and Movement Studies.*
- *Projects associated with East-West rail including new stations at Bicester Town and Water Eaton*
- *Rail freight associated development*
- *Improvements to M40 junctions*

2.26 Policy INF1 – Infrastructure states that:

- *The Council's approach to infrastructure planning in the District will identify the infrastructure required to meet the District's growth, to support the strategic site allocations and to ensure delivery by:*

"Development proposals will be required to demonstrate that infrastructure requirements can be met including the provision of transport, education, health, social and community facilities."

Cherwell Local Plan (Adopted January 1996)

2.27 Policies within the adopted Local Plan (1996) comprise saved policies (27 September 2007) that have not been replaced by policies within the Adopted Cherwell Local Plan 2011-2031 (Part 1). The saved policies remain until they are replaced by Local Plan Part 2 which is under preparation. Two policies of relevance to the development proposal (TR1 and TR7) were saved.

2.28 Policy TR1 focuses on transportation funding and states that:
"before proposals for development are permitted the council will require to be satisfied that new highways, highway improvement works, traffic-management measures, additional public transport facilities or other transport measures that would be required as a consequence of allowing the development to proceed will be provided."

2.29 Policy TR7 relates to not providing accesses onto unsuitable minor roads:
"Development that would regularly attract large commercial vehicles or large numbers of cars onto unsuitable minor roads will not normally be permitted."

Draft Cherwell Local Plan 2011-2031 Part 2 Development Management Policies and Sites: Issues Paper January 2016

2.30 Part 2 of the Plan will contain detailed planning policies to assist the implementation of strategic policies and the development management process. It will also identify smaller, non-strategic development sites for housing, employment, open space and recreation, travelling communities and other land uses, in accordance with the overall development strategy set out in Local Plan Part 1.

2.31 Question 20 of the Paper asks whether there is a need for Local Plan Part 2 to include policies on parking, including cycle parking and what issues should parking provision cover.

The Non-Statutory Cherwell Local Plan 2011

2.32 The Non-Statutory Cherwell Local Plan 2011 was originally the Cherwell Local Plan 2011. However, Cherwell District Council decided to discontinue work on this plan in December 2004. The plan does not have development plan status, however, will be used as a material consideration (amongst all other relevant considerations) in determining planning applications.

Cherwell District Council Planning and Waste Management Design Advice 2009

2.33 The planning and waste management guidance requires

- 1x 240 litre wheeled bin for dry recyclables.
- 1x 240 litre bin for garden waste and food waste
- 1 x 240 litre bin for residual waste

2.34 For new developments, it is strongly recommended that developers supply a collection point space large enough for several containers for each waste service. Larger properties should have additional space provided to account for larger containers that may be required.

2.35 Each new household will require an equivalent area of three 240 litre wheeled bins. These containers, or their current contemporaries, will only be collected from the front of the property adjacent to the public highway. Where there are steps on the property special

considerations should be made in regards to moving the bins on and off the property. Smaller bins are available for small families and elderly people.

2.36 It is recommended that an area is provided close to the kitchen area to house the waste containers whist waiting for the collection day. If the containers are stored to the rear of the property, there should be either side access or a rear service path to allow containers to be brought to the front of the property. Distance and physical capabilities of the expected residents should be considered when designing this solution. Under no circumstances should waste containers be expected to be carried or wheeled through a property.

2.37 For developments of over 10 dwellings, the bins should be bought and available by the developer for the residents, under 106 Agreements.

Policy Compliance

2.38 In terms of compliance with the identified policies, this TA identifies that the site is well located in terms of access to social infrastructure and benefits from being served by existing bus routes, ensuring residents are not wholly reliant on travel by private car to/from the site. Bankside Phase 2 is located within acceptable walking and cycling distance for sustainable links between Banbury and the Site as well as local facilities to reduce single occupancy vehicle trips. The TA will quantify the trip generation associated with the scale of the development and assess the impact of this additional traffic on areas of the local highway network as well as committed development impacts.

3.0 EXISTING CONDITIONS

3.1 This section of the TA describes the existing site accessibility and transport infrastructure and baseline conditions on the local highway network near the Site.

LOCAL HIGHWAY NETWORK

3.2 The A4260 Oxford Road runs along the western boundary of the site and is approximately 7.3m wide, with a single traffic lane in either direction. The A4260 forms a key radial route into Banbury from the south. A 40mph speed limit is in force along Oxford Road near the site which increases to the national limit to the south of Bodicote Park. Travelling into Banbury the speed limit reduces to 30mph just before the Hawthorns Junction with Oxford Road.

3.3 The southern limit of the area that is covered by this assessment is the Oxford Road / Aynho Road junction, located approximately 2.3km south of the development site. This junction is a four armed signal control junction near the centre of Adderbury. The main three arms of the junction are Oxford Road and Aynho Road, with a fourth arm serving to access some existing private dwellings. Traffic flows associated with this fourth arm are very low and the signal stage is only called when needed.

3.4 Some 1.2km to the north of this junction is a priority junction between Oxford Road and Twyford Road that also forms part of this assessment.

3.5 To the west of the site on Oxford Road is the signal controlled junction between Oxford Road, Weeping Cross and the access to Longford Park. North of this junction on Oxford Road on street parking along the western side of the carriageway commences and widens the carriageway to 9.0m as far as Broad Gap.

3.6 To the north of Broad Gap the road Oxford Road continues at a width of approximately 7.3m. Minor residential side roads are located along the route and a pelican crossing is located to the south of the junction of Mayfield Road. Progressing north past Bankside, Oxford Road becomes more urban, with development fronting both sides of the road.

3.7 The Oxford Road continues in a northerly direction with a proliferation of traffic signal controlled junctions at the Farmfield Road/Sainsbury's Access, Hightown Road/Horton View, Upper Windsor Street, and Bloxham Road.

Bankside Phase 1 – Highway Network Improvements

3.8 As part of the Bankside Phase 1 development (now named Longford Park) the following junction improvements on Oxford Road were consented:

- The junction with Weeping Cross is to be signal controlled and linked to the signal controlled site access a short distance to the north. This has now been implemented.
- The three signal controlled junctions between Farmfield Road and Upper Windsor Street are improved by the widening of Oxford Road to provide two northbound through lanes.
- Oxford Road / Bloxham Road signals are improved by the alteration of the Bloxham Road approach to split left and right turning traffic.

3.9 In addition, further improvements to the Farmfield Road / Oxford Road signals have been proposed by Sainsbury's as part of their proposals to extend their store. These involved re-alignments to the Sainsbury's access arm and altering the signal staging to allow both the Sainsbury's and Farmfield Road approaches to operate in the same signal stage. The drawings of these improvements are included as **Appendix B**.

WALKING AND CYCLING

Pedestrian Infrastructure

3.10 A footway is provided on the western side of Oxford Road, from the settlement of Twyford in the south, past the Site and into the centre of Banbury. The footway on the eastern side of Oxford Road starts at Canal Lane, opposite Broad Gap and continues northwards into the town centre.

3.11 There will be a network of pedestrian routes through that Site that connect to Bankside Phase 1 to the north. A new controlled crossing facility is to be provided as part of the Bankside Phase 1 development at the Weeping Cross junction which will allow existing residents to access the new local centre and primary school to be provided within the development Site.

3.12 Banbury town centre is approximately 3.6km from the Site, and this is more than the recommended acceptable walking distances to shops, local facilities and for commuting purposes as outlined in the CIHT Providing for Journeys on Foot Guidance 2000. There would be limited walk trips from the site to the town centre. Walking in the area would be mostly to local facilities that are to be provided as part of Bankside Phase 1, including a new local centre, primary school and employment uses. It is likely that most other walk trips would be for recreational purposes, using the routes through Bankside Phase 1 to reach the public open space associated with that scheme and the canal side towpath.

Public Rights of Way

3.13 A public footpath runs across the site, in an east-west direction from Oxford Road, along the northern boundary of Bodicote Park to the M40 motorway, before running south alongside the motorway. It then crosses over Twyford Road and heads to Kemps Farm, before joining the public bridleway back to Walton Avenue and ending at Oxford Road just to the north of Adderbury.

3.14 A public bridleway, which allows pedestrians and cyclists, runs from Oxford Road along Canal Lane before joining the Jurassic Way, where it crosses the canal and heads towards Warkworth and Overthorpe. The Jurassic Way is an 88 mile walk from Banbury to Stamford. The public footpath then continues alongside the canal travelling south into Oxford. **Figure 3.1** shows the public rights of way in the vicinity of the site.

Cycling Infrastructure

3.15 Cycling from the proposed development into the centre of Banbury could be achieved via Bankside Phase 1 and then Bankside or Oxford Road. To prevent excessive vehicle speeds Bankside is traffic calmed with a system of priority chicane build outs which extend between Oxford Road and the southern end of Swan Close Road. At each build out, there is a cycle bypass with a short length of advisory cycle lane on the approach side. The cycle route along Bankside which connects Oxford Road to Banbury Station forms part of the official on-road link to National Cycle Route 5. The chicane arrangement still allows a bus service to be maintained along Bankside.

3.16 For cyclists travelling via Oxford Road there is an advisory on-road cycle lane on the both sides of Oxford Road extending to Banbury Town Centre which commences approximately 700m north of the Weeping Cross junction. At Sainsbury's, the cycle route becomes off road and a shared facility has been provided on the eastern side of Oxford Road.

3.17 National Cycle Route 5 is located at White Post Lane which is 1.3km north west of the Site. The NCN route 5 forms part of a wider connection of cycle routes which links Stratford to Oxford.

3.18 The canal side towpath to the north east of the Site is highlighted as a public footpath within Oxfordshire's Public Rights of Way, although the Canal and River Trust do encourage cycling. The canal towpath has been identified as a possible addition to the SUSTRANS National cycle route from the town centre extending southwards towards Oxford. This arrangement would also include provision for a link from the canal side across the College Fields site using Canal Lane to link with Oxford Road.

A well-established cycling network is evident north of Banbury Railway Station which gives access to the industrial and employment area at Grimsbury. This is being progressively linked through to the town centre. The local cycle routes and 5km isochrone representing a distance that can be reasonably achieved by cycling is shown on **Figure 3.2.**

3.19 As the urban area extends away from the Cherwell Valley towards the west, the terrain becomes hillier and the potential for significant cycle use diminishes.

Bankside Phase 1 – Cycling Improvements

3.20 The Bankside Phase 1 scheme is currently under construction and as part of the approval several cycling improvements were proposed which will be implemented.

3.21 An off-road route within the site parallel to Oxford Road was proposed under the Bankside Phase 1 scheme so that cyclists could use the existing on-road cycle route north of Broad Gap. It was also proposed to introduce a 40-mph speed restriction on Oxford Road where on-road routes are in place.

3.22 An off-road cycleway within the development site for most of its length to the south of Bankside was proposed. A connection between this and the Oxford Road route was also to be provided.

3.23 Only a relatively short distance north of Bankside, the proposed station improvements will allow a more direct connection to the station and town centre from the site.

3.24 A new Toucan crossing facility near Broad Gap was proposed to provide a safe crossing point. The internal cycle links from the phase 1 site would also focus pedestrian and cyclists to this crossing point.

TRIP ATTRACTORS

3.25 To assess the potential for future residents to walk and cycle to different trip attractors in the area, walking and cycling distances have been measured commencing from the centre of the development area. These can be seen in **Figure 3.3**.

3.26 **Table 3.1** shows the distance from the centre of the Site to the main local trip attractors. Walk distances of up to 2km are considered reasonable, whilst 5km represents a reasonable distance for cycle trips.

3.27 The Bankside Phase 1 development includes several non-residential uses focused around a new local centre. As a result, retail, employment, community facilities and a primary school will be located well within the 1km walking distance from the local centre as shown in **Figure 3.3**.

Table 3.1: Approximate Walk Distances to Trip Attractors

Site Reference	Destination	Distance (KM)	Attractor
1	Windsor Street Industrial Area	3.1	Employment
2	Town Centre	3.3	Retail, Shopping, Leisure
3	Rail Station	3.3	Public Transport
4	Tramway Road	3.2	Employment
5	Sainsbury's	2.5	Shopping, Employment
6	Co-operative	2.3	Shopping
7	Hospital	3.0	Healthcare, Employment
8	Hightown Surgery	2.8	Healthcare, Employment
9	Cherwell Heights Dental Care	2.3	Healthcare, Employment
10	Banbury Academy	3.3	Education, Employment
11	Bishop Loveday C of E Primary School	1.75	Education, Employment
12	Saltway Day Nursery	1.6	Education, Employment
13	Blessed George Napier School	3.1	Education, Employment
14	Timms Road Shops	2.6	Retail, Shops, Employment
15	Bodicote Park	0.5	Leisure
16	Bannatyne's Health Club	0.4	Leisure, Employment
17	Cherwell DC Offices	1.7	Public Services, Employment
18	Bankside Phase 1 Local Centre (including Primary School)	0.7	Shopping, Education, Employment

Public Transport

Bus provision

3.28 The nearest bus stops are located on Oxford Road near to the junction of Weeping Cross approximately 390m from the Site. The southbound stop opposite Weeping has a flag on an existing road sign to indicate the stop. The northbound stop being approximately 500m from the Site to the north of the junction and consists of a pole and flag and a timetable. These stops serve the 499, and the S4 bus routes

3.29 A third bus stop exists on Weeping Cross approximately 300m west of the junction with Oxford Road. A bus shelter exists with a pole and timetable and this stop serves the B3 bus route.

3.30 There are three bus routes that currently pass near to the development area. Route 499 is supported by Northamptonshire County Council and routes S4 and B3 routes are

operated by Stagecoach on a commercial basis. **Figure 3.4** shows these routes in relation to the development area.

3.31 Routes 499 operates between Brackley and Banbury and the S4 operates between Oxford and Kidlington with both routes travelling along Oxford Road. Route B3 operates from High Street Bodicote, around Bankside to the north of the Site to Banbury Town Centre.

3.32 The details and frequencies of these routes are shown in **Table 3.2.**

Table 3.2: Banbury Bus Services

Bus Route	Route	Frequency (minutes)		
		Weekday	Saturday	Sunday
499	Banbury – Kings Sutton – Brackley	6 per day	6 per day	No service
S4	Oxford- Banbury	every hour	Every hour	4 per day
B3	Banbury – Bodicote – Longford Park	Every 30 min	Every 30 min	No service

Bankside Phase 1 – Public transport Improvements

3.33 Bus mitigation to serve the Bankside Phase 1 development was discussed at length with Oxfordshire County Council during the application stage. These discussions were centred on the B1/B2 bus services that operated at that time. Under the planning permission a financial contribution of £2,280,000 was provided to OCC for the improvement of bus infrastructure in the Banbury Area and provision of bus services serving Bankside Phase 1. Since the Phase 1 application was consented, the B2 service now provides Bodicote with a half hourly service to the town centre, and it is understood that this may be diverted into the Phase 1 site, following occupation.

Rail provision

3.34 Banbury railway station is located on Station Approach, off Bridge Street/Middleton Road approximately 2.8km from the Site. There are pick up/set down facilities with short period car parking at the front of the station concourse, and a taxi rank to the side.

3.35 A new car park opened in June 2014 for 707 spaces off Higham Way which included drop off facilities, cycle storage and a new footbridge which links directly into Banbury Station.

This was one of the improvements identified by the Banbury Area Strategy and funded by the Department for Transport.

3.36 Banbury station has also undergone improvements with a larger ticket office, covered walkway, information point and a larger café. Rail services through Banbury are operated by Chiltern Railways between London Marylebone and Birmingham Snow Hill and CrossCountry operate country wide services northwards through Birmingham New Street to reach Liverpool, Manchester, Glasgow, Newcastle and Edinburgh and; southwards through Oxford and Reading to reach London and the South Coast at Bournemouth and Poole. A more limited service is operated by First Great Western between London (Paddington), Reading, Oxford and Banbury.

3.37 **Table 3.3** below provides a summary of the frequency of trains to selected destinations.

Table 3.3: Summary of Train Frequency's to Selected Destinations

Destination	Provider	Weekday Peak Hours	Weekend	Duration of Journey (Approximately)
Newcastle	CrossCountry	1	1	4 hrs 10 mins
Manchester	CrossCountry	2	2	2 hrs 30 mins
Birmingham New Street	CrossCountry	5	5	52min – 1h 14
Birmingham Snow Hill	Chiltern Railways	4	4	1 hr
Birmingham Moor Street	Chiltern Railways	4	4	50 mins
Kidderminster	Chiltern Railways	3	3	35 mins
Oxford	Great Western	2	2	18-30 min
Reading	CrossCountry	3	2-3	43min – 1h 22
Guildford	CrossCountry	2	2	1 hr 42 mins
London Marylebone	Chiltern Railways	2	2	52 mins
Bournemouth	CrossCountry	1	1	2 hrs 11 mins

3.38 Bus routes 499 and the B2 all stop on Swan Close Road within approximately 550m of the Rail Station, with the 499 and B2 running at appropriate times for commuter journeys in both the morning and the evening.

COLLISION ANALYSIS

3.39 Accident data for a 5 year period from 1st January 2011 to 30th September 2016 within the study area as shown in **Figure 3.5**. The study area encompasses Cherwell Street/Bridge Street to Horsefair/South Bar and Springfield Avenue to the north of the site within Banbury Town Centre, to, Aynho Road along Oxford Road to the south of the Site.

3.40 A total of 129 personal injury accidents occurred during this period, of these 99 resulted in slight injuries and 30 serious injuries. There were no fatalities over the study period. There were 47 accidents involving pedestrians and cyclists. There are on average 23 collisions a year using the data between 2011 to 2015 for the full survey years available. The range of collisions per year is between 17-27 which highlights a consistent level.

3.41 There are several junctions within the Collision Study Area where there has been a cluster of collisions, these junctions have been examined in more detail.

A4260/Bridge Street

3.42 There have been 7 collisions recorded within the study period at this junction with an even split of serious and slight collisions. Of these collisions 5 involved pedestrian and vehicles due to the failure of vehicles to view pedestrians and improper use of the crossing facilities. The two vehicle-vehicle collisions were because of drivers failing to look and disobeying the give-way markings within the junction. The number of collisions over the 5-year period does not raise any significant concerns in relation to the Proposed Development.

Banbury Cross

3.43 There have been 20 PIAs recorded at or near the Banbury Cross roundabout of which 4 have been serious and 16 slight. The main factors appear to be drivers failing to look properly and give way and improper use of the crossings by pedestrians. There were 8 collisions that involved cyclists and pedestrians. From reviewing the nature of the collisions most can be attributed to pedestrian, cyclist and driver behaviour and the data does not raise any significant issues in relation to the Proposed Development.

St Johns Road/Oxford Road/Bloxham Road

3.44 There are four PIAs recorded at this junction relating to pedestrians improperly crossing Oxford Road/Bloxham Road and rear end shunts at the traffic signals. The causation factors and number of collisions do not raise any serious issues in relation to the Proposed Development and are common for signal controlled junctions.

Queensway/A361

3.45 There have been 7 slight PIAs at this junction which are all related to drivers failing to give way or not looking properly. The collisions appear to be attributed to the layout of the junction which is split for eastbound and westbound traffic. The collision data does not raise any significant concerns in relation to the Proposed Development.

Hightown Road/A4260

3.46 There have been three PIAs at this junction with one being serious, however, the causation factors are missing from the collision data records. The two slight collisions are attributed to drivers failing to look properly at oncoming vehicles when turning right from the A4260. Therefore these collisions do not raise any significant issues.

Oxford Road

3.47 Along the section of Oxford Road from the Hightown Road junction to Aynho Road junction there are approximately 33 PIAs spread along Oxford Road with 7 serious and the remainder all slight. These collisions are a mixture of aggressive driving, excessive speeds and drivers failing to look properly all attributed to driver behaviour. The serious PIAs related to vehicles colliding to avoid an ambulance, an intoxicated pedestrian and an LGV colliding with a taxi due to excessive speed. No issues are raised from a detailed assessment of the collision data along Oxford Road near the Site.

TRAFFIC ANALYSIS

3.48 The Consultation Response from OCC indicates that the following junctions require examination to determine the impact of these development proposals on their performance:

- High Street / South Bar Street / West Bar Street Roundabout
- Oxford Road / Bloxham Road Signals

- Oxford Road / Upper Windsor Street Signals
- Oxford Road / Horton View Signals
- Oxford Road / Hightown Road Signals
- Oxford Road / Farmfield Road / Sainsburys Signals
- Cherwell Street / Bridge Street / Concord Avenue Signals
- Upper Windsor Street / Swan Close
- Bloxham Road / Queensway Priority Junction
- Bloxham Road / Springfield Avenue Priority Junction
- Oxford Road / Bankside Slip-Roads
- Bankside / Bankside Phase 1 Roundabout
- Bankside / Hightown Road Priority Junction
- Oxford Road / Weeping Cross / Bankside Phase 1 Signals
- Oxford Road / Twyford Road Priority Junction
- Oxford Road / Aynho Road Signals

3.49 The locations of each of these junctions can be seen in **Figure 3.6**. Manual classified counts undertaken at all of the junctions except Upper Windsor Street / Swan Close and Bankside / Hightown Road during weekday peak periods in September 2016. The full output of these are available on request, with **Figures 3.7** and **3.8** summarising the AM and PM peak hour flows.

3.50 Each of the junctions (apart from the two exceptions noted in para 3.49) have been modelled using these observed traffic flows and industry standard software appropriate for the junction type (ie. ARCADY, PICADY and LINSIG). The main outputs used to assess how the junctions are performing are the Ratio of Flow to Capacity (RFC), Degree of Saturation and Queue lengths. Priority junctions and roundabouts with an RFC of less than 0.85 are demonstrated to be operating within their practical capacity and little or no queuing would be expected, whereas a Degree of Saturation of less than 90% demonstrates the same for signal controlled junctions. RFC's between 0.85 and 1.0 (or Degrees of Saturations between 90% and 100%) show that the junction is beginning to approach theoretical capacity and some queuing would be expected. RFC's over 1.0 and Degrees of Saturation over 100% show that flows at the junction are exceeding its theoretical capacity and more extensive queuing would begin to be experienced.

3.51 **Appendix C** provides a summary of the results for each of the junctions assessed, whilst **Appendices D to M** include the full model outputs. **Table 3.4** summarises the performance at the worst performing arm of each of the junctions assessed.

Table 3.4: Summary of Junction Performance – 2016 Flows

Junction / Arm	AM Peak		PM Peak	
	RFC / DoS	Queue (PCU)	RFC / DoS	Queue (PCU)
High Street / South Bar Street / West Bar Street Roundabout	0.65	2	0.58	1.5
Oxford Road Signal Corridor	89.4	14.4	115.0	78.4
Cherwell Street / Bridge Street / Concord Avenue Signals	93.1	21.6	96.1	22.4
Bloxham Road / Queensway Priority Junction	0.98	11.1	1.01	13.3
Bloxham Road / Springfield Avenue Priority Junction	0.70	2.3	0.93	7.5
Oxford Road / Bankside Slip-Roads	0.39	0.7	0.42	0.8
Bankside / Bankside Phase 1 Roundabout	0.51	1.1	0.44	0.9
Oxford Road / Weeping Cross / Bankside Phase 1 Signals	64.9	12.3	72.2	17.9
Oxford Road / Twyford Road Priority Junction	0.46	0.9	0.51	1.1
Oxford Road / Aynho Road Signals	107.3	37.6	103.8	36.3

3.52 In summary:

- High St / South Bar St / West Bar St roundabout, Oxford Road / Bankside Road slip roads, Bankside Phase 1 roundabout, Weeping Cross / Bankside Phase 1 signals and the Oxford Road / Twyford Road priority junction all operate within capacity under 2016 traffic flows;
- The Oxford Road signal corridor operates close to capacity in the AM peak and is over-capacity in the PM peak;

- Both the Queensway and Springfield Avenue junctions with Bloxham Road are experiencing peak period capacity issues; and
- The Oxford Road / Aynho Road signals are over-capacity with degrees of saturation in excess of 100% in both peaks.

4.0 DEVELOPMENT PROPOSALS

4.1 The outline planning application is for up to 850 residential dwellings. The proposed master plan layout can be found in **Appendix N**.

4.2 Access to the site will be via:

- the road network that is being provided as part of the Bankside Phase 1 development; and
- a new signal controlled junction with Banbury Road at the southern edge of the allocated BAN12 site.

4.3 Two vehicle routes within Phase 1 abut the boundary of the Bankside Phase 2 site and will be extended to serve the development. Access onto the wider road network from these connections will therefore be via the signal junction with Oxford Road and roundabout with Bankside that are provided as part of the Phase 1 development. Capacity analysis of these junctions is included in **Sections 6 and 7** of this Transport Assessment.

4.4 Assessment of the capacity of the proposed new site access is discussed in the following paragraphs

New Site Access with Banbury Road

4.5 A new site access junction and route through the BAN12 site will be provided as part of the development proposals. The access junction is proposed to take the form of a signal controlled junction as shown in Drg No 16052-01-124 Rev A. Capacity assessment of this utilising the SATURN model flows for 2026 and 2031 with development scenarios has been carried out to ensure that the layout is adequate for the anticipated traffic flows. The full results of this model can be seen in **Appendix O** and the results are summarised in **Tables 4.1** and **4.2**.

Table 4.1: Southern Site Access Signals – 2026 with Development

Junction / Arm	AM Peak		PM Peak	
	Deg Sat (%)	Mean Max Queue	Deg Sat (%)	Mean Max Queue
Banbury Road North	71.7 : 71.7%	8.6	62.4 : 62.4%	7.0
Site Access	13.3%	0.6	4.1%	0.2
Banbury Road South	62.7 : 62.7%	11.8	78.3 : 78.3%	19.2

Table 4.2: Southern Site Access Signals – 2031 with Development

Junction / Arm	AM Peak		PM Peak	
	Deg Sat (%)	Mean Max Queue	Deg Sat (%)	Mean Max Queue
Banbury Road North	82.9 : 82.9%	14.6	65.0 : 65.0%	7.4
Site Access	32.5%	1.5	10.4%	0.5
Banbury Road South	66.6 : 66.6%	13.1	84.6 : 84.6%	23.8

4.6 It can be seen that the proposed layout operates well within capacity under the predicted traffic flows, with degrees of saturation below 90%.

4.7 It should also be noted that there is the potential that some development may take place on the site prior to the completion of the new access onto Banbury Road. In order to assess the ability of the existing Longford Park access junction to accommodate traffic from an initial 450 units, we have assessed the operation of the Oxford Road / Weeping Cross / Longford Park signals under 2026 conditions, transferring the entry and exit flows at the new site access to this junction. **Table 4.3** summarises the performance of the junction under these conditions.

Table 4.3: Oxford Road / Weeping Cross / Bankside Phase 1 Signals – 2026 with Dev Flows and No Southern Access

Junction / Arm	AM Peak		PM Peak	
	Deg Sat (%)	Mean Max Queue	Deg Sat (%)	Mean Max Queue
J1 : Oxford Road / Site Access				
Oxford Road North Ahead Left (1/2 + 1/1)	73.4%:73.4%	18.0	61.8%:61.8%	11.0
Oxford Road South Ahead (2/1)	37.9%	1.6	42.7%	2.0
Oxford Road South Ahead Right (2/2)	38.8%	1.8	43.9%	2.2
Site Access (3/1)	78.0%	7.1	23.3%	1.1
J2 : Oxford Road / Weeping Cross				
Oxford Road North Ahead (1/1)	38.0%	2.2	32.8%	1.8
Oxford Road North Ahead Right (1/2)	43.6%	2.5	35.7%	2.1
Weeping Cross (2/1)	26.6%	2.1	10.2%	0.5
Oxford Road South Ahead Left (3/2 + 3/1)	69.9%:69.9%	14.8	79.9%:79.9%	21.4

4.8 It can be seen that the existing signal junction with Oxford Road serving the Longford Park development has sufficient capacity to accommodate the traffic flows the SATURN model predicts would utilise the new southern access with 450 units in place. This demonstrates that there is the potential to develop a significant proportion of the site in advance of the new access being completed.

Parking Provision

4.9 The level of parking to be provided will be confirmed in the reserved matters application, but the intention is that it will be in accordance with the adopted parking guidance.

Cycle Parking Provision

4.10 The level of cycle parking to be provided will be confirmed in the relevant reserved matters application, but the intention is that provision will be in accordance with the adopted parking guidance.

Accommodating Buses within Proposed Development Site

4.11 The Bankside Phase 1 master plan allows for a bus route through the site. The bus route will be extended into the Phase 2 site and appropriate facilities will be incorporated into the detailed design to travel through the site. At this outline master plan stage it is not possible to design the specific facilities required for buses. However, as the project progresses and the internal site layout is designed in more detail the following principles will be taken into consideration:

- The route that the bus follows will be reasonably direct in order to avoid excessive journey times and will be 6.5m wide;
- Bus stops will be provided with raised kerbs to enable access for people with disabilities;
- If the development is phased the design will allow for buses to access the site as early as possible, with the provision of temporary turning facilities if necessary.

5.0 SATURN MODELLING

The Banbury Transport Model

5.1 The impact of the proposed growth of Banbury over the period up until 2031 on the highway infrastructure of the town was covered in some detail at the Modifications to the Cherwell Local Plan Examination in Public (EiP). Particular issues were identified in the central area of Banbury and at the north eastern edge of the town near to the M40. The transport modelling that supported the evidence base for the EiP was carried out using the Saturn suite of programmes for just the AM peak period.

5.2 Following on from the EiP, further assessment work of different highway infrastructure options for the town was undertaken utilising this model, as well as a PM peak model that had also been development. The assessment work identified that the model lacked sufficient detail to properly reflect current conditions. As a result, a fit for purpose small scale update of the model has been carried out to create a 2017 base year model that reflects conditions on the road more accurately for both AM and PM peak hours.

5.3 The Local Model Validation Report for the Banbury Transport Model can be seen in **Appendix P**.

5.4 The validated 2017 base Saturn model has then been used to forecast traffic conditions in 2021, 2026 and 2031. In creating the future year models, anticipated changes to highway infrastructure have to be taken into account. The forecast changes to the network that are included in the model are:

- Signals at the eastern end of the A422 Hennef Way at Junction 11 for central and right hand lane;
- Pedestrian crossing on the A4260 near Canal Lane
- Bankside / Hightown Road signalisation
- A4260 / Horton View improvements
- Oxford Road / Bloxham Road improvements
- Tramway Road accessibility scheme
- Castle Quay S278 schemes
- South of Salt Way Spine Road (2026 onwards)

5.5 As well as changes to highway infrastructure, the future year models also allow for the effect of future development on traffic flows to create baseline traffic flows for the 2021, 2026 and 2031 scenarios. Local Plan development data has been used as the baseline for these assumptions and these can be seen in **Appendix Q**.

5.6 Trips associated with these forecast developments were assigned to either an existing zone within the model or a new zone was created specifically for it. As a separate exercise the 2017 base trip matrices were factored up to the model years using a combination of TEMPRO and DfT Road Traffic Forecasts 2015 (from the National Trip End Model).

5.7 The committed development matrices were then factored to TEMPRO / NTM growth in such a way that if the committed development trips for a cell exceeded the TEMPRO / NTM growth then the committed development trips were preserved. If the TEMPRO / NTM growth exceeded the committed development trips then the TEMPRO / NTM factor was used. The overall TEMPRO / NTM growthed cells in the matrix were adjusted down in necessary to constrain the overall matrix growth to TEMPRO / NTM. The final trip matrices were then assigned to the highway networks using the same equilibrium assignment approach applied in the 2017 base model.

5.8 Further details of the forecasting process are available in the Banbury Transport Model Update Future Year Forecasting Report attached as **Appendix Q**.

Saturn Model Brief for BAN4 Development

5.9 The Banbury Transport Model already includes assumptions for development on the BAN4 and BAN12 sites as these are allocated for development within the Cherwell Local Plan. For the BAN4 site, the model assumes that 50 dwellings are complete and occupied by 2021, 550 by 2026 and 600 by 2031. For BAN12 it is assumed that a 600 place secondary school is occupied on the site by 2031 (but not at 2026).

5.10 The Brief to OCC's modelling consultants for the Saturn modelling exercise associated with this application for redevelopment of BAN4 was as follows:

- A 2026 Baseline Scenario for both AM and PM peaks was to be created with all residential development removed from site BAN4 and a 600 place secondary school located on BAN12 to be introduced.
- A 2026 With Development Scenario for both AM and PM peaks was to be created introducing 450 residential units on the BAN4 site and a 600 place secondary school on the BAN12 site.
- A 2031 Baseline Scenario for both AM and PM peaks was to be created with all residential development removed from site BAN4 and a 600 place secondary school located on BAN12 to be introduced.
- A 2031 With Development Scenario for both AM and PM peaks was to be created introducing 900 residential units on the BAN4 site and a 600 place secondary school on the BAN12 site.

5.11 Access assumptions for the development proposal were that access would be available through the existing Longford Park development and a new access would be provided from the BAN12 site that also connects into BAN4. This would take the form of a signal controlled junction with Banbury Road.

Model Results

5.12 The junction turning flows, flow over capacity ratios and estimated delays for each of the model scenarios at each of the junction listed in Section 3 and the site access points were provided by OCC's consultant. These can be seen in **Appendix R**.

5.13 The traffic flow data has been summarised in turning flow diagrams for each of the Scenarios and time periods modelled. These can be seen in **Figures 5.1** to **5.8**.

6.0 TRAFFIC IMPACT

6.1 To access the impact of the traffic generated by the development, each of the junctions examined in Section 3 have been re-tested utilising the traffic flows from the Saturn modelling exercise. Where committed development proposals have included alterations to these junctions these alterations are incorporated into the models.

High Street / South Bar Street / West Bar Street Roundabout

6.2 Re-running the ARCADY model using 2026 and 2031 traffic flows gives the results shown in **Tables 6.1** to **6.4** and provided in full in **Appendix D**.

Table 6.1: Horse Fair/ High Street/ South Bar – 2026 Baseline Flows

Junction / Arm	AM Peak		PM Peak	
	RFC	Queue (PCU)	RFC	Queue (PCU)
Horse Fair	0.75	3	0.73	2.7
High Street	0.42	0.7	0.78	3.4
South Bar Street	0.50	1	0.65	1.9
West Bar Street	0.63	2	0.45	0.9

Table 6.2 : Horse Fair/ High Street/ South Bar – 2026 With Development Flows

Junction / Arm	AM Peak		PM Peak	
	RFC	Queue (PCU)	RFC	Queue (PCU)
Horse Fair	0.76	3.2	0.73	2.8
High Street	0.36	0.6	0.66	2
South Bar Street	0.55	1.3	0.62	1.7
West Bar Street	0.68	2.4	0.47	1

Table 6.3: Horse Fair/ High Street/ South Bar – 2031 Baseline Flows

Junction / Arm	AM Peak		PM Peak	
	RFC	Queue (PCU)	RFC	Queue (PCU)
Horse Fair	0.78	3.7	0.77	3.4
High Street	0.45	0.8	0.78	3.4
South Bar Street	0.60	1.5	0.63	1.8
West Bar Street	0.75	3.3	0.58	1.5

Table 6.4 : Horse Fair/ High Street/ South Bar – 2031 With Development Flows

Junction / Arm	AM Peak		PM Peak	
	RFC	Queue (PCU)	RFC	Queue (PCU)
Horse Fair	0.77	3.4	0.77	3.4
High Street	0.37	0.6	0.77	3.1
South Bar Street	0.64	1.8	0.64	1.8
West Bar Street	0.75	3.4	0.57	1.5

6.3 Under all scenarios the junction had RFC's below 0.85 and remains within capacity. The impact of the development proposals is therefore not severe and no mitigation is required.

Oxford Road Corridor Signal Junctions

6.4 These junctions are subject to a number of improvements as a result of committed developments. These include:

- Widening of Oxford Road part of the Bankside Phase 1 proposals
- Improvements to the Oxford Road / Bloxham Road as part of Bankside Phase 1 and them further improvement associated with application 14/01932/OUT.
- Amendments to the layout of the Sainsbury's access and signal stages as part of a consented scheme associated with Sainsbury

6.5 Details of the committed junction changes are included in **Appendix B**. The LINSIG model has been amended to reflect this and the results obtained are summarised in **Tables 6.5** and **6.8** and provided in full in **Appendix E**.

Table 6.5: Oxford Road Corridor Signals – 2026 Baseline Flows

Junction / Arm	AM Peak		PM Peak	
	Deg Sat (%)	Mean Max Queue	Deg Sat (%)	Mean Max Queue
J1: Oxford Road / Bloxham Road				
South Bar Right Ahead (1/1+1/2)	78.1 : 84.2%	14.5	69.9 : 80.5%	11.4
Bloxham Road Left Right (3/2+3/1)	79.5 : 79.5%	13.0	82.0 : 82.0%	12.0
Oxford Road Ahead Left (5/2 + 5/1)	75.5 : 75.5%	8.6	68.7 : 68.7%	8.1
J2: Oxford Road / Upper Windsor Street				
Oxford Road Left Ahead (1/2+1/1)	79.3 : 79.3%	16.8	76.8 : 76.8%	22.6
Upper Windsor Street Left (2/1)	58.7%	12.9	44.4%	8.4
Upper Windsor Street Right (2/2)	56.8%	5.9	59.3%	5.6
Oxford Road Ahead (4/1)	40.7%	0.5	42.7%	0.4
Oxford Road Right (4/2)	61.4%	9.7	64.2%	9.4
J3: Oxford Road / Hightown Road / Horton View				
Oxford Road Left Right Ahead (1/2+1/1)	94.0 : 94.0%	37.9	92.3 : 92.3%	37.3
Horton View Left Ahead Right (3/1)	61.2%	5.6	34.0%	3.7
Oxford Road Ahead Left (5/1)	58.9%	18.5	67.9%	21.8
Oxford Road Ahead Right (5/2)	22.9%	2.4	23.9%	2.5
Oxford Road Left Ahead (6/1)	52.0%	4.7	61.0%	4.4
Oxford Road Ahead (6/2)	29.0%	3.2	26.8%	3.8
Oxford Road Ahead (7/1)	51.8%	13.4	57.8%	15.4
Oxford Road Ahead Right (7/2+7/3	55.0 : 55.0%	4.5	81.1 : 81.1%	6.7
Hightown Road Right Left (8/1)	95.0%	12.3	91.4%	13.4
J4: Oxford Road / Sainsburys / Farmfield Road				
Oxford Road Left (1/1)	47.4%	13.7	69.5%	18.1
Oxford Road Right Ahead (1/2)	35.8%	4.7	36.8%	6.4
Sainsburys Right Ahead Left (2/2+2/1)	77.6 : 77.6%	5.5	92.8 : 92.8%	16.1
Farmfield Road Left Ahead Right (4/1)	85.1%	8.4	18.9%	2.1
Oxford Road Ahead Right Left (6/1+6/2)	78.1 : 78.1%	22.6	92.4 : 92.4%	31.8

Table 6.6: Oxford Road Corridor Signals – 2026 With Development Flows

Junction / Arm	AM Peak		PM Peak	
	Deg Sat (%)	Mean Max Queue	Deg Sat (%)	Mean Max Queue
J1: Oxford Road / Bloxham Road				
South Bar Right Ahead (1/1+1/2)	78.4 : 93.4%	15.2	71.9 : 80.4%	12.2
Bloxham Road Left Right (3/2+3/1)	69.8 : 69.8%	12.7	78.8 : 78.8%	11.1
Oxford Road Ahead Left (5/2 + 5/1)	78.5 : 78.5%	13.2	69.4 : 69.4%	8.2
J2: Oxford Road / Upper Windsor Street				
Oxford Road Left Ahead (1/2+1/1)	78.0 : 78.0%	16.7	77.6 : 77.6%	22.7
Upper Windsor Street Left (2/1)	62.1%	14.0	46.2%	8.8
Upper Windsor Street Right (2/2)	56.1%	5.8	59.0%	5.6
Oxford Road Ahead (4/1)	42.1%	0.6	43.3%	0.4
Oxford Road Right (4/2)	61.4%	9.6	64.7%	9.5
J3: Oxford Road / Hightown Road / Horton View				
Oxford Road Left Right Ahead (1/2+1/1)	107.1 : 107.1%	74.8	93.8 : 93.8%	38.4
Horton View Left Ahead Right (3/1)	71.1%	6.9	34.0%	3.7
Oxford Road Ahead Left (5/1)	59.5%	19.0	68.9%	22.3
Oxford Road Ahead Right (5/2)	22.6%	2.4	24.1%	2.5
Oxford Road Left Ahead (6/1)	48.5%	7.6	62.7%	4.6
Oxford Road Ahead (6/2)	27.1%	3.4	27.5%	4.1
Oxford Road Ahead (7/1)	51.8%	13.3	58.5%	15.7
Oxford Road Ahead Right (7/2+7/3)	43.8 : 45.6%	4.1	86.0 : 86.0%	7.5
Hightown Road Right Left (8/1)	99.9%	15.2	90.0%	12.8
J4: Oxford Road / Sainsburys / Farmfield Road				
Oxford Road Left (1/1)	44.4%	13.4	71.3%	19.2
Oxford Road Right Ahead (1/2)	34.0%	4.5	37.3%	6.8
Sainsburys Right Ahead Left (2/2+2/1)	75.8 : 75.8%	5.4	93.6 : 93.6%	16.6
Farmfield Road Left Ahead Right (4/1)	91.6%	10.0	18.9%	2.1
Oxford Road Ahead Right Left (6/1+6/2)	77.6 : 77.6%	22.4	92.7 : 92.7%	32.0

Table 6.7: Oxford Road Corridor Signals – 2031 Baseline Flows

Junction / Arm	AM Peak		PM Peak	
	Deg Sat (%)	Mean Max Queue	Deg Sat (%)	Mean Max Queue
J1: Oxford Road / Bloxham Road				
South Bar Right Ahead (1/1+1/2)	80.9 : 87.8%	17.0	82.8 : 82.8%	14.2
Bloxham Road Left Right (3/2+3/1)	82.3 : 82.3%	16.6	81.0 : 81.0%	9.4
Oxford Road Ahead Left (5/2 + 5/1)	76.3 : 76.3%	8.7	86.3 : 86.1%	13.9
J2: Oxford Road / Upper Windsor Street				
Oxford Road Left Ahead (1/2+1/1)	84.9 : 84.9%	24.7	71.5 : 71.5%	13.0
Upper Windsor Street Left (2/1)	56.7%	12.3	85.0%	11.5
Upper Windsor Street Right (2/2)	56.1%	5.8	79.1%	5.5
Oxford Road Ahead (4/1)	41.3%	0.5	40.1%	0.6
Oxford Road Right (4/2)	59.8%	9.4	107.9%	17.8
J3: Oxford Road / Hightown Road / Horton View				
Oxford Road Left Right Ahead (1/2+1/1)	116.7 : 116.7%	115.6	155.5 : 155.5%	228.9
Horton View Left Ahead Right (3/1)	61.5%	5.7	56.4%	3.6
Oxford Road Ahead Left (5/1)	61.5%	19.7	65.5%	5.7
Oxford Road Ahead Right (5/2)	22.4%	2.3	20.4%	0.8
Oxford Road Left Ahead (6/1)	39.4%	4.7	49.1%	4.3
Oxford Road Ahead (6/2)	33.0%	4.7	19.8%	3.0
Oxford Road Ahead (7/1)	53.5%	14.4	56.5%	12.1
Oxford Road Ahead Right (7/2+7/3	49.8 : 50.3%	4.5	49.9 : 49.5%	4.0
Hightown Road Right Left (8/1)	108.2%	22.9	146.4%	58.0
J4: Oxford Road / Sainsburys / Farmfield Road				
Oxford Road Left (1/1)	35.5%	11.0	65.0%	12.5
Oxford Road Right Ahead (1/2)	86.8%	11.1	31.7%	6.0
Sainsburys Right Ahead Left (2/2+2/1)	64.8 : 64.8%	4.9	90.7 : 90.7%	11.8
Farmfield Road Left Ahead Right (4/1)	142.4%	41.0	18.1%	1.5
Oxford Road Ahead Right Left (6/1+6/2)	83.8 : 83.8%	26.9	115.0 : 115.0%	93.6

Table 6.8: Oxford Road Corridor Signals – 2031 With Development Flows

Junction / Arm	AM Peak		PM Peak	
	Deg Sat (%)	Mean Max Queue	Deg Sat (%)	Mean Max Queue
J1: Oxford Road / Bloxham Road				
South Bar Right Ahead (1/1+1/2)	79.3 : 94.6%	16.3	82.6 : 82.6%	14.1
Bloxham Road Left Right (3/2+3/1)	87.4 : 87.4%	19.0	83.6 : 83.6%	10.0
Oxford Road Ahead Left (5/2 + 5/1)	79.5 : 79.6%	10.7	88.0 : 87.8%	14.8
J2: Oxford Road / Upper Windsor Street				
Oxford Road Left Ahead (1/2+1/1)	83.4 : 83.4%	24.1	72.8 : 72.8%	13.4
Upper Windsor Street Left (2/1)	60.2%	13.4	80.6%	10.3
Upper Windsor Street Right (2/2)	56.5%	5.8	78.6%	5.5
Oxford Road Ahead (4/1)	42.8%	0.6	40.7%	0.6
Oxford Road Right (4/2)	59.4%	9.3	108.6%	18.4
J3: Oxford Road / Hightown Road / Horton View				
Oxford Road Left Right Ahead (1/2+1/1)	123.7 : 123.7%	144.6	144.6 : 144.6%	198.0
Horton View Left Ahead Right (3/1)	67.8%	6.4	58.6%	3.8
Oxford Road Ahead Left (5/1)	63.7%	20.8	66.3%	5.7
Oxford Road Ahead Right (5/2)	22.1%	2.3	20.5%	0.8
Oxford Road Left Ahead (6/1)	44.5%	6.1	59.7%	4.9
Oxford Road Ahead (6/2)	25.3%	3.5	21.2%	3.2
Oxford Road Ahead (7/1)	54.8%	14.7	57.0%	12.2
Oxford Road Ahead Right (7/2+7/3)	36.6 : 39.7%	4.3	59.9 : 59.4%	4.3
Hightown Road Right Left (8/1)	113.7%	29.2	150.5%	62.8
J4: Oxford Road / Sainsburys / Farmfield Road				
Oxford Road Left (1/1)	42.1%	13.1	77.2%	15.5
Oxford Road Right Ahead (1/2)	32.7%	4.7	33.3%	6.3
Sainsburys Right Ahead Left (2/2+2/1)	64.7 : 64.7%	4.8	92.6 : 92.6%	12.8
Farmfield Road Left Ahead Right (4/1)	146.0%	44.3	33.1%	1.9
Oxford Road Ahead Right Left (6/1+6/2)	83.9 : 83.9%	26.9	113.7 : 113.7%	87.5

6.6 It can be seen that under the future year traffic flows for both Baseline and With Development scenarios the junctions of Oxford Road with Hightown Road and Farmfield Road have capacity issues, with degrees of saturation in excess of 90%. The Oxford Road / Bloxham Road and Oxford Road / Upper Windsor Street junctions would remain within capacity.

6.7 Further consideration to increasing capacity on this network to mitigate these effects is made in Section 7 of this report.

Cherwell Street / Bridge Street / Concord Avenue Signals

6.8 LINSIG has been used to assess the current operation of the junctions, with the results obtained summarised in **Tables 6.9** and **6.12** and provided in full in **Appendix F**.

Table 6.9: Cherwell Street / Bridge Street / Concord Avenue Signals – 2026 Baseline Flows

Junction / Arm	AM Peak		PM Peak	
	Deg Sat (%)	Mean Max Queue	Deg Sat (%)	Mean Max Queue
Concord Avenue Left (1/1)	88.0%	16.3	84.0%	9.0
Concord Avenue Ahead Right (1/2+1/3)	82.3 : 82.3%	16.5	116.1 : 116.1%	50.5
Bridge Street East (2/2+2/1)	111.3 : 105.3%	54.7	116.3 : 116.3%	77.5
Cherwell Street Ahead Left (3/2+3/1)	111.1 : 111.1%	113.2	114.9 : 114.9%	100.8
Cherwell Street Right (3/3)	22.1%	2.6	19.7%	1.4
Bridge Street West (4/1)	34.1%	3.7	34.2%	3.3

Table 6.10: Cherwell Street / Bridge Street / Concord Avenue Signals – 2026 With Development Flows

Junction / Arm	AM Peak		PM Peak	
	Deg Sat (%)	Mean Max Queue	Deg Sat (%)	Mean Max Queue
Concord Avenue Left (1/1)	88.2%	16.5	89.6%	10.3
Concord Avenue Ahead Right (1/2+1/3)	81.9 : 81.9%	16.4	122.7 : 122.7%	61.3
Bridge Street East (2/2+2/1)	111.3 : 105.2%	54.2	116.8 : 116.8%	81.4
Cherwell Street Ahead Left (3/2+3/1)	111.3 : 111.3%	114.5	115.7 : 115.7%	104.7
Cherwell Street Right (3/3)	22.6%	2.7	18.2%	1.3
Bridge Street West (4/1)	34.4%	3.7	34.0%	3.2

Table 6.11: Cherwell Street / Bridge Street / Concord Avenue Signals – 2031 Baseline Flows

Junction / Arm	AM Peak		PM Peak	
	Deg Sat (%)	Mean Max Queue	Deg Sat (%)	Mean Max Queue
Concord Avenue Left (1/1)	119.8%	52.3	109.5%	28.5
Concord Avenue Ahead Right (1/2+1/3)	104.0 : 104.0%	28.6	123.6 : 123.6%	63.2
Bridge Street East (2/2+2/1)	125.6 : 125.6%	102.4	128.4 : 128.4%	123.6
Cherwell Street Ahead Left (3/2+3/1)	129.2 : 129.2%	183.2	121.3 : 121.3%	128.8
Cherwell Street Right (3/3)	30.3%	2.3	20.1%	1.4
Bridge Street West (4/1)	33.4%	2.9	33.8%	3.3

Table 6.12: Cherwell Street / Bridge Street / Concord Avenue Signals – 2031 With Development Flows

Junction / Arm	AM Peak		PM Peak	
	Deg Sat (%)	Mean Max Queue	Deg Sat (%)	Mean Max Queue
Concord Avenue Left (1/1)	120.0%	52.8	109.5%	28.5
Concord Avenue Ahead Right (1/2+1/3)	102.2 : 102.2%	25.3	123.0 : 123.0%	62.1
Bridge Street East (2/2+2/1)	124.2 : 124.9%	99.6	128.9 : 128.9%	125.5
Cherwell Street Ahead Left (3/2+3/1)	129.5 : 129.5%	184.8	121.3 : 121.3%	128.8
Cherwell Street Right (3/3)	31.3%	2.4	19.7%	1.4
Bridge Street West (4/1)	33.1%	2.8	33.4%	3.3

6.9 This junction has capacity issue under baseline flows in both the 2026 and 2031 scenarios. However, the development proposals have very little effect on the junction performance with increases in queue lengths in the With Development scenarios less than 5 vehicles. This is not a severe impact and does not warrant mitigation as a result.

Bloxham Road / Queensway Junction

6.10 As part of application 14/01932/OUT this junction is to be replaced with traffic signals as shown in **Appendix B**. Assessing the performance of these new signals in 2026 and 2031 under baseline and with development traffic flows gives the results summarise in **Tables 6.13** and **6.16** and provided in full in **Appendix G**.

Table 6.13 : Bloxham Road/Queensway – 2026 Baseline Flows

Junction / Arm	AM Peak		PM Peak	
	DoS	Queue (PCU)	DoS	Queue (PCU)
Bloxham Road South Left Ahead (1/2 + 1/1)	73.2 : 73.2%	14.0	74.3 : 74.3%	15.0
Queensway Left (3/1)	57.3%	8.5	37.6%	5.4
Queensway Left (3/2)	72.6%	11.1	73.0%	12.1
Bloxham Road North Ahead Right (5/1 + 5/2)	47.0 : 50.1%	8.1	59.8 : 59.8%	13.1

Table 6.14 : Bloxham Road/Queensway – 2026 With Development Flows

Junction / Arm	AM Peak		PM Peak	
	DoS	Queue (PCU)	DoS	Queue (PCU)
Bloxham Road South Left Ahead (1/2 + 1/1)	73.4 : 73.4%	13.7	74.6 : 74.6%	15.0
Queensway Left (3/1)	57.3%	8.5	37.6%	5.4
Queensway Left (3/2)	76.0%	11.9	72.7%	12.1
Bloxham Road North Ahead Right (5/1 + 5/2)	46.2 : 50.5%	6.7	60.1 : 60.1%	13.2

Table 6.15 : Bloxham Road/Queensway – 2031 Baseline Flows

Junction / Arm	AM Peak		PM Peak	
	DoS	Queue (PCU)	DoS	Queue (PCU)
Bloxham Road South Left Ahead (1/2 + 1/1)	79.3 : 79.3%	11.7	76.3 : 76.3%	11.1
Queensway Left (3/1)	58.6%	7.0	39.4%	4.3
Queensway Left (3/2)	75.8%	9.3	73.1%	8.8
Bloxham Road North Ahead Right (5/1 + 5/2)	51.7 : 51.7%	7.2	69.9 : 69.9%	12.7

Table 6.16 : Bloxham Road/Queensway – 2031 With Development Flows

Junction / Arm	AM Peak		PM Peak	
	DoS	Queue (PCU)	DoS	Queue (PCU)
Bloxham Road South Left Ahead (1/2 + 1/1)	81.8 : 81.8%	13.8	77.0 : 77.0%	11.3
Queensway Left (3/1)	56.8%	6.7	39.3%	4.3
Queensway Left (3/2)	77.6%	9.7	74.2%	9.1
Bloxham Road North Ahead Right (5/1 + 5/2)	45.3 : 53.5%	6.0	68.2 : 68.2%	12.1

6.11 The proposed signal junction operates within capacity under all scenarios. No mitigation is therefore required in this location.

Bloxham Road / Springfield Avenue Priority Junction

6.12 Improvements to this junction in the form of localised increases in flare length are to be implemented as part of planning application 14/01932/OUT. PICADY has been used to assess how the improved junction will operate under 2026 and 2031 baseline and with development flows and the results are summarised in **Tables 6.17** and **6.20** and provided in full in **Appendix H**.

Table 6.17 : Bloxham Road/ Springfield Avenue – 2026 Baseline Flows

Junction / Arm	AM Peak (0800 - 0900)		PM Peak (1645 - 1745)	
	RFC	Queue (PCU)	RFC	Queue (PCU)
Springfield Avenue right turn	0.38	0.6	0.50	1
Springfield Avenue left turn	0.36	0.6	0.77	3
Bloxham Road right turn	0.28	0.4	0.16	0.2

Table 6.18: Bloxham Road/ Springfield Avenue – 2026 With Development Flows

Junction / Arm	AM Peak (0800 - 0900)		PM Peak (1645 - 1745)	
	RFC	Queue (PCU)	RFC	Queue (PCU)
Springfield Avenue right turn	0.47	0.9	0.50	1
Springfield Avenue left turn	0.41	0.7	0.78	3.2
Bloxham Road right turn	0.28	0.4	0.16	0.2

Table 6.19 : Bloxham Road/ Springfield Avenue – 2031 Baseline Flows

Junction / Arm	AM Peak (0800 - 0900)		PM Peak (1645 - 1745)	
	RFC	Queue (PCU)	RFC	Queue (PCU)
Springfield Avenue right turn	0.49	0.9	0.61	1.5
Springfield Avenue left turn	0.44	0.7	0.81	3.5
Bloxham Road right turn	0.34	0.4	0.21	0.3

Table 6.20: Bloxham Road/ Springfield Avenue – 2031 With Development Flows

Junction / Arm	AM Peak (0800 - 0900)		PM Peak (1645 - 1745)	
	RFC	Queue (PCU)	RFC	Queue (PCU)
Springfield Avenue right turn	0.58	1.4	0.63	1.6
Springfield Avenue left turn	0.54	1.2	0.87	4.8
Bloxham Road right turn	0.31	0.5	0.20	0.3

6.13 In the 2031 PM peak With Development scenario the RFC on the left turn from Springfield Road increases to 0.87, however the development increases queue lengths on this movement by less than 2 vehicles and therefore no mitigation is required.

Oxford Road / Bankside Slip-Roads

6.14 PICADY has been used to assess the operation of these junctions under future year flows, with the results obtained summarise in **Tables 6.21** to **6.28** and provided in full in **Appendix I**.

Table 6.21: Oxford Road/ Bankside Slip West – 2026 Baseline Flows

Junction / Arm	AM Peak (0800 - 0900)		PM Peak (1645 - 1745)	
	RFC	Queue (PCU)	RFC	Queue (PCU)
Bankside Slip	0.36	0.5	0.20	0.3
Oxford Road right turn	0.00	0	0.00	0

Table 6.22: Oxford Road / Bankside Slip East – 2026 Baseline Flows

Junction / Arm	AM Peak (0800 - 0900)		PM Peak (1645 - 1745)	
	RFC	Queue (PCU)	RFC	Queue (PCU)
Bankside Slip	0.22	0.3	0.34	0.5
Oxford Road right turn	0.00	0	0.00	0

Table 6.23: Oxford Road/ Bankside Slip West – 2026 With Development Flows

Junction / Arm	AM Peak (0800 - 0900)		PM Peak (1645 - 1745)	
	RFC	Queue (PCU)	RFC	Queue (PCU)
Bankside Slip	0.46	0.5	0.34	0.5
Oxford Road right turn	0.00	0	0.00	0

Table 6.24: Oxford Road / Bankside Slip East – 2026 With Development Flows

Junction / Arm	AM Peak (0800 - 0900)		PM Peak (1645 - 1745)	
	RFC	Queue (PCU)	RFC	Queue (PCU)
Bankside Slip	0.24	0.3	0.33	0.5
Oxford Road right turn	0.00	0	0.00	0

Table 6.25: Oxford Road/ Bankside Slip West – 2031 Baseline Flows

Junction / Arm	AM Peak (0800 - 0900)		PM Peak (1645 - 1745)	
	RFC	Queue (PCU)	RFC	Queue (PCU)
Bankside Slip	0.42	0.7	0.21	0.3
Oxford Road right turn	0.00	0	0.00	0

Table 6.26: Oxford Road / Bankside Slip East – 2031 Baseline Flows

Junction / Arm	AM Peak (0800 - 0900)		PM Peak (1645 - 1745)	
	RFC	Queue (PCU)	RFC	Queue (PCU)
Bankside Slip	0.35	0.6	0.42	0.7
Oxford Road right turn	0.00	0	0.00	0

Table 6.27: Oxford Road/ Bankside Slip West – 2031 With Development Flows

Junction / Arm	AM Peak (0800 - 0900)		PM Peak (1645 - 1745)	
	RFC	Queue (PCU)	RFC	Queue (PCU)
Bankside Slip	0.58	1.3	0.36	0.6
Oxford Road right turn	0.00	0	0.00	0

Table 6.28: Oxford Road / Bankside Slip East – 2031 With Development Flows

Junction / Arm	AM Peak (0800 - 0900)		PM Peak (1645 - 1745)	
	RFC	Queue (PCU)	RFC	Queue (PCU)
Bankside Slip	0.32	0.5	0.40	0.7
Oxford Road right turn	0.00	0	0.00	0

6.15 These junctions continue to operate within capacity under all scenarios.

Bankside / Bankside Phase 1 Roundabout

6.16 ARCADY has been used to assess the operation of these junctions, with the results obtained summarised in **Tables 6.29** to **6.32** and provided in full in **Appendix J**.

Table 6.29: Bankside/ Site Access – 2026 Baseline Flows

Junction / Arm	AM Peak (0800 - 0900)		PM Peak (1645 - 1745)	
	RFC	Queue (PCU)	RFC	Queue (PCU)
A4260 Slip Road	0.05	0	0.17	0.2
Bankside East	0.43	0.8	0.48	0.9
Site Access	0.05	0.1	0.10	0.1
Bankside West	0.32	0.5	0.28	0.4

Table 6.30: Bankside/ Site Access – 2026 with development

Junction / Arm	AM Peak (0800 - 0900)		PM Peak (1645 - 1745)	
	RFC	Queue (PCU)	RFC	Queue (PCU)
A4260 Slip Road	0.21	0.3	0.29	0.4
Bankside East	0.50	1	0.55	1.2
Site Access	0.26	0.4	0.25	0.3
Bankside West	0.34	0.5	0.29	0.4

Table 6.31: Bankside/ Site Access – 2031 Baseline Flows

Junction / Arm	AM Peak (0800 - 0900)		PM Peak (1645 - 1745)	
	RFC	Queue (PCU)	RFC	Queue (PCU)
A4260 Slip Road	0.05	0.1	0.20	0.2
Bankside East	0.51	1.1	0.54	1.2
Site Access	0.04	0.1	0.09	0.1
Bankside West	0.35	0.6	0.34	0.5

Table 6.32: Bankside/ Site Access – 2031 with development

Junction / Arm	AM Peak (0800 - 0900)		PM Peak (1645 - 1745)	
	RFC	Queue (PCU)	RFC	Queue (PCU)
A4260 Slip Road	0.23	0.3	0.36	0.6
Bankside East	0.56	1.3	0.67	2.1
Site Access	0.38	0.6	0.33	0.5
Bankside West	0.37	0.6	0.36	0.6

6.17 This junction continues to operate within capacity under all scenarios.

Oxford Road / Weeping Cross / Bankside Phase 1 Signals

6.18 The LINSIG model used to assess the existing situation at this junction has been re-run using 2026 and 2031 traffic flows, with the results summarised in **Tables 6.33** to **6.36** and provided in full in **Appendix K**.

Table 6.33: Oxford Road / Weeping Cross / Bankside Phase 1 Signals – 2026 with Dev Flows

Junction / Arm	AM Peak		PM Peak	
	Deg Sat (%)	Mean Max Queue	Deg Sat (%)	Mean Max Queue
J1 : Oxford Road / Site Access				
Oxford Road North Ahead Left (1/2 + 1/1)	69.0%:69.0%	14.4	61.6%:61.6%	10.9
Oxford Road South Ahead (2/1)	34.0%	1.6	42.3%	2.0
Oxford Road South Ahead Right (2/2)	34.3%	1.8	42.7%	2.2
Site Access (3/1)	17.9%	0.8	5.7%	0.2
J2 : Oxford Road / Weeping Cross				
Oxford Road North Ahead (1/1)	36.9%	1.8	33.7%	1.5
Oxford Road North Ahead Right (1/2)	37.9%	1.8	34.4%	1.7
Weeping Cross (2/1)	41.3%	2.3	10.2%	0.5
Oxford Road South Ahead Left (3/2 + 3/1)	63.0%:63.0%	10.8	78.7%:78.7%	20.3

Table 6.34: Oxford Road / Weeping Cross / Bankside Phase 1 Signals – 2031 With Dev Flows

Junction / Arm	AM Peak		PM Peak	
	Deg Sat (%)	Mean Max Queue	Deg Sat (%)	Mean Max Queue
J1 : Oxford Road / Site Access				
Oxford Road North Ahead Left (1/2 + 1/1)	79.9%:79.9%	21.3	62.6%:62.6%	11.1
Oxford Road South Ahead (2/1)	35.9%	1.7	46.0%	2.2
Oxford Road South Ahead Right (2/2)	36.2%	1.8	46.1%	2.4
Site Access (3/1)	43.8%	2.1	14.7%	0.7
J2 : Oxford Road / Weeping Cross				
Oxford Road North Ahead (1/1)	40.4%	2.2	34.1%	1.6
Oxford Road North Ahead Right (1/2)	43.0%	2.1	34.9%	1.7
Weeping Cross (2/1)	75.1%	5.1	28.7%	1.5
Oxford Road South Ahead Left (3/2 + 3/1)	66.4%:66.4%	12.5	85.1%:85.1%	26.0

6.19 It can be seen that this junction would operate within capacity under both 2026 and 2031 scenarios. No mitigation in this location is therefore required.

Oxford Road / Twyford Road Priority Junction

6.20 PICADY has been used to assess the current operation of the junction, with the results obtained summarise in **Tables 6.37** to **6.40** and provided in full in **Appendix L.**

Table 6.37: Oxford Road/ Twyford Road – 2026 Baseline Flows

Junction / Arm	AM Peak		PM Peak	
	RFC	Queue (PCU)	RFC	Queue (PCU)
Twyford Road right turn	0.00	0	0.00	0
Twyford Road left turn	0.19	0.3	0.23	0.3
Oxford Road	0.02	0	0.02	0

Table 6.38: Oxford Road/ Twyford Road – 2026 With Development Flows

Junction / Arm	AM Peak		PM Peak	
	RFC	Queue (PCU)	RFC	Queue (PCU)
Twyford Road right turn	0.00	0	0.03	0.1
Twyford Road left turn	0.20	0.3	0.24	0.3
Oxford Road	0.02	0	0.02	0

Table 6.39: Oxford Road/ Twyford Road – 2031 Baseline Flows

Junction / Arm	AM Peak		PM Peak	
	RFC	Queue (PCU)	RFC	Queue (PCU)
Twyford Road right turn	0.00	0	0.00	0
Twyford Road left turn	0.23	0.3	0.23	0.3
Oxford Road	0.02	0	0.00	0

Table 6.40: Oxford Road/ Twyford Road – 2031 With Development Flows

Junction / Arm	AM Peak		PM Peak	
	RFC	Queue (PCU)	RFC	Queue (PCU)
Twyford Road right turn	0.00	0	0.07	0.1
Twyford Road left turn	0.22	0.3	0.24	0.3
Oxford Road	0.02	0.1	0.00	0

6.21 This junction operates within capacity under all scenarios.

Oxford Road / Aynho Road Signals

6.22 LINSIG has been used to assess the operation of the junction, with the results obtained summarise in **Tables 6.41** to **6.44** and provided in full in **Appendix M**.

Table 6.41: Oxford Road / Aynho Road Signals – 2026 Baseline Flows

Junction / Arm	AM Peak		PM Peak	
	Deg Sat (%)	Mean Max Queue	Deg Sat (%)	Mean Max Queue
Oxford Road North (1/2+1/1)	69.0 : 69.0%	16.5	80.7 : 80.7%	21.7
Aynho Road (2/1)	65.8%	4.4	84.2%	11.5
Oxford Road South (3/1+3/2)	71.6 : 71.6%	19.6	85.4 : 85.4%	27.5

Table 6.42: Oxford Road / Aynho Road Signals – 2026 With Development Flows

Junction / Arm	AM Peak		PM Peak	
	Deg Sat (%)	Mean Max Queue	Deg Sat (%)	Mean Max Queue
Oxford Road North (1/2+1/1)	68.9 : 68.9%	16.5	82.2 : 82.2%	22.5
Aynho Road (2/1)	69.4%	4.8	83.8%	11.4
Oxford Road South (3/1+3/2)	72.2 : 72.2%	20.0	85.0 : 85.0%	27.4

Table 6.43: Oxford Road / Aynho Road Signals – 2031 Baseline Flows

Junction / Arm	AM Peak		PM Peak	
	Deg Sat (%)	Mean Max Queue	Deg Sat (%)	Mean Max Queue
Oxford Road North (1/2+1/1)	72.7 : 72.7%	18.2	81.8 : 81.8%	22.8
Aynho Road (2/1)	80.5%	6.6	91.9%	13.5
Oxford Road South (3/1+3/2)	79.8 : 79.8%	24.7	94.9 : 94.9%	38.7

Table 6.44: Oxford Road / Aynho Road Signals – 2031 With Development Flows

Junction / Arm	AM Peak		PM Peak	
	Deg Sat (%)	Mean Max Queue	Deg Sat (%)	Mean Max Queue
Oxford Road North (1/2+1/1)	72.2 : 72.2%	17.8	83.5 : 83.5%	23.7
Aynho Road (2/1)	73.5%	5.6	91.2%	13.2
Oxford Road South (3/1+3/2)	79.0 : 79.0%	24.2	95.4 : 95.4%	39.6

6.23 This junction has capacity issues under the 2031 Baseline and With Development Scenarios in the PM peak. However, the development proposals make very little difference to the performance of the junction and changes in queue length are less than 2 vehicles. This is not a severe impact and mitigation is not required.

Upper Windsor Street / Swan Close

6.24 LINSIG has been used to assess the operation of the junction, with the results obtained summarise in **Tables 6.45** to **6.48** and provided in full in **Appendix S**.

Table 6.45: Swan Close / Upper Windsor Street Signals – 2026 Baseline Flows

Junction / Arm	AM Peak		PM Peak	
	Deg Sat (%)	Mean Max Queue	Deg Sat (%)	Mean Max Queue
Upper Windsor Street North Left (1/1)	13.1%	1.2	37.1%	4.4
Upper Windsor Street North Ahead (1/2)	74.9%	13.1	56.6%	6.8
Swan Close Road Left (2/1)	13.1%	1.6	19.6%	2.5
Swan Close Road Right (2/2)	76.6%	12.5	56.5%	9.4
Upper Windsor Street South Ahead (3/1)	52.3%	9.1	49.9%	7.5
Upper Windsor Street South Right (3/2)	77.1%	4.8	38.5%	1.9

Table 6.46: Swan Close / Upper Windsor Street Signals – 2031 Baseline Flows

Junction / Arm	AM Peak		PM Peak	
	Deg Sat (%)	Mean Max Queue	Deg Sat (%)	Mean Max Queue
Upper Windsor Street North Left (1/1)	15.8%	1.5	38.0%	4.5
Upper Windsor Street North Ahead (1/2)	74.7%	12.4	58.2%	7.8
Swan Close Road Left (2/1)	14.8%	1.8	21.2%	2.8
Swan Close Road Right (2/2)	73.8%	12.1	60.5%	10.0
Upper Windsor Street South Ahead (3/1)	47.4%	7.9	50.7%	8.1
Upper Windsor Street South Right (3/2)	71.1%	4.5	32.7%	1.5

Table 6.47: Swan Close / Upper Windsor Street Signals – 2026 with Development

Junction / Arm	AM Peak		PM Peak	
	Deg Sat (%)	Mean Max Queue	Deg Sat (%)	Mean Max Queue
Upper Windsor Street North Left (1/1)	14.7%	1.4	38.4%	4.6
Upper Windsor Street North Ahead (1/2)	73.9%	12.6	55.8%	6.9
Swan Close Road Left (2/1)	19.0%	2.4	20.4%	2.7
Swan Close Road Right (2/2)	74.9%	12.0	57.9%	9.6
Upper Windsor Street South Ahead (3/1)	44.2%	7.2	48.6%	7.4
Upper Windsor Street South Right (3/2)	68.5%	4.2	40.3%	2.0

Table 6.48: Swan Close / Upper Windsor Street Signals – 2031 with Development

Junction / Arm	AM Peak		PM Peak	
	Deg Sat (%)	Mean Max Queue	Deg Sat (%)	Mean Max Queue
Upper Windsor Street North Left (1/1)	16.6%	1.7	40.6%	5.0
Upper Windsor Street North Ahead (1/2)	72.2%	11.7	56.5%	7.3
Swan Close Road Left (2/1)	20.2%	2.6	21.2%	2.8
Swan Close Road Right (2/2)	72.2%	11.7	58.8%	9.6
Upper Windsor Street South Ahead (3/1)	42.3%	6.8	51.4%	8.1
Upper Windsor Street South Right (3/2)	70.1%	4.4	29.8%	1.4

6.25 It can be seen that this junction continues to operate within capacity under all scenarios.

Bankside / Hightown Road / Lambs Crescent

6.26 PICADY has been used to assess the operation of the junction, with the results obtained summarise in **Tables 6.49** to **6.53** and provided in full in **Appendix T**.

Table 6.45: Bankside / Hightown / Lambs Crescent Stagger – 2026 Base Flows

Junction / Arm	AM Peak		PM Peak	
	RFC	Queue (PCU)	RFC	Queue (PCU)
Lambs Crescent	0	0	0	0
Hightown Rd Right into Lambs	0	0	0	0
Bankside Right	0.77	3.2	0.57	1.3
Bankside Left	0.04	0.0	0.15	0.2
Hightown Rd Right into Bankside	0.06	0.1	0.07	0.1

Table 6.46: Bankside / Hightown / Lambs Crescent Stagger – 2026 with Development

Junction / Arm	AM Peak		PM Peak	
	RFC	Queue (PCU)	RFC	Queue (PCU)
Lambs Crescent	0	0	0	0
Hightown Rd Right into Lambs	0	0	0	0
Bankside Right	0.82	4.1	0.59	1.4
Bankside Left	0.10	0.1	0.16	0.2
Hightown Rd Right into Bankside	0.06	0.1	0.07	0.1

Table 6.47: Bankside / Hightown / Lambs Crescent Stagger – 2031 Base Flows

Junction / Arm	AM Peak		PM Peak	
	RFC	Queue (PCU)	RFC	Queue (PCU)
Lambs Crescent	0	0	0	0
Hightown Rd Right into Lambs	0	0	0	0
Bankside Right	0.79	3.5	0.59	1.4
Bankside Left	0.07	0.1	0.20	0.2
Hightown Rd Right into Bankside	0.06	0.1	0.07	0.1

Table 6.48: Bankside / Hightown / Lambs Crescent Stagger – 2031 with Development

Junction / Arm	AM Peak		PM Peak	
	RFC	Queue (PCU)	RFC	Queue (PCU)
Lambs Crescent	0	0	0	0
Hightown Rd Right into Lambs	0	0	0	0
Bankside Right	0.93	8.3	0.59	1.4
Bankside Left	0.64	1.2	0.20	0.2
Hightown Rd Right into Bankside	0.06	0.1	0.07	0.1

Summary

6.27 In summary:

- The Horse Fair / High Street / South Bar Street roundabout continues to operate within capacity under all scenarios tested;
- Under both baseline and with development scenarios the Oxford Road junctions at Hightown Road and Farmfield Road have capacity issues. Mitigation measures in these locations are examined in Section 7 of this Report:
- The Cherwell Street / Concorde Avenue / Bridge Street signals are over-capacity in both future year baseline scenarios. However, the proposed development traffic has very little effect on the junction performance, with increases in queue length of less than 5 vehicles. No mitigation is therefore required;
- The Bloxham Road / Queensway junction already has a signal scheme identified for implementation as part of a committed development in the area. The

proposed signals are demonstrated to operate within capacity under all scenarios tested;

- The Bloxham Road / Springfield Avenue priority junction already has a mitigation scheme identified to be implemented as part of a committed development in the area. Testing shows that this would have an RFC of 0.87 in the 2031 PM peak with development scenario. There is no significant impact associated with the development proposals and no mitigation therefore required;
- The Oxford Road / Bankside Slip roads, Bankside / Bankside Phase 1 roundabout, Oxford Road / Weeping Cross / Bankside Phase 1 signals and Oxford Road / Twyford Road priority junction continue to operate within capacity under all scenarios tested;
- The Oxford Road / Aynho Road signals have PM peak capacity issues in the 2031 baseline scenario. The effect of the development is to increase queues by 1 vehicle. The impact is not severe and no mitigation is required.

7.0 JUNCTION IMPROVEMENT MEASURES

7.1 To mitigate the impact of the proposed development traffic on the junctions identified in Section 6 of this report as seeing significant increases in queue with the development in place, the following paragraphs examine potential improvement measures that could be implemented

Oxford Road Corridor

7.2 Dwg Nos 16052-01-106 Rev C and 16052-01-107 Rev B shows a series of improvement measures to increase the capacity of this signal network. These improvements include:

- Increasing the southbound flare on Oxford Road north of Horton View to 25 PCU's
- Increasing the non-blocking right turn queue storage at Horton View to 2 PCU's
- Increasing the northbound two lane section south of Farmfield Road to 25 PCU's long.

7.3 In addition to the physical changes to the layout, an additional stage has been introduced to the signals at Oxford Road / Farmfield Road to allow the right turn queue into Sainsburys to clear.

7.4 The LINSIG model including these changes can be seen in **Appendix U** and the results are summarised in **Table 7.1.**

Table 7.1: Oxford Road Corridor Signals – 2031 With Development and Mitigation

Junction / Arm	AM Peak		PM Peak	
	Deg Sat (%)	Mean Max Queue	Deg Sat (%)	Mean Max Queue
J1: Oxford Road / Bloxham Road				
South Bar Right Ahead (1/1+1/2)	74.0%:78.9%	12.7	81.3%:81.3%	13.7
Bloxham Road Left Right (3/2+3/1)	86.1%:79.7%	16.7	88.0%:88.0%	11.1
Oxford Road Ahead Left (5/2 + 5/1)	89.9%:89.9%	17.5	88.8%:88.8%	16.4
J2: Oxford Road / Upper Windsor Street				
Oxford Road Left Ahead (1/2+1/1)	82.2%:82.2%	23.9	76.5%:76.5%	14.0
Upper Windsor Street Left (2/1)	61.5%	13.5	70.1%	9.1
Upper Windsor Street Right (2/2)	56.5%	5.8	78.6%	5.5
Oxford Road Ahead (4/1)	43.9%	3.1	43.7%	0.5
Oxford Road Right (4/2)	63.0%	9.7	89.8%	9.2
J3: Oxford Road / Hightown Road / Horton View				
Oxford Road Left Right Ahead (1/2+1/1)	107.5%:107.5%	79.7	127.7%:127.7%	146.0
Horton View Left Ahead Right (3/1)	64.0%	6.2	53.7%	3.6
Oxford Road Ahead Left (5/1)	66.3%	22.4	72.7%	8.1
Oxford Road Ahead Right (5/2)	23.0%	2.4	22.5%	0.9
Oxford Road Left Ahead (6/1)	50.9%	4.6	70.2%	5.4
Oxford Road Ahead (6/2)	28.5%	4.8	24.4%	2.5
Oxford Road Ahead (7/1)	56.8%	15.9	62.3%	14.2
Oxford Road Ahead Right (7/2+7/3)	51.2%:51.2%	5.2	95.1%:94.8%	9.9
Hightown Road Right Left (8/1)	107.4%	23.2	137.9%	53.2
J4: Oxford Road / Sainsburys / Farmfield Road				
Oxford Road Left Ahead (1/1)	53.0%	14.7	85.9%	18.7
Oxford Road Right Ahead (1/2)	41.1%	7.3	36.5%	7.2
Sainsburys Right Ahead Left (2/2+2/1)	65.6%:65.6%	4.5	95.9%:95.9%	15.2
Farmfield Road Left Ahead Right (4/1)	85.2%	9.1	33.1%	1.9
Oxford Road Ahead Right Left (6/1+6/2)	89.4%:89.4%	28.7	103.8%:118.2%	52.7

7.5 Comparing the results with the mitigation in place with the 2031 baseline scenario, it can be seen that the Oxford Road / Farmfield Road junction, which had the most significant problems in the baseline, operates considerably better. This operates within capacity in the AM peak with the mitigation in place, compared to Farmfield Road having a degree of saturation of 142.4%. In the PM peak the Oxford Road southern arm ahead movement sees the degree of saturation fall from 115% to 103.8%. Oxford Road southbound, north of Horton View also sees significant improvements in degrees of saturation (116.7% to 107.5% in the AM peak and 155.5% to 127.7% in the PM peak).

7.6 To further understand what benefit the mitigation measures offer, a comparison of total delay in PCU hours for through traffic on Oxford Road in each direction during each peak has been carried out. This is summarised in **Table 7.2**.

Table 7.2: Delay on Oxford Road PCU hours

Link	AM Peak		PM Peak	
	With Development	With Development + Mitigation	With Development	With Development + Mitigation
Northbound				
J4 : Link 6/1	8.0	11.3	78.0	40.8
J3 : Link 7/2	2.9	3.0	2.0	8.3
J3 : Link 5/2	0.8	0.8	0.3	0.3
J2 : Link 4/1	0.4	0.4	0.4	0.4
J1 : Link 5/2	3.5	6.7	5.4	6.4
TOTAL	15.6	22.2	86.1	56.2
J1: Link 1/1	9.0	7.3	7.2	7.0
J2 : Link 1/2	8.5	8.0	3.8	4.7
J3 : Link 1/1	95.8	55.1	214.4	131.4
J3 : Link 6/1	1.7	1.7	1.9	2.8
J4 : Link 1/1	2.4	3.3	5.1	9.0
TOTAL	117.4	75.4	232.4	154.9
GRAND TOTAL	**133.0**	**97.6**	**318.5**	**211.1**

7.7 It can be seen that in the AM peak the delay in PCU hours reduced for northbound traffic when compared to the baseline, but increases for northbound traffic. However, when summed together there is a total reduction in delay of 3.4 PCU hours for Oxford Road through traffic in the AM peak. Turning to the PM peak results, there is a reduction in delay in both peak periods with a saving of 107.4 PCU hours with the mitigation in place when compared to the baseline situation.

7.8 It is clear from the above that the improvement measures identified will result in an improvement in the performance of the Oxford Road corridor and are appropriate mitigation for the effects of the development.

8.0 SUMMARY AND CONCLUSION

8.1 Markides Associates Ltd (MA) has been appointed by Hallam Management Ltd to prepare a Transport Assessment (TA) in support of an outline planning application relating to a Scheme of up to 850 residential units ('Proposed Development') on land to the south of Banbury, Oxfordshire known as Bankside Phase 2 ('the site').

8.2 The proposed development is immediately adjacent to the Bankside Phase 1 development, now named Longford Park, and located on the southern edge of Banbury immediately to the east of Oxford Road. A location plan for the site can be seen in **Figure 1.1**.

8.3 The proposed development includes a network of pedestrian routes that will connect with Bankside Phase 1 to the north and on to Oxford Road and Bankside. These will give access to the new local centre, primary school and employment development that form part of the Bankside Phase 1 consented scheme. The site is outside comfortable walking distance of the centre of Banbury at approximately 3.6km away, but is well within an acceptable cycle ride of the centre of town. Cycling from the site to the town centre would be via Bankside Phase 1 and then either Bankside or Oxford Road. Bankside is identified as being an on-road cycle route by Sustrans and there are on and off-carriageway cycle facilities on Oxford Road starting approximately 700m north of the Weeping Cross junction.

8.4 Access to public transport will available at existing bus stops on Oxford Road and / or from the extension of the service that is proposed to divert into Bankside Phase 1 into the development.

8.5 Vehicular access into the site will be via:

- A new signal controlled junction with Banbury Road via the BAN12 allocated site; and
- Bankside Phase 1 and onto the wider road network at Oxford Road north of Weeping Cross and onto Bankside, utilising the junctions provided in conjunctions with Bankside Phase 1. Two vehicle routes will be extended from Longford Park into the site.

8.6 An assessment of off-site traffic impact has been undertaken utilising traffic flows from the Banbury Transport Model. This Saturn model has been used at the request of OCC

and assessments of the development traffic impact have been undertaken under 2026 and 2031 model years. This showed that the only locations where development traffic resulted in sufficient impact to warrant improvement is on the Oxford Road corridor signals between Farmfield Road and Horton View.

8.7 Improvement measures have been identified for all of these junctions that result in there being no severe residual cumulative impact from the development traffic.

8.8 On the basis of the above, the proposals meet with the requirements of the NPPF in that:

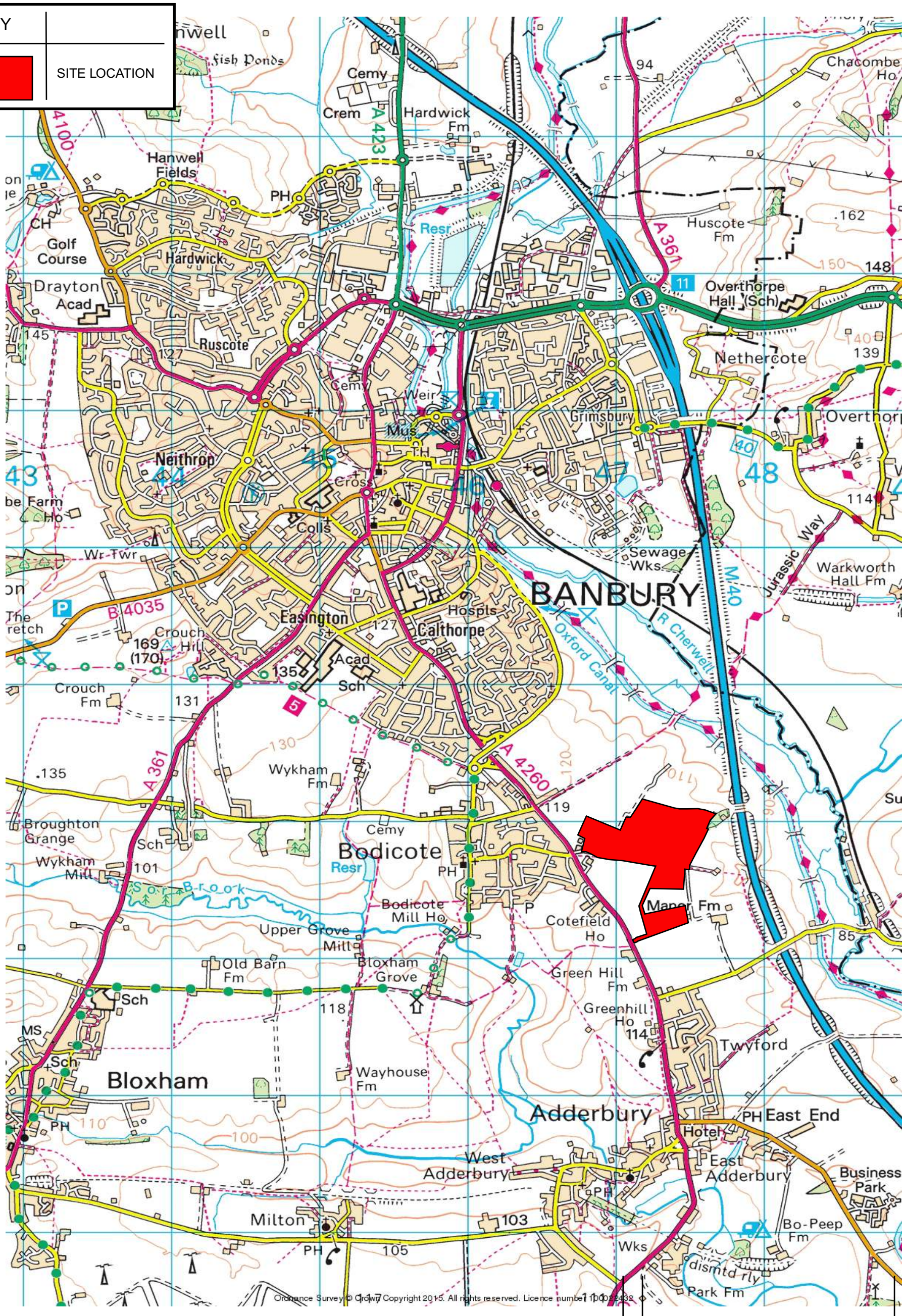
- Opportunities for sustainable transport modes have been taken up as appropriate for the nature and location of the site;
- Safe and suitable access to the site can be achieved for all people; and
- Improvements are proposed within the transport network that cost effectively limit the significant impacts of the development.

8.9 As a result, the development does not result in severe residual cumulative impacts and therefore should not be prevented or refused on transport grounds.

FIGURES AND DRAWINGS

KEY

SITE LOCATION



Rev	Amendments	Drn	Chk	App	Date

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Job Title: BANKSIDE PHASE 2, BANBURY	Scale: NTS	Date: May '19	Designed: SEC	
Drawing Title: SITE LOCATION PLAN	Drawn: SEC	Checked: JB	Approved: JB	
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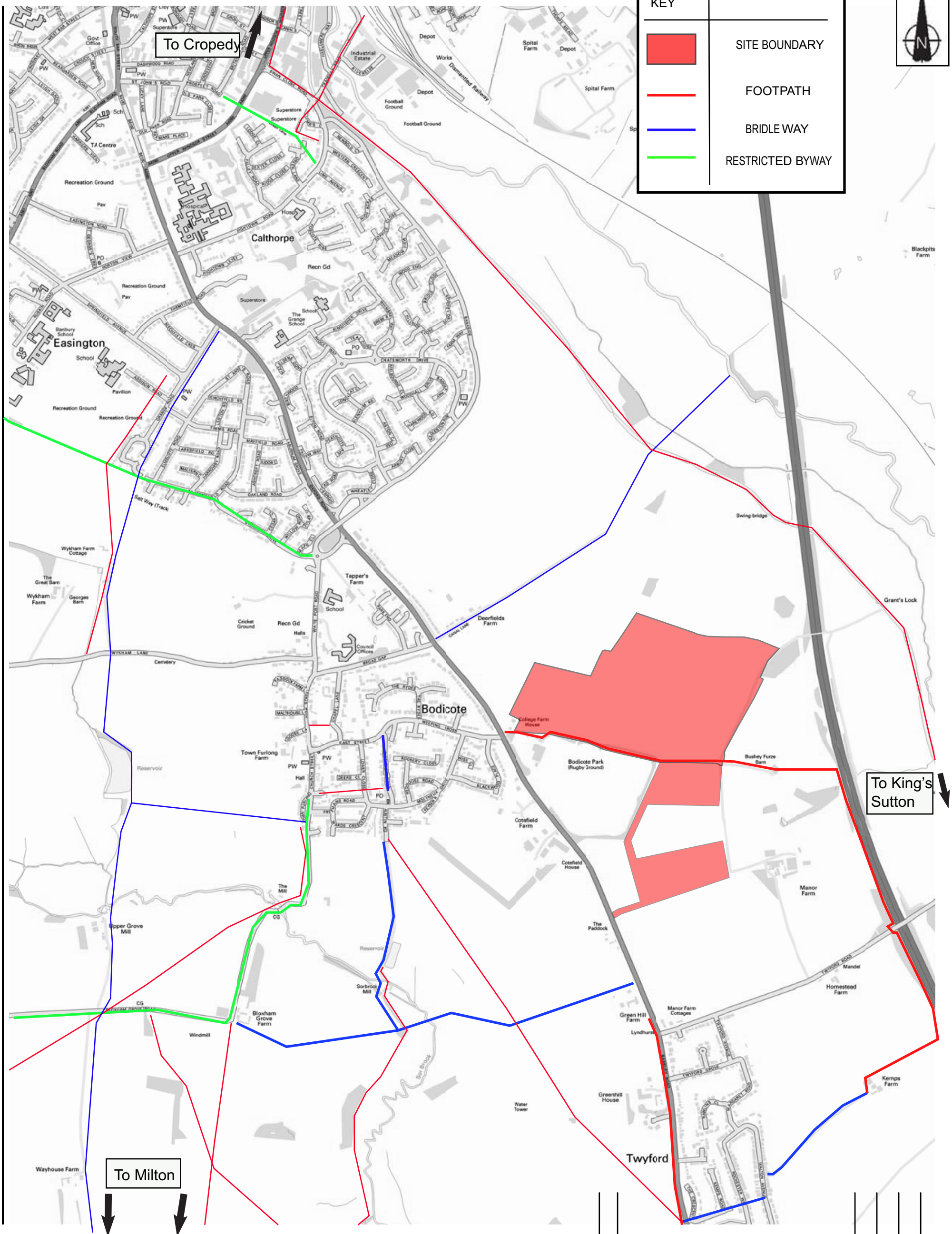

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Job Title: BANKSIDE PHASE 2, BANBURY	Scale: NTS	Date: May 19	Designed: SEC	
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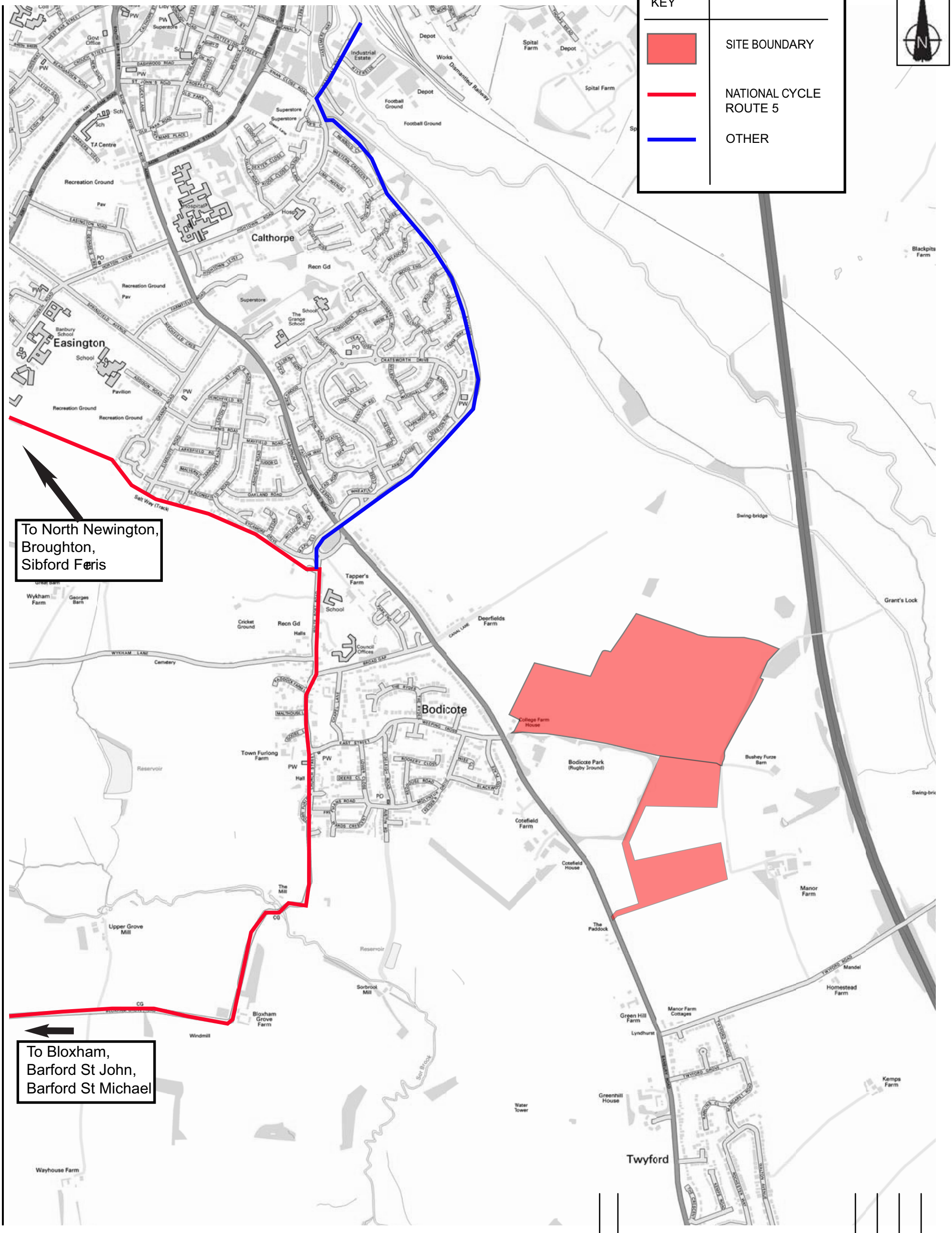

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Job Title: BANKSIDE PHASE 2, BANBURY	Scale: NTS	Date: May '19	Designed: SEC	
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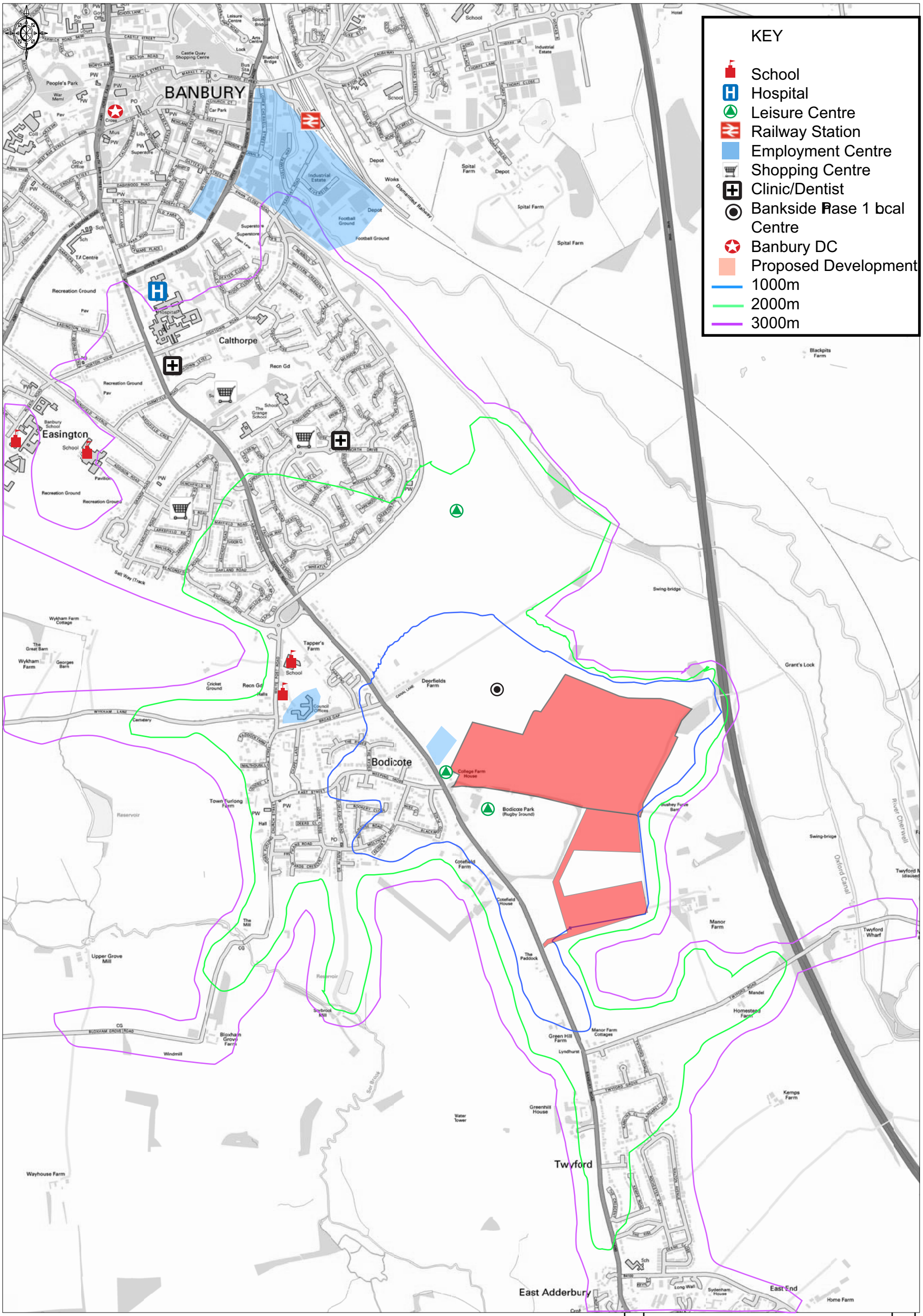

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Job Title: BANKSIDE PHASE 2, BANBURY	Scale: NTS	Date: May '19	Designed: SEC	
Drawing Title: FACILITIES AND SERVICES	Drawn: SEC	Checked: JB	Approved: JB	
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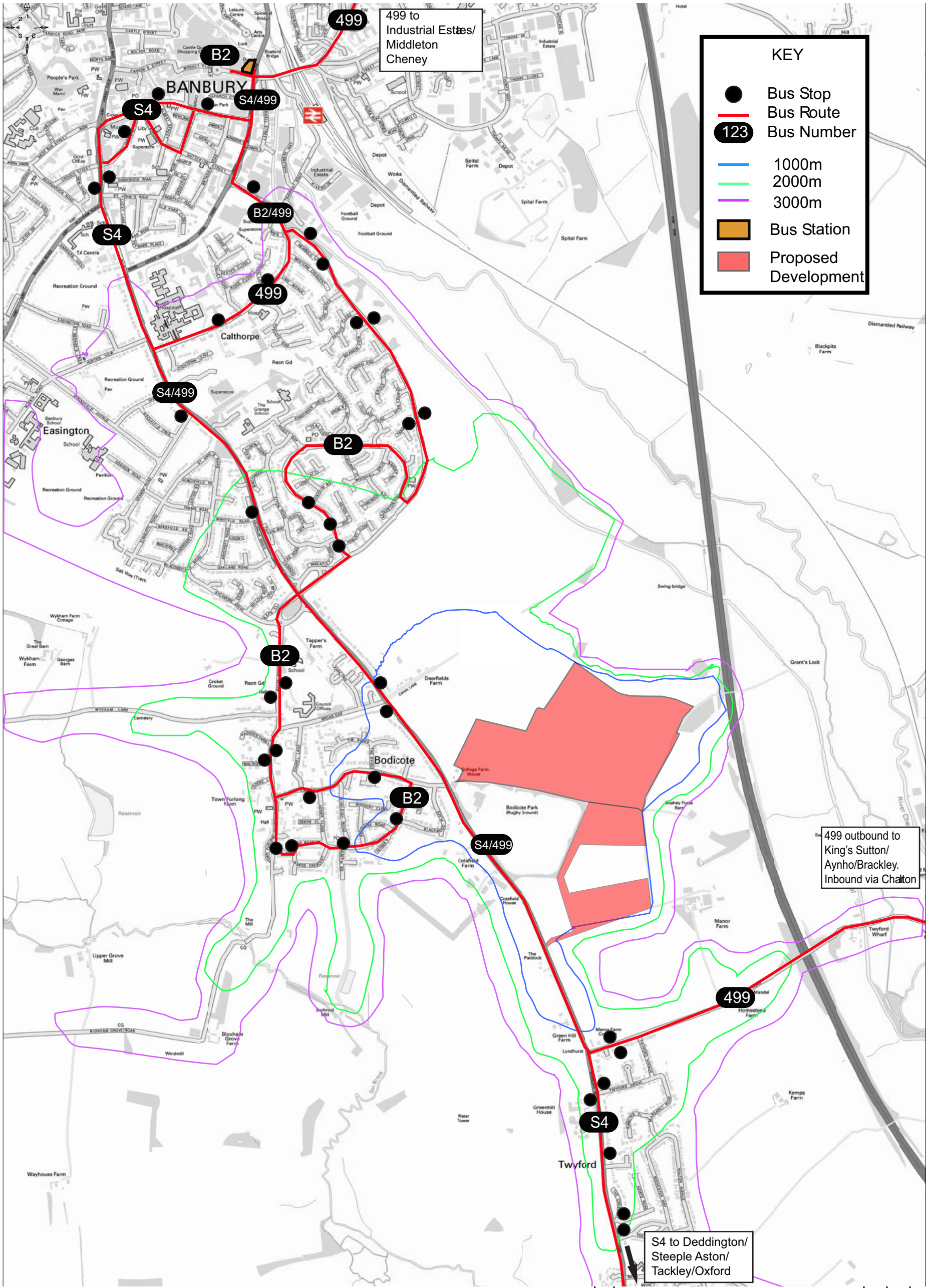

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Job Title: BANKSIDE PHASE 2, BANBURY	Scale: NTS	Date: May '19	Designed: SEC	
Drawing Title: LOCAL BUS SERVICES	Drawn: SEC	Checked: JB	Approved: JB	
Client: HALLAM LAND MANAGEMENT LTD	Job No: 16052-01	Figure No: FIGURE 3.4	Rev:	

KEY

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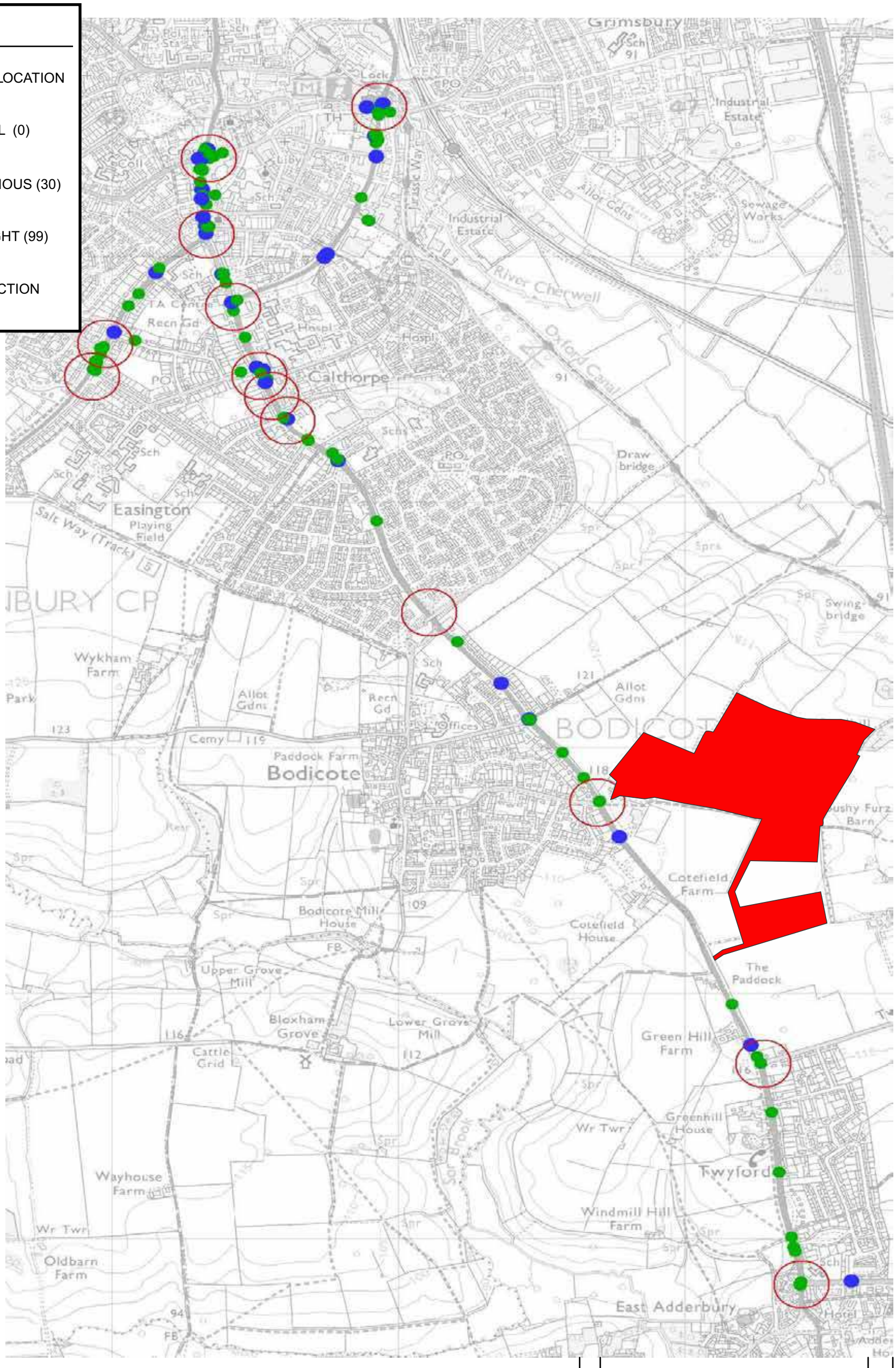
- SERIOUS (30)
- SLIGHT (99)
- JUNCTION



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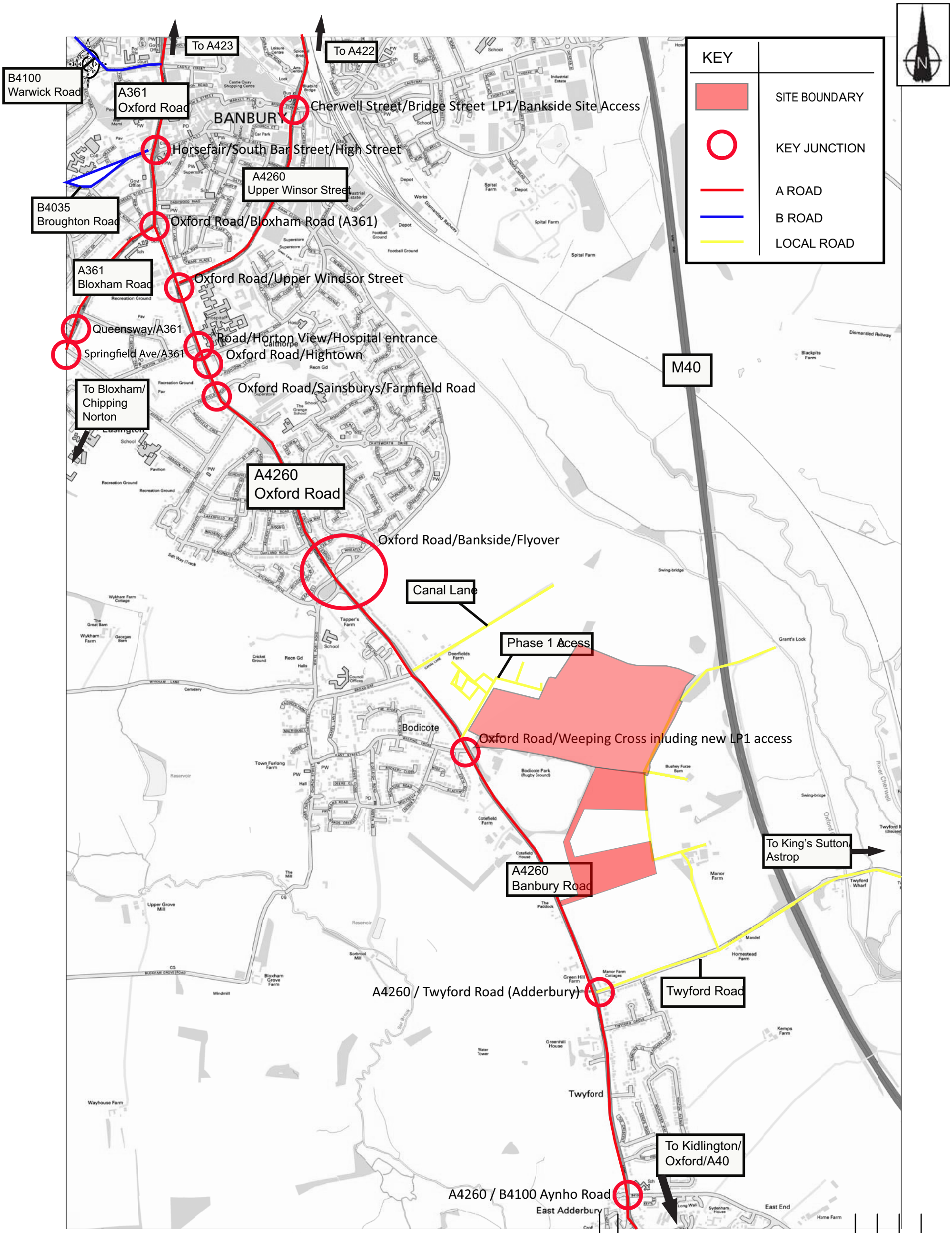
Job Title: BANKSIDE PHASE 2, BANBURY	Scale: NTS	Date: May '19	Designed: SEC	
Drawing Title: ACCIDENT LOCATION	Drawn: SEC	Checked: JB	Approved: JB	
Client: HALLAM LAND MANGEMENT LTD	Job No: 16052-01	Figure No: FIGURE 3.5		Rev



Rev	Amendments	Drn	Chk	App	Date

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Job Title: BANKSIDE PHASE 2, BANBURY	Scale: NTS	Date: May '19	Designed: SEC	
Drawing Title: LOCAL HIGHWAY NETWORK	Drawn: SEC	Checked: JB	Approved: JB	
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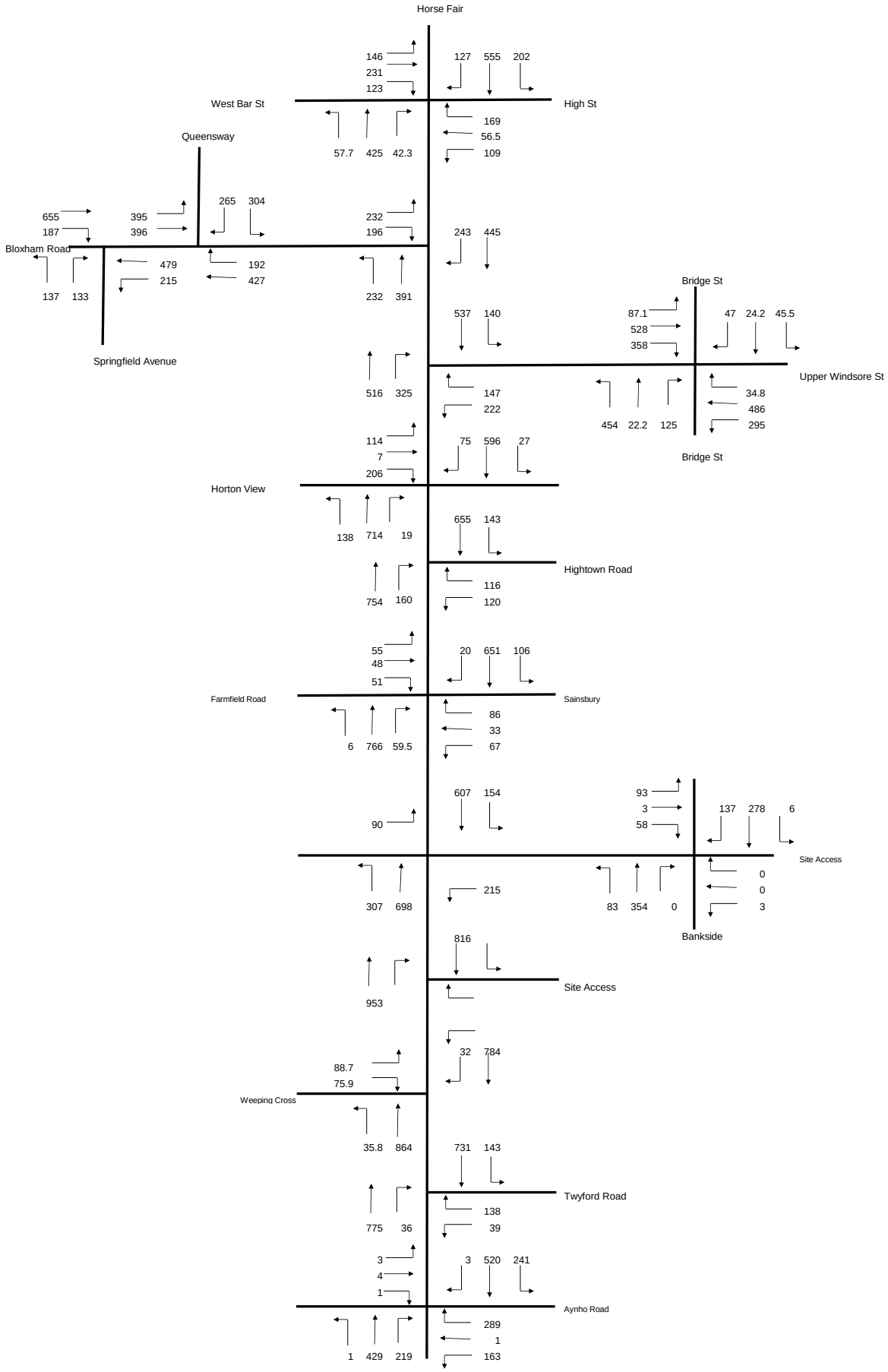
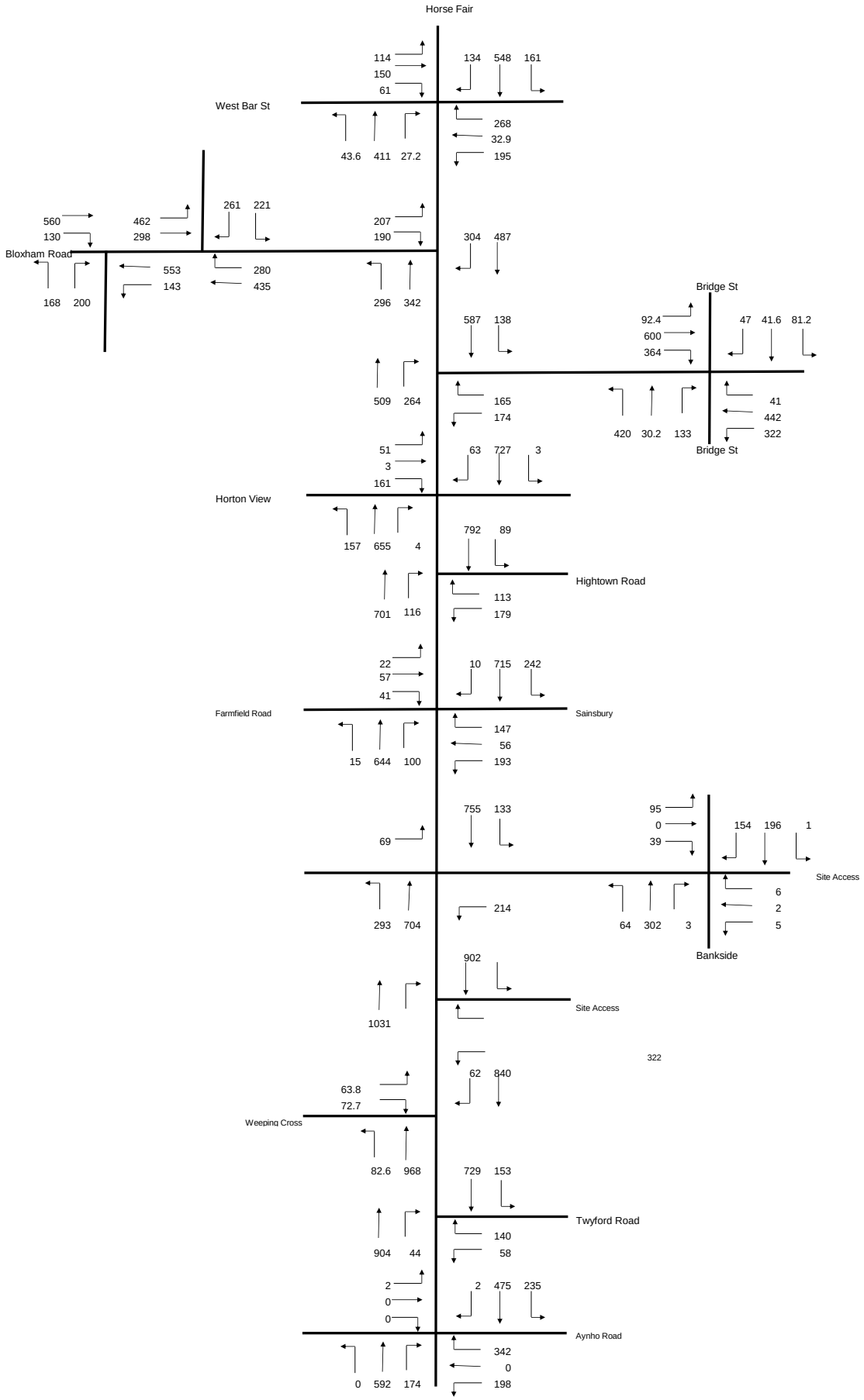


MARKIDES ASSOCIATES 9th Floor, The Tower Building London, SE1 7NX T:020 7442 2225 E: enquiries@markidesassociates.co.uk W: www.markidesassociates.co.uk	Notes:	Job Title: **Bankside Phase 2, Banbury**	Scale: **NTS**
		Drawing Title: **2016 AM Peak Flows**	Job No: **16052-01**
		Figure No: **Figure 3.7**	Date: **12/05/2016**



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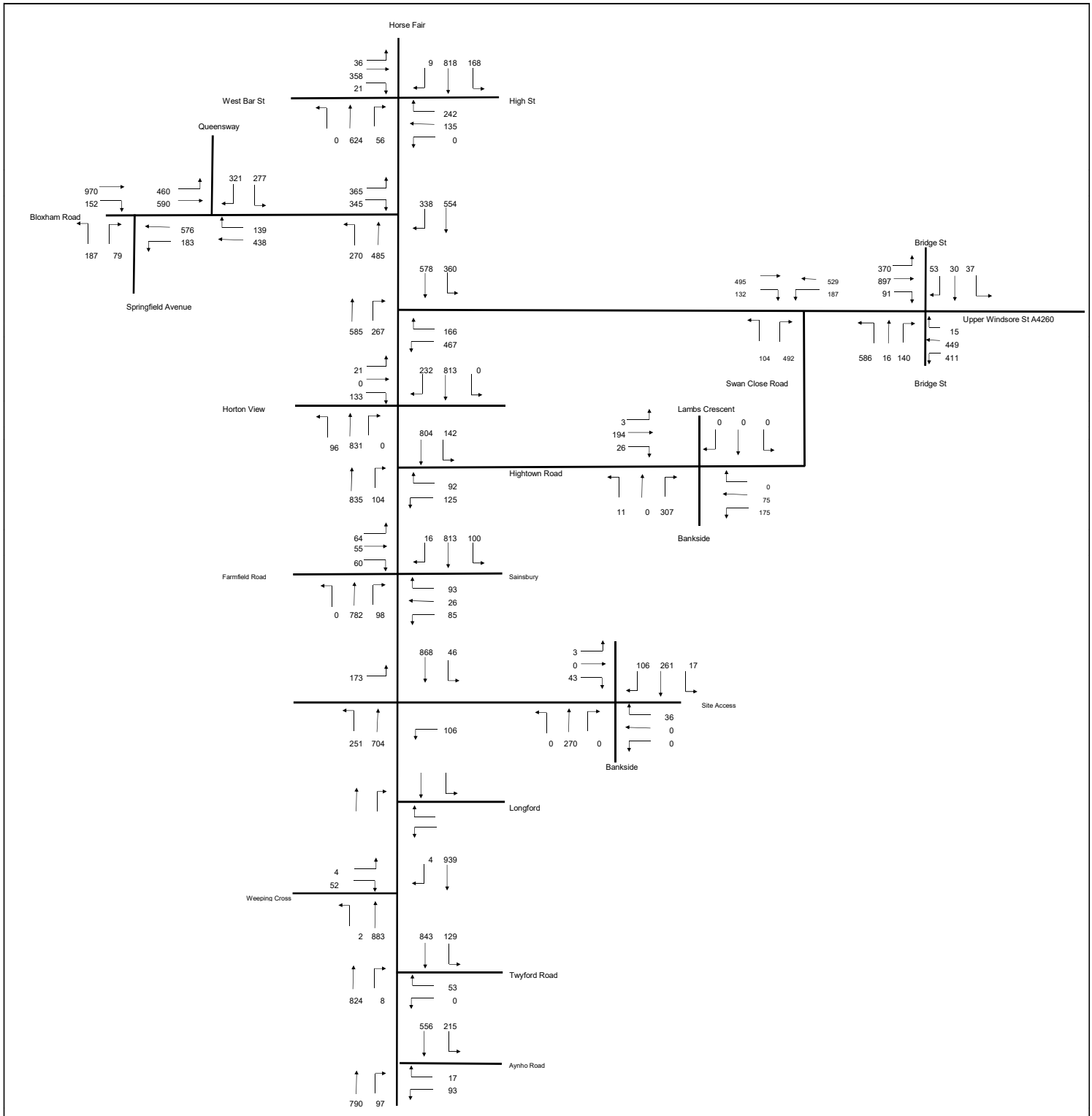
		Drawing Title: **2016 PM Peak Flows**	Job No: **16052-01**
		Figure No: **Figure 3.8**	Date: **12/05/2016**



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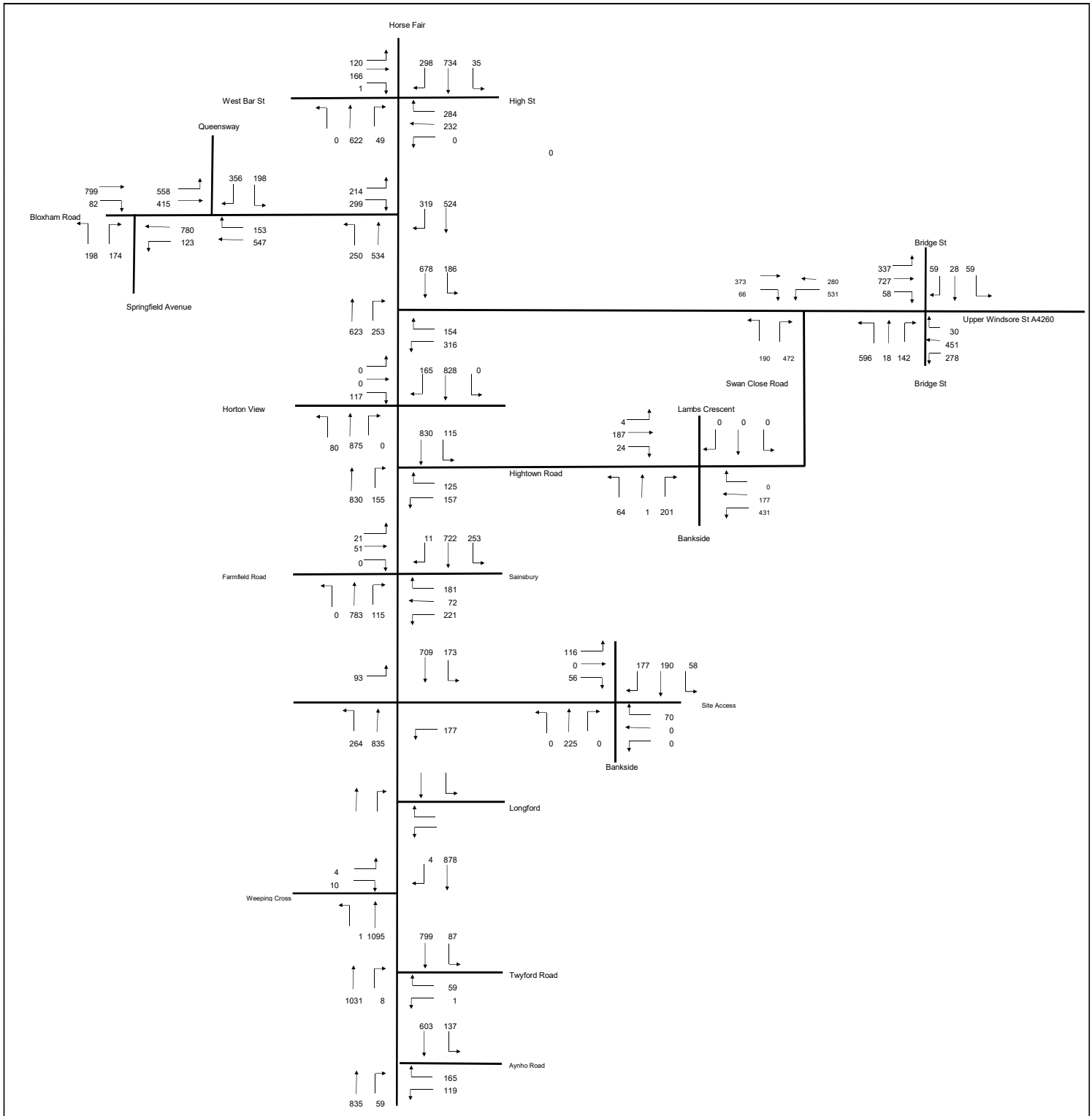
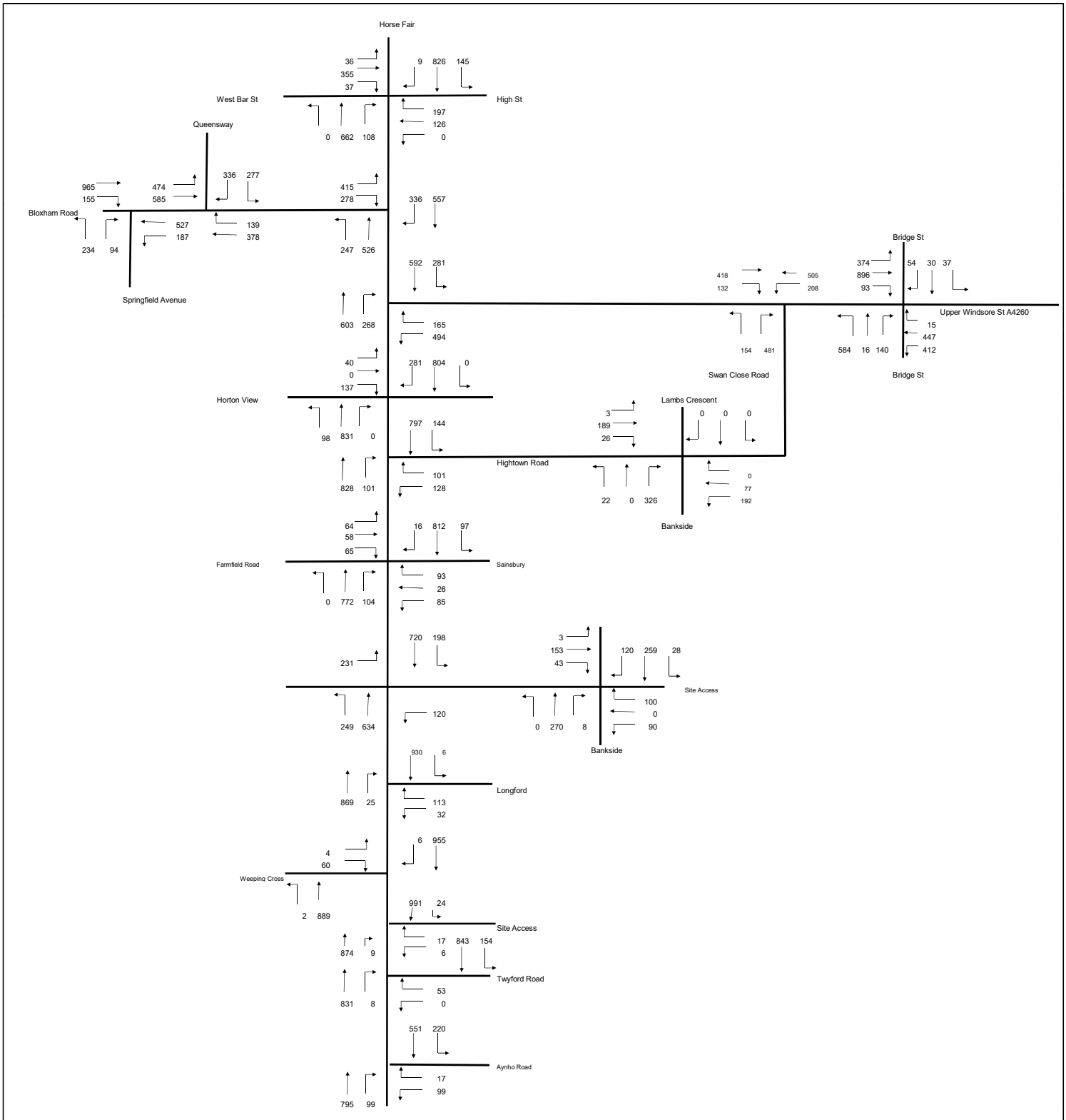
		Drawing Title: **2026 AM Baseline Flows**	Job No: **16052-01**
		Figure No: **Figure 5.1**	Date: **12/03/2019**



MARKIDES ASSOCIATES 9th Floor, The Tower Building London, SE1 7NX T:020 7442 2225 E: enquiries@markidesassociates.co.uk W: www.markidesassociates.co.uk	Notes:	Job Title: **Bankside Phase 2, Banbury**	Scale: **NTS**
		Drawing Title: **2026 PM Baseline Flows**	Job No: **16052-01**
		Figure No: **Figure 5.2**	Date: **12/03/2019**



MARKIDES ASSOCIATES 9th Floor, The Tower Building London, SE1 7NX T:020 7442 2225 E: enquiries@markidesassociates.co.uk W: www.markidesassociates.co.uk	Notes:	Job Title: **Bankside Phase 2, Banbury**	Scale: **NTS**
		Drawing Title: **2026 AM with Dev Flows**	Job No: **16052-01**
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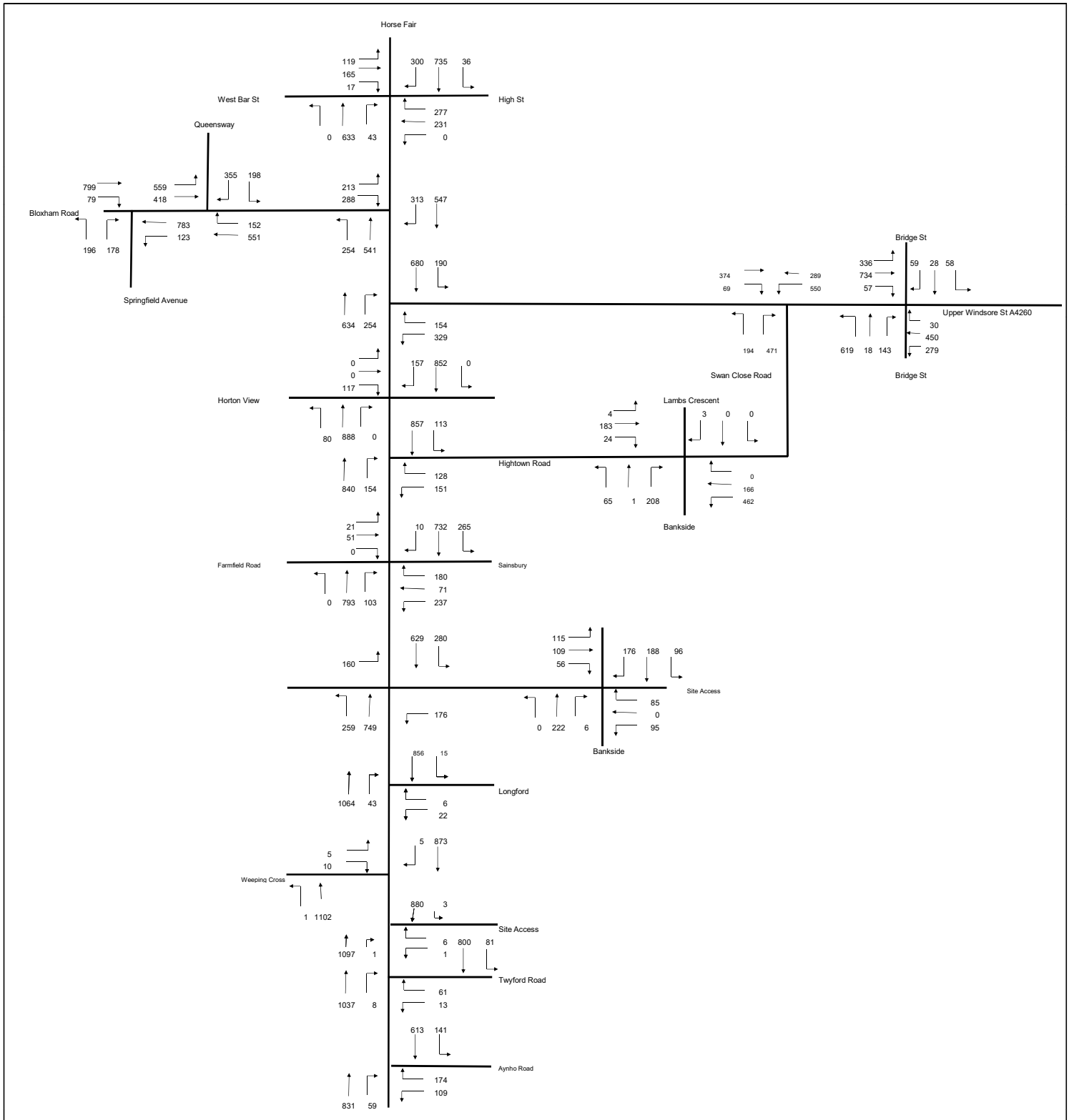
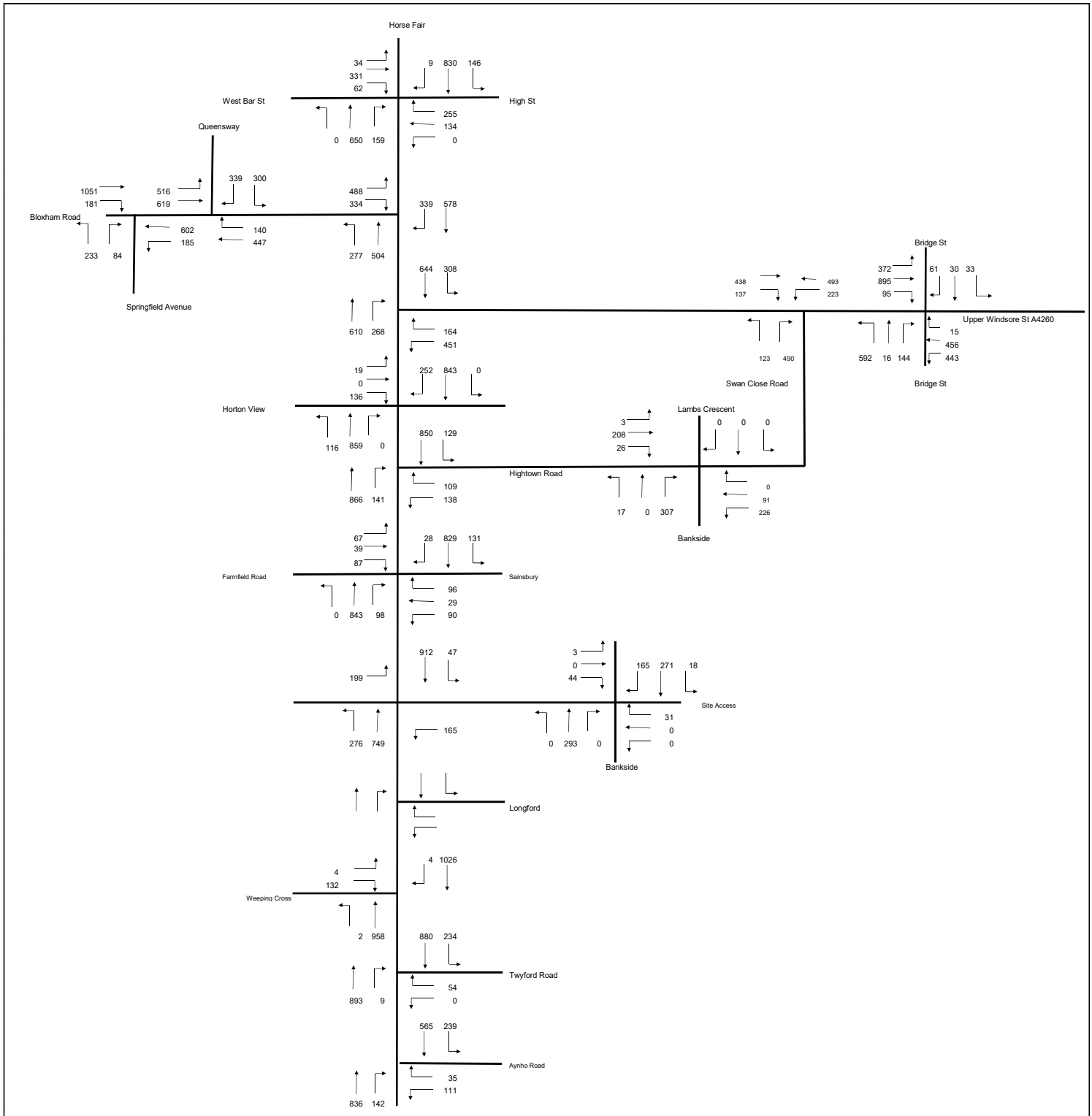
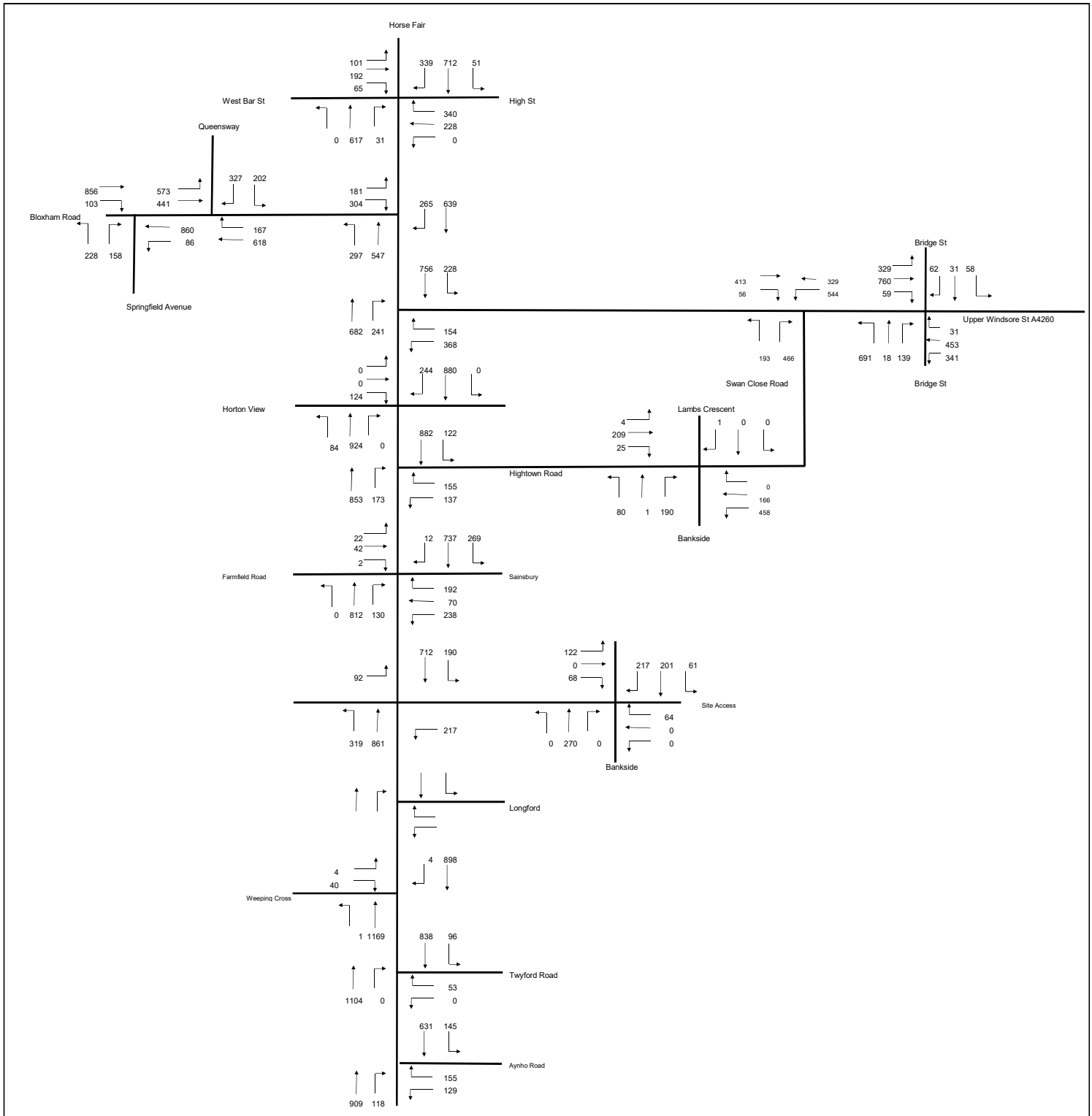


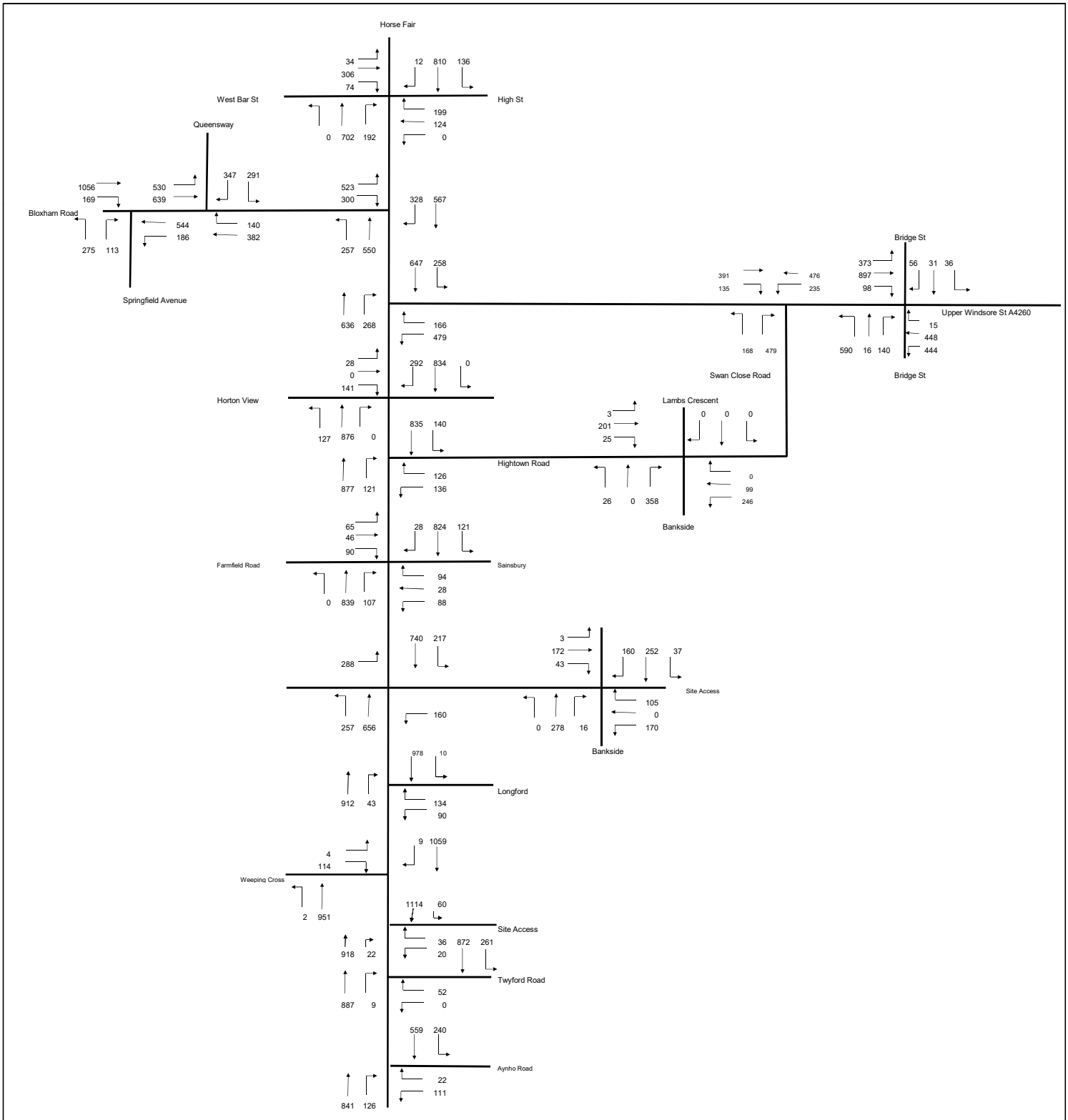
MARKIDES ASSOCIATES 9th Floor, The Tower Building London, SE1 7NX T:020 7442 2225 E: enquiries@markidesassociates.co.uk W: www.markidesassociates.co.uk	Notes:	Job Title: **Bankside Phase 2, Banbury**	Scale: **NTS**
		Drawing Title: **2026 PM with Dev Flows**	Job No: **16052-01**
		Figure No: **Figure 5.4**	Date: **12/03/2019**



MARKIDES ASSOCIATES 9th Floor, The Tower Building London, SE1 7NX T:020 7442 2225 E: enquiries@markidesassociates.co.uk W: www.markidesassociates.co.uk	Notes:	Job Title: **Bankside Phase 2, Banbury**	Scale: **NTS**
		Drawing Title: **2031 AM Baseline Flows**	Job No: **16052-01**
		Figure No: **Figure 5.5**	Date: **12/03/2019**



MARKIDES ASSOCIATES 9th Floor, The Tower Building London, SE1 7NX T:020 7442 2225 E: enquiries@markidesassociates.co.uk W: www.markidesassociates.co.uk	Notes:	Job Title: **Bankside Phase 2, Banbury**	Scale: **NTS**
		Drawing Title: **2031 PM Baseline Flows**	Job No: **16052-01**
		Figure No: **Figure 5.6**	Date: **12/03/2019**



MARKIDES ASSOCIATES 9th Floor, The Tower Building London, SE1 7NX T:020 7442 2225 E: enquiries@markidesassociates.co.uk W: www.markidesassociates.co.uk	Notes:	Job Title: **Bankside Phase 2, Banbury**	Scale: **NTS**
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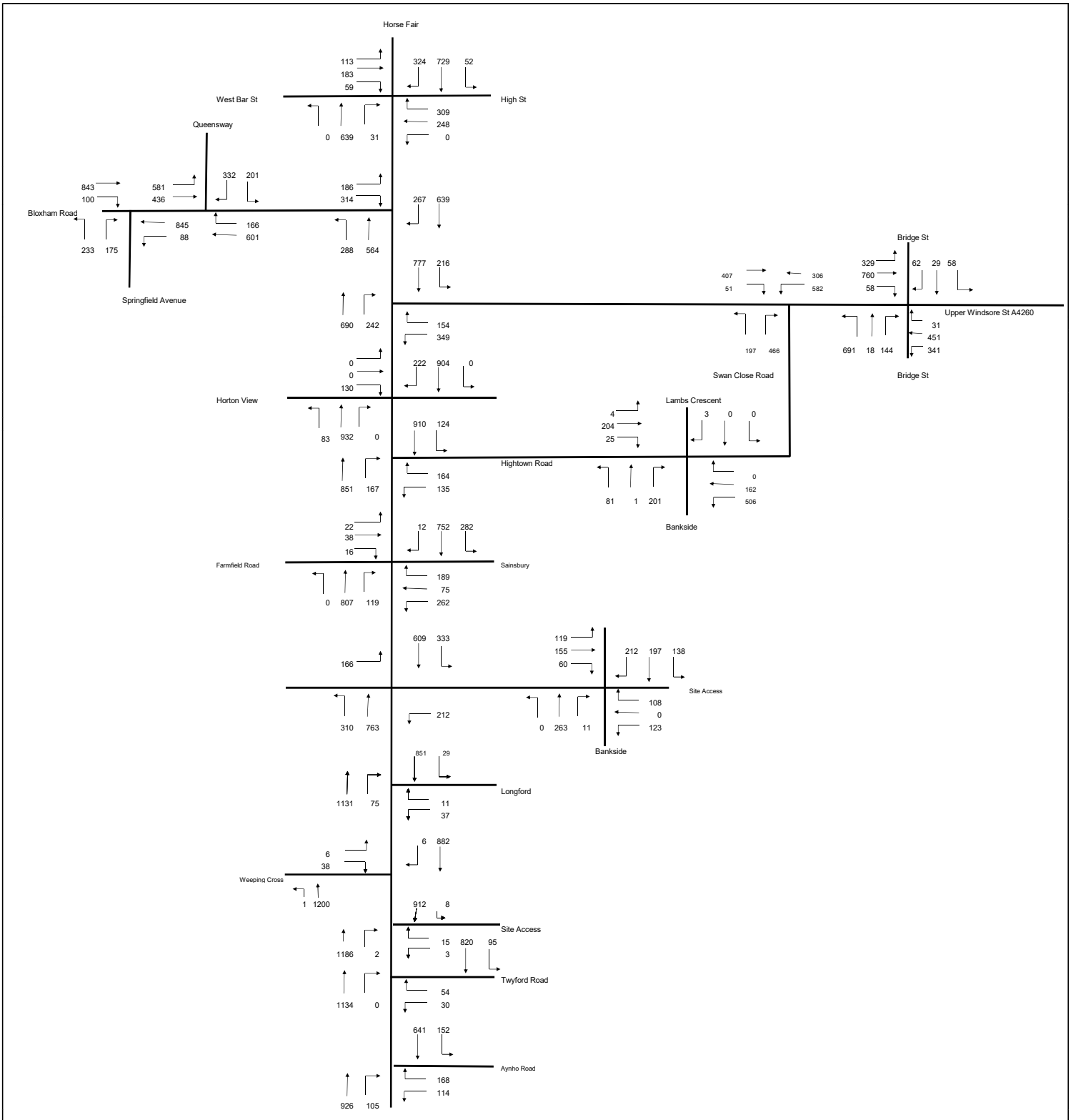
		Figure No: **Figure 5.7**	Date: **12/03/2019**



MARKIDES ASSOCIATES 9th Floor, The Tower Building London, SE1 7NX T:020 7442 2225 E: enquiries@markidesassociates.co.uk W: www.markidesassociates.co.uk	Notes:	Job Title: **Bankside Phase 2, Banbury**	Scale: **NTS**
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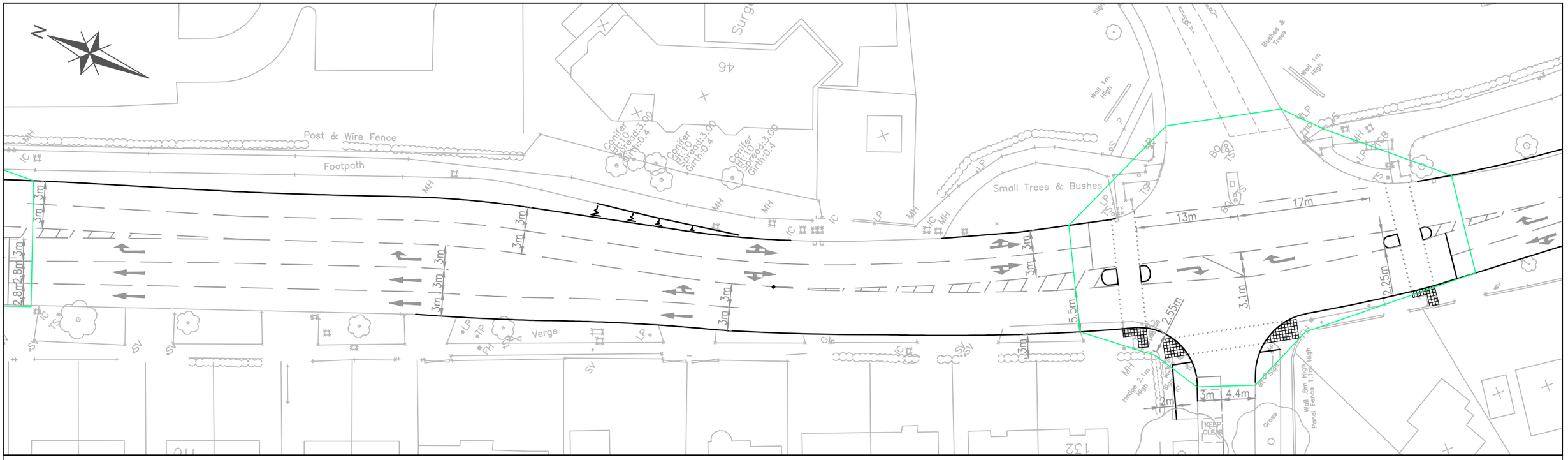
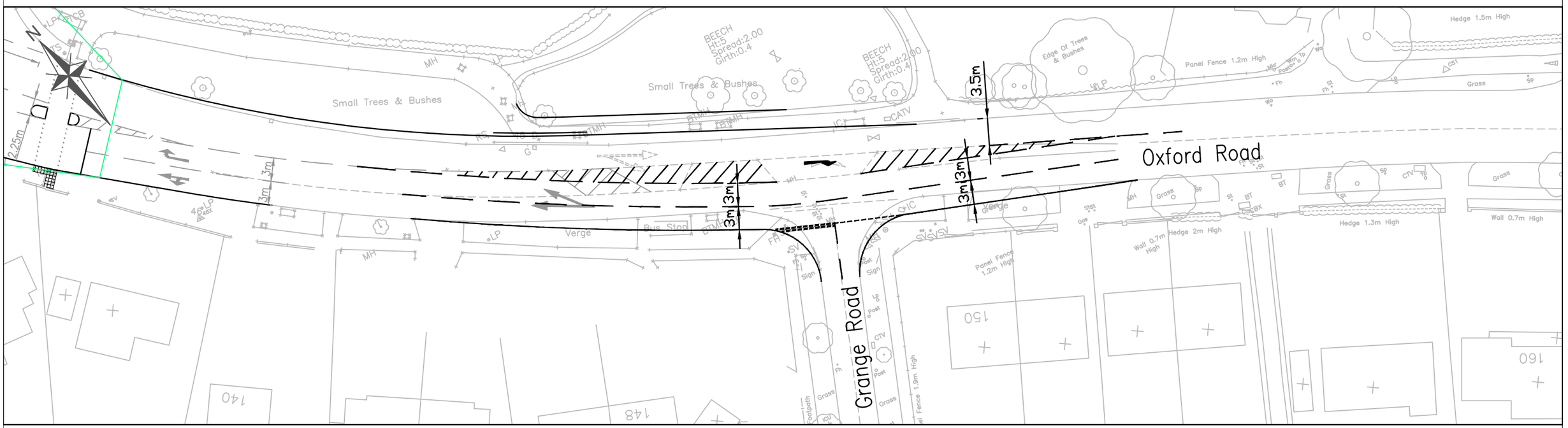
		Figure No: **Figure 5.8**	Date: **12/03/2019**





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B	VIEWPORTS AMENDED	TH	JB	JB	17.05.19
A	VIEWPORTS AMENDED	TH	JB	JB	05.04.19

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Job Title
BANKSIDE PHASE 2
BANBURY

Drawing Title
OXFORD ROAD CORRIDOR IMPROVEMENTS
SHEET 2 OF 2

Client
HALLAM LAND MANAGEMENT LTD

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Job No	**Drawing No**	**Rev**
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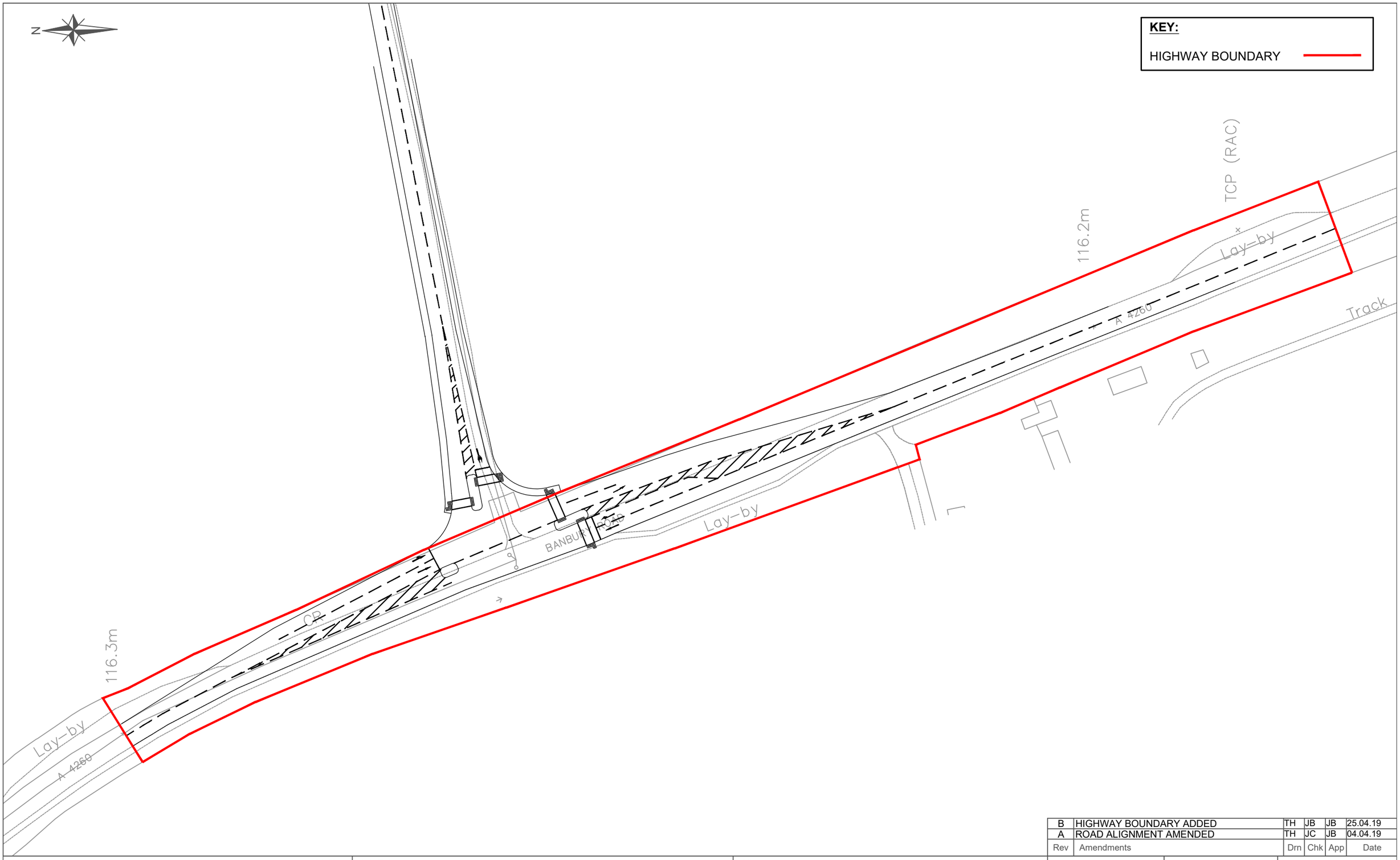

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B	HIGHWAY BOUNDARY ADDED	TH	JB	JB	25.04.19
A	ROAD ALIGNMENT AMENDED	TH	JC	JB	04.04.19

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Job Title
BANKSIDE PHASE 2, BANBURY

Drawing Title
PROPOSED SOUTHERN ACCESS

Client
HALLAM LAND MANAGEMENT LTD

Scale	Date	Designed
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JG	JB	JB
Job No	**Drawing No**	**Rev**
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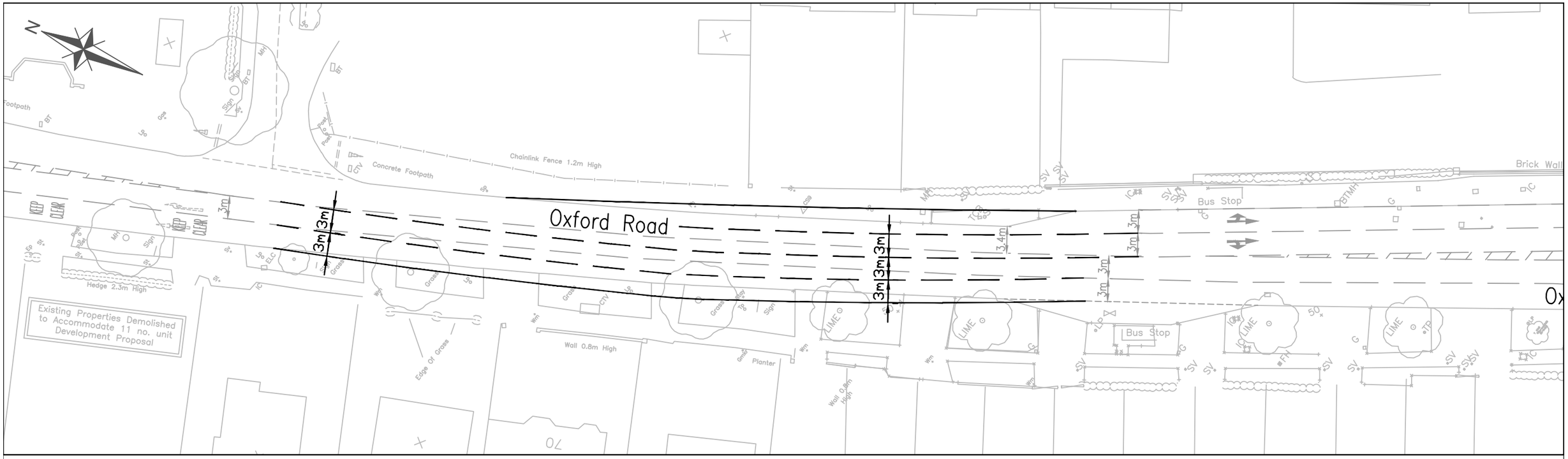

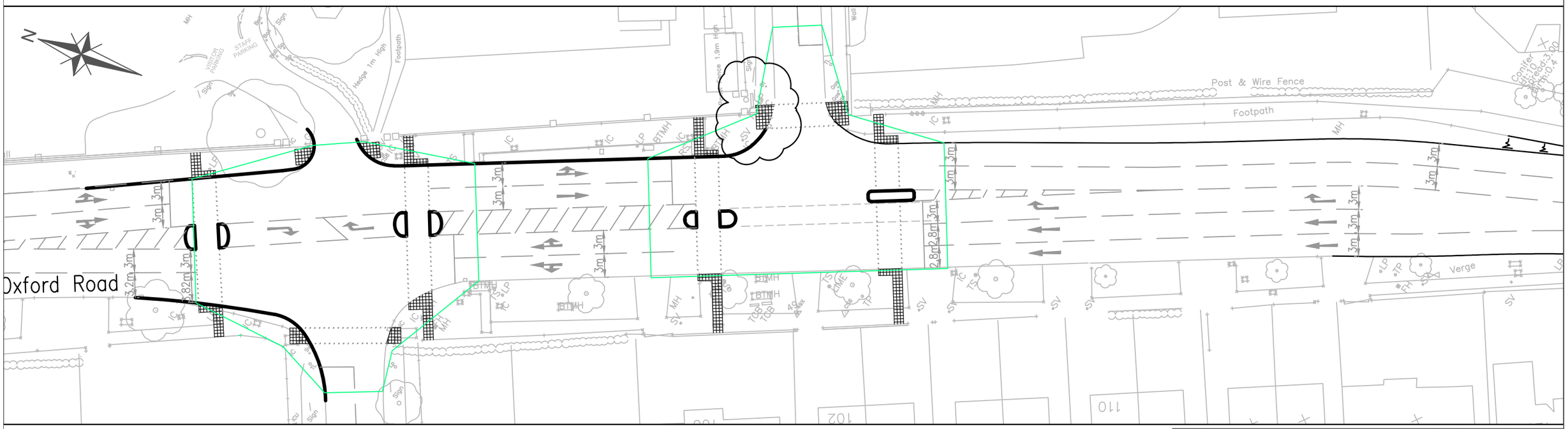

Rev	Amendments	Drn	Chk	App	Date
C	VIEWPORTS AMENDED	TH	JB	JB	17.05.19
B	VIEWPORTS AMENDED	TH	JC	JB	05.04.19
A	LAYOUT AMENDED	FB	JB	AN	01.02.17

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SE1 7NX
Telephone: 0207 442 2225
E: enquiries@markidesassociates.co.uk
W: www.markidesassociates.co.uk

Job Title
BANKSIDE PHASE 2
BANBURY

Drawing Title
OXFORD ROAD CORRIDOR IMPROVEMENTS
SHEET 1 OF 2

Client
HALLAM LAND MANAGEMENT LTD

Scale	Date	Designed
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Drawn	**Checked**	**Approved**
FB	JB	AN
Job No	**Drawing No**	**Rev**
16052	16052-01-106	C

APPENDIX A

OXFORDSHIRE COUNTY COUNCIL'S RESPONSE TO CONSULTATION ON THE FOLLOWING DEVELOPMENT PROPOSAL

District: Cherwell
Application no: 16/00051/SCOP
Proposal: Residential development of up to 750 new homes, including provision for vehicular access from Oxford Road, open space and associated infrastructure (Bankside Phase II)
Location: Land North Of Health Club East Of Phase 2 Longford Park Oxford Road Bodicote

Purpose of document

This report sets out Oxfordshire County Council's view on the proposal.

This report contains officer advice in the form of a strategic localities response and technical team response(s). Where local member have responded these have been attached by OCCs Major Planning Applications Team (planningconsultations@oxfordshire.gov.uk).

District: Cherwell
Application no: 16/00051/SCOP
Proposal: Residential development of up to 750 new homes, including provision for vehicular access from Oxford Road, open space and associated infrastructure (Bankside Phase II)
Location: Land North Of Health Club East Of Phase 2 Longford Park Oxford Road Bodicote

Strategic Comments

It is noted that this scoping opinion request relates to a proposal for 750 dwellings which is 150 more than specified in the Cherwell Local Plan (policy Banbury 4).

Key considerations for the EIA are as follows:

Transport

- Needs to demonstrate how the proposal adheres to the Banbury Area Local Transport Strategy, as well as Cherwell District Local Plan and the National Planning Policy Guidance.
- Needs to consider a greater number of receptors than mentioned in the document.
- A transport assessment scoping document needs to be completed before the actual Transport Assessment is submitted.
- The applicant must refer to the pre-application advice given regarding a submission relating to this site on 12 October 2015 (Reference: 15/00036-PREAPP)

Education

- Additional secondary education provision will be required to meet the cumulative impact of housing growth across Banbury. It is vital that this EIA assessment takes account of the cumulative impacts of growth planned for the town, not just the impact of this proposal in isolation. The Cherwell Local Plan identifies land at Banbury 12, adjacent to this proposed development, as being suitable for a new secondary school to serve the town, and no other suitable site for a new secondary school has yet been identified in Banbury.

Archaeology

- The site contains a number of archaeological features as identified from archaeological fieldwork. The Heritage Chapter will need to include a desk based assessment, along with the results of this fieldwork, to provide an assessment of the impact of any proposed development on these archaeological features.

Detailed officer responses are provided below.

Officer's Name: David Flavin
Officer's Title: Senior Planning Officer
Date: 20 July 2016

District: Cherwell
Application no: 16/00051/SCOP
Proposal: Residential development of up to 750 new homes, including provision for vehicular access from Oxford Road, open space and associated infrastructure (Bankside Phase II)
Location: Land North Of Health Club East Of Phase 2 Longford Park Oxford Road Bodicote

Transport

Key issues:

- Needs to demonstrate how it adheres to the Banbury Area Local Transport Strategy, as well as Cherwell District Local Plan and the National Planning Policy Guidance.
- Need to consider a greater number of receptors than mentioned in the document.
- A transport assessment scoping document needs to be completed before the actual Transport Assessment is submitted.
- The applicant must refer to the pre-application advice given regarding a submission relating to this site on 12 October 2015 (Reference: 15/00036-PREAPP)

Detailed comments:

The applicant has asked for advice on the pre-application EIA screening document and has also said a full Transport Assessment (TA) will be submitted with this as part of the final EIA and planning application. The applicant has given brief descriptions of some of the proposed contents of the TA, but would be advised, before they so this, to complete a TA Scoping document which can be found at: https://www.oxfordshire.gov.uk/cms/content/travel-plans-statements-and-advice

Please click on the link the the PDF document entitled “Transport for New Developments: Transport Assessments and Travel Plans,” near the bottom of the webpage. The list whch should inform any transport assessment scoping document is shown in Appendix 3 (pages 32-34).

Once the applicant has completed this TA scoping document we can provide written feedback, but this will be subject to our charging regime. Details of charges for pre-application advice can be found at: https://www.oxfordshire.gov.uk/cms/content/pre-application-highways-advice-major-planning-applications.

As the development is for 750 homes, we advise that the applicant accesses and uses the up to date traffic model for Banbury, which is owned and held by Oxfordshire County Council, when calculating the impact of the dvelopment on the surrounding transport network. The applicant is advised to contact Natalie Moore, Transport Planner at Oxfordshire County Council, in the first instance, to get advice on this. She can be contacted at: natalie.moore@oxfordshire.gov.uk.

We received a request for pre-appliaction advice as to what the TA mentioned in this EIA screening document should contain. The County Council’s Development Control team responded to this on 12 October 2015. I have attached a copy of this advice as Appendix 1, and strongly advise the applicant to adhere to this when writing the revised scoping document and TA.

Paragraph 5.6.2 of the EIA screening document states that the TA will be produced in accordance with national guideance within the National Planning Policy Framework. The applicant is also advised to refer to the Cherwell District Local Plan which can be accessed at: http://www.cherwell.gov.uk/index.cfm?articleid=11344 and the Oxfordshire Local Transport Plan 4, 2015 – 2031, which can be accessed at: https://www.oxfordshire.gov.uk/cms/content/connecting-oxfordshire-2015-2031-ltp4 . In particular, please see Volume 2 (ii), which refers to local area transport strategies. Banbury's strategy is described on pages 47-57.

In paragraph 5.6.11 of the EIA screeing document the applicant lists the junctions they anticpate to be the most impacted by phase 2 of this development. These are referred to as receptors. In October 2015 my colleague advised the applicant that the impact on the following junctions would need to be assessed:

- Oxford Road/Bankside/Flyover
- Oxford Road/Weeping Cross including the new LP1 access
- Oxford Road/Sainsburys/Farmfield Road
- Oxford Road/Hightown Road/Horton View/Hospital entrance
- Oxford Road/Upper Windsor Street
- Oxford Road/Bloxham Road (A361)
- Cherwell Street/Bridge Street
- LP1/Bankside site access
- Horsefair/South Bar Street/High Street
- A4260 / Twyford Road (Adderbury)
- A4260 / B4100 Aynho Road (Adderbury)
- Springfield Ave/A361 and Queensway/A361.

Officer's Name: Will Marshall
Officer's Title: Senior Transport Planner
Date: 20 July 2016

Transport Response Appendix 1:
Transport Development Control Advice – 12 October 2015

District: Cherwell
Application no: 15/00036/PREAPP
Proposal: Pre-Application Advice – Residential development for up to 750 new homes including provision for vehicular access from Oxford Road, open space and associated infrastructure.
Location: Land North of Health Club East of Phase 2 Longford Park Oxford Road Bodicote.

Transport

Recommendation:

Not relevant as this is Pre-App

Key issues:

- A Transport Assessment (TA) is needed to accompany any planning application – revised scoping ahead of any TA strongly advised

- Careful detailed assessment of proposed site access arrangements needed, particularly bearing in mind that Bankside phase 1 (Longford Park phase 1 – LP1) traffic likely to use the new Oxford Road junction shown on layout plan.

- Assessment of a variety of other junctions on the local transport network will also be needed

- Other S106 financial contributions needed to cover other items including towards Banbury Area Transport Strategy, Travel Plan monitoring, Rights of Way protection/improvement, bus stop infrastructure

- 40mph limit needs to be extended to include new Oxford Road junction

- Extension of LP1 bus service into this development (LP2) needed – site layout needs to reflect this and S106 financial contribution will be needed to ensure service runs from the earliest stage of the development.

- Insufficient connections for pedestrians/cyclists between Longford Park phase 1 and this development

- Off-site cycling and walking connections need to be included in proposals. Walking and cycling audits should be carried out.

Legal agreement required to secure:

S106 required to secure such things as:

- the extension of Longford Park Phase 1 (LP1) bus service into the heart of this development. This would require an increase in frequency as well.

- £10,000 for the provision of fixed infrastructure at each bus stop to be sited on the development, inclusive of a Premium Route pole/flag/information case units and up to nine shelters. It is not expected that a shelter will necessarily be needed at each stop - the actual number of shelters to be provided would be subject to the developer confirming in writing future maintenance arrangements with the relevant Parish or Town Councils.

- The developer would also provide £4,100 for real time information displays at each of the Banbury bound shelters on the development

- off-site mitigation of impact of traffic generated by the development – scope and scale to be determined through Transport Assessment.

- Management of the impacts on public rights of way in vicinity of the development by improving routes. Primarily this is to improve the surface of routes to take account of the likely increase in use by residents of the development. This may also include short linking routes, new or replacement structures like gates, bridges and seating; sub-surfacing and drainage to enable easier access, improved signing and protection measures such as anti-motorcycle barriers

- £2,040 for monitoring of the agreed Travel Plan

- £5,000 for the necessary TRO process to extend the 40mph speed limit to include the new junction with Oxford Road (and possible extension of 40mph to Adderbury 30mph limit)

S278 – to provide site accesses – with LP1 and on Oxford Road

Conditions:

Conditions likely to be recommended would include (draft wording currently based on information provided):

Access: Full Details
Prior to the commencement of the development hereby approved, full details of the means of access between the land and the highway on the A4260 Oxford Road and Longford Park Phase 1 including position, layout, construction, drainage and vision splays shall be submitted to and approved in writing by the Local Planning Authority. Thereafter, and prior to the first occupation of any of the dwellings, the means of access shall be constructed and retained in accordance with the approved details. *Reason - In the interests of highway safety and to comply with Government guidance contained within the National Planning Policy Framework*

Estate Accesses, Driveways and Turning Areas
Prior to the commencement of the development hereby approved, full specification details of the vehicular accesses, driveways and turning areas to serve the dwellings, which shall include construction, layout, surfacing and drainage, shall be submitted to and approved in writing by the Local Planning Authority. Thereafter and prior to the first occupation of any of the dwellings, the access, driveways and turning areas shall be constructed in accordance with the approved details. *Reason - In the interests of highway safety, to ensure a satisfactory standard of construction and layout for the development and to comply with Government guidance contained within the National Planning Policy Framework.*

Car Parking
No dwelling or other buildings and uses shall be occupied or implemented until car parking space(s) to serve them have been provided according to plans showing parking and the necessary manoeuvring and turning to be submitted and agreed by the Local Planning Authority. All car parking shall be retained at all times thereafter, unless otherwise agreed in writing beforehand by the local planning authority. Car parking shall be retained unobstructed except for the parking and manoeuvring of vehicles at all times thereafter *Reason - To ensure appropriate levels of car parking are available at all times to serve the development, and to comply with Government guidance contained within the National Planning Policy Framework.*

Cycle Parking Provision
Prior to the first use or occupation of the development hereby permitted, a plan showing the number, location and design of cycle parking for all aspects of the site shall be submitted to and approved in writing by the Local Planning Authority. The cycle parking shown on the agreed plan shall be provided prior to first occupation of the development. The cycle parking will be permanently retained and maintained for the parking of cycles in connection with the development. *Reason - To ensure appropriate levels of cycle parking are available at all times to serve the development, and to comply with Government guidance contained within the National Planning Policy Framework.*

Pedestrian and cycle access
Prior to the commencement of the development hereby approved, full details of multiple pedestrian and cycle access points between the development and the Longford Park Phase 1 development and A4260 Oxford Road shall be submitted to and approved in writing by the Local Planning Authority. Thereafter, these means of access shall be constructed and retained in accordance with the approved details. *Reason**:** To ensure safe and suitable access to the development for all persons.*

Public Transport
The developer must identify locations for bus stops at the earliest possible opportunity, with these locations marked on all plans, so all stakeholders and future purchasers are absolutely clear about this. Indicative locations should be shown at Outline stage, with firm location agreed before Full or Reserved Matter applications. Probably, two pairs of stops will be required (4 in total). The developer is advised to engage with Banbury Town Council as early as possible, regarding future arrangements for bus shelter maintenance. The Town Council has a contract with Clear Channel Ltd for the supply of shelters (advertising and non-advertising).

Drainage
Development shall not begin until a surface water drainage scheme for the site, based on sustainable drainage principles and an assessment of the hydrological and hydro-geological

context of the development, has been submitted to and approved in writing by the local planning authority. The scheme shall subsequently be implemented in accordance with the approved details before the development is completed. The scheme shall also include:

- Discharge Rates
- Discharge Volumes
- Maintenance and management of SUDS features (this may be secured by a Section 106 Agreement)
- Sizing of features – attenuation volume
- Infiltration tests to be undertaken in accordance with BRE365
- Detailed drainage layout with pipe numbers
- SUDS (list the suds features mentioned within the FRA to ensure they are carried forward into the detailed drainage strategy)
- Network drainage calculations
- Phasing plans
- Flood Risk Assessment

Reason - To ensure satisfactory drainage of the site in the interests of public health, to avoid flooding of adjacent land and property and to comply with Government guidance contained within the National Planning Policy Framework.

Residential Travel Plan

Prior to commencement of development a residential travel plan will be submitted and approved by the local planning authority in consultation with the local highway authority. The plan shall incorporate details of the means of regulating the use of private cars at the development in favour of other modes of transport and the means of implementation and methods of monitoring.

Reason - In the interests of sustainability and to ensure a satisfactory form of development, in accordance with Government guidance contained within the National Planning Policy Framework.

Travel Information Packs

Travel information packs, the details of which are to be submitted to and approved in writing by the Local Planning Authority prior to first occupation, shall be provided to every resident on first occupation. *Reason - In the interests of sustainability and to comply with Government guidance contained within the National Planning Policy Framework.*

Rights of Way improvement

A plan will be submitted in writing and agreed by the local planning authority for how Bodicote Footpath 137 will be improved within the development site through surfacing and other measures as appropriate. *Reason - To ensure the public right of way remains available and convenient for public use.*

Protection of Existing Public Footpaths

Prior to the commencement of any part of the development hereby approved within 10m of the existing public footpath(s), the affected footpath(s) shall be protected and fenced to accommodate a width of a minimum of 5m in accordance with details to be firstly submitted to and approved in writing by the Local Planning Authority. Thereafter, the footpath(s) shall remain fenced and available for use throughout the construction phase in accordance with the approved details until a time that the diverted footpath(s) is/are available for use by the public in accordance with condition unless provision has been made for temporary closure under the Highways Act 1980. *Reason - To ensure the public right of way remains available and convenient for public use.*

Construction traffic management plan
Prior to commencement of the development hereby approved, a Construction Traffic Management Plan shall be submitted to and approved in writing by the Local Planning Authority. Thereafter, the approved Construction Traffic Management Plan shall be implemented and operated in accordance with the approved details. *Reason - In the interests of highway safety and the residential amenities of neighbouring occupiers.*

Informatives:

Please note the Advance Payments Code (APC), Sections 219 -225 of the Highways Act, is in force in the county to ensure financial security from the developer to off-set the frontage owners' liability for private street works, typically in the form of a cash deposit or bond. Should a developer wish for a street or estate to remain private then to secure exemption from the APC procedure a 'Private Road Agreement' must be entered into with the County Council to protect the interests of prospective frontage owners. For guidance and information on road adoptions etc. please contact the County's Road Agreements Team on 01865 815700 or email roadagreements@oxfordshire.gov.uk

Detailed comments:

Transport Assessment

A Transport Assessment (TA) and Travel Plan (TP) will need to accompany any application for this site. The covering letter for the pre-app states that "these documents are in preparation with active consultation with OCC". There was a pre-app meeting with county council transport development control and strategy officers at the beginning of this year when a completed draft TA scoping document was discussed with the transport consultant and various actions agreed. However, a revised scoping form has not yet been received. In addition some significant changes to the proposal have clearly been made, notably to the access arrangements, further emphasising the need for the submission of a revised scoping form and further discussion to necessitate agreement of the scoping prior to submission of the outline application.

Junctions to be assessed as part of the TA to understand the possible impact LP2 could have include:

Oxford Road/Bankside/Flyover
Oxford Road/Weeping Cross including the new LP1 access
Oxford Road/Sainsburys/Farmfield Road
Oxford Road/Hightown Road/Horton View/Hospital entrance
Oxford Road/Upper Windsor Street
Oxford Road/Bloxham Road (A361)
Cherwell Street/Bridge Street
LP1/Bankside site access
Horsefair/South Bar Street/High Street
A4260 / Twyford Road (Adderbury)
A4260 / B4100 Aynho Road (Adderbury)
Springfield Ave/A361 and Queensway/A361

The proposed methodology of junction assessments should be agreed with the highway authority in advance of submission of any planning application.

Method of travel to work data from the 2011 Census should be extracted from Cherwell Middle Output area 008 (Bloxham/Bodicote) rather than Calthorpe (007) as was previously suggested.

The following Committed development sites need to be included in the TA (please double check with the LPA)

Local Plan Allocation Site	Land Parcel	Planning Application	Planning Application Outcome	Date of Decision	App Heading
Banbury 2	Land Adjoining Foxhill And **West** Of Southam Road Banbury	13/00158/OUT	Application Permitted	18th December 2013	OUTLINE - Development of up to **90 residential** (Use Class 3/extra care housing), Class A uses, Class D1 use with associated access, landscaping/open space, parking and related works
Banbury 2	Hardwick Farm, East of Southam Road, Banbury	13/00159/OUT	Application Permitted	18th December 2013	OUTLINE - Demolition of existing structures; development of up to 510 residential units.
Banbury 5	Land Off Warwick Road North Of Hanwell Fields Banbury (Northern parcel)	12/01789/OUT	Application Permitted	2nd September 2014	Outline application for up to 350 dwellings, together with new vehicular access from Warwick Road and associated open space
Banbury 5	Land N Hanwell Fields Warwick Road, Banbury (Southern Parcel)	14/00066/OUT	Application Permitted	Thu 02 Apr 2015	OUTLINE - Planning Application for up to 160 dwellings together with associated infrastructure and open space with all matters reserved except access
Non Allocated Site	Land North East of Crouch Hill Farm and South Broughton Road, Banbury, Oxfordshire	13/01528/OUT	Application Permitted		Residential development including means of access from Broughton Road, Banbury (indication up to 40 dwellings)

There is also a development at land to the West of Bloxham Road this for 350 dwellings (14/01188/out). This development has been approved subject to the completion of a S106 agreement. So it should be included as committed development.

An analysis should be included in the TA of the recorded 5 year accident data in an area to be agreed prior to submission of any planning application.

S106 financial contribution to Banbury Area Transport Strategy

All peak hour trips from this development would add to the Banbury transport network. A contribution toward the Banbury Area Transport Strategy would therefore be required to mitigate the cumulative impact of planned growth by funding transport infrastructure and services which cannot be attributed to a single development, but which will benefit people travelling to/from this potential development. The Cherwell Planning Obligations Draft Supplementary Planning Document (July 2011) provides a contribution rate towards general transport and access impacts. Once a housing mix is provided, the following will be used to calculate the contribution toward the Banbury Area Transport Strategy:

The Transport Infrastructure means the formula Matrix:

£(A X 442) + (B X 638) + (C X 994) + (D X 1 ,336)

When A means the number of 1 Bedroomed Units B means the number of 2 Bedroomed Units C means the number of 3 Bedroomed Units D means the number of 4 Bedroomed Units

Direct mitigation schemes, including public transport, are additional to the contribution to the Banbury Area Transport Strategy. Contributions will be specified towards a specific scheme/s within the Banbury Area Strategy of Connecting Oxfordshire: Local Transport Plan 2031.

Site size

This proposal is for 750 dwellings which is 150 more than identified in the Cherwell Local Plan. The potential for LP2 to have a greater impact on the surrounding transport network would need to be covered in the TA. It appears that the additional dwellings have led to the sports pitches required by policy Banbury 4 being located on the site of policy Banbury 12 which compromises the area and site layout for the football club and secondary school required there.

Site access

This appears to be from Oxford Road at two points – one at the existing LP1 access and another towards the southern end of the Banbury 12 site frontage. Access appears also to be possible through LP1 from the Bankside junction. An access via an additional arm off the Weeping Cross signalised junction was proposed earlier this year but appears now not to be included.

The new junction on Oxford Road is located in a stretch of 60mph speed limit approximately 180m south of the existing Bodicote 40mph limit. Extending the 40mph limit to include the new junction is recommended. This then would leave only a short stretch of 60mph before the 30mph limit for Adderbury – consideration of extending the 40mph all the way should be given.

Very careful assessment of the likely number of trips through the junctions will need to be made so that the designs can respond appropriately; this also applies to the existing LP1 junctions on Oxford Road and Bankside. Residents of LP1 as well as the new development are both likely to want to use the southern Oxford Road accesses. Similarly, the existing LP1 accesses on Oxford Rd and Bankside will be used by residents of LP2. Modelling of these junctions will need to consider whether improvements are required.

The need to accommodate buses through the southern access on Oxford Road should be taken into account in drawing up design options – an un-signalised priority junction would pose a serious challenge to buses trying to turn right out of the development. See below for further comments on providing for buses in the development.

Public Transport

The consented proposals for LP1 include S106 contributions to ensure that residents have access to an attractive level of public transport with the aim of influencing choice of mode in a congested road network in Banbury. In the short term this will be by additional investment in the S4 service that routes along the Oxford Road between Banbury and Oxford. Subsequently, a dedicated service into the LP1 development is envisaged that would route by means of a loop that includes a section of Oxford Road via the new site access.

For LP2, walking distances to the Oxford Road for many of the residents would be long and certainly an extension of the LP1 bus service would be required as would provision of additional frequency of service. By far the best way of delivering this would be by providing a linear route with a terminal turning point at the eastern end. The next best option would be a small terminal loop, so the bus can wait for its scheduled departure time back to Banbury without disadvantaging bus users who would be required to wait on board, if the loop is too long (with more than one bus stop). As a minimum the bus route needs to be 6.2 metres wide and avoid sharp turns and repeated road narrowings/vertical deflection traffic calming. Neither of these options appear to be provided for in the draft layout drawing accompanying this scoping opinion application. Further discussion with the county council would be advantageous to help inform positive progress on the design of the scheme layout to ensure at least satisfactory conditions for public transport operation.

Clear identification of bus stop positions should be identified as early on as possible in the layout design process and certainly before any Reserved Matters application. Retro-fitting bus stop positions at a later stage can result in difficult negotiations with the new dwelling owners and poor siting and spacing between stops.

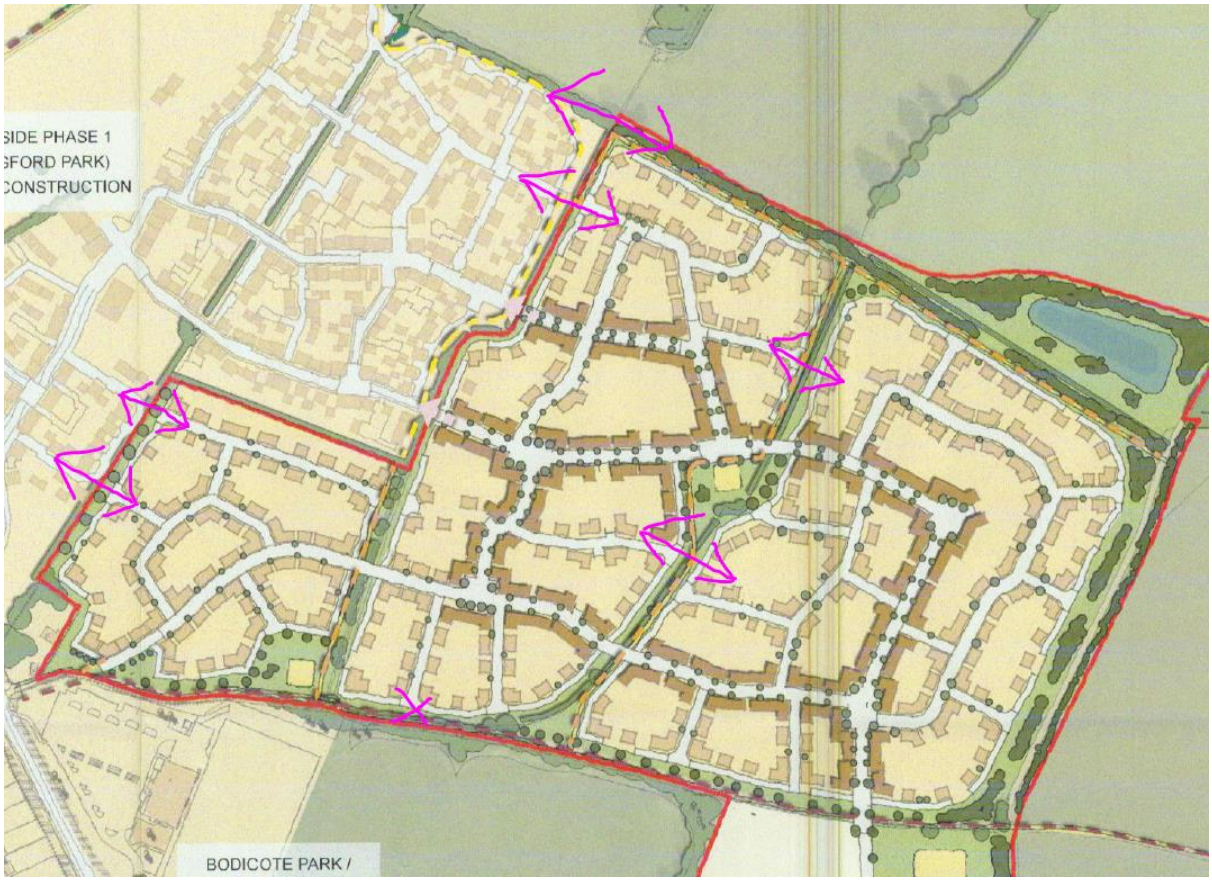
A S106 financial contribution will be required for the extension of the LP1 bus service and additional frequency into LP2 (or a S106 agreement that includes a commitment by the developer to provide a service on an agreed specification).

Site layout

The recently adopted Cherwell Local Plan identifies the need for the layout of this site to enable a high degree of integration with LP1. However, there appear to be only two vehicular connections from the LP1 layout and the links for pedestrians and cyclists are relatively limited, particularly along the southern section of the western boundary - there is only a ped/cycle connection out onto the Oxford Road. In the northern section there appears to be one more connection for peds/cycles in addition to the vehicular connections. As such, I do not believe that the layout as it stands is compliant with the Cherwell Local Plan which expects:

“A layout that maximises the potential for walkable neighbourhoods with a legible hierarchy of routes with footpaths and cycleways provided on site with good linkages for cyclists and pedestrians to the wider urban area, existing networks and community facilities”

The pink arrows below show the additional ped/cycle connections that should be provided. The pink cross shows where access to the existing public right of way needs to be provided. I accept that it may already be proposed but it is not clear.



The applicant is urged to liaise with OCC's Road Agreements Team at an early stage to establish necessary requirements for road adoptions.

Links between Banbury 4 and Banbury 12 Local Plan sites

The vehicular connection between Banbury 4 and Banbury 12 appears to be well located. At least one further connection for pedestrians and cyclists should also be provided to make these modes as attractive as possible, especially bearing in mind the likely longer term location of a school and football club on the site. The alignment of the road on the Banbury 12 site appears to have been influenced by the location of the sports pitches. The remaining portion of land needs to accommodate a school and football club. OCC property will comment separately as to whether the indicative layout is suitable for those land uses.

Car parking

The levels of car and cycle parking will need to be set according to the county council's adopted standards. A balance will need to be struck - providing lower than usual levels of parking with a view to encouraging more use of sustainable modes of transport may result in cars parking in inappropriate locations.

Off-site cycling and walking

Any planning submission will need to highlight how levels of walking and cycling off site will be maximised to ensure the sustainable credentials of the development. This will be

informed at least in part by the results of a walking and cycling audit of the local area. Whilst the site is on the edge of Banbury, there are a number of destinations within reasonable walking and cycling distance. However, high quality connections are needed to ensure that as many people as possible will take up these opportunities. In the longer term the Banbury 12 site will house a secondary school and Banbury United Football Club. Cycling to the site, especially, in the case of Banbury 12, along and across the Oxford Road will need to be made attractive as part of this development.

Public Rights of Way

The development will affect existing rights of way in the proximity of the site due to the amount and frequency of increased use. The development should therefore provide the means to improve these rights of way to make them safer, and more convenient for year round commuting and recreational use. The size of the development will make this area more urban so the paths need to remain as green corridors but also made safe and fully integrated with the development.

Travel Planning

A residential travel plan will need to be agreed before any development takes place and a S106 financial contribution will be needed to cover the costs of monitoring the plan. The travel plan will need to accord with Oxfordshire County Council's adopted guidance, Transport for New Developments: Transport Statements and Travel Plans, March 2014 or any updated guidance document.

A residential travel information pack would be required to ensure all residents are aware of the travel choices available to them from the outset.

Officer's Name: Craig Rossington
Officer's Title: Senior Transport Planner
Date: 12 October 2015

District: Cherwell
Application no: 16/00051/SCOP
Proposal: Residential development of up to 750 new homes, including provision for vehicular access from Oxford Road, open space and associated infrastructure (Bankside Phase II)
Location: Land North Of Health Club East Of Phase 2 Longford Park Oxford Road Bodicote

Archaeology

Key issues:

The site contains a number of archaeological features as identified from archaeological fieldwork. The Heritage Chapter will need to include a desk based assessment, along with the results of this fieldwork, to provide an assessment of the impact of any proposed development on these archaeological features.

Legal agreement required to secure:

None

Conditions:

Not at this stage

Informatives:

None

Detailed comments:

The site contains a number of archaeological features identified from a geophysical survey and a subsequent trenched evaluation. The site is also located in an area of considerable archaeological interest and The Heritage Chapter will need to include a desk based assessment, along with the results of this fieldwork, to provide an assessment of the impact of any proposed development on these archaeological features.

If an EIA is required then this DBA should be included within it. If an EIA is not required then the DBA will need to be submitted along with any planning application.

Officer's Name: Richard Oram
Officer's Title: Planning Archaeologist
Date: 18 July 2016

District: Cherwell
Application no: 16/00051/SCOP
Proposal: Residential development of up to 750 new homes, including provision for vehicular access from Oxford Road, open space and associated infrastructure (Bankside Phase II)
Location: Land North Of Health Club East Of Phase 2 Longford Park Oxford Road Bodicote

Education

Key issues:

- Oxfordshire County Council has a statutory duty under S14 of the *Education Act 1996* to secure sufficient school places to meet the needs of local population, including as a result of housing developments such as this proposal. Under Section 7 of the *Childcare Act 2006* and extended by the *Childcare Act 2016*, the Council has a responsibility to ensure that there is sufficient childcare and early education provision.

- The proposed development will have a significant impact on demand for pre-school, primary and secondary education – this includes on demand for special education places across all sectors.

- Primary and early years education provision needs would usually be expected to be met within a development of this size. Paragraph 1.1 of the scoping report states that the proposed development will include up to 750 residential units, which would typically be expected to generate the need for one 1-form entry primary school, including a nursery. Given the proximity of the new Longford Park Primary School built as part of Longford Park phase 1 development, the county council would expect this school to be expanded to meet the needs arising from this Phase 2 development; no additional new primary school would be required.

- Additional early years education and childcare provision could be through a mixed market of private and voluntary providers, including pre-schools, day nurseries and childminders. The inclusion of suitable accommodation within the development, for example within any neighbourhood centre / community hub, could be considered.

- Additional secondary education provision will be required to meet the cumulative impact of housing growth across Banbury. It is vital that this EIA assessment takes account of the cumulative impacts of growth planned for the town, not just the impact of this proposal in isolation. The Cherwell Local Plan identifies land at Banbury 12, adjacent to this proposed development, as being suitable for a new secondary school to serve the town, and no other suitable site for a new secondary school has yet been identified in Banbury.
- SEN education provision would be expected to be delivered off-site; it may be viable for additional SEN provision to be included within the same site as the proposed new secondary school. Approximately 1% of school pupils in Oxfordshire attend a SEN school.

- The EIA needs to include consideration of travel patterns from the development to local schools. For primary education it should be expected that pupils will mostly travel

to Longford Park Primary School. For secondary education travel patterns will include to existing schools during any period between occupations commencing and a new school opening, and in the longer term to the proposed new school. Until a new school opens, the likely direction of travel would be towards Banbury. Some families may instead choose The Warriner School in Bloxham, or other schools.

- It should be noted that demand and supply of school places in this area is going through a period of rapid change, and will continue to do so in response to planned housing developments, including this one. The Education Sufficiency team at Oxfordshire County Council is able to advise as required on appropriate data regarding school place planning. In the first instance, the OCC Pupil Place Plan (available from www.oxfordshire.gov.uk) should be referred to. Data on the current situation and past trends needs to be supplemented with information about future plans and forecasts. The School Organisation team at Oxfordshire County Council will base its response to any future planning application on the latest available information.

Officer's Name: Barbara Chillman
Officer's Title: Pupil Place Planning Manager
Date: 11 July 2016

District: Cherwell
Application no: 16/00051/SCOP
Proposal: Residential development of up to 750 new homes, including provision for vehicular access from Oxford Road, open space and associated infrastructure (Bankside Phase II)
Location: Land North Of Health Club East Of Phase 2 Longford Park Oxford Road Bodicote

Ecology

Key issues:

The District Council should be seeking the advice of their in-house ecologist who can advise them on this application.

In addition, the following guidance document on Biodiversity & Planning in Oxfordshire combines planning policy with information about wildlife sites, habitats and species to help identify where biodiversity should be protected. The guidance also gives advice on opportunities for enhancing biodiversity:
https://www.oxfordshire.gov.uk/cms/content/planning-and-biodiversity

Legal agreement required to secure:

N/A - For the District Council to comment

Conditions:

N/A - For the District Council to comment

Informatives:

N/A - For the District Council to comment

Detailed comments:

Officer's Name: Tamsin Atley
Officer's Title: Ecologist Planner
Date: 18 July 2016

Waste Management

Key issues:

Maintaining and increasing high rates of recycling and composting in Oxfordshire which are currently the best in the country and the impact of new development on waste management infrastructure.

We note that submitted scoping report has not addressed the waste effects of the proposed development. A development of 750 dwellings will increase the amount of domestic waste arising and demand for services at household waste recycling centres, the nearest of which is Alkerton HWRC which experiences capacity issues. We think it is unlikely that the waste management implications of the proposed development would be of such significance that they would require consideration in the EIA. However, the scoping opinion would have been a more thorough exercise if waste effects had been considered and screened in or out of the EIA accordingly.

The waste management implications of the development should be taken into account during the planning application process and we expect the detailed design of the development to facilitate waste collection, recycling and composting to enable residents to fully participate in district council collection schemes and allow high recycling rates to be maintained.

Legal agreement required to secure:

N/A

Conditions:

N/A

Informatives:

N/A

Detailed comments:

None

Officer's Name: Frankie Upton
Officer's Title: Waste Project Manager
Date: 11 July 2016

RESPONSE TO CONSULTATION ON THE FOLLOWING DEVELOPMENT PROPOSAL

District: Cherwell
Application no: 16/00051/SCOP
Proposal: Residential development of up to 750 new homes, including provision for vehicular access from Oxford Road, open space and associated infrastructure (Bankside Phase II)
Location: Land North Of Health Club East Of Phase 2 Longford Park Oxford Road Bodicote

LOCAL MEMBER VIEWS

Cllr: Mark Cherry **Division:** Banbury Calthorpe

Comments:

My main comments as follows on Application no: 16/00051/SCOP
That the housing developments have adequate parking in line with the national planning framework and Cherwell district local plan 2 . And furthermore that the infrastructure is in line with Oxfordshire county council LTP4.

Date: 03 July 2016

Jenny Baker

From: Cox, Jacqui - Communities <Jacqui.Cox@Oxfordshire.gov.uk>
Sent: 09 November 2018 13:31
To: Jenny Baker
Cc: rachael.walker (rachael.walker@wyg.com); Peart, Timothy - Communities
Subject: RE: Bankside Phase 2 (Banbury 4) - Strategic Transport Modelling
Attachments: Bankside_Modelling Work_Proposal_WYG_Nov2018.pdf

Follow Up Flag: Follow up
Flag Status: Completed

Jenny

Here is the quote for the modelling, which also includes 20% for OCC's expenses on the modelling work.

Before this is finalised, having spoken with Tim, we feel the model output should also include:

- Swan Close Road / Cherwell Street junction – included in Tim's email of 29th October
- The Banbury Cross roundabout – we haven't mentioned this previously, but it would be good to check this one.

Please confirm with Rachael and I next week and then I can procure with WYG and send you an email agreeing how the financing will work and rights over the modelling data etc.

Kind regards

Jacqui

Jacqui Cox
Infrastructure Locality Lead Cherwell & West
Communities | Oxfordshire County Council
07919 298304

From: Jenny Baker [mailto:jenny@markidesassociates.co.uk]
Sent: 30 October 2018 15:06
To: Peart, Timothy - Communities <Timothy.Peart@Oxfordshire.gov.uk>; Cox, Jacqui - Communities <Jacqui.Cox@Oxfordshire.gov.uk>; rachael.walker <rachael.walker@wyg.com>
Subject: RE: Bankside Phase 2 (Banbury 4) - Strategic Transport Modelling

Many thanks for this Tim. I'll press on with putting together a scoping pack for you.

Rachael, any update on when we might get a quote for the modelling and some idea of timescale for the output?

Kind regards

Jenny Baker

Director

MARKIDES ASSOCIATES www.markidesassociates.co.uk

CIHT Diversity & Inclusion Charter

Transport Planning and Engineering

Markides Associates Ltd.
9th Floor, The Tower Building, 11 York Road, London SE1 7NX
Reception: 020 7442 2225 | Direct Dial: 020 7048 1205| Mob: 07961 386424
Registered in England and Wales No. 10394301

From: Peart, Timothy - Communities <Timothy.Peart@Oxfordshire.gov.uk>
Sent: 29 October 2018 11:28
To: Jenny Baker <jenny@markidesassociates.co.uk>; Cox, Jacqui - Communities <Jacqui.Cox@Oxfordshire.gov.uk>; rachael.walker <rachael.walker@wyg.com>
Subject: RE: Bankside Phase 2 (Banbury 4) - Strategic Transport Modelling

Jenny

Thank you for your email below.

I've had a chat with Jacqui and we're happy with the modelling scenarios.

As discussed in our call, it'd be best to agree the junction outputs via a scoping note. However, at this point we would agree with the junctions listed below but also request that the Bankside/Hightown Road junction and the Swan Close Road/Lower Windsor Street junction be included.

We'd also be keen to know how many of the developments trips will be routing to Hennef Way.

Kind regards

Tim Peart
Senior Transport Planner – Cherwell & West Oxfordshire
Communities
County Hall

New Road
Oxford
OX1 1ND
Email: timothy.peart@oxfordshire.gov.uk

From: Jenny Baker [mailto:jenny@markidesassociates.co.uk]
Sent: 11 October 2018 10:22
To: Cox, Jacqui - Communities <Jacqui.Cox@Oxfordshire.gov.uk>; rachael.walker <rachael.walker@wyg.com>
Cc: Peart, Timothy - Communities <Timothy.Peart@Oxfordshire.gov.uk>
Subject: Bankside Phase 2 (Banbury 4) - Strategic Transport Modelling

Rachael, Jacqui

Good to speak to you both last week. As promised, I am e-mailing to set out the scenarios that I think we will need to complete the Transport Assessment on the above site and the outputs that we might need. Scenario should be as follows:

2026 Baseline - AM and PM peaks with all residential development removed from site Ban4 and a 600 place secondary school located on Ban12.
2026 With Development – AM and PM peaks with 450 residential units on Ban4 and a 600 place secondary school on Ban12

2031 Baseline – AM and PM peaks with all residential development removed from Ban4 and a 600 place secondary school located on Ban12.
2031 With Development – AM an PM peaks with 900 residential units on Ban4 and a 600 place secondary school on Ban12.

With regard to access assumptions for the Ban4 and Ban12 sites, I think we need to work on the basis that access will be available through the existing Longford Park development and a new access onto Oxford Road to the south, which at this stage we think will take the form of traffic signals.

In relation to outputs, it may be worthwhile using the strategic model to look at high level impacts, so journey times of key cross-town routes for each scenario may be worth looking at. For the TA itself we will need turning flows at each of the junctions that were previously assessed and any queue, delay information that the model can give us. The junction previously assessed were:

- High Street / South Bar Street / West Bar Street Roundabout
- Oxford Road / Bloxham Road Signals
- Oxford Road / Upper Windsor Street Signals
- Oxford Road / Horton View Signals
- Oxford Road / Hightown Road Signals
- Oxford Road / Farmfield Road / Sainsburys Signals
- Cherwell Street / Bridge Street / Concord Avenue Signals
- Bloxham Road / Queensway Priority Junction
- Bloxham Road / Springfield Avenue Priority Junction
- Oxford Road / Bankside Slip-Roads
- Bankside / Bankside Phase 1 Roundabout
- Oxford Road / Weeping Cross / Bankside Phase 1 Signals
- Oxford Road / Twyford Road Priority Junction

- Oxford Road / Aynho Road Signals

I think it's also been suggested that we need to add the Bankside / Hightown Road / Lambs Crescent junction to that list.

Hope that this is all relatively self-explanatory, but please don't hesitate to call or e-mail if you have any queries.

Kind regards

Jenny Baker

Director

Transport Planning and Engineering

Markides Associates Ltd.
9th Floor, The Tower Building, 11 York Road, London SE1 7NX
Reception: 020 7442 2225 | Direct Dial: 020 7048 1205| Mob: 07961 386424
Registered in England and Wales No. 10394301

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APPENDIX B

Drawing Title

OXRORD ROAD/FARMFIELD ROAD/
HORTON VIEW/HIGHTOWN ROAD -
IMPROVEMENT SCHEME (SHEET 1 OF 2)

Client

HALLAM LAND MANAGEMENT LTD.
& JJ GALLAGHER LTD

Job Title

LAND AT COLLEGE FIELDS,
BANBURY

BUCHANAN

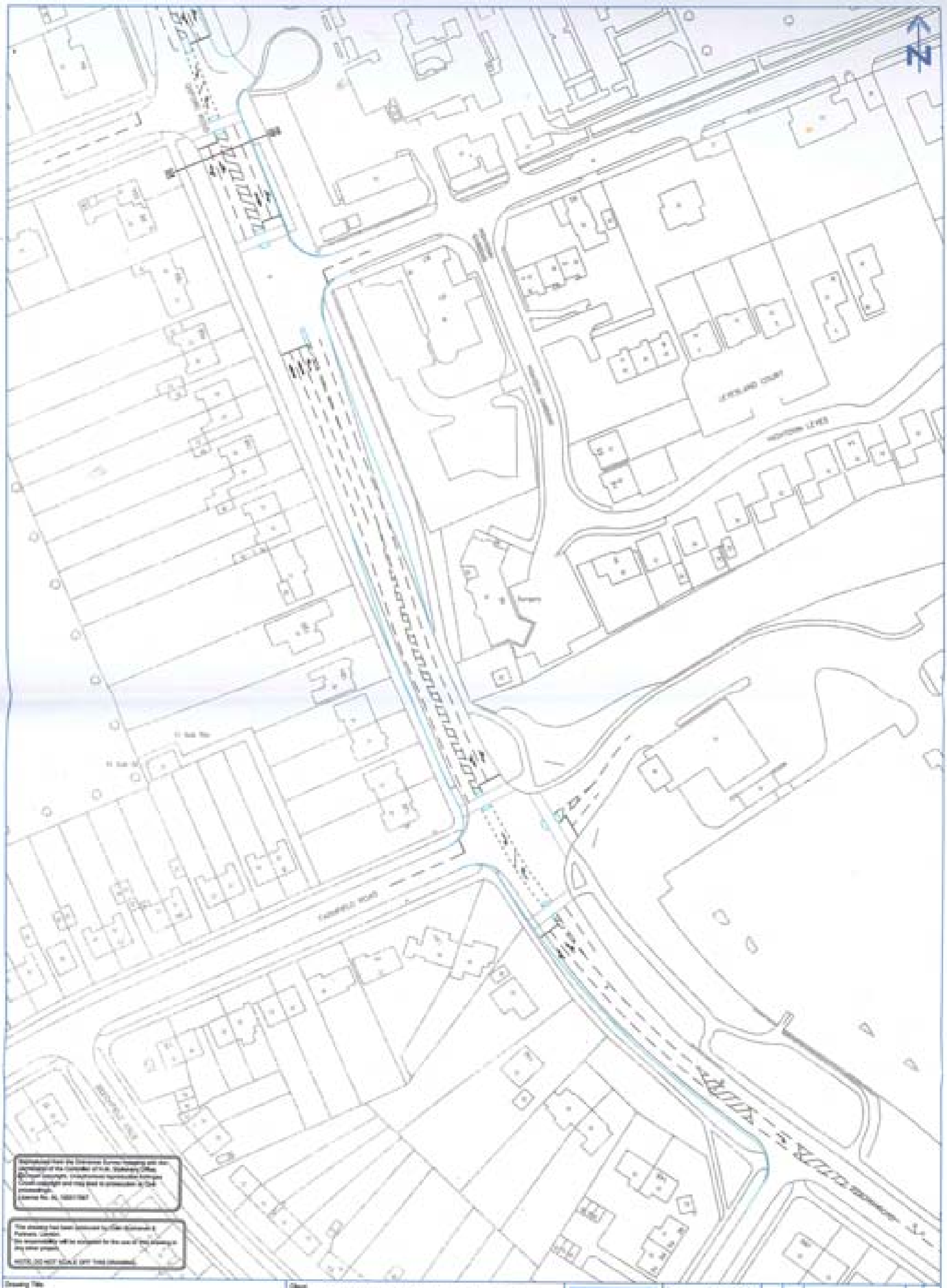
Scale	1:1000@A3
Designed by:	L.L.
Drawn by:	A.D.
Checked:	
1st Issued:	APR.'05
Job No:	38581

Rev. | Date | Amendments | Chkd. | Dir. Rev.

Dwg No.

FIGURE 53

I:\38581\2004 TA\STUDY\GRAPHICS\38581-fig 55 & 56.dwg



Drawing Title:

OXFORD ROAD/FARMFIELD ROAD/
HORTON VIEW/HIGHTOWN ROAD -
IMPROVEMENT SCHEME (SHEET 2 OF 2)

Client:

HALLAM LAND MANAGEMENT LTD.
& JJ GALLAGHER LTD.

Job Title:

LAND AT COLLEGE FIELDS,
BANBURY

BUCHANAN

Scale:	1:1000@A3
Designed by:	L.L.
Drawn by:	A.D.
Check'd/Appd:	
1st Issued:	APR'05
Job No:	38581

Rev. | Date | Amendments | Dsn. | Drn. | Chk.

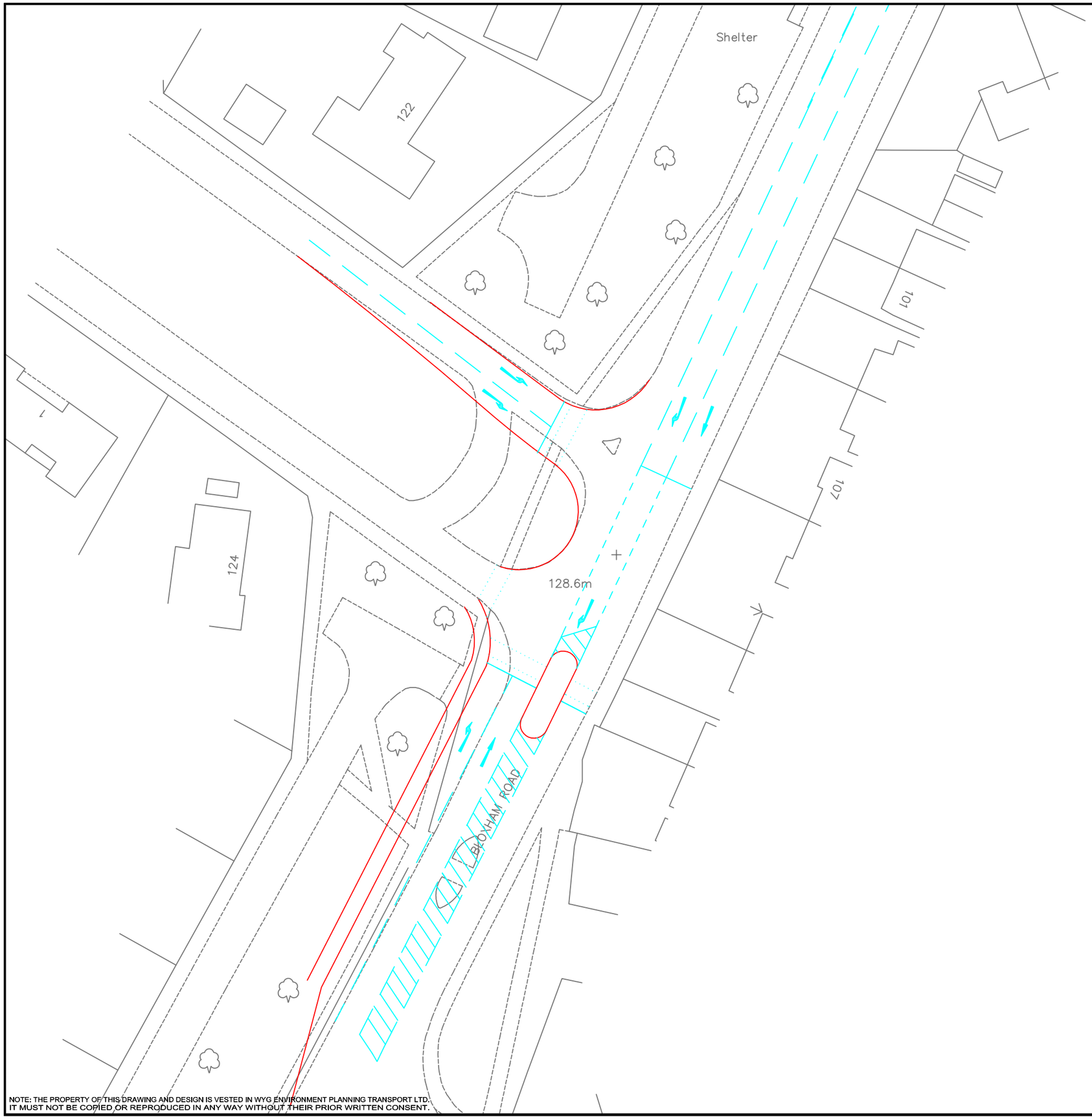
Dwg No.

FIGURE 54

Rev:

I:\38581\2004 TA\STUDY\GRAPHICS\38581-fig 55 & 56.dwg

I:\38581\2004 TA\STUDY\GRAPHICS\38581-fig 57.dwg



Notes:

1. This is not a construction drawing and is intended for illustrative purposes only.
2. White lining is indicative only.

REV.	DETAILS	DRAWN	CHECKED	DATE
.	.	.	.	.

CLIENT:

Gallagher Estates

PROJECT:

Bloxham Road, Banbury

DRAWING TITLE:

Proposed Signalised Junction
Bloxham Road/ Queens Way

SCALES:

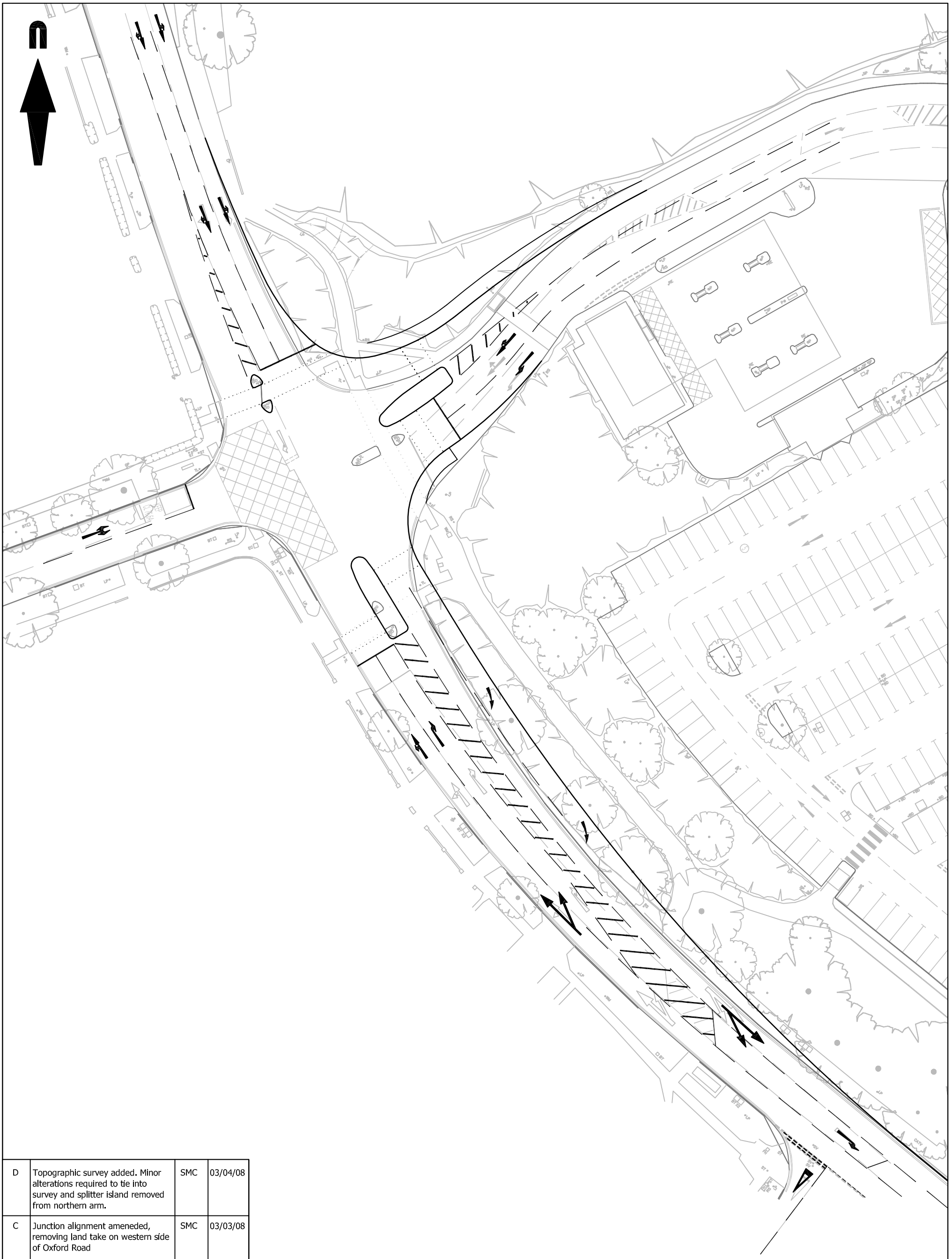
1:500 at A3

DRAWN:	CHECKED:	DATE:
JM	MG	3.11.12

Savell Bird & Axon
part of the WYG group

Ropemaker Court 12 Lower Park Row Bristol BS1 5BN
t: 0117 311 6387 f: 0117 925 4239 e: sba@sbax.co.uk

DRAWING NUMBER:	REVISION:
A053410-1/TS/1	A



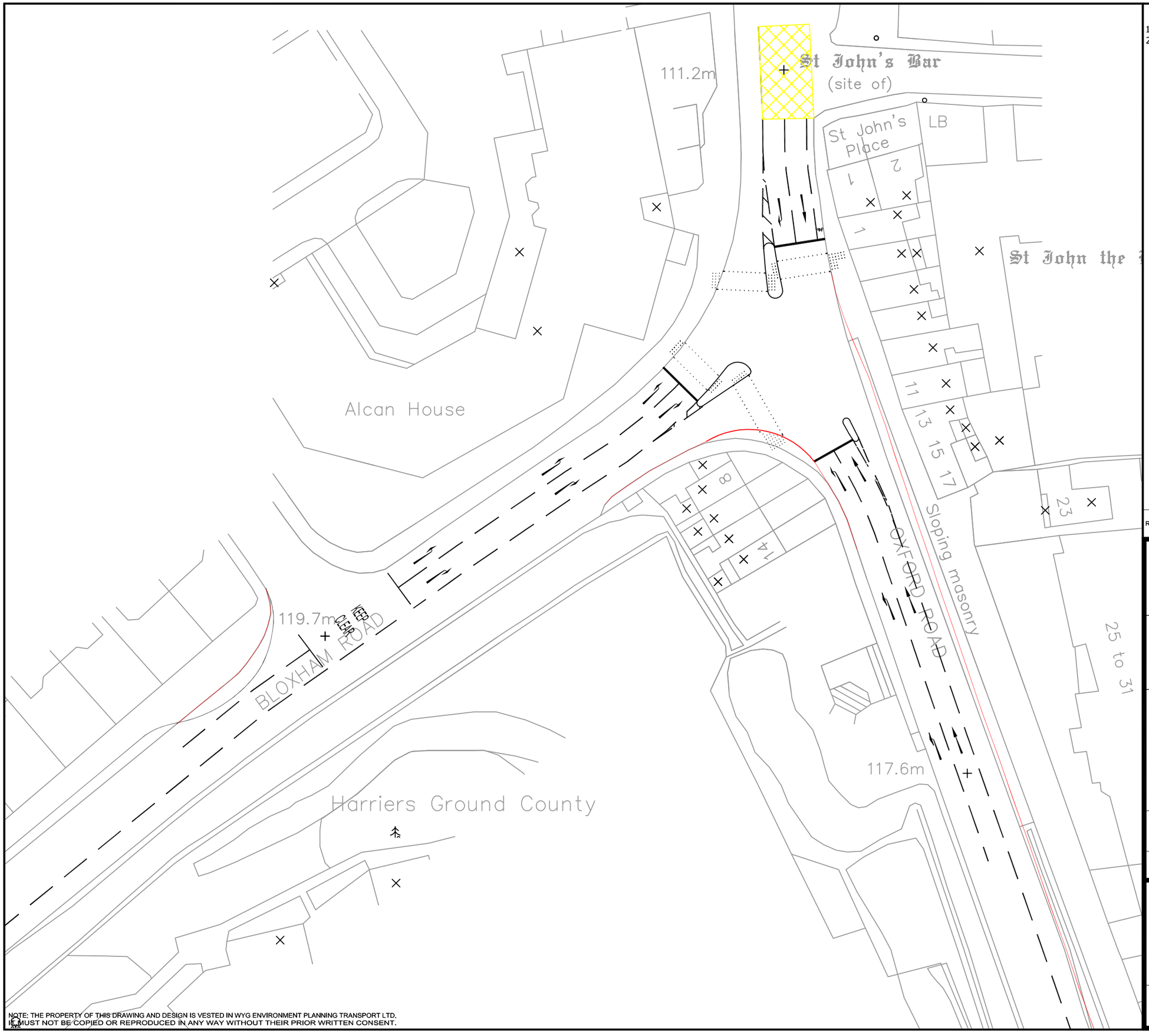
rev.	amendment	checked	date
D	Topographic survey added. Minor alterations required to tie into survey and splitter island removed from northern arm.	SMC	03/04/08
C	Junction alignment ameneded, removing land take on western side of Oxford Road	SMC	03/03/08
B	Pedestrian refuges reduced in length	SMC	28/02/08
A	Right turn lane into Grange Road added. Amendment to proposed northbound alignment on Oxford Road and tie-in points at Farmfield Road and Sainbury's Access.	SMC	27/02/08

mayer brown

Sainsbury's Supermarkets Limited
Banbury Store
A4260 Oxford Road / Farmfield Road
Proposed Junction Improvements

Scale: 1:500

Figure No. 8.1 D



Notes:

1. This is not a construction drawing and is intended for illustrative purposes only.
2. White lining is indicative only.

REV.	DETAILS	DRAWN	CHECKED	DATE
.	.	.	.	.

CLIENT:

Gallagher Estates

PROJECT:

Land at Wykham Park Farm, Banbury

DRAWING TITLE:

Proposed Junction Improvements Oxford Road/ Bloxham Road

SCALES:

1:500 at A3

DRAWN:	CHECKED:	DATE:
JM	MG	16.11.12

Savell Bird & Axon
part of the WYG group

Ropemaker Court 12 Lower Park Row Bristol BS1 5BN
t: 0117 311 6387 f: 0117 925 4239 e: sba@sbax.co.uk

DRAWING NUMBER: A053410-1/TS/2

REVISION: A

APPENDIX C

High Street / South Bar Street / West Bar Street Roundabout

1.1 ARCADY has been used to assess the current operation of the junctions, with the results obtained summarised in **Table 1.1**.

Table 1.1: Horse Fair/ High Street/ South Bar – 2016 Flows

Junction / Arm	AM Peak		PM Peak	
	RFC	Queue (PCU)	RFC	Queue (PCU)
Horse Fair	0.65	2	0.58	1.5
High Street	0.36	0.6	0.51	1.1
South Bar Street	0.38	0.7	0.35	0.6
West Bar Street	0.61	1.7	0.41	0.8

1.2 It can be seen from the above results, that the existing junction operates within capacity under existing traffic flows, with RFC's below 0.85 on all arms.

Oxford Road Corridor Signal Junctions

1.3 The signal junctions on Oxford Road at Bloxham Road, Upper Windsor Street, Horton View, Hightown Road and Farmfield Road are all in relatively close proximity to each other. As a result these have been modelled within a single LINSIG model covering the entire corridor. The results obtained are summarised in **Table 1.2**.

Table 1.2: Oxford Road Corridor Signals – 2016 Flows

Junction / Arm	AM Peak		PM Peak	
	Deg Sat (%)	Mean Max Queue	Deg Sat (%)	Mean Max Queue
J1: Oxford Road / Bloxham Road				
South Bar Right Ahead (1/1+1/2)	70.6:79.9	9.1	90.3:90.2	14.0
Bloxham Road Left Right (3/2+3/1)	80.2:80.2	8.7	81.8:81.8	8.2
Oxford Road Ahead Left (5/1)	71.2	17.9	69.7	8.7
J2: Oxford Road / Upper Windsor Street				
Oxford Road Left Ahead (1/2+1/1)	88.1:88.1	21.7	114.7:114.7	72.1
Upper Windsor Street Left (2/1)	23.4	4.1	16.4	2.7
Upper Windsor Street Right (2/2)	55.6	5.2	35.6	4.9
Oxford Road Ahead (4/1+4/2)	69.8:69.8	20.9	54.8:54.8	33.5
J3: Oxford Road / Hightown Road / Horton View				
Oxford Road Left Right Ahead (1/2+1/1)	76.4:76.4	32.5	115.0:114.8	78.4
Horton View Left Ahead Right (3/1)	89.4	14.4	32.4	5.3
Oxford Road Ahead Left (5/1)	49.8	4.3	68.1	5.8
Oxford Road Ahead Right (5/2)	39.5	3.4	49.4	4.3
Oxford Road Left Ahead (6/1)	26.4	2.2	37.8	3.0
Oxford Road Ahead (6/2)	59.8	7.2	65.1	6.3
Oxford Road Ahead (7/1+7/2)	88.9:88.9	7.3	94.7:94.7	23.6
Hightown Road Right Left (8/1)	68.4	8.2	48.2	7.9
J4: Oxford Road / Sainsburys / Farmfield Road				
Oxford Road Left (1/1)	14.7	1.1	39.5	5.1
Oxford Road Right Ahead (1/2)	75.1	16.4	86.7	22.8
Sainsburys Right Ahead Left (2/2+2/1)	81.2:81.2	5.8	66.0:66.0	7.4
Farmfield Road Left Ahead Right (4/1)	86.8	7.7	98.2	8.9
Oxford Road Ahead Right Left (6/1+6/2)	85.0:85.0	25.6	103.9:113.2	51.2

1.4 It can be seen that under existing AM peak traffic flows this network of signals operates within capacity with degrees of saturation below 90%. In the PM peak, however, there are capacity problems on Oxford Road southbound at Upper Windsor Street and Horton View and on Oxford Road northbound at Farmfield Road.

Cherwell Street / Bridge Street / Concord Avenue Signals

1.5 LINSIG has been used to assess the current operation of the junctions, with the results obtained summarised in **Table 1.3**.

Table 1.3: Cherwell Street / Bridge Street / Concord Avenue Signals – 2016 Flows

Junction / Arm	AM Peak		PM Peak	
	Deg Sat (%)	Mean Max Queue	Deg Sat (%)	Mean Max Queue
Concord Avenue Left (1/1)	63.1	9.5	78.8	11.8
Concord Avenue Ahead Right (1/2+1/3)	91.7:91.7	21.0	96.1:96.1	22.4
Bridge Street East (2/2+2/1)	93.1:93.1	21.6	93.5:93.5	19.6
Cherwell Street Ahead Left (3/2+3/1)	55.9:55.9	12.8	68.1:68.1	17.3
Cherwell Street Right (3/3)	90.2	15.4	95.2	18.0
Bridge Street West (4/1)	32.1	3.5	38.8	5.0

1.6 In both peak periods the Concord Avenue ahead and right lanes, Bridge Street East and Cherwell Street right turn all have degrees of saturation in excess of 90%.

Bloxham Road / Queensway Priority Junction

1.7 PICADY has been used to assess the current operation of the junction, with the results obtained summarise in **Table 1.4**.

Table 1.4 : Bloxham Road/Queensway – 2016 Flows

Junction / Arm	AM Peak		PM Peak	
	RFC	Queue (PCU)	RFC	Queue (PCU)
Queensway right turn	0.83	4.6	0.38	1.5
Queensway left turn	0.98	11.1	1.01	13.3
Bloxham Road right turn	0.37	0.6	0.53	1.2

1.8 It can be seen that in both peak periods the left turn from Queensway is over capacity, with RFC's in excess of 0.85.

Bloxham Road / Springfield Avenue Priority Junction

1.9 PICADY has been used to assess the current operation of the junction, with the results obtained summarise in **Table 1.5**.

Table 1.5: Bloxham Road/ Springfield Avenue – 2016 Flows

Junction / Arm	AM Peak		PM Peak	
	RFC	Queue (PCU)	RFC	Queue (PCU)
Springfield Avenue right turn	0.34	0.5	0.46	0.9
Springfield Avenue left turn	0.70	2.3	0.93	7.5
Bloxham Road right turn	0.37	0.7	0.26	0.4

1.10 It can be seen that this junction operates within capacity in the AM peak period under observed traffic flows. However, in the PM peak, the Springfield Road left turn movement has an RFC in excess of 0.85 and queues would be expected.

Oxford Road / Bankside Slip-Roads

1.11 PICADY has been used to assess the current operation of these junctions, with the results obtained summarise in **Tables 1.6** and **1.7**.

Table 1.6: Oxford Road/ Bankside Slip West – 2016 Flows

Junction / Arm	AM Peak		PM Peak	
	RFC	Queue (PCU)	RFC	Queue (PCU)
Bankside Slip	0.19	0.3	0.14	0.2
Oxford Road right turn	0	0	0	0

Table 1.7: Oxford Road / Bankside Slip East – 2016 Flows

Junction / Arm	AM Peak		PM Peak	
	RFC	Queue (PCU)	RFC	Queue (PCU)
Bankside Slip	0.39	0.7	0.42	0.8
Oxford Road right turn	0	0	0	0

1.12 It can be seen that these junctions operate within capacity, with RFC's below 0.85 under existing traffic flows.

Bankside / Bankside Phase 1 Roundabout

1.13 ARCADY has been used to assess the current operation of these junctions, with the results obtained summarise in **Table 1.8**.

Table 1.8: Bankside/ Site Access – 2016 Flows

Junction / Arm	AM Peak		PM Peak	
	RFC	Queue (PCU)	RFC	Queue (PCU)
A4260 Slip Road	0.16	0.2	0.14	0.2
Bankside East	0.47	1	0.39	0.7
Site Access	0	0	0.02	0
Bankside West	0.51	1.1	0.44	0.9

1.14 It can be seen that this junction operates within capacity, with RFC's below 0.85 under existing traffic flows.

Oxford Road / Weeping Cross / Bankside Phase 1 Signals

1.15 LINSIG has been used to model this junction based on the implemented signal scheme layout and timing sheets. A summary of the junction performance is given in **Table 1.9**.

Table 1.9: Oxford Road / Weeping Cross / Bankside Phase 1 Signals – 2016 Flows

Junction / Arm	AM Peak		PM Peak	
	Deg Sat (%)	Mean Max Queue	Deg Sat (%)	Mean Max Queue
J1 : Oxford Road / Site Access				
Oxford Road North Ahead Left (1/2 + 1/1)	56.9:56.9	9.6	59.3:59.3	10.8
Oxford Road South Ahead (2/1)	35.0	2.9	34.7	2.6
Oxford Road South Ahead Right (2/2)	38.4	3.4	40.3	3.1
Site Access (3/1)	0	0	0	0
J2 : Oxford Road / Weeping Cross				
Oxford Road North Ahead (1/1)	29.9	1.4	33.0	1.6
Oxford Road North Ahead Right (1/2)	31.6	1.5	34.6	1.6
Weeping Cross (2/1)	63.1	6.0	69.5	5.6
Oxford Road South Ahead Left (3/2 + 3/1)	64.9:64.9	12.3	72.2:72.2	17.9

1.16 It can be seen that under observed 2016 traffic flows this junction operates well within capacity with degrees of saturation below 90% on all arms.

Oxford Road / Twyford Road Priority Junction

1.17 PICADY has been used to assess the current operation of the junction, with the results obtained summarise in **Table 1.10**.

Table 1.10: Oxford Road/ Twyford Road – 2016 Flows

Junction / Arm	AM Peak		PM Peak	
	RFC	Queue (PCU)	RFC	Queue (PCU)
Twyford Road right turn	0.11	0.1	0.16	0.2
Twyford Road left turn	0.46	0.9	0.51	1.1
Oxford Road	0.09	0.1	0.10	0.1

1.18 It can be seen that this junction operates within capacity, with RFC's below 0.85 under existing traffic flows.

Oxford Road / Aynho Road Signals

1.19 LINSIG has been used to assess the current operation of the junction, with the results obtained summarise in **Table 1.11**.

Table 1.11: Oxford Road / Aynho Road Signals – 2016 Flows

Junction / Arm	AM Peak		PM Peak	
	Deg Sat (%)	Mean Max Queue	Deg Sat (%)	Mean Max Queue
Oxford Road North (1/2+1/1)	95.2:95.2	29.4	101.9:101.9	39.1
Aynho Road (2/1)	107.3	37.6	103.8	36.3
Oxford Road South (3/1+3/1)	101.8:101.8	28.7	100.3:100.3	36.1

1.20 It can be seen that under existing traffic flows this signal junction in already over-capacity with degrees of saturation on all arms in excess of 90%

APPENDIX D

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896

For sales and distribution information, program advice and maintenance, contact TRL:
+44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk

Filename: Horse Fair- High Street- South Bar Rb - Canal Lane Closed.j9
Path: M:\Projects\16052-01 Bankside Phase 2, Banbury\Technical\Arcady\Saturn Flows Feb 2019
Report generation date: 26/03/2019 15:10:49

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2016							
1 - Horse Fair	2.0	7.61	0.65	A	1.5	5.86	0.58	A
2 - High Street	0.6	6.04	0.36	A	1.1	7.56	0.51	A
3 - South Bar Street	0.7	4.17	0.38	A	0.6	4.22	0.36	A
4 - West Bar Street	1.7	11.06	0.61	B	0.8	7.84	0.41	A
	2026 Baseline							
1 - Horse Fair	3.0	10.17	0.75	B	2.7	8.38	0.73	A
2 - High Street	0.7	6.41	0.42	A	3.4	18.78	0.78	C
3 - South Bar Street	1.0	5.03	0.50	A	1.9	9.48	0.65	A
4 - West Bar Street	2.0	16.02	0.63	C	0.9	10.75	0.45	B
	2026 Baseline+Dev							
1 - Horse Fair	3.2	11.05	0.76	B	2.8	8.58	0.73	A
2 - High Street	0.6	5.90	0.36	A	2.0	13.17	0.66	B
3 - South Bar Street	1.3	5.47	0.55	A	1.7	8.17	0.62	A
4 - West Bar Street	2.4	19.10	0.68	C	1.0	11.04	0.47	B
	2031 Baseline							
1 - Horse Fair	3.7	12.58	0.78	B	3.4	10.45	0.77	B
2 - High Street	0.8	7.03	0.45	A	3.4	20.64	0.78	C
3 - South Bar Street	1.5	6.25	0.60	A	1.8	9.02	0.63	A
4 - West Bar Street	3.3	26.27	0.75	D	1.5	14.01	0.58	B
	2031 Baseline + Dev							
1 - Horse Fair	3.4	11.99	0.77	B	3.4	10.25	0.77	B
2 - High Street	0.6	6.07	0.37	A	3.1	19.05	0.77	C
3 - South Bar Street	1.8	6.78	0.64	A	1.8	9.15	0.64	A
4 - West Bar Street	3.4	27.78	0.75	D	1.5	13.68	0.57	B

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	01/11/2016
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DEMETRIS-PSYLLI\Demetris Psyllides
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2016	AM	ONE HOUR	07:45	09:15	15	✓
D2	2016	PM	ONE HOUR	16:45	18:15	15	✓
D3	2026 Baseline	AM	ONE HOUR	07:45	09:15	15	✓
D4	2026 Baseline	PM	ONE HOUR	16:45	18:15	15	✓
D5	2026 Baseline+Dev	AM	ONE HOUR	07:45	09:15	15	✓
D6	2026 Baseline+Dev	PM	ONE HOUR	16:45	18:15	15	✓
D7	2031 Baseline	AM	ONE HOUR	07:45	09:15	15	✓
D8	2031 Baseline	PM	ONE HOUR	16:45	18:15	15	✓
D9	2031 Baseline + Dev	AM	ONE HOUR	07:45	09:15	15	✓
D10	2031 Baseline + Dev	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

2016, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Horse Fair-High Street- South Bar Rb	Standard Roundabout		1, 2, 3, 4	7.34	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Horse Fair	
2	High Street	
3	South Bar Street	
4	West Bar Street	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Horse Fair	5.10	8.80	8.5	6.9	28.6	38.0	
2 - High Street	4.60	5.90	1.6	40.1	28.6	16.0	
3 - South Bar Street	5.50	7.30	4.9	8.7	28.6	32.0	
4 - West Bar Street	4.00	4.90	1.0	18.7	28.6	20.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Horse Fair	0.636	1771
2 - High Street	0.664	1613
3 - South Bar Street	0.654	1782
4 - West Bar Street	0.592	1322

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2016	AM	ONE HOUR	07:45	09:15	15	✓

Default vehicle mix	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Horse Fair		ONE HOUR	✓	884	100.000
2 - High Street		ONE HOUR	✓	335	100.000
3 - South Bar Street		ONE HOUR	✓	525	100.000
4 - West Bar Street		ONE HOUR	✓	500	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Horse Fair	2 - High Street	3 - South Bar Street	4 - West Bar Street
From	1 - Horse Fair	0	202	555	127
	2 - High Street	169	0	109	57
	3 - South Bar Street	425	42	0	58
	4 - West Bar Street	146	231	123	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Horse Fair	2 - High Street	3 - South Bar Street	4 - West Bar Street
From	1 - Horse Fair	10	10	10	10
	2 - High Street	10	10	10	10
	3 - South Bar Street	10	10	10	10
	4 - West Bar Street	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Horse Fair	0.65	7.61	2.0	A	811	1217
2 - High Street	0.36	6.04	0.6	A	307	461
3 - South Bar Street	0.38	4.17	0.7	A	482	723
4 - West Bar Street	0.61	11.06	1.7	B	459	688

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	666	166	296	1582	0.421	662	555	0.0	0.8	4.289	A
2 - High Street	252	63	603	1213	0.208	251	356	0.0	0.3	4.113	A
3 - South Bar Street	395	99	265	1609	0.246	394	590	0.0	0.4	3.256	A
4 - West Bar Street	376	94	477	1040	0.362	374	181	0.0	0.6	5.922	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	795	199	355	1545	0.514	793	664	0.8	1.2	5.258	A
2 - High Street	301	75	722	1133	0.266	301	426	0.3	0.4	4.754	A
3 - South Bar Street	472	118	317	1575	0.300	472	706	0.4	0.5	3.586	A
4 - West Bar Street	449	112	571	985	0.457	448	217	0.6	0.9	7.367	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	973	243	434	1495	0.651	970	813	1.2	2.0	7.493	A
2 - High Street	369	92	883	1027	0.359	368	521	0.4	0.6	6.004	A
3 - South Bar Street	578	145	388	1529	0.378	577	863	0.5	0.7	4.159	A
4 - West Bar Street	551	138	699	909	0.606	548	266	0.9	1.6	10.872	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	973	243	436	1494	0.652	973	815	2.0	2.0	7.607	A
2 - High Street	369	92	886	1025	0.360	369	523	0.6	0.6	6.038	A
3 - South Bar Street	578	145	389	1528	0.378	578	866	0.7	0.7	4.168	A
4 - West Bar Street	551	138	700	908	0.606	550	266	1.6	1.7	11.059	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	795	199	358	1543	0.515	798	667	2.0	1.2	5.339	A
2 - High Street	301	75	727	1130	0.266	302	429	0.6	0.4	4.787	A
3 - South Bar Street	472	118	318	1574	0.300	473	711	0.7	0.5	3.598	A
4 - West Bar Street	449	112	573	984	0.457	452	218	1.7	0.9	7.497	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	666	166	299	1581	0.421	667	558	1.2	0.8	4.341	A
2 - High Street	252	63	608	1210	0.209	253	359	0.4	0.3	4.139	A
3 - South Bar Street	395	99	266	1608	0.246	396	594	0.5	0.4	3.269	A
4 - West Bar Street	376	94	479	1039	0.362	378	183	0.9	0.6	6.002	A

2016, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Horse Fair-High Street- South Bar Rb	Standard Roundabout		1, 2, 3, 4	6.18	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2016	PM	ONE HOUR	16:45	18:15	15	✓

Default vehicle mix	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Horse Fair		ONE HOUR	✓	843	100.000
2 - High Street		ONE HOUR	✓	496	100.000
3 - South Bar Street		ONE HOUR	✓	482	100.000
4 - West Bar Street		ONE HOUR	✓	325	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Horse Fair	2 - High Street	3 - South Bar Street	4 - West Bar Street
From	1 - Horse Fair	0	161	548	134
	2 - High Street	268	0	195	33
	3 - South Bar Street	411	27	0	44
	4 - West Bar Street	114	150	61	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Horse Fair	2 - High Street	3 - South Bar Street	4 - West Bar Street
From	1 - Horse Fair	10	10	10	10
	2 - High Street	10	10	10	10
	3 - South Bar Street	10	10	10	10
	4 - West Bar Street	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Horse Fair	0.58	5.86	1.5	A	774	1160
2 - High Street	0.51	7.56	1.1	A	455	683
3 - South Bar Street	0.36	4.22	0.6	A	442	663
4 - West Bar Street	0.41	7.84	0.8	A	298	447

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	635	159	178	1658	0.383	632	594	0.0	0.7	3.851	A
2 - High Street	373	93	557	1243	0.300	372	253	0.0	0.5	4.534	A
3 - South Bar Street	363	91	326	1569	0.231	362	603	0.0	0.3	3.277	A
4 - West Bar Street	245	61	529	1009	0.242	243	158	0.0	0.3	5.160	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	758	189	214	1635	0.464	757	712	0.7	0.9	4.503	A
2 - High Street	446	111	667	1170	0.381	445	303	0.5	0.7	5.456	A
3 - South Bar Street	433	108	390	1527	0.284	433	722	0.3	0.4	3.620	A
4 - West Bar Street	292	73	634	947	0.308	292	189	0.3	0.5	6.032	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	928	232	261	1605	0.578	926	871	0.9	1.5	5.816	A
2 - High Street	546	137	816	1071	0.510	544	371	0.7	1.1	7.491	A
3 - South Bar Street	531	133	477	1470	0.361	530	883	0.4	0.6	4.210	A
4 - West Bar Street	358	89	776	864	0.414	357	232	0.5	0.8	7.795	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	928	232	262	1604	0.579	928	873	1.5	1.5	5.856	A
2 - High Street	546	137	818	1070	0.510	546	372	1.1	1.1	7.560	A
3 - South Bar Street	531	133	479	1469	0.361	531	885	0.6	0.6	4.220	A
4 - West Bar Street	358	89	777	863	0.415	358	232	0.8	0.8	7.844	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	758	189	215	1634	0.464	760	715	1.5	1.0	4.541	A
2 - High Street	446	111	670	1168	0.382	448	305	1.1	0.7	5.511	A
3 - South Bar Street	433	108	392	1525	0.284	434	725	0.6	0.4	3.630	A
4 - West Bar Street	292	73	636	946	0.309	293	190	0.8	0.5	6.076	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	635	159	180	1657	0.383	636	598	1.0	0.7	3.884	A
2 - High Street	373	93	560	1241	0.301	374	255	0.7	0.5	4.573	A
3 - South Bar Street	363	91	328	1567	0.232	363	606	0.4	0.3	3.289	A
4 - West Bar Street	245	61	532	1008	0.243	245	159	0.5	0.4	5.200	A

2026 Baseline, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Horse Fair-High Street- South Bar Rb	Standard Roundabout		1, 2, 3, 4	9.16	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2026 Baseline	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Horse Fair		ONE HOUR	✓	995	100.000
2 - High Street		ONE HOUR	✓	377	100.000
3 - South Bar Street		ONE HOUR	✓	680	100.000
4 - West Bar Street		ONE HOUR	✓	415	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Horse Fair	2 - High Street	3 - South Bar Street	4 - West Bar Street
From	1 - Horse Fair	0	168	818	9
	2 - High Street	242	0	0	135
	3 - South Bar Street	624	56	0	0
	4 - West Bar Street	36	358	21	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Horse Fair	2 - High Street	3 - South Bar Street	4 - West Bar Street
From	1 - Horse Fair	0	10	4	90
	2 - High Street	2	0	0	4
	3 - South Bar Street	3	36	0	0
	4 - West Bar Street	91	15	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Horse Fair	0.75	10.17	3.0	B	913	1370
2 - High Street	0.42	6.41	0.7	A	346	519
3 - South Bar Street	0.50	5.03	1.0	A	624	936
4 - West Bar Street	0.63	16.02	2.0	C	381	571

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	749	187	325	1564	0.479	745	676	0.0	1.0	4.598	A
2 - High Street	284	71	635	1191	0.238	283	435	0.0	0.3	4.073	A
3 - South Bar Street	512	128	289	1593	0.321	510	628	0.0	0.5	3.504	A
4 - West Bar Street	312	78	691	913	0.342	310	108	0.0	0.6	7.025	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	894	224	390	1523	0.587	892	810	1.0	1.5	5.980	A
2 - High Street	339	85	761	1108	0.306	338	522	0.3	0.5	4.813	A
3 - South Bar Street	611	153	346	1555	0.393	611	752	0.5	0.7	4.023	A
4 - West Bar Street	373	93	828	833	0.448	372	129	0.6	0.9	9.205	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	1096	274	475	1469	0.746	1090	991	1.5	3.0	9.824	A
2 - High Street	415	104	929	996	0.417	414	636	0.5	0.7	6.353	A
3 - South Bar Street	749	187	424	1505	0.498	747	919	0.7	1.0	5.008	A
4 - West Bar Street	457	114	1013	723	0.632	453	158	0.9	1.9	15.522	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	1096	274	479	1466	0.747	1095	993	3.0	3.0	10.172	B
2 - High Street	415	104	933	993	0.418	415	641	0.7	0.7	6.411	A
3 - South Bar Street	749	187	425	1504	0.498	749	924	1.0	1.0	5.030	A
4 - West Bar Street	457	114	1015	722	0.633	457	159	1.9	2.0	16.016	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	894	224	395	1520	0.589	901	813	3.0	1.5	6.165	A
2 - High Street	339	85	768	1103	0.307	340	528	0.7	0.5	4.864	A
3 - South Bar Street	611	153	348	1554	0.393	613	759	1.0	0.7	4.042	A
4 - West Bar Street	373	93	831	831	0.449	377	130	2.0	1.0	9.460	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	749	187	329	1562	0.480	751	680	1.5	1.0	4.679	A
2 - High Street	284	71	640	1188	0.239	284	440	0.5	0.3	4.105	A
3 - South Bar Street	512	128	291	1592	0.322	513	634	0.7	0.5	3.524	A
4 - West Bar Street	312	78	695	911	0.343	314	109	1.0	0.6	7.144	A

2026 Baseline, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Horse Fair-High Street- South Bar Rb	Standard Roundabout		1, 2, 3, 4	11.32	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2026 Baseline	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Horse Fair		ONE HOUR	✓	1067	100.000
2 - High Street		ONE HOUR	✓	607	100.000
3 - South Bar Street		ONE HOUR	✓	671	100.000
4 - West Bar Street		ONE HOUR	✓	287	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Horse Fair	2 - High Street	3 - South Bar Street	4 - West Bar Street
From	1 - Horse Fair	0	35	734	298
	2 - High Street	284	0	0	323
	3 - South Bar Street	622	49	0	0
	4 - West Bar Street	120	166	1	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Horse Fair	2 - High Street	3 - South Bar Street	4 - West Bar Street
From	1 - Horse Fair	0	23	4	2
	2 - High Street	0	0	0	0
	3 - South Bar Street	2	27	0	0
	4 - West Bar Street	19	12	0	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Horse Fair	0.73	8.38	2.7	A	979	1469
2 - High Street	0.78	18.78	3.4	C	557	835
3 - South Bar Street	0.65	9.48	1.9	A	616	924
4 - West Bar Street	0.45	10.75	0.9	B	263	395

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	803	201	162	1668	0.482	799	768	0.0	1.0	4.278	A
2 - High Street	457	114	774	1099	0.416	454	187	0.0	0.7	5.561	A
3 - South Bar Street	505	126	677	1339	0.377	503	551	0.0	0.6	4.442	A
4 - West Bar Street	216	54	715	899	0.240	215	465	0.0	0.4	6.029	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	959	240	194	1648	0.582	957	920	1.0	1.4	5.391	A
2 - High Street	546	136	927	998	0.547	544	224	0.7	1.2	7.903	A
3 - South Bar Street	603	151	811	1252	0.482	602	659	0.6	1.0	5.724	A
4 - West Bar Street	258	65	856	816	0.316	257	557	0.4	0.5	7.396	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	1175	294	237	1620	0.725	1170	1122	1.4	2.6	8.196	A
2 - High Street	668	167	1133	861	0.776	660	274	1.2	3.2	17.301	C
3 - South Bar Street	739	185	987	1136	0.650	735	806	1.0	1.9	9.201	A
4 - West Bar Street	316	79	1044	705	0.448	314	678	0.5	0.9	10.553	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	1175	294	238	1620	0.725	1175	1129	2.6	2.7	8.378	A
2 - High Street	668	167	1137	858	0.779	668	275	3.2	3.4	18.785	C
3 - South Bar Street	739	185	996	1131	0.653	739	809	1.9	1.9	9.485	A
4 - West Bar Street	316	79	1051	701	0.451	316	683	0.9	0.9	10.746	B

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	959	240	195	1647	0.583	964	930	2.7	1.5	5.506	A
2 - High Street	546	136	933	993	0.549	554	226	3.4	1.2	8.355	A
3 - South Bar Street	603	151	823	1243	0.485	607	664	1.9	1.0	5.889	A
4 - West Bar Street	258	65	866	810	0.319	260	564	0.9	0.5	7.534	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	803	201	163	1667	0.482	805	775	1.5	1.0	4.340	A
2 - High Street	457	114	780	1095	0.417	459	189	1.2	0.7	5.680	A
3 - South Bar Street	505	126	684	1335	0.378	507	555	1.0	0.6	4.508	A
4 - West Bar Street	216	54	721	896	0.241	217	469	0.5	0.4	6.100	A

2026 Baseline+Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Horse Fair-High Street- South Bar Rb	Standard Roundabout		1, 2, 3, 4	10.04	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2026 Baseline+Dev	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Horse Fair		ONE HOUR	✓	980	100.000
2 - High Street		ONE HOUR	✓	323	100.000
3 - South Bar Street		ONE HOUR	✓	770	100.000
4 - West Bar Street		ONE HOUR	✓	428	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Horse Fair	2 - High Street	3 - South Bar Street	4 - West Bar Street
From	1 - Horse Fair	0	145	826	9
	2 - High Street	197	0	0	126
	3 - South Bar Street	662	108	0	0
	4 - West Bar Street	36	355	37	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Horse Fair	2 - High Street	3 - South Bar Street	4 - West Bar Street
From	1 - Horse Fair	0	12	4	86
	2 - High Street	1	0	14	3
	3 - South Bar Street	4	20	0	0
	4 - West Bar Street	96	16	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Horse Fair	0.76	11.05	3.2	B	899	1349
2 - High Street	0.36	5.90	0.6	A	296	445
3 - South Bar Street	0.55	5.47	1.3	A	707	1060
4 - West Bar Street	0.68	19.10	2.4	C	393	589

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	738	184	374	1533	0.481	734	671	0.0	1.0	4.723	A
2 - High Street	243	61	653	1179	0.206	242	455	0.0	0.3	3.899	A
3 - South Bar Street	580	145	249	1619	0.358	577	646	0.0	0.6	3.640	A
4 - West Bar Street	322	81	725	894	0.361	320	101	0.0	0.7	7.373	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	881	220	448	1486	0.593	879	803	1.0	1.5	6.224	A
2 - High Street	290	73	782	1094	0.265	290	545	0.3	0.4	4.549	A
3 - South Bar Street	692	173	298	1587	0.436	691	774	0.6	0.8	4.237	A
4 - West Bar Street	385	96	868	809	0.476	383	121	0.7	1.0	9.949	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	1079	270	545	1424	0.758	1072	983	1.5	3.1	10.597	B
2 - High Street	356	89	954	979	0.363	355	664	0.4	0.6	5.849	A
3 - South Bar Street	848	212	365	1544	0.549	846	944	0.8	1.3	5.433	A
4 - West Bar Street	471	118	1062	694	0.679	466	148	1.0	2.4	18.241	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	1079	270	550	1421	0.759	1079	985	3.1	3.2	11.052	B
2 - High Street	356	89	960	976	0.364	356	669	0.6	0.6	5.898	A
3 - South Bar Street	848	212	366	1543	0.549	848	950	1.3	1.3	5.465	A
4 - West Bar Street	471	118	1065	693	0.680	471	149	2.4	2.4	19.101	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	881	220	455	1482	0.595	888	807	3.2	1.6	6.453	A
2 - High Street	290	73	790	1088	0.267	291	552	0.6	0.4	4.593	A
3 - South Bar Street	692	173	299	1586	0.436	694	782	1.3	0.8	4.267	A
4 - West Bar Street	385	96	872	807	0.477	390	122	2.4	1.1	10.326	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	738	184	378	1530	0.482	740	675	1.6	1.0	4.812	A
2 - High Street	243	61	659	1176	0.207	244	460	0.4	0.3	3.927	A
3 - South Bar Street	580	145	250	1618	0.358	581	652	0.8	0.6	3.664	A
4 - West Bar Street	322	81	729	891	0.362	324	102	1.1	0.7	7.519	A

2026 Baseline+Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Horse Fair-High Street- South Bar Rb	Standard Roundabout		1, 2, 3, 4	9.67	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2026 Baseline+Dev	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Horse Fair		ONE HOUR	✓	1071	100.000
2 - High Street		ONE HOUR	✓	508	100.000
3 - South Bar Street		ONE HOUR	✓	676	100.000
4 - West Bar Street		ONE HOUR	✓	301	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Horse Fair	2 - High Street	3 - South Bar Street	4 - West Bar Street
From	1 - Horse Fair	0	36	735	300
	2 - High Street	277	0	0	231
	3 - South Bar Street	633	43	0	0
	4 - West Bar Street	119	165	17	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Horse Fair	2 - High Street	3 - South Bar Street	4 - West Bar Street
From	1 - Horse Fair	0	23	3	2
	2 - High Street	0	0	0	10
	3 - South Bar Street	2	29	0	0
	4 - West Bar Street	18	12	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Horse Fair	0.73	8.58	2.8	A	983	1474
2 - High Street	0.66	13.17	2.0	B	466	699
3 - South Bar Street	0.62	8.17	1.7	A	620	930
4 - West Bar Street	0.47	11.04	1.0	B	276	414

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	806	202	168	1664	0.485	802	771	0.0	1.0	4.314	A
2 - High Street	382	96	788	1090	0.351	380	183	0.0	0.6	5.281	A
3 - South Bar Street	509	127	605	1386	0.367	507	563	0.0	0.6	4.230	A
4 - West Bar Street	227	57	714	900	0.252	225	398	0.0	0.4	6.047	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	963	241	202	1643	0.586	961	923	1.0	1.4	5.460	A
2 - High Street	457	114	944	986	0.463	455	219	0.6	0.9	7.061	A
3 - South Bar Street	608	152	725	1308	0.465	607	675	0.6	0.9	5.309	A
4 - West Bar Street	271	68	855	817	0.331	270	476	0.4	0.6	7.472	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	1179	295	246	1614	0.731	1174	1127	1.4	2.7	8.385	A
2 - High Street	559	140	1153	847	0.660	555	267	0.9	1.9	12.683	B
3 - South Bar Street	744	186	884	1204	0.618	741	824	0.9	1.6	8.013	A
4 - West Bar Street	331	83	1044	705	0.470	330	581	0.6	1.0	10.854	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	1179	295	248	1613	0.731	1179	1133	2.7	2.8	8.583	A
2 - High Street	559	140	1158	844	0.663	559	269	1.9	2.0	13.166	B
3 - South Bar Street	744	186	889	1200	0.620	744	828	1.6	1.7	8.174	A
4 - West Bar Street	331	83	1049	702	0.472	331	584	1.0	1.0	11.035	B

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	963	241	203	1641	0.587	968	931	2.8	1.5	5.582	A
2 - High Street	457	114	951	982	0.465	461	221	2.0	0.9	7.277	A
3 - South Bar Street	608	152	732	1303	0.466	611	680	1.7	0.9	5.410	A
4 - West Bar Street	271	68	862	812	0.333	272	481	1.0	0.6	7.596	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	806	202	170	1663	0.485	808	777	1.5	1.0	4.378	A
2 - High Street	382	96	794	1086	0.352	384	184	0.9	0.6	5.365	A
3 - South Bar Street	509	127	610	1383	0.368	510	568	0.9	0.6	4.280	A
4 - West Bar Street	227	57	719	897	0.253	227	401	0.6	0.4	6.117	A

2031 Baseline, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Horse Fair-High Street- South Bar Rb	Standard Roundabout		1, 2, 3, 4	12.03	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2031 Baseline	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Horse Fair		ONE HOUR	✓	985	100.000
2 - High Street		ONE HOUR	✓	389	100.000
3 - South Bar Street		ONE HOUR	✓	809	100.000
4 - West Bar Street		ONE HOUR	✓	427	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Horse Fair	2 - High Street	3 - South Bar Street	4 - West Bar Street
From	1 - Horse Fair	0	146	830	9
	2 - High Street	255	0	0	134
	3 - South Bar Street	650	159	0	0
	4 - West Bar Street	34	331	62	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Horse Fair	2 - High Street	3 - South Bar Street	4 - West Bar Street
From	1 - Horse Fair	0	12	4	84
	2 - High Street	2	0	33	4
	3 - South Bar Street	4	12	0	0
	4 - West Bar Street	97	17	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Horse Fair	0.78	12.58	3.7	B	904	1356
2 - High Street	0.45	7.03	0.8	A	357	535
3 - South Bar Street	0.60	6.25	1.5	A	742	1114
4 - West Bar Street	0.75	26.27	3.3	D	392	588

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	742	185	412	1508	0.492	738	704	0.0	1.0	4.901	A
2 - High Street	293	73	674	1165	0.251	291	476	0.0	0.3	4.235	A
3 - South Bar Street	609	152	298	1587	0.384	606	668	0.0	0.6	3.848	A
4 - West Bar Street	321	80	798	851	0.378	319	107	0.0	0.7	7.946	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	885	221	494	1456	0.608	883	843	1.0	1.6	6.596	A
2 - High Street	350	87	808	1077	0.325	349	570	0.3	0.5	5.080	A
3 - South Bar Street	727	182	357	1548	0.470	726	800	0.6	0.9	4.595	A
4 - West Bar Street	384	96	955	757	0.507	382	128	0.7	1.2	11.257	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	1085	271	600	1389	0.781	1077	1030	1.6	3.5	11.872	B
2 - High Street	428	107	984	959	0.446	427	693	0.5	0.8	6.932	A
3 - South Bar Street	891	223	437	1496	0.595	888	974	0.9	1.5	6.196	A
4 - West Bar Street	470	118	1168	631	0.745	462	157	1.2	3.1	24.120	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	1085	271	607	1385	0.783	1084	1034	3.5	3.7	12.576	B
2 - High Street	428	107	991	955	0.449	428	700	0.8	0.8	7.028	A
3 - South Bar Street	891	223	438	1495	0.596	891	982	1.5	1.5	6.254	A
4 - West Bar Street	470	118	1171	630	0.747	469	157	3.1	3.3	26.273	D

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	885	221	504	1450	0.611	893	848	3.7	1.7	6.916	A
2 - High Street	350	87	818	1070	0.327	351	580	0.8	0.5	5.155	A
3 - South Bar Street	727	182	359	1547	0.470	730	810	1.5	0.9	4.640	A
4 - West Bar Street	384	96	960	755	0.509	392	129	3.3	1.3	11.964	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	742	185	418	1505	0.493	744	708	1.7	1.0	5.006	A
2 - High Street	293	73	681	1161	0.252	293	481	0.5	0.3	4.269	A
3 - South Bar Street	609	152	300	1586	0.384	610	674	0.9	0.7	3.882	A
4 - West Bar Street	321	80	803	848	0.379	324	108	1.3	0.7	8.138	A

2031 Baseline, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Horse Fair-High Street- South Bar Rb	Standard Roundabout		1, 2, 3, 4	12.74	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2031 Baseline	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Horse Fair		ONE HOUR	✓	1102	100.000
2 - High Street		ONE HOUR	✓	568	100.000
3 - South Bar Street		ONE HOUR	✓	648	100.000
4 - West Bar Street		ONE HOUR	✓	358	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Horse Fair	2 - High Street	3 - South Bar Street	4 - West Bar Street
From	1 - Horse Fair	0	51	712	339
	2 - High Street	340	0	0	228
	3 - South Bar Street	617	31	0	0
	4 - West Bar Street	101	192	65	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Horse Fair	2 - High Street	3 - South Bar Street	4 - West Bar Street
From	1 - Horse Fair	0	15	4	2
	2 - High Street	0	0	0	0
	3 - South Bar Street	3	50	0	33
	4 - West Bar Street	23	10	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Horse Fair	0.77	10.45	3.4	B	1011	1517
2 - High Street	0.78	20.64	3.4	C	521	782
3 - South Bar Street	0.63	9.02	1.8	A	595	892
4 - West Bar Street	0.58	14.01	1.5	B	329	493

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	830	207	215	1634	0.508	825	792	0.0	1.1	4.593	A
2 - High Street	428	107	836	1058	0.404	425	205	0.0	0.7	5.666	A
3 - South Bar Street	488	122	679	1338	0.365	485	582	0.0	0.6	4.393	A
4 - West Bar Street	270	67	740	885	0.305	268	424	0.0	0.5	6.464	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	991	248	258	1607	0.617	988	949	1.1	1.6	6.014	A
2 - High Street	511	128	1001	948	0.538	509	246	0.7	1.1	8.157	A
3 - South Bar Street	583	146	813	1250	0.466	581	697	0.6	0.9	5.603	A
4 - West Bar Street	322	80	886	798	0.403	321	508	0.5	0.7	8.359	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	1213	303	315	1571	0.773	1206	1156	1.6	3.4	10.062	B
2 - High Street	625	156	1222	802	0.780	617	300	1.1	3.2	18.707	C
3 - South Bar Street	713	178	988	1136	0.628	710	851	0.9	1.7	8.759	A
4 - West Bar Street	394	99	1080	684	0.576	391	619	0.7	1.5	13.542	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	1213	303	317	1569	0.773	1213	1164	3.4	3.4	10.450	B
2 - High Street	625	156	1228	797	0.784	625	302	3.2	3.4	20.637	C
3 - South Bar Street	713	178	998	1129	0.632	713	855	1.7	1.8	9.018	A
4 - West Bar Street	394	99	1087	679	0.580	394	624	1.5	1.5	14.007	B

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	991	248	261	1605	0.617	998	960	3.4	1.7	6.217	A
2 - High Street	511	128	1010	942	0.542	520	248	3.4	1.2	8.700	A
3 - South Bar Street	583	146	826	1241	0.469	586	704	1.8	0.9	5.757	A
4 - West Bar Street	322	80	897	792	0.406	325	515	1.5	0.8	8.619	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	830	207	218	1632	0.508	832	799	1.7	1.1	4.680	A
2 - High Street	428	107	843	1053	0.406	430	207	1.2	0.7	5.793	A
3 - South Bar Street	488	122	686	1334	0.366	489	587	0.9	0.6	4.456	A
4 - West Bar Street	270	67	746	881	0.306	271	428	0.8	0.5	6.567	A

2031 Baseline + Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Horse Fair-High Street- South Bar Rb	Standard Roundabout		1, 2, 3, 4	11.98	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2031 Baseline + Dev	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Horse Fair		ONE HOUR	✓	958	100.000
2 - High Street		ONE HOUR	✓	323	100.000
3 - South Bar Street		ONE HOUR	✓	894	100.000
4 - West Bar Street		ONE HOUR	✓	414	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Horse Fair	2 - High Street	3 - South Bar Street	4 - West Bar Street
From	1 - Horse Fair	0	136	810	12
	2 - High Street	199	0	0	124
	3 - South Bar Street	702	192	0	0
	4 - West Bar Street	34	306	74	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Horse Fair	2 - High Street	3 - South Bar Street	4 - West Bar Street
From	1 - Horse Fair	0	13	4	59
	2 - High Street	1	0	22	3
	3 - South Bar Street	3	11	0	0
	4 - West Bar Street	99	22	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Horse Fair	0.77	11.99	3.4	B	879	1319
2 - High Street	0.37	6.07	0.6	A	296	445
3 - South Bar Street	0.64	6.78	1.8	A	820	1231
4 - West Bar Street	0.75	27.78	3.4	D	380	570

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	721	180	427	1499	0.481	717	701	0.0	1.0	4.844	A
2 - High Street	243	61	671	1168	0.208	242	474	0.0	0.3	3.951	A
3 - South Bar Street	673	168	251	1618	0.416	670	662	0.0	0.7	3.972	A
4 - West Bar Street	312	78	819	838	0.372	309	102	0.0	0.7	8.221	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	861	215	512	1445	0.596	859	839	1.0	1.5	6.469	A
2 - High Street	290	73	803	1080	0.269	290	568	0.3	0.4	4.633	A
3 - South Bar Street	804	201	301	1585	0.507	802	792	0.7	1.1	4.814	A
4 - West Bar Street	372	93	981	742	0.502	370	122	0.7	1.2	11.691	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	1055	264	622	1375	0.767	1048	1026	1.5	3.3	11.377	B
2 - High Street	356	89	979	963	0.369	355	691	0.4	0.6	6.009	A
3 - South Bar Street	984	246	368	1541	0.639	981	966	1.1	1.8	6.704	A
4 - West Bar Street	456	114	1200	613	0.744	448	149	1.2	3.2	25.387	D

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	1055	264	629	1371	0.770	1054	1029	3.3	3.4	11.985	B
2 - High Street	356	89	986	958	0.371	356	697	0.6	0.6	6.072	A
3 - South Bar Street	984	246	369	1541	0.639	984	973	1.8	1.8	6.781	A
4 - West Bar Street	456	114	1203	611	0.746	455	150	3.2	3.4	27.781	D

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	861	215	523	1438	0.599	868	844	3.4	1.6	6.761	A
2 - High Street	290	73	813	1073	0.271	291	578	0.6	0.4	4.688	A
3 - South Bar Street	804	201	302	1584	0.507	807	802	1.8	1.1	4.874	A
4 - West Bar Street	372	93	986	739	0.504	381	123	3.4	1.3	12.460	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	721	180	433	1496	0.482	724	705	1.6	1.0	4.947	A
2 - High Street	243	61	677	1163	0.209	244	480	0.4	0.3	3.980	A
3 - South Bar Street	673	168	253	1617	0.416	674	668	1.1	0.8	4.012	A
4 - West Bar Street	312	78	824	835	0.373	314	103	1.3	0.7	8.425	A

2031 Baseline + Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Horse Fair-High Street- South Bar Rb	Standard Roundabout		1, 2, 3, 4	12.25	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2031 Baseline + Dev	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Horse Fair		ONE HOUR	✓	1105	100.000
2 - High Street		ONE HOUR	✓	557	100.000
3 - South Bar Street		ONE HOUR	✓	670	100.000
4 - West Bar Street		ONE HOUR	✓	355	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Horse Fair	2 - High Street	3 - South Bar Street	4 - West Bar Street
From	1 - Horse Fair	0	52	729	324
	2 - High Street	309	0	0	248
	3 - South Bar Street	639	31	0	0
	4 - West Bar Street	113	183	59	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Horse Fair	2 - High Street	3 - South Bar Street	4 - West Bar Street
From	1 - Horse Fair	0	15	4	2
	2 - High Street	0	0	0	0
	3 - South Bar Street	3	50	0	20
	4 - West Bar Street	23	10	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Horse Fair	0.77	10.25	3.4	B	1014	1521
2 - High Street	0.77	19.05	3.1	C	511	767
3 - South Bar Street	0.64	9.15	1.8	A	615	922
4 - West Bar Street	0.57	13.68	1.5	B	326	489

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	832	208	204	1641	0.507	828	794	0.0	1.1	4.565	A
2 - High Street	419	105	833	1060	0.396	417	199	0.0	0.6	5.578	A
3 - South Bar Street	504	126	659	1351	0.373	502	590	0.0	0.6	4.417	A
4 - West Bar Street	267	67	733	889	0.301	265	428	0.0	0.5	6.449	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	993	248	245	1615	0.615	991	951	1.1	1.6	5.959	A
2 - High Street	501	125	997	951	0.527	499	238	0.6	1.1	7.941	A
3 - South Bar Street	602	151	790	1266	0.476	601	707	0.6	0.9	5.647	A
4 - West Bar Street	319	80	878	803	0.397	318	513	0.5	0.7	8.296	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	1217	304	299	1581	0.770	1210	1160	1.6	3.3	9.881	A
2 - High Street	613	153	1217	805	0.762	606	291	1.1	3.0	17.501	C
3 - South Bar Street	738	184	961	1154	0.639	734	863	0.9	1.8	8.889	A
4 - West Bar Street	391	98	1070	689	0.567	388	624	0.7	1.4	13.264	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	1217	304	300	1580	0.770	1216	1168	3.3	3.4	10.246	B
2 - High Street	613	153	1224	800	0.766	613	293	3.0	3.1	19.051	C
3 - South Bar Street	738	184	969	1148	0.643	738	867	1.8	1.8	9.150	A
4 - West Bar Street	391	98	1077	685	0.570	391	629	1.4	1.5	13.680	B

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	993	248	247	1613	0.616	1000	962	3.4	1.7	6.150	A
2 - High Street	501	125	1007	945	0.530	509	241	3.1	1.2	8.406	A
3 - South Bar Street	602	151	802	1258	0.479	606	713	1.8	1.0	5.801	A
4 - West Bar Street	319	80	888	797	0.400	322	520	1.5	0.8	8.533	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Horse Fair	832	208	206	1640	0.507	834	801	1.7	1.1	4.650	A
2 - High Street	419	105	840	1055	0.397	421	201	1.2	0.7	5.696	A
3 - South Bar Street	504	126	666	1347	0.375	506	595	1.0	0.6	4.480	A
4 - West Bar Street	267	67	739	885	0.302	268	432	0.8	0.5	6.552	A

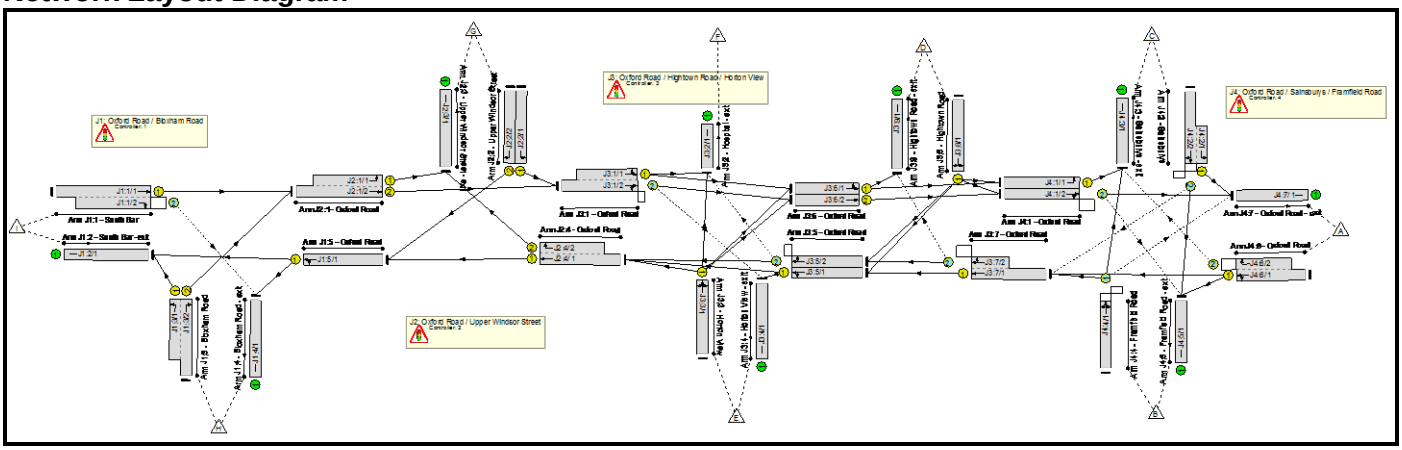
APPENDIX E

Full Input Data And Results

User and Project Details

Project:	
Title:	
Location:	
File name:	Oxford Road Corridor with Existing Layout.lsg3x
Author:	
Company:	
Address:	
Notes:	

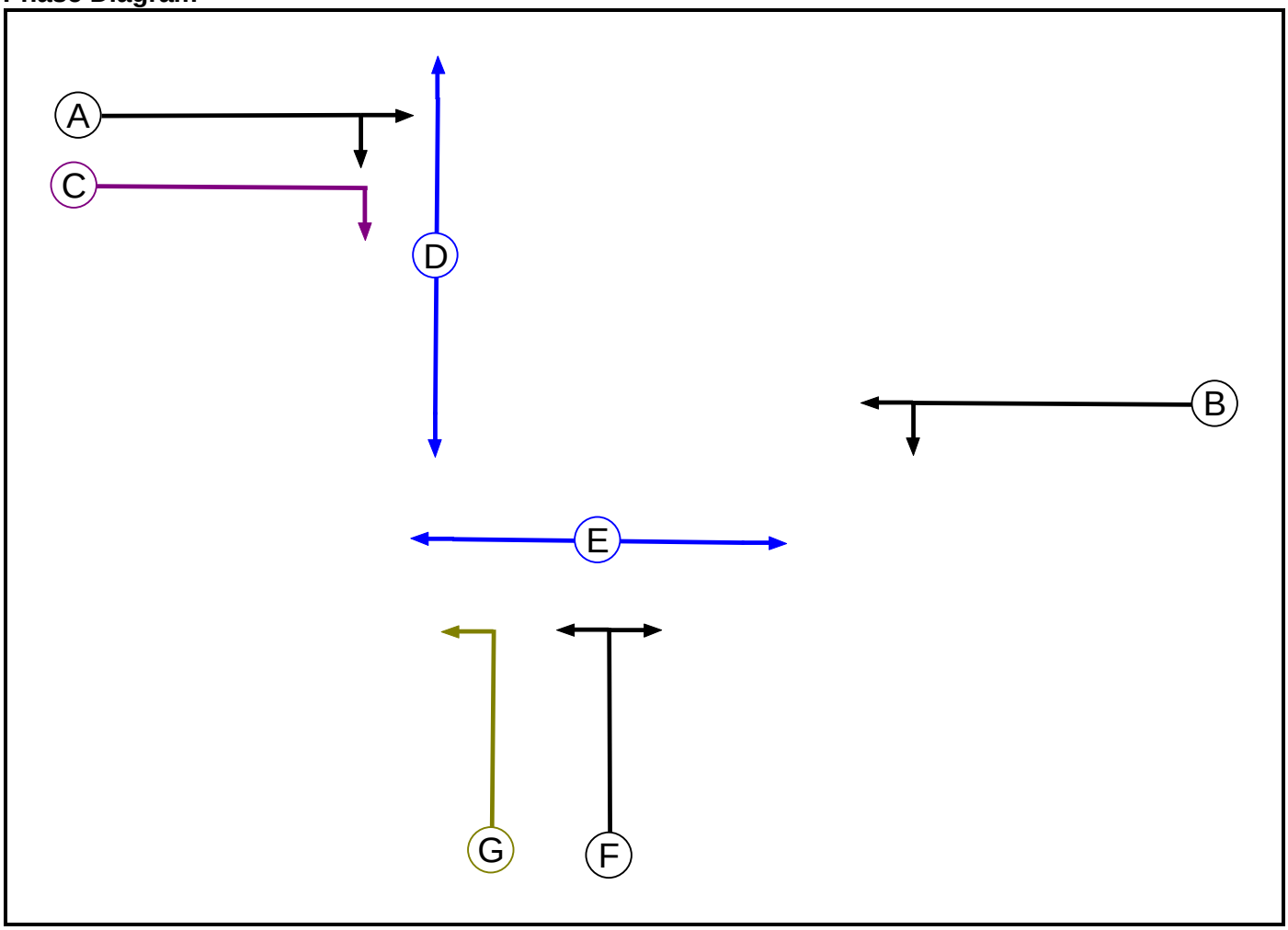
Network Layout Diagram



Full Input Data And Results

C1

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Ind. Arrow	A	4	4
D	Pedestrian		7	7
E	Pedestrian		7	7
F	Traffic		7	7
G	Filter	F	4	0

Full Input Data And Results

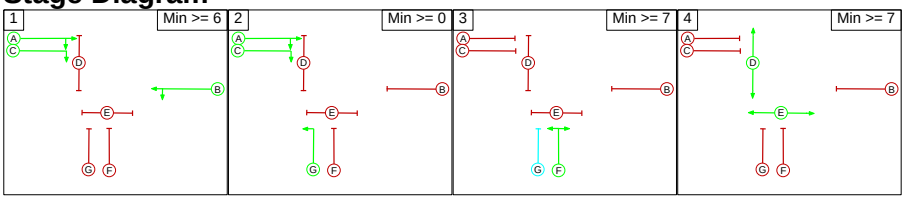
Phase Intergreens Matrix

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

Phases in Stage

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

Stage Diagram



Phase Delays

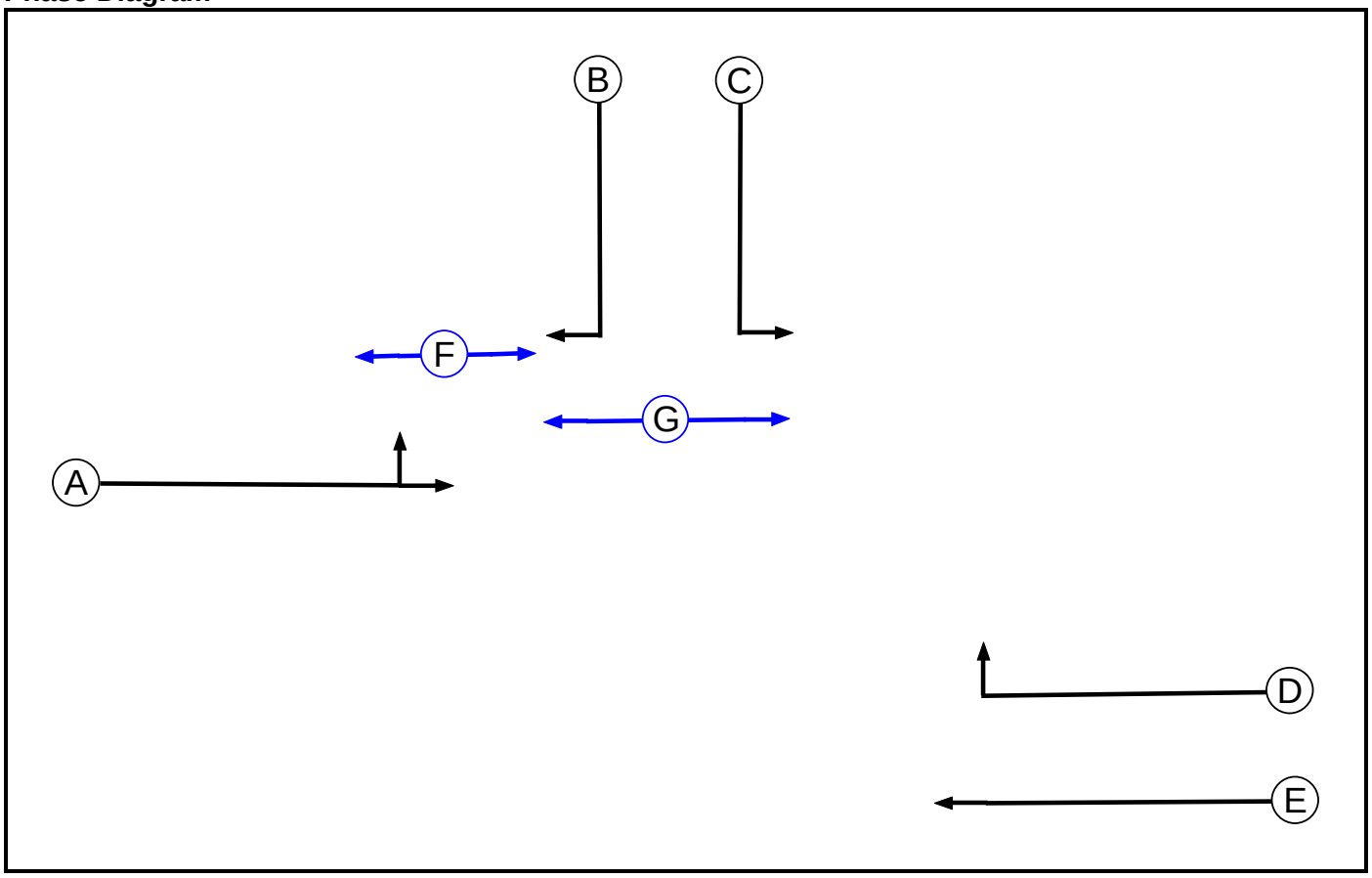
Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

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

C2

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Traffic		7	7
F	Pedestrian		7	7
G	Pedestrian		7	7

Full Input Data And Results

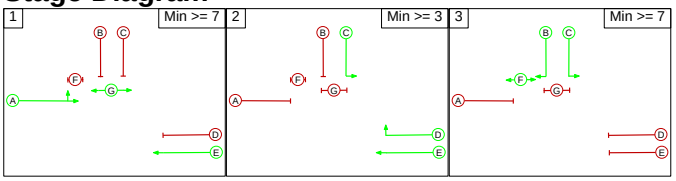
Phase Intergreens Matrix

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

Phases in Stage

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

Stage Diagram



Phase Delays

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

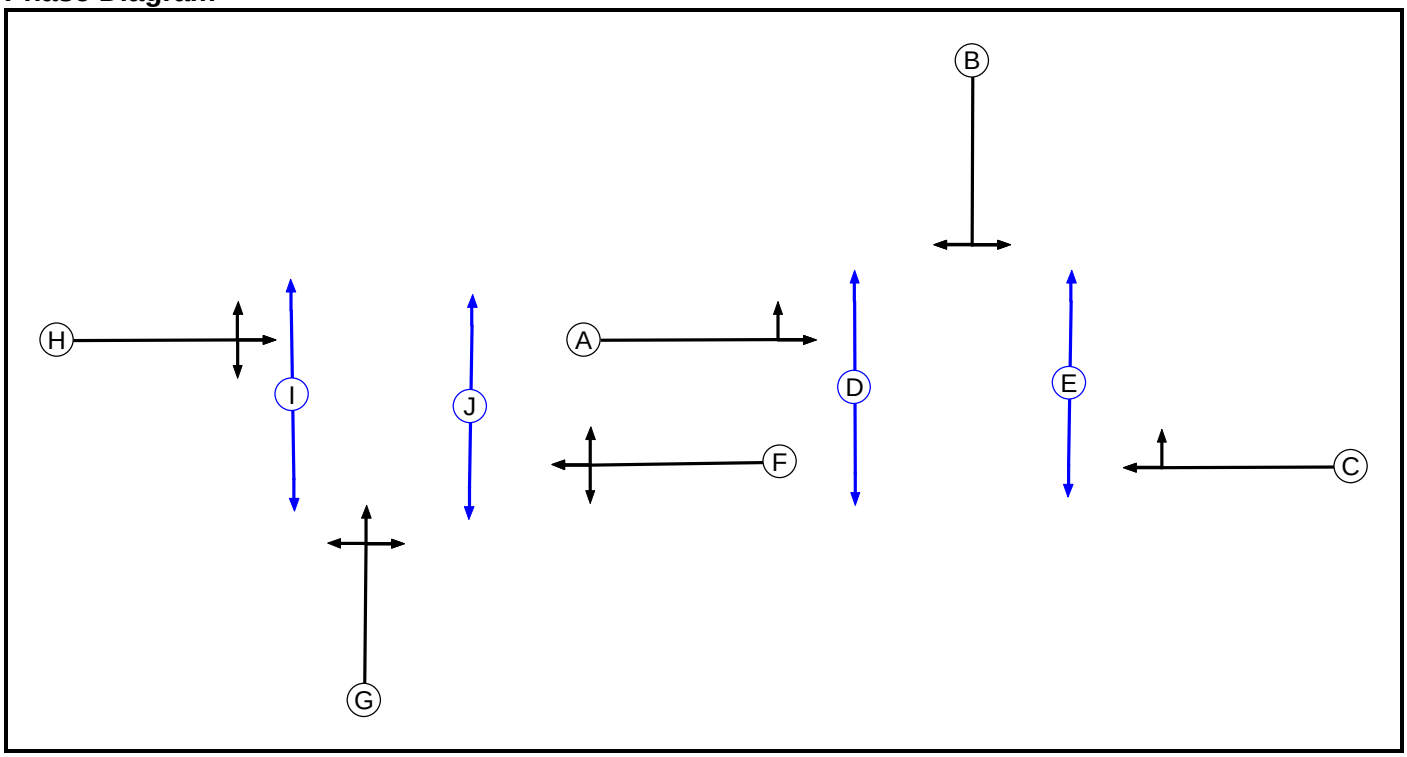
Prohibited Stage Change

From Stage \ To Stage	1	2	3
1		10	10
2	6		7
3	10	10	

Full Input Data And Results

C3

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Pedestrian		7	7
E	Pedestrian		7	7
F	Traffic		7	7
G	Traffic		7	7
H	Traffic		7	7
I	Pedestrian		7	7
J	Pedestrian		7	7

Full Input Data And Results

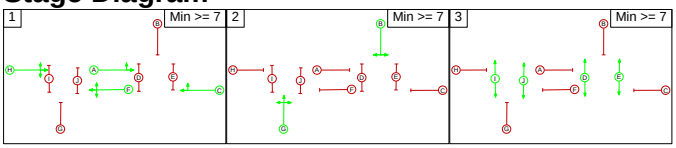
Phase Intergreens Matrix

Terminating Phase \ Starting Phase	A	B	C	D	E	F	G	H	I	J
A		6	-	5	7	-	-	-	-	-
B	6		6	6	6	-	-	-	-	-
C	-	6		7	5	-	-	-	-	-
D	13	13	13		-	-	-	-	-	-
E	13	13	13	-		-	-	-	-	-
F	-	-	-	-	-		6	-	6	5
G	-	-	-	-	-	5		6	6	6
H	-	-	-	-	-	-	5		5	6
I	-	-	-	-	-	13	13	13		-
J	-	-	-	-	-	13	13	13	-	

Phases in Stage

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

Stage Diagram



Phase Delays

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

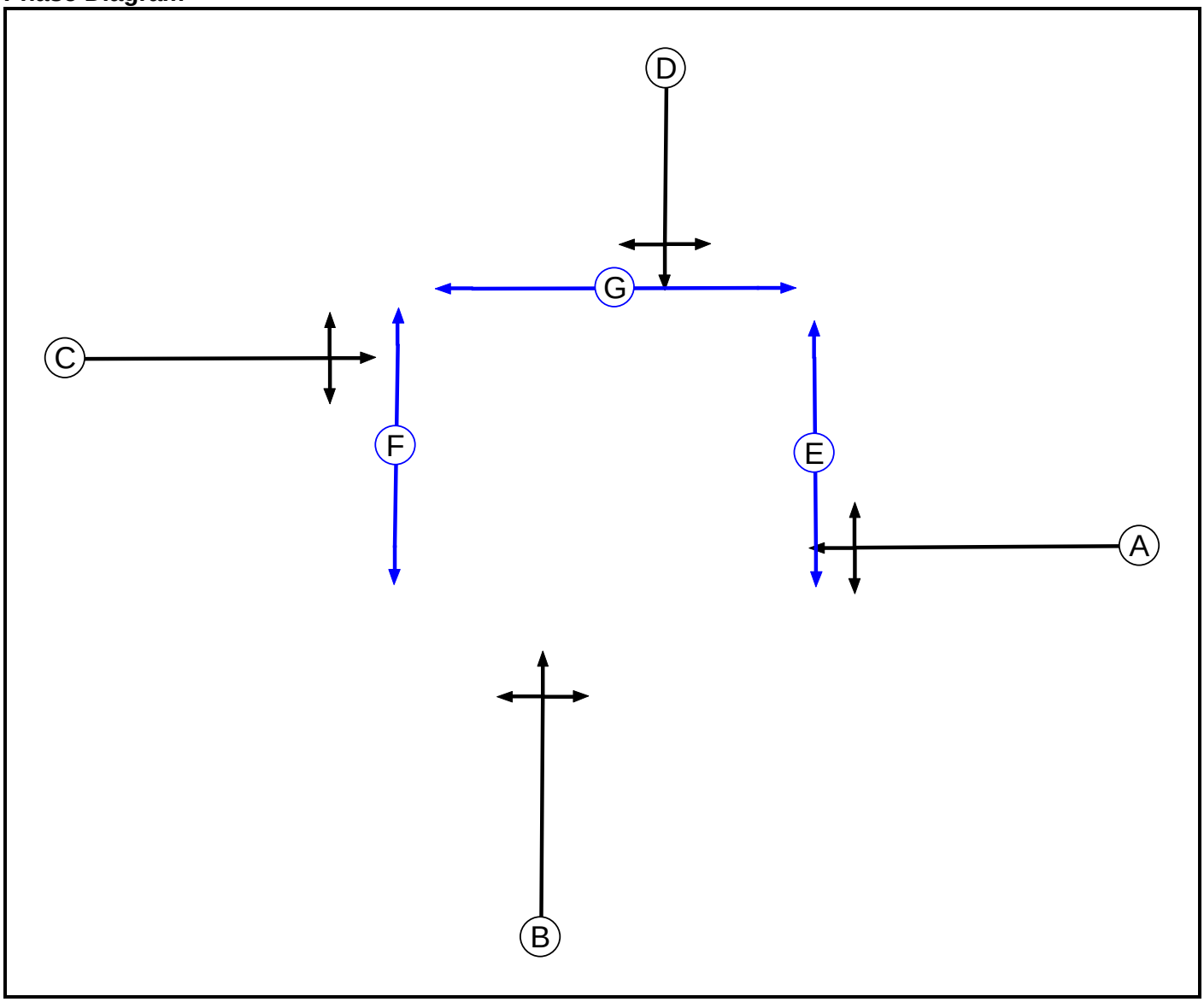
Prohibited Stage Change

From Stage \ To Stage	1	2	3
1		6	7
2	6		6
3	13	13	

Full Input Data And Results

C4

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Pedestrian		7	7
F	Pedestrian		7	7
G	Pedestrian		7	7

Full Input Data And Results

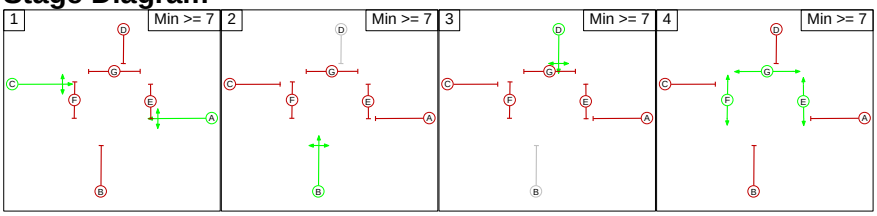
Phase Intergreens Matrix

Terminating Phase	Starting Phase							
		A	B	C	D	E	F	G
	A		7	-	5	5	9	9
	B	5		5	-	9	6	8
	C	-	5		5	9	5	6
	D	5	-	5		8	8	9
	E	14	14	14	14		-	-
	F	16	16	16	16	-		-
	G	15	15	15	15	-	-	

Phases in Stage

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

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
	1		7	5	9
	2	5		2	9
	3	5	2		9
	4	16	16	16	

Full Input Data And Results

Give-Way Lane Input Data

Junction: J1: Oxford Road / Bloxham Road

Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
J1:1/2 (South Bar)	J1:4/1 (Right)	1440	0	J1:5/1	1.09	All	2.00	-	0.50	2	2.00

Junction: J2: Oxford Road / Upper Windsor Street

There are no Opposed Lanes in this Junction

Junction: J3: Oxford Road / Hightown Road / Horton View

Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
J3:1/2 (Oxford Road)	J3:4/1 (Right)	1440	0	J3:5/1	1.09	All	1.00	1.00	0.50	1	2.00
				J3:5/2	1.09	All					
J3:5/2 (Oxford Road)	J3:2/1 (Right)	1440	0	J3:1/1	1.09	All	1.00	1.00	0.50	1	2.00
				J3:1/2	1.09	All					
J3:7/2 (Oxford Road)	J3:9/1 (Right)	1440	0	J3:6/1	1.09	All	2.00	2.00	0.50	2	2.00
				J3:6/2	1.09	All					

Full Input Data And Results

Junction: J4: Oxford Road / Sainsburys / Framfield Road											
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 (Oxford Road)	J4:5/1 (Right)	1440	0	J4:6/1	1.09	All	2.00	2.00	0.50	2	2.00
J4:2/2 (Sainsburys)	J3:7/1 (Right)	1440	0	J4:4/1	1.09	All	2.00	1.00	0.50	2	2.00
J4:4/1 (Framfield Road)	J4:7/1 (Right)	1440	0	J4:2/2	1.09	All	2.00	1.00	0.50	2	2.00
				J4:2/1	1.09	All					
J4:6/2 (Oxford Road)	J4:3/1 (Right)	1440	0	J4:1/1	1.09	All	2.00	-	0.50	2	2.00
				J4:1/2	1.09	All					

Full Input Data And Results

Lane Input Data

Junction: J1: Oxford Road / Bloxham Road

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
J1:1/1 (South Bar)	U	A	2	3	60.0	Geom	-	3.00	6.00	Y	Arm J2:1 Ahead	Inf
J1:1/2 (South Bar)	O	A C	2	3	12.0	Geom	-	3.00	6.00	N	Arm J1:4 Right	10.00
J1:2/1 (South Bar -exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:3/1 (Bloxham Road)	U	F G	2	3	9.0	Geom	-	3.60	0.00	Y	Arm J1:2 Left	28.80
J1:3/2 (Bloxham Road)	U	F	2	3	60.0	Geom	-	3.10	0.00	Y	Arm J2:1 Right	13.50
J1:4/1 (Bloxham Road - exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:5/1 (Oxford Road)	U	B	2	3	60.0	Geom	-	3.90	0.00	Y	Arm J1:2 Ahead Arm J1:4 Left	Inf 8.00

Junction: J2: Oxford Road / Upper Windsor Street

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
J2:1/1 (Oxford Road)	U	A	2	3	15.0	Geom	-	3.00	0.00	Y	Arm J2:3 Left	16.00
J2:1/2 (Oxford Road)	U	A	2	3	39.0	Geom	-	3.00	0.00	N	Arm J3:1 Ahead	Inf
J2:2/1 (Upper Windsor Street)	U	C	2	3	60.0	Geom	-	3.50	0.00	Y	Arm J3:1 Left	16.50
J2:2/2 (Upper Windsor Street)	U	B	2	3	60.0	Geom	-	3.50	0.00	N	Arm J1:5 Right	24.70
J2:3/1 (Upper Windsor Street - exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:4/1 (Oxford Road)	U	E	2	3	40.0	Geom	-	3.00	0.00	Y	Arm J1:5 Ahead	Inf
J2:4/2 (Oxford Road)	U	D	2	3	10.0	Geom	-	3.00	0.00	Y	Arm J2:3 Right	18.60

Full Input Data And Results

Junction: J3: Oxford Road / Hightown Road / Horton View

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
J3:1/1 (Oxford Road)	U	H	2	3	13.0	Geom	-	3.00	0.00	Y	Arm J3:2 Left	3.00
											Arm J3:6 Ahead	Inf
J3:1/2 (Oxford Road)	O	H	2	3	42.0	Geom	-	3.10	0.00	N	Arm J3:4 Right	19.90
											Arm J3:6 Ahead	Inf
J3:2/1 (Hospital - exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
J3:3/1 (Horton View)	U	G	2	3	60.0	Geom	-	3.60	0.00	Y	Arm J2:4 Left	7.00
											Arm J3:2 Ahead	Inf
											Arm J3:6 Right	18.70
J3:4/1 (Horton View - exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
J3:5/1 (Oxford Road)	U	F	2	3	6.0	Geom	-	3.00	0.00	Y	Arm J2:4 Ahead	Inf
											Arm J3:4 Left	9.60
J3:5/2 (Oxford Road)	O	F	2	3	6.0	Geom	-	3.00	0.00	Y	Arm J2:4 Ahead	Inf
											Arm J3:2 Right	11.00
J3:6/1 (Oxford Road)	U	A	2	3	6.0	Geom	-	3.00	0.00	Y	Arm J3:9 Left	8.00
											Arm J4:1 Ahead	Inf
J3:6/2 (Oxford Road)	U	A	2	3	6.0	Geom	-	3.00	0.00	N	Arm J4:1 Ahead	Inf
J3:7/1 (Oxford Road)	U	C	2	3	16.0	Geom	-	2.80	0.00	N	Arm J3:5 Ahead	Inf
J3:7/2 (Oxford Road)	O	C	2	3	5.0	Geom	-	3.25	0.00	Y	Arm J3:5 Ahead	Inf
											Arm J3:9 Right	18.00
J3:8/1 (Hightown Road)	U	B	2	3	60.0	Geom	-	3.10	0.00	Y	Arm J3:5 Right	14.80
											Arm J4:1 Left	6.20
J3:9/1 (HIghtown Road - exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

Junction: J4: Oxford Road / Sainsburys / Framfield Road												
Lane	**Lane Type**	**Phases**	**Start Disp.**	**End Disp.**	**Physical Length (PCU)**	**Sat Flow Type**	**Def User Saturation Flow (PCU/Hr)**	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Turns**	**Turning Radius (m)**
J4:1/1 (Oxford Road)	U	C	2	3	23.0	Geom	-	3.00	0.00	Y	Arm J4:3 Left	9.30
J4:1/2 (Oxford Road)	O	C	2	3	23.0	Geom	-	3.00	0.00	N	Arm J4:5 Right	11.00
											Arm J4:7 Ahead	Inf
J4:2/1 (Sainsburys)	U	D	2	3	5.0	Geom	-	3.10	0.00	Y	Arm J4:7 Left	16.00
J4:2/2 (Sainsburys)	O	D	2	3	60.0	Geom	-	3.10	0.00	Y	Arm J3:7 Right	11.40
											Arm J4:5 Ahead	Inf
J4:3/1 (Sainsburys - exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
J4:4/1 (Framfield Road)	O	B	2	3	60.0	Geom	-	3.20	0.00	Y	Arm J3:7 Left	9.70
											Arm J4:3 Ahead	Inf
											Arm J4:7 Right	14.00
J4:5/1 (Framfield Road - exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
J4:6/1 (Oxford Road)	U	A	2	3	60.0	Geom	-	3.00	0.00	Y	Arm J3:7 Ahead	Inf
											Arm J4:5 Left	8.80
J4:6/2 (Oxford Road)	O	A	2	3	11.0	Geom	-	3.25	0.00	Y	Arm J4:3 Right	Inf
J4:7/1 (Oxford Road - exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Junction: J3: Oxford Road / Hightown Road / Horton View		
Lane	**Custom Occupancy per Flow Group (PCU)**	
	2016 AM	**2016 PM**
J3:1/1 (Oxford Road Lane 1)	13.0	13.0

Full Input Data And Results

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2016 AM'	08:00	09:00	01:00	
2: '2016 PM'	17:00	18:00	01:00	

Scenario 1: 'Scenario 1' (FG1: '2016 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination									
		A	B	C	D	E	F	G	H	I	Tot.
Origin	A	0	6	60	97	83	11	197	141	236	831
	B	51	0	48	7	6	1	14	10	17	154
	C	67	33	0	11	9	1	22	16	27	186
	D	100	3	16	0	14	2	34	24	41	234
	E	146	4	24	32	0	7	39	28	47	327
	F	0	0	0	0	0	0	0	0	0	0
	G	141	4	23	31	16	6	0	55	92	368
	H	110	3	18	24	13	5	24	0	232	429
	I	250	8	40	55	29	10	54	243	0	689
	Tot.	865	61	229	257	170	43	384	517	692	3218

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: Scenario 1
Junction: J1: Oxford Road / Bloxham Road	
J1:1/1 (with short)	689(In) 446(Out)
J1:1/2 (short)	243
J1:2/1	692
J1:3/1 (short)	232
J1:3/2 (with short)	429(In) 197(Out)
J1:4/1	517
J1:5/1	734
Junction: J2: Oxford Road / Upper Windsor Street	
J2:1/1 (short)	78
J2:1/2 (with short)	643(In) 565(Out)
J2:2/1	221
J2:2/2	147
J2:3/1	384
J2:4/1 (with short)	893(In) 587(Out)
J2:4/2 (short)	306
Junction: J3: Oxford Road / Hightown Road / Horton View	
J3:1/1 (short)	212
J3:1/2 (with short)	786(In) 574(Out)
J3:2/1	43
J3:3/1	327
J3:4/1	170
J3:5/1	499
J3:5/2	407
J3:6/1	247
J3:6/2	666
J3:7/1 (with short)	906(In) 436(Out)
J3:7/2 (short)	470
J3:8/1	234
J3:9/1	257
Junction: J4: Oxford Road / Sainsburys / Framfield Road	
J4:1/1	121
J4:1/2	769
J4:2/1 (short)	67

J4:2/2 (with short)	186(In) 119(Out)
J4:3/1	229
J4:4/1	154
J4:5/1	61
J4:6/1 (with short)	831(In) 771(Out)
J4:6/2 (short)	60
J4:7/1	865

Lane Saturation Flows

Junction: J1: Oxford Road / Bloxham Road

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 (South Bar)	3.00	6.00	Y	Arm J2:1 Ahead	Inf	100.0 %	1663	1663
J1:1/2 (South Bar)	3.00	6.00	N	Arm J1:4 Right	10.00	100.0 %	1568	1568
J1:2/1 (South Bar -exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:3/1 (Bloxham Road)	3.60	0.00	Y	Arm J1:2 Left	28.80	100.0 %	1877	1877
J1:3/2 (Bloxham Road)	3.10	0.00	Y	Arm J2:1 Right	13.50	100.0 %	1733	1733
J1:4/1 (Bloxham Road - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (Oxford Road)	3.90	0.00	Y	Arm J1:2 Ahead	Inf	62.7 %	1874	1874
				Arm J1:4 Left	8.00	37.3 %		

Junction: J2: Oxford Road / Upper Windsor Street

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 (Oxford Road)	3.00	0.00	Y	Arm J2:3 Left	16.00	100.0 %	1751	1751
J2:1/2 (Oxford Road)	3.00	0.00	N	Arm J3:1 Ahead	Inf	100.0 %	2055	2055
J2:2/1 (Upper Windsor Street)	3.50	0.00	Y	Arm J3:1 Left	16.50	100.0 %	1801	1801
J2:2/2 (Upper Windsor Street)	3.50	0.00	N	Arm J1:5 Right	24.70	100.0 %	1984	1984
J2:3/1 (Upper Windsor Street - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:4/1 (Oxford Road)	3.00	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1915	1915
J2:4/2 (Oxford Road)	3.00	0.00	Y	Arm J2:3 Right	18.60	100.0 %	1772	1772

Full Input Data And Results

Junction: J3: Oxford Road / Hightown Road / Horton View								
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 (Oxford Road)	3.00	0.00	Y	Arm J3:2 Left	3.00	9.9 %	1825	1825
				Arm J3:6 Ahead	Inf	90.1 %		
J3:1/2 (Oxford Road)	3.10	0.00	N	Arm J3:4 Right	19.90	10.1 %	2049	2049
				Arm J3:6 Ahead	Inf	89.9 %		
J3:2/1 (Hospital - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:3/1 (Horton View)	3.60	0.00	Y	Arm J2:4 Left	7.00	34.9 %	1755	1755
				Arm J3:2 Ahead	Inf	2.1 %		
				Arm J3:6 Right	18.70	63.0 %		
J3:4/1 (Horton View - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:5/1 (Oxford Road)	3.00	0.00	Y	Arm J2:4 Ahead	Inf	77.6 %	1850	1850
				Arm J3:4 Left	9.60	22.4 %		
J3:5/2 (Oxford Road)	3.00	0.00	Y	Arm J2:4 Ahead	Inf	96.3 %	1905	1905
				Arm J3:2 Right	11.00	3.7 %		
J3:6/1 (Oxford Road)	3.00	0.00	Y	Arm J3:9 Left	8.00	57.5 %	1729	1729
				Arm J4:1 Ahead	Inf	42.5 %		
J3:6/2 (Oxford Road)	3.00	0.00	N	Arm J4:1 Ahead	Inf	100.0 %	2055	2055
J3:7/1 (Oxford Road)	2.80	0.00	N	Arm J3:5 Ahead	Inf	100.0 %	2035	2035
J3:7/2 (Oxford Road)	3.25	0.00	Y	Arm J3:5 Ahead	Inf	75.5 %	1901	1901
				Arm J3:9 Right	18.00	24.5 %		
J3:8/1 (Hightown Road)	3.10	0.00	Y	Arm J3:5 Right	14.80	49.1 %	1641	1641
				Arm J4:1 Left	6.20	50.9 %		
J3:9/1 (HIghtown Road - exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J4: Oxford Road / Sainsburys / Framfield Road								
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 (Oxford Road)	3.00	0.00	Y	Arm J4:3 Left	9.30	100.0 %	1649	1649
J4:1/2 (Oxford Road)	3.00	0.00	N	Arm J4:5 Right	11.00	2.9 %	2047	2047
				Arm J4:7 Ahead	Inf	97.1 %		
J4:2/1 (Sainsburys)	3.10	0.00	Y	Arm J4:7 Left	16.00	100.0 %	1760	1760
J4:2/2 (Sainsburys)	3.10	0.00	Y	Arm J3:7 Right	11.40	72.3 %	1758	1758
				Arm J4:5 Ahead	Inf	27.7 %		
J4:3/1 (Sainsburys - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J4:4/1 (Framfield Road)	3.20	0.00	Y	Arm J3:7 Left	9.70	35.7 %	1774	1774
				Arm J4:3 Ahead	Inf	31.2 %		
				Arm J4:7 Right	14.00	33.1 %		
J4:5/1 (Framfield Road - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J4:6/1 (Oxford Road)	3.00	0.00	Y	Arm J3:7 Ahead	Inf	99.2 %	1912	1912
				Arm J4:5 Left	8.80	0.8 %		
J4:6/2 (Oxford Road)	3.25	0.00	Y	Arm J4:3 Right	Inf	100.0 %	1940	1940
J4:7/1 (Oxford Road - exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 2: 'Scenario 2' (FG2: '2016 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination									
		A	B	C	D	E	F	G	H	I	Tot.
Origin	A	0	15	100	63	86	2	144	162	187	759
	B	41	0	57	2	3	0	5	5	6	119
	C	193	56	0	14	20	0	33	37	43	396
	D	133	2	45	0	17	0	28	32	36	293
	E	109	2	37	14	0	3	15	17	19	216
	F	0	0	0	0	0	0	0	0	0	0
	G	111	2	38	14	10	0	0	77	88	340
	H	108	2	36	13	9	0	21	0	207	396
	I	276	4	94	35	24	1	53	304	0	791
	Tot.	971	83	407	155	169	6	299	634	586	3310

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: Scenario 2
Junction: J1: Oxford Road / Bloxham Road	
J1:1/1 (with short)	791(In) 487(Out)
J1:1/2 (short)	304
J1:2/1	586
J1:3/1 (short)	207
J1:3/2 (with short)	396(In) 189(Out)
J1:4/1	634
J1:5/1	709
Junction: J2: Oxford Road / Upper Windsor Street	
J2:1/1 (short)	74
J2:1/2 (with short)	676(In) 602(Out)
J2:2/1	175
J2:2/2	165
J2:3/1	299
J2:4/1 (with short)	769(In) 544(Out)
J2:4/2 (short)	225
Junction: J3: Oxford Road / Hightown Road / Horton View	
J3:1/1 (short)	231
J3:1/2 (with short)	777(In) 546(Out)
J3:2/1	6
J3:3/1	216
J3:4/1	169
J3:5/1	482
J3:5/2	364
J3:6/1	281
J3:6/2	614
J3:7/1 (with short)	812(In) 417(Out)
J3:7/2 (short)	395
J3:8/1	293
J3:9/1	155
Junction: J4: Oxford Road / Sainsburys / Framfield Road	
J4:1/1	250
J4:1/2	749
J4:2/1 (short)	193

J4:2/2 (with short)	396(In) 203(Out)
J4:3/1	407
J4:4/1	119
J4:5/1	83
J4:6/1 (with short)	759(In) 659(Out)
J4:6/2 (short)	100
J4:7/1	971

Lane Saturation Flows

Junction: J1: Oxford Road / Bloxham Road

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 (South Bar)	3.00	6.00	Y	Arm J2:1 Ahead	Inf	100.0 %	1663	1663
J1:1/2 (South Bar)	3.00	6.00	N	Arm J1:4 Right	10.00	100.0 %	1568	1568
J1:2/1 (South Bar -exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:3/1 (Bloxham Road)	3.60	0.00	Y	Arm J1:2 Left	28.80	100.0 %	1877	1877
J1:3/2 (Bloxham Road)	3.10	0.00	Y	Arm J2:1 Right	13.50	100.0 %	1733	1733
J1:4/1 (Bloxham Road - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (Oxford Road)	3.90	0.00	Y	Arm J1:2 Ahead	Inf	53.5 %	1844	1844
				Arm J1:4 Left	8.00	46.5 %		

Junction: J2: Oxford Road / Upper Windsor Street

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 (Oxford Road)	3.00	0.00	Y	Arm J2:3 Left	16.00	100.0 %	1751	1751
J2:1/2 (Oxford Road)	3.00	0.00	N	Arm J3:1 Ahead	Inf	100.0 %	2055	2055
J2:2/1 (Upper Windsor Street)	3.50	0.00	Y	Arm J3:1 Left	16.50	100.0 %	1801	1801
J2:2/2 (Upper Windsor Street)	3.50	0.00	N	Arm J1:5 Right	24.70	100.0 %	1984	1984
J2:3/1 (Upper Windsor Street - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:4/1 (Oxford Road)	3.00	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1915	1915
J2:4/2 (Oxford Road)	3.00	0.00	Y	Arm J2:3 Right	18.60	100.0 %	1772	1772

Full Input Data And Results

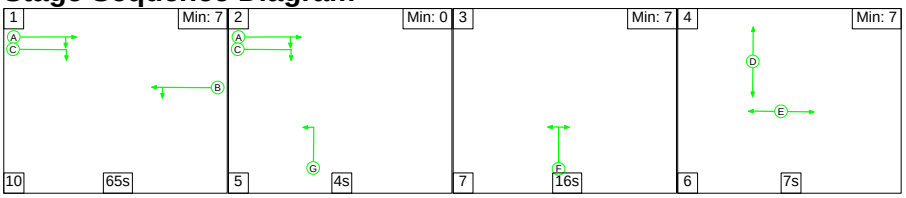
Junction: J3: Oxford Road / Hightown Road / Horton View								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J3:1/1 (Oxford Road)	3.00	0.00	Y	Arm J3:2 Left	3.00	0.4 %	1911	1911
				Arm J3:6 Ahead	Inf	99.6 %		
J3:1/2 (Oxford Road)	3.10	0.00	N	Arm J3:4 Right	19.90	7.9 %	2053	2053
				Arm J3:6 Ahead	Inf	92.1 %		
J3:2/1 (Hospital - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:3/1 (Horton View)	3.60	0.00	Y	Arm J2:4 Left	7.00	23.6 %	1778	1778
				Arm J3:2 Ahead	Inf	1.4 %		
				Arm J3:6 Right	18.70	75.0 %		
J3:4/1 (Horton View - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:5/1 (Oxford Road)	3.00	0.00	Y	Arm J2:4 Ahead	Inf	73.9 %	1840	1840
				Arm J3:4 Left	9.60	26.1 %		
J3:5/2 (Oxford Road)	3.00	0.00	Y	Arm J2:4 Ahead	Inf	99.5 %	1914	1914
				Arm J3:2 Right	11.00	0.5 %		
J3:6/1 (Oxford Road)	3.00	0.00	Y	Arm J3:9 Left	8.00	27.0 %	1823	1823
				Arm J4:1 Ahead	Inf	73.0 %		
J3:6/2 (Oxford Road)	3.00	0.00	N	Arm J4:1 Ahead	Inf	100.0 %	2055	2055
J3:7/1 (Oxford Road)	2.80	0.00	N	Arm J3:5 Ahead	Inf	100.0 %	2035	2035
J3:7/2 (Oxford Road)	3.25	0.00	Y	Arm J3:5 Ahead	Inf	80.0 %	1908	1908
				Arm J3:9 Right	18.00	20.0 %		
J3:8/1 (Hightown Road)	3.10	0.00	Y	Arm J3:5 Right	14.80	38.6 %	1621	1621
				Arm J4:1 Left	6.20	61.4 %		
J3:9/1 (HIghtown Road - exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J4: Oxford Road / Sainsburys / Framfield Road								
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 (Oxford Road)	3.00	0.00	Y	Arm J4:3 Left	9.30	100.0 %	1649	1649
J4:1/2 (Oxford Road)	3.00	0.00	N	Arm J4:5 Right	11.00	1.6 %	2051	2051
				Arm J4:7 Ahead	Inf	98.4 %		
J4:2/1 (Sainsburys)	3.10	0.00	Y	Arm J4:7 Left	16.00	100.0 %	1760	1760
J4:2/2 (Sainsburys)	3.10	0.00	Y	Arm J3:7 Right	11.40	72.4 %	1758	1758
				Arm J4:5 Ahead	Inf	27.6 %		
J4:3/1 (Sainsburys - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J4:4/1 (Framfield Road)	3.20	0.00	Y	Arm J3:7 Left	9.70	17.6 %	1818	1818
				Arm J4:3 Ahead	Inf	47.9 %		
				Arm J4:7 Right	14.00	34.5 %		
J4:5/1 (Framfield Road - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J4:6/1 (Oxford Road)	3.00	0.00	Y	Arm J3:7 Ahead	Inf	97.7 %	1908	1908
				Arm J4:5 Left	8.80	2.3 %		
J4:6/2 (Oxford Road)	3.25	0.00	Y	Arm J4:3 Right	Inf	100.0 %	1940	1940
J4:7/1 (Oxford Road - exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 1: 'Scenario 1' (FG1: '2016 AM', Plan 1: 'Network Control Plan 1')
C1

Stage Sequence Diagram

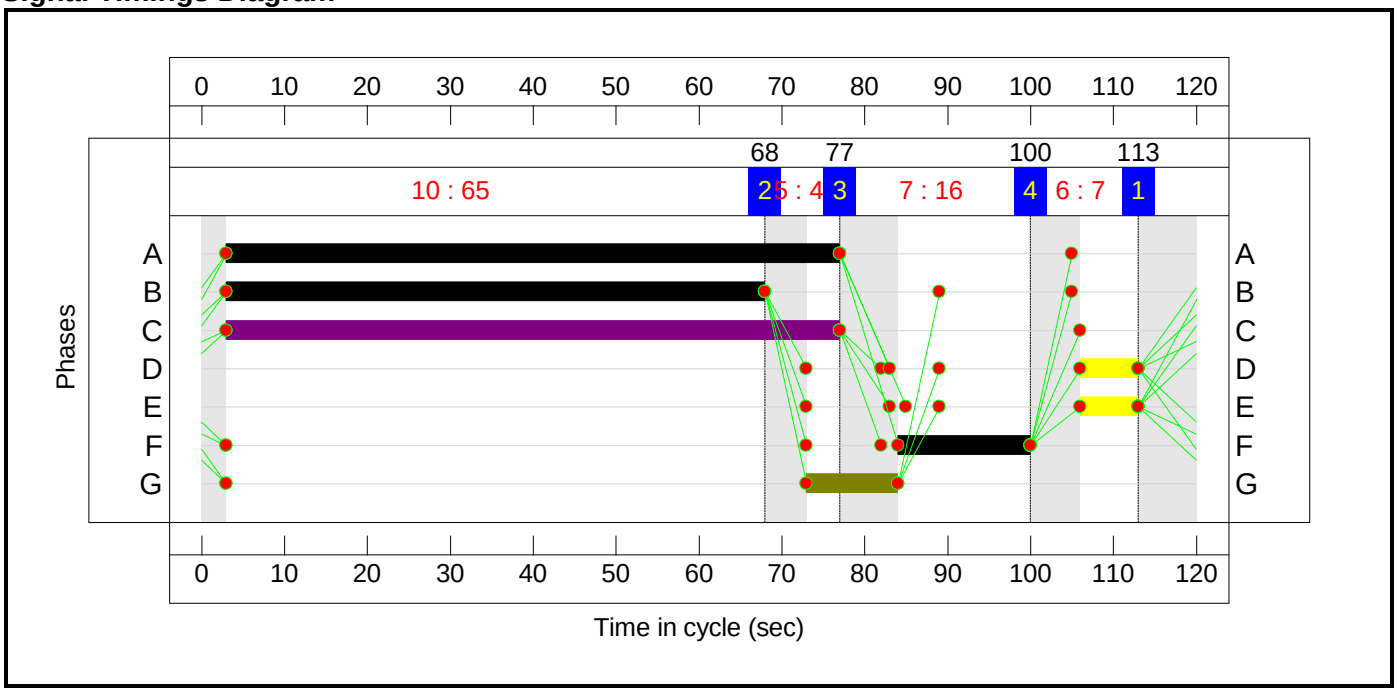


Stage Timings

Stage	1	2	3	4
Duration	65	4	16	7
Change Point	113	68	77	100

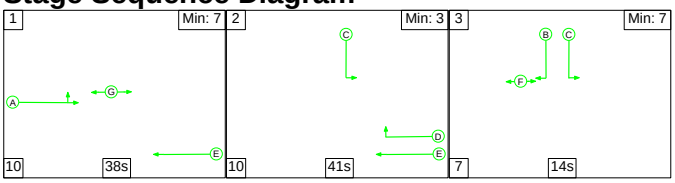
Full Input Data And Results

Signal Timings Diagram



C2

Stage Sequence Diagram

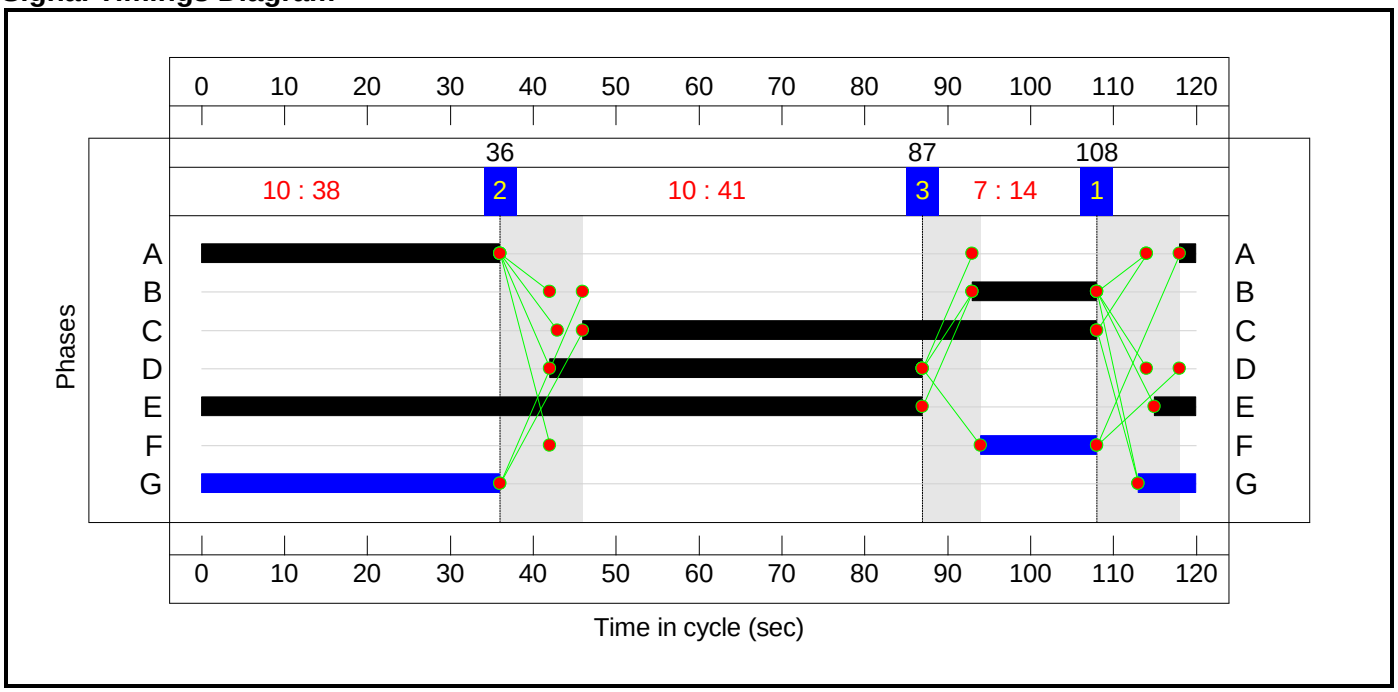


Stage Timings

Stage	1	2	3
Duration	38	41	14
Change Point	108	36	87

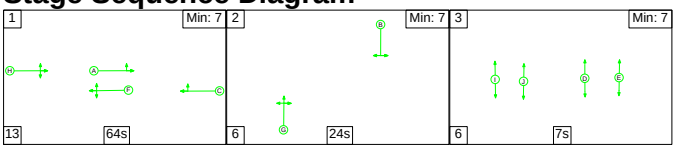
Full Input Data And Results

Signal Timings Diagram



C3

Stage Sequence Diagram

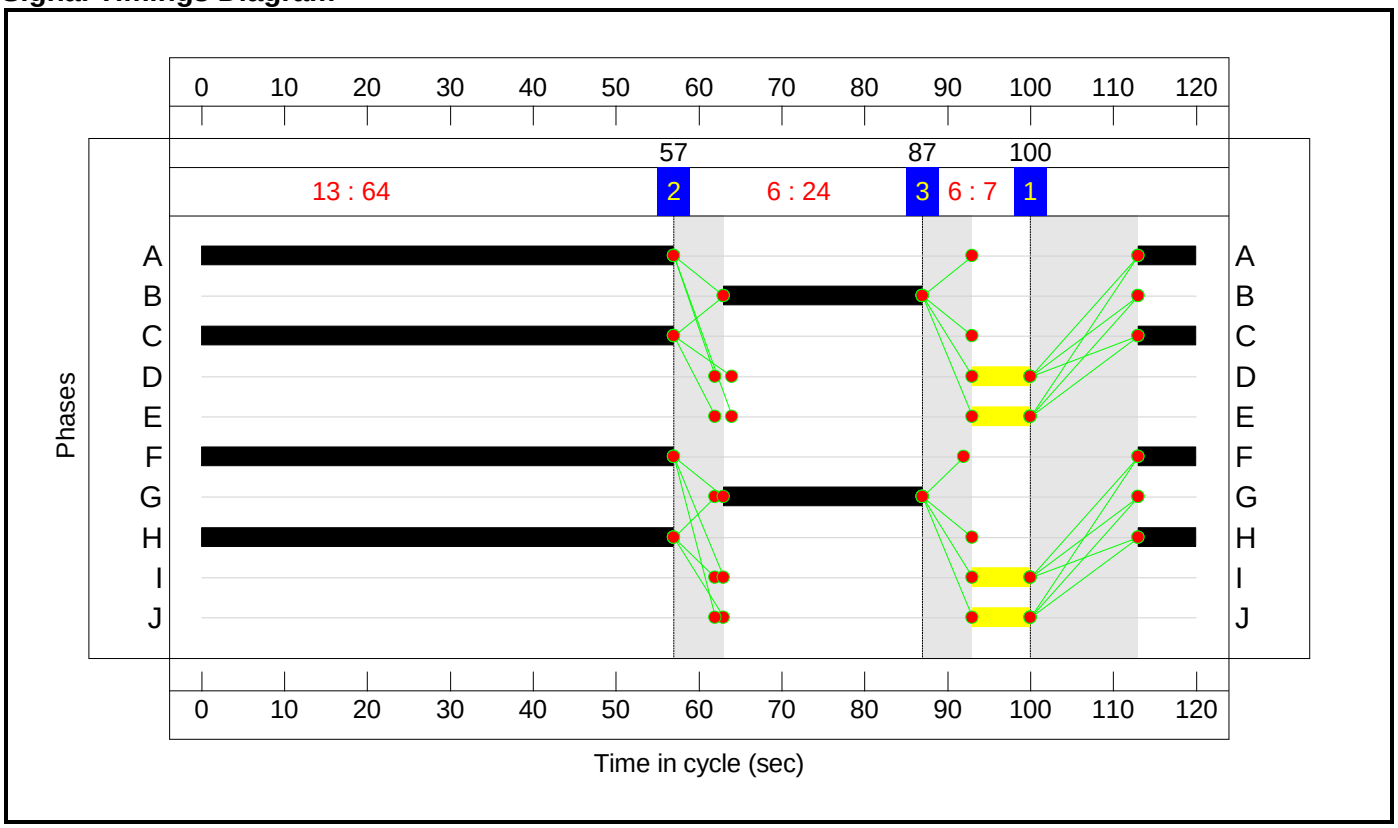


Stage Timings

Stage	1	2	3
Duration	64	24	7
Change Point	100	57	87

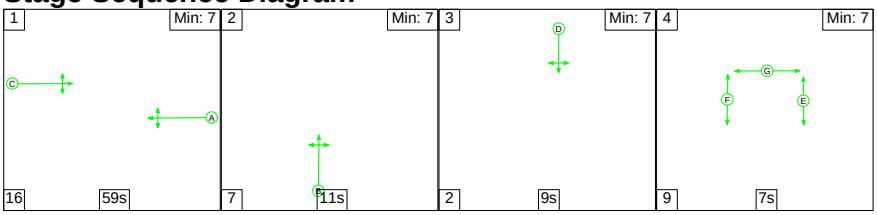
Full Input Data And Results

Signal Timings Diagram



C4

Stage Sequence Diagram

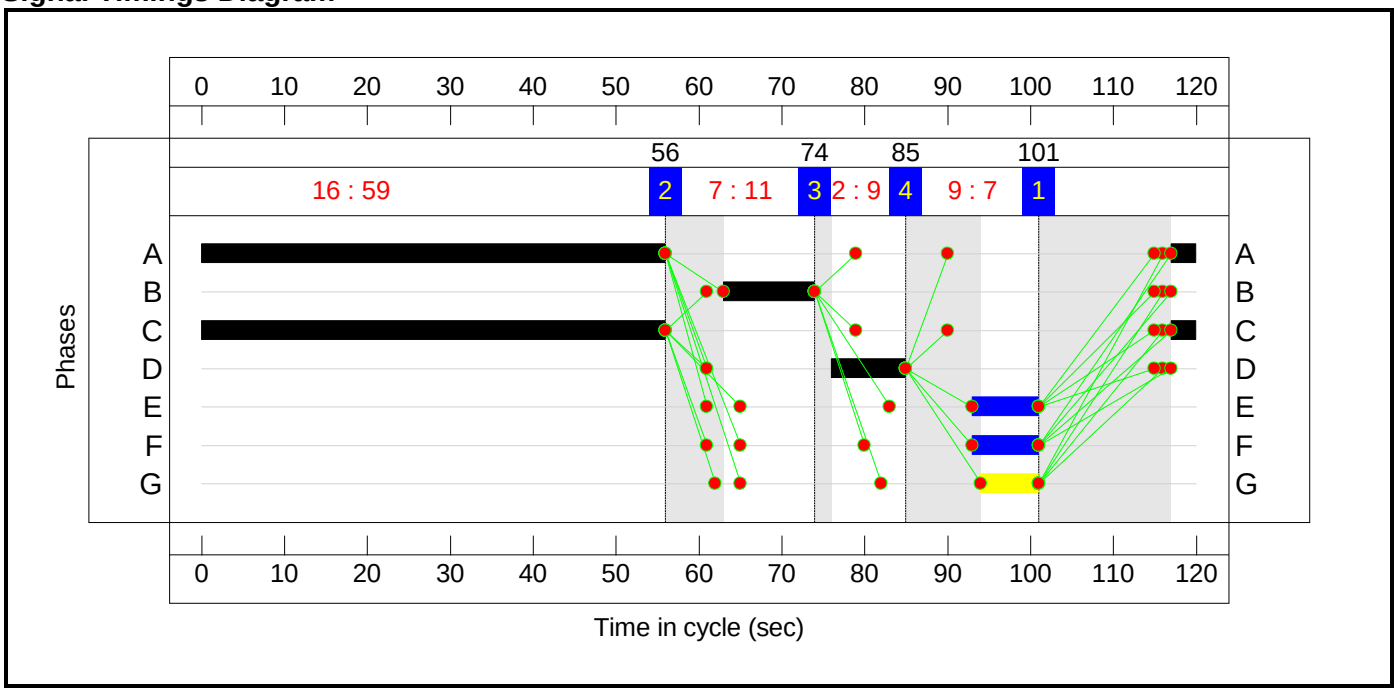


Stage Timings

Stage	1	2	3	4
Duration	59	11	9	7
Change Point	101	56	74	85

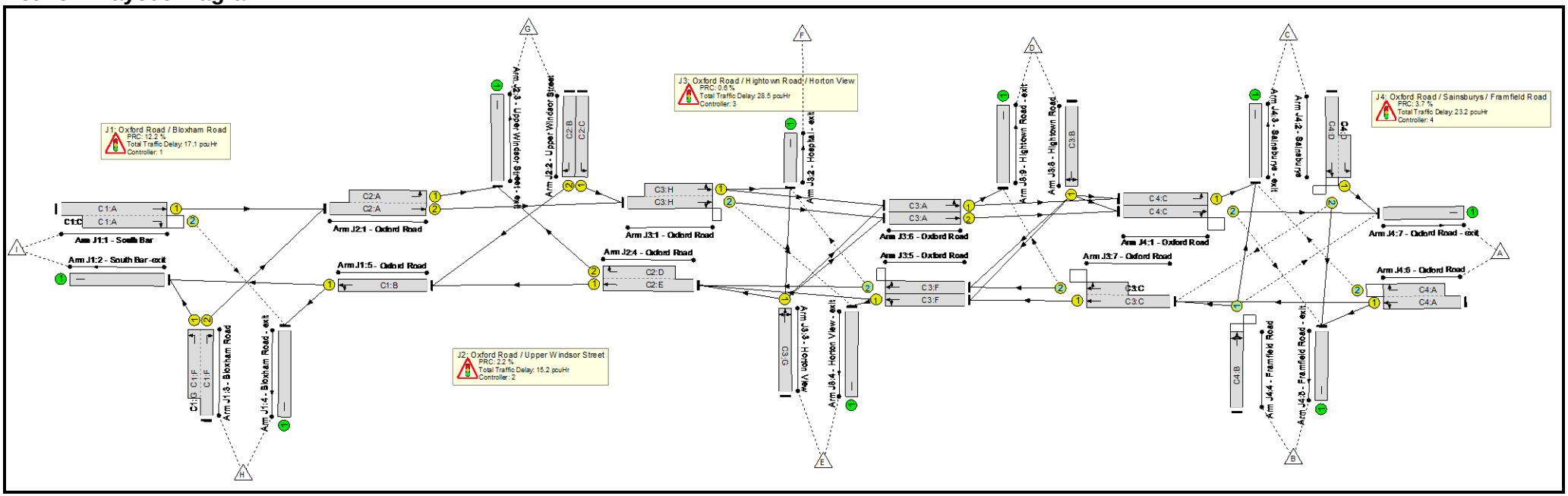
Full Input Data And Results

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	-	-	**N/A**	-	-		-	-	-	-	-	-	**89.4%**
J1: Oxford Road / Bloxham Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**80.2%**
1/1+1/2	South Bar Right Ahead	U+O	N/A	N/A	C1:A	C1:C	1	74	74	689	1663:1568	631+304	70.6 : 79.9%
2/1	South Bar -exit	U	N/A	N/A	-		-	-	-	692	Inf	Inf	0.0%
3/2+3/1	Bloxham Road Left Right	U	N/A	N/A	C1:F	C1:G	1	16:27	11	429	1733:1877	246+289	80.2 : 80.2%
4/1	Bloxham Road - exit	U	N/A	N/A	-		-	-	-	517	Inf	Inf	0.0%
5/1	Oxford Road Ahead Left	U	N/A	N/A	C1:B		1	65	-	734	1874	1031	71.2%
J2: Oxford Road / Upper Windsor Street	-	-	**N/A**	-	-		-	-	-	-	-	-	**88.1%**
1/2+1/1	Oxford Road Left Ahead	U	N/A	N/A	C2:A		1	38	-	643	2055:1751	642+89	88.1 : 88.1%
2/1	Upper Windsor Street Left	U	N/A	N/A	C2:C		1	62	-	221	1801	946	23.4%
2/2	Upper Windsor Street Right	U	N/A	N/A	C2:B		1	15	-	147	1984	265	55.6%
3/1	Upper Windsor Street - exit	U	N/A	N/A	-		-	-	-	384	Inf	Inf	0.0%
4/1+4/2	Oxford Road Ahead Right	U	N/A	N/A	C2:E C2:D		1	92:45	-	893	1915:1772	841+438	69.8 : 69.8%
J3: Oxford Road / Hightown Road / Horton View	-	-	**N/A**	-	-		-	-	-	-	-	-	**89.4%**
1/2+1/1	Oxford Road Left Right Ahead	O+U	N/A	N/A	C3:H		1	64	-	786	2049:1825	751+278	76.4 : 76.4%
2/1	Hospital - exit	U	N/A	N/A	-		-	-	-	43	Inf	Inf	0.0%
3/1	Horton View Left Ahead Right	U	N/A	N/A	C3:G		1	24	-	327	1755	366	89.4%

Full Input Data And Results

4/1	Horton View - exit	U	N/A	N/A	-		-	-	-	170	Inf	Inf	0.0%
5/1	Oxford Road Ahead Left	U	N/A	N/A	C3:F		1	64	-	499	1850	1002	49.8%
5/2	Oxford Road Ahead Right	O	N/A	N/A	C3:F		1	64	-	407	1905	1031	39.5%
6/1	Oxford Road Left Ahead	U	N/A	N/A	C3:A		1	64	-	247	1729	937	26.4%
6/2	Oxford Road Ahead	U	N/A	N/A	C3:A		1	64	-	666	2055	1113	59.8%
7/1+7/2	Oxford Road Ahead Right	U+O	N/A	N/A	C3:C		1	64	-	906	2035:1901	490+529	88.9 : 88.9%
8/1	Hightown Road Right Left	U	N/A	N/A	C3:B		1	24	-	234	1641	342	68.4%
9/1	HIghtown Road - exit	U	N/A	N/A	-		-	-	-	257	Inf	Inf	0.0%
J4: Oxford Road / Sainsburys / Framfield Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**86.8%**
1/1	Oxford Road Left	U	N/A	N/A	C4:C		1	59	-	121	1649	825	14.7%
1/2	Oxford Road Right Ahead	O	N/A	N/A	C4:C		1	59	-	769	2047	1024	75.1%
2/2+2/1	Sainsburys Right Ahead Left	O+U	N/A	N/A	C4:D		1	9	-	186	1758:1760	146+82	81.2 : 81.2%
3/1	Sainsburys - exit	U	N/A	N/A	-		-	-	-	229	Inf	Inf	0.0%
4/1	Framfield Road Left Ahead Right	O	N/A	N/A	C4:B		1	11	-	154	1774	177	86.8%
5/1	Framfield Road - exit	U	N/A	N/A	-		-	-	-	61	Inf	Inf	0.0%
6/1+6/2	Oxford Road Ahead Right Left	U+O	N/A	N/A	C4:A		1	59	-	831	1912:1940	907+71	85.0 : 85.0%
7/1	Oxford Road - exit	U	N/A	N/A	-		-	-	-	865	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	**-**	**-**	**350**	**219**	**81**	**51.2**	**30.6**	**2.2**	**84.0**	**-**	**-**	**-**	**-**
J1: Oxford Road / Bloxham Road	**-**	**-**	**153**	**86**	**4**	**11.5**	**4.6**	**1.0**	**17.1**	**-**	**-**	**-**	**-**
1/1+1/2	689	689	153	86	4	3.2	1.4	1.0	5.6	29.1	7.7	1.4	9.1
2/1	692	692	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2+3/1	429	429	-	-	-	5.3	2.0	-	7.3	61.1	6.7	2.0	8.7
4/1	517	517	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	734	734	-	-	-	3.0	1.2	-	4.3	20.9	16.7	1.2	17.9
J2: Oxford Road / Upper Windsor Street	**-**	**-**	**0**	**0**	**0**	**9.9**	**5.3**	**0.0**	**15.2**	**-**	**-**	**-**	**-**
1/2+1/1	643	643	-	-	-	4.9	3.4	-	8.3	46.6	18.2	3.4	21.7
2/1	221	221	-	-	-	0.9	0.2	-	1.1	17.9	3.9	0.2	4.1
2/2	147	147	-	-	-	2.0	0.6	-	2.6	63.8	4.6	0.6	5.2
3/1	384	384	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1+4/2	893	893	-	-	-	2.0	1.1	-	3.2	12.9	19.7	1.1	20.9
J3: Oxford Road / Hightown Road / Horton View	**-**	**-**	**136**	**0**	**52**	**16.0**	**11.7**	**0.7**	**28.5**	**-**	**-**	**-**	**-**
1/2+1/1	786	786	30	0	28	2.3	1.6	0.2	4.1	18.7	30.9	1.6	32.5
2/1	43	43	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	327	327	-	-	-	4.2	3.6	-	7.8	85.5	10.5	3.6	14.1
4/1	170	170	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	499	499	-	-	-	1.3	0.5	-	1.8	13.3	3.8	0.5	4.3
5/2	407	407	15	0	0	1.1	0.3	0.0	1.4	12.6	3.1	0.3	3.4
6/1	247	247	-	-	-	0.5	0.2	-	0.7	10.2	2.0	0.2	2.2
6/2	666	666	-	-	-	1.7	0.7	-	2.5	13.3	6.5	0.7	7.2
7/1+7/2	906	906	91	0	24	2.0	3.8	0.5	6.3	25.0	3.5	3.8	7.3
8/1	234	234	-	-	-	2.9	1.1	-	3.9	60.2	7.1	1.1	8.2

Full Input Data And Results

9/1	257	257	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J4: Oxford Road / Sainsburys / Framfield Road	**-**	**-**	**61**	**133**	**25**	**13.8**	**9.0**	**0.5**	**23.2**	**-**	**-**	**-**	**-**
1/1	121	121	-	-	-	0.4	0.1	-	0.5	14.2	1.0	0.1	1.1
1/2	769	769	22	0	0	2.6	1.5	0.1	4.2	19.5	14.9	1.5	16.4
2/2+2/1	186	186	0	85	1	2.8	2.0	0.0	4.7	91.8	3.9	2.0	5.8
3/1	229	229	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	154	154	0	48	3	2.3	2.7	0.0	5.0	115.8	5.0	2.7	7.7
5/1	61	61	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1+6/2	831	831	39	0	21	5.8	2.7	0.3	8.9	38.5	22.9	2.7	25.6
7/1	865	865	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

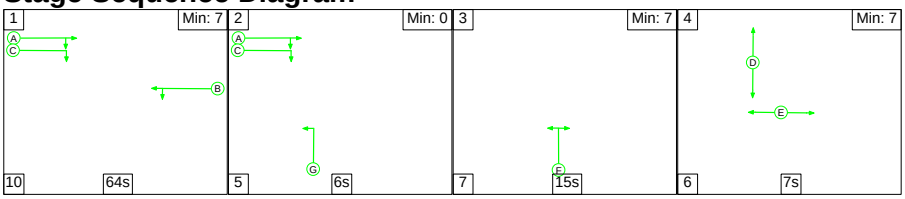
C1	PRC for Signalled Lanes (%):	12.2	Total Delay for Signalled Lanes (pcuHr):	17.11	Cycle Time (s): 120
C2	PRC for Signalled Lanes (%):	2.2	Total Delay for Signalled Lanes (pcuHr):	15.21	Cycle Time (s): 120
C3	PRC for Signalled Lanes (%):	0.6	Total Delay for Signalled Lanes (pcuHr):	28.48	Cycle Time (s): 120
C4	PRC for Signalled Lanes (%):	3.7	Total Delay for Signalled Lanes (pcuHr):	23.24	Cycle Time (s): 120
	PRC Over All Lanes (%):	0.6	Total Delay Over All Lanes(pcuHr):	84.04	

Full Input Data And Results

Scenario 2: 'Scenario 2' (FG2: '2016 PM', Plan 1: 'Network Control Plan 1')

C1

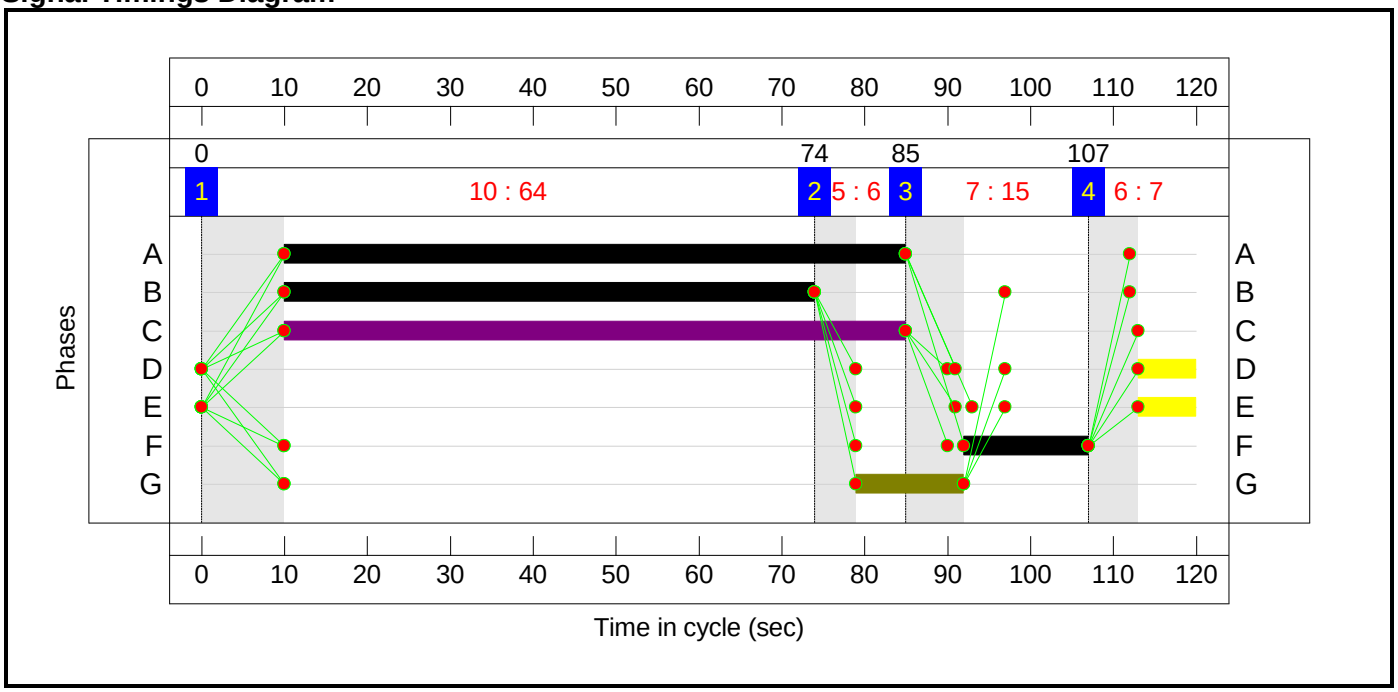
Stage Sequence Diagram



Stage Timings

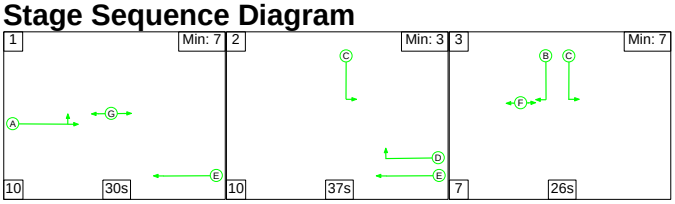
Stage	1	2	3	4
Duration	64	6	15	7
Change Point	0	74	85	107

Signal Timings Diagram



C2

Stage Sequence Diagram

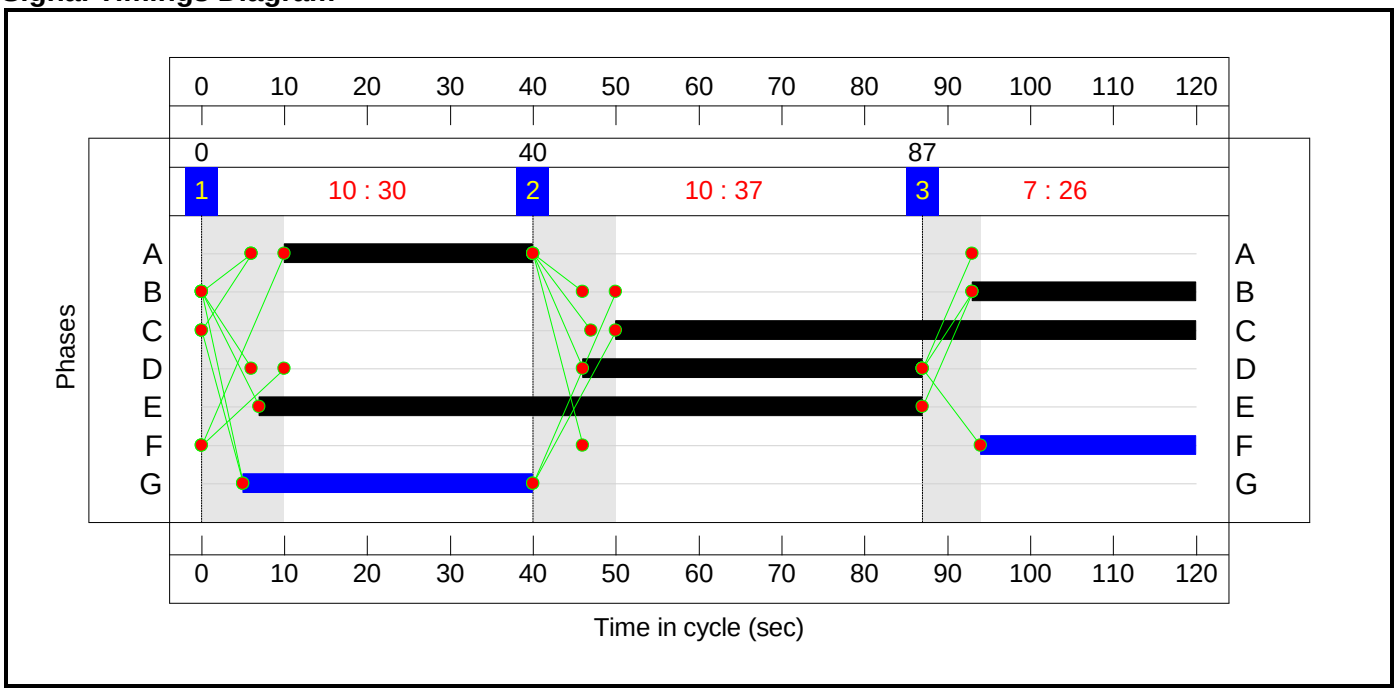


Stage Timings

Stage	1	2	3
Duration	30	37	26
Change Point	0	40	87

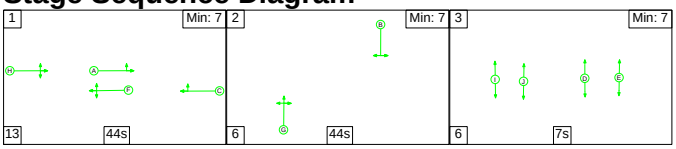
Full Input Data And Results

Signal Timings Diagram



C3

Stage Sequence Diagram

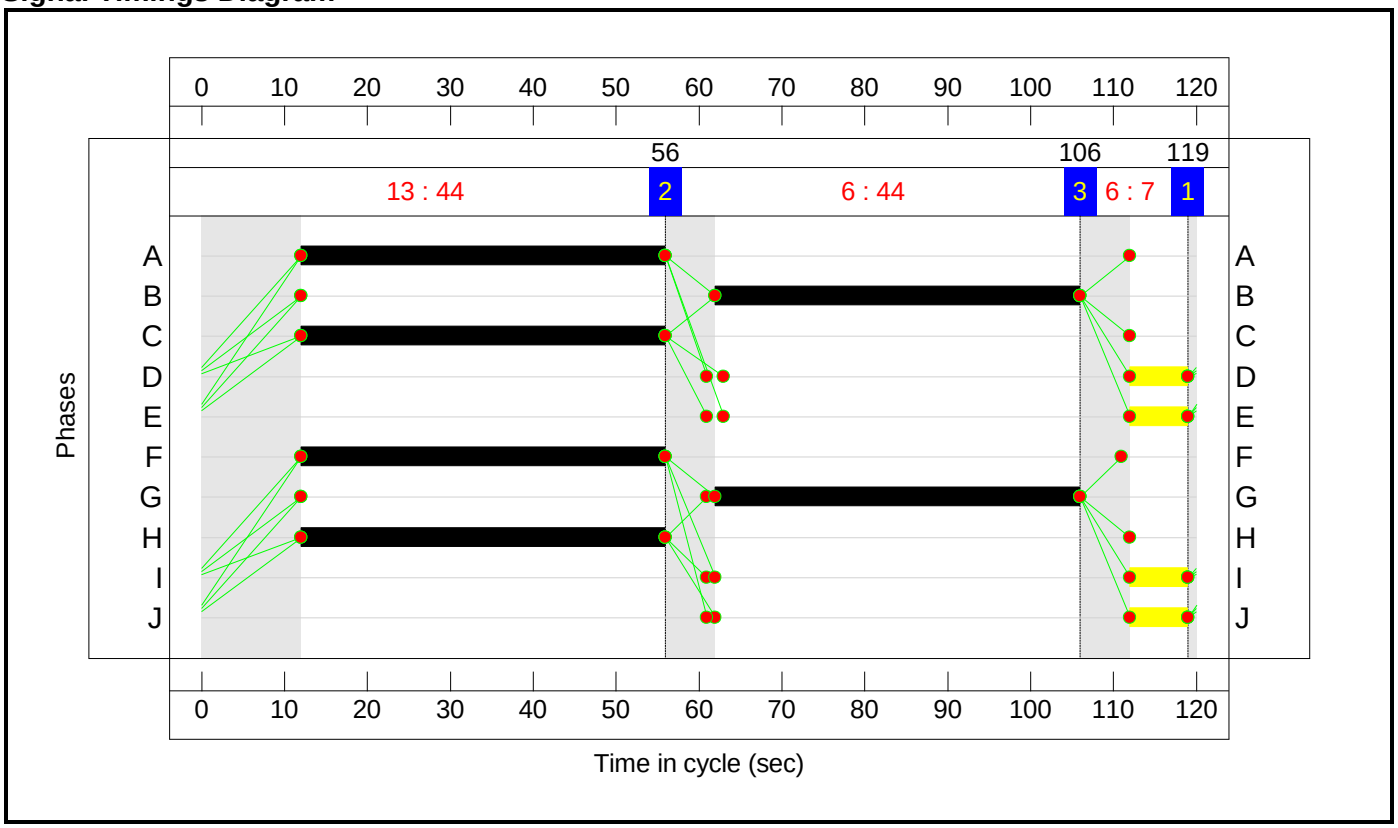


Stage Timings

Stage	1	2	3
Duration	44	44	7
Change Point	119	56	106

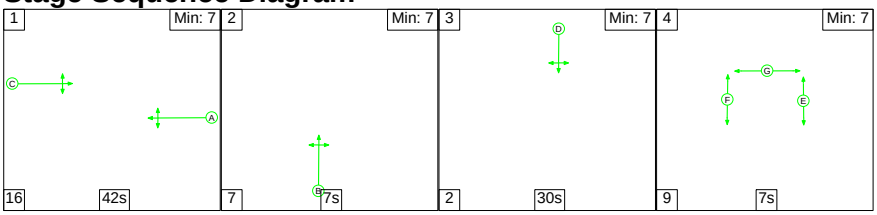
Full Input Data And Results

Signal Timings Diagram



C4

Stage Sequence Diagram

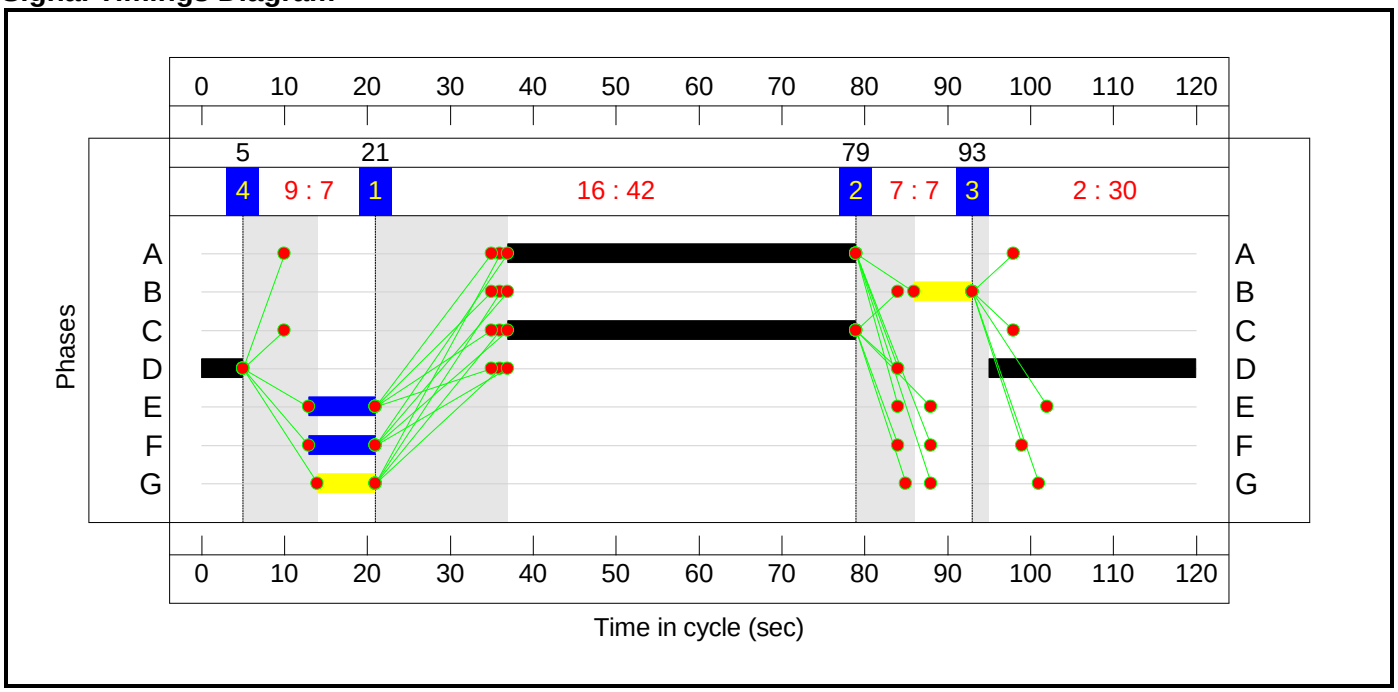


Stage Timings

Stage	1	2	3	4
Duration	42	7	30	7
Change Point	21	79	93	5

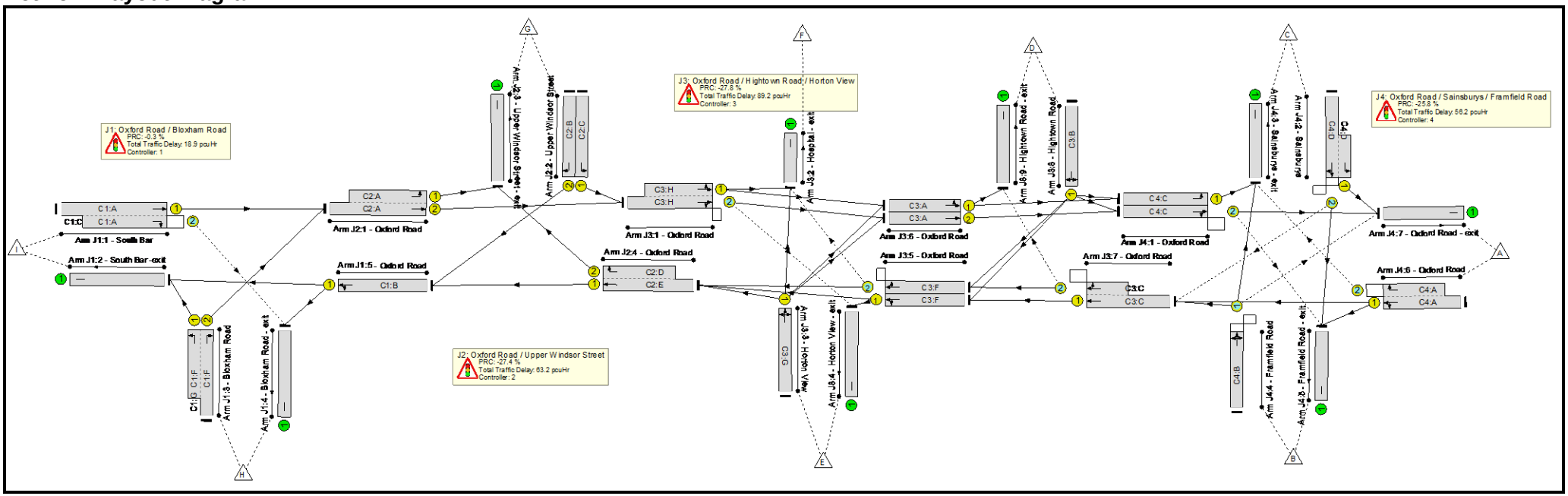
Full Input Data And Results

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	-	-	**N/A**	-	-		-	-	-	-	-	-	**115.0%**
J1: Oxford Road / Bloxham Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**90.3%**
1/1+1/2	South Bar Right Ahead	U+O	N/A	N/A	C1:A	C1:C	1	75	75	791	1663:1568	540+337	90.3 : 90.2%
2/1	South Bar -exit	U	N/A	N/A	-		-	-	-	586	Inf	Inf	0.0%
3/2+3/1	Bloxham Road Left Right	U	N/A	N/A	C1:F	C1:G	1	15:28	13	396	1733:1877	231+253	81.8 : 81.8%
4/1	Bloxham Road - exit	U	N/A	N/A	-		-	-	-	634	Inf	Inf	0.0%
5/1	Oxford Road Ahead Left	U	N/A	N/A	C1:B		1	64	-	709	1844	999	69.7%
J2: Oxford Road / Upper Windsor Street	-	-	**N/A**	-	-		-	-	-	-	-	-	**114.7%**
1/2+1/1	Oxford Road Left Ahead	U	N/A	N/A	C2:A		1	30	-	676	2055:1751	525+65	114.7 : 114.7%
2/1	Upper Windsor Street Left	U	N/A	N/A	C2:C		1	70	-	175	1801	1066	16.4%
2/2	Upper Windsor Street Right	U	N/A	N/A	C2:B		1	27	-	165	1984	463	35.6%
3/1	Upper Windsor Street - exit	U	N/A	N/A	-		-	-	-	299	Inf	Inf	0.0%
4/1+4/2	Oxford Road Ahead Right	U	N/A	N/A	C2:E C2:D		1	80:41	-	769	1915:1772	968+401	54.8 : 54.8%
J3: Oxford Road / Hightown Road / Horton View	-	-	**N/A**	-	-		-	-	-	-	-	-	**115.0%**
1/2+1/1	Oxford Road Left Right Ahead	O+U	N/A	N/A	C3:H		1	44	-	777	2053:1911	428+181	115.0 : 114.8%
2/1	Hospital - exit	U	N/A	N/A	-		-	-	-	6	Inf	Inf	0.0%
3/1	Horton View Left Ahead Right	U	N/A	N/A	C3:G		1	44	-	216	1778	667	32.4%

Full Input Data And Results

4/1	Horton View - exit	U	N/A	N/A	-		-	-	-	169	Inf	Inf	0.0%
5/1	Oxford Road Ahead Left	U	N/A	N/A	C3:F		1	44	-	482	1840	690	68.1%
5/2	Oxford Road Ahead Right	O	N/A	N/A	C3:F		1	44	-	364	1914	718	49.4%
6/1	Oxford Road Left Ahead	U	N/A	N/A	C3:A		1	44	-	281	1823	684	37.8%
6/2	Oxford Road Ahead	U	N/A	N/A	C3:A		1	44	-	614	2055	771	65.1%
7/1+7/2	Oxford Road Ahead Right	U+O	N/A	N/A	C3:C		1	44	-	812	2035:1908	427+405	94.7 : 94.7%
8/1	Hightown Road Right Left	U	N/A	N/A	C3:B		1	44	-	293	1621	608	48.2%
9/1	HIghtown Road - exit	U	N/A	N/A	-		-	-	-	155	Inf	Inf	0.0%
J4: Oxford Road / Sainsburys / Framfield Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**113.2%**
1/1	Oxford Road Left	U	N/A	N/A	C4:C		1	42	-	250	1649	591	39.5%
1/2	Oxford Road Right Ahead	O	N/A	N/A	C4:C		1	42	-	749	2051	735	86.7%
2/2+2/1	Sainsburys Right Ahead Left	O+U	N/A	N/A	C4:D		1	30	-	396	1758:1760	308+293	66.0 : 66.0%
3/1	Sainsburys - exit	U	N/A	N/A	-		-	-	-	407	Inf	Inf	0.0%
4/1	Framfield Road Left Ahead Right	O	N/A	N/A	C4:B		1	7	-	119	1818	121	98.2%
5/1	Framfield Road - exit	U	N/A	N/A	-		-	-	-	83	Inf	Inf	0.0%
6/1+6/2	Oxford Road Ahead Right Left	U+O	N/A	N/A	C4:A		1	42	-	759	1908:1940	634+88	103.9 : 113.2%
7/1	Oxford Road - exit	U	N/A	N/A	-		-	-	-	971	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	**-**	**-**	**260**	**292**	**151**	**75.4**	**149.6**	**2.6**	**227.6**	**-**	**-**	**-**	**-**
J1: Oxford Road / Bloxham Road	**-**	**-**	**159**	**118**	**27**	**10.4**	**7.5**	**1.0**	**18.9**	**-**	**-**	**-**	**-**
1/1+1/2	791	791	159	118	27	3.5	4.2	1.0	8.7	39.6	9.8	4.2	14.0
2/1	579	579	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2+3/1	396	396	-	-	-	4.9	2.1	-	7.0	63.9	6.1	2.1	8.2
4/1	628	628	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	696	696	-	-	-	2.1	1.1	-	3.2	16.6	7.6	1.1	8.7
J2: Oxford Road / Upper Windsor Street	**-**	**-**	**0**	**0**	**0**	**15.3**	**47.9**	**0.0**	**63.2**	**-**	**-**	**-**	**-**
1/2+1/1	676	589	-	-	-	11.4	46.9	-	58.4	310.8	25.1	46.9	72.1
2/1	175	175	-	-	-	0.5	0.1	-	0.6	13.1	2.6	0.1	2.7
2/2	165	165	-	-	-	1.8	0.3	-	2.0	44.5	4.6	0.3	4.9
3/1	284	284	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1+4/2	751	751	-	-	-	1.6	0.6	-	2.2	10.6	32.9	0.6	33.5
J3: Oxford Road / Hightown Road / Horton View	**-**	**-**	**65**	**0**	**47**	**29.0**	**59.4**	**0.8**	**89.2**	**-**	**-**	**-**	**-**
1/2+1/1	700	632	10	0	23	6.0	49.1	0.3	55.3	284.5	29.4	49.1	78.4
2/1	6	6	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	216	216	-	-	-	1.6	0.2	-	1.8	30.7	5.1	0.2	5.3
4/1	156	156	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	470	470	-	-	-	2.4	1.1	-	3.4	26.2	4.7	1.1	5.8
5/2	355	355	2	0	0	2.0	0.5	0.0	2.5	25.4	3.9	0.5	4.3
6/1	258	258	-	-	-	1.3	0.3	-	1.6	22.8	2.7	0.3	3.0
6/2	502	502	-	-	-	2.5	0.9	-	3.4	24.5	5.3	0.9	6.3
7/1+7/2	788	788	53	0	24	10.9	6.8	0.5	18.3	83.4	16.8	6.8	23.6
8/1	293	293	-	-	-	2.3	0.5	-	2.8	34.3	7.4	0.5	7.9

Full Input Data And Results

9/1	146	146	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J4: Oxford Road / Sainsburys / Framfield Road	**-**	**-**	**35**	**174**	**77**	**20.6**	**34.8**	**0.7**	**56.2**	**-**	**-**	**-**	**-**
1/1	233	233	-	-	-	0.9	0.3	-	1.3	19.4	4.8	0.3	5.1
1/2	637	637	0	0	10	4.1	3.1	0.1	7.3	41.0	19.7	3.1	22.8
2/2+2/1	396	396	0	145	2	4.1	1.0	0.0	5.1	46.0	6.5	1.0	7.4
3/1	379	379	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	119	119	0	30	11	1.8	4.9	0.0	6.8	205.2	3.9	4.9	8.9
5/1	81	81	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1+6/2	759	723	35	0	53	9.6	25.6	0.7	35.9	170.1	25.6	25.6	51.2
7/1	861	861	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1	PRC for Signalled Lanes (%):	-0.3	Total Delay for Signalled Lanes (pcuHr):	18.94
C2	PRC for Signalled Lanes (%):	-27.4	Total Delay for Signalled Lanes (pcuHr):	63.24
C3	PRC for Signalled Lanes (%):	-27.8	Total Delay for Signalled Lanes (pcuHr):	89.19
C4	PRC for Signalled Lanes (%):	-25.8	Total Delay for Signalled Lanes (pcuHr):	56.22
	PRC Over All Lanes (%):	-27.8	Total Delay Over All Lanes(pcuHr):	227.59

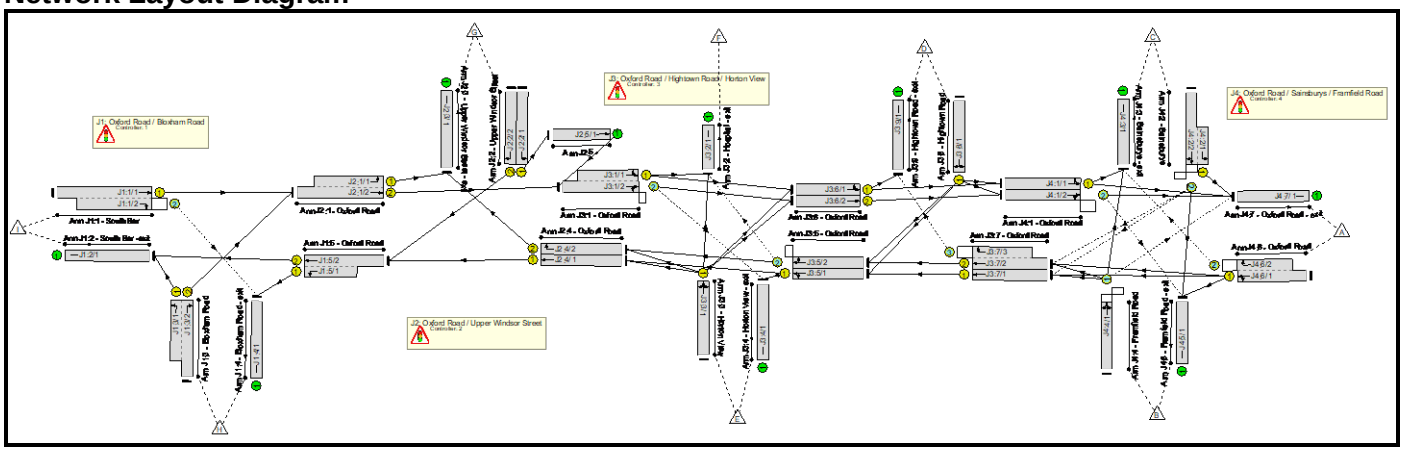
Cycle Time (s):	120
Cycle Time (s):	120
Cycle Time (s):	120
Cycle Time (s):	120

Full Input Data And Results

User and Project Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	Oxford Road Corridor included Committed Improvements - Canal Lane Closed.lsg3x
Author:	
Company:	
Address:	

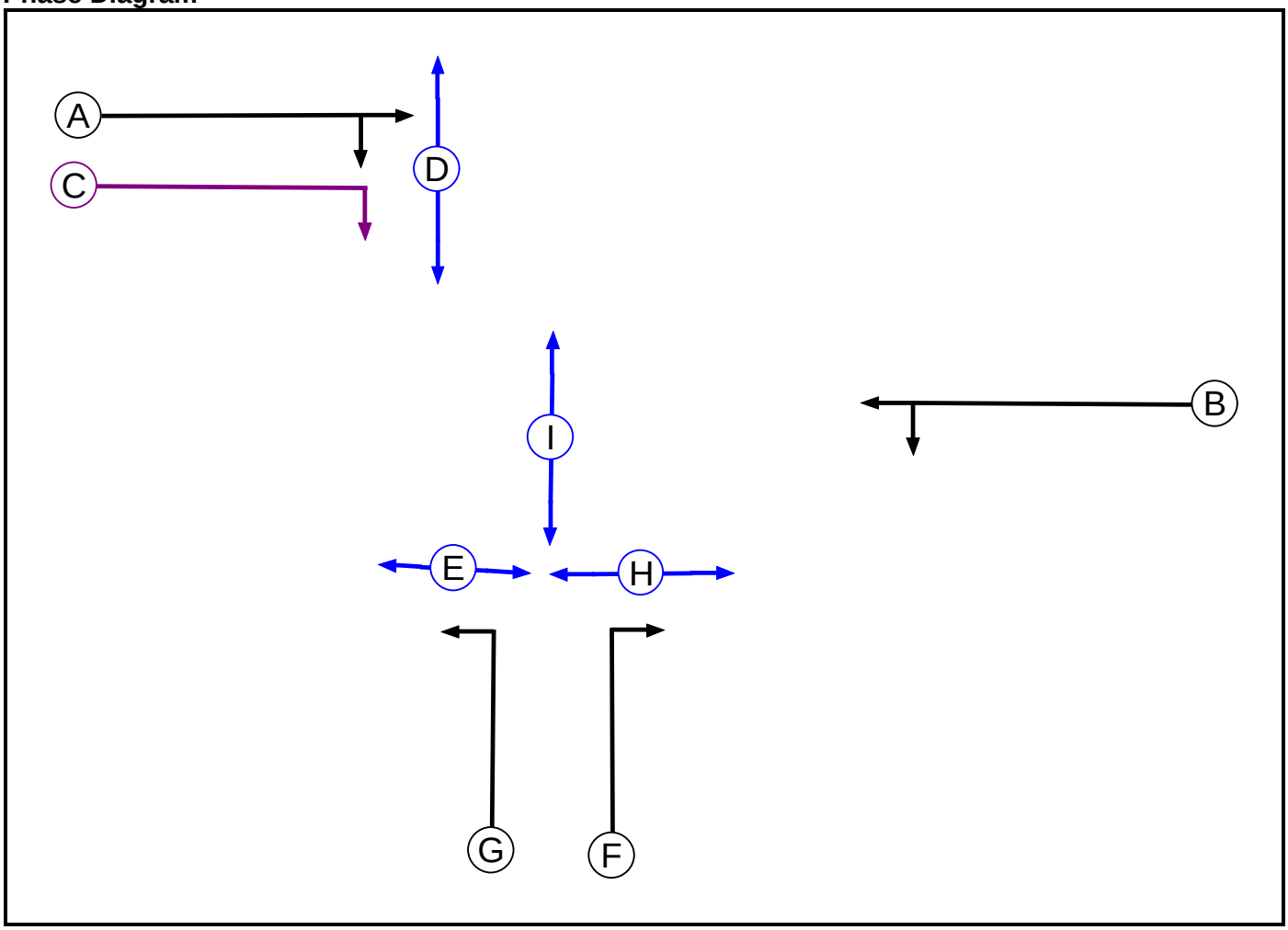
Network Layout Diagram



Full Input Data And Results

C1

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Ind. Arrow	A	4	4
D	Pedestrian		7	7
E	Pedestrian		6	6
F	Traffic		7	7
G	Traffic		7	7
H	Pedestrian		6	6
I	Pedestrian		6	6

Full Input Data And Results

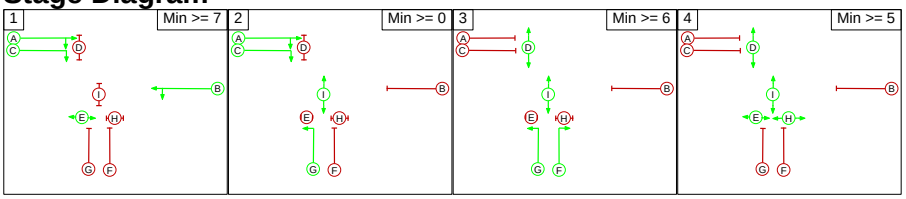
Phase Intergreens Matrix

Terminating Phase \ Starting Phase	A	B	C	D	E	F	G	H	I
A		-	-	5	-	5	-	-	-
B	-		-	-	-	5	5	5	6
C	-	-		5	-	5	-	-	-
D	6	-	6		-	-	-	-	-
E	-	-	-	-		-	6	-	-
F	6	5	5	-	-		-	5	-
G	-	5	-	-	5	-		-	-
H	-	8	8	-	-	8	-		-
I	-	6	-	-	-	-	-	-	

Phases in Stage

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

Stage Diagram



Phase Delays

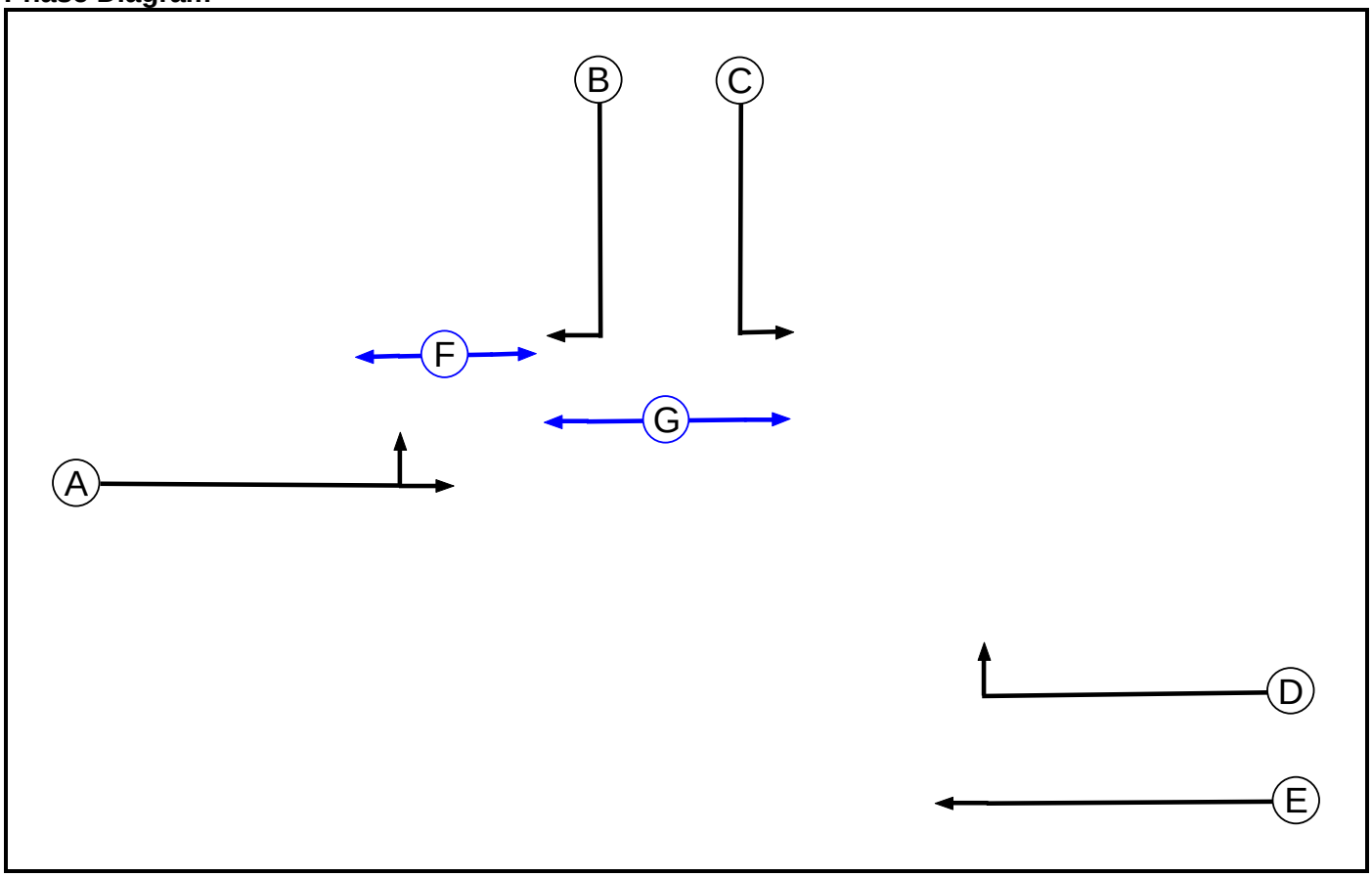
Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

From Stage \ To Stage	1	2	3	4
1		6	6	6
2	6		5	5
3	6	6		5
4	8	8	8	

C2

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Traffic		7	7
F	Pedestrian		7	7
G	Pedestrian		7	7

Full Input Data And Results

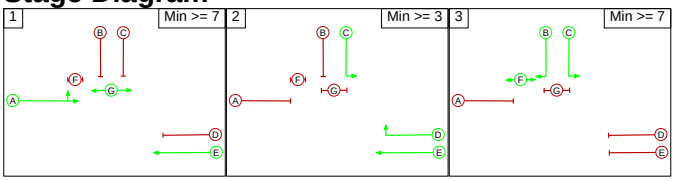
Phase Intergreens Matrix

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

Phases in Stage

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

Stage Diagram



Phase Delays

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

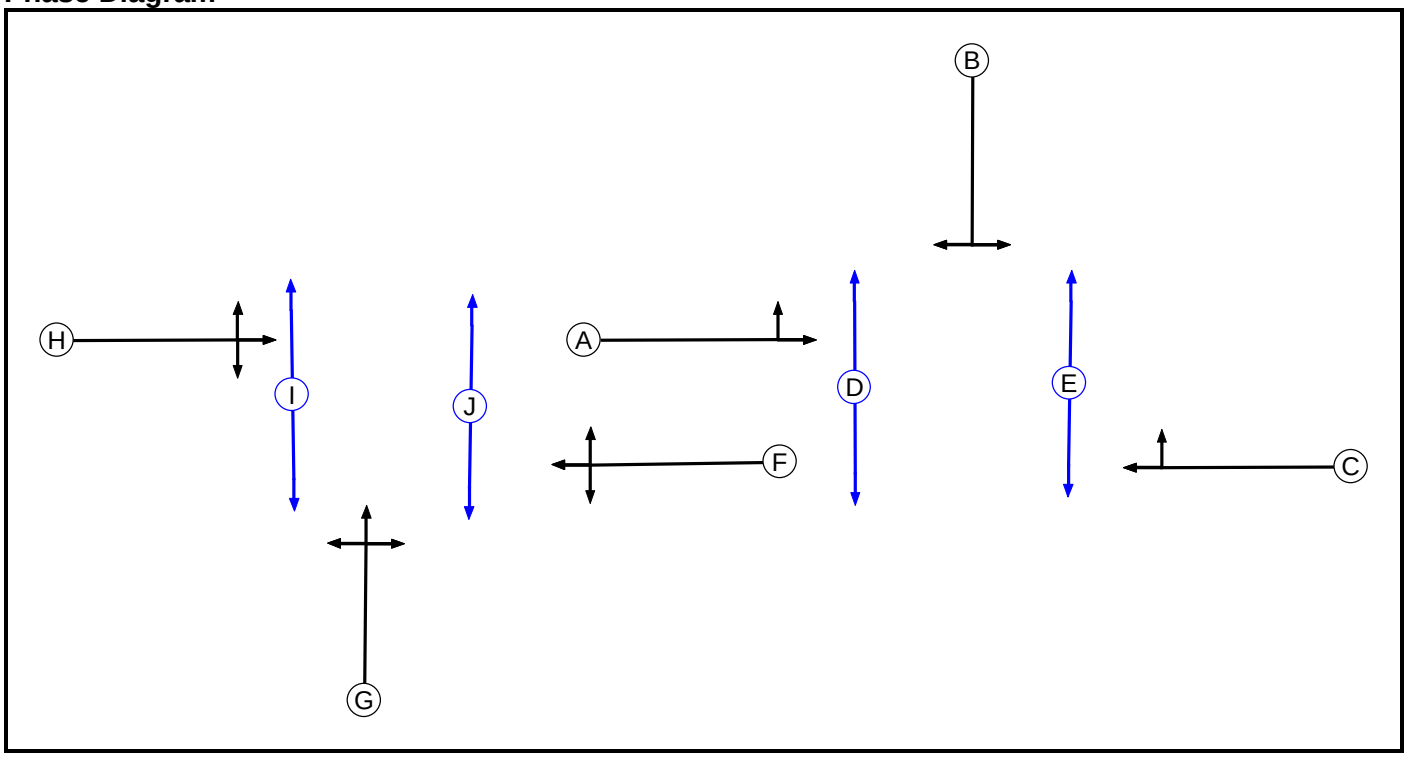
Prohibited Stage Change

From Stage \ To Stage	1	2	3
1		10	10
2	6		7
3	10	10	

Full Input Data And Results

C3

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Pedestrian		7	7
E	Pedestrian		7	7
F	Traffic		7	7
G	Traffic		7	7
H	Traffic		7	7
I	Pedestrian		7	7
J	Pedestrian		7	7

Full Input Data And Results

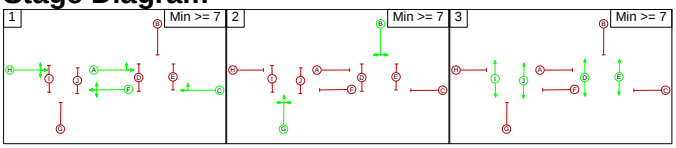
Phase Intergreens Matrix

Terminating Phase \ Starting Phase	A	B	C	D	E	F	G	H	I	J
A		6	-	5	7	-	-	-	-	-
B	6		6	6	6	-	-	-	-	-
C	-	6		7	5	-	-	-	-	-
D	13	13	13		-	-	-	-	-	-
E	13	13	13	-		-	-	-	-	-
F	-	-	-	-	-		6	-	6	5
G	-	-	-	-	-	5		6	6	6
H	-	-	-	-	-	-	5		5	6
I	-	-	-	-	-	13	13	13		-
J	-	-	-	-	-	13	13	13	-	

Phases in Stage

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

Stage Diagram



Phase Delays

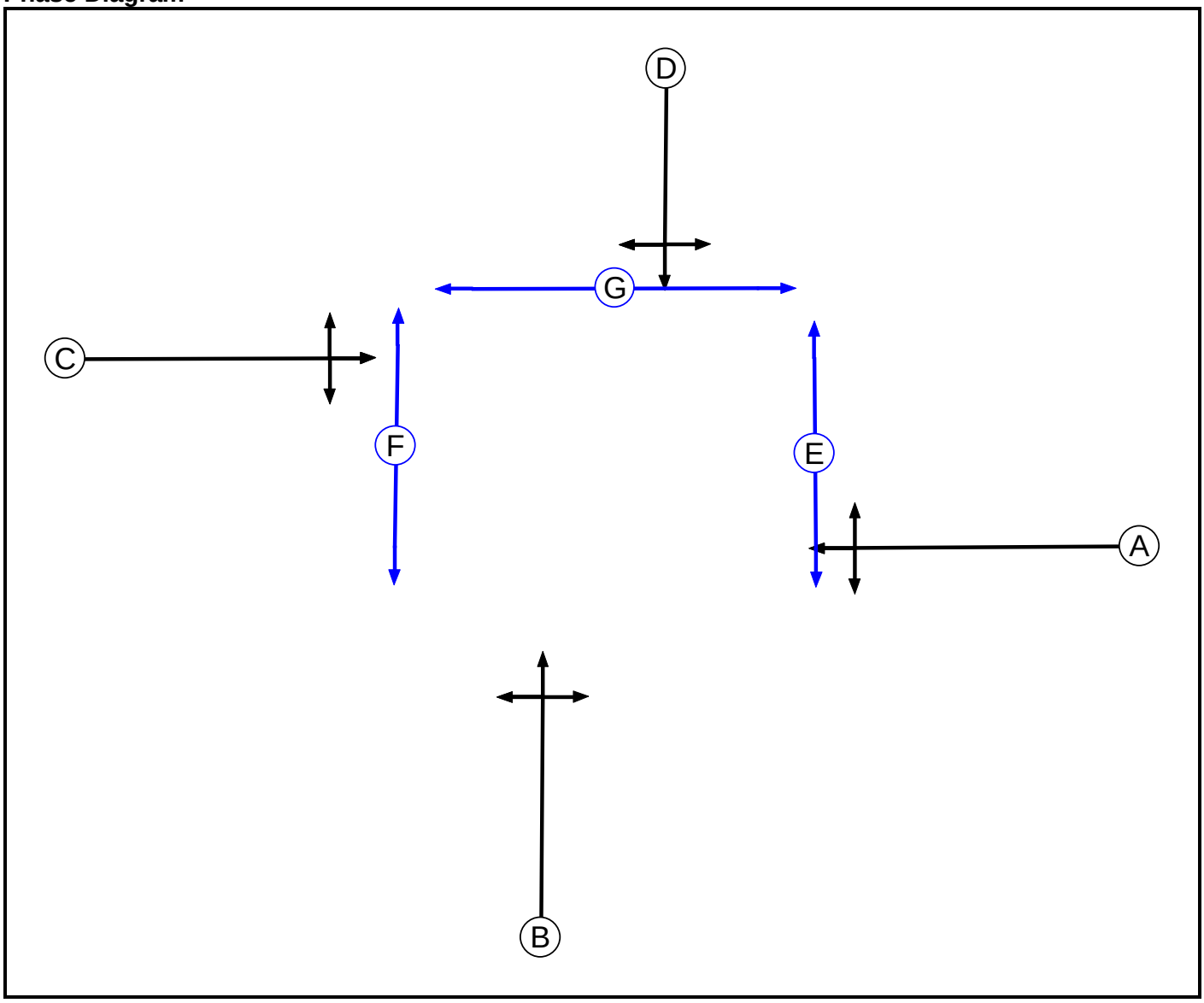
Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

From Stage \ To Stage	1	2	3
1		6	7
2	6		6
3	13	13	

C4

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Pedestrian		7	7
F	Pedestrian		7	7
G	Pedestrian		7	7

Full Input Data And Results

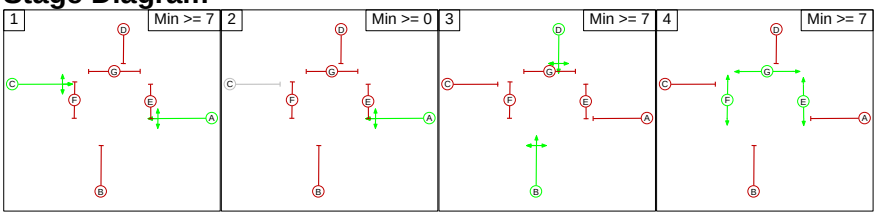
Phase Intergreens Matrix

Terminating Phase	Starting Phase							
		A	B	C	D	E	F	G
	A		7	-	5	5	9	9
	B	5		5	-	9	6	8
	C	-	5		5	9	5	6
	D	5	-	5		8	8	9
	E	14	14	14	14		-	-
	F	16	16	16	16	-		-
	G	15	15	15	15	-	-	

Phases in Stage

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

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
	1		0	7	9
	2	2		7	9
	3	5	5		9
	4	16	16	16	

Full Input Data And Results

Give-Way Lane Input Data

Junction: J1: Oxford Road / Bloxham Road

Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
J1:1/2 (South Bar)	J1:4/1 (Right)	1440	0	J1:5/2	1.09	All	2.00	-	0.50	2	2.00

Junction: J2: Oxford Road / Upper Windsor Street

There are no Opposed Lanes in this Junction

Junction: J3: Oxford Road / Hightown Road / Horton View

Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
J3:1/2 (Oxford Road)	J3:4/1 (Right)	1440	0	J3:5/1	1.09	All	1.00	1.00	0.50	1	2.00
				J3:5/2	1.09	All					
J3:5/2 (Oxford Road)	J3:2/1 (Right)	1440	0	J3:1/1	1.09	All	1.00	1.00	0.50	1	2.00
				J3:1/2	1.09	All					
J3:7/3 (Oxford Road)	J3:9/1 (Right)	1440	0	J3:6/1	1.09	All	2.00	-	0.50	2	2.00
				J3:6/2	1.09	All					

Full Input Data And Results

Junction: J4: Oxford Road / Sainsburys / Framfield Road											
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 (Oxford Road)	J4:5/1 (Right)	1440	0	J4:6/1	1.09	All	2.00	2.00	0.50	2	2.00
J4:2/2 (Sainsburys)	J3:7/1 (Right)	1439	0	J4:4/1	1.09	All	2.00	1.00	0.50	2	2.00
	J3:7/2 (Right)	1440	0	J4:4/1	1.09	All					
J4:4/1 (Framfield Road)	J4:7/1 (Right)	1440	0	J4:2/2	1.09	All	2.00	1.00	0.50	2	2.00
				J4:2/1	1.09	All					
J4:6/2 (Oxford Road)	J4:3/1 (Right)	1440	0	J4:1/1	1.09	All	2.00	-	0.50	2	2.00
				J4:1/2	1.09	All					

Full Input Data And Results

Lane Input Data

Junction: J1: Oxford Road / Bloxham Road												
Lane	**Lane Type**	**Phases**	**Start Disp.**	**End Disp.**	**Physical Length (PCU)**	**Sat Flow Type**	**Def User Saturation Flow (PCU/Hr)**	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Turns**	**Turning Radius (m)**
J1:1/1 (South Bar)	U	A	2	3	60.0	Geom	-	3.00	6.00	Y	Arm J2:1 Ahead	Inf
J1:1/2 (South Bar)	O	A C	2	3	12.0	Geom	-	3.00	6.00	N	Arm J1:4 Right	10.00
J1:2/1 (South Bar -exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:3/1 (Bloxham Road)	U	G	2	3	17.4	Geom	-	3.60	0.00	Y	Arm J1:2 Left	28.80
J1:3/2 (Bloxham Road)	U	F	2	3	60.0	Geom	-	3.10	0.00	Y	Arm J2:1 Right	13.50
J1:4/1 (Bloxham Road - exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:5/1 (Oxford Road)	U	B	2	3	7.0	Geom	-	3.25	0.00	Y	Arm J1:4 Left	12.00
J1:5/2 (Oxford Road)	U	B	2	3	60.0	Geom	-	3.90	0.00	Y	Arm J1:2 Ahead	Inf

Full Input Data And Results

Junction: J2: Oxford Road / Upper Windsor Street												
Lane	**Lane Type**	**Phases**	**Start Disp.**	**End Disp.**	**Physical Length (PCU)**	**Sat Flow Type**	**Def User Saturation Flow (PCU/Hr)**	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Turns**	**Turning Radius (m)**
J2:1/1 (Oxford Road)	U	A	2	3	15.0	Geom	-	3.00	0.00	Y	Arm J2:3 Left	16.00
J2:1/2 (Oxford Road)	U	A	2	3	39.0	Geom	-	3.00	0.00	N	Arm J3:1 Ahead	Inf
J2:2/1 (Upper Windsor Street)	U	C	2	3	60.0	Geom	-	3.50	0.00	Y	Arm J2:5 Left	Inf
J2:2/2 (Upper Windsor Street)	U	B	2	3	60.0	Geom	-	3.50	0.00	N	Arm J1:5 Right	24.70
J2:3/1 (Upper Windsor Street - exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:4/1 (Oxford Road)	U	E	2	3	40.0	Geom	-	3.00	0.00	Y	Arm J1:5 Ahead	Inf
J2:4/2 (Oxford Road)	U	D	2	3	60.0	Geom	-	3.00	0.00	Y	Arm J2:3 Right	18.60
J2:5/1	U		2	3	0.0	Inf	-	-	-	-	-	-

Full Input Data And Results

Junction: J3: Oxford Road / Hightown Road / Horton View

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
J3:1/1 (Oxford Road)	U	H	2	3	13.0	Geom	-	3.00	0.00	Y	Arm J3:2 Left	3.00
											Arm J3:6 Ahead	Inf
J3:1/2 (Oxford Road)	O	H	2	3	42.0	Geom	-	3.10	0.00	N	Arm J3:4 Right	19.90
											Arm J3:6 Ahead	Inf
J3:2/1 (Hospital - exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
J3:3/1 (Horton View)	U	G	2	3	60.0	Geom	-	3.60	0.00	Y	Arm J2:4 Left	7.00
											Arm J3:2 Ahead	Inf
											Arm J3:6 Right	18.70
J3:4/1 (Horton View - exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
J3:5/1 (Oxford Road)	U	F	2	3	6.0	Geom	-	3.00	0.00	Y	Arm J2:4 Ahead	Inf
											Arm J3:4 Left	9.60
J3:5/2 (Oxford Road)	O	F	2	3	6.0	Geom	-	3.00	0.00	Y	Arm J2:4 Ahead	Inf
											Arm J3:2 Right	11.00
J3:6/1 (Oxford Road)	U	A	2	3	6.0	Geom	-	3.00	0.00	Y	Arm J3:9 Left	8.00
											Arm J4:1 Ahead	Inf
J3:6/2 (Oxford Road)	U	A	2	3	6.0	Geom	-	3.00	0.00	N	Arm J4:1 Ahead	Inf
J3:7/1 (Oxford Road)	U	C	2	3	60.0	Geom	-	3.00	0.00	Y	Arm J3:5 Ahead	Inf
J3:7/2 (Oxford Road)	U	C	2	3	16.0	Geom	-	2.80	0.00	N	Arm J3:5 Ahead	Inf
J3:7/3 (Oxford Road)	O	C	2	3	10.0	Geom	-	3.25	0.00	Y	Arm J3:9 Right	18.00
J3:8/1 (Hightown Road)	U	B	2	3	60.0	Geom	-	3.10	0.00	Y	Arm J3:5 Right	14.80
											Arm J4:1 Left	6.20

J3:9/1 (HIghtown Road - exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Junction: J4: Oxford Road / Sainsburys / Framfield Road

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
J4:1/1 (Oxford Road)	U	C	2	3	23.0	Geom	-	3.00	0.00	Y	Arm J4:3 Left	9.30
											Arm J4:7 Ahead	Inf
J4:1/2 (Oxford Road)	O	C	2	3	23.0	Geom	-	3.00	0.00	N	Arm J4:5 Right	11.00
											Arm J4:7 Ahead	Inf
J4:2/1 (Sainsburys)	U	D	2	3	5.0	Geom	-	3.10	0.00	Y	Arm J4:7 Left	16.00
J4:2/2 (Sainsburys)	O	D	2	3	60.0	Geom	-	3.10	0.00	Y	Arm J3:7 Right	11.40
											Arm J4:5 Ahead	Inf
J4:3/1 (Sainsburys - exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
J4:4/1 (Framfield Road)	O	B	2	3	60.0	Geom	-	3.20	0.00	Y	Arm J3:7 Left	Inf
											Arm J4:3 Ahead	Inf
											Arm J4:7 Right	14.00
J4:5/1 (Framfield Road - exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
J4:6/1 (Oxford Road)	U	A	2	3	60.0	Geom	-	3.00	0.00	Y	Arm J3:7 Ahead	Inf
											Arm J4:5 Left	8.80
J4:6/2 (Oxford Road)	O	A	2	3	11.0	Geom	-	3.25	0.00	Y	Arm J4:3 Right	Inf
J4:7/1 (Oxford Road - exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

Junction: J3: Oxford Road / Hightown Road / Horton View								
Lane	Custom Occupancy per Flow Group (PCU)							
	2026 Baseline AM	2026 Baseline PM	2026 Phase 2 AM	2026 Phase 2 PM	2031 Baseline AM	2031 Baseline PM	2031 Phase 2 AM	2031 Phase 2 PM
J3:1/1 (Oxford Road Lane 1)	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2026 Baseline AM'	08:00	09:00	01:00	
2: '2026 Baseline PM'	17:00	18:00	01:00	
3: '2026 Phase 2 AM'	08:00	09:00	01:00	
4: '2026 Phase 2 PM'	17:00	18:00	01:00	
5: '2031 Baseline AM'	08:00	09:00	01:00	
6: '2031 Baseline PM'	17:00	18:00	01:00	
7: '2031 Phase 2 AM'	08:00	09:00	01:00	
8: '2031 Phase 2 PM'	17:00	18:00	01:00	

Scenario 1: 'Scenario 1' (FG1: '2026 Baseline AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination									
		A	B	C	D	E	F	G	H	I	Tot.
Origin	A	0	0	98	95	80	0	200	154	262	889
	B	61	0	55	4	5	0	17	14	25	181
	C	86	26	0	6	7	0	25	21	36	207
	D	117	1	8	0	5	0	25	22	41	219
	E	110	2	11	12	0	0	5	5	11	156
	F	0	0	0	0	0	0	0	0	0	0
	G	271	6	36	57	101	0	0	57	112	640
	H	124	3	17	27	49	0	136	0	362	718
	I	190	4	27	45	82	0	220	334	0	902
	Tot.	959	42	252	246	329	0	628	607	849	3912

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: Scenario 1
Junction: J1: Oxford Road / Bloxham Road	
J1:1/1 (with short)	902(In) 568(Out)
J1:1/2 (short)	334
J1:2/1	849
J1:3/1 (short)	362
J1:3/2 (with short)	718(In) 356(Out)
J1:4/1	607
J1:5/1 (short)	273
J1:5/2 (with short)	760(In) 487(Out)
Junction: J2: Oxford Road / Upper Windsor Street	
J2:1/1 (short)	356
J2:1/2 (with short)	924(In) 568(Out)
J2:2/1	471
J2:2/2	169
J2:3/1	628
J2:4/1	591
J2:4/2	272
J2:5/1	471
Junction: J3: Oxford Road / Hightown Road / Horton View	
J3:1/1 (short)	502
J3:1/2 (with short)	1039(In) 537(Out)
J3:2/1	0
J3:3/1	156
J3:4/1	329
J3:5/1	672
J3:5/2	267
J3:6/1	580
J3:6/2	362
J3:7/1	604
J3:7/2 (with short)	347(In) 242(Out)
J3:7/3 (short)	105
J3:8/1	219
J3:9/1	246
Junction: J4: Oxford Road / Sainsburys / Framfield Road	

Full Input Data And Results

J4:1/1	506
J4:1/2	421
J4:2/1 (short)	86
J4:2/2 (with short)	207(In) 121(Out)
J4:3/1	252
J4:4/1	181
J4:5/1	42
J4:6/1 (with short)	889(In) 791(Out)
J4:6/2 (short)	98
J4:7/1	959

Lane Saturation Flows

Junction: J1: Oxford Road / Bloxham Road

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 (South Bar)	3.00	6.00	Y	Arm J2:1 Ahead	Inf	100.0 %	1663	1663
J1:1/2 (South Bar)	3.00	6.00	N	Arm J1:4 Right	10.00	100.0 %	1568	1568
J1:2/1 (South Bar -exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:3/1 (Bloxham Road)	3.60	0.00	Y	Arm J1:2 Left	28.80	100.0 %	1877	1877
J1:3/2 (Bloxham Road)	3.10	0.00	Y	Arm J2:1 Right	13.50	100.0 %	1733	1733
J1:4/1 (Bloxham Road - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (Oxford Road)	3.25	0.00	Y	Arm J1:4 Left	12.00	100.0 %	1724	1724
J1:5/2 (Oxford Road)	3.90	0.00	Y	Arm J1:2 Ahead	Inf	100.0 %	2005	2005

Full Input Data And Results

Junction: J2: Oxford Road / Upper Windsor Street								
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 (Oxford Road)	3.00	0.00	Y	Arm J2:3 Left	16.00	100.0 %	1751	1751
J2:1/2 (Oxford Road)	3.00	0.00	N	Arm J3:1 Ahead	Inf	100.0 %	2055	2055
J2:2/1 (Upper Windsor Street)	3.50	0.00	Y	Arm J2:5 Left	Inf	100.0 %	1965	1965
J2:2/2 (Upper Windsor Street)	3.50	0.00	N	Arm J1:5 Right	24.70	100.0 %	1984	1984
J2:3/1 (Upper Windsor Street - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:4/1 (Oxford Road)	3.00	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1915	1915
J2:4/2 (Oxford Road)	3.00	0.00	Y	Arm J2:3 Right	18.60	100.0 %	1772	1772
J2:5/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J3: Oxford Road / Hightown Road / Horton View								
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 (Oxford Road)	3.00	0.00	Y	Arm J3:2 Left	3.00	0.0 %	1915	1915
				Arm J3:6 Ahead	Inf	100.0 %		
J3:1/2 (Oxford Road)	3.10	0.00	N	Arm J3:4 Right	19.90	43.2 %	2000	2000
				Arm J3:6 Ahead	Inf	56.8 %		
J3:2/1 (Hospital - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:3/1 (Horton View)	3.60	0.00	Y	Arm J2:4 Left	7.00	13.5 %	1798	1798
				Arm J3:2 Ahead	Inf	0.0 %		
				Arm J3:6 Right	18.70	86.5 %		
J3:4/1 (Horton View - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:5/1 (Oxford Road)	3.00	0.00	Y	Arm J2:4 Ahead	Inf	85.6 %	1873	1873
				Arm J3:4 Left	9.60	14.4 %		
J3:5/2 (Oxford Road)	3.00	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1915	1915
				Arm J3:2 Right	11.00	0.0 %		
J3:6/1 (Oxford Road)	3.00	0.00	Y	Arm J3:9 Left	8.00	24.3 %	1832	1832
				Arm J4:1 Ahead	Inf	75.7 %		
J3:6/2 (Oxford Road)	3.00	0.00	N	Arm J4:1 Ahead	Inf	100.0 %	2055	2055
J3:7/1 (Oxford Road)	3.00	0.00	Y	Arm J3:5 Ahead	Inf	100.0 %	1915	1915
J3:7/2 (Oxford Road)	2.80	0.00	N	Arm J3:5 Ahead	Inf	100.0 %	2035	2035
J3:7/3 (Oxford Road)	3.25	0.00	Y	Arm J3:9 Right	18.00	100.0 %	1791	1791
J3:8/1 (Hightown Road)	3.10	0.00	Y	Arm J3:5 Right	14.80	42.5 %	1628	1628
				Arm J4:1 Left	6.20	57.5 %		
J3:9/1 (HIghtown Road - exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J4: Oxford Road / Sainsburys / Framfield Road								
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 (Oxford Road)	3.00	0.00	Y	Arm J4:3 Left	9.30	19.6 %	1856	1856
				Arm J4:7 Ahead	Inf	80.4 %		
J4:1/2 (Oxford Road)	3.00	0.00	N	Arm J4:5 Right	11.00	3.8 %	2044	2044
				Arm J4:7 Ahead	Inf	96.2 %		
J4:2/1 (Sainsburys)	3.10	0.00	Y	Arm J4:7 Left	16.00	100.0 %	1760	1760
J4:2/2 (Sainsburys)	3.10	0.00	Y	Arm J3:7 Right	11.40	78.5 %	1745	1745
				Arm J4:5 Ahead	Inf	21.5 %		
J4:3/1 (Sainsburys - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J4:4/1 (Framfield Road)	3.20	0.00	Y	Arm J3:7 Left	Inf	35.9 %	1868	1868
				Arm J4:3 Ahead	Inf	30.4 %		
				Arm J4:7 Right	14.00	33.7 %		
J4:5/1 (Framfield Road - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J4:6/1 (Oxford Road)	3.00	0.00	Y	Arm J3:7 Ahead	Inf	100.0 %	1915	1915
				Arm J4:5 Left	8.80	0.0 %		
J4:6/2 (Oxford Road)	3.25	0.00	Y	Arm J4:3 Right	Inf	100.0 %	1940	1940
J4:7/1 (Oxford Road - exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 2: 'Scenario 2' (FG2: '2026 Baseline PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination									
		A	B	C	D	E	F	G	H	I	Tot.
Origin	A	0	0	116	133	64	0	178	140	280	911
	B	0	0	52	2	1	0	5	4	9	73
	C	224	72	0	21	11	0	42	35	74	479
	D	125	1	33	0	5	0	31	29	62	286
	E	84	1	26	8	0	0	0	0	0	119
	F	0	0	0	0	0	0	0	0	0	0
	G	175	3	64	32	46	0	0	45	112	477
	H	126	2	48	27	42	0	63	0	211	519
	I	209	4	82	47	77	0	119	316	0	854
	Tot.	943	83	421	270	246	0	438	569	748	3718

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: Scenario 2
Junction: J1: Oxford Road / Bloxham Road	
J1:1/1 (with short)	854(In) 538(Out)
J1:1/2 (short)	316
J1:2/1	748
J1:3/1 (short)	211
J1:3/2 (with short)	519(In) 308(Out)
J1:4/1	569
J1:5/1 (short)	253
J1:5/2 (with short)	790(In) 537(Out)
Junction: J2: Oxford Road / Upper Windsor Street	
J2:1/1 (short)	182
J2:1/2 (with short)	846(In) 664(Out)
J2:2/1	320
J2:2/2	157
J2:3/1	438
J2:4/1	633
J2:4/2	256
J2:5/1	320
Junction: J3: Oxford Road / Hightown Road / Horton View	
J3:1/1 (short)	555
J3:1/2 (with short)	984(In) 429(Out)
J3:2/1	0
J3:3/1	119
J3:4/1	246
J3:5/1	714
J3:5/2	256
J3:6/1	631
J3:6/2	307
J3:7/1	618
J3:7/2 (with short)	381(In) 225(Out)
J3:7/3 (short)	156
J3:8/1	286
J3:9/1	270
Junction: J4: Oxford Road / Sainsburys / Framfield Road	

J4:1/1	613
J4:1/2	370
J4:2/1 (short)	224
J4:2/2 (with short)	479(In) 255(Out)
J4:3/1	421
J4:4/1	73
J4:5/1	83
J4:6/1 (with short)	911(In) 795(Out)
J4:6/2 (short)	116
J4:7/1	943

Lane Saturation Flows

Junction: J1: Oxford Road / Bloxham Road

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 (South Bar)	3.00	6.00	Y	Arm J2:1 Ahead	Inf	100.0 %	1663	1663
J1:1/2 (South Bar)	3.00	6.00	N	Arm J1:4 Right	10.00	100.0 %	1568	1568
J1:2/1 (South Bar -exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:3/1 (Bloxham Road)	3.60	0.00	Y	Arm J1:2 Left	28.80	100.0 %	1877	1877
J1:3/2 (Bloxham Road)	3.10	0.00	Y	Arm J2:1 Right	13.50	100.0 %	1733	1733
J1:4/1 (Bloxham Road - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (Oxford Road)	3.25	0.00	Y	Arm J1:4 Left	12.00	100.0 %	1724	1724
J1:5/2 (Oxford Road)	3.90	0.00	Y	Arm J1:2 Ahead	Inf	100.0 %	2005	2005

Full Input Data And Results

Junction: J2: Oxford Road / Upper Windsor Street								
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 (Oxford Road)	3.00	0.00	Y	Arm J2:3 Left	16.00	100.0 %	1751	1751
J2:1/2 (Oxford Road)	3.00	0.00	N	Arm J3:1 Ahead	Inf	100.0 %	2055	2055
J2:2/1 (Upper Windsor Street)	3.50	0.00	Y	Arm J2:5 Left	Inf	100.0 %	1965	1965
J2:2/2 (Upper Windsor Street)	3.50	0.00	N	Arm J1:5 Right	24.70	100.0 %	1984	1984
J2:3/1 (Upper Windsor Street - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:4/1 (Oxford Road)	3.00	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1915	1915
J2:4/2 (Oxford Road)	3.00	0.00	Y	Arm J2:3 Right	18.60	100.0 %	1772	1772
J2:5/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J3: Oxford Road / Hightown Road / Horton View								
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 (Oxford Road)	3.00	0.00	Y	Arm J3:2 Left	3.00	0.0 %	1915	1915
				Arm J3:6 Ahead	Inf	100.0 %		
J3:1/2 (Oxford Road)	3.10	0.00	N	Arm J3:4 Right	19.90	38.5 %	2007	2007
				Arm J3:6 Ahead	Inf	61.5 %		
J3:2/1 (Hospital - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:3/1 (Horton View)	3.60	0.00	Y	Arm J2:4 Left	7.00	0.0 %	1828	1828
				Arm J3:2 Ahead	Inf	0.0 %		
				Arm J3:6 Right	18.70	100.0 %		
J3:4/1 (Horton View - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:5/1 (Oxford Road)	3.00	0.00	Y	Arm J2:4 Ahead	Inf	88.7 %	1882	1882
				Arm J3:4 Left	9.60	11.3 %		
J3:5/2 (Oxford Road)	3.00	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1915	1915
				Arm J3:2 Right	11.00	0.0 %		
J3:6/1 (Oxford Road)	3.00	0.00	Y	Arm J3:9 Left	8.00	18.1 %	1852	1852
				Arm J4:1 Ahead	Inf	81.9 %		
J3:6/2 (Oxford Road)	3.00	0.00	N	Arm J4:1 Ahead	Inf	100.0 %	2055	2055
J3:7/1 (Oxford Road)	3.00	0.00	Y	Arm J3:5 Ahead	Inf	100.0 %	1915	1915
J3:7/2 (Oxford Road)	2.80	0.00	N	Arm J3:5 Ahead	Inf	100.0 %	2035	2035
J3:7/3 (Oxford Road)	3.25	0.00	Y	Arm J3:9 Right	18.00	100.0 %	1791	1791
J3:8/1 (Hightown Road)	3.10	0.00	Y	Arm J3:5 Right	14.80	44.4 %	1632	1632
				Arm J4:1 Left	6.20	55.6 %		
J3:9/1 (HIghtown Road - exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J4: Oxford Road / Sainsburys / Framfield Road							
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 (Oxford Road)	3.00	0.00	Y	Arm J4:3 Left	9.30	41.3 %	1795	1795
				Arm J4:7 Ahead	Inf	58.7 %		
J4:1/2 (Oxford Road)	3.00	0.00	N	Arm J4:5 Right	11.00	3.0 %	2047	2047
				Arm J4:7 Ahead	Inf	97.0 %		
J4:2/1 (Sainsburys)	3.10	0.00	Y	Arm J4:7 Left	16.00	100.0 %	1760	1760
J4:2/2 (Sainsburys)	3.10	0.00	Y	Arm J3:7 Right	11.40	71.8 %	1759	1759
				Arm J4:5 Ahead	Inf	28.2 %		
J4:3/1 (Sainsburys - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J4:4/1 (Framfield Road)	3.20	0.00	Y	Arm J3:7 Left	Inf	28.8 %	1935	1935
				Arm J4:3 Ahead	Inf	71.2 %		
				Arm J4:7 Right	14.00	0.0 %		
J4:5/1 (Framfield Road - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J4:6/1 (Oxford Road)	3.00	0.00	Y	Arm J3:7 Ahead	Inf	100.0 %	1915	1915
				Arm J4:5 Left	8.80	0.0 %		
J4:6/2 (Oxford Road)	3.25	0.00	Y	Arm J4:3 Right	Inf	100.0 %	1940	1940
J4:7/1 (Oxford Road - exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 3: 'Scenario 3' (FG3: '2026 Phase 2 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination									
		A	B	C	D	E	F	G	H	I	Tot.
Origin	A	0	0	104	93	81	0	195	138	274	885
	B	66	0	58	4	5	0	17	13	27	190
	C	86	26	0	6	7	0	24	19	39	207
	D	120	1	8	0	5	0	27	22	48	231
	E	112	2	11	13	0	0	9	9	23	179
	F	0	0	0	0	0	0	0	0	0	0
	G	272	6	36	58	126	0	0	49	118	665
	H	107	2	14	24	51	0	91	0	412	701
	I	199	5	28	48	104	0	187	333	0	904
	Tot.	962	42	259	246	379	0	550	583	941	3962

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: Scenario 3
Junction: J1: Oxford Road / Bloxham Road	
J1:1/1 (with short)	904(In) 571(Out)
J1:1/2 (short)	333
J1:2/1	941
J1:3/1 (short)	412
J1:3/2 (with short)	701(In) 289(Out)
J1:4/1	583
J1:5/1 (short)	250
J1:5/2 (with short)	779(In) 529(Out)
Junction: J2: Oxford Road / Upper Windsor Street	
J2:1/1 (short)	278
J2:1/2 (with short)	860(In) 582(Out)
J2:2/1	498
J2:2/2	167
J2:3/1	550
J2:4/1	612
J2:4/2	272
J2:5/1	498
Junction: J3: Oxford Road / Hightown Road / Horton View	
J3:1/1 (short)	496
J3:1/2 (with short)	1080(In) 584(Out)
J3:2/1	0
J3:3/1	179
J3:4/1	379
J3:5/1	678
J3:5/2	263
J3:6/1	576
J3:6/2	361
J3:7/1	603
J3:7/2 (with short)	339(In) 236(Out)
J3:7/3 (short)	103
J3:8/1	231
J3:9/1	246
Junction: J4: Oxford Road / Sainsburys / Framfield Road	

Full Input Data And Results

J4:1/1	501
J4:1/2	422
J4:2/1 (short)	86
J4:2/2 (with short)	207(In) 121(Out)
J4:3/1	259
J4:4/1	190
J4:5/1	42
J4:6/1 (with short)	885(In) 781(Out)
J4:6/2 (short)	104
J4:7/1	962

Lane Saturation Flows

Junction: J1: Oxford Road / Bloxham Road

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 (South Bar)	3.00	6.00	Y	Arm J2:1 Ahead	Inf	100.0 %	1663	1663
J1:1/2 (South Bar)	3.00	6.00	N	Arm J1:4 Right	10.00	100.0 %	1568	1568
J1:2/1 (South Bar -exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:3/1 (Bloxham Road)	3.60	0.00	Y	Arm J1:2 Left	28.80	100.0 %	1877	1877
J1:3/2 (Bloxham Road)	3.10	0.00	Y	Arm J2:1 Right	13.50	100.0 %	1733	1733
J1:4/1 (Bloxham Road - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (Oxford Road)	3.25	0.00	Y	Arm J1:4 Left	12.00	100.0 %	1724	1724
J1:5/2 (Oxford Road)	3.90	0.00	Y	Arm J1:2 Ahead	Inf	100.0 %	2005	2005

Full Input Data And Results

Junction: J2: Oxford Road / Upper Windsor Street								
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 (Oxford Road)	3.00	0.00	Y	Arm J2:3 Left	16.00	100.0 %	1751	1751
J2:1/2 (Oxford Road)	3.00	0.00	N	Arm J3:1 Ahead	Inf	100.0 %	2055	2055
J2:2/1 (Upper Windsor Street)	3.50	0.00	Y	Arm J2:5 Left	Inf	100.0 %	1965	1965
J2:2/2 (Upper Windsor Street)	3.50	0.00	N	Arm J1:5 Right	24.70	100.0 %	1984	1984
J2:3/1 (Upper Windsor Street - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:4/1 (Oxford Road)	3.00	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1915	1915
J2:4/2 (Oxford Road)	3.00	0.00	Y	Arm J2:3 Right	18.60	100.0 %	1772	1772
J2:5/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J3: Oxford Road / Hightown Road / Horton View								
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 (Oxford Road)	3.00	0.00	Y	Arm J3:2 Left	3.00	0.0 %	1915	1915
				Arm J3:6 Ahead	Inf	100.0 %		
J3:1/2 (Oxford Road)	3.10	0.00	N	Arm J3:4 Right	19.90	48.1 %	1993	1993
				Arm J3:6 Ahead	Inf	51.9 %		
J3:2/1 (Hospital - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:3/1 (Horton View)	3.60	0.00	Y	Arm J2:4 Left	7.00	22.9 %	1778	1778
				Arm J3:2 Ahead	Inf	0.0 %		
				Arm J3:6 Right	18.70	77.1 %		
J3:4/1 (Horton View - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:5/1 (Oxford Road)	3.00	0.00	Y	Arm J2:4 Ahead	Inf	85.5 %	1873	1873
				Arm J3:4 Left	9.60	14.5 %		
J3:5/2 (Oxford Road)	3.00	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1915	1915
				Arm J3:2 Right	11.00	0.0 %		
J3:6/1 (Oxford Road)	3.00	0.00	Y	Arm J3:9 Left	8.00	24.8 %	1830	1830
				Arm J4:1 Ahead	Inf	75.2 %		
J3:6/2 (Oxford Road)	3.00	0.00	N	Arm J4:1 Ahead	Inf	100.0 %	2055	2055
J3:7/1 (Oxford Road)	3.00	0.00	Y	Arm J3:5 Ahead	Inf	100.0 %	1915	1915
J3:7/2 (Oxford Road)	2.80	0.00	N	Arm J3:5 Ahead	Inf	100.0 %	2035	2035
J3:7/3 (Oxford Road)	3.25	0.00	Y	Arm J3:9 Right	18.00	100.0 %	1791	1791
J3:8/1 (Hightown Road)	3.10	0.00	Y	Arm J3:5 Right	14.80	44.2 %	1632	1632
				Arm J4:1 Left	6.20	55.8 %		
J3:9/1 (HIghtown Road - exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J4: Oxford Road / Sainsburys / Framfield Road								
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 (Oxford Road)	3.00	0.00	Y	Arm J4:3 Left	9.30	19.4 %	1857	1857
				Arm J4:7 Ahead	Inf	80.6 %		
J4:1/2 (Oxford Road)	3.00	0.00	N	Arm J4:5 Right	11.00	3.8 %	2044	2044
				Arm J4:7 Ahead	Inf	96.2 %		
J4:2/1 (Sainsburys)	3.10	0.00	Y	Arm J4:7 Left	16.00	100.0 %	1760	1760
J4:2/2 (Sainsburys)	3.10	0.00	Y	Arm J3:7 Right	11.40	78.5 %	1745	1745
				Arm J4:5 Ahead	Inf	21.5 %		
J4:3/1 (Sainsburys - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J4:4/1 (Framfield Road)	3.20	0.00	Y	Arm J3:7 Left	Inf	34.7 %	1866	1866
				Arm J4:3 Ahead	Inf	30.5 %		
				Arm J4:7 Right	14.00	34.7 %		
J4:5/1 (Framfield Road - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J4:6/1 (Oxford Road)	3.00	0.00	Y	Arm J3:7 Ahead	Inf	100.0 %	1915	1915
				Arm J4:5 Left	8.80	0.0 %		
J4:6/2 (Oxford Road)	3.25	0.00	Y	Arm J4:3 Right	Inf	100.0 %	1940	1940
J4:7/1 (Oxford Road - exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 4: 'Scenario 4' (FG4: '2026 Phase 2 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination									
		A	B	C	D	E	F	G	H	I	Tot.
Origin	A	0	0	104	133	64	0	179	143	285	908
	B	0	0	52	2	1	0	5	4	9	73
	C	240	71	0	20	11	0	42	35	74	493
	D	119	1	32	0	5	0	32	29	64	282
	E	83	1	27	8	0	0	0	0	0	119
	F	0	0	0	0	0	0	0	0	0	0
	G	184	3	69	32	45	0	0	45	111	489
	H	123	2	48	25	37	0	61	0	211	507
	I	220	4	88	47	75	0	126	310	0	870
	Tot.	969	82	420	267	238	0	445	566	754	3741

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: Scenario 4
Junction: J1: Oxford Road / Bloxham Road	
J1:1/1 (with short)	870(In) 560(Out)
J1:1/2 (short)	310
J1:2/1	754
J1:3/1 (short)	211
J1:3/2 (with short)	507(In) 296(Out)
J1:4/1	566
J1:5/1 (short)	256
J1:5/2 (with short)	799(In) 543(Out)
Junction: J2: Oxford Road / Upper Windsor Street	
J2:1/1 (short)	187
J2:1/2 (with short)	856(In) 669(Out)
J2:2/1	333
J2:2/2	156
J2:3/1	445
J2:4/1	643
J2:4/2	258
J2:5/1	333
Junction: J3: Oxford Road / Hightown Road / Horton View	
J3:1/1 (short)	572
J3:1/2 (with short)	1002(In) 430(Out)
J3:2/1	0
J3:3/1	119
J3:4/1	238
J3:5/1	724
J3:5/2	258
J3:6/1	649
J3:6/2	315
J3:7/1	626
J3:7/2 (with short)	381(In) 226(Out)
J3:7/3 (short)	155
J3:8/1	282
J3:9/1	267
Junction: J4: Oxford Road / Sainsburys / Framfield Road	

J4:1/1	629
J4:1/2	375
J4:2/1 (short)	240
J4:2/2 (with short)	493(In) 253(Out)
J4:3/1	420
J4:4/1	73
J4:5/1	82
J4:6/1 (with short)	908(In) 804(Out)
J4:6/2 (short)	104
J4:7/1	969

Lane Saturation Flows

Junction: J1: Oxford Road / Bloxham Road

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 (South Bar)	3.00	6.00	Y	Arm J2:1 Ahead	Inf	100.0 %	1663	1663
J1:1/2 (South Bar)	3.00	6.00	N	Arm J1:4 Right	10.00	100.0 %	1568	1568
J1:2/1 (South Bar -exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:3/1 (Bloxham Road)	3.60	0.00	Y	Arm J1:2 Left	28.80	100.0 %	1877	1877
J1:3/2 (Bloxham Road)	3.10	0.00	Y	Arm J2:1 Right	13.50	100.0 %	1733	1733
J1:4/1 (Bloxham Road - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (Oxford Road)	3.25	0.00	Y	Arm J1:4 Left	12.00	100.0 %	1724	1724
J1:5/2 (Oxford Road)	3.90	0.00	Y	Arm J1:2 Ahead	Inf	100.0 %	2005	2005

Full Input Data And Results

Junction: J2: Oxford Road / Upper Windsor Street								
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 (Oxford Road)	3.00	0.00	Y	Arm J2:3 Left	16.00	100.0 %	1751	1751
J2:1/2 (Oxford Road)	3.00	0.00	N	Arm J3:1 Ahead	Inf	100.0 %	2055	2055
J2:2/1 (Upper Windsor Street)	3.50	0.00	Y	Arm J2:5 Left	Inf	100.0 %	1965	1965
J2:2/2 (Upper Windsor Street)	3.50	0.00	N	Arm J1:5 Right	24.70	100.0 %	1984	1984
J2:3/1 (Upper Windsor Street - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:4/1 (Oxford Road)	3.00	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1915	1915
J2:4/2 (Oxford Road)	3.00	0.00	Y	Arm J2:3 Right	18.60	100.0 %	1772	1772
J2:5/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J3: Oxford Road / Hightown Road / Horton View								
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 (Oxford Road)	3.00	0.00	Y	Arm J3:2 Left	3.00	0.0 %	1915	1915
				Arm J3:6 Ahead	Inf	100.0 %		
J3:1/2 (Oxford Road)	3.10	0.00	N	Arm J3:4 Right	19.90	36.5 %	2010	2010
				Arm J3:6 Ahead	Inf	63.5 %		
J3:2/1 (Hospital - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:3/1 (Horton View)	3.60	0.00	Y	Arm J2:4 Left	7.00	0.0 %	1828	1828
				Arm J3:2 Ahead	Inf	0.0 %		
				Arm J3:6 Right	18.70	100.0 %		
J3:4/1 (Horton View - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:5/1 (Oxford Road)	3.00	0.00	Y	Arm J2:4 Ahead	Inf	88.8 %	1882	1882
				Arm J3:4 Left	9.60	11.2 %		
J3:5/2 (Oxford Road)	3.00	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1915	1915
				Arm J3:2 Right	11.00	0.0 %		
J3:6/1 (Oxford Road)	3.00	0.00	Y	Arm J3:9 Left	8.00	17.3 %	1855	1855
				Arm J4:1 Ahead	Inf	82.7 %		
J3:6/2 (Oxford Road)	3.00	0.00	N	Arm J4:1 Ahead	Inf	100.0 %	2055	2055
J3:7/1 (Oxford Road)	3.00	0.00	Y	Arm J3:5 Ahead	Inf	100.0 %	1915	1915
J3:7/2 (Oxford Road)	2.80	0.00	N	Arm J3:5 Ahead	Inf	100.0 %	2035	2035
J3:7/3 (Oxford Road)	3.25	0.00	Y	Arm J3:9 Right	18.00	100.0 %	1791	1791
J3:8/1 (Hightown Road)	3.10	0.00	Y	Arm J3:5 Right	14.80	46.1 %	1635	1635
				Arm J4:1 Left	6.20	53.9 %		
J3:9/1 (HIghtown Road - exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J4: Oxford Road / Sainsburys / Framfield Road								
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 (Oxford Road)	3.00	0.00	Y	Arm J4:3 Left	9.30	42.0 %	1794	1794
				Arm J4:7 Ahead	Inf	58.0 %		
J4:1/2 (Oxford Road)	3.00	0.00	N	Arm J4:5 Right	11.00	2.9 %	2047	2047
				Arm J4:7 Ahead	Inf	97.1 %		
J4:2/1 (Sainsburys)	3.10	0.00	Y	Arm J4:7 Left	16.00	100.0 %	1760	1760
J4:2/2 (Sainsburys)	3.10	0.00	Y	Arm J3:7 Right	11.40	71.9 %	1759	1759
				Arm J4:5 Ahead	Inf	28.1 %		
J4:3/1 (Sainsburys - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J4:4/1 (Framfield Road)	3.20	0.00	Y	Arm J3:7 Left	Inf	28.8 %	1935	1935
				Arm J4:3 Ahead	Inf	71.2 %		
				Arm J4:7 Right	14.00	0.0 %		
J4:5/1 (Framfield Road - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J4:6/1 (Oxford Road)	3.00	0.00	Y	Arm J3:7 Ahead	Inf	100.0 %	1915	1915
				Arm J4:5 Left	8.80	0.0 %		
J4:6/2 (Oxford Road)	3.25	0.00	Y	Arm J4:3 Right	Inf	100.0 %	1940	1940
J4:7/1 (Oxford Road - exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 5: 'Scenario 5' (FG5: '2031 Baseline AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination									
		A	B	C	D	E	F	G	H	I	Tot.
Origin	A	0	0	98	128	96	0	199	158	272	951
	B	88	0	39	6	6	0	17	14	26	196
	C	91	29	0	8	8	0	24	20	37	217
	D	126	12	2	0	7	0	28	26	49	250
	E	110	14	3	11	0	0	4	5	10	157
	F	0	0	0	0	0	0	0	0	0	0
	G	255	44	9	47	100	0	0	55	112	622
	H	128	23	5	25	54	0	110	0	486	831
	I	209	39	8	45	97	0	194	336	0	928
	Tot.	1007	161	164	270	368	0	576	614	992	4152

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 5: Scenario 5
Junction: J1: Oxford Road / Bloxham Road	
J1:1/1 (with short)	928(In) 592(Out)
J1:1/2 (short)	336
J1:2/1	992
J1:3/1 (short)	486
J1:3/2 (with short)	831(In) 345(Out)
J1:4/1	614
J1:5/1 (short)	278
J1:5/2 (with short)	784(In) 506(Out)
Junction: J2: Oxford Road / Upper Windsor Street	
J2:1/1 (short)	304
J2:1/2 (with short)	937(In) 633(Out)
J2:2/1	455
J2:2/2	167
J2:3/1	576
J2:4/1	617
J2:4/2	272
J2:5/1	455
Junction: J3: Oxford Road / Hightown Road / Horton View	
J3:1/1 (short)	435
J3:1/2 (with short)	1088(In) 653(Out)
J3:2/1	0
J3:3/1	157
J3:4/1	368
J3:5/1	719
J3:5/2	268
J3:6/1	504
J3:6/2	471
J3:7/1	637
J3:7/2 (with short)	382(In) 240(Out)
J3:7/3 (short)	142
J3:8/1	250
J3:9/1	270
Junction: J4: Oxford Road / Sainsburys / Framfield Road	

Full Input Data And Results

J4:1/1	441
J4:1/2	546
J4:2/1 (short)	91
J4:2/2 (with short)	217(In) 126(Out)
J4:3/1	164
J4:4/1	196
J4:5/1	161
J4:6/1 (with short)	951(In) 853(Out)
J4:6/2 (short)	98
J4:7/1	1007

Lane Saturation Flows

Junction: J1: Oxford Road / Bloxham Road

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 (South Bar)	3.00	6.00	Y	Arm J2:1 Ahead	Inf	100.0 %	1663	1663
J1:1/2 (South Bar)	3.00	6.00	N	Arm J1:4 Right	10.00	100.0 %	1568	1568
J1:2/1 (South Bar -exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:3/1 (Bloxham Road)	3.60	0.00	Y	Arm J1:2 Left	28.80	100.0 %	1877	1877
J1:3/2 (Bloxham Road)	3.10	0.00	Y	Arm J2:1 Right	13.50	100.0 %	1733	1733
J1:4/1 (Bloxham Road - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (Oxford Road)	3.25	0.00	Y	Arm J1:4 Left	12.00	100.0 %	1724	1724
J1:5/2 (Oxford Road)	3.90	0.00	Y	Arm J1:2 Ahead	Inf	100.0 %	2005	2005

Full Input Data And Results

Junction: J2: Oxford Road / Upper Windsor Street								
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 (Oxford Road)	3.00	0.00	Y	Arm J2:3 Left	16.00	100.0 %	1751	1751
J2:1/2 (Oxford Road)	3.00	0.00	N	Arm J3:1 Ahead	Inf	100.0 %	2055	2055
J2:2/1 (Upper Windsor Street)	3.50	0.00	Y	Arm J2:5 Left	Inf	100.0 %	1965	1965
J2:2/2 (Upper Windsor Street)	3.50	0.00	N	Arm J1:5 Right	24.70	100.0 %	1984	1984
J2:3/1 (Upper Windsor Street - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:4/1 (Oxford Road)	3.00	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1915	1915
J2:4/2 (Oxford Road)	3.00	0.00	Y	Arm J2:3 Right	18.60	100.0 %	1772	1772
J2:5/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J3: Oxford Road / Hightown Road / Horton View								
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 (Oxford Road)	3.00	0.00	Y	Arm J3:2 Left	3.00	0.0 %	1915	1915
				Arm J3:6 Ahead	Inf	100.0 %		
J3:1/2 (Oxford Road)	3.10	0.00	N	Arm J3:4 Right	19.90	38.4 %	2007	2007
				Arm J3:6 Ahead	Inf	61.6 %		
J3:2/1 (Hospital - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:3/1 (Horton View)	3.60	0.00	Y	Arm J2:4 Left	7.00	12.1 %	1801	1801
				Arm J3:2 Ahead	Inf	0.0 %		
				Arm J3:6 Right	18.70	87.9 %		
J3:4/1 (Horton View - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:5/1 (Oxford Road)	3.00	0.00	Y	Arm J2:4 Ahead	Inf	83.7 %	1868	1868
				Arm J3:4 Left	9.60	16.3 %		
J3:5/2 (Oxford Road)	3.00	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1915	1915
				Arm J3:2 Right	11.00	0.0 %		
J3:6/1 (Oxford Road)	3.00	0.00	Y	Arm J3:9 Left	8.00	25.4 %	1828	1828
				Arm J4:1 Ahead	Inf	74.6 %		
J3:6/2 (Oxford Road)	3.00	0.00	N	Arm J4:1 Ahead	Inf	100.0 %	2055	2055
J3:7/1 (Oxford Road)	3.00	0.00	Y	Arm J3:5 Ahead	Inf	100.0 %	1915	1915
J3:7/2 (Oxford Road)	2.80	0.00	N	Arm J3:5 Ahead	Inf	100.0 %	2035	2035
J3:7/3 (Oxford Road)	3.25	0.00	Y	Arm J3:9 Right	18.00	100.0 %	1791	1791
J3:8/1 (Hightown Road)	3.10	0.00	Y	Arm J3:5 Right	14.80	44.0 %	1631	1631
				Arm J4:1 Left	6.20	56.0 %		
J3:9/1 (HIghtown Road - exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J4: Oxford Road / Sainsburys / Framfield Road								
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 (Oxford Road)	3.00	0.00	Y	Arm J4:3 Left	9.30	6.1 %	1896	1896
				Arm J4:7 Ahead	Inf	93.9 %		
J4:1/2 (Oxford Road)	3.00	0.00	N	Arm J4:5 Right	11.00	24.2 %	1989	1989
				Arm J4:7 Ahead	Inf	75.8 %		
J4:2/1 (Sainsburys)	3.10	0.00	Y	Arm J4:7 Left	16.00	100.0 %	1760	1760
J4:2/2 (Sainsburys)	3.10	0.00	Y	Arm J3:7 Right	11.40	77.0 %	1748	1748
				Arm J4:5 Ahead	Inf	23.0 %		
J4:3/1 (Sainsburys - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J4:4/1 (Framfield Road)	3.20	0.00	Y	Arm J3:7 Left	Inf	35.2 %	1846	1846
				Arm J4:3 Ahead	Inf	19.9 %		
				Arm J4:7 Right	14.00	44.9 %		
J4:5/1 (Framfield Road - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J4:6/1 (Oxford Road)	3.00	0.00	Y	Arm J3:7 Ahead	Inf	100.0 %	1915	1915
				Arm J4:5 Left	8.80	0.0 %		
J4:6/2 (Oxford Road)	3.25	0.00	Y	Arm J4:3 Right	Inf	100.0 %	1940	1940
J4:7/1 (Oxford Road - exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 6: 'Scenario 6' (FG6: '2031 Baseline PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination									
		A	B	C	D	E	F	G	H	I	Tot.
Origin	A	0	0	131	148	65	0	165	162	283	954
	B	2	0	42	2	1	0	5	5	9	66
	C	241	70	0	25	12	0	40	42	76	506
	D	109	1	28	0	7	0	35	40	75	295
	E	88	1	28	9	0	0	0	0	0	126
	F	0	0	0	0	0	0	0	0	0	0
	G	189	3	71	35	73	0	0	51	106	528
	H	118	2	46	24	53	0	69	0	179	491
	I	231	5	93	53	117	0	156	262	0	917
	Tot.	978	82	439	296	328	0	470	562	728	3883

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: Scenario 6
Junction: J1: Oxford Road / Bloxham Road	
J1:1/1 (with short)	917(In) 655(Out)
J1:1/2 (short)	262
J1:2/1	728
J1:3/1 (short)	179
J1:3/2 (with short)	491(In) 312(Out)
J1:4/1	562
J1:5/1 (short)	300
J1:5/2 (with short)	849(In) 549(Out)
Junction: J2: Oxford Road / Upper Windsor Street	
J2:1/1 (short)	225
J2:1/2 (with short)	967(In) 742(Out)
J2:2/1	371
J2:2/2	157
J2:3/1	470
J2:4/1	692
J2:4/2	245
J2:5/1	371
Junction: J3: Oxford Road / Hightown Road / Horton View	
J3:1/1 (short)	591
J3:1/2 (with short)	1113(In) 522(Out)
J3:2/1	0
J3:3/1	126
J3:4/1	328
J3:5/1	777
J3:5/2	245
J3:6/1	672
J3:6/2	324
J3:7/1	655
J3:7/2 (with short)	385(In) 210(Out)
J3:7/3 (short)	175
J3:8/1	295
J3:9/1	296
Junction: J4: Oxford Road / Sainsburys / Framfield Road	

J4:1/1	634
J4:1/2	379
J4:2/1 (short)	241
J4:2/2 (with short)	506(In) 265(Out)
J4:3/1	439
J4:4/1	66
J4:5/1	82
J4:6/1 (with short)	954(In) 823(Out)
J4:6/2 (short)	131
J4:7/1	978

Lane Saturation Flows

Junction: J1: Oxford Road / Bloxham Road

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 (South Bar)	3.00	6.00	Y	Arm J2:1 Ahead	Inf	100.0 %	1663	1663
J1:1/2 (South Bar)	3.00	6.00	N	Arm J1:4 Right	10.00	100.0 %	1568	1568
J1:2/1 (South Bar -exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:3/1 (Bloxham Road)	3.60	0.00	Y	Arm J1:2 Left	28.80	100.0 %	1877	1877
J1:3/2 (Bloxham Road)	3.10	0.00	Y	Arm J2:1 Right	13.50	100.0 %	1733	1733
J1:4/1 (Bloxham Road - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (Oxford Road)	3.25	0.00	Y	Arm J1:4 Left	12.00	100.0 %	1724	1724
J1:5/2 (Oxford Road)	3.90	0.00	Y	Arm J1:2 Ahead	Inf	100.0 %	2005	2005

Full Input Data And Results

Junction: J2: Oxford Road / Upper Windsor Street								
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 (Oxford Road)	3.00	0.00	Y	Arm J2:3 Left	16.00	100.0 %	1751	1751
J2:1/2 (Oxford Road)	3.00	0.00	N	Arm J3:1 Ahead	Inf	100.0 %	2055	2055
J2:2/1 (Upper Windsor Street)	3.50	0.00	Y	Arm J2:5 Left	Inf	100.0 %	1965	1965
J2:2/2 (Upper Windsor Street)	3.50	0.00	N	Arm J1:5 Right	24.70	100.0 %	1984	1984
J2:3/1 (Upper Windsor Street - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:4/1 (Oxford Road)	3.00	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1915	1915
J2:4/2 (Oxford Road)	3.00	0.00	Y	Arm J2:3 Right	18.60	100.0 %	1772	1772
J2:5/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J3: Oxford Road / Hightown Road / Horton View								
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 (Oxford Road)	3.00	0.00	Y	Arm J3:2 Left	3.00	0.0 %	1915	1915
				Arm J3:6 Ahead	Inf	100.0 %		
J3:1/2 (Oxford Road)	3.10	0.00	N	Arm J3:4 Right	19.90	46.6 %	1995	1995
				Arm J3:6 Ahead	Inf	53.4 %		
J3:2/1 (Hospital - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:3/1 (Horton View)	3.60	0.00	Y	Arm J2:4 Left	7.00	0.0 %	1828	1828
				Arm J3:2 Ahead	Inf	0.0 %		
				Arm J3:6 Right	18.70	100.0 %		
J3:4/1 (Horton View - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:5/1 (Oxford Road)	3.00	0.00	Y	Arm J2:4 Ahead	Inf	89.1 %	1883	1883
				Arm J3:4 Left	9.60	10.9 %		
J3:5/2 (Oxford Road)	3.00	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1915	1915
				Arm J3:2 Right	11.00	0.0 %		
J3:6/1 (Oxford Road)	3.00	0.00	Y	Arm J3:9 Left	8.00	18.0 %	1852	1852
				Arm J4:1 Ahead	Inf	82.0 %		
J3:6/2 (Oxford Road)	3.00	0.00	N	Arm J4:1 Ahead	Inf	100.0 %	2055	2055
J3:7/1 (Oxford Road)	3.00	0.00	Y	Arm J3:5 Ahead	Inf	100.0 %	1915	1915
J3:7/2 (Oxford Road)	2.80	0.00	N	Arm J3:5 Ahead	Inf	100.0 %	2035	2035
J3:7/3 (Oxford Road)	3.25	0.00	Y	Arm J3:9 Right	18.00	100.0 %	1791	1791
J3:8/1 (Hightown Road)	3.10	0.00	Y	Arm J3:5 Right	14.80	53.2 %	1649	1649
				Arm J4:1 Left	6.20	46.8 %		
J3:9/1 (HIghtown Road - exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J4: Oxford Road / Sainsburys / Framfield Road								
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 (Oxford Road)	3.00	0.00	Y	Arm J4:3 Left	9.30	42.0 %	1794	1794
				Arm J4:7 Ahead	Inf	58.0 %		
J4:1/2 (Oxford Road)	3.00	0.00	N	Arm J4:5 Right	11.00	3.2 %	2046	2046
				Arm J4:7 Ahead	Inf	96.8 %		
J4:2/1 (Sainsburys)	3.10	0.00	Y	Arm J4:7 Left	16.00	100.0 %	1760	1760
J4:2/2 (Sainsburys)	3.10	0.00	Y	Arm J3:7 Right	11.40	73.6 %	1755	1755
				Arm J4:5 Ahead	Inf	26.4 %		
J4:3/1 (Sainsburys - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J4:4/1 (Framfield Road)	3.20	0.00	Y	Arm J3:7 Left	Inf	33.3 %	1929	1929
				Arm J4:3 Ahead	Inf	63.6 %		
				Arm J4:7 Right	14.00	3.0 %		
J4:5/1 (Framfield Road - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J4:6/1 (Oxford Road)	3.00	0.00	Y	Arm J3:7 Ahead	Inf	100.0 %	1915	1915
				Arm J4:5 Left	8.80	0.0 %		
J4:6/2 (Oxford Road)	3.25	0.00	Y	Arm J4:3 Right	Inf	100.0 %	1940	1940
J4:7/1 (Oxford Road - exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 7: 'Scenario 7' (FG7: '2031 Phase 2 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination									
		A	B	C	D	E	F	G	H	I	Tot.
Origin	A	0	0	107	111	104	0	196	146	291	955
	B	91	0	46	4	6	0	16	13	27	203
	C	89	28	0	6	9	0	23	18	39	212
	D	125	2	10	0	9	0	31	27	60	264
	E	113	3	14	13	0	0	6	7	16	172
	F	0	0	0	0	0	0	0	0	0	0
	G	258	10	41	53	121	0	0	49	119	651
	H	118	5	19	25	58	0	86	0	520	831
	I	208	9	36	48	112	0	169	325	0	907
	Tot.	1002	57	273	260	419	0	527	585	1072	4195

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 7: Scenario 7
Junction: J1: Oxford Road / Bloxham Road	
J1:1/1 (with short)	907(In) 582(Out)
J1:1/2 (short)	325
J1:2/1	1072
J1:3/1 (short)	520
J1:3/2 (with short)	831(In) 311(Out)
J1:4/1	585
J1:5/1 (short)	260
J1:5/2 (with short)	812(In) 552(Out)
Junction: J2: Oxford Road / Upper Windsor Street	
J2:1/1 (short)	255
J2:1/2 (with short)	893(In) 638(Out)
J2:2/1	483
J2:2/2	168
J2:3/1	527
J2:4/1	644
J2:4/2	272
J2:5/1	483
Junction: J3: Oxford Road / Hightown Road / Horton View	
J3:1/1 (short)	514
J3:1/2 (with short)	1121(In) 607(Out)
J3:2/1	0
J3:3/1	172
J3:4/1	419
J3:5/1	749
J3:5/2	266
J3:6/1	598
J3:6/2	375
J3:7/1	653
J3:7/2 (with short)	356(In) 235(Out)
J3:7/3 (short)	121
J3:8/1	264
J3:9/1	260
Junction: J4: Oxford Road / Sainsburys / Framfield Road	

Full Input Data And Results

J4:1/1	532
J4:1/2	439
J4:2/1 (short)	89
J4:2/2 (with short)	212(In) 123(Out)
J4:3/1	273
J4:4/1	203
J4:5/1	57
J4:6/1 (with short)	955(In) 848(Out)
J4:6/2 (short)	107
J4:7/1	1002

Lane Saturation Flows

Junction: J1: Oxford Road / Bloxham Road

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 (South Bar)	3.00	6.00	Y	Arm J2:1 Ahead	Inf	100.0 %	1663	1663
J1:1/2 (South Bar)	3.00	6.00	N	Arm J1:4 Right	10.00	100.0 %	1568	1568
J1:2/1 (South Bar -exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:3/1 (Bloxham Road)	3.60	0.00	Y	Arm J1:2 Left	28.80	100.0 %	1877	1877
J1:3/2 (Bloxham Road)	3.10	0.00	Y	Arm J2:1 Right	13.50	100.0 %	1733	1733
J1:4/1 (Bloxham Road - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (Oxford Road)	3.25	0.00	Y	Arm J1:4 Left	12.00	100.0 %	1724	1724
J1:5/2 (Oxford Road)	3.90	0.00	Y	Arm J1:2 Ahead	Inf	100.0 %	2005	2005

Full Input Data And Results

Junction: J2: Oxford Road / Upper Windsor Street								
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 (Oxford Road)	3.00	0.00	Y	Arm J2:3 Left	16.00	100.0 %	1751	1751
J2:1/2 (Oxford Road)	3.00	0.00	N	Arm J3:1 Ahead	Inf	100.0 %	2055	2055
J2:2/1 (Upper Windsor Street)	3.50	0.00	Y	Arm J2:5 Left	Inf	100.0 %	1965	1965
J2:2/2 (Upper Windsor Street)	3.50	0.00	N	Arm J1:5 Right	24.70	100.0 %	1984	1984
J2:3/1 (Upper Windsor Street - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:4/1 (Oxford Road)	3.00	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1915	1915
J2:4/2 (Oxford Road)	3.00	0.00	Y	Arm J2:3 Right	18.60	100.0 %	1772	1772
J2:5/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J3: Oxford Road / Hightown Road / Horton View								
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 (Oxford Road)	3.00	0.00	Y	Arm J3:2 Left	3.00	0.0 %	1915	1915
				Arm J3:6 Ahead	Inf	100.0 %		
J3:1/2 (Oxford Road)	3.10	0.00	N	Arm J3:4 Right	19.90	47.9 %	1993	1993
				Arm J3:6 Ahead	Inf	52.1 %		
J3:2/1 (Hospital - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:3/1 (Horton View)	3.60	0.00	Y	Arm J2:4 Left	7.00	16.9 %	1791	1791
				Arm J3:2 Ahead	Inf	0.0 %		
				Arm J3:6 Right	18.70	83.1 %		
J3:4/1 (Horton View - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:5/1 (Oxford Road)	3.00	0.00	Y	Arm J2:4 Ahead	Inf	82.9 %	1865	1865
				Arm J3:4 Left	9.60	17.1 %		
J3:5/2 (Oxford Road)	3.00	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1915	1915
				Arm J3:2 Right	11.00	0.0 %		
J3:6/1 (Oxford Road)	3.00	0.00	Y	Arm J3:9 Left	8.00	23.2 %	1835	1835
				Arm J4:1 Ahead	Inf	76.8 %		
J3:6/2 (Oxford Road)	3.00	0.00	N	Arm J4:1 Ahead	Inf	100.0 %	2055	2055
J3:7/1 (Oxford Road)	3.00	0.00	Y	Arm J3:5 Ahead	Inf	100.0 %	1915	1915
J3:7/2 (Oxford Road)	2.80	0.00	N	Arm J3:5 Ahead	Inf	100.0 %	2035	2035
J3:7/3 (Oxford Road)	3.25	0.00	Y	Arm J3:9 Right	18.00	100.0 %	1791	1791
J3:8/1 (Hightown Road)	3.10	0.00	Y	Arm J3:5 Right	14.80	48.1 %	1639	1639
				Arm J4:1 Left	6.20	51.9 %		
J3:9/1 (HIghtown Road - exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J4: Oxford Road / Sainsburys / Framfield Road								
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 (Oxford Road)	3.00	0.00	Y	Arm J4:3 Left	9.30	22.6 %	1848	1848
				Arm J4:7 Ahead	Inf	77.4 %		
J4:1/2 (Oxford Road)	3.00	0.00	N	Arm J4:5 Right	11.00	6.6 %	2037	2037
				Arm J4:7 Ahead	Inf	93.4 %		
J4:2/1 (Sainsburys)	3.10	0.00	Y	Arm J4:7 Left	16.00	100.0 %	1760	1760
J4:2/2 (Sainsburys)	3.10	0.00	Y	Arm J3:7 Right	11.40	77.2 %	1747	1747
				Arm J4:5 Ahead	Inf	22.8 %		
J4:3/1 (Sainsburys - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J4:4/1 (Framfield Road)	3.20	0.00	Y	Arm J3:7 Left	Inf	32.5 %	1846	1846
				Arm J4:3 Ahead	Inf	22.7 %		
				Arm J4:7 Right	14.00	44.8 %		
J4:5/1 (Framfield Road - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J4:6/1 (Oxford Road)	3.00	0.00	Y	Arm J3:7 Ahead	Inf	100.0 %	1915	1915
				Arm J4:5 Left	8.80	0.0 %		
J4:6/2 (Oxford Road)	3.25	0.00	Y	Arm J4:3 Right	Inf	100.0 %	1940	1940
J4:7/1 (Oxford Road - exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 8: 'Scenario 8' (FG8: '2031 Phase 2 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination									
		A	B	C	D	E	F	G	H	I	Tot.
Origin	A	0	0	120	143	64	0	165	156	289	937
	B	16	0	38	2	1	0	5	5	10	77
	C	265	75	0	23	12	0	39	40	78	532
	D	107	1	29	0	7	0	37	41	82	304
	E	91	1	30	9	0	0	0	0	0	131
	F	0	0	0	0	0	0	0	0	0	0
	G	184	3	71	33	61	0	0	48	108	508
	H	126	2	51	26	51	0	66	0	184	506
	I	240	5	99	54	108	0	147	264	0	917
	Tot.	1029	87	438	290	304	0	459	554	751	3912

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 8: Scenario 8
Junction: J1: Oxford Road / Bloxham Road	
J1:1/1 (with short)	917(In) 653(Out)
J1:1/2 (short)	264
J1:2/1	751
J1:3/1 (short)	184
J1:3/2 (with short)	506(In) 322(Out)
J1:4/1	554
J1:5/1 (short)	290
J1:5/2 (with short)	857(In) 567(Out)
Junction: J2: Oxford Road / Upper Windsor Street	
J2:1/1 (short)	213
J2:1/2 (with short)	975(In) 762(Out)
J2:2/1	352
J2:2/2	156
J2:3/1	459
J2:4/1	701
J2:4/2	246
J2:5/1	352
Junction: J3: Oxford Road / Hightown Road / Horton View	
J3:1/1 (short)	609
J3:1/2 (with short)	1114(In) 505(Out)
J3:2/1	0
J3:3/1	131
J3:4/1	304
J3:5/1	785
J3:5/2	246
J3:6/1	694
J3:6/2	331
J3:7/1	655
J3:7/2 (with short)	377(In) 209(Out)
J3:7/3 (short)	168
J3:8/1	304
J3:9/1	290
Junction: J4: Oxford Road / Sainsburys / Framfield Road	

Full Input Data And Results

J4:1/1	655
J4:1/2	385
J4:2/1 (short)	265
J4:2/2 (with short)	532(In) 267(Out)
J4:3/1	438
J4:4/1	77
J4:5/1	87
J4:6/1 (with short)	937(In) 817(Out)
J4:6/2 (short)	120
J4:7/1	1029

Lane Saturation Flows

Junction: J1: Oxford Road / Bloxham Road

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 (South Bar)	3.00	6.00	Y	Arm J2:1 Ahead	Inf	100.0 %	1663	1663
J1:1/2 (South Bar)	3.00	6.00	N	Arm J1:4 Right	10.00	100.0 %	1568	1568
J1:2/1 (South Bar -exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:3/1 (Bloxham Road)	3.60	0.00	Y	Arm J1:2 Left	28.80	100.0 %	1877	1877
J1:3/2 (Bloxham Road)	3.10	0.00	Y	Arm J2:1 Right	13.50	100.0 %	1733	1733
J1:4/1 (Bloxham Road - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (Oxford Road)	3.25	0.00	Y	Arm J1:4 Left	12.00	100.0 %	1724	1724
J1:5/2 (Oxford Road)	3.90	0.00	Y	Arm J1:2 Ahead	Inf	100.0 %	2005	2005

Full Input Data And Results

Junction: J2: Oxford Road / Upper Windsor Street								
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 (Oxford Road)	3.00	0.00	Y	Arm J2:3 Left	16.00	100.0 %	1751	1751
J2:1/2 (Oxford Road)	3.00	0.00	N	Arm J3:1 Ahead	Inf	100.0 %	2055	2055
J2:2/1 (Upper Windsor Street)	3.50	0.00	Y	Arm J2:5 Left	Inf	100.0 %	1965	1965
J2:2/2 (Upper Windsor Street)	3.50	0.00	N	Arm J1:5 Right	24.70	100.0 %	1984	1984
J2:3/1 (Upper Windsor Street - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:4/1 (Oxford Road)	3.00	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1915	1915
J2:4/2 (Oxford Road)	3.00	0.00	Y	Arm J2:3 Right	18.60	100.0 %	1772	1772
J2:5/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

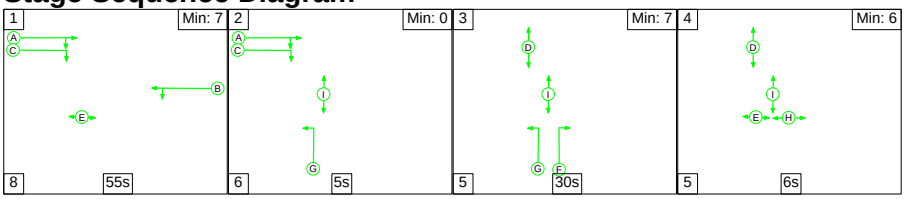
Junction: J3: Oxford Road / Hightown Road / Horton View								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J3:1/1 (Oxford Road)	3.00	0.00	Y	Arm J3:2 Left	3.00	0.0 %	1915	1915
				Arm J3:6 Ahead	Inf	100.0 %		
J3:1/2 (Oxford Road)	3.10	0.00	N	Arm J3:4 Right	19.90	43.6 %	1999	1999
				Arm J3:6 Ahead	Inf	56.4 %		
J3:2/1 (Hospital - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:3/1 (Horton View)	3.60	0.00	Y	Arm J2:4 Left	7.00	0.0 %	1828	1828
				Arm J3:2 Ahead	Inf	0.0 %		
				Arm J3:6 Right	18.70	100.0 %		
J3:4/1 (Horton View - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J3:5/1 (Oxford Road)	3.00	0.00	Y	Arm J2:4 Ahead	Inf	89.3 %	1884	1884
				Arm J3:4 Left	9.60	10.7 %		
J3:5/2 (Oxford Road)	3.00	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1915	1915
				Arm J3:2 Right	11.00	0.0 %		
J3:6/1 (Oxford Road)	3.00	0.00	Y	Arm J3:9 Left	8.00	17.6 %	1854	1854
				Arm J4:1 Ahead	Inf	82.4 %		
J3:6/2 (Oxford Road)	3.00	0.00	N	Arm J4:1 Ahead	Inf	100.0 %	2055	2055
J3:7/1 (Oxford Road)	3.00	0.00	Y	Arm J3:5 Ahead	Inf	100.0 %	1915	1915
J3:7/2 (Oxford Road)	2.80	0.00	N	Arm J3:5 Ahead	Inf	100.0 %	2035	2035
J3:7/3 (Oxford Road)	3.25	0.00	Y	Arm J3:9 Right	18.00	100.0 %	1791	1791
J3:8/1 (Hightown Road)	3.10	0.00	Y	Arm J3:5 Right	14.80	54.9 %	1653	1653
				Arm J4:1 Left	6.20	45.1 %		
J3:9/1 (HIghtown Road - exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J4: Oxford Road / Sainsburys / Framfield Road								
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 (Oxford Road)	3.00	0.00	Y	Arm J4:3 Left	9.30	42.7 %	1791	1791
				Arm J4:7 Ahead	Inf	57.3 %		
J4:1/2 (Oxford Road)	3.00	0.00	N	Arm J4:5 Right	11.00	3.1 %	2046	2046
				Arm J4:7 Ahead	Inf	96.9 %		
J4:2/1 (Sainsburys)	3.10	0.00	Y	Arm J4:7 Left	16.00	100.0 %	1760	1760
J4:2/2 (Sainsburys)	3.10	0.00	Y	Arm J3:7 Right	11.40	71.9 %	1759	1759
				Arm J4:5 Ahead	Inf	28.1 %		
J4:3/1 (Sainsburys - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J4:4/1 (Framfield Road)	3.20	0.00	Y	Arm J3:7 Left	Inf	29.9 %	1893	1893
				Arm J4:3 Ahead	Inf	49.4 %		
				Arm J4:7 Right	14.00	20.8 %		
J4:5/1 (Framfield Road - exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J4:6/1 (Oxford Road)	3.00	0.00	Y	Arm J3:7 Ahead	Inf	100.0 %	1915	1915
				Arm J4:5 Left	8.80	0.0 %		
J4:6/2 (Oxford Road)	3.25	0.00	Y	Arm J4:3 Right	Inf	100.0 %	1940	1940
J4:7/1 (Oxford Road - exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 1: 'Scenario 1' (FG1: '2026 Baseline AM', Plan 1: 'Network Control Plan 1')
C1

Stage Sequence Diagram

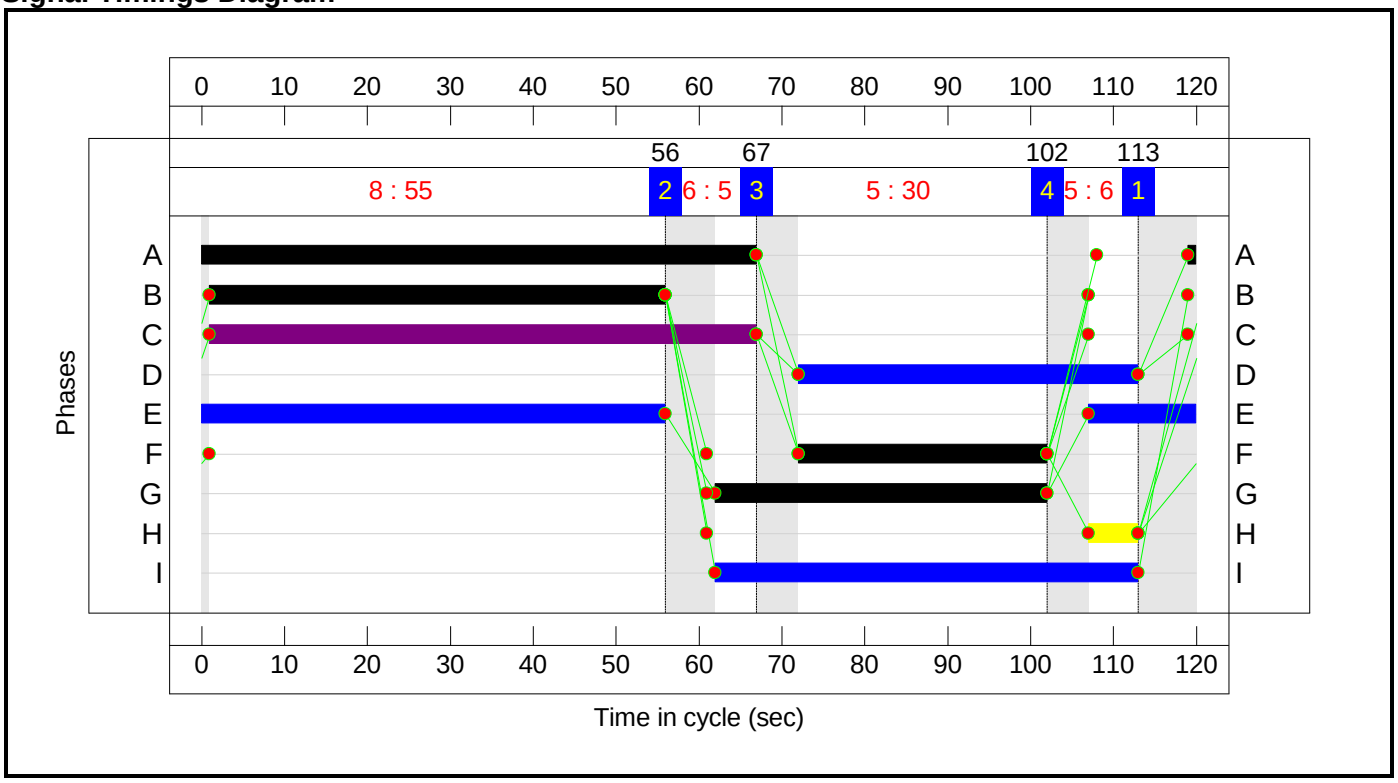


Stage Timings

Stage	1	2	3	4
Duration	55	5	30	6
Change Point	113	56	67	102

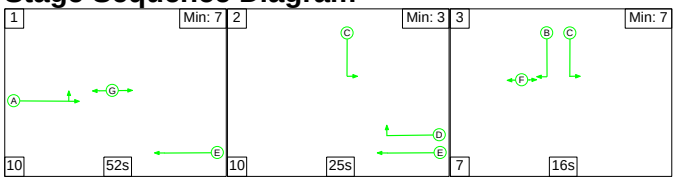
Full Input Data And Results

Signal Timings Diagram



C2

Stage Sequence Diagram

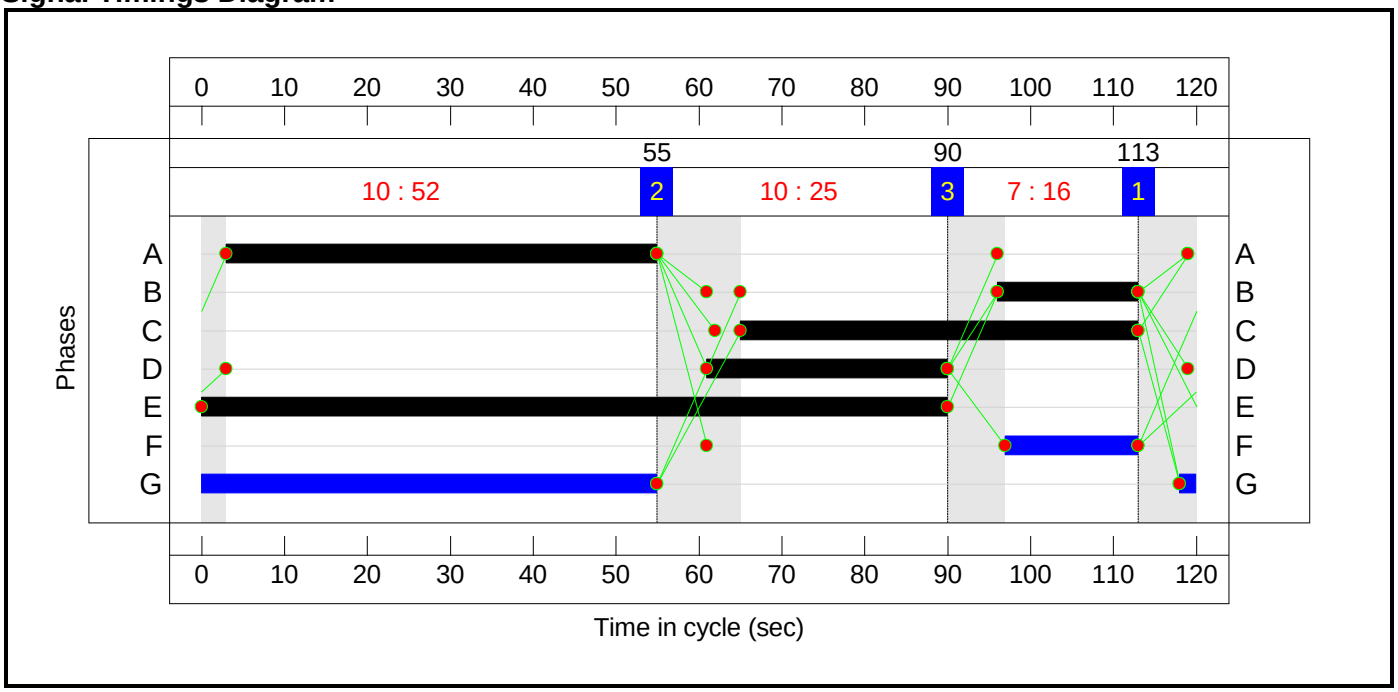


Stage Timings

Stage	1	2	3
Duration	52	25	16
Change Point	113	55	90

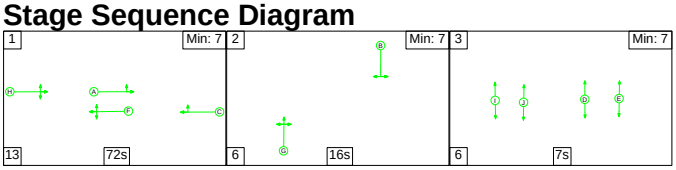
Full Input Data And Results

Signal Timings Diagram



C3

Stage Sequence Diagram

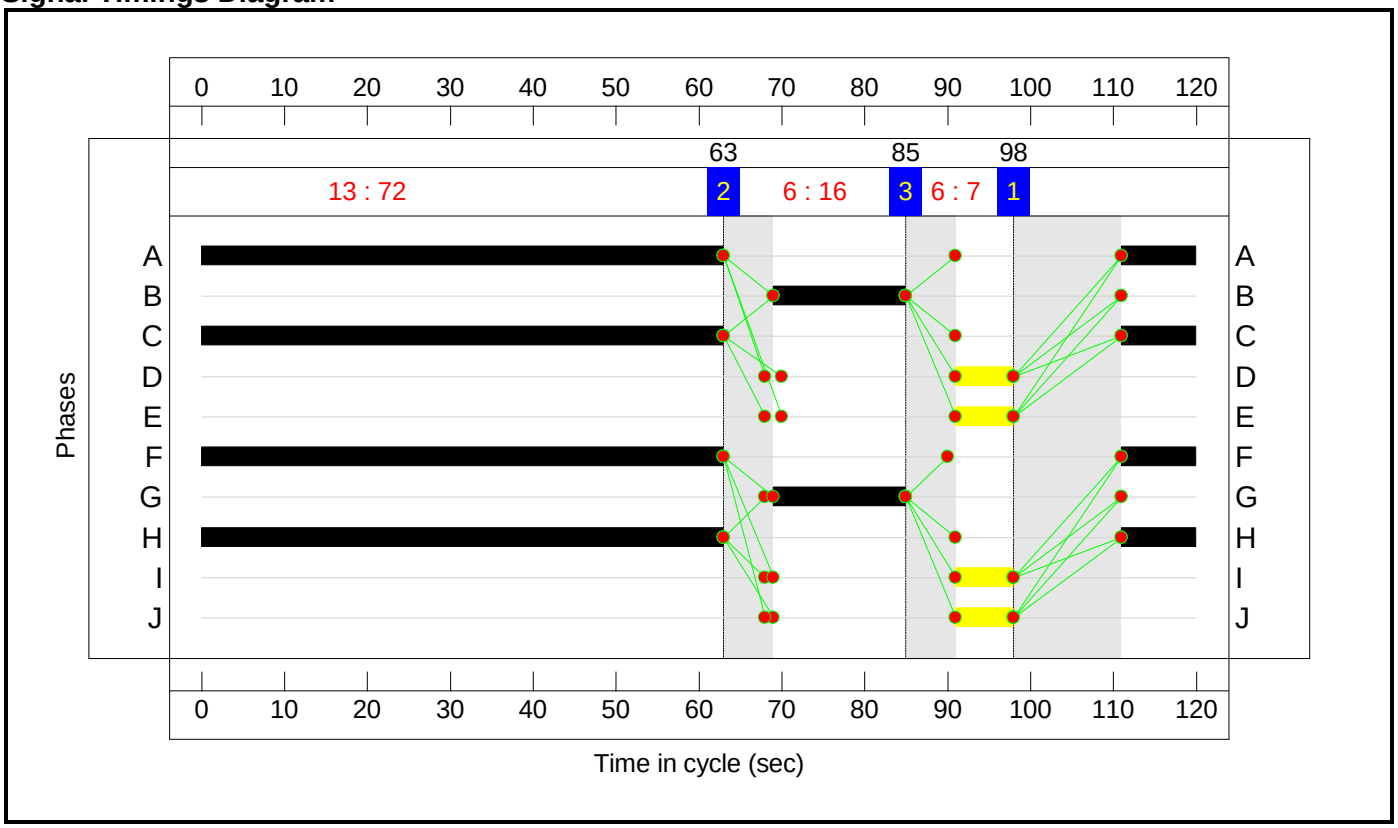


Stage Timings

Stage	1	2	3
Duration	72	16	7
Change Point	98	63	85

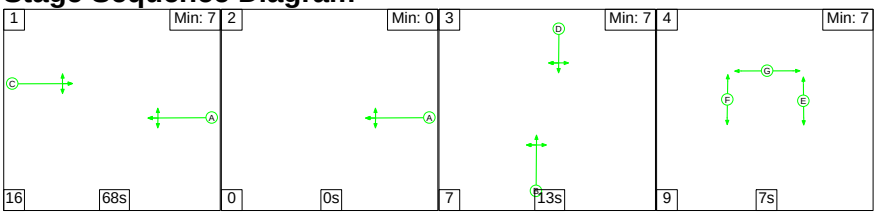
Full Input Data And Results

Signal Timings Diagram



C4

Stage Sequence Diagram

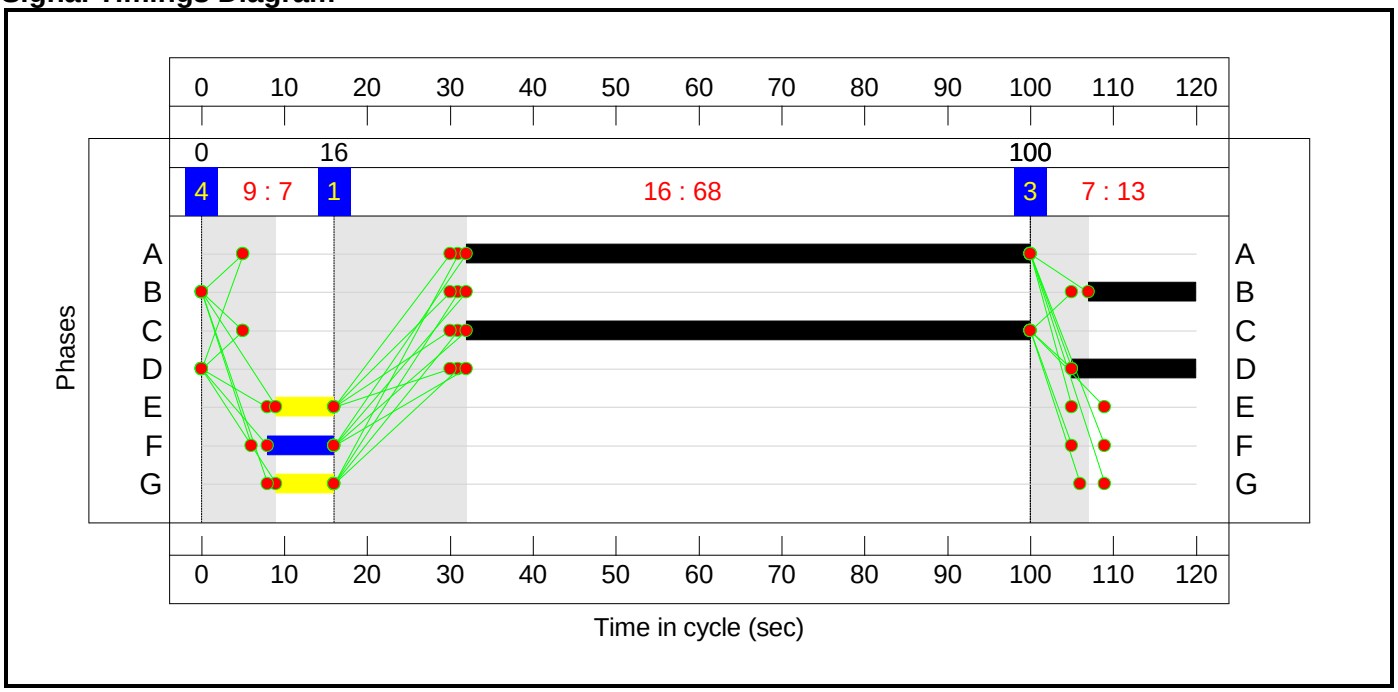


Stage Timings

Stage	1	2	3	4
Duration	68	0	13	7
Change Point	16	100	100	0

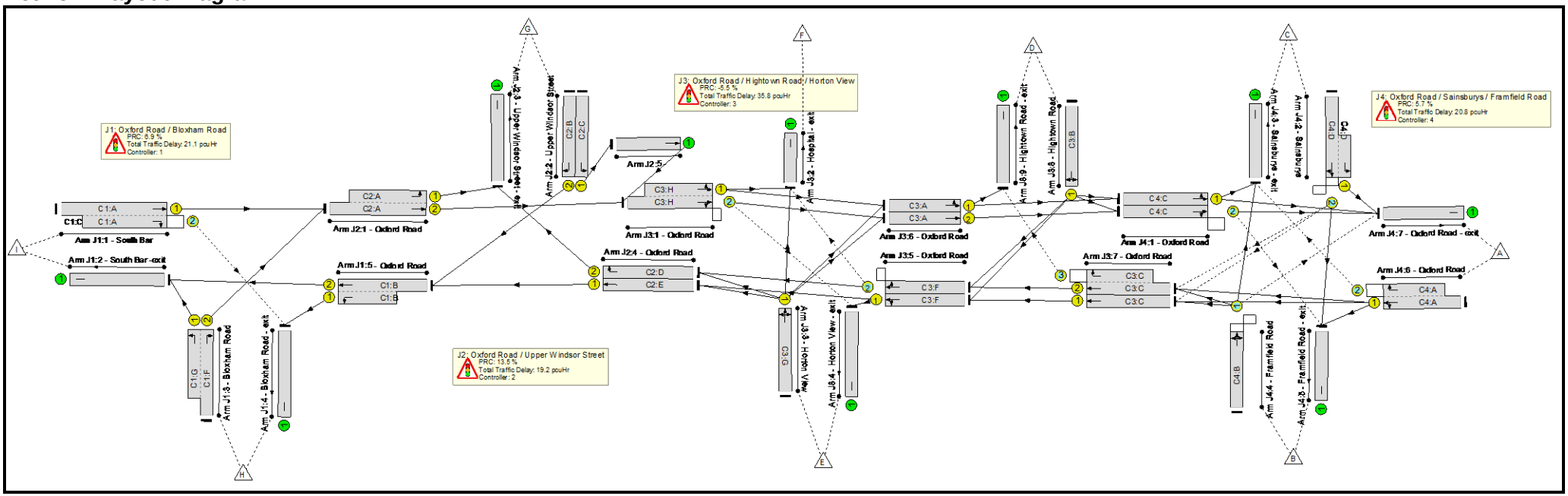
Full Input Data And Results

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	-	-	**N/A**	-	-		-	-	-	-	-	-	**95.0%**
J1: Oxford Road / Bloxham Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**84.2%**
1/1+1/2	South Bar Right Ahead	U+O	N/A	N/A	C1:A	C1:C	1	68	66	902	1663:1568	727+397	78.1 : 84.2%
2/1	South Bar -exit	U	N/A	N/A	-		-	-	-	849	Inf	Inf	0.0%
3/2+3/1	Bloxham Road Left Right	U	N/A	N/A	C1:F C1:G		1	30:40	-	718	1733:1877	448+455	79.5 : 79.5%
4/1	Bloxham Road - exit	U	N/A	N/A	-		-	-	-	607	Inf	Inf	0.0%
5/2+5/1	Oxford Road Ahead Left	U	N/A	N/A	C1:B		1	55	-	760	2005:1724	645+362	75.5 : 75.5%
J2: Oxford Road / Upper Windsor Street	-	-	**N/A**	-	-		-	-	-	-	-	-	**79.3%**
1/2+1/1	Oxford Road Left Ahead	U	N/A	N/A	C2:A		1	52	-	924	2055:1751	716+449	79.3 : 79.3%
2/1	Upper Windsor Street Left	U	N/A	N/A	C2:C		1	48	-	471	1965	802	58.7%
2/2	Upper Windsor Street Right	U	N/A	N/A	C2:B		1	17	-	169	1984	298	56.8%
3/1	Upper Windsor Street - exit	U	N/A	N/A	-		-	-	-	628	Inf	Inf	0.0%
4/1	Oxford Road Ahead	U	N/A	N/A	C2:E		1	90	-	591	1915	1452	40.7%
4/2	Oxford Road Right	U	N/A	N/A	C2:D		1	29	-	272	1772	443	61.4%
5/1	Ahead	U	N/A	N/A	-		-	-	-	471	Inf	Inf	0.0%
J3: Oxford Road / Hightown Road / Horton View	-	-	**N/A**	-	-		-	-	-	-	-	-	**95.0%**
1/2+1/1	Oxford Road Left Right Ahead	O+U	N/A	N/A	C3:H		1	72	-	1039	2000:1915	571+534	94.0 : 94.0%

Full Input Data And Results

2/1	Hospital - exit	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
3/1	Horton View Left Ahead Right	U	N/A	N/A	C3:G		1	16	-	156	1798	255	61.2%
4/1	Horton View - exit	U	N/A	N/A	-		-	-	-	329	Inf	Inf	0.0%
5/1	Oxford Road Ahead Left	U	N/A	N/A	C3:F		1	72	-	672	1873	1139	58.9%
5/2	Oxford Road Ahead Right	O	N/A	N/A	C3:F		1	72	-	267	1915	1165	22.9%
6/1	Oxford Road Left Ahead	U	N/A	N/A	C3:A		1	72	-	580	1832	1114	52.0%
6/2	Oxford Road Ahead	U	N/A	N/A	C3:A		1	72	-	362	2055	1250	29.0%
7/1	Oxford Road Ahead	U	N/A	N/A	C3:C		1	72	-	604	1915	1165	51.8%
7/2+7/3	Oxford Road Ahead Right	U+O	N/A	N/A	C3:C		1	72	-	347	2035:1791	440+191	55.0 : 55.0%
8/1	Hightown Road Right Left	U	N/A	N/A	C3:B		1	16	-	219	1628	231	95.0%
9/1	HIghtown Road - exit	U	N/A	N/A	-		-	-	-	246	Inf	Inf	0.0%
J4: Oxford Road / Sainsburys / Framfield Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**85.1%**
1/1	Oxford Road Left Ahead	U	N/A	N/A	C4:C		1	68	-	506	1856	1067	47.4%
1/2	Oxford Road Right Ahead	O	N/A	N/A	C4:C		1	68	-	421	2044	1175	35.8%
2/2+2/1	Sainsburys Right Ahead Left	O+U	N/A	N/A	C4:D		1	15	-	207	1745:1760	156+111	77.6 : 77.6%
3/1	Sainsburys - exit	U	N/A	N/A	-		-	-	-	252	Inf	Inf	0.0%
4/1	Framfield Road Left Ahead Right	O	N/A	N/A	C4:B		1	13	-	181	1868	213	85.1%
5/1	Framfield Road - exit	U	N/A	N/A	-		-	-	-	42	Inf	Inf	0.0%

Full Input Data And Results

6/1+6/2	Oxford Road Ahead Right Left	U+O	N/A	N/A	C4:A		1	68	-	889	1915:1940	1013+125	78.1 : 78.1%
7/1	Oxford Road - exit	U	N/A	N/A	-		-	-	-	959	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	**-**	**-**	**739**	**109**	**92**	**62.7**	**31.5**	**2.7**	**96.9**	**-**	**-**	**-**	**-**
J1: Oxford Road / Bloxham Road	**-**	**-**	**219**	**109**	**6**	**14.8**	**5.4**	**0.9**	**21.1**	**-**	**-**	**-**	**-**
1/1+1/2	902	902	219	109	6	5.4	2.0	0.9	8.3	33.2	12.5	2.0	14.5
2/1	849	849	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2+3/1	718	718	-	-	-	7.3	1.9	-	9.2	46.4	11.1	1.9	13.0
4/1	607	607	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2+5/1	760	760	-	-	-	2.0	1.5	-	3.5	16.7	7.1	1.5	8.6
J2: Oxford Road / Upper Windsor Street	**-**	**-**	**0**	**0**	**0**	**14.9**	**4.4**	**0.0**	**19.2**	**-**	**-**	**-**	**-**
1/2+1/1	924	924	-	-	-	5.5	1.9	-	7.4	28.9	14.9	1.9	16.8
2/1	471	471	-	-	-	3.6	0.7	-	4.3	33.0	12.2	0.7	12.9
2/2	169	169	-	-	-	2.2	0.7	-	2.9	61.3	5.2	0.7	5.9
3/1	628	628	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	591	591	-	-	-	0.0	0.3	-	0.4	2.2	0.2	0.3	0.5
4/2	272	272	-	-	-	3.5	0.8	-	4.3	56.4	8.9	0.8	9.7
5/1	471	471	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J3: Oxford Road / Hightown Road / Horton View	**-**	**-**	**287**	**0**	**50**	**19.8**	**15.1**	**0.9**	**35.8**	**-**	**-**	**-**	**-**
1/2+1/1	1039	1039	217	0	15	5.3	6.5	0.3	12.2	42.3	31.3	6.5	37.9
2/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	156	156	-	-	-	2.1	0.8	-	2.9	66.4	4.9	0.8	5.6
4/1	329	329	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	672	672	-	-	-	1.9	0.7	-	2.7	14.2	17.8	0.7	18.5
5/2	267	267	0	0	0	0.7	0.1	0.0	0.8	11.2	2.2	0.1	2.4
6/1	580	580	-	-	-	1.2	0.5	-	1.8	11.1	4.1	0.5	4.7
6/2	362	362	-	-	-	0.9	0.2	-	1.1	10.5	3.0	0.2	3.2

Full Input Data And Results

7/1	604	604	-	-	-	3.1	0.5	-	3.6	21.5	12.9	0.5	13.4
7/2+7/3	347	347	70	0	35	1.4	0.6	0.5	2.6	26.8	3.8	0.6	4.5
8/1	219	219	-	-	-	3.1	5.0	-	8.1	134.0	7.2	5.0	12.3
9/1	246	246	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J4: Oxford Road / Sainsburys / Framfield Road	**-**	**-**	**233**	**0**	**36**	**13.3**	**6.6**	**0.9**	**20.8**	**-**	**-**	**-**	**-**
1/1	506	506	-	-	-	2.2	0.5	-	2.7	19.2	13.2	0.5	13.7
1/2	421	421	16	0	0	1.0	0.3	0.1	1.4	11.9	4.4	0.3	4.7
2/2+2/1	207	207	69	0	26	2.8	1.6	0.2	4.6	79.9	3.9	1.6	5.5
3/1	251	251	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	181	179	50	0	11	2.6	2.5	0.0	5.1	102.2	5.9	2.5	8.4
5/1	42	42	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1+6/2	889	889	98	0	0	4.6	1.8	0.7	7.0	28.4	20.9	1.8	22.6
7/1	958	958	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

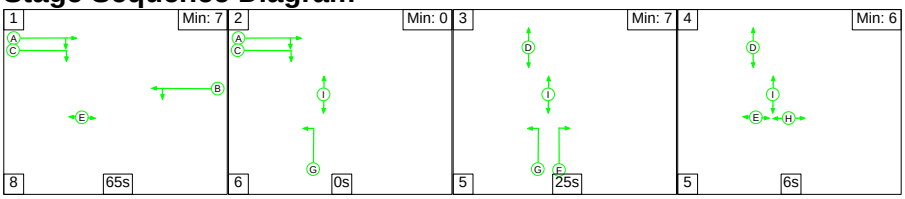
C1	PRC for Signalled Lanes (%):	6.9	Total Delay for Signalled Lanes (pcuHr):	21.07	Cycle Time (s): 120
C2	PRC for Signalled Lanes (%):	13.5	Total Delay for Signalled Lanes (pcuHr):	19.23	Cycle Time (s): 120
C3	PRC for Signalled Lanes (%):	-5.5	Total Delay for Signalled Lanes (pcuHr):	35.76	Cycle Time (s): 120
C4	PRC for Signalled Lanes (%):	5.7	Total Delay for Signalled Lanes (pcuHr):	20.82	Cycle Time (s): 120
	PRC Over All Lanes (%):	-5.5	Total Delay Over All Lanes(pcuHr):	96.88	

Full Input Data And Results

Scenario 2: 'Scenario 2' (FG2: '2026 Baseline PM', Plan 1: 'Network Control Plan 1')

C1

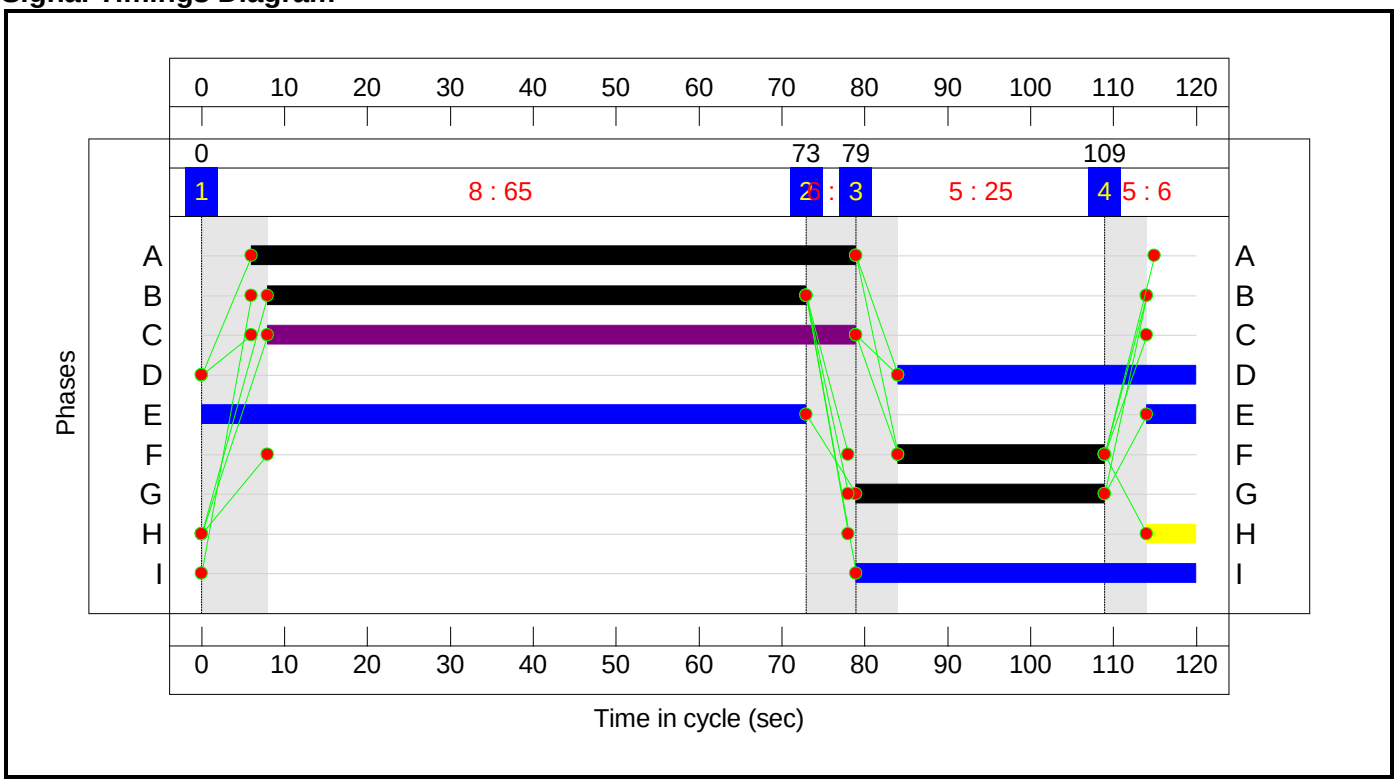
Stage Sequence Diagram



Stage Timings

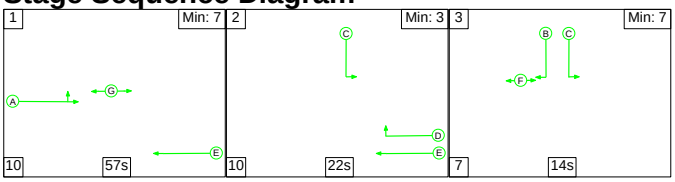
Stage	1	2	3	4
Duration	65	0	25	6
Change Point	0	73	79	109

Signal Timings Diagram



C2

Stage Sequence Diagram

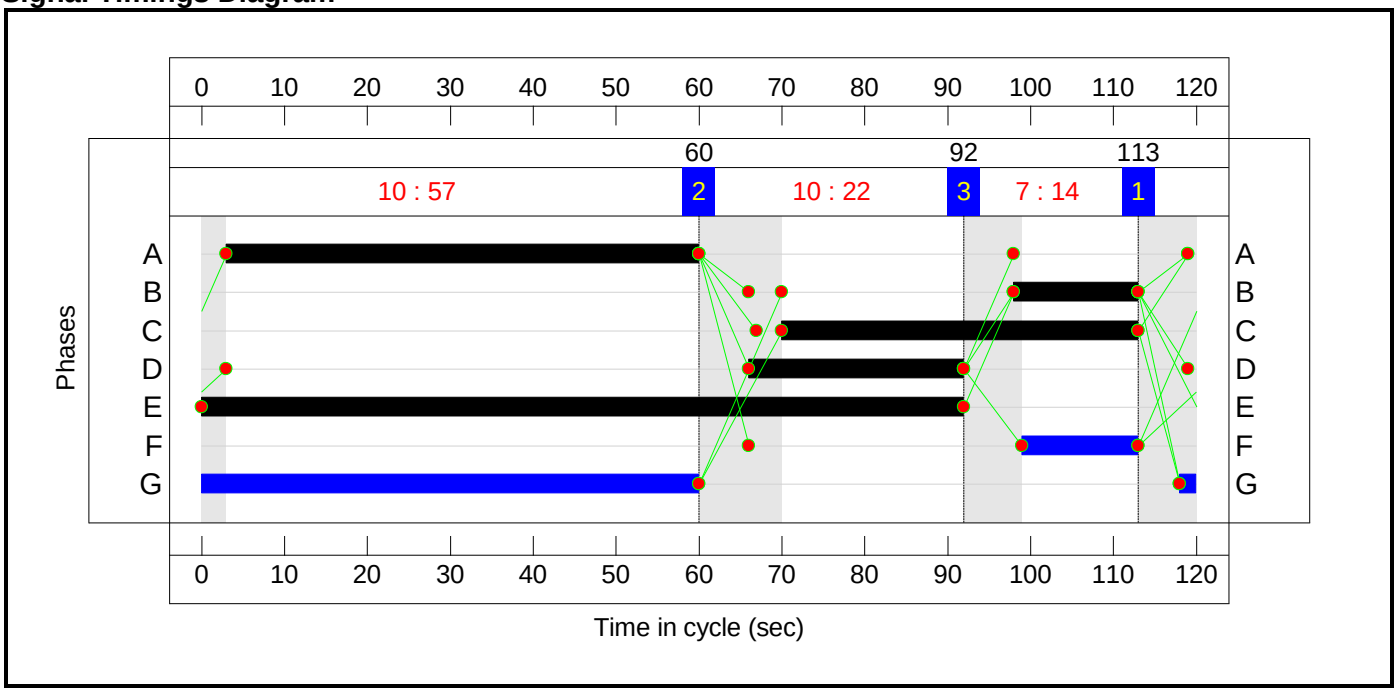


Stage Timings

Stage	1	2	3
Duration	57	22	14
Change Point	113	60	92

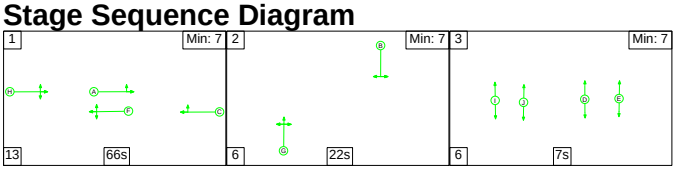
Full Input Data And Results

Signal Timings Diagram



C3

Stage Sequence Diagram

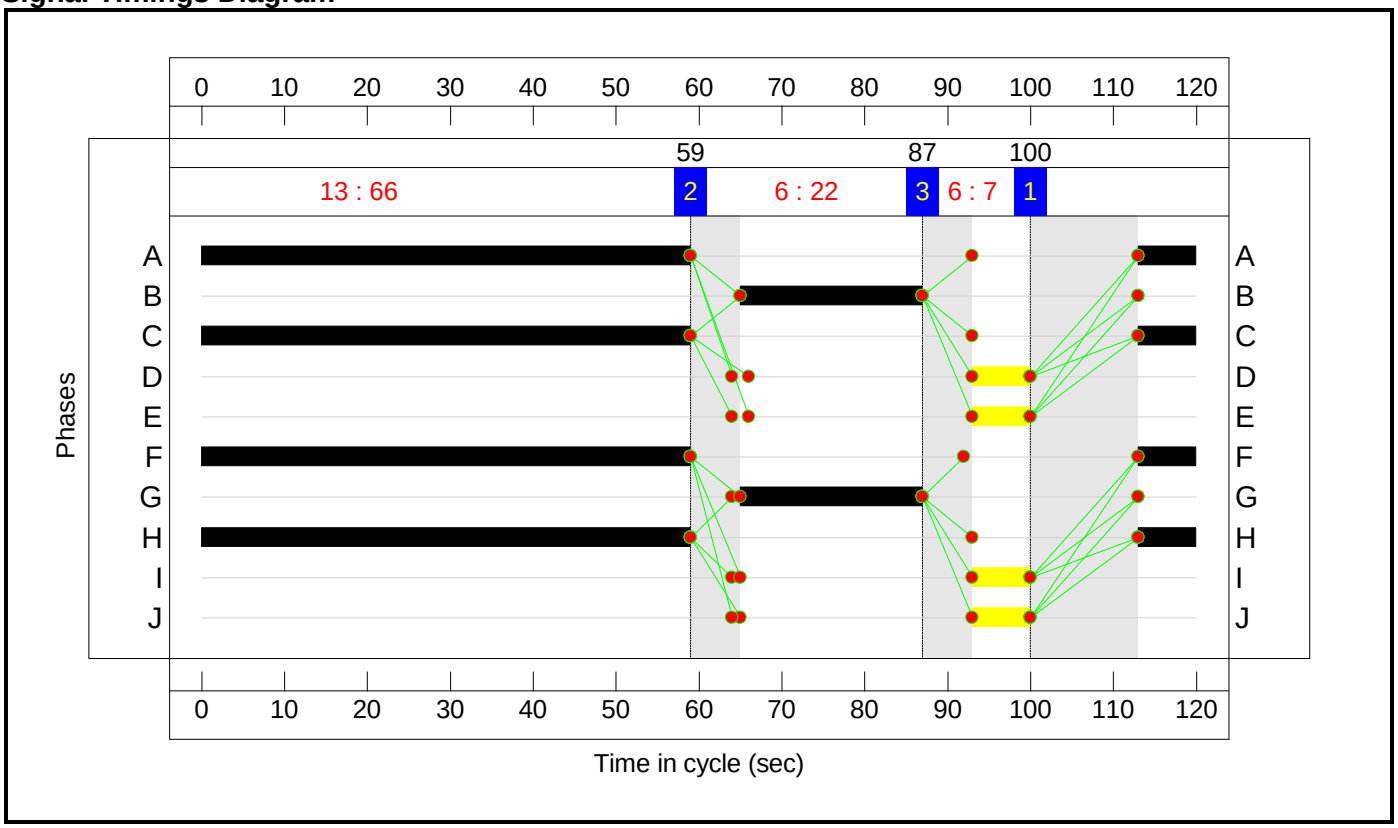


Stage Timings

Stage	1	2	3
Duration	66	22	7
Change Point	100	59	87

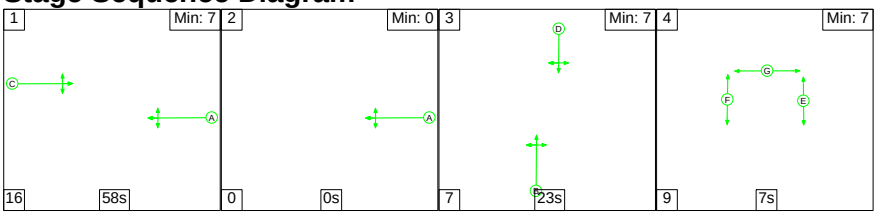
Full Input Data And Results

Signal Timings Diagram



C4

Stage Sequence Diagram

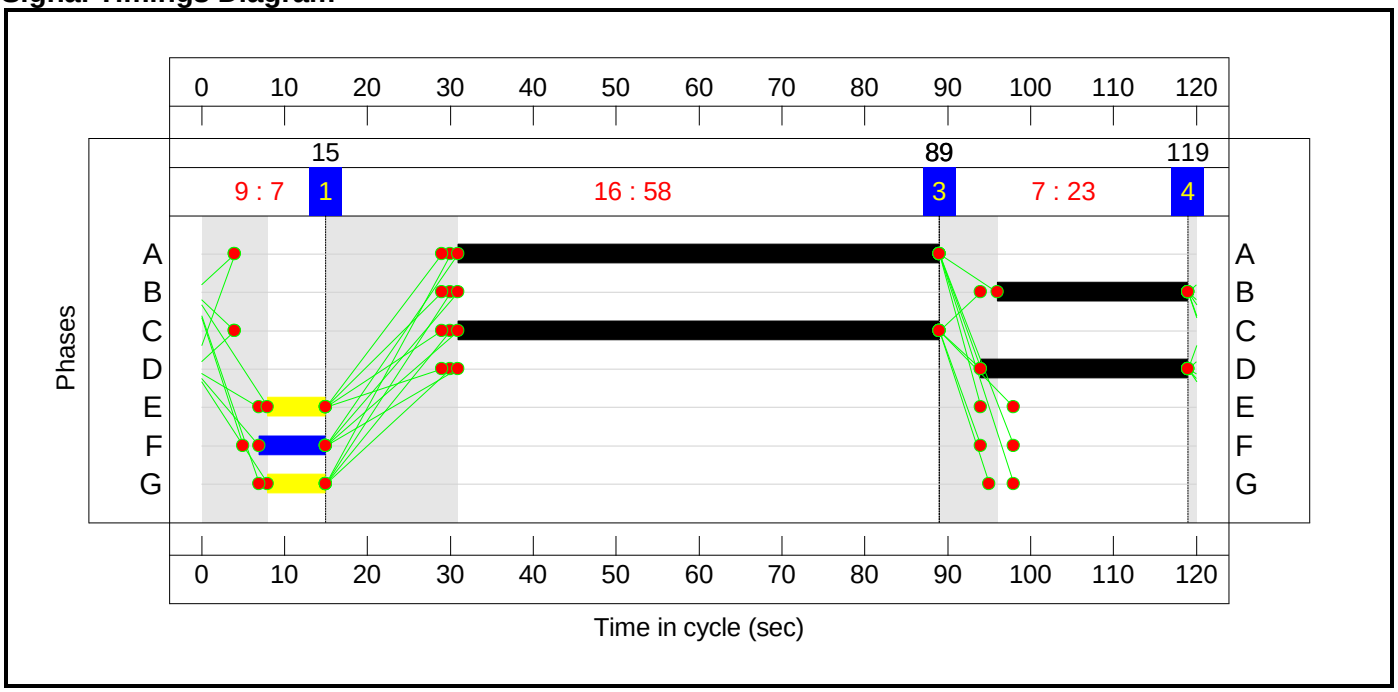


Stage Timings

Stage	1	2	3	4
Duration	58	0	23	7
Change Point	15	89	89	119

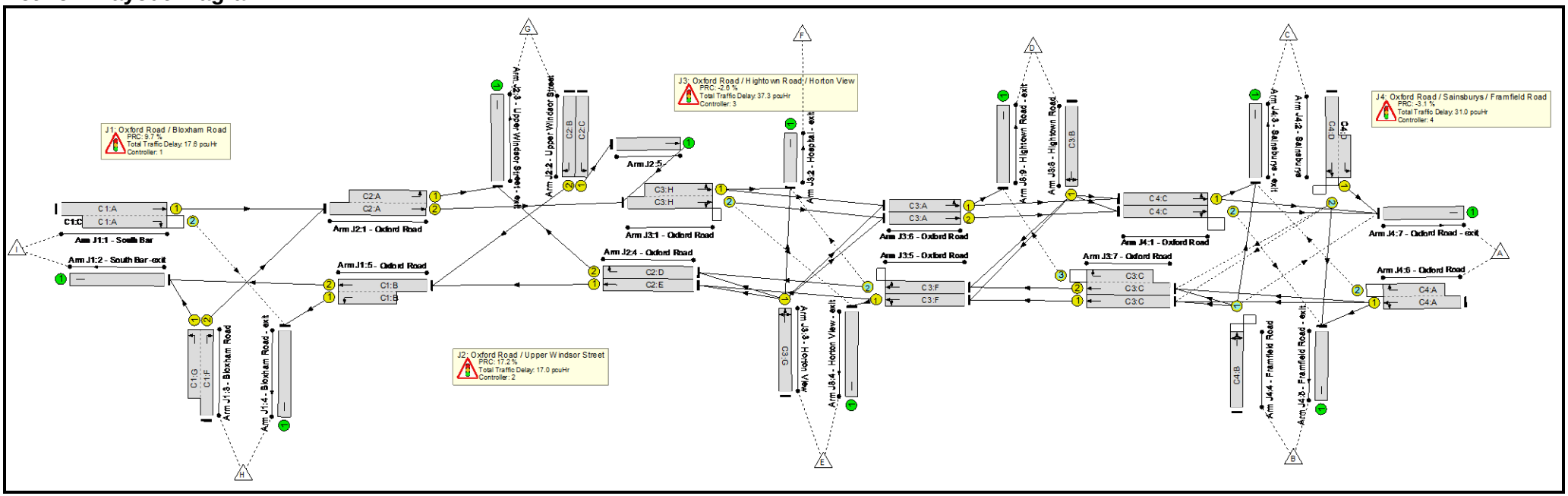
Full Input Data And Results

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	-	-	**N/A**	-	-		-	-	-	-	-	-	**92.8%**
J1: Oxford Road / Bloxham Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**82.0%**
1/1+1/2	South Bar Right Ahead	U+O	N/A	N/A	C1:A	C1:C	1	73	71	854	1663:1568	770+393	69.9 : 80.5%
2/1	South Bar -exit	U	N/A	N/A	-		-	-	-	748	Inf	Inf	0.0%
3/2+3/1	Bloxham Road Left Right	U	N/A	N/A	C1:F C1:G		1	25:30	-	519	1733:1877	375+257	82.0 : 82.0%
4/1	Bloxham Road - exit	U	N/A	N/A	-		-	-	-	569	Inf	Inf	0.0%
5/2+5/1	Oxford Road Ahead Left	U	N/A	N/A	C1:B		1	65	-	790	2005:1724	782+368	68.7 : 68.7%
J2: Oxford Road / Upper Windsor Street	-	-	**N/A**	-	-		-	-	-	-	-	-	**76.8%**
1/2+1/1	Oxford Road Left Ahead	U	N/A	N/A	C2:A		1	57	-	846	2055:1751	865+237	76.8 : 76.8%
2/1	Upper Windsor Street Left	U	N/A	N/A	C2:C		1	43	-	320	1965	721	44.4%
2/2	Upper Windsor Street Right	U	N/A	N/A	C2:B		1	15	-	157	1984	265	59.3%
3/1	Upper Windsor Street - exit	U	N/A	N/A	-		-	-	-	438	Inf	Inf	0.0%
4/1	Oxford Road Ahead	U	N/A	N/A	C2:E		1	92	-	633	1915	1484	42.7%
4/2	Oxford Road Right	U	N/A	N/A	C2:D		1	26	-	256	1772	399	64.2%
5/1	Ahead	U	N/A	N/A	-		-	-	-	320	Inf	Inf	0.0%
J3: Oxford Road / Hightown Road / Horton View	-	-	**N/A**	-	-		-	-	-	-	-	-	**92.3%**
1/2+1/1	Oxford Road Left Right Ahead	O+U	N/A	N/A	C3:H		1	66	-	984	2007:1915	465+601	92.3 : 92.3%

Full Input Data And Results

2/1	Hospital - exit	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
3/1	Horton View Left Ahead Right	U	N/A	N/A	C3:G		1	22	-	119	1828	350	34.0%
4/1	Horton View - exit	U	N/A	N/A	-		-	-	-	246	Inf	Inf	0.0%
5/1	Oxford Road Ahead Left	U	N/A	N/A	C3:F		1	66	-	714	1882	1051	67.9%
5/2	Oxford Road Ahead Right	O	N/A	N/A	C3:F		1	66	-	256	1915	1069	23.9%
6/1	Oxford Road Left Ahead	U	N/A	N/A	C3:A		1	66	-	631	1852	1034	61.0%
6/2	Oxford Road Ahead	U	N/A	N/A	C3:A		1	66	-	307	2055	1147	26.8%
7/1	Oxford Road Ahead	U	N/A	N/A	C3:C		1	66	-	618	1915	1069	57.8%
7/2+7/3	Oxford Road Ahead Right	U+O	N/A	N/A	C3:C		1	66	-	381	2035:1791	277+192	81.1 : 81.1%
8/1	Hightown Road Right Left	U	N/A	N/A	C3:B		1	22	-	286	1632	313	91.4%
9/1	HIghtown Road - exit	U	N/A	N/A	-		-	-	-	270	Inf	Inf	0.0%
J4: Oxford Road / Sainsburys / Framfield Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**92.8%**
1/1	Oxford Road Left Ahead	U	N/A	N/A	C4:C		1	58	-	613	1795	883	69.5%
1/2	Oxford Road Right Ahead	O	N/A	N/A	C4:C		1	58	-	370	2047	1006	36.8%
2/2+2/1	Sainsburys Right Ahead Left	O+U	N/A	N/A	C4:D		1	25	-	479	1759:1760	275+241	92.8 : 92.8%
3/1	Sainsburys - exit	U	N/A	N/A	-		-	-	-	421	Inf	Inf	0.0%
4/1	Framfield Road Left Ahead Right	O	N/A	N/A	C4:B		1	23	-	73	1935	387	18.9%
5/1	Framfield Road - exit	U	N/A	N/A	-		-	-	-	83	Inf	Inf	0.0%

Full Input Data And Results

6/1+6/2	Oxford Road Ahead Right Left	U+O	N/A	N/A	C4:A		1	58	-	911	1915:1940	860+125	92.4 : 92.4%
7/1	Oxford Road - exit	U	N/A	N/A	-		-	-	-	943	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	**-**	**-**	**824**	**30**	**93**	**64.8**	**35.2**	**2.9**	**102.8**	**-**	**-**	**-**	**-**
J1: Oxford Road / Bloxham Road	**-**	**-**	**280**	**30**	**5**	**12.0**	**4.7**	**0.9**	**17.6**	**-**	**-**	**-**	**-**
1/1+1/2	854	854	280	30	5	4.5	1.4	0.9	6.8	28.6	10.0	1.4	11.4
2/1	748	748	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2+3/1	519	519	-	-	-	6.0	2.2	-	8.2	56.9	9.8	2.2	12.0
4/1	569	569	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2+5/1	790	790	-	-	-	1.5	1.1	-	2.6	11.7	7.0	1.1	8.1
J2: Oxford Road / Upper Windsor Street	**-**	**-**	**0**	**0**	**0**	**13.0**	**4.0**	**0.0**	**17.0**	**-**	**-**	**-**	**-**
1/2+1/1	846	846	-	-	-	4.5	1.6	-	6.1	26.0	21.0	1.6	22.6
2/1	320	320	-	-	-	2.6	0.4	-	3.0	33.2	8.0	0.4	8.4
2/2	157	157	-	-	-	2.1	0.7	-	2.9	65.5	4.9	0.7	5.6
3/1	438	438	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	633	633	-	-	-	0.0	0.4	-	0.4	2.1	0.0	0.4	0.4
4/2	256	256	-	-	-	3.8	0.9	-	4.7	66.1	8.5	0.9	9.4
5/1	320	320	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J3: Oxford Road / Hightown Road / Horton View	**-**	**-**	**261**	**0**	**60**	**21.8**	**14.6**	**0.9**	**37.3**	**-**	**-**	**-**	**-**
1/2+1/1	984	984	150	0	15	3.9	5.3	0.4	9.6	35.1	32.0	5.3	37.3
2/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	119	119	-	-	-	1.4	0.3	-	1.6	49.7	3.4	0.3	3.7
4/1	246	246	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	714	714	-	-	-	2.6	1.1	-	3.7	18.6	20.8	1.1	21.8
5/2	256	256	0	0	0	0.8	0.2	0.0	0.9	13.0	2.3	0.2	2.5
6/1	631	631	-	-	-	1.2	0.8	-	2.0	11.5	3.7	0.8	4.4
6/2	307	307	-	-	-	1.4	0.2	-	1.6	18.2	3.6	0.2	3.8

Full Input Data And Results

7/1	618	618	-	-	-	4.4	0.7	-	5.1	29.6	14.7	0.7	15.4
7/2+7/3	381	381	112	0	44	2.3	2.1	0.6	4.9	46.5	4.6	2.1	6.7
8/1	286	286	-	-	-	3.8	4.1	-	7.9	99.0	9.3	4.1	13.4
9/1	270	270	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J4: Oxford Road / Sainsburys / Framfield Road	**-**	**-**	**282**	**0**	**28**	**18.0**	**11.9**	**1.0**	**31.0**	**-**	**-**	**-**	**-**
1/1	613	613	-	-	-	2.8	1.1	-	4.0	23.3	17.0	1.1	18.1
1/2	370	370	11	0	0	1.5	0.3	0.1	1.9	18.7	6.1	0.3	6.4
2/2+2/1	479	479	181	0	2	5.9	5.0	0.1	11.1	83.4	11.0	5.0	16.1
3/1	421	421	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	73	73	0	0	0	0.8	0.1	0.0	0.9	45.7	2.0	0.1	2.1
5/1	83	83	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1+6/2	911	911	90	0	26	6.9	5.3	0.8	13.1	51.6	26.5	5.3	31.8
7/1	943	943	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

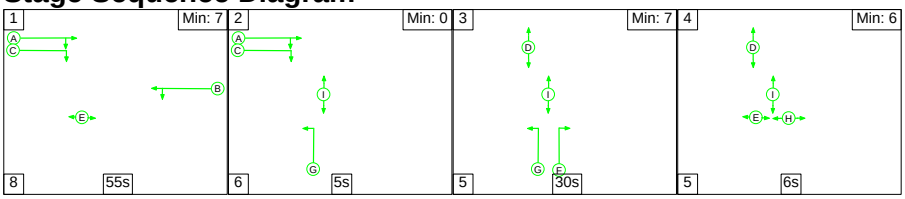
C1	PRC for Signalled Lanes (%):	9.7	Total Delay for Signalled Lanes (pcuHr):	17.57	Cycle Time (s): 120
C2	PRC for Signalled Lanes (%):	17.2	Total Delay for Signalled Lanes (pcuHr):	17.00	Cycle Time (s): 120
C3	PRC for Signalled Lanes (%):	-2.6	Total Delay for Signalled Lanes (pcuHr):	37.31	Cycle Time (s): 120
C4	PRC for Signalled Lanes (%):	-3.1	Total Delay for Signalled Lanes (pcuHr):	30.97	Cycle Time (s): 120
	PRC Over All Lanes (%):	-3.1	Total Delay Over All Lanes(pcuHr):	102.84	

Full Input Data And Results

Scenario 3: 'Scenario 3' (FG3: '2026 Phase 2 AM', Plan 1: 'Network Control Plan 1')

C1

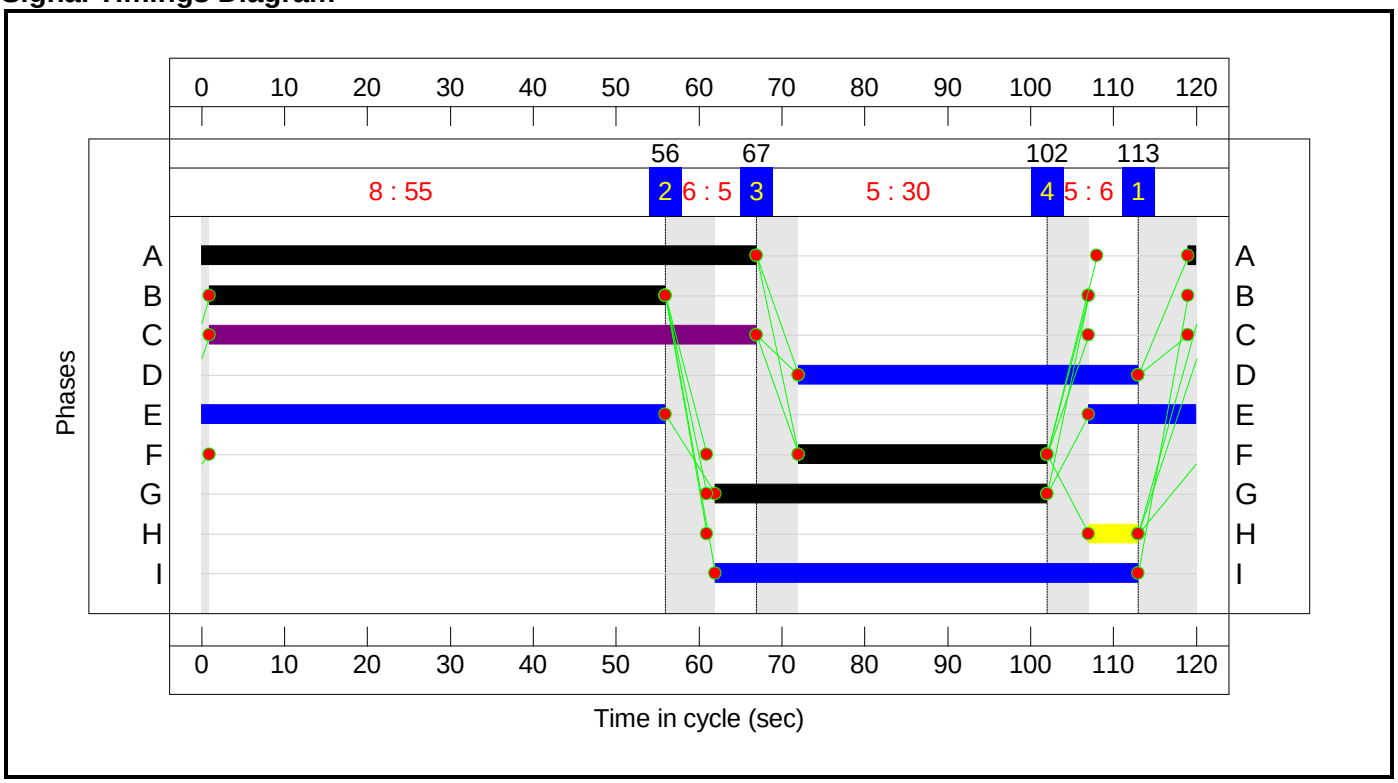
Stage Sequence Diagram



Stage Timings

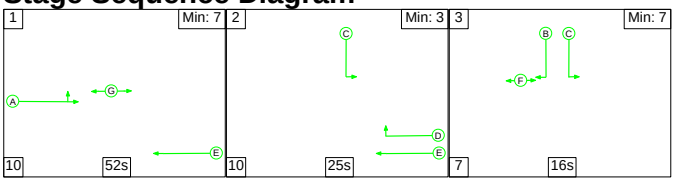
Stage	1	2	3	4
Duration	55	5	30	6
Change Point	113	56	67	102

Signal Timings Diagram



C2

Stage Sequence Diagram

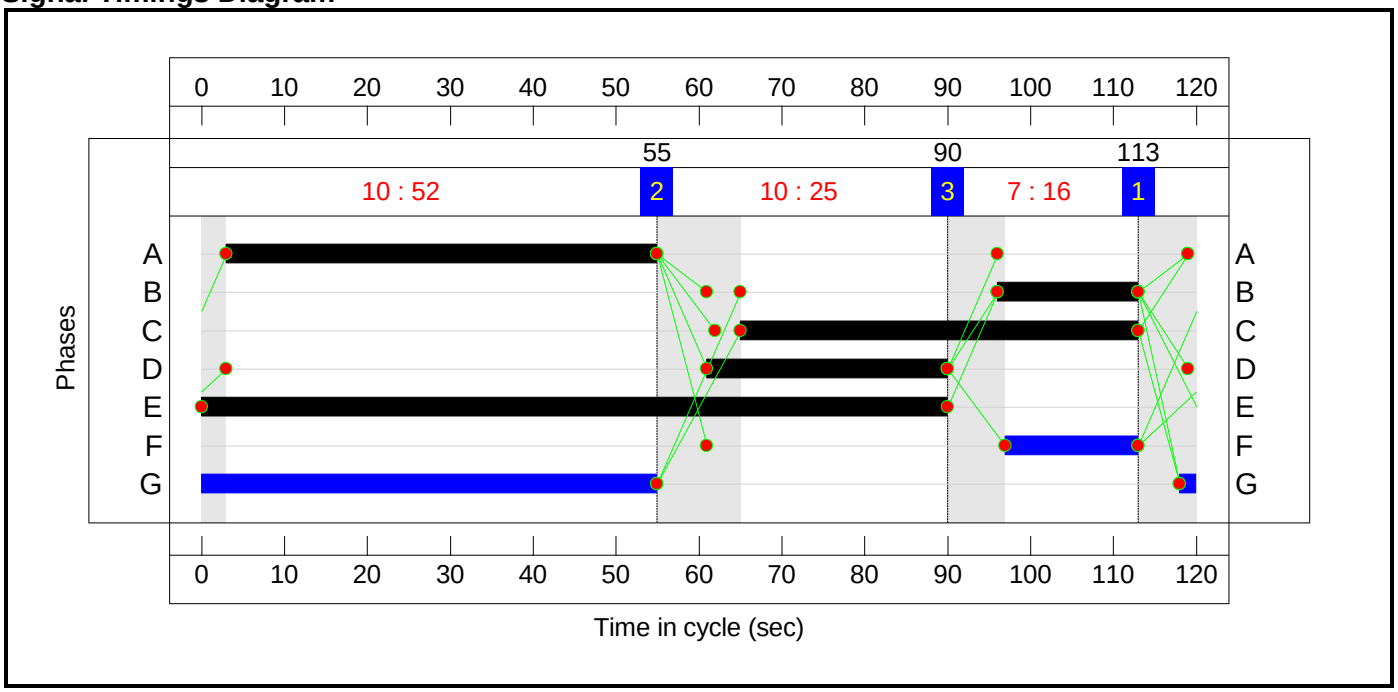


Stage Timings

Stage	1	2	3
Duration	52	25	16
Change Point	113	55	90

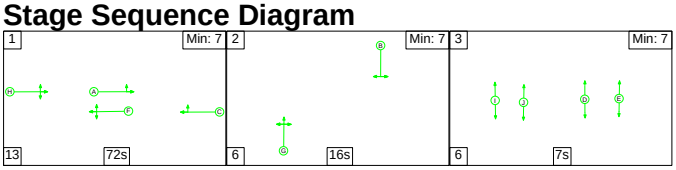
Full Input Data And Results

Signal Timings Diagram



C3

Stage Sequence Diagram

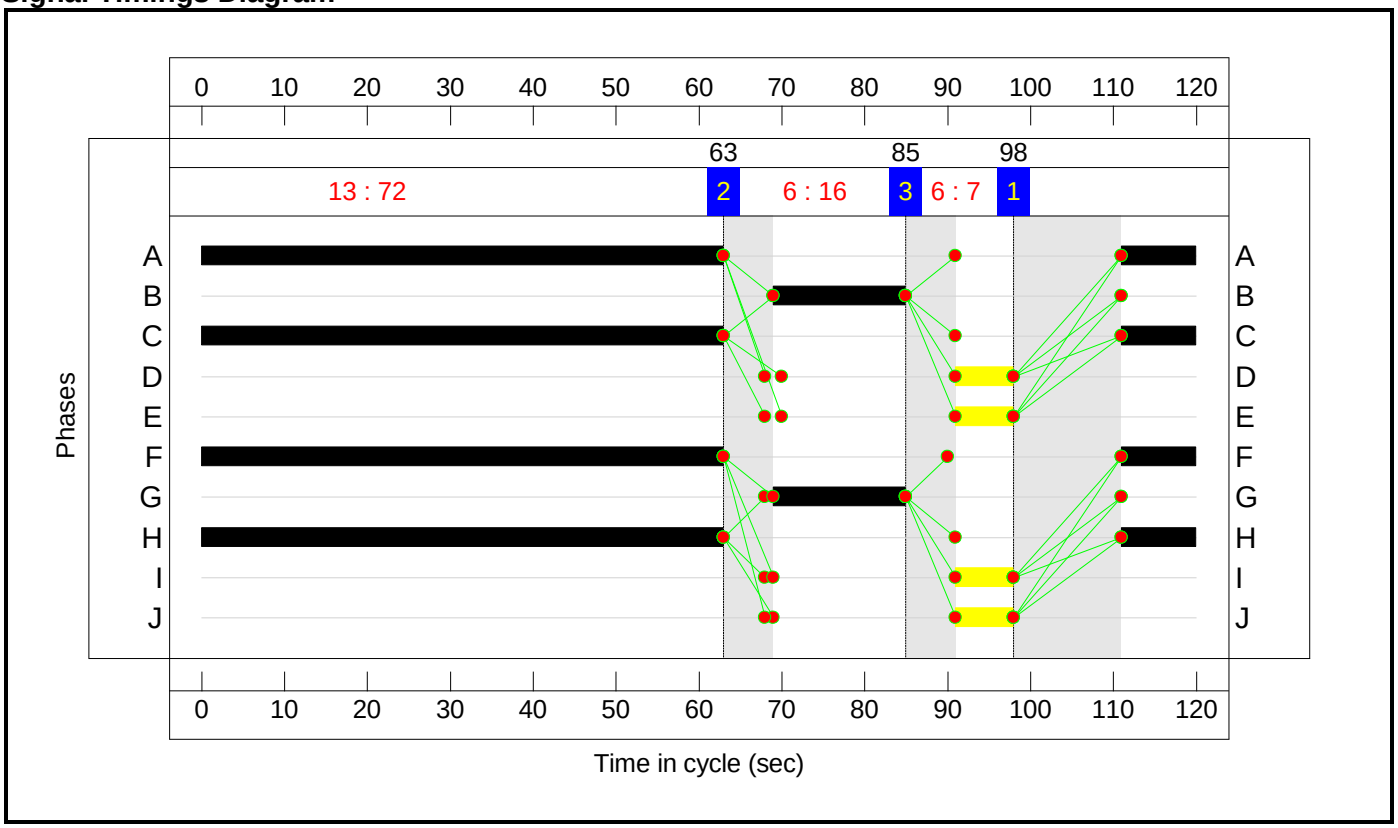


Stage Timings

Stage	1	2	3
Duration	72	16	7
Change Point	98	63	85

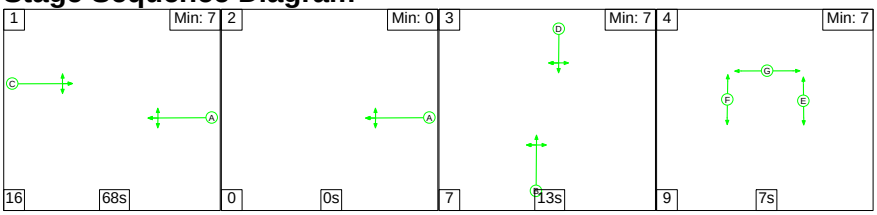
Full Input Data And Results

Signal Timings Diagram



C4

Stage Sequence Diagram

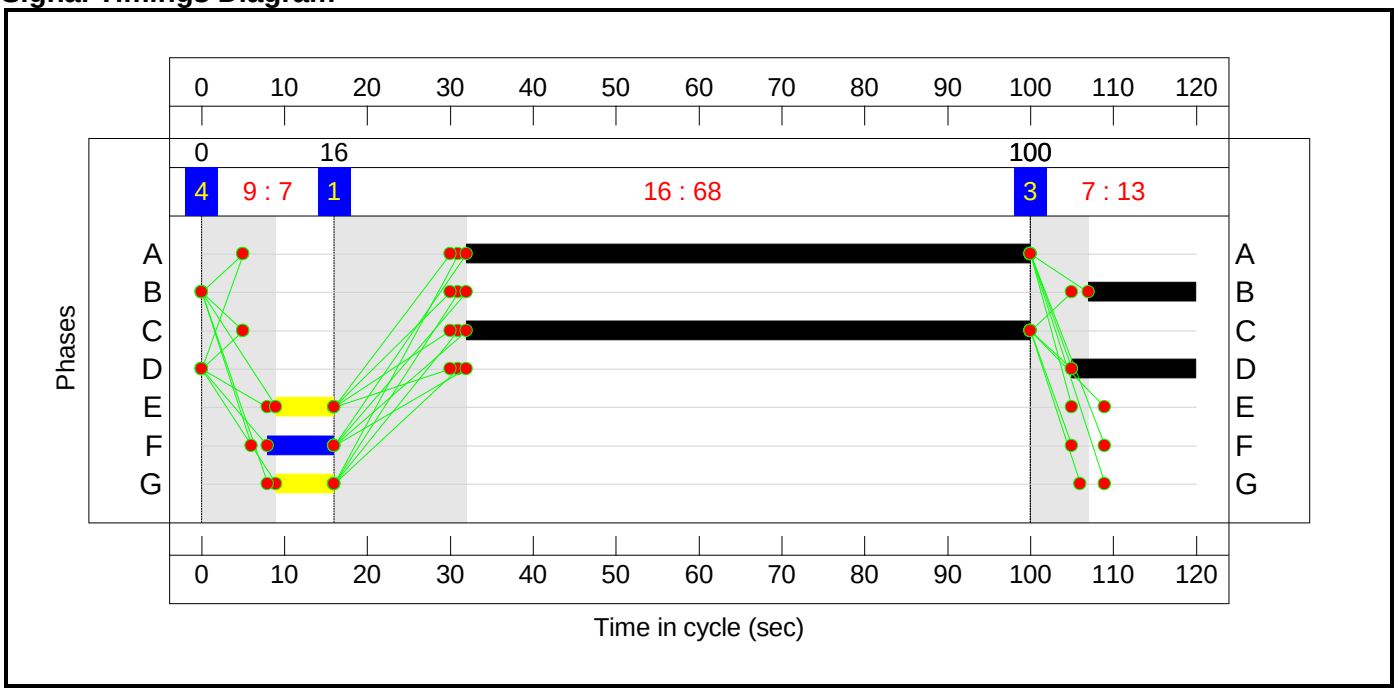


Stage Timings

Stage	1	2	3	4
Duration	68	0	13	7
Change Point	16	100	100	0

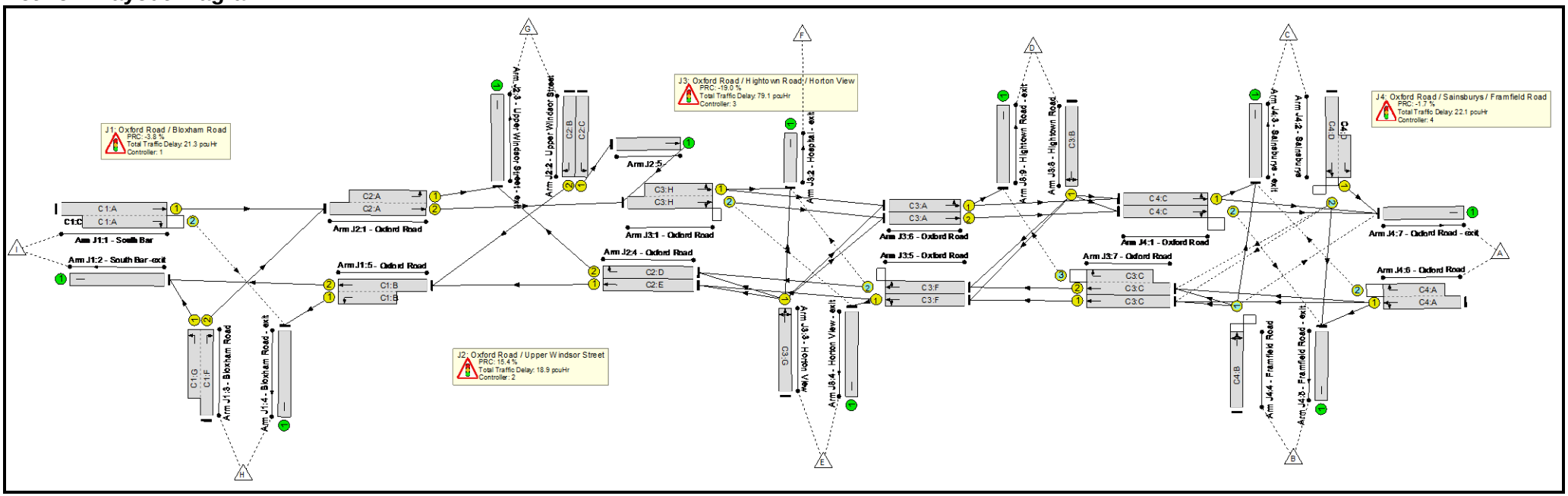
Full Input Data And Results

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	-	-	**N/A**	-	-		-	-	-	-	-	-	**107.1%**
J1: Oxford Road / Bloxham Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**93.4%**
1/1+1/2	South Bar Right Ahead	U+O	N/A	N/A	C1:A	C1:C	1	68	66	904	1663:1568	728+357	78.4 : 93.4%
2/1	South Bar -exit	U	N/A	N/A	-		-	-	-	941	Inf	Inf	0.0%
3/2+3/1	Bloxham Road Left Right	U	N/A	N/A	C1:F C1:G		1	30:40	-	701	1733:1877	414+591	69.8 : 69.8%
4/1	Bloxham Road - exit	U	N/A	N/A	-		-	-	-	583	Inf	Inf	0.0%
5/2+5/1	Oxford Road Ahead Left	U	N/A	N/A	C1:B		1	55	-	779	2005:1724	674+318	78.5 : 78.5%
J2: Oxford Road / Upper Windsor Street	-	-	**N/A**	-	-		-	-	-	-	-	-	**78.0%**
1/2+1/1	Oxford Road Left Ahead	U	N/A	N/A	C2:A		1	52	-	860	2055:1751	746+356	78.0 : 78.0%
2/1	Upper Windsor Street Left	U	N/A	N/A	C2:C		1	48	-	498	1965	802	62.1%
2/2	Upper Windsor Street Right	U	N/A	N/A	C2:B		1	17	-	167	1984	298	56.1%
3/1	Upper Windsor Street - exit	U	N/A	N/A	-		-	-	-	550	Inf	Inf	0.0%
4/1	Oxford Road Ahead	U	N/A	N/A	C2:E		1	90	-	612	1915	1452	42.1%
4/2	Oxford Road Right	U	N/A	N/A	C2:D		1	29	-	272	1772	443	61.4%
5/1	Ahead	U	N/A	N/A	-		-	-	-	498	Inf	Inf	0.0%
J3: Oxford Road / Hightown Road / Horton View	-	-	**N/A**	-	-		-	-	-	-	-	-	**107.1%**
1/2+1/1	Oxford Road Left Right Ahead	O+U	N/A	N/A	C3:H		1	72	-	1080	1993:1915	545+463	107.1 : 107.1%

Full Input Data And Results

2/1	Hospital - exit	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
3/1	Horton View Left Ahead Right	U	N/A	N/A	C3:G		1	16	-	179	1778	252	71.1%
4/1	Horton View - exit	U	N/A	N/A	-		-	-	-	379	Inf	Inf	0.0%
5/1	Oxford Road Ahead Left	U	N/A	N/A	C3:F		1	72	-	678	1873	1139	59.5%
5/2	Oxford Road Ahead Right	O	N/A	N/A	C3:F		1	72	-	263	1915	1165	22.6%
6/1	Oxford Road Left Ahead	U	N/A	N/A	C3:A		1	72	-	576	1830	1113	48.5%
6/2	Oxford Road Ahead	U	N/A	N/A	C3:A		1	72	-	361	2055	1250	27.1%
7/1	Oxford Road Ahead	U	N/A	N/A	C3:C		1	72	-	603	1915	1165	51.8%
7/2+7/3	Oxford Road Ahead Right	U+O	N/A	N/A	C3:C		1	72	-	339	2035:1791	539+226	43.8 : 45.6%
8/1	Hightown Road Right Left	U	N/A	N/A	C3:B		1	16	-	231	1632	231	99.9%
9/1	HIghtown Road - exit	U	N/A	N/A	-		-	-	-	246	Inf	Inf	0.0%
J4: Oxford Road / Sainsburys / Framfield Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**91.6%**
1/1	Oxford Road Left Ahead	U	N/A	N/A	C4:C		1	68	-	501	1857	1068	44.4%
1/2	Oxford Road Right Ahead	O	N/A	N/A	C4:C		1	68	-	422	2044	1175	34.0%
2/2+2/1	Sainsburys Right Ahead Left	O+U	N/A	N/A	C4:D		1	15	-	207	1745:1760	160+114	75.8 : 75.8%
3/1	Sainsburys - exit	U	N/A	N/A	-		-	-	-	259	Inf	Inf	0.0%
4/1	Framfield Road Left Ahead Right	O	N/A	N/A	C4:B		1	13	-	190	1866	208	91.6%
5/1	Framfield Road - exit	U	N/A	N/A	-		-	-	-	42	Inf	Inf	0.0%

Full Input Data And Results

6/1+6/2	Oxford Road Ahead Right Left	U+O	N/A	N/A	C4:A		1	68	-	885	1915:1940	1007+134	77.6 : 77.6%
7/1	Oxford Road - exit	U	N/A	N/A	-		-	-	-	962	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	**-**	**-**	**742**	**118**	**116**	**68.2**	**70.6**	**2.6**	**141.5**	**-**	**-**	**-**	**-**
J1: Oxford Road / Bloxham Road	**-**	**-**	**179**	**118**	**36**	**15.0**	**5.4**	**0.9**	**21.3**	**-**	**-**	**-**	**-**
1/1+1/2	904	904	179	118	36	5.9	2.4	0.9	9.2	36.8	12.8	2.4	15.2
2/1	941	941	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2+3/1	701	701	-	-	-	7.0	1.1	-	8.1	41.8	11.6	1.1	12.7
4/1	583	583	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2+5/1	779	779	-	-	-	2.2	1.8	-	4.0	18.4	11.4	1.8	13.2
J2: Oxford Road / Upper Windsor Street	**-**	**-**	**0**	**0**	**0**	**14.6**	**4.3**	**0.0**	**18.9**	**-**	**-**	**-**	**-**
1/2+1/1	860	860	-	-	-	5.0	1.7	-	6.8	28.3	15.0	1.7	16.7
2/1	498	498	-	-	-	3.9	0.8	-	4.7	34.0	13.1	0.8	14.0
2/2	167	167	-	-	-	2.2	0.6	-	2.8	61.0	5.1	0.6	5.8
3/1	550	550	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	612	612	-	-	-	0.0	0.4	-	0.4	2.3	0.3	0.4	0.6
4/2	272	272	-	-	-	3.4	0.8	-	4.2	56.0	8.8	0.8	9.6
5/1	498	498	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J3: Oxford Road / Hightown Road / Horton View	**-**	**-**	**325**	**0**	**38**	**25.0**	**53.3**	**0.8**	**79.1**	**-**	**-**	**-**	**-**
1/2+1/1	1080	1002	230	0	30	9.5	42.1	0.4	52.0	173.4	32.7	42.1	74.8
2/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	179	179	-	-	-	2.4	1.2	-	3.6	73.1	5.7	1.2	6.9
4/1	358	358	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	678	678	-	-	-	2.1	0.7	-	2.8	14.8	18.2	0.7	19.0
5/2	263	263	0	0	0	0.7	0.1	0.0	0.8	11.4	2.3	0.1	2.4
6/1	540	540	-	-	-	1.6	0.5	-	2.1	14.1	7.1	0.5	7.6
6/2	339	339	-	-	-	0.9	0.2	-	1.1	11.9	3.2	0.2	3.4

Full Input Data And Results

7/1	603	603	-	-	-	3.0	0.5	-	3.6	21.2	12.8	0.5	13.3
7/2+7/3	339	339	95	0	8	1.4	0.4	0.4	2.2	23.6	3.7	0.4	4.1
8/1	231	231	-	-	-	3.3	7.5	-	10.9	169.1	7.6	7.5	15.2
9/1	237	237	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J4: Oxford Road / Sainsburys / Framfield Road	**-**	**-**	**238**	**0**	**42**	**13.6**	**7.6**	**0.8**	**22.1**	**-**	**-**	**-**	**-**
1/1	474	474	-	-	-	2.5	0.4	-	2.9	22.1	13.0	0.4	13.4
1/2	400	400	15	0	0	1.0	0.3	0.1	1.4	12.3	4.3	0.3	4.5
2/2+2/1	207	207	72	0	23	2.8	1.5	0.1	4.4	77.1	3.9	1.5	5.4
3/1	253	253	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	190	190	47	0	19	2.8	3.8	0.1	6.6	125.1	6.2	3.8	10.0
5/1	41	41	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1+6/2	885	885	104	0	0	4.5	1.7	0.6	6.8	27.5	20.7	1.7	22.4
7/1	920	920	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

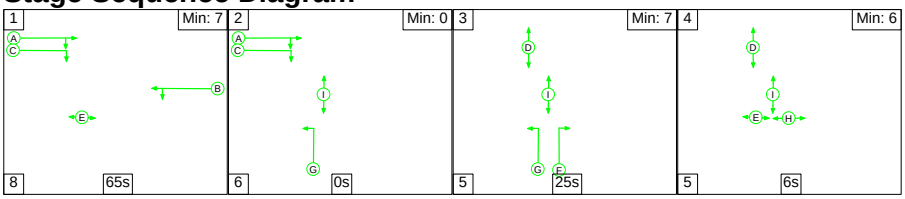
C1	PRC for Signalled Lanes (%):	-3.8	Total Delay for Signalled Lanes (pcuHr):	21.34	Cycle Time (s): 120
C2	PRC for Signalled Lanes (%):	15.4	Total Delay for Signalled Lanes (pcuHr):	18.92	Cycle Time (s): 120
C3	PRC for Signalled Lanes (%):	-19.0	Total Delay for Signalled Lanes (pcuHr):	79.13	Cycle Time (s): 120
C4	PRC for Signalled Lanes (%):	-1.7	Total Delay for Signalled Lanes (pcuHr):	22.09	Cycle Time (s): 120
	PRC Over All Lanes (%):	-19.0	Total Delay Over All Lanes(pcuHr):	141.48	

Full Input Data And Results

Scenario 4: 'Scenario 4' (FG4: '2026 Phase 2 PM', Plan 1: 'Network Control Plan 1')

C1

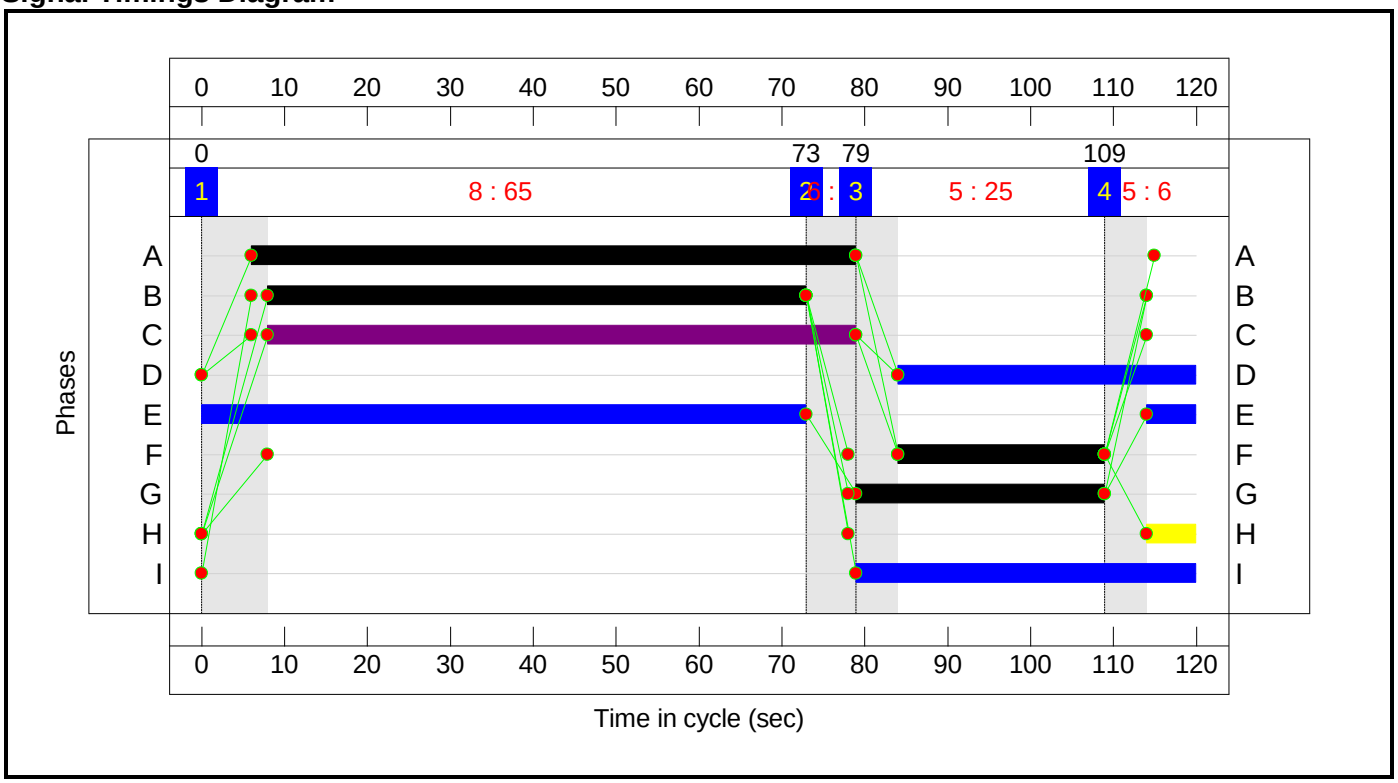
Stage Sequence Diagram



Stage Timings

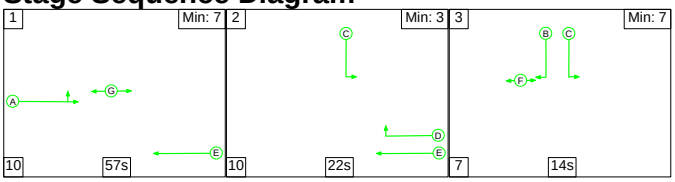
Stage	1	2	3	4
Duration	65	0	25	6
Change Point	0	73	79	109

Signal Timings Diagram



C2

Stage Sequence Diagram

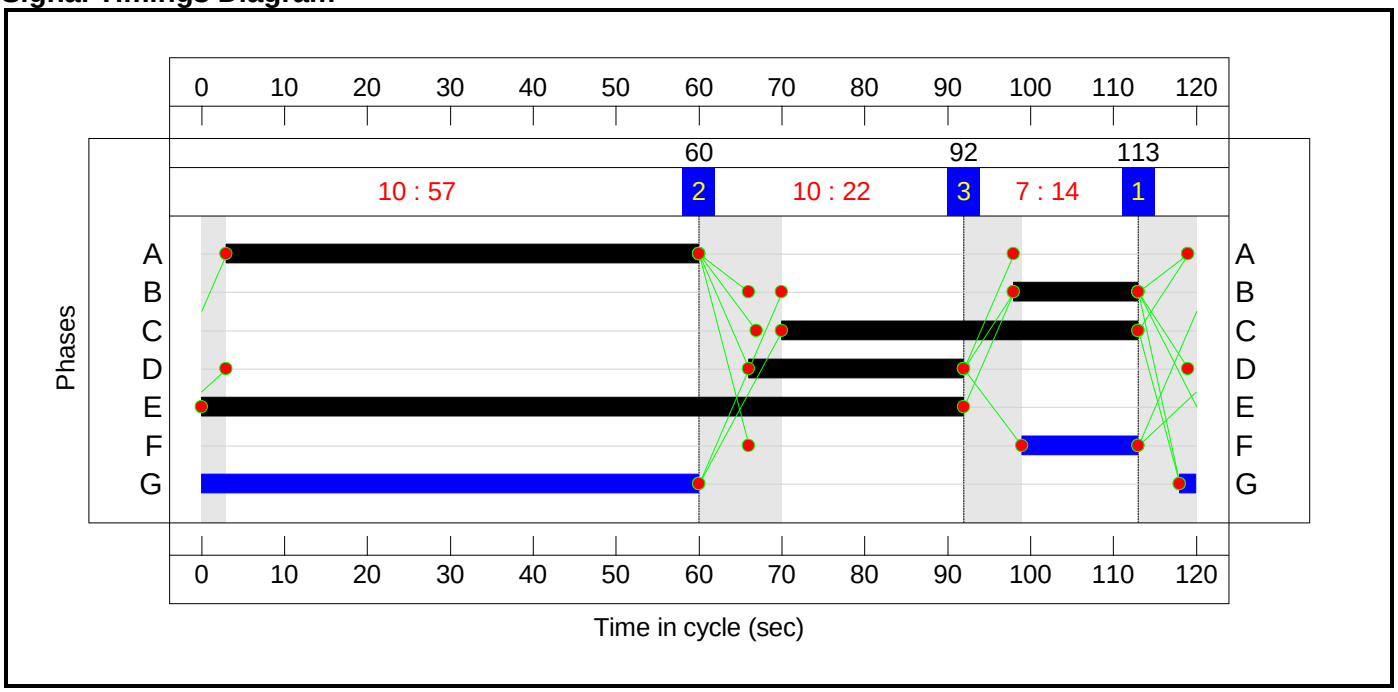


Stage Timings

Stage	1	2	3
Duration	57	22	14
Change Point	113	60	92

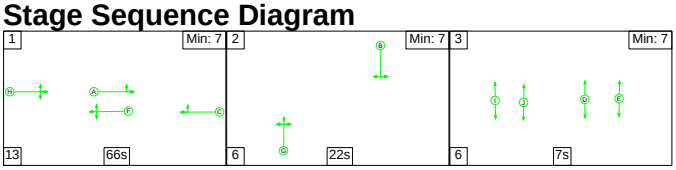
Full Input Data And Results

Signal Timings Diagram



C3

Stage Sequence Diagram

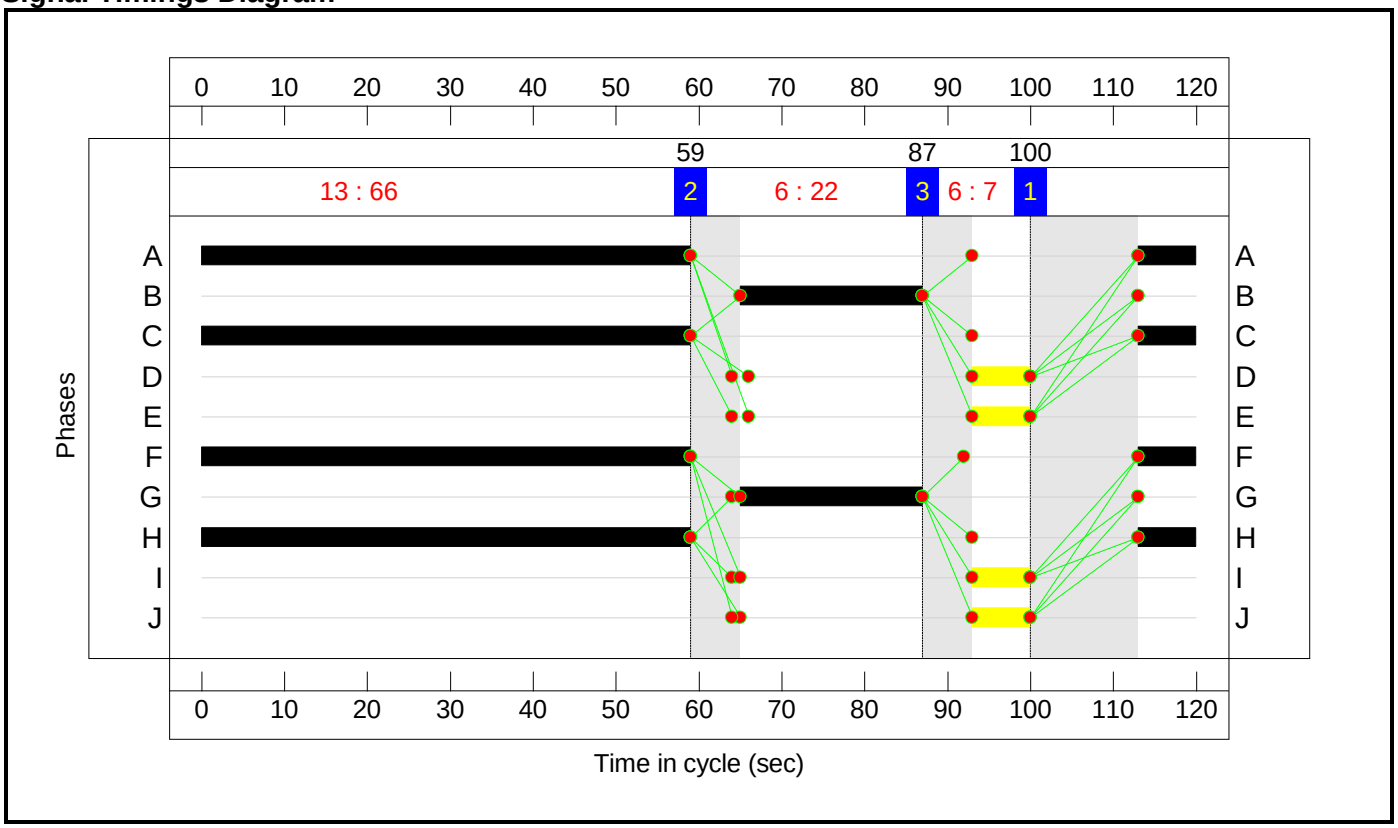


Stage Timings

Stage	1	2	3
Duration	66	22	7
Change Point	100	59	87

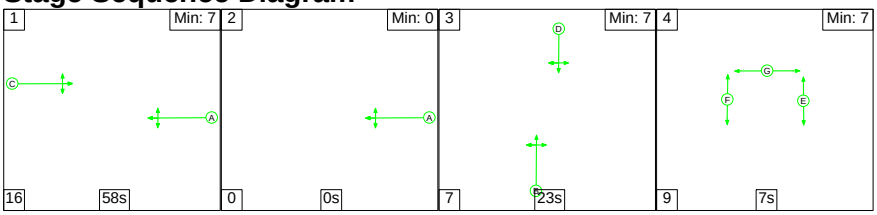
Full Input Data And Results

Signal Timings Diagram



C4

Stage Sequence Diagram

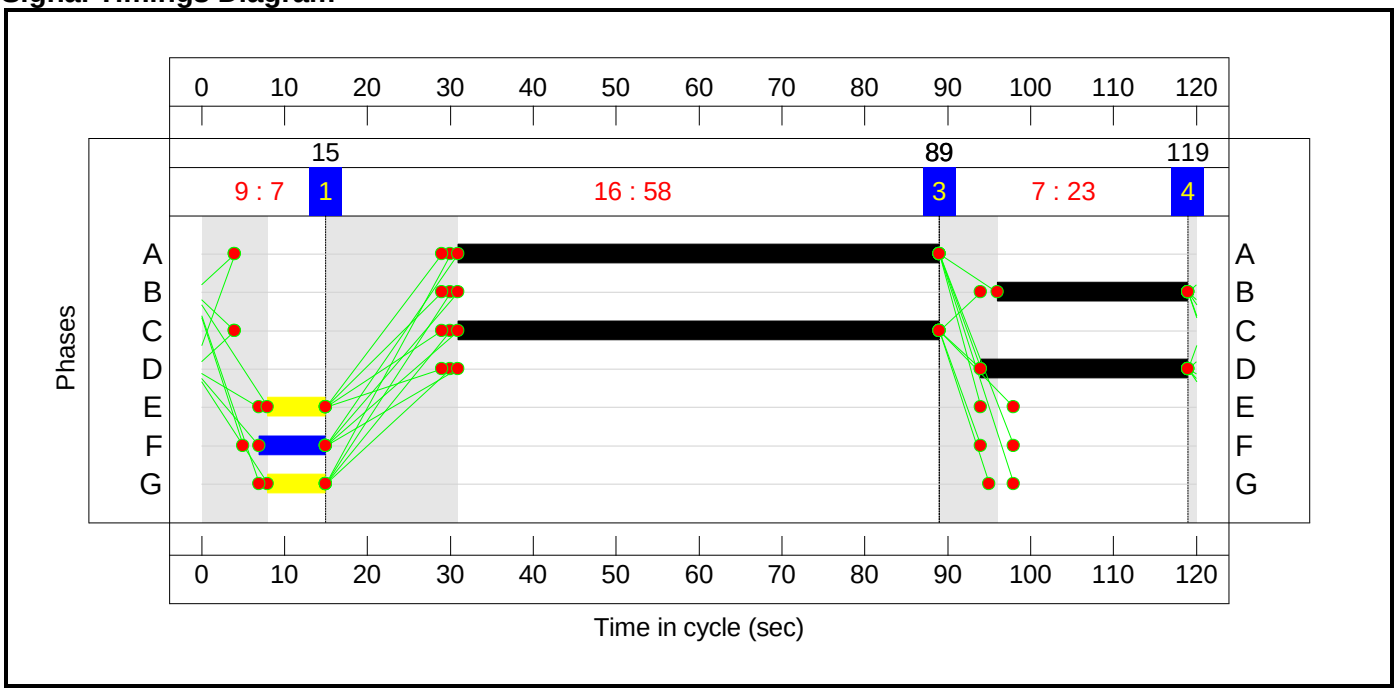


Stage Timings

Stage	1	2	3	4
Duration	58	0	23	7
Change Point	15	89	89	119

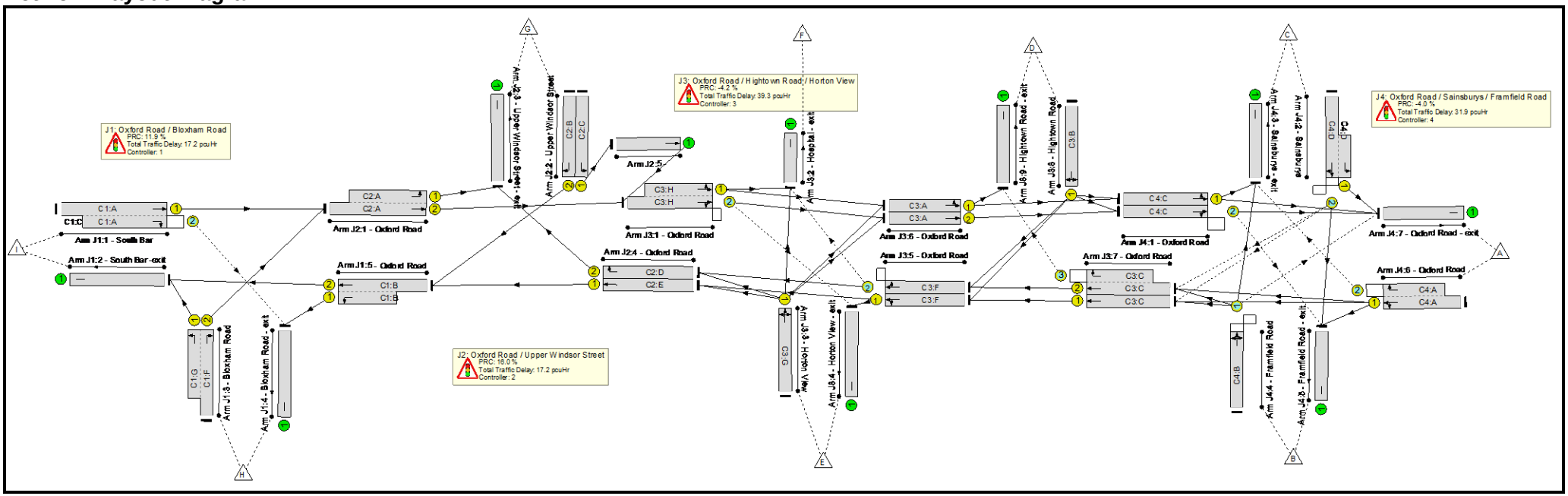
Full Input Data And Results

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	-	-	**N/A**	-	-		-	-	-	-	-	-	**93.8%**
J1: Oxford Road / Bloxham Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**80.4%**
1/1+1/2	South Bar Right Ahead	U+O	N/A	N/A	C1:A	C1:C	1	73	71	870	1663:1568	779+385	71.9 : 80.4%
2/1	South Bar -exit	U	N/A	N/A	-		-	-	-	754	Inf	Inf	0.0%
3/2+3/1	Bloxham Road Left Right	U	N/A	N/A	C1:F C1:G		1	25:30	-	507	1733:1877	375+268	78.8 : 78.8%
4/1	Bloxham Road - exit	U	N/A	N/A	-		-	-	-	566	Inf	Inf	0.0%
5/2+5/1	Oxford Road Ahead Left	U	N/A	N/A	C1:B		1	65	-	799	2005:1724	782+369	69.4 : 69.4%
J2: Oxford Road / Upper Windsor Street	-	-	**N/A**	-	-		-	-	-	-	-	-	**77.6%**
1/2+1/1	Oxford Road Left Ahead	U	N/A	N/A	C2:A		1	57	-	856	2055:1751	863+241	77.6 : 77.6%
2/1	Upper Windsor Street Left	U	N/A	N/A	C2:C		1	43	-	333	1965	721	46.2%
2/2	Upper Windsor Street Right	U	N/A	N/A	C2:B		1	15	-	156	1984	265	59.0%
3/1	Upper Windsor Street - exit	U	N/A	N/A	-		-	-	-	445	Inf	Inf	0.0%
4/1	Oxford Road Ahead	U	N/A	N/A	C2:E		1	92	-	643	1915	1484	43.3%
4/2	Oxford Road Right	U	N/A	N/A	C2:D		1	26	-	258	1772	399	64.7%
5/1	Ahead	U	N/A	N/A	-		-	-	-	333	Inf	Inf	0.0%
J3: Oxford Road / Hightown Road / Horton View	-	-	**N/A**	-	-		-	-	-	-	-	-	**93.8%**
1/2+1/1	Oxford Road Left Right Ahead	O+U	N/A	N/A	C3:H		1	66	-	1002	2010:1915	459+610	93.8 : 93.8%

Full Input Data And Results

2/1	Hospital - exit	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
3/1	Horton View Left Ahead Right	U	N/A	N/A	C3:G		1	22	-	119	1828	350	34.0%
4/1	Horton View - exit	U	N/A	N/A	-		-	-	-	238	Inf	Inf	0.0%
5/1	Oxford Road Ahead Left	U	N/A	N/A	C3:F		1	66	-	724	1882	1051	68.9%
5/2	Oxford Road Ahead Right	O	N/A	N/A	C3:F		1	66	-	258	1915	1069	24.1%
6/1	Oxford Road Left Ahead	U	N/A	N/A	C3:A		1	66	-	649	1855	1036	62.7%
6/2	Oxford Road Ahead	U	N/A	N/A	C3:A		1	66	-	315	2055	1147	27.5%
7/1	Oxford Road Ahead	U	N/A	N/A	C3:C		1	66	-	626	1915	1069	58.5%
7/2+7/3	Oxford Road Ahead Right	U+O	N/A	N/A	C3:C		1	66	-	381	2035:1791	263+180	86.0 : 86.0%
8/1	Hightown Road Right Left	U	N/A	N/A	C3:B		1	22	-	282	1635	313	90.0%
9/1	HIghtown Road - exit	U	N/A	N/A	-		-	-	-	267	Inf	Inf	0.0%
J4: Oxford Road / Sainsburys / Framfield Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**93.6%**
1/1	Oxford Road Left Ahead	U	N/A	N/A	C4:C		1	58	-	629	1794	882	71.3%
1/2	Oxford Road Right Ahead	O	N/A	N/A	C4:C		1	58	-	375	2047	1006	37.3%
2/2+2/1	Sainsburys Right Ahead Left	O+U	N/A	N/A	C4:D		1	25	-	493	1759:1760	270+256	93.6 : 93.6%
3/1	Sainsburys - exit	U	N/A	N/A	-		-	-	-	420	Inf	Inf	0.0%
4/1	Framfield Road Left Ahead Right	O	N/A	N/A	C4:B		1	23	-	73	1935	387	18.9%
5/1	Framfield Road - exit	U	N/A	N/A	-		-	-	-	82	Inf	Inf	0.0%

Full Input Data And Results

6/1+6/2	Oxford Road Ahead Right Left	U+O	N/A	N/A	C4:A		1	58	-	908	1915:1940	868+112	92.7 : 92.7%
7/1	Oxford Road - exit	U	N/A	N/A	-		-	-	-	969	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	**-**	**-**	**807**	**32**	**80**	**65.6**	**37.2**	**2.9**	**105.7**	**-**	**-**	**-**	**-**
J1: Oxford Road / Bloxham Road	**-**	**-**	**273**	**32**	**5**	**11.9**	**4.4**	**0.9**	**17.2**	**-**	**-**	**-**	**-**
1/1+1/2	870	870	273	32	5	4.5	1.5	0.9	7.0	28.8	10.7	1.5	12.2
2/1	754	754	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2+3/1	507	507	-	-	-	5.8	1.8	-	7.6	54.3	9.3	1.8	11.1
4/1	566	566	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2+5/1	799	799	-	-	-	1.5	1.1	-	2.6	11.8	7.0	1.1	8.2
J2: Oxford Road / Upper Windsor Street	**-**	**-**	**0**	**0**	**0**	**13.1**	**4.1**	**0.0**	**17.2**	**-**	**-**	**-**	**-**
1/2+1/1	856	856	-	-	-	4.5	1.7	-	6.2	25.9	21.0	1.7	22.7
2/1	333	333	-	-	-	2.7	0.4	-	3.1	33.6	8.4	0.4	8.8
2/2	156	156	-	-	-	2.1	0.7	-	2.8	65.3	4.9	0.7	5.6
3/1	445	445	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	643	643	-	-	-	0.0	0.4	-	0.4	2.1	0.0	0.4	0.4
4/2	258	258	-	-	-	3.9	0.9	-	4.8	66.4	8.6	0.9	9.5
5/1	333	333	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J3: Oxford Road / Hightown Road / Horton View	**-**	**-**	**251**	**0**	**61**	**22.3**	**16.0**	**1.0**	**39.3**	**-**	**-**	**-**	**-**
1/2+1/1	1002	1002	138	0	19	4.0	6.3	0.4	10.8	38.7	32.0	6.3	38.4
2/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	119	119	-	-	-	1.4	0.3	-	1.6	49.7	3.4	0.3	3.7
4/1	238	238	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	724	724	-	-	-	2.7	1.1	-	3.8	18.9	21.2	1.1	22.3
5/2	258	258	0	0	0	0.8	0.2	0.0	0.9	13.1	2.3	0.2	2.5
6/1	649	649	-	-	-	1.3	0.8	-	2.1	11.8	3.8	0.8	4.6
6/2	315	315	-	-	-	1.5	0.2	-	1.7	19.3	3.9	0.2	4.1