



Transportation Planning : Infrastructure Design

Transport and Access Review

**Proposed Housing Allocation at Land off the A49 Hereford Road
Bayston Hill, Shropshire**

Gleeson Strategic Land

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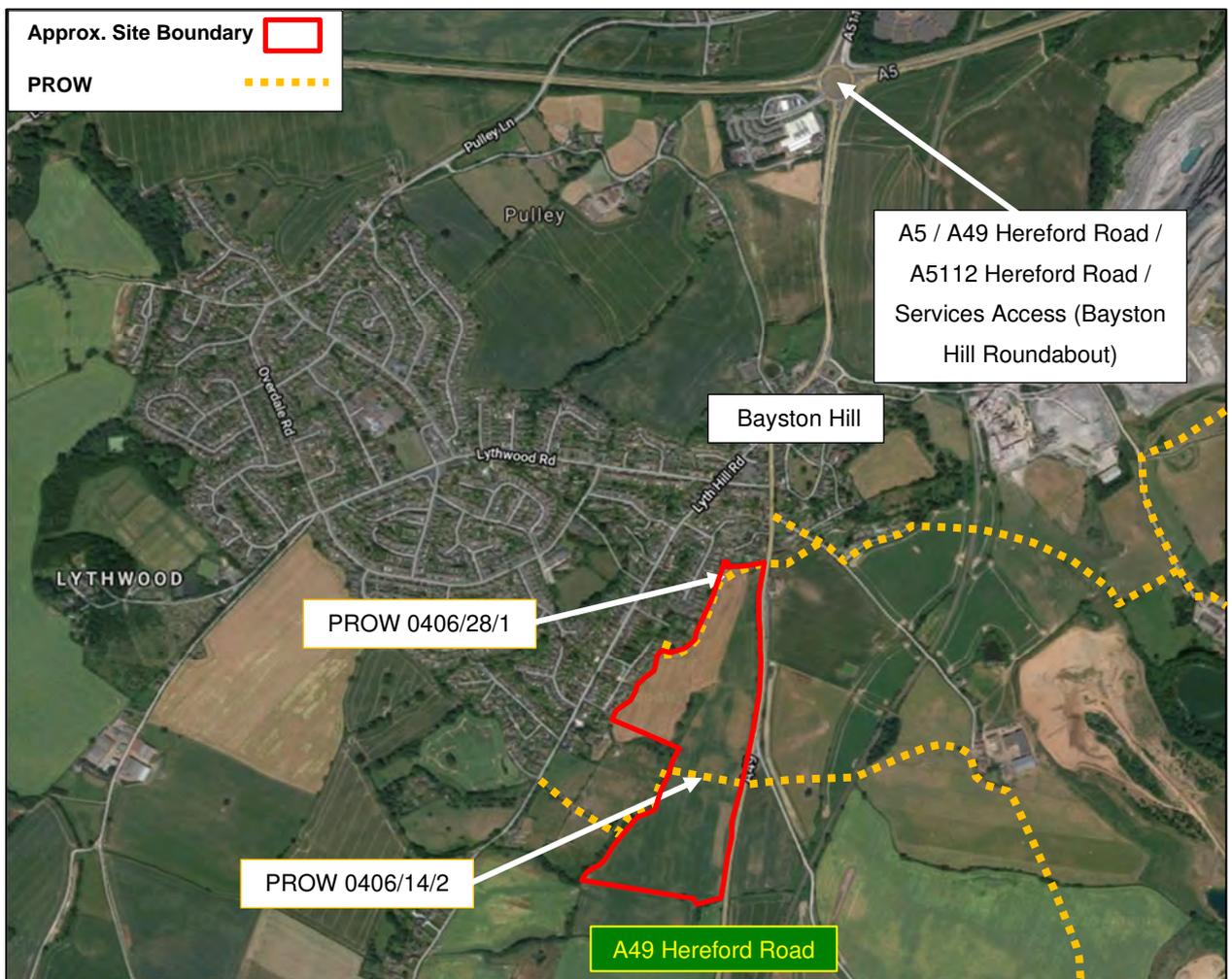
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1.0 INTRODUCTION

Overview

- 1.1 SCP have been instructed by Gleeson Strategic Land to review the highway and transport aspects of the proposed allocation of land to the west of the A49 Hereford Road, Bayston Hill, for residential purposes.
- 1.2 The site location is shown in red on **Figure 1.1** below and the site is anticipated to deliver in the region of 250 dwellings.

Figure 1.1 – Site Location



- 1.3 This report has been produced in support of the proposed allocation and to demonstrate to Shropshire Council, as the local planning authority, and Highways England as the local highway authority, that any future residential development on the site can be safely accessed, is accessible by sustainable modes of transport and that the traffic generated can be satisfactorily accommodated on the highway network.

Structure of Report

1.4 The structure of this report is as follows:-

- Chapter 2 – describes in the site location, local transport network and existing accident record;
- Chapter 3 – describes the allocation proposals and potential access arrangements;
- Chapter 4 – considers the location of the site with regard to the existing local sustainable transport infrastructure; and
- Chapter 5 – presents estimates of the trip generating potential of the site along with an assessment of the potential impact of the proposed allocation site on the local highway network; and
- Chapter 6 – provides the summary and conclusions to the above chapters.

2.0 EXISTING CONDITIONS

Overview

- 2.1 The site comprises approximately 17.5 hectares of undeveloped land located to the west of the A49 Hereford Road in Bayston Hill, approximately 4.5km south of Shropshire, as shown on **Figure 1.1** earlier.
- 2.2 Public right of way (PROW) 0406/14/2 and PROW 0406/28/1 route through the centre and the northern part of the proposed allocation site respectively, as shown on **Figure 1.1** earlier.

Local Highway Network

A49 Hereford Road

- 2.3 The A49 Hereford Road fronts the eastern site boundary and locally connects the A5 / A49 Hereford Road / A5112 Hereford Road / Services Access roundabout (referred to in this report as the Bayston Hill Roundabout), to the north, with Church Stretton to the south. The A49 Hereford Road is a trunk road which is subject to the national speed limit in the vicinity of the site, although a change in speed limit to 30mph is located on the approach to Bayston Hill at the north-east corner of the site.
- 2.4 In the vicinity of the site, the A49 Hereford Road has a carriageway width of circa 7m which benefits from regularly spaced street lighting columns. There are no footways present on either side of the A49 Hereford Road along the site boundary, however, footways are available on both sides of the road immediately to the north of the site.

A49 Hereford Road / Unnamed Road Junction

- 2.5 The A49 Hereford Road / unnamed road is a priority-controlled junction located opposite to the centre of the site. The unnamed road, which provides access to Condover, approaches the A49 Hereford Road at an angle of approximately 45° and is a known safety concern for local residents, largely given that the achievable level of forward visibility (circa 22m) to the existing give way line and queueing traffic when approaching the junction from Condover falls significantly short of the visibility requirements (215m) based on the speed of the road.

Bayson Hill Roundabout

- 2.6 The Bayston Hill Roundabout is located circa 1.2km north of the site and takes the form of a 5-arm roundabout. The majority of the arms are signal controlled and provide a 3-lane approach, however, the services access arm operates under priority control and provides a 2-lane approach.

- 2.7 A shared pedestrian / cycleway is provided from the southern A49 Hereford Road arm to the northern A5112 Hereford Road arm around the western side of the Bayston Hill Roundabout, with an uncontrolled dropped kerb crossing over the services access arm and a signal-controlled pedestrian crossing over the A5 (west) arm.

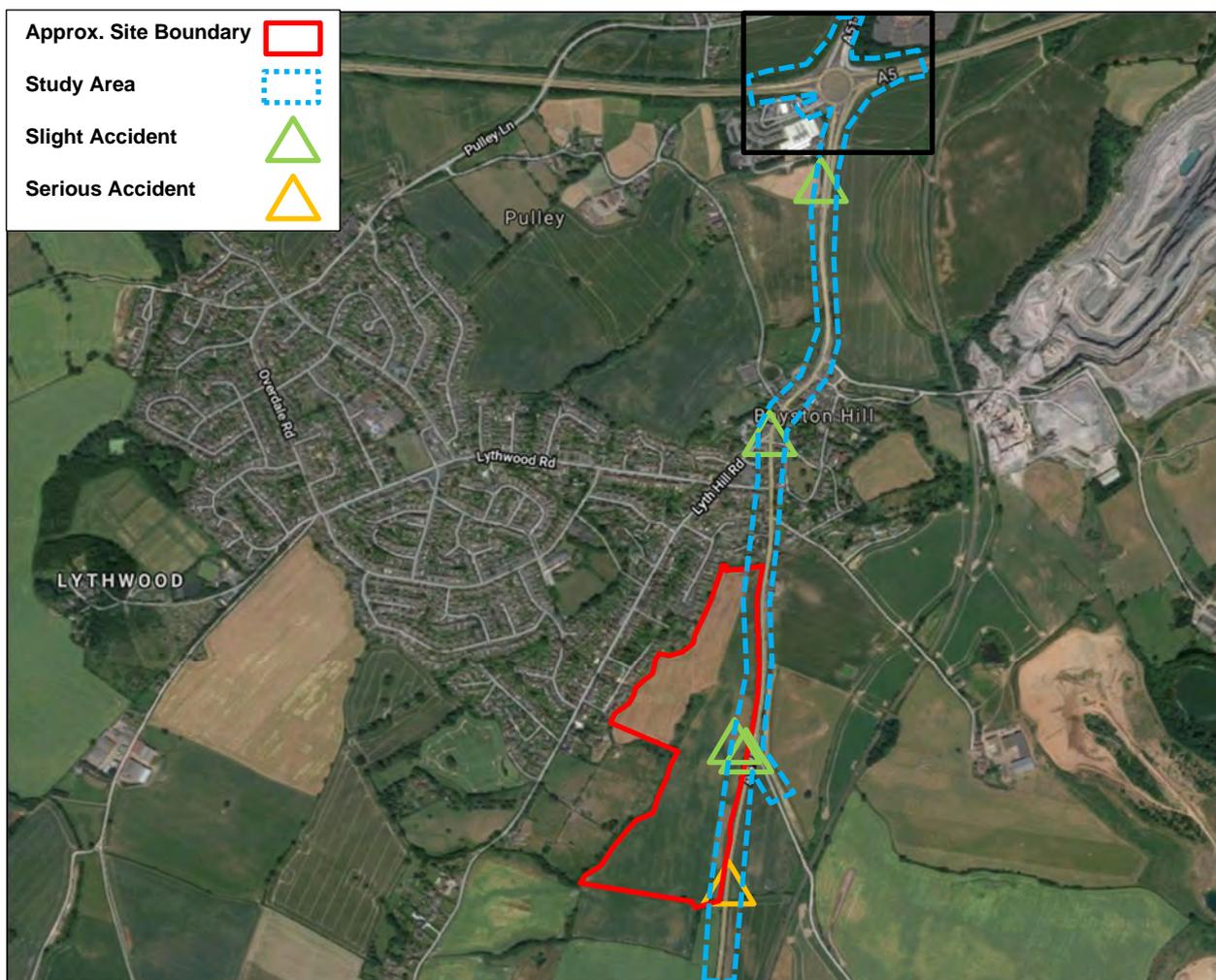
Traffic Flow Data

- 2.8 Peak hour traffic data for the local highway network is shown on **Traffic Flow Figure 1**. The data for the Bayston Hill Roundabout has been obtained from Highways England, with the surveys having been carried out on Thursday 11th April 2019, and the data for the A49 Hereford Road and the unnamed road opposite the site has been obtained from a 2017 and 2019 Department for Transport count point respectively.

Road Safety Record

- 2.9 The National Planning Practice Guidance (NPPG) 'Transport evidence bases in plan making and decision taking' document states that, *"Critical locations on the road network with poor accident records should be identified. This is to determine if the proposed development will exacerbate existing problems or, if proposed, whether highway mitigation works or traffic management measures will help to alleviate the problems"*.
- 2.10 In order to identify critical locations on the network with a poor accident record, the personal injury accident data has been obtained from the online resource CrashMap for the most recently available 5-year period. The location and severity of any accidents within the study area during this period, are shown in **Figure 2.1**, which shows the wider network, and **Figure 2.2**, which focuses on the Bayston Hill Roundabout.

Figure 2.1 – Road Safety Record (Wider View)



- 2.11 As can be seen from the above, a total of five accidents were recorded on the A49 Hereford Road over the 5-year study period, three of which took place in the immediate vicinity of the site and the remaining two took place to the north of the site.
- 2.12 The accidents to the north of the site took place at the A49 Hereford Road / Lyth Hill Road junction and approximately 150m south of the Bayston Hill Roundabout, in 2017 and 2019 respectively, and both resulted in 'slight' severity injuries.
- 2.13 Of the three accidents that occurred in the vicinity of the site, one 'serious' accident took place in 2018 at the south-eastern corner of the site and two 'slight' accidents took place in 2015 at the A49 Hereford Road / Unnamed Road junction opposite the site.
- 2.14 The evidence presented above and illustrated in **Figure 2.1** suggests that the area in the vicinity of the site does not have any recurring highway safety problems that could be affected by the proposed allocation.

2.15 Notwithstanding the above, local residents have raised several safety concerns in relation to the A49 Hereford Road / Unnamed Road junction and the section of the A49 Hereford Road in the vicinity of the site, where a fatal accident occurred in 2011 approximately 125m north of the A49 Hereford Road / Unnamed Road junction.

2.16 Whilst all accidents are regrettable, the proposed allocation site and associated access arrangements will provide a significant betterment over the existing situation in this location, as detailed later, alleviating any safety concerns.

Figure 2.2 – Road Safety Record (Bayston Hill Roundabout)



2.17 A total of thirteen accidents occurred at the Bayston Hill Roundabout over the 5-year period, twelve of which resulted in 'slight' severity injuries and one resulted in 'serious' severity injuries. Based on DMRB research presented in TD16/07, a 5-arm roundabout would be expected to experience around 3.80 accidents a year, nineteen accidents over a typical 5-year period.

2.18 Whilst it is acknowledged that the TD16/07 of the DMRB has been superseded, the accidents surveyed are still considered to provide a good proxy for typical accident rates at different roundabouts. On this basis and given that the number of accidents that occurred at this junction is lower than that typically expected, the recorded accidents do not therefore represent a material concern in the context of the proposed allocation, particularly given that the accidents are sporadic with no specific accident cluster spots.

3.0 PROPOSED DEVELOPMENT AND ACCESS STRATEGY

- 3.1 It is anticipated that the land proposed for allocation could accommodate up to a maximum of 250 dwellings.
- 3.2 Vehicular access to the proposed allocation site can be achieved through the introduction of a 4-arm priority-controlled compact roundabout, with an 50m ICD, replacing the existing A49 Hereford Road / Unnamed Road junction, as shown on drawing number SCP/200728/SK02, presented in **Appendix A**.
- 3.3 The roundabout has been designed fully in accordance with the design requirements set out in CD 116 of the Design Manual for Roads and Bridges and would therefore provide a significant betterment over the existing situation, whereby the achievable level of forward visibility (circa 22m) to the existing give way line and queueing traffic when approaching the junction from Condover falls significantly short of the visibility requirements (215m) based on the speed of the road. Drawing number SCP/200728/SK03, presented in **Appendix B**, demonstrates that the required levels of forward visibility (215m) on all approaches is achievable within the adopted highway or land controlled by the land promoter, which could be dedicated as adopted highway.
- 3.4 The proposed roundabout access has been subject to an independent Stage 1 Road Safety Audit (RSA) which confirms that there are no material safety issues that would prevent the scheme from coming forward, with all matters raised being able to be addressed at Detailed Design Stage. The Stage 1 RSA and Design Team Response is presented in **Appendix A**.
- 3.5 Swept path analysis has been undertaken of the site access roundabout which confirms that the movements of a 16.5m articulated HGV could be accommodated providing better HGV access from Condover.
- 3.6 The roundabout would also act as a new improved gateway entry feature into Bayston Hill, providing a clear transition between the rural and built areas, and would naturally help to calm traffic speeds on the A49 Hereford Road, providing additional and significant highway safety benefits.
- 3.7 In the vicinity of the site, the A49 Hereford Road is predominantly rural in character and subject to National Speed limit. However, residential development on this site would change the nature of this section of road and increase frontage activity. It is therefore considered appropriate to reduce the speed limit along the site frontage to 30mph from the proposed roundabout.

3.8 A 2m footway can be provided along the site frontage, between the site access roundabout and the existing pedestrian infrastructure on the A49 Hereford Road, and additional connections can be provided onto the footway to improve the permeability of the site.

3.9 To further improve the sites accessibility by bus, it is considered that bus stops could be introduced along the site's frontage on both sides of the A49 Hereford Road which could be utilised by bus service 435 which already passes the site. The specific location of the bus stops can be determined at the planning application stage. Further details on public transport access are provided later in this report.

4.0 ACCESSIBILITY

General

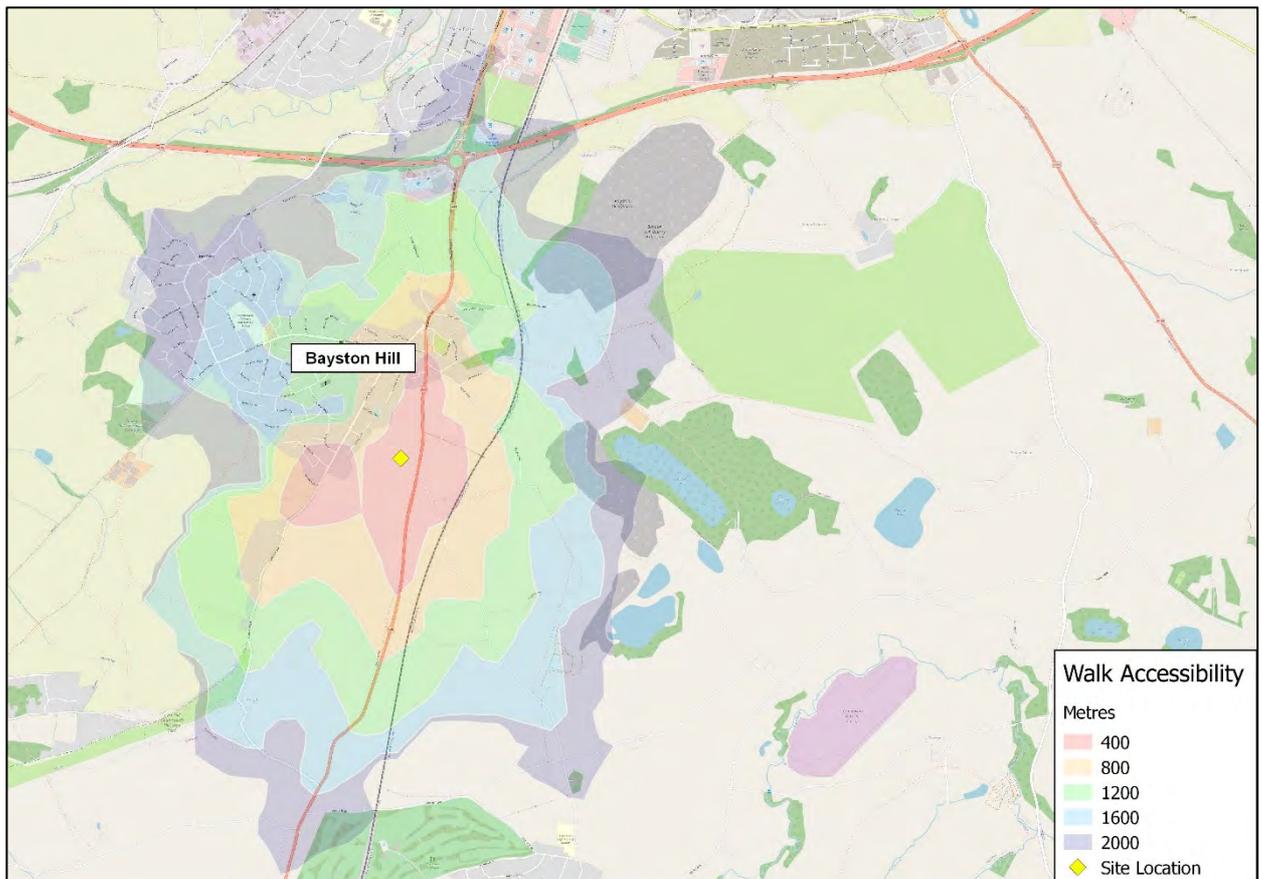
4.1 This Chapter presents a review of the accessibility of the site by walking, cycling and public transport modes.

Pedestrian Accessibility

4.2 The MfS states that walkable neighbourhoods are typically characterised by having a range of facilities within 10 minutes' (up to about 800m) walking distance of residential areas which residents may access comfortably on foot. However, it goes on to state that this is not an upper limit and that walking offers the greatest potential to replace short car trips, particularly those under 2km.

4.3 Industry standard GIS TRACC software has been used to assess the accessibility of the development by foot for a 2km walk distance from the site, as shown on **Figure 4.1** below. The plan shows the reachable areas within 400m coloured bands from the site.

Figure 4.1 – Walking Accessibility 2km Isochrone



4.4 The site is within an acceptable walk distance of Bayston Hill and a number of facilities and amenities. **Table 4.1** below provides a summary of facilities and amenities within the recommended 2km walking distance from the site.

Table 4.1 – Facilities within 2km Walk Distance of the Site

Facility	Details	Distance from the Site
Public House	The Compasses Inn, A49 Hereford Road	650m
Convenience Store	Lyth Hill Stores, Lyth Hill Road	800m
Takeaway	Star Kitchen, Lyth Hill Road	800m
Community Hall	Bayston Hill Memorial Hall, Lyth Hill Road	850m
Public House	Three Fishes, A49 Hereford Road	900m
Library	Bayston Hill Library, Lythwood Road	1.0km
Nursery	Christ Church Pre-School Nursery, Glebe Road	1.3km

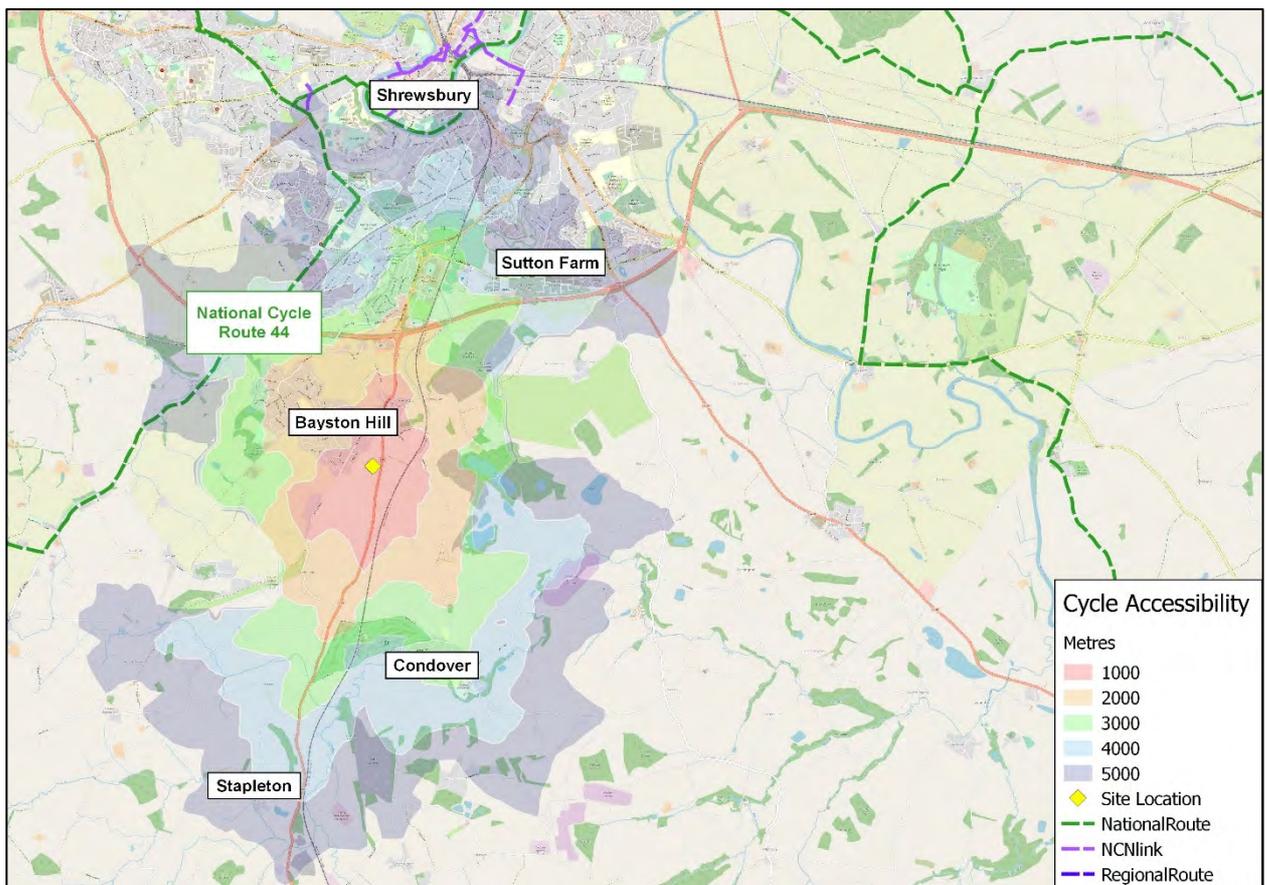
Church	Christ Church, Glebe Road	1.3km
Doctors	Beeches Medical Practice, Beeches Road	1.4km
Pharmacy	Rowlands Pharmacy, Lansdowne Road	1.4km
Convenience Store	Spar, Lansdowne Road	1.4km
Post Office	Bayston Hill Post Office, Lansdowne Road	1.4km
ATM	Spar, Lansdowne Road	1.4km
Takeaway	Mahim Indian, Lansdowne Road	1.4km
Primary School	Oak Meadow C of E Primary School, Long Meadow	1.7km
Garden Centre	Dobbies Garden Centre, Bayston Hill Roundabout	1.7km
Takeaway	Starbucks Coffee Subway and Greggs, Bayston Hill Roundabout	1.7km
Restaurant	Little Chef, Bayston Hill Roundabout	1.7km
Takeaway	Burger King, Bayston Hill Roundabout	1.8km
Leisure	Lythwood Sports Complex, Lythwood Road	2.0km

4.5 As detailed earlier, a 2m footway can be provided along the site frontage, between the site access roundabout and the existing pedestrian infrastructure on the A49 Hereford Road, and additional connections can be provided onto the footway to improve the permeability of the site.

Cycle Accessibility

- 4.6 Transport policy identifies that cycling represents a realistic and healthy option to use of the private car for making journeys up to 5km as a whole journey or as part of a longer journey by public transport.
- 4.7 GIS TRACC software has been used to assess the accessibility of the development by bicycle for a 5km cycle distance from the site, as shown in **Figure 4.2** below.

Figure 4.2 – Cycling Accessibility: 5km Distance Isochrones



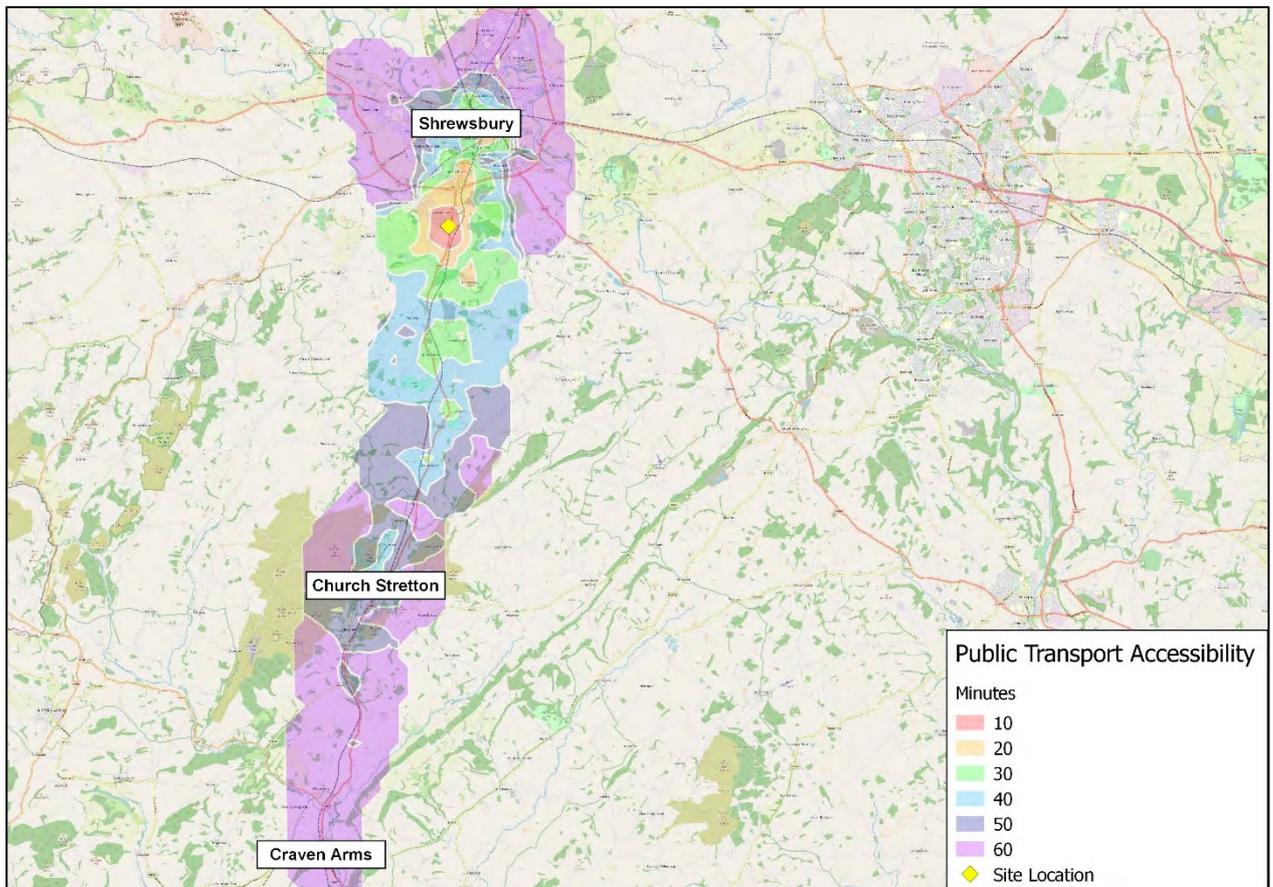
- 4.8 The plan demonstrates that the nearby areas of Bayston Hill, Condover, Stapleton, Sutton Farm and the south of Shrewsbury, amongst others, are all located within the 5km catchment area from the development site. The topography of the area is generally conducive to cycling, so the site is therefore well located to encourage prospective residents to travel for work, leisure and shopping via bicycle.
- 4.9 The plan also demonstrates the sites proximity to National Cycle Route 44 which locally links Pontesbury, to the south-west, with Shrewsbury and National Cycle Route 81 to the North-east.
- 4.10 As the proposed allocation site is within an acceptable cycle distance of a range of areas and associated facilities, cycling is considered to be a viable alternative to private car use.

Public Transport Accessibility

- 4.11 The nearest bus stop is located on the A49 Hereford Road, approximately 650m (walk distance) north of the centre of the proposed allocation site. In addition, further bus stops are located to the west of the site on Lyth Hill Road which can be accessed via PROW 0406/14/2.

- 4.12 These bus stops are served by the number 27, 435 and 544 busses which provide regular services (in combination), Monday to Saturday, to numerous locations including Shrewsbury, Condover, Dorrington, Church Stretton, Craven Arms and Ludlow, amongst others.
- 4.13 Although it is recognised that the proximity of the bus stops to the site does not accord with the recommendations within the Chartered Institute of Highways & Transportation's (CIHT's) "Guidelines for Planning for Public Transport in Developments", the site is a short 9-minute walk from the bus stops and there are continuous footways, with the proposed footway improvements, connecting the two locations. The site is therefore considered to be well served by bus services and local areas can be accessed by public transport at a good frequency.
- 4.14 Notwithstanding the above, bus service 435 currently routes along the A49 and it is therefore considered that bus stops would be introduced on both sides of the A49 Hereford Road to further encourage travel by bus.
- 4.15 In terms of rail services, all of the aforementioned bus services terminate at Shrewsbury Bus Station which is located less than a 3-minute walk from Shrewsbury Railway Station. Shrewsbury Railway Station offers regular direct services throughout the week including services to Church Stretton, Wolverhampton, Birmingham, Stockport and Manchester amongst others.
- 4.16 In addition, Shrewsbury Park & Ride is located approximately 2.6km (walk distance) north of the site which provides bus services to Shrewsbury town centre and railway station.
- 4.17 The level of accessibility by public transport has been analysed using GIS TRACC software to assess the accessibility of the site and is shown on **Figure 4.3** below. The figure illustrates the distance that can be travelled within 60 minutes by public transport to and from the site, which includes the time taken to walk to the bus stops.

Figure 4.3 – Public Transport Accessibility: 60 Minute Isochrones



4.18 The above demonstrates that the key areas of Shrewsbury, Church Stretton and Craven Arms amongst others, are in an acceptable 60-minute commute time.

Summary & Conclusions

4.19 Overall, the site is considered to be well located in terms of its accessibility by all the major non-car modes of transport. These findings demonstrate that prospective residents will not be wholly reliant on the private car to travel for to work.

5.0 ANTICIPATED TRANSPORT IMPACTS

General

5.1 This Chapter provides an estimation of the trip generating potential of the proposed allocation site during the weekday peak hours along with detailed operational assessments of the proposed site access and the Bayston Hill Roundabout.

Trip Generation

5.2 In order to estimate the trip generating potential of the proposed allocation site, average trip rates from the industry-standard TRICS Database (V7.7.3) have been obtained.

5.3 The selection criteria for the TRICS based trip rates search is as follows:-

- Residential;
- Houses Privately Owned;
- Multi modal surveys;
- Sites in Greater London and Ireland excluded;
- Selection by number of dwellings (90 to 360 units); and
- Only sites in ‘edge of town’ and ‘neighbourhood centre’ locations selected.

5.4 The multi modal TRICS outputs are presented in **Appendix C** and are summarised in **Table 5.1** below:-

Table 5.1 – TRICS Outputs

Mode	Weekday AM Peak Hour (08:00 to 09:00)		Weekday PM Peak Hour (17:00 to 18:00)	
	Arrivals	Departures	Arrivals	Departures
Vehicles	0.134	0.361	0.324	0.138
Cyclists	0.010	0.017	0.015	0.007
Pedestrians	0.035	0.072	0.047	0.022
Public Transport	0.001	0.035	0.015	0.005

5.5 The above trip rates have been applied to the 250 dwellings that the proposed allocation site is anticipated to deliver to determine the estimated trip generation, as summarised in **Table 5.2** below.

Table 5.2 – Potential Allocation Site Trip Generation

Mode	Weekday AM Peak Hour (08:00 to 09:00)		Weekday PM Peak Hour (17:00 to 18:00)	
	Arrivals	Departures	Arrivals	Departures
Vehicles	34	90	81	35
Cyclists	3	4	4	2
Pedestrians	9	18	12	6
Public Transport	0	9	4	1

Trip Distribution and Assignment

- 5.6 The methodology used to estimate the trip distribution of the development-related traffic associated with the proposed allocation site is based on information from the 2011 Census.
- 5.7 Location of usual residence and place of work data from the national census for all “out-moves” from the Shropshire 024 MSOA have been obtained from Nomis for the purposes of determining a suitable and localised trip distribution model. The trip distribution percentages are presented in **Table 5.3** below.

Table 5.3 – Trip Distribution

Route Reference	Route Description	Percentage
A	A49 Hereford Road / A5 (East)	50.6%
B	A49 Hereford Road / A5 (West)	17.2%
C	A49 Hereford Road / A5112 Hereford Road	27.2%
D	A49 Hereford Road (South)	5.0%

- 5.8 Out-moves provide an indication of the numbers and destinations (on a MSOA basis) of people who reside in the Shropshire 024 MSOA and who work elsewhere.
- 5.9 The above trip distributions are also presented diagrammatically in **Traffic Flow Figure 2**.
- 5.10 The development related trips are assigned to the local network using this distribution methodology and are shown on **Traffic Flow Figure 3**.

Traffic Growth

- 5.11 An assessment year of 2021 as well as a future assessment year of 5 years (2026) and 10 years (2031) has been adopted. In order to quantify the level of background traffic growth that could occur on the local network between the date of the traffic surveys and the assessment years, National Traffic Model (NTM) growth factors modified by TEMPRO local growth factors have been used, as summarised in **Table 5.4** below.

Table 5.4 – Traffic Growth Factors

Period	AM Peak	PM Peak
2017 – 2021	1.0560	1.0535
2019 – 2021	1.0259	1.0248
2017 – 2026	1.1102	1.1078
2019 – 2026	1.0787	1.0776
2026 – 2031	1.0355	1.0359

- 5.12 The 2021, 2026 and 2031 baseline traffic flows without development are presented diagrammatically on **Traffic Flow Figure 4**, **Traffic Flow Figure 5** and **Traffic Flow Figure 6** respectively.

Capacity Assessments

- 5.13 Detailed capacity assessments have been undertaken of the proposed site access and the Bayston Hill Roundabout using Junctions 9 (ARCADY) and LINSIG software respectively.
- 5.14 Using ARCADY software, the results generated provide a Ratio to Flow capacity (RFC) along with an estimate of the mean max queues (MMQ). RFC values between 0.00 and 0.85 are generally accepted as representing stable and acceptable operating conditions. Values between 0.85 and 1 represent variable operation (i.e. possible queues building up at the junction during the period under consideration and increases in vehicular delay moving through the junction). RFC values in excess of one represents overloaded conditions (i.e. congested conditions).
- 5.15 LINSIG software presents results as a percentage Degree of Saturation (DoS) and corresponding likely traffic queues for each modelled link at the junction. For Traffic Signals it is generally accepted that DoS of 90% or less on individual links represents satisfactory signal operation. DoS of between 90% and 100% represent variable operation which warrants further investigation and values in excess of 100% represent overloaded conditions.

- 5.16 The assessments have been undertaken in the 2021, 2026 and 2031 scenarios which include the growthed surveyed flows plus the proposed allocation flows. The 2021, 2026 and 2031 assessment flows are shown on **Traffic Flow Figure 7**, **Traffic Flow Figure 8** and **Traffic Flow Figure 9** respectively.
- 5.17 The ARCADY results of the proposed site access are presented in **Appendix D** and are summarised below in **Table 5.5**.

Table 5.5 – Site Access ARCADY Results: ‘With Development’ Flows

2021 – ‘With Development’ Assessment Traffic Flows				
Arm	AM PEAK		PM PEAK	
	RFC	Queue	RFC	Queue
A49 Hereford Road (North)	0.60	1.6	0.73	2.8
Unnamed Road	0.21	0.3	0.15	0.2
A49 Hereford Road (South)	0.76	3.3	0.64	1.9
Site Access	0.09	0.1	0.03	0.0
2026 – ‘With Development’ Assessment Traffic Flows				
Arm	AM PEAK		PM PEAK	
	RFC	Queue	RFC	Queue
A49 Hereford Road (North)	0.63	1.8	0.77	3.4
Unnamed Road	0.22	0.3	0.16	0.2
A49 Hereford Road (South)	0.80	4.1	0.67	2.2
Site Access	0.09	0.1	0.03	0.0
2031 – ‘With Development’ Assessment Traffic Flows				
Arm	AM PEAK		PM PEAK	
	RFC	Queue	RFC	Queue
A49 Hereford Road (North)	0.65	2.0	0.79	3.9
Unnamed Road	0.23	0.3	0.16	0.2
A49 Hereford Road (South)	0.83	4.9	0.70	2.4
Site Access	0.09	0.1	0.03	0.0

- 5.18 The above results show that the proposed site access roundabout is predicted to operate within the practical capacity threshold of 0.85 RFC on all approaches in the assessment year of 2021, with minimal levels of queuing. In addition, the proposed site access roundabout is predicted to operate within capacity on all approaches in the 2026 and 2031 assessment years.
- 5.19 The LINSIG results of the Bayston Hill Roundabout are presented in **Appendix E** and are summarised below in **Table 5.6**, **Table 5.7** and **Table 5.8**.

Table 5.6 – Bayston Hill Roundabout – 2021 Assessment Year LINSIG Results

Link	2021 'Without Dev' Baseline				2021 'With Dev' Assessment			
	AM PEAK		PM PEAK		AM PEAK		PM PEAK	
	DoS	MMQ	DoS	MMQ	DoS	MMQ	DoS	MMQ
1/1 - A5 / A5 (East) Left	20.1%	0.1	25.2%	13.5	21.0%	0.1	27.3%	0.2
1/2 - A5 / A5 (East) Ahead	84.2%	12.9	80.3%	6.8	87.8%	14.1	80.2%	13.3
1/3+1/4 - A5 / A5 (East) Ahead	86.9 : 86.9%	13.9	81.5 : 81.5%	6.5	90.0 : 90.0%	15.0	81.6 : 81.6%	13.5
2/2+2/1 - A5112 Hereford Road (South) Ahead Left	63.9 : 63.9%	5.9	78.3 : 78.3%	0.1	65.8 : 65.8%	6.2	78.8 : 78.8%	6.9
2/3 - A5112 Hereford Road (South) Ahead	90.3%	13.2	76.7%	1.1	93.1%	15.2	78.1%	6.7
3/1 - Services Access U-Turn	11.2%	0.1	11.1%	15.3	11.4%	0.1	11.2%	0.1
3/2 - Services Access Left U-Turn	37.7%	0.9	38.2%	15.5	39.7%	0.9	38.7%	1.1
4/1 - A5 (West) Left Ahead	94.5%	21.8	85.4%	0.1	95.7%	23.0	85.8%	15.7
4/2+4/3 - A5 (West) Ahead	95.1 : 95.1%	22.5	86.2 : 86.2%	6.3	96.6 : 96.6%	24.4	86.7 : 86.7%	15.7
5/1 - A5112 Hereford Road (North) Left	16.4%	0.1	12.8%	7.7	16.4%	0.1	12.8%	0.1
5/2 - A5112 Hereford Road (North) Ahead	54.9%	3.7	74.8%	1.5	58.1%	4.1	76.4%	6.6
5/3+5/4 - A5112 Hereford Road (North) Ahead	65.1 : 65.1%	4.8	82.3 : 82.3%	1.6	65.7 : 65.7%	4.8	83.7 : 83.7%	8.0
6/1 - Circ 1 Ahead	35.9%	1.2	67.3%	0.1	29.4%	0.3	69.3%	1.6
6/2 - Circ 1 Right Ahead	48.2%	2.2	72.7%	4.3	53.9%	3.3	75.3%	1.8
6/3 - Circ 1 Right	14.6%	0.0	27.7%	4.5	13.5%	0.0	29.2%	0.1
7/1 - Circ 2 Right Ahead	81.7%	4.3	79.6%	0.5	85.0%	5.0	78.8%	4.1
7/2 - Circ 2 Right	83.2%	4.3	82.5%	0.7	85.2%	4.8	83.3%	4.7
7/3 - Circ 2 Right	23.1%	0.5	16.6%	1.0	24.0%	0.6	16.6%	0.5
8/1 - Circ 3 Ahead	51.3%	0.5	56.9%	0.2	52.8%	0.6	57.7%	0.7
8/2 - Circ 3 Right Ahead	59.3%	0.7	67.7%	1.5	60.0%	0.7	68.3%	1.1
8/3 - Circ 3 Right	41.0%	0.3	26.5%	5.0	43.5%	0.4	26.8%	0.2
9/1 - Circ 4 Ahead	44.7%	2.3	62.9%	0.3	46.6%	2.7	66.8%	1.6
9/2 - Circ 4 Ahead Right	96.0%	9.4	77.1%	4.5	92.6%	9.1	76.6%	4.6
9/3 - Circ 4 Right	49.9%	1.3	22.5%	3.6	53.4%	1.7	24.1%	0.4
15/1 - Circ 5 Ahead	75.2%	8.1	55.6%	0.4	74.5%	8.2	56.7%	4.6
15/2 - Circ 5 Right Ahead	95.0%	8.2	80.2%	13.5	95.0%	8.8	81.0%	3.9
15/3 - Circ 5 Right	11.0%	0.5	6.7%	6.8	15.9%	0.8	7.4%	0.4
Overall PRC	-6.7%		4.3%		-7.3%		3.8%	

Table 5.7 – Bayston Hill Roundabout – 2026 Assessment Year LINSIG Results

Link	2026 'Without Dev' Baseline				2026 'With Dev' Assessment			
	AM PEAK		PM PEAK		AM PEAK		PM PEAK	
	DoS	MMQ	DoS	MMQ	DoS	MMQ	DoS	MMQ
1/1 - A5 / A5 (East) Left	21.1%	0.1	26.5%	0.2	22.1%	0.1	28.6%	0.2
1/2 - A5 / A5 (East) Ahead	88.8%	15.0	83.5%	14.5	92.6%	16.8	83.5%	14.5
1/3+1/4 - A5 / A5 (East) Ahead	90.9 : 90.9%	16.2	85.3 : 85.3%	15.2	94.3 : 94.3%	18.4	85.4 : 85.4%	15.2
2/2+2/1 - A5112 Hereford Road (South) Ahead Left	67.3 : 67.3%	6.4	81.9 : 81.9%	7.6	69.5 : 69.5%	6.8	82.6 : 82.6%	7.8
2/3 - A5112 Hereford Road (South) Ahead	95.0%	16.3	77.4%	6.6	97.6%	19.8	81.5%	7.4
3/1 - Services Access U-Turn	12.2%	0.1	12.1%	0.1	12.3%	0.1	12.1%	0.1
3/2 - Services Access Left U-Turn	46.7%	1.1	46.0%	1.3	49.8%	1.1	47.1%	1.3
4/1 - A5 (West) Left Ahead	97.2%	26.1	86.8%	16.5	99.5%	31.1	90.0%	18.1
4/2+4/3 - A5 (West) Ahead	98.0 : 98.0%	27.8	87.7 : 87.7%	16.7	99.8 : 99.8%	32.3	90.6 : 90.6%	18.6
5/1 - A5112 Hereford Road (North) Left	17.3%	0.1	13.5%	0.1	17.3%	0.1	13.5%	0.1
5/2 - A5112 Hereford Road (North) Ahead	65.5%	4.5	83.8%	7.6	70.7%	4.7	80.0%	7.1
5/3+5/4 - A5112 Hereford Road (North) Ahead	73.4 : 73.4%	5.4	89.4 : 89.4%	9.3	80.4 : 80.4%	6.1	86.6 : 86.6%	8.7
6/1 - Circ 1 Ahead	30.7%	0.3	67.3%	1.4	36.8%	1.1	70.5%	1.5
6/2 - Circ 1 Right Ahead	58.2%	3.5	76.3%	2.1	48.9%	2.4	80.2%	2.1
6/3 - Circ 1 Right	14.7%	0.0	32.8%	0.1	15.9%	0.0	31.8%	0.1
7/1 - Circ 2 Right Ahead	86.5%	5.2	81.2%	4.2	88.1%	5.5	81.6%	4.3
7/2 - Circ 2 Right	86.6%	4.9	88.2%	5.2	90.9%	5.7	87.8%	5.2
7/3 - Circ 2 Right	24.4%	0.6	18.5%	0.5	25.1%	0.6	18.4%	0.5
8/1 - Circ 3 Ahead	54.4%	0.6	61.1%	0.8	55.1%	0.6	61.5%	0.8
8/2 - Circ 3 Right Ahead	61.9%	0.8	70.1%	1.2	63.4%	0.9	70.4%	1.2
8/3 - Circ 3 Right	43.2%	0.4	27.9%	0.2	45.5%	0.4	28.7%	0.2
9/1 - Circ 4 Ahead	47.0%	2.7	70.1%	1.3	51.8%	3.8	67.9%	1.3
9/2 - Circ 4 Ahead Right	100.1%	10.1	86.1%	6.7	100.3%	10.7	82.1%	5.7
9/3 - Circ 4 Right	53.5%	1.7	25.3%	0.3	61.1%	2.5	25.6%	0.4
15/1 - Circ 5 Ahead	74.9%	8.3	56.6%	4.7	74.9%	8.6	59.2%	5.1
15/2 - Circ 5 Right Ahead	94.3%	8.7	81.3%	3.9	98.6%	19.5	84.4%	4.4
15/3 - Circ 5 Right	16.3%	0.8	8.1%	0.4	11.6%	0.6	8.8%	0.5
Overall PRC	-11.2%		0.7%		-11.4%		-0.6%	

Table 5.8 – Bayston Hill Roundabout – 2031 Assessment Year LINSIG Results

Link	2031 'Without Dev' Baseline				2031 'With Dev' Assessment			
	AM PEAK		PM PEAK		AM PEAK		PM PEAK	
	DoS	MMQ	DoS	MMQ	DoS	MMQ	DoS	MMQ
1/1 - A5 / A5 (East) Left	21.9%	0.1	27.5%	0.2	22.8%	0.1	29.6%	0.2
1/2 - A5 / A5 (East) Ahead	92.7%	17.4	86.0%	15.8	97.3%	22.0	85.9%	15.8
1/3+1/4 - A5 / A5 (East) Ahead	94.3 : 94.3%	19.0	87.7 : 87.7%	16.6	98.4 : 98.4%	24.8	87.7 : 87.7%	16.6
2/2+2/1 - A5112 Hereford Road (South) Ahead Left	70.6 : 70.6%	6.9	85.7 : 85.7%	8.5	72.6 : 72.6%	7.3	87.4 : 87.4%	9.0
2/3 - A5112 Hereford Road (South) Ahead	98.3%	20.1	80.1%	7.1	100.9%	25.4	84.4%	8.0
3/1 - Services Access U-Turn	12.7%	0.1	12.8%	0.1	12.9%	0.1	12.9%	0.1
3/2 - Services Access Left U-Turn	51.2%	1.2	51.8%	1.4	54.4%	1.7	52.3%	1.4
4/1 - A5 (West) Left Ahead	100.0%	33.1	90.1%	18.6	99.3%	31.2	93.1%	20.8
4/2+4/3 - A5 (West) Ahead	100.1 : 100.1%	34.3	90.8 : 90.8%	18.8	99.4 : 99.4%	32.1	93.7 : 93.7%	21.2
5/1 - A5112 Hereford Road (North) Left	17.9%	0.1	13.9%	0.1	17.9%	0.1	13.9%	0.1
5/2 - A5112 Hereford Road (North) Ahead	80.0%	5.6	87.2%	8.5	81.1%	5.8	82.2%	7.6
5/3+5/4 - A5112 Hereford Road (North) Ahead	87.5 : 87.5%	7.2	92.0 : 92.0%	10.5	88.3 : 88.3%	7.4	88.0 : 88.0%	9.3
6/1 - Circ 1 Ahead	38.9%	1.2	70.0%	1.5	34.1%	0.7	71.9%	1.5
6/2 - Circ 1 Right Ahead	50.2%	2.4	78.7%	2.2	52.9%	3.0	82.4%	2.3
6/3 - Circ 1 Right	18.1%	0.0	34.0%	0.1	17.9%	0.0	34.4%	0.1
7/1 - Circ 2 Right Ahead	87.8%	5.4	83.6%	4.4	91.0%	6.0	83.3%	4.4
7/2 - Circ 2 Right	92.3%	5.9	90.8%	5.5	96.1%	7.0	91.0%	5.6
7/3 - Circ 2 Right	24.5%	0.6	20.2%	0.6	24.2%	0.5	20.3%	0.6
8/1 - Circ 3 Ahead	55.7%	0.6	63.1%	0.9	57.2%	0.7	63.4%	0.9
8/2 - Circ 3 Right Ahead	65.1%	0.9	72.0%	1.3	66.4%	1.0	72.6%	1.3
8/3 - Circ 3 Right	44.3%	0.4	29.5%	0.2	45.9%	0.4	30.5%	0.2
9/1 - Circ 4 Ahead	53.0%	3.8	69.9%	1.1	59.9%	4.5	67.5%	1.1
9/2 - Circ 4 Ahead Right	100.0%	9.2	92.2%	7.8	100.0%	9.5	86.9%	6.7
9/3 - Circ 4 Right	66.8%	3.0	25.6%	0.3	72.5%	3.9	27.4%	0.4
15/1 - Circ 5 Ahead	72.3%	7.7	59.0%	5.0	72.6%	7.8	60.8%	5.4
15/2 - Circ 5 Right Ahead	99.3%	21.1	83.9%	4.2	100.0%	22.8	87.6%	5.0
15/3 - Circ 5 Right	11.3%	0.6	8.4%	0.5	14.0%	0.8	9.3%	0.5
Overall PRC	-11.2%		-2.4%		-12.1%		-4.1%	

5.20 As can be seen from the above, in the 2021 assessment year a number of links are operating over their practical capacity during the AM peak period, without the proposed development in place. With the additional traffic generated by the development there will be a slight increase in the DoS and queue lengths on a number of the links when compared to the without development scenario, however, all links are operating below 100% and the impact of the proposed development is not considered material.

5.21 In the PM peak hour, the junction is predicted to operate within capacity in both the 2021 'without' and 'with' development scenarios.

- 5.22 In the future assessment years of 2026 and 2031, the increase in traffic growth results in a number of links are operating over their practical capacity during both the AM and PM peak periods, with some links operating over 100%, however, the greatest increase in overall PRC as a result of the development in the AM and PM peak hours is only 0.9% and 1.7% respectively, which is not considered material.
- 5.23 Whilst some of the links are operating at capacity in 2026 and 2031, this is attributed to the background traffic growth and would take place without the development coming forward. As the analysis demonstrates that the proposed development will not have a material impact on the operation of the junction, there are not considered to be any constraints from a highway impact perspective to the proposed allocation site from coming forward. It should also be noted that whilst the proposed allocation site is not anticipated to have a material impact on the operation of the local highway network, the above assessments are considered robust given that the COVID-19 pandemic is likely to result in long term effects (i.e. many people continuing to work from home long after the pandemic is over) and therefore, the predicted traffic growth is unlikely to be realised.

6.0 SUMMARY AND CONCLUSIONS

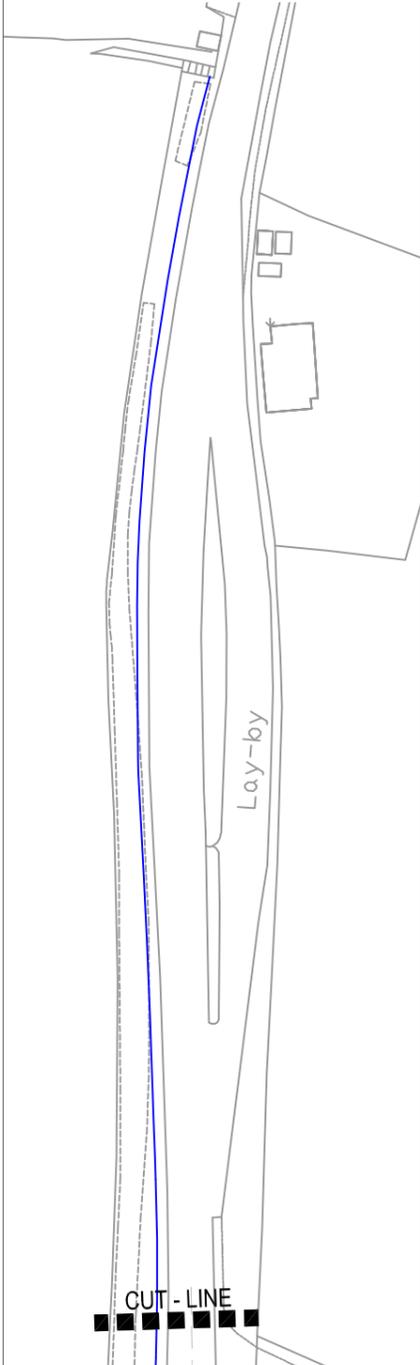
- 6.1 SCP have undertaken a review of the highway and transport aspects of the proposed allocation of land to the west of the A49 Hereford Road, Bayston Hill, for residential purposes. It is anticipated that the proposed allocation site could accommodate up to 250 dwellings.
- 6.2 The personal injury accident data for the most recently available 5-year period in the vicinity of the site has been reviewed and does not represent a material concern in the context of the proposed allocation site. Notwithstanding this, the proposed allocation site would result in several safety benefits.
- 6.3 The site is considered to be well located in terms of its accessibility by all the major non-car modes of transport. In particular, the site is within an acceptable walk distance of Bayston Hill and a number of facilities and amenities, including bus stops. These findings demonstrate that prospective residents will not be wholly reliant on the private car to travel for to work.
- 6.4 Vehicular access to the proposed allocation site can be achieved through the introduction of a 4-arm priority-controlled compact roundabout, with an 50m ICD, located at the same location as the existing A49 Hereford Road / Unnamed Road junction.
- 6.5 The roundabout has been designed fully in accordance with the design requirements set out in CD 116 of the Design Manual for Roads and Bridges and would therefore provide a significant betterment over the existing situation, whereby the achievable level of forward visibility (circa 22m) to the existing give way line and queueing traffic when approaching the junction from Conover falls significantly short of the visibility requirements (215m) based on the speed of the road.
- 6.6 The proposed roundabout access has been subject to an independent Stage 1 Road Safety Audit which confirms that there are no material safety issues that would prevent the scheme from coming forward, with all matters raised being able to be addressed at Detailed Design Stage.
- 6.7 Swept path analysis has been undertaken of the site access roundabout which confirms that the movements of a 16.5m articulated HGV could be accommodated providing better HGV access from Conover.

- 6.8 The roundabout would also act as a new improved gateway entry feature into Bayston Hill, providing a clear transition between the rural and built areas, and would naturally help to calm traffic speeds on the A49 Hereford Road, providing additional and significant highway safety benefits. In the vicinity of the site, the A49 Hereford Road is predominantly rural in character and subject to National Speed limit. However, residential development on this site would change the nature of this section of road and increase frontage activity. It is therefore considered appropriate to reduce the speed limit along the site frontage to 30mph from the proposed roundabout.
- 6.9 A 2m footway can be provided along the site frontage, between the site access roundabout and the existing pedestrian infrastructure on the A49 Hereford Road, and additional connections can be provided onto the footway to improve the permeability of the site.
- 6.10 To further improve the sites accessibility by bus, it is considered that bus stops could be introduced along the site's frontage on both sides of the A49 Hereford Road which could be utilised by bus service 435 which already passes the site. The specific location of the bus stops can be determined at the planning application stage.
- 6.11 The trip generating potential of the site has been estimated using trip rates from the industry standard TRICS Database, and detailed capacity assessments have been undertaken at the proposed site access and the Bayston Hill Roundabout. The results of the assessments show that the site access will operate within its practical capacity in the future assessment years, with the proposed allocation site in place, and the proposed allocation site will not have a material impact on the operation of the Bayston Hill Roundabout.
- 6.12 Having regard to the analysis presented in this report, the land to the west of the A49 Hereford Road is considered very suitable for residential use from a highways and transportation perspective.

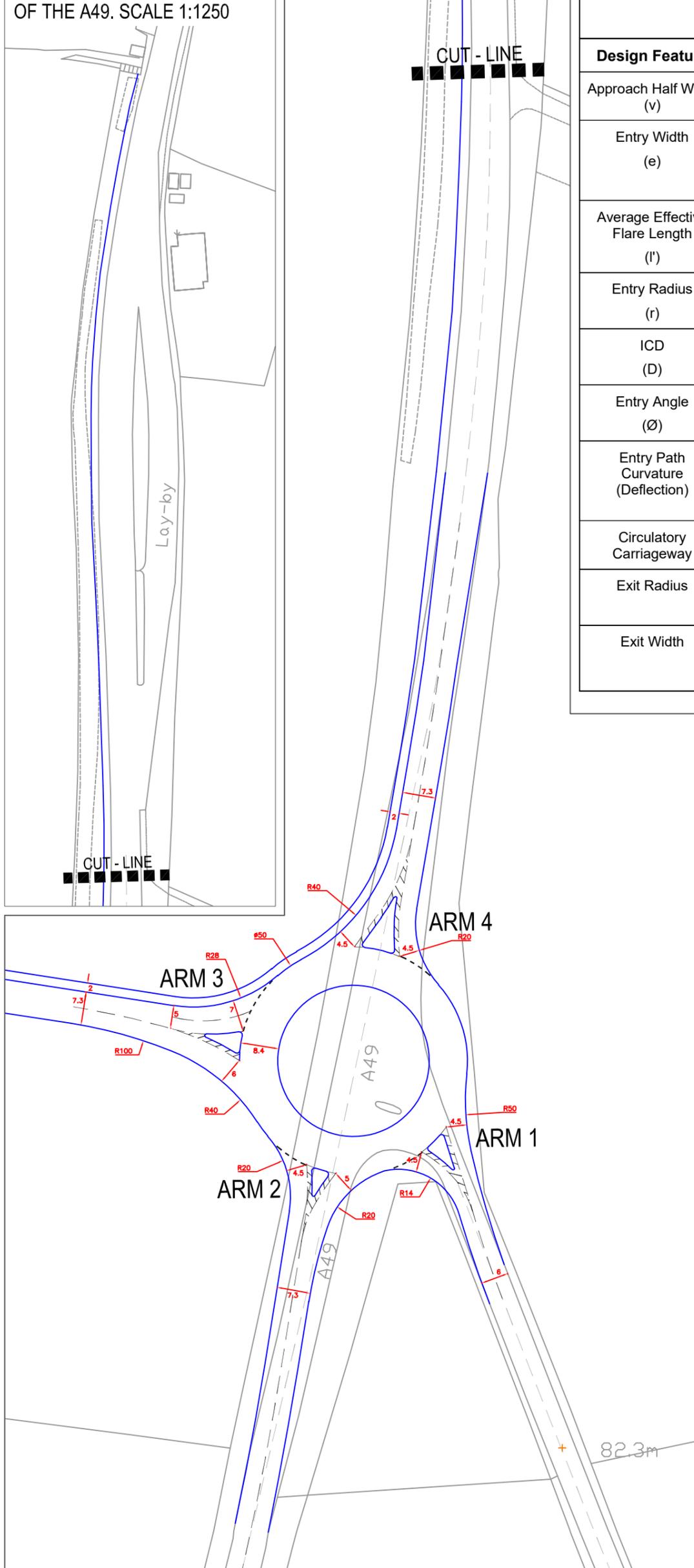
S|C|P

APPENDIX A

VIEWPORT 1 - PROPOSED FOOTWAY ALONG THE WEST OF THE A49. SCALE 1:1250



OVERALL DESIGN. SCALE 1:1000



Roundabout Design Checklist – CD 116 Revision 2

(Formerly TD 16/07)

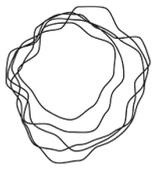
Normal Roundabout

Design Feature	Design Requirements	Arm 1	Arm 2	Arm 3	Arm 4
Approach Half Width (v)	Typically 2m – 7.3m	3.0	3.65m	3.65m	3.65m
Entry Width (e)	Min 3m per lane Single 3m<e<10.5m (4.5m ideal) Dual 6m<e<15m (3m-3.5m ideal)	4.5m	4.5m	7.0m	4.5m
Average Effective Flare Length (l')	5m – 100m (25m rural ideal)	3m	5m	14m	2m
Entry Radius (r)	10m – 100m (20m ideal) Normal – 20m min for HGV's)	14m	20m	28m	20m
ICD (D)	>28m	50m	50m	50m	50m
Entry Angle (Ø)	20° – 60° (30°– 40° ideal)	50m	47m	37m	47m
Entry Path Curvature (Deflection)	Normal - <100m radius Compact - <70m radius (DMRB: urban overruns OK)	29m	98.5m	98m	93m
Circulatory Carriageway	1.0 – 1.2 x max entry width max 15m	8.4m	8.4m	8.4m	8.4m
Exit Radius	Normal 20m – 100m (40m ideal) Compact – 15m – 20m	50m	20m	40m	40m
Exit Width	Normal – 6m min Compact – single lane	4.5m	4.5m	6m	4.5m

REVISIONS

Rev	Description	Date	By
-	-	-	-
-	-	-	-
-	-	-	-

Client	-	Drawing Title	POTENTIAL SITE ACCESS AND ROUNDABOUT DESIGN - A49	Scale	AS SHOWN @ A3	By	BA	Drawing No.	SCP/200728/SK02
Project Title	BAYSTON HILL, SHROPSHIRE			Date	23.12.2020	Checked	PT		
				Approved/Unapproved	-	Status	PLANNING	Revision	-



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Highways, Transportation & Safety Consulting

A49 (T) Bayston Hill, Shropshire - Potential Site Roundabout Access

Road Safety Audit: Preliminary Review

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A49 (T) Bayston Hill, Shropshire - Potential Site Roundabout Access

Road Safety Audit: Preliminary Review

Report Produced for:	Gleeson Strategic Land
Report Produced by:	Jonathan Birkett
Report Dated:	25 January 2021
Report Reference:	MAL/BHRRSARev0
Road Safety Audit Prelim Review:	Jonathan Birkett



A49 (T) Bayston Hill, Shropshire - Potential Site Roundabout Access

Road Safety Audit: Preliminary Review

Contents Amendment Record

This report has been issued & amended as follows:

Issue	Revision	Description	Date	Signed
1	0	Draft Report	25 Jan 2021	JB
1	0	FINAL REPORT	25 Jan 2021	JB/GK

Report Circulation Record

This report has been circulated, as follows:

Person	Organisation	No. of Copies	Date
	Gleeson Strategic Land	Electronic	25 Jan 2021
P Todd	SCP	Electronic	25 Jan 2021
D Barker	Meraki Alliance Ltd	Electronic	25 Jan 2021

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Executive Summary

This report has been prepared in response to a request to undertake a Road Safety Audit Preliminary Review, by Gleeson Strategic Land. The scheme submitted for review is the proposed roundabout scheme associated with a proposed development A49 (T) Hereford Road, Bayston Hill, Shropshire.

The scope of the highway works being undertaken in this Road safety Audit Preliminary Review includes:

- New roundabout on the A49 (T).

The items raised in the Road safety Audit Preliminary Review are outlined within Section 2 of this report, together with recommendations for alterations or improvements to the proposals with the aim of improving highway safety and aiding accident prevention.

1 Introduction

1.1 General

This report has been prepared in response to a request to undertake a Road Safety Audit Preliminary Review, by Gleeson Strategic Land. The scheme submitted for Review is the proposed roundabout scheme associated with a possible development A49 (T) Hereford Road, Bayston Hill, Shropshire. A49 (T) Hereford Road is a Trunk Road and is subject to a 60mph speed limit and is street lit.

The audit comprised an examination of documents forming the Road safety Audit Preliminary Review Brief and an examination of the site.

1.2 Documents Forming the Brief

The documents were made available to the Road Safety Audit Preliminary Review Team by Peter Todd (SCP), on the instructions of Gleeson Strategic Land. The total documents forming the Audit Brief are listed in Appendix 1:

Generally, the Brief comprised:

- Brief.
- Drawing.

1.3 Collision Traffic and Speed Data

Collision data was not available as part of the brief. Therefore, the Audit Team examined CrashMap to determine if there have been any collisions in the most recent 5 years of data available 2015-2019. The data held indicates that there have been two collisions at the existing junction of the A49 (T) and the minor road leading to Condover. The two collisions were classed as slight in severity.

Traffic count data was not available.

Speed data was not available.

1.4 Details of Site Visit

A site inspection was undertaken on Monday 22nd January between 08:15 and 09:15. The team arrived separately on site to ensure that social distancing was observed as part of the Coronavirus Pandemic and guidance provided by Public Health England. The Audit Team spent 60 minutes on site understanding the proposed works and their interaction with the local road network.

During the site visit it was dry and cold. No incidents were noted during the site visit.

1.5 Road Safety Audit Preliminary Review Team and Format

It was considered that the information provided was sufficient for the purpose of carrying out the Road Safety Audit Preliminary Review requested.

The Road Safety Audit Preliminary Review Team membership approved by Gleeson Strategic Land was:

JONATHAN BIRKETT IENG MICE FIHE MSORSA

Holder of Certificate of Competency

Review Team Leader

D BARKER

Holder of Certificate of Competency

Review Team Member

The Road Safety Audit Preliminary Review comprised an examination of the documents and drawings supplied to the Road Safety Audit Preliminary Review Audit Team (referenced in Appendix 1 of this report). No member of the Road Safety Audit Preliminary Review Team has had any previous input to the design of the scheme.

The Terms of Reference are as described in the Highways England Design Manual for Roads and Bridges document GG119 'Road Safety Audit'. The scheme has been examined and this report compiled only with regard to safety implications to road users of the scheme as presented. It has not been verified for compliance with any other Standards or criteria. However, in order to clearly explain a safety problem or the recommendation to resolve a problem, the Audit Team may on occasion have referred to a design standard for information only. However, any audit comments should not be construed as implying that a technical audit has been undertaken in any respect.

Furthermore, any recommendations included within this report should not be regarded as being prescriptive design solution to the problem raised. They are intended only to indicate a proportionate and viable means of eliminating or mitigating the identified problem, as stipulated in GG119, and in no way imply that a formal design process has been undertaken. There may be alternative methods of addressing a problem which should be equally acceptable in achieving the desired elimination or mitigation and these should be considered when responding to this report.

In the event of a collision and any resulting legal action, Meraki Alliance Ltd would have to defend its actions on the basis that it took such care, as in all circumstances was reasonably required, to ensure that the highway was not dangerous to road users. It is important therefore that recommendations contained in the report are acted upon wherever possible.

1.6 Departures or Relaxations from Standards

No departures from standard have been provided to the Road Safety Audit Preliminary Review Team.

2 Items Raised at Road Safety Audit Preliminary Review

This section details the findings of this Road Safety Audit Preliminary Review. All locations of identified problems are illustrated on the plan included at **Appendix 2**.

2.1 Road Safety Audit Preliminary Review Problems

PROBLEM		1
Location:	New roundabout.	
Summary:	A lack of suitable drainage can increase the risk of loss of control type collisions.	
<p>The scheme will introduce a new roundabout on the A49 (T) Hereford Road. The drawings do not show what form of drainage will be proposed as part of the roundabout scheme.</p> <p>A lack of suitable drainage can increase the risk of ponding and during winter and standing water can freeze increasing the risk of loss of control type collisions.</p>		
RECOMMENDATION		
At detailed design carefully consider what drainage will be provided as part of the roundabout works.		

PROBLEM		2
Location:	New roundabout.	
Summary:	Inappropriate levels of lighting can lead to an increased risk of vehicle collisions.	
<p>The drawing provided does not clearly show if street lighting will be altered as part of the scheme. The scheme will include a new roundabout, this may result in areas of the carriageway being in shadow leading to possible conflicts during the hours of darkness.</p>		
RECOMMENDATION		
Ensure that suitable lighting provision is provided.		

PROBLEM		3
Location:	New roundabout.	
Summary:	A lack of vehicle separation between pedestrians and vehicles will increase the risk of pedestrian-vehicle collisions.	
<p>The Audit Team noted that a new footway is proposed along the western side of the A49 between the site and Bayston Hill. Currently there is no 1m separation strip along the A49 and as such vehicles travelling along the A49(T) towards Bayston Hill will be too close to pedestrians increasing the risk of pedestrian-vehicle collisions.</p>		
RECOMMENDATION		
<p>As there is no 1m clearance strip along the A49 (T) it is recommended that the proposed footway is offset by 1m into the verge creating a clearance strip ensuring the safety of pedestrians.</p>		

PROBLEM		4
Location:	New roundabout.	
Summary:	Details of vehicle tracked movements are not provided on the drawings. Inappropriate carriageway widths and turning radii can result in increased vehicle collisions as well as pedestrian-vehicle collisions.	
<p>Details of the swept paths of vehicles, are not provided on the drawings. Inappropriate carriageway widths and junction radii can result in vehicles failing to safely negotiate the new junction arrangements. The drawing provided does show that some of the geometrical parameters used for the new roundabout fall outside the recommended design requirements.</p> <p>Inappropriate carriageway widths and junction radii can increase the risk of vehicle collisions and pedestrian-vehicle collisions.</p>		
RECOMMENDATION		
<p>Provide swept path movements on all approaches and for all turning movements at the new roundabout ensuring that over running of the verges and central island does not occur.</p>		

PROBLEM		5
Location:	New roundabout and A49 (T).	
Summary:	High vehicle speeds can increase the risk of vehicles failing to negotiate the roundabout increasing the risk of collisions.	

As part of the Audit the team considered the position of the existing speed limit change located to the north of the proposed site. The Audit Team considered that vehicles The Audit Team considered that vehicles would accelerate on leaving Bayston Hill and the 30mph speed limit and would not be expecting the new roundabout resulting in vehicles especially HCV's travelling at speeds where they can't safely negotiate the roundabout increasing the risk of vehicle collisions.

RECOMMENDATION

Consider as part of the scheme moving the speed limit to the south of the roundabout.

END OF PROBLEMS IDENTIFIED AND RECOMMENDATIONS PRESENTED IN THIS ROAD SAFETY AUDIT PRELIMINARY REVIEW

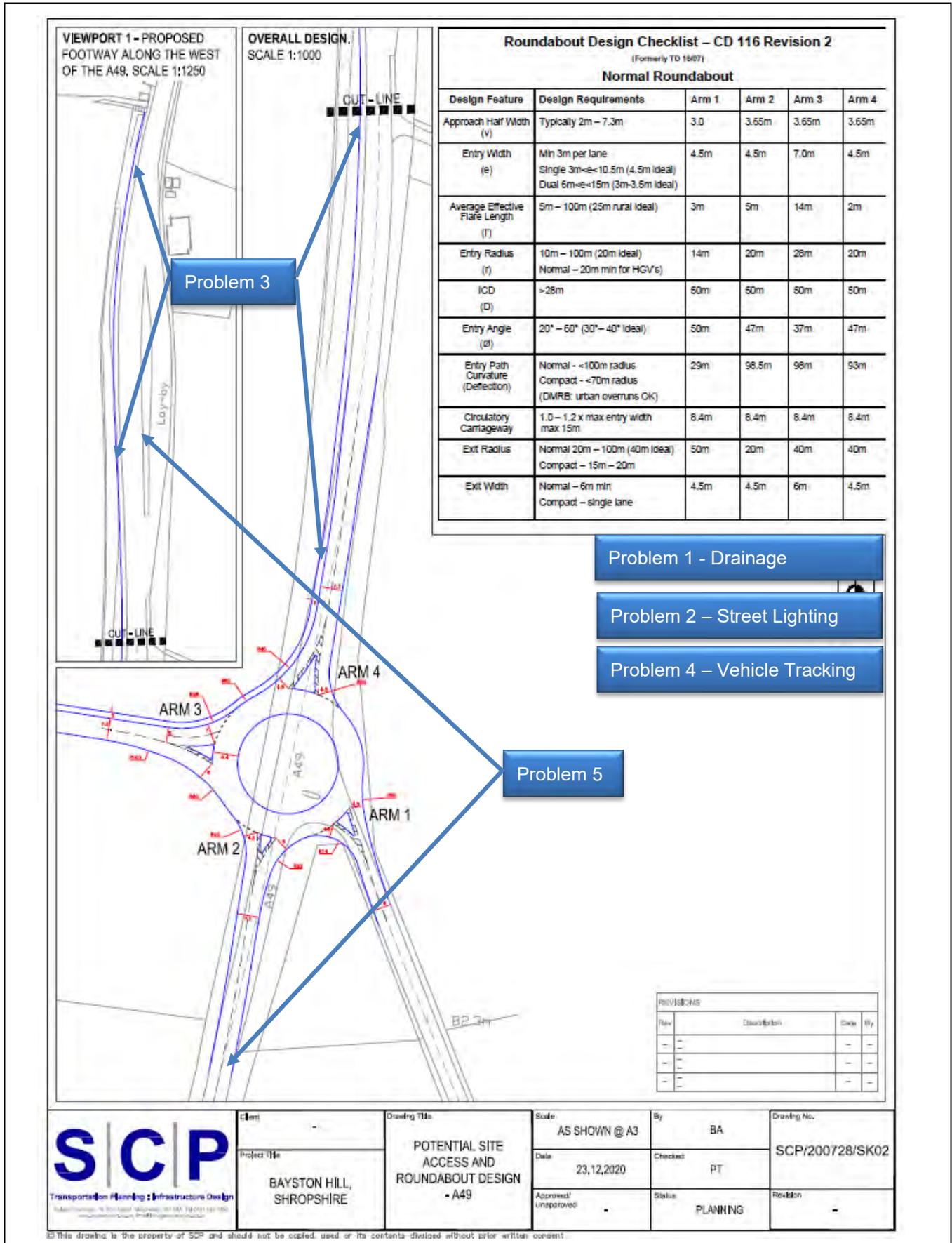
3 Road Safety Audit Preliminary Review Team Statement

ROAD SAFETY AUDIT PRELIMINARY REVIEW TEAM LEADER	
NAME:	JONATHAN BIRKETT
SIGNED:	
POSITION:	DIRECTOR
ORGANISATION	MERAKI ALLIANCE LTD
DATE:	25 JANUARY 2021
ROAD SAFETY AUDIT PRELIMINARY REVIEW TEAM MEMBER	
NAME:	DEAN BARKER
SIGNED:	
POSITION:	TEAM MEMBER
ORGANISATION	MERAKI ALLIANCE LTD
DATE:	25 JANUARY 2021

Appendix 1 – Audited Drawings

SCP/200728/SK02 – Potential Site Access and Roundabout Design A49 (T)

Appendix 2 – Problem Location Plan



ROAD SAFETY AUDIT (RSA) DESIGNERS RESPONSE FORM

RSA Ref No : MAL/BHRRSARev0

RSA Stage : One

RSA Auditors : MERAKI ALLIANCE

Scheme : Proposed Residential Allocation Site, Bayston Hill, Shropshire

Response By: PT



Paragraph No. in RSA Report	Problem Accepted (Yes/No)	Recommended Measure Accepted (Yes/No)	Alternative Measure / Design Team Response
2.1.1	Yes	Yes	To be addressed at detailed design stage.
2.1.2	Yes	Yes	To be addressed at detailed design stage.
2.1.3	Yes	Yes	1m clearance strip to be provided adjacent to new footway along sites frontage
2.1.4	Yes	Yes	Swept paths provided in access report, clearly demonstrates that a 16.5m long articulated vehicle can be accommodated at the roundabout
2.1.5	Yes	Yes	The roundabout and forward visibility splays have been designed based on the existing national speed limit of the road as a worst case. However, it is proposed to move the change in speed limit to the roundabout but there are no technical reasons why this can not be moved further to the south of the roundabout if required. The location for the change in speed limit to be discussed with Highways England at planning application stage.

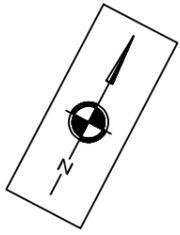
Craig Thomson
Technical Director
SCP

Signed:

Date: 27/01/2021

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APPENDIX B

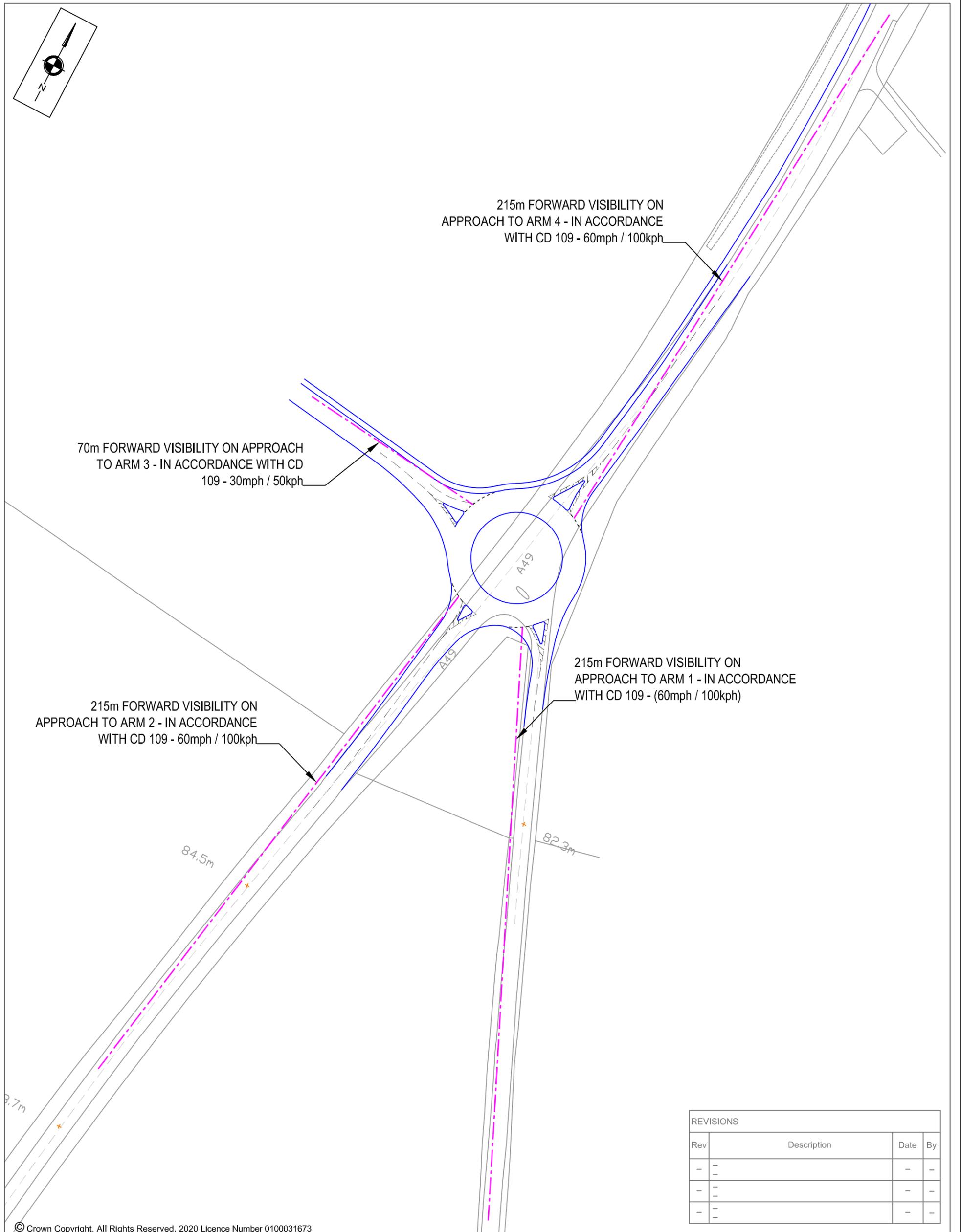


215m FORWARD VISIBILITY ON
 APPROACH TO ARM 4 - IN ACCORDANCE
 WITH CD 109 - 60mph / 100kph

70m FORWARD VISIBILITY ON APPROACH
 TO ARM 3 - IN ACCORDANCE WITH CD
 109 - 30mph / 50kph

215m FORWARD VISIBILITY ON
 APPROACH TO ARM 2 - IN ACCORDANCE
 WITH CD 109 - 60mph / 100kph

215m FORWARD VISIBILITY ON
 APPROACH TO ARM 1 - IN ACCORDANCE
 WITH CD 109 - (60mph / 100kph)



REVISIONS			
Rev	Description	Date	By
-	-	-	-
-	-	-	-
-	-	-	-

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Client	-	Drawing Title	Scale	By	Drawing No.
Project Title	BAYSTON HILL, SHROPSHIRE	VISIBILITY ON APPROACH - 50m ICD ROUNDBOUT	1:1250 @ A3	BA	SCP/200728/SK03
			Date	Checked	Revision
			23.12.2020	PT	-
			Approved/ Unapproved	Status	
			-	PLANNING	

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APPENDIX C

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : A - HOUSES PRIVATELY OWNED

MULTI-MODAL TOTAL VEHICLESSelected regions and areas:

02 SOUTH EAST		
ES	EAST SUSSEX	3 days
HF	HERTFORDSHIRE	1 days
KC	KENT	3 days
SC	SURREY	1 days
WS	WEST SUSSEX	3 days
04 EAST ANGLIA		
NF	NORFOLK	1 days
06 WEST MIDLANDS		
ST	STAFFORDSHIRE	1 days
09 NORTH		
DH	DURHAM	1 days

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

Primary Filtering selection:

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

Parameter: No of Dwellings
 Actual Range: 99 to 288 (units:)
 Range Selected by User: 90 to 360 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/12 to 23/09/19

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

Selected survey days:

Monday	5 days
Tuesday	1 days
Wednesday	3 days
Thursday	3 days
Friday	2 days

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

Selected survey types:

Manual count	14 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town	12
Neighbourhood Centre (PPS6 Local Centre)	2

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

Selected Location Sub Categories:

Residential Zone	13
Village	1

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

Secondary Filtering selection:Use Class:

C3	14 days
----	---------

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

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	2 days
5,001 to 10,000	4 days
10,001 to 15,000	4 days
15,001 to 20,000	2 days
20,001 to 25,000	1 days

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

Population within 5 miles:

5,001 to 25,000	3 days
25,001 to 50,000	1 days
50,001 to 75,000	1 days
75,001 to 100,000	3 days
125,001 to 250,000	6 days

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

Car ownership within 5 miles:

0.6 to 1.0	3 days
1.1 to 1.5	9 days
1.6 to 2.0	2 days

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

Travel Plan:

Yes	6 days
No	8 days

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

PTAL Rating:

No PTAL Present	14 days
-----------------	---------

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

LIST OF SITES relevant to selection parameters

1	DH-03-A-02	MIXED HOUSES	DURHAM
	LEAZES LANE BISHOP AUCKLAND ST HELEN AUCKLAND Neighbourhood Centre (PPS6 Local Centre) Residential Zone Total No of Dwellings: 125 Survey date: MONDAY 27/03/17		Survey Type: MANUAL
2	ES-03-A-03	MIXED HOUSES & FLATS	EAST SUSSEX
	SHEPHAM LANE POLEGATE Edge of Town Residential Zone Total No of Dwellings: 212 Survey date: MONDAY 11/07/16		Survey Type: MANUAL
3	ES-03-A-04	MIXED HOUSES & FLATS	EAST SUSSEX
	NEW LYDD ROAD CAMBER Edge of Town Residential Zone Total No of Dwellings: 134 Survey date: FRIDAY 15/07/16		Survey Type: MANUAL
4	ES-03-A-05	MIXED HOUSES & FLATS	EAST SUSSEX
	RATTLE ROAD NEAR EASTBOURNE STONE CROSS Edge of Town Residential Zone Total No of Dwellings: 99 Survey date: WEDNESDAY 05/06/19		Survey Type: MANUAL
5	HF-03-A-03	MIXED HOUSES	HERTFORDSHIRE
	HARE STREET ROAD BUNTINGFORD Edge of Town Residential Zone Total No of Dwellings: 160 Survey date: MONDAY 08/07/19		Survey Type: MANUAL
6	KC-03-A-04	SEMI-DETACHED & TERRACED	KENT
	KILN BARN ROAD AYLESFORD DITTON Edge of Town Residential Zone Total No of Dwellings: 110 Survey date: FRIDAY 22/09/17		Survey Type: MANUAL
7	KC-03-A-07	MIXED HOUSES	KENT
	RECVLVER ROAD HERNE BAY Edge of Town Residential Zone Total No of Dwellings: 288 Survey date: WEDNESDAY 27/09/17		Survey Type: MANUAL
8	KC-03-A-08	MIXED HOUSES	KENT
	MAIDSTONE ROAD CHARING Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 159 Survey date: TUESDAY 22/05/18		Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

9	NF-03-A-06	MIXED HOUSES	NORFOLK
	BEAUFORT WAY		
	GREAT YARMOUTH		
	BRADWELL		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	275	
	Survey date: MONDAY	23/09/19	Survey Type: MANUAL
10	SC-03-A-05	MIXED HOUSES	SURREY
	REIGATE ROAD		
	HORLEY		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	207	
	Survey date: MONDAY	01/04/19	Survey Type: MANUAL
11	ST-03-A-07	DETACHED & SEMI-DETACHED	STAFFORDSHIRE
	BEACONSIDE		
	STAFFORD		
	MARSTON GATE		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	248	
	Survey date: WEDNESDAY	22/11/17	Survey Type: MANUAL
12	WS-03-A-04	MIXED HOUSES	WEST SUSSEX
	HILLS FARM LANE		
	HORSHAM		
	BROADBRIDGE HEATH		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	151	
	Survey date: THURSDAY	11/12/14	Survey Type: MANUAL
13	WS-03-A-08	MIXED HOUSES	WEST SUSSEX
	ROUNDSTONE LANE		
	ANGMERING		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	180	
	Survey date: THURSDAY	19/04/18	Survey Type: MANUAL
14	WS-03-A-09	MIXED HOUSES & FLATS	WEST SUSSEX
	LITTLEHAMPTON ROAD		
	WORTHING		
	WEST DURRINGTON		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	197	
	Survey date: THURSDAY	05/07/18	Survey Type: MANUAL

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL TOTAL VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	14	182	0.086	14	182	0.281	14	182	0.367
08:00 - 09:00	14	182	0.134	14	182	0.361	14	182	0.495
09:00 - 10:00	14	182	0.142	14	182	0.175	14	182	0.317
10:00 - 11:00	14	182	0.123	14	182	0.152	14	182	0.275
11:00 - 12:00	14	182	0.130	14	182	0.146	14	182	0.276
12:00 - 13:00	14	182	0.147	14	182	0.141	14	182	0.288
13:00 - 14:00	14	182	0.163	14	182	0.150	14	182	0.313
14:00 - 15:00	14	182	0.166	14	182	0.191	14	182	0.357
15:00 - 16:00	14	182	0.261	14	182	0.163	14	182	0.424
16:00 - 17:00	14	182	0.260	14	182	0.162	14	182	0.422
17:00 - 18:00	14	182	0.324	14	182	0.138	14	182	0.462
18:00 - 19:00	14	182	0.284	14	182	0.167	14	182	0.451
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.220			2.227			4.447

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

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

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Parameter summary

Trip rate parameter range selected: 99 - 288 (units:)
 Survey date range: 01/01/12 - 23/09/19
 Number of weekdays (Monday-Friday): 14
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 0
 Surveys manually removed from selection: 0

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL CYCLISTS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	14	182	0.006	14	182	0.007	14	182	0.013
08:00 - 09:00	14	182	0.010	14	182	0.017	14	182	0.027
09:00 - 10:00	14	182	0.000	14	182	0.003	14	182	0.003
10:00 - 11:00	14	182	0.003	14	182	0.004	14	182	0.007
11:00 - 12:00	14	182	0.003	14	182	0.004	14	182	0.007
12:00 - 13:00	14	182	0.004	14	182	0.005	14	182	0.009
13:00 - 14:00	14	182	0.002	14	182	0.001	14	182	0.003
14:00 - 15:00	14	182	0.004	14	182	0.004	14	182	0.008
15:00 - 16:00	14	182	0.007	14	182	0.006	14	182	0.013
16:00 - 17:00	14	182	0.013	14	182	0.012	14	182	0.025
17:00 - 18:00	14	182	0.015	14	182	0.007	14	182	0.022
18:00 - 19:00	14	182	0.010	14	182	0.009	14	182	0.019
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.077			0.079			0.156

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL PEDESTRIANS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	14	182	0.015	14	182	0.024	14	182	0.039
08:00 - 09:00	14	182	0.035	14	182	0.072	14	182	0.107
09:00 - 10:00	14	182	0.036	14	182	0.038	14	182	0.074
10:00 - 11:00	14	182	0.030	14	182	0.042	14	182	0.072
11:00 - 12:00	14	182	0.025	14	182	0.031	14	182	0.056
12:00 - 13:00	14	182	0.036	14	182	0.031	14	182	0.067
13:00 - 14:00	14	182	0.029	14	182	0.026	14	182	0.055
14:00 - 15:00	14	182	0.027	14	182	0.034	14	182	0.061
15:00 - 16:00	14	182	0.067	14	182	0.043	14	182	0.110
16:00 - 17:00	14	182	0.055	14	182	0.037	14	182	0.092
17:00 - 18:00	14	182	0.047	14	182	0.022	14	182	0.069
18:00 - 19:00	14	182	0.041	14	182	0.046	14	182	0.087
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.443			0.446			0.889

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	14	182	0.002	14	182	0.021	14	182	0.023
08:00 - 09:00	14	182	0.001	14	182	0.035	14	182	0.036
09:00 - 10:00	14	182	0.002	14	182	0.014	14	182	0.016
10:00 - 11:00	14	182	0.006	14	182	0.006	14	182	0.012
11:00 - 12:00	14	182	0.003	14	182	0.006	14	182	0.009
12:00 - 13:00	14	182	0.006	14	182	0.007	14	182	0.013
13:00 - 14:00	14	182	0.004	14	182	0.006	14	182	0.010
14:00 - 15:00	14	182	0.006	14	182	0.003	14	182	0.009
15:00 - 16:00	14	182	0.024	14	182	0.010	14	182	0.034
16:00 - 17:00	14	182	0.015	14	182	0.006	14	182	0.021
17:00 - 18:00	14	182	0.015	14	182	0.005	14	182	0.020
18:00 - 19:00	14	182	0.021	14	182	0.007	14	182	0.028
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.105			0.126			0.231

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

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

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APPENDIX D

Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.5.1.7462 © Copyright TRL Limited, 2019
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Filename: Site Access_A49 Hereford Road_Unnamed Road_January 2021.j9
Path: Z:\Job Library\2020\200728 - Bayston Hill, Shropshire\Traffic Data\ARCADY
Report generation date: 11/01/2021 15:30:30

- »2021 Assessment, AM
- »2021 Assessment, PM
- »2026 Assessment, AM
- »2026 Assessment, PM
- »2031 Assessment, AM
- »2031 Assessment, PM

Summary of junction performance

AM						PM						
Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	
2021 Assessment												
Arm 1	D1	1.6	8.37	0.60	A	19 % [Arm 3]	D2	2.8	12.15	0.73	B	24 % [Arm 1]
Arm 2		0.3	6.29	0.21	A			0.2	6.42	0.15	A	
Arm 3		3.3	13.83	0.76	B			1.9	9.51	0.64	A	
Arm 4		0.1	3.59	0.09	A			0.0	3.09	0.03	A	
2026 Assessment												
Arm 1	D3	1.8	9.07	0.63	A	14 % [Arm 3]	D4	3.4	13.98	0.77	B	19 % [Arm 1]
Arm 2		0.3	6.53	0.22	A			0.2	6.66	0.16	A	
Arm 3		4.1	16.53	0.80	C			2.2	10.50	0.67	B	
Arm 4		0.1	3.69	0.09	A			0.0	3.16	0.03	A	
2031 Assessment												
Arm 1	D5	2.0	9.65	0.65	A	10 % [Arm 3]	D8	3.9	15.67	0.79	C	15 % [Arm 1]
Arm 2		0.3	6.71	0.23	A			0.2	6.85	0.16	A	
Arm 3		4.9	19.29	0.83	C			2.4	11.38	0.70	B	
Arm 4		0.1	3.77	0.09	A			0.0	3.21	0.03	A	

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	Site Access_A49 Hereford Road_Unnamed Road
Location	
Site number	
Date	15/12/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	SCP\craig.thomson
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

Calculate Queue Percentiles	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
	✓	Delay	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)
D1	2021 Assessment	AM	ONE HOUR	07:45	09:15	15
D2	2021 Assessment	PM	ONE HOUR	15:45	17:15	15
D3	2026 Assessment	AM	ONE HOUR	07:45	09:15	15
D4	2026 Assessment	PM	ONE HOUR	15:45	17:15	15
D5	2031 Assessment	AM	ONE HOUR	07:45	09:15	15
D8	2031 Assessment	PM	ONE HOUR	15:45	17:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2021 Assessment, 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	Site Access_A49 Hereford Road_Unnamed Road	Standard Roundabout		1, 2, 3, 4	10.55	B

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	19	Arm 3

Arms

Arms

Arm	Name	Description
1	A49 Hereford Road (North)	
2	Unnamed Road	
3	A49 Hereford Road (South)	
4	Site Access	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	3.65	4.50	5.0	20.0	50.0	47.0	
2	3.00	4.50	5.0	14.0	50.0	50.0	
3	3.65	4.50	5.0	20.0	50.0	47.0	
4	3.65	7.00	14.0	28.0	50.0	37.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.497	1198
2	0.457	1038
3	0.497	1198
4	0.599	1663

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)
D1	2021 Assessment	AM	ONE HOUR	07:45	09:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	629	100.000
2		✓	142	100.000
3		✓	793	100.000
4		✓	90	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	53	544	32
	2	61	0	81	0
	3	720	71	0	2
	4	86	0	4	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	3	9	0
	2	3	0	3	0
	3	6	3	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.60	8.37	1.6	A
2	0.21	6.29	0.3	A
3	0.76	13.83	3.3	B
4	0.09	3.59	0.1	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	474	56	1170	0.405	471	0.7	5.538	A
2	107	434	839	0.127	106	0.1	5.054	A
3	597	70	1163	0.513	593	1.1	6.621	A
4	68	637	1282	0.053	68	0.1	2.963	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	565	67	1164	0.486	564	1.0	6.467	A
2	128	520	800	0.160	127	0.2	5.513	A
3	713	83	1156	0.617	711	1.7	8.496	A
4	81	764	1206	0.067	81	0.1	3.198	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	693	82	1157	0.599	690	1.6	8.288	A
2	156	637	747	0.209	156	0.3	6.274	A
3	873	102	1147	0.761	867	3.2	13.306	B
4	99	932	1106	0.090	99	0.1	3.575	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	693	83	1157	0.599	692	1.6	8.369	A
2	156	639	746	0.210	156	0.3	6.289	A
3	873	102	1147	0.761	873	3.3	13.833	B
4	99	938	1102	0.090	99	0.1	3.588	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	565	68	1164	0.486	568	1.0	6.545	A
2	128	523	798	0.160	128	0.2	5.532	A
3	713	84	1156	0.617	719	1.7	8.824	A
4	81	772	1201	0.067	81	0.1	3.215	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	474	57	1170	0.405	475	0.7	5.605	A
2	107	438	838	0.128	107	0.2	5.078	A
3	597	70	1163	0.513	599	1.1	6.782	A
4	68	644	1278	0.053	68	0.1	2.976	A

2021 Assessment, 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	Site Access_A49 Hereford Road_Unnamed Road	Standard Roundabout		1, 2, 3, 4	10.51	B

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	24	Arm 1

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)
D2	2021 Assessment	PM	ONE HOUR	15:45	17:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	777	100.000
2		✓	89	100.000
3		✓	657	100.000
4		✓	35	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	59	641	77
	2	46	0	43	0
	3	598	55	0	4
	4	33	0	2	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	5	6	0
	2	3	0	3	0
	3	8	5	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.73	12.15	2.8	B
2	0.15	6.42	0.2	A
3	0.64	9.51	1.9	A
4	0.03	3.09	0.0	A

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	585	43	1177	0.497	581	1.0	6.322	A
2	67	538	792	0.085	67	0.1	5.112	A
3	495	92	1152	0.429	491	0.8	5.841	A
4	26	523	1350	0.020	26	0.0	2.718	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	699	51	1172	0.596	697	1.5	7.933	A
2	80	645	743	0.108	80	0.1	5.595	A
3	591	110	1143	0.517	589	1.1	6.986	A
4	31	627	1288	0.024	31	0.0	2.864	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	855	63	1167	0.733	851	2.8	11.804	B
2	98	788	677	0.145	98	0.2	6.396	A
3	723	135	1131	0.640	720	1.9	9.382	A
4	39	767	1205	0.032	39	0.0	3.086	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	855	63	1167	0.733	855	2.8	12.151	B
2	98	793	675	0.145	98	0.2	6.421	A
3	723	135	1130	0.640	723	1.9	9.513	A
4	39	770	1203	0.032	39	0.0	3.091	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	699	51	1172	0.596	703	1.6	8.173	A
2	80	652	740	0.108	80	0.1	5.623	A
3	591	111	1142	0.517	593	1.2	7.097	A
4	31	631	1286	0.024	31	0.0	2.870	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	585	43	1176	0.497	587	1.1	6.455	A
2	67	544	789	0.085	67	0.1	5.138	A
3	495	93	1152	0.430	496	0.8	5.928	A
4	26	528	1348	0.020	26	0.0	2.726	A

2026 Assessment, 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	Site Access_A49 Hereford Road_Unnamed Road	Standard Roundabout		1, 2, 3, 4	12.16	B

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	14	Arm 3

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)
D3	2026 Assessment	AM	ONE HOUR	07:45	09:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	660	100.000
2		✓	149	100.000
3		✓	833	100.000
4		✓	90	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	56	572	32
	2	64	0	85	0
	3	757	74	0	2
	4	86	0	4	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	3	9	0
	2	3	0	3	0
	3	6	3	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.63	9.07	1.8	A
2	0.22	6.53	0.3	A
3	0.80	16.53	4.1	C
4	0.09	3.69	0.1	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	497	58	1169	0.425	494	0.8	5.734	A
2	112	455	830	0.135	112	0.2	5.158	A
3	627	72	1162	0.540	622	1.2	6.988	A
4	68	669	1263	0.054	68	0.1	3.010	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	593	70	1163	0.510	592	1.1	6.794	A
2	134	545	788	0.170	134	0.2	5.663	A
3	749	86	1155	0.648	746	1.9	9.247	A
4	81	802	1183	0.068	81	0.1	3.264	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	727	85	1155	0.629	724	1.8	8.954	A
2	164	667	733	0.224	164	0.3	6.511	A
3	917	105	1145	0.801	909	3.9	15.583	C
4	99	977	1078	0.092	99	0.1	3.674	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	727	86	1155	0.629	727	1.8	9.068	A
2	164	669	732	0.224	164	0.3	6.531	A
3	917	106	1145	0.801	917	4.1	16.526	C
4	99	985	1074	0.092	99	0.1	3.692	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	593	71	1162	0.510	596	1.1	6.896	A
2	134	549	787	0.170	134	0.2	5.685	A
3	749	87	1155	0.649	757	2.0	9.761	A
4	81	813	1177	0.069	81	0.1	3.284	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	497	59	1168	0.425	498	0.8	5.812	A
2	112	459	828	0.135	112	0.2	5.183	A
3	627	72	1162	0.540	630	1.3	7.200	A
4	68	677	1258	0.054	68	0.1	3.023	A

2026 Assessment, 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	Site Access_A49 Hereford Road_Unnamed Road	Standard Roundabout		1, 2, 3, 4	11.86	B

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	19	Arm 1

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)
D4	2026 Assessment	PM	ONE HOUR	15:45	17:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	813	100.000
2		✓	93	100.000
3		✓	691	100.000
4		✓	35	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	62	674	77
	2	48	0	45	0
	3	629	58	0	4
	4	33	0	2	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	5	6	0
	2	3	0	3	0
	3	8	5	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.77	13.98	3.4	B
2	0.16	6.66	0.2	A
3	0.67	10.50	2.2	B
4	0.03	3.16	0.0	A

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	612	45	1175	0.521	608	1.1	6.627	A
2	70	563	780	0.090	70	0.1	5.214	A
3	520	93	1151	0.452	517	0.9	6.078	A
4	26	550	1334	0.020	26	0.0	2.751	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	731	54	1171	0.624	729	1.7	8.524	A
2	84	675	729	0.115	83	0.1	5.740	A
3	621	112	1142	0.544	620	1.3	7.399	A
4	31	659	1269	0.025	31	0.0	2.908	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	895	66	1165	0.768	889	3.3	13.419	B
2	102	823	661	0.155	102	0.2	6.626	A
3	761	137	1130	0.673	757	2.1	10.310	B
4	39	806	1181	0.033	39	0.0	3.149	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	895	66	1165	0.768	895	3.4	13.981	B
2	102	829	659	0.155	102	0.2	6.662	A
3	761	138	1129	0.674	761	2.2	10.504	B
4	39	809	1179	0.033	39	0.0	3.155	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	731	54	1171	0.624	737	1.8	8.870	A
2	84	683	726	0.115	84	0.1	5.779	A
3	621	113	1142	0.544	625	1.3	7.550	A
4	31	664	1266	0.025	31	0.0	2.916	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	612	45	1175	0.521	615	1.2	6.793	A
2	70	569	777	0.090	70	0.1	5.242	A
3	520	94	1151	0.452	522	0.9	6.182	A
4	26	555	1331	0.020	26	0.0	2.760	A

2031 Assessment, 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	Site Access_A49 Hereford Road_Unnamed Road	Standard Roundabout		1, 2, 3, 4	13.75	B

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	10	Arm 3

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)
D5	2031 Assessment	AM	ONE HOUR	07:45	09:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	682	100.000
2		✓	154	100.000
3		✓	863	100.000
4		✓	90	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	58	592	32
	2	66	0	88	0
	3	784	77	0	2
	4	86	0	4	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	3	9	0
	2	3	0	3	0
	3	6	3	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.65	9.65	2.0	A
2	0.23	6.71	0.3	A
3	0.83	19.29	4.9	C
4	0.09	3.77	0.1	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	513	61	1168	0.440	510	0.8	5.885	A
2	116	470	823	0.141	115	0.2	5.235	A
3	650	73	1161	0.559	644	1.3	7.293	A
4	68	692	1249	0.054	68	0.1	3.046	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	613	73	1162	0.528	612	1.2	7.051	A
2	138	563	780	0.177	138	0.2	5.774	A
3	776	88	1154	0.672	773	2.1	9.897	A
4	81	830	1166	0.069	81	0.1	3.315	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	751	88	1154	0.651	748	2.0	9.504	A
2	170	689	723	0.235	169	0.3	6.692	A
3	950	108	1144	0.830	940	4.7	17.782	C
4	99	1010	1059	0.094	99	0.1	3.750	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	751	89	1153	0.651	751	2.0	9.649	A
2	170	691	722	0.235	170	0.3	6.715	A
3	950	108	1144	0.831	949	4.9	19.290	C
4	99	1020	1053	0.094	99	0.1	3.772	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	613	74	1161	0.528	616	1.2	7.173	A
2	138	567	778	0.178	139	0.2	5.800	A
3	776	88	1154	0.672	786	2.2	10.640	B
4	81	844	1158	0.070	81	0.1	3.344	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	513	61	1167	0.440	515	0.9	5.973	A
2	116	474	821	0.141	116	0.2	5.264	A
3	650	74	1161	0.560	653	1.4	7.547	A
4	68	701	1244	0.054	68	0.1	3.063	A

2031 Assessment, 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	Site Access_A49 Hereford Road_Unnamed Road	Standard Roundabout		1, 2, 3, 4	13.09	B

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	15	Arm 1

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)
D8	2031 Assessment	PM	ONE HOUR	15:45	17:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	839	100.000
2		✓	96	100.000
3		✓	716	100.000
4		✓	35	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	64	698	77
	2	50	0	46	0
	3	652	60	0	4
	4	33	0	2	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	5	6	0
	2	3	0	3	0
	3	8	5	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.79	15.67	3.9	C
2	0.16	6.85	0.2	A
3	0.70	11.38	2.4	B
4	0.03	3.21	0.0	A

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	632	46	1175	0.538	627	1.2	6.865	A
2	72	581	772	0.094	72	0.1	5.289	A
3	539	95	1151	0.469	535	0.9	6.265	A
4	26	570	1322	0.020	26	0.0	2.777	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	754	56	1170	0.645	752	1.9	9.005	A
2	86	696	719	0.120	86	0.1	5.853	A
3	644	114	1141	0.564	642	1.4	7.739	A
4	31	683	1254	0.025	31	0.0	2.943	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	924	68	1164	0.794	916	3.8	14.853	B
2	106	848	650	0.163	105	0.2	6.808	A
3	788	139	1129	0.698	784	2.4	11.120	B
4	39	835	1164	0.033	39	0.0	3.198	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	924	68	1164	0.794	923	3.9	15.669	C
2	106	855	647	0.163	106	0.2	6.851	A
3	788	140	1128	0.699	788	2.4	11.381	B
4	39	839	1161	0.033	39	0.0	3.205	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	754	56	1170	0.645	762	2.0	9.468	A
2	86	706	715	0.121	87	0.1	5.900	A
3	644	115	1141	0.564	648	1.4	7.932	A
4	31	689	1251	0.025	31	0.0	2.954	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	632	47	1174	0.538	635	1.2	7.060	A
2	72	588	769	0.094	72	0.1	5.325	A
3	539	96	1150	0.469	541	1.0	6.383	A
4	26	576	1319	0.020	26	0.0	2.786	A

S|C|P

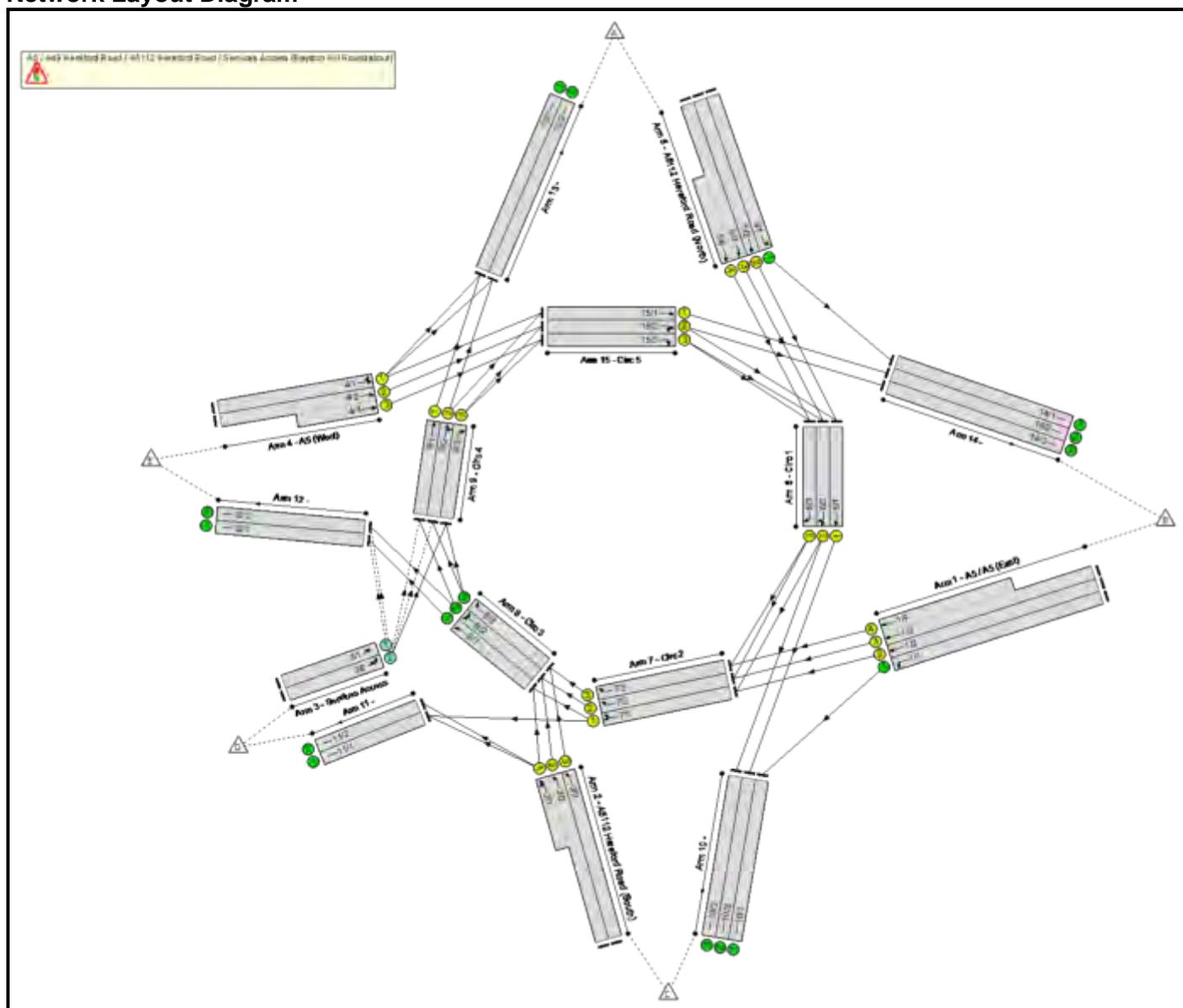
APPENDIX E

Full Input Data And Results
Full Input Data And Results

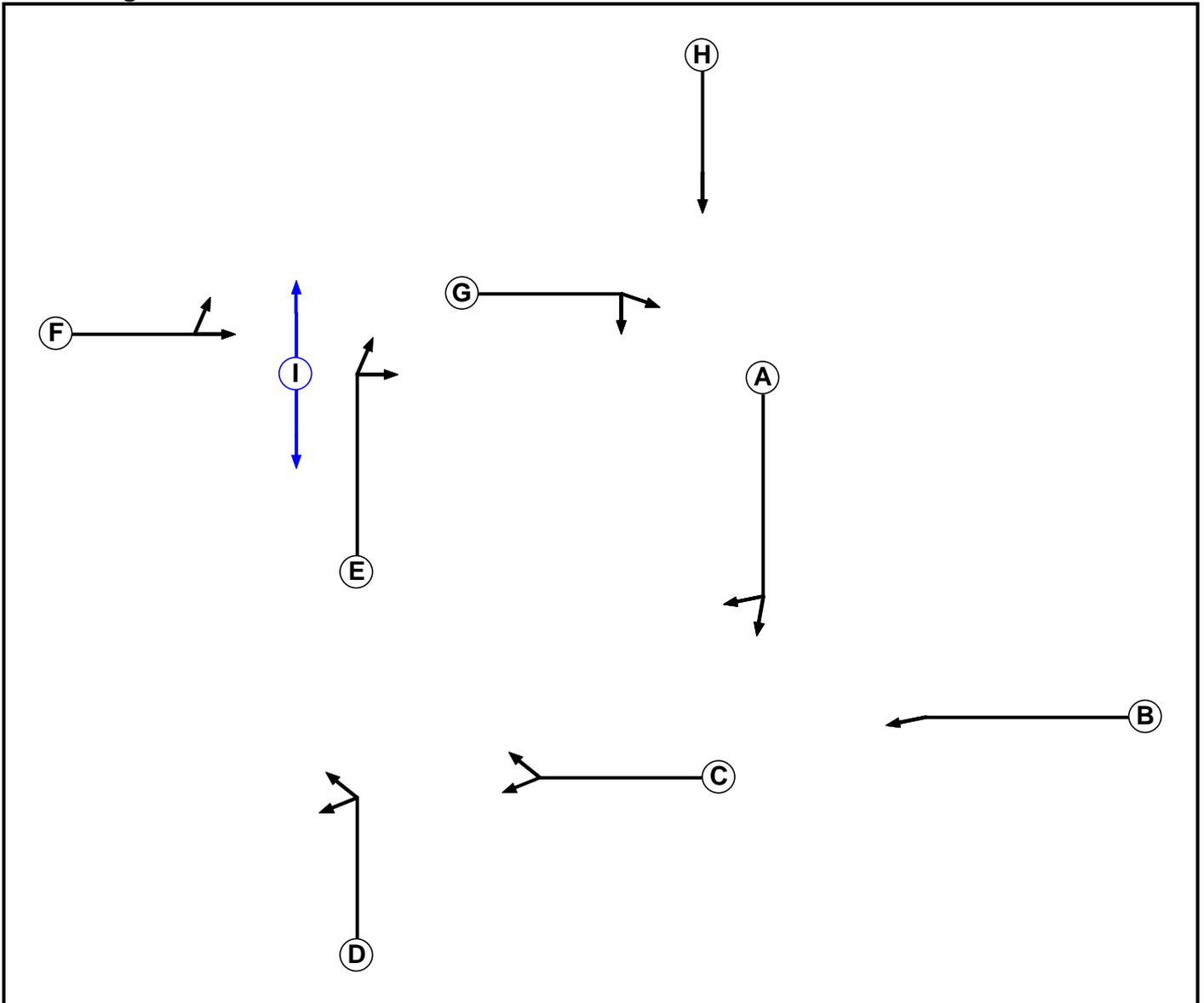
User and Project Details

Project:	A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)
Title:	
Location:	
File name:	SCP_A5_A49 Hereford Road_A5112 Hereford Road_Services Access_Jan 2021____.lsg3x
Author:	
Company:	
Address:	
Notes:	

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Traffic	1		7	7
D	Traffic	1		7	7
E	Traffic	2		7	7
F	Traffic	2		7	7
G	Traffic	2		7	7
H	Traffic	2		7	7
I	Pedestrian	2		5	5

Phase Intergrens Matrix

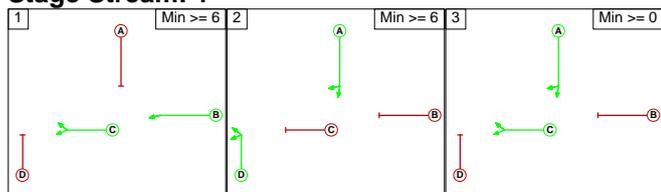
Terminating Phase	Starting Phase										
		A	B	C	D	E	F	G	H	I	
	A		5	-	-	-	-	-	-	-	-
	B	6		-	-	-	-	-	-	-	
	C	-	-		5	-	-	-	-	-	
	D	-	-	6		-	-	-	-	-	
	E	-	-	-	-		5	-	-	-	
	F	-	-	-	-	7		-	-	5	
	G	-	-	-	-	-	-		5	-	
	H	-	-	-	-	-	-	6		-	
I	-	-	-	-	-	9	-	-			

Phases in Stage

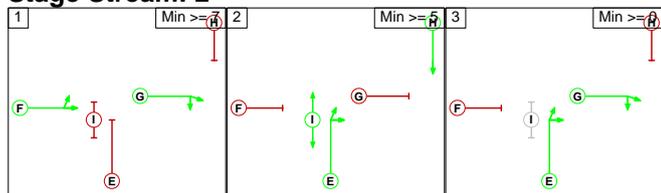
Stream	Stage No.	Phases in Stage
1	1	B C
1	2	A D
1	3	A C
2	1	F G
2	2	E H I
2	3	E G

Stage Diagram

Stage Stream: 1



Stage Stream: 2



Phase Delays

Stage Stream: 1

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

Stage Stream: 2

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

Full Input Data And Results

Prohibited Stage Change

Stage Stream: 1

		To Stage		
		1	2	3
From Stage	1	6	6	6
	2	6	6	6
	3	5	5	6

Stage Stream: 2

		To Stage		
		1	2	3
From Stage	1	7	7	6
	2	9	6	6
	3	5	5	6

Full Input Data And Results

Give-Way Lane Input Data

Junction: A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)											
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)
3/1 (Services Access)	12/1 (U-Turn)	1000	0	8/1	0.33	All	-	-	-	-	-
3/2 (Services Access)	9/1 (Left)	1000	0	8/1	0.33	All	-	-	-	-	-
				8/2	0.33	All					
	9/2 (Left)	1000	0	8/1	0.33	All					
				8/2	0.33	All					
	12/2 (U-Turn)	1000	0	8/1	0.33	All					
				8/2	0.33	All					

Full Input Data And Results

Lane Input Data

Junction: A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)												
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)
1/1 (A5 / A5 (East))	U		2	3	60.0	Geom	-	4.00	0.00	Y	Arm 10 Left	50.00
1/2 (A5 / A5 (East))	U	B	2	3	60.0	Geom	-	3.67	0.00	Y	Arm 7 Ahead	50.00
1/3 (A5 / A5 (East))	U	B	2	3	60.0	Geom	-	3.37	0.00	Y	Arm 7 Ahead	50.00
1/4 (A5 / A5 (East))	U	B	2	3	15.5	Geom	-	3.60	0.00	Y	Arm 7 Ahead	50.00
2/1 (A5112 Hereford Road (South))	U	D	2	3	8.3	Geom	-	4.18	0.00	Y	Arm 8 Ahead	30.00
											Arm 11 Left	18.50
2/2 (A5112 Hereford Road (South))	U	D	2	3	60.0	Geom	-	3.91	0.00	Y	Arm 8 Ahead	34.50
2/3 (A5112 Hereford Road (South))	U	D	2	3	60.0	Geom	-	3.70	0.00	Y	Arm 8 Ahead	34.50
3/1 (Services Access)	O		2	3	60.0	Geom	-	3.00	0.00	Y	Arm 12 U-Turn	10.00
3/2 (Services Access)	O		2	3	60.0	Geom	-	3.00	0.00	Y	Arm 9 Left	15.00
											Arm 12 U-Turn	14.00
4/1 (A5 (West))	U	F	2	3	60.0	Geom	-	3.32	0.00	Y	Arm 13 Left	100.00
											Arm 15 Ahead	100.00
4/2 (A5 (West))	U	F	2	3	60.0	Geom	-	3.20	0.00	Y	Arm 15 Ahead	100.00
4/3 (A5 (West))	U	F	2	3	9.1	Geom	-	3.94	0.00	Y	Arm 15 Ahead	100.00
5/1 (A5112 Hereford Road (North))	U		2	3	60.0	Geom	-	5.00	0.00	Y	Arm 14 Left	19.00
5/2 (A5112 Hereford Road (North))	U	H	2	3	60.0	Geom	-	3.88	0.00	Y	Arm 6 Ahead	45.00

Full Input Data And Results

5/3 (A5112 Hereford Road (North))	U	H	2	3	60.0	Geom	-	3.73	0.00	Y	Arm 6 Ahead	45.00
5/4 (A5112 Hereford Road (North))	U	H	2	3	10.1	Geom	-	3.50	0.00	Y	Arm 6 Ahead	45.00
6/1 (Circ 1)	U	A	2	3	2.9	Geom	-	3.92	0.00	Y	Arm 10 Ahead	45.00
6/2 (Circ 1)	U	A	2	3	2.9	Geom	-	4.07	0.00	Y	Arm 7 Right	45.00
											Arm 10 Ahead	45.00
6/3 (Circ 1)	U	A	2	3	2.9	Geom	-	3.90	0.00	Y	Arm 7 Right	45.00
7/1 (Circ 2)	U	C	2	3	3.0	Geom	-	4.28	0.00	Y	Arm 8 Right	45.00
											Arm 11 Ahead	Inf
7/2 (Circ 2)	U	C	2	3	3.0	Geom	-	3.79	0.00	Y	Arm 8 Right	45.00
7/3 (Circ 2)	U	C	2	3	2.8	Geom	-	4.04	0.00	Y	Arm 8 Right	45.00
8/1 (Circ 3)	U		2	3	1.2	Geom	-	3.70	0.00	Y	Arm 12 Ahead	45.00
8/2 (Circ 3)	U		2	3	1.2	Geom	-	4.21	0.00	Y	Arm 9 Right	45.00
											Arm 12 Ahead	45.00
8/3 (Circ 3)	U		2	3	1.2	Geom	-	4.17	0.00	Y	Arm 9 Right	45.00
9/1 (Circ 4)	U	E	2	3	2.9	Geom	-	3.46	0.00	Y	Arm 13 Ahead	45.00
9/2 (Circ 4)	U	E	2	3	2.9	Geom	-	4.32	0.00	Y	Arm 13 Ahead	45.00
											Arm 15 Right	45.00
9/3 (Circ 4)	U	E	2	3	2.9	Geom	-	4.25	0.00	Y	Arm 15 Right	45.00
10/1	U		2	3	60.0	Inf	-	-	-	-	-	-
10/2	U		2	3	60.0	Inf	-	-	-	-	-	-
10/3	U		2	3	60.0	Inf	-	-	-	-	-	-
11/1	U		2	3	60.0	Inf	-	-	-	-	-	-
11/2	U		2	3	60.0	Inf	-	-	-	-	-	-
12/1	U		2	3	60.0	Inf	-	-	-	-	-	-
12/2	U		2	3	60.0	Inf	-	-	-	-	-	-
13/1	U		2	3	60.0	Inf	-	-	-	-	-	-
13/2	U		2	3	60.0	Inf	-	-	-	-	-	-
14/1	U		2	3	60.0	Inf	-	-	-	-	-	-
14/2	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

14/3	U		2	3	60.0	Inf	-	-	-	-	-	-
15/1 (Circ 5)	U	G	2	3	4.3	Geom	-	3.70	0.00	Y	Arm 14 Ahead	45.00
15/2 (Circ 5)	U	G	2	3	4.3	Geom	-	3.94	0.00	Y	Arm 6 Right	45.00
											Arm 14 Ahead	45.00
15/3 (Circ 5)	U	G	2	3	3.8	Geom	-	4.33	0.00	Y	Arm 6 Right	45.00

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2021 Base AM'	07:48	08:45	00:57	
2: '2021 Base PM'	16:45	17:45	01:00	
3: '2026 Base AM'	07:48	08:45	00:57	
4: '2026 Base PM'	16:45	17:45	01:00	
5: '2031 Base AM'	07:48	08:45	00:57	
6: '2031 Base PM'	16:45	17:45	01:00	
7: '2021 Assessment AM'	07:48	08:45	00:57	
8: '2021 Assessment PM'	16:45	17:45	01:00	
9: '2026 Assessment AM'	07:48	08:45	00:57	
10: '2026 Assessment PM'	16:45	17:45	01:00	
11: '2031 Assessment AM'	07:48	08:45	00:57	
12: '2031 Assessment PM'	16:45	17:45	01:00	

Scenario 1: '2026 Base AM' (FG3: '2026 Base AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
	A	B	C	D	E	Tot.	
Origin	A	3	322	341	92	144	902
	B	220	12	393	69	1343	2037
	C	201	572	0	45	462	1280
	D	52	45	15	0	76	188
	E	376	1429	189	16	0	2010
	Tot.	852	2380	938	222	2025	6417

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: 2026 Base AM
Junction: A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)	
1/1	393
1/2	703
1/3 (with short)	941(In) 709(Out)
1/4 (short)	232
2/1 (short)	370
2/2 (with short)	708(In) 338(Out)
2/3	572
3/1	76
3/2	112
4/1	945
4/2 (with short)	1065(In) 872(Out)
4/3 (short)	193
5/1	322
5/2	221
5/3 (with short)	359(In) 246(Out)
5/4 (short)	113
6/1	236
6/2	451
6/3	113
7/1	845
7/2	820
7/3	234
8/1	993
8/2	1158
8/3	806
9/1	254
9/2	565
9/3	301
10/1	393
10/2	236
10/3	309
11/1	199
11/2	23
12/1	1069
12/2	956
13/1	442

Full Input Data And Results

13/2	410
14/1	322
14/2	912
14/3	1146
15/1	912
15/2	1161
15/3	205

Full Input Data And Results

Lane Saturation Flows

Junction: A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A5 / A5 (East))	4.00	0.00	Y	Arm 10 Left	50.00	100.0 %	1956	1956
1/2 (A5 / A5 (East))	3.67	0.00	Y	Arm 7 Ahead	50.00	100.0 %	1924	1924
1/3 (A5 / A5 (East))	3.37	0.00	Y	Arm 7 Ahead	50.00	100.0 %	1895	1895
1/4 (A5 / A5 (East))	3.60	0.00	Y	Arm 7 Ahead	50.00	100.0 %	1917	1917
2/1 (A5112 Hereford Road (South))	4.18	0.00	Y	Arm 8 Ahead	30.00	87.8 %	1929	1929
				Arm 11 Left	18.50	12.2 %		
2/2 (A5112 Hereford Road (South))	3.91	0.00	Y	Arm 8 Ahead	34.50	100.0 %	1922	1922
2/3 (A5112 Hereford Road (South))	3.70	0.00	Y	Arm 8 Ahead	34.50	100.0 %	1902	1902
3/1 (Services Access)	3.00	0.00	Y	Arm 12 U-Turn	10.00	100.0 %	1665	1665
3/2 (Services Access)	3.00	0.00	Y	Arm 9 Left	15.00	100.0 %	1741	1741
				Arm 12 U-Turn	14.00	0.0 %		
4/1 (A5 (West))	3.32	0.00	Y	Arm 13 Left	100.00	39.8 %	1918	1918
				Arm 15 Ahead	100.00	60.2 %		
4/2 (A5 (West))	3.20	0.00	Y	Arm 15 Ahead	100.00	100.0 %	1906	1906
4/3 (A5 (West))	3.94	0.00	Y	Arm 15 Ahead	100.00	100.0 %	1979	1979
5/1 (A5112 Hereford Road (North))	5.00	0.00	Y	Arm 14 Left	19.00	100.0 %	1960	1960
5/2 (A5112 Hereford Road (North))	3.88	0.00	Y	Arm 6 Ahead	45.00	100.0 %	1938	1938
5/3 (A5112 Hereford Road (North))	3.73	0.00	Y	Arm 6 Ahead	45.00	100.0 %	1924	1924
5/4 (A5112 Hereford Road (North))	3.50	0.00	Y	Arm 6 Ahead	45.00	100.0 %	1902	1902
6/1 (Circ 1)	3.92	0.00	Y	Arm 10 Ahead	45.00	100.0 %	1942	1942
6/2 (Circ 1)	4.07	0.00	Y	Arm 7 Right	45.00	31.5 %	1957	1957
				Arm 10 Ahead	45.00	68.5 %		
6/3 (Circ 1)	3.90	0.00	Y	Arm 7 Right	45.00	100.0 %	1940	1940
7/1 (Circ 2)	4.28	0.00	Y	Arm 8 Right	45.00	79.1 %	1991	1991
				Arm 11 Ahead	Inf	20.9 %		
7/2 (Circ 2)	3.79	0.00	Y	Arm 8 Right	45.00	100.0 %	1930	1930
7/3 (Circ 2)	4.04	0.00	Y	Arm 8 Right	45.00	100.0 %	1954	1954

Full Input Data And Results

8/1 (Circ 3)	3.70	0.00	Y	Arm 12 Ahead	45.00	100.0 %	1921	1921
8/2 (Circ 3)	4.21	0.00	Y	Arm 9 Right	45.00	17.4 %	1970	1970
				Arm 12 Ahead	45.00	82.6 %		
8/3 (Circ 3)	4.17	0.00	Y	Arm 9 Right	45.00	100.0 %	1966	1966
9/1 (Circ 4)	3.46	0.00	Y	Arm 13 Ahead	45.00	100.0 %	1898	1898
9/2 (Circ 4)	4.32	0.00	Y	Arm 13 Ahead	45.00	39.3 %	1981	1981
				Arm 15 Right	45.00	60.7 %		
9/3 (Circ 4)	4.25	0.00	Y	Arm 15 Right	45.00	100.0 %	1974	1974
10/1	Infinite Saturation Flow						Inf	Inf
10/2	Infinite Saturation Flow						Inf	Inf
10/3	Infinite Saturation Flow						Inf	Inf
11/1	Infinite Saturation Flow						Inf	Inf
11/2	Infinite Saturation Flow						Inf	Inf
12/1	Infinite Saturation Flow						Inf	Inf
12/2	Infinite Saturation Flow						Inf	Inf
13/1	Infinite Saturation Flow						Inf	Inf
13/2	Infinite Saturation Flow						Inf	Inf
14/1	Infinite Saturation Flow						Inf	Inf
14/2	Infinite Saturation Flow						Inf	Inf
14/3	Infinite Saturation Flow						Inf	Inf
15/1 (Circ 5)	3.70	0.00	Y	Arm 14 Ahead	45.00	100.0 %	1921	1921
15/2 (Circ 5)	3.94	0.00	Y	Arm 6 Right	45.00	1.3 %	1944	1944
				Arm 14 Ahead	45.00	98.7 %		
15/3 (Circ 5)	4.33	0.00	Y	Arm 6 Right	45.00	100.0 %	1982	1982

Scenario 2: '2026 Base PM' (FG4: '2026 Base PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
		A	B	C	D	E	Tot.
Origin	A	2	264	554	77	227	1124
	B	245	6	519	72	1677	2519
	C	263	319	0	20	362	964
	D	68	22	18	0	74	182
	E	468	1320	130	23	0	1941
	Tot.	1046	1931	1221	192	2340	6730

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: 2026 Base PM
Junction: A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)	
1/1	519
1/2	884
1/3 (with short)	1116(In) 889(Out)
1/4 (short)	227
2/1 (short)	343
2/2 (with short)	645(In) 302(Out)
2/3	319
3/1	74
3/2	108
4/1	943
4/2 (with short)	998(In) 909(Out)
4/3 (short)	89
5/1	264
5/2	325
5/3 (with short)	535(In) 344(Out)
5/4 (short)	191
6/1	392
6/2	448
6/3	191
7/1	1022
7/2	1078
7/3	229
8/1	1173
8/2	1380
8/3	548
9/1	355
9/2	455
9/3	133
10/1	519
10/2	392
10/3	310
11/1	182
11/2	10
12/1	1247
12/2	1093
13/1	589

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13/2	457
14/1	264
14/2	707
14/3	960
15/1	707
15/2	1027
15/3	104

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Lane Saturation Flows

Junction: A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A5 / A5 (East))	4.00	0.00	Y	Arm 10 Left	50.00	100.0 %	1956	1956
1/2 (A5 / A5 (East))	3.67	0.00	Y	Arm 7 Ahead	50.00	100.0 %	1924	1924
1/3 (A5 / A5 (East))	3.37	0.00	Y	Arm 7 Ahead	50.00	100.0 %	1895	1895
1/4 (A5 / A5 (East))	3.60	0.00	Y	Arm 7 Ahead	50.00	100.0 %	1917	1917
2/1 (A5112 Hereford Road (South))	4.18	0.00	Y	Arm 8 Ahead	30.00	94.2 %	1933	1933
				Arm 11 Left	18.50	5.8 %		
2/2 (A5112 Hereford Road (South))	3.91	0.00	Y	Arm 8 Ahead	34.50	100.0 %	1922	1922
2/3 (A5112 Hereford Road (South))	3.70	0.00	Y	Arm 8 Ahead	34.50	100.0 %	1902	1902
3/1 (Services Access)	3.00	0.00	Y	Arm 12 U-Turn	10.00	100.0 %	1665	1665
3/2 (Services Access)	3.00	0.00	Y	Arm 9 Left	15.00	100.0 %	1741	1741
				Arm 12 U-Turn	14.00	0.0 %		
4/1 (A5 (West))	3.32	0.00	Y	Arm 13 Left	100.00	49.6 %	1918	1918
				Arm 15 Ahead	100.00	50.4 %		
4/2 (A5 (West))	3.20	0.00	Y	Arm 15 Ahead	100.00	100.0 %	1906	1906
4/3 (A5 (West))	3.94	0.00	Y	Arm 15 Ahead	100.00	100.0 %	1979	1979
5/1 (A5112 Hereford Road (North))	5.00	0.00	Y	Arm 14 Left	19.00	100.0 %	1960	1960
5/2 (A5112 Hereford Road (North))	3.88	0.00	Y	Arm 6 Ahead	45.00	100.0 %	1938	1938
5/3 (A5112 Hereford Road (North))	3.73	0.00	Y	Arm 6 Ahead	45.00	100.0 %	1924	1924
5/4 (A5112 Hereford Road (North))	3.50	0.00	Y	Arm 6 Ahead	45.00	100.0 %	1902	1902
6/1 (Circ 1)	3.92	0.00	Y	Arm 10 Ahead	45.00	100.0 %	1942	1942
6/2 (Circ 1)	4.07	0.00	Y	Arm 7 Right	45.00	30.8 %	1957	1957
				Arm 10 Ahead	45.00	69.2 %		
6/3 (Circ 1)	3.90	0.00	Y	Arm 7 Right	45.00	100.0 %	1940	1940
7/1 (Circ 2)	4.28	0.00	Y	Arm 8 Right	45.00	83.2 %	1988	1988
				Arm 11 Ahead	Inf	16.8 %		
7/2 (Circ 2)	3.79	0.00	Y	Arm 8 Right	45.00	100.0 %	1930	1930
7/3 (Circ 2)	4.04	0.00	Y	Arm 8 Right	45.00	100.0 %	1954	1954

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8/1 (Circ 3)	3.70	0.00	Y	Arm 12 Ahead	45.00	100.0 %	1921	1921
8/2 (Circ 3)	4.21	0.00	Y	Arm 9 Right	45.00	20.8 %	1970	1970
				Arm 12 Ahead	45.00	79.2 %		
8/3 (Circ 3)	4.17	0.00	Y	Arm 9 Right	45.00	100.0 %	1966	1966
9/1 (Circ 4)	3.46	0.00	Y	Arm 13 Ahead	45.00	100.0 %	1898	1898
9/2 (Circ 4)	4.32	0.00	Y	Arm 13 Ahead	45.00	49.0 %	1981	1981
				Arm 15 Right	45.00	51.0 %		
9/3 (Circ 4)	4.25	0.00	Y	Arm 15 Right	45.00	100.0 %	1974	1974
10/1	Infinite Saturation Flow						Inf	Inf
10/2	Infinite Saturation Flow						Inf	Inf
10/3	Infinite Saturation Flow						Inf	Inf
11/1	Infinite Saturation Flow						Inf	Inf
11/2	Infinite Saturation Flow						Inf	Inf
12/1	Infinite Saturation Flow						Inf	Inf
12/2	Infinite Saturation Flow						Inf	Inf
13/1	Infinite Saturation Flow						Inf	Inf
13/2	Infinite Saturation Flow						Inf	Inf
14/1	Infinite Saturation Flow						Inf	Inf
14/2	Infinite Saturation Flow						Inf	Inf
14/3	Infinite Saturation Flow						Inf	Inf
15/1 (Circ 5)	3.70	0.00	Y	Arm 14 Ahead	45.00	100.0 %	1921	1921
15/2 (Circ 5)	3.94	0.00	Y	Arm 6 Right	45.00	6.5 %	1944	1944
				Arm 14 Ahead	45.00	93.5 %		
15/3 (Circ 5)	4.33	0.00	Y	Arm 6 Right	45.00	100.0 %	1982	1982

Scenario 3: '2031 Base AM' (FG5: '2031 Base AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
		A	B	C	D	E	Tot.
Origin	A	3	333	353	95	149	933
	B	228	13	407	72	1391	2111
	C	208	592	0	47	478	1325
	D	54	46	15	0	78	193
	E	389	1480	196	16	0	2081
	Tot.	882	2464	971	230	2096	6643

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: 2031 Base AM
Junction: A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)	
1/1	407
1/2	734
1/3 (with short)	970(In) 736(Out)
1/4 (short)	234
2/1 (short)	389
2/2 (with short)	733(In) 344(Out)
2/3	592
3/1	78
3/2	115
4/1	1002
4/2 (with short)	1079(In) 940(Out)
4/3 (short)	139
5/1	333
5/2	221
5/3 (with short)	379(In) 240(Out)
5/4 (short)	139
6/1	299
6/2	389
6/3	139
7/1	858
7/2	874
7/3	235
8/1	1017
8/2	1218
8/3	827
9/1	271
9/2	533
9/3	355
10/1	407
10/2	299
10/3	265
11/1	206
11/2	24
12/1	1095
12/2	1001
13/1	465

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13/2	417
14/1	333
14/2	924
14/3	1207
15/1	924
15/2	1285
15/3	149

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Lane Saturation Flows

Junction: A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A5 / A5 (East))	4.00	0.00	Y	Arm 10 Left	50.00	100.0 %	1956	1956
1/2 (A5 / A5 (East))	3.67	0.00	Y	Arm 7 Ahead	50.00	100.0 %	1924	1924
1/3 (A5 / A5 (East))	3.37	0.00	Y	Arm 7 Ahead	50.00	100.0 %	1895	1895
1/4 (A5 / A5 (East))	3.60	0.00	Y	Arm 7 Ahead	50.00	100.0 %	1917	1917
2/1 (A5112 Hereford Road (South))	4.18	0.00	Y	Arm 8 Ahead	30.00	87.9 %	1929	1929
				Arm 11 Left	18.50	12.1 %		
2/2 (A5112 Hereford Road (South))	3.91	0.00	Y	Arm 8 Ahead	34.50	100.0 %	1922	1922
2/3 (A5112 Hereford Road (South))	3.70	0.00	Y	Arm 8 Ahead	34.50	100.0 %	1902	1902
3/1 (Services Access)	3.00	0.00	Y	Arm 12 U-Turn	10.00	100.0 %	1665	1665
3/2 (Services Access)	3.00	0.00	Y	Arm 9 Left	15.00	100.0 %	1741	1741
				Arm 12 U-Turn	14.00	0.0 %		
4/1 (A5 (West))	3.32	0.00	Y	Arm 13 Left	100.00	38.8 %	1918	1918
				Arm 15 Ahead	100.00	61.2 %		
4/2 (A5 (West))	3.20	0.00	Y	Arm 15 Ahead	100.00	100.0 %	1906	1906
4/3 (A5 (West))	3.94	0.00	Y	Arm 15 Ahead	100.00	100.0 %	1979	1979
5/1 (A5112 Hereford Road (North))	5.00	0.00	Y	Arm 14 Left	19.00	100.0 %	1960	1960
5/2 (A5112 Hereford Road (North))	3.88	0.00	Y	Arm 6 Ahead	45.00	100.0 %	1938	1938
5/3 (A5112 Hereford Road (North))	3.73	0.00	Y	Arm 6 Ahead	45.00	100.0 %	1924	1924
5/4 (A5112 Hereford Road (North))	3.50	0.00	Y	Arm 6 Ahead	45.00	100.0 %	1902	1902
6/1 (Circ 1)	3.92	0.00	Y	Arm 10 Ahead	45.00	100.0 %	1942	1942
6/2 (Circ 1)	4.07	0.00	Y	Arm 7 Right	45.00	31.9 %	1957	1957
				Arm 10 Ahead	45.00	68.1 %		
6/3 (Circ 1)	3.90	0.00	Y	Arm 7 Right	45.00	100.0 %	1940	1940
7/1 (Circ 2)	4.28	0.00	Y	Arm 8 Right	45.00	78.7 %	1991	1991
				Arm 11 Ahead	Inf	21.3 %		
7/2 (Circ 2)	3.79	0.00	Y	Arm 8 Right	45.00	100.0 %	1930	1930
7/3 (Circ 2)	4.04	0.00	Y	Arm 8 Right	45.00	100.0 %	1954	1954

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8/1 (Circ 3)	3.70	0.00	Y	Arm 12 Ahead	45.00	100.0 %	1921	1921
8/2 (Circ 3)	4.21	0.00	Y	Arm 9 Right	45.00	17.8 %	1970	1970
				Arm 12 Ahead	45.00	82.2 %		
8/3 (Circ 3)	4.17	0.00	Y	Arm 9 Right	45.00	100.0 %	1966	1966
9/1 (Circ 4)	3.46	0.00	Y	Arm 13 Ahead	45.00	100.0 %	1898	1898
9/2 (Circ 4)	4.32	0.00	Y	Arm 13 Ahead	45.00	41.7 %	1981	1981
				Arm 15 Right	45.00	58.3 %		
9/3 (Circ 4)	4.25	0.00	Y	Arm 15 Right	45.00	100.0 %	1974	1974
10/1	Infinite Saturation Flow						Inf	Inf
10/2	Infinite Saturation Flow						Inf	Inf
10/3	Infinite Saturation Flow						Inf	Inf
11/1	Infinite Saturation Flow						Inf	Inf
11/2	Infinite Saturation Flow						Inf	Inf
12/1	Infinite Saturation Flow						Inf	Inf
12/2	Infinite Saturation Flow						Inf	Inf
13/1	Infinite Saturation Flow						Inf	Inf
13/2	Infinite Saturation Flow						Inf	Inf
14/1	Infinite Saturation Flow						Inf	Inf
14/2	Infinite Saturation Flow						Inf	Inf
14/3	Infinite Saturation Flow						Inf	Inf
15/1 (Circ 5)	3.70	0.00	Y	Arm 14 Ahead	45.00	100.0 %	1921	1921
15/2 (Circ 5)	3.94	0.00	Y	Arm 6 Right	45.00	6.1 %	1944	1944
				Arm 14 Ahead	45.00	93.9 %		
15/3 (Circ 5)	4.33	0.00	Y	Arm 6 Right	45.00	100.0 %	1982	1982

Scenario 4: '2031 Base PM' (FG6: '2031 Base PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
		A	B	C	D	E	Tot.
Origin	A	2	273	574	79	235	1163
	B	254	6	537	74	1738	2609
	C	272	330	0	21	375	998
	D	70	23	19	0	77	189
	E	485	1368	135	24	0	2012
	Tot.	1083	2000	1265	198	2425	6971

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: 2031 Base PM
Junction: A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)	
1/1	537
1/2	910
1/3 (with short)	1162(In) 914(Out)
1/4 (short)	248
2/1 (short)	359
2/2 (with short)	668(In) 309(Out)
2/3	330
3/1	77
3/2	112
4/1	979
4/2 (with short)	1033(In) 941(Out)
4/3 (short)	92
5/1	273
5/2	338
5/3 (with short)	552(In) 354(Out)
5/4 (short)	198
6/1	408
6/2	462
6/3	198
7/1	1052
7/2	1110
7/3	250
8/1	1213
8/2	1419
8/3	580
9/1	354
9/2	487
9/3	135
10/1	537
10/2	408
10/3	320
11/1	187
11/2	11
12/1	1290
12/2	1135
13/1	596

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13/2	487
14/1	273
14/2	737
14/3	990
15/1	737
15/2	1060
15/3	108

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Lane Saturation Flows

Junction: A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A5 / A5 (East))	4.00	0.00	Y	Arm 10 Left	50.00	100.0 %	1956	1956
1/2 (A5 / A5 (East))	3.67	0.00	Y	Arm 7 Ahead	50.00	100.0 %	1924	1924
1/3 (A5 / A5 (East))	3.37	0.00	Y	Arm 7 Ahead	50.00	100.0 %	1895	1895
1/4 (A5 / A5 (East))	3.60	0.00	Y	Arm 7 Ahead	50.00	100.0 %	1917	1917
2/1 (A5112 Hereford Road (South))	4.18	0.00	Y	Arm 8 Ahead	30.00	94.2 %	1933	1933
				Arm 11 Left	18.50	5.8 %		
2/2 (A5112 Hereford Road (South))	3.91	0.00	Y	Arm 8 Ahead	34.50	100.0 %	1922	1922
2/3 (A5112 Hereford Road (South))	3.70	0.00	Y	Arm 8 Ahead	34.50	100.0 %	1902	1902
3/1 (Services Access)	3.00	0.00	Y	Arm 12 U-Turn	10.00	100.0 %	1665	1665
3/2 (Services Access)	3.00	0.00	Y	Arm 9 Left	15.00	100.0 %	1741	1741
				Arm 12 U-Turn	14.00	0.0 %		
4/1 (A5 (West))	3.32	0.00	Y	Arm 13 Left	100.00	49.5 %	1918	1918
				Arm 15 Ahead	100.00	50.5 %		
4/2 (A5 (West))	3.20	0.00	Y	Arm 15 Ahead	100.00	100.0 %	1906	1906
4/3 (A5 (West))	3.94	0.00	Y	Arm 15 Ahead	100.00	100.0 %	1979	1979
5/1 (A5112 Hereford Road (North))	5.00	0.00	Y	Arm 14 Left	19.00	100.0 %	1960	1960
5/2 (A5112 Hereford Road (North))	3.88	0.00	Y	Arm 6 Ahead	45.00	100.0 %	1938	1938
5/3 (A5112 Hereford Road (North))	3.73	0.00	Y	Arm 6 Ahead	45.00	100.0 %	1924	1924
5/4 (A5112 Hereford Road (North))	3.50	0.00	Y	Arm 6 Ahead	45.00	100.0 %	1902	1902
6/1 (Circ 1)	3.92	0.00	Y	Arm 10 Ahead	45.00	100.0 %	1942	1942
6/2 (Circ 1)	4.07	0.00	Y	Arm 7 Right	45.00	30.7 %	1957	1957
				Arm 10 Ahead	45.00	69.3 %		
6/3 (Circ 1)	3.90	0.00	Y	Arm 7 Right	45.00	100.0 %	1940	1940
7/1 (Circ 2)	4.28	0.00	Y	Arm 8 Right	45.00	83.2 %	1988	1988
				Arm 11 Ahead	Inf	16.8 %		
7/2 (Circ 2)	3.79	0.00	Y	Arm 8 Right	45.00	100.0 %	1930	1930
7/3 (Circ 2)	4.04	0.00	Y	Arm 8 Right	45.00	100.0 %	1954	1954

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8/1 (Circ 3)	3.70	0.00	Y	Arm 12 Ahead	45.00	100.0 %	1921	1921
8/2 (Circ 3)	4.21	0.00	Y	Arm 9 Right	45.00	20.0 %	1970	1970
				Arm 12 Ahead	45.00	80.0 %		
8/3 (Circ 3)	4.17	0.00	Y	Arm 9 Right	45.00	100.0 %	1966	1966
9/1 (Circ 4)	3.46	0.00	Y	Arm 13 Ahead	45.00	100.0 %	1898	1898
9/2 (Circ 4)	4.32	0.00	Y	Arm 13 Ahead	45.00	50.1 %	1981	1981
				Arm 15 Right	45.00	49.9 %		
9/3 (Circ 4)	4.25	0.00	Y	Arm 15 Right	45.00	100.0 %	1974	1974
10/1	Infinite Saturation Flow						Inf	Inf
10/2	Infinite Saturation Flow						Inf	Inf
10/3	Infinite Saturation Flow						Inf	Inf
11/1	Infinite Saturation Flow						Inf	Inf
11/2	Infinite Saturation Flow						Inf	Inf
12/1	Infinite Saturation Flow						Inf	Inf
12/2	Infinite Saturation Flow						Inf	Inf
13/1	Infinite Saturation Flow						Inf	Inf
13/2	Infinite Saturation Flow						Inf	Inf
14/1	Infinite Saturation Flow						Inf	Inf
14/2	Infinite Saturation Flow						Inf	Inf
14/3	Infinite Saturation Flow						Inf	Inf
15/1 (Circ 5)	3.70	0.00	Y	Arm 14 Ahead	45.00	100.0 %	1921	1921
15/2 (Circ 5)	3.94	0.00	Y	Arm 6 Right	45.00	6.6 %	1944	1944
				Arm 14 Ahead	45.00	93.4 %		
15/3 (Circ 5)	4.33	0.00	Y	Arm 6 Right	45.00	100.0 %	1982	1982

Scenario 5: '2026 Assessment AM' (FG9: '2026 Assessment AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
		A	B	C	D	E	Tot.
Origin	A	3	322	350	92	144	911
	B	220	12	410	69	1343	2054
	C	226	617	0	45	477	1365
	D	52	45	15	0	76	188
	E	376	1429	195	16	0	2016
	Tot.	877	2425	970	222	2040	6534

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 5: 2026 Assessment AM
Junction: A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)	
1/1	410
1/2	705
1/3 (with short)	939(In) 707(Out)
1/4 (short)	232
2/1 (short)	394
2/2 (with short)	748(In) 354(Out)
2/3	617
3/1	76
3/2	112
4/1	967
4/2 (with short)	1049(In) 908(Out)
4/3 (short)	141
5/1	322
5/2	217
5/3 (with short)	372(In) 245(Out)
5/4 (short)	127
6/1	294
6/2	394
6/3	127
7/1	833
7/2	833
7/3	233
8/1	1005
8/2	1187
8/3	850
9/1	280
9/2	566
9/3	344
10/1	410
10/2	294
10/3	266
11/1	199
11/2	23
12/1	1081
12/2	959
13/1	468

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13/2	409
14/1	322
14/2	936
14/3	1167
15/1	936
15/2	1244
15/3	149

Full Input Data And Results

Lane Saturation Flows

Junction: A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A5 / A5 (East))	4.00	0.00	Y	Arm 10 Left	50.00	100.0 %	1956	1956
1/2 (A5 / A5 (East))	3.67	0.00	Y	Arm 7 Ahead	50.00	100.0 %	1924	1924
1/3 (A5 / A5 (East))	3.37	0.00	Y	Arm 7 Ahead	50.00	100.0 %	1895	1895
1/4 (A5 / A5 (East))	3.60	0.00	Y	Arm 7 Ahead	50.00	100.0 %	1917	1917
2/1 (A5112 Hereford Road (South))	4.18	0.00	Y	Arm 8 Ahead	30.00	88.6 %	1930	1930
				Arm 11 Left	18.50	11.4 %		
2/2 (A5112 Hereford Road (South))	3.91	0.00	Y	Arm 8 Ahead	34.50	100.0 %	1922	1922
2/3 (A5112 Hereford Road (South))	3.70	0.00	Y	Arm 8 Ahead	34.50	100.0 %	1902	1902
3/1 (Services Access)	3.00	0.00	Y	Arm 12 U-Turn	10.00	100.0 %	1665	1665
3/2 (Services Access)	3.00	0.00	Y	Arm 9 Left	15.00	100.0 %	1741	1741
				Arm 12 U-Turn	14.00	0.0 %		
4/1 (A5 (West))	3.32	0.00	Y	Arm 13 Left	100.00	38.9 %	1918	1918
				Arm 15 Ahead	100.00	61.1 %		
4/2 (A5 (West))	3.20	0.00	Y	Arm 15 Ahead	100.00	100.0 %	1906	1906
4/3 (A5 (West))	3.94	0.00	Y	Arm 15 Ahead	100.00	100.0 %	1979	1979
5/1 (A5112 Hereford Road (North))	5.00	0.00	Y	Arm 14 Left	19.00	100.0 %	1960	1960
5/2 (A5112 Hereford Road (North))	3.88	0.00	Y	Arm 6 Ahead	45.00	100.0 %	1938	1938
5/3 (A5112 Hereford Road (North))	3.73	0.00	Y	Arm 6 Ahead	45.00	100.0 %	1924	1924
5/4 (A5112 Hereford Road (North))	3.50	0.00	Y	Arm 6 Ahead	45.00	100.0 %	1902	1902
6/1 (Circ 1)	3.92	0.00	Y	Arm 10 Ahead	45.00	100.0 %	1942	1942
6/2 (Circ 1)	4.07	0.00	Y	Arm 7 Right	45.00	32.5 %	1957	1957
				Arm 10 Ahead	45.00	67.5 %		
6/3 (Circ 1)	3.90	0.00	Y	Arm 7 Right	45.00	100.0 %	1940	1940
7/1 (Circ 2)	4.28	0.00	Y	Arm 8 Right	45.00	78.8 %	1991	1991
				Arm 11 Ahead	Inf	21.2 %		
7/2 (Circ 2)	3.79	0.00	Y	Arm 8 Right	45.00	100.0 %	1930	1930
7/3 (Circ 2)	4.04	0.00	Y	Arm 8 Right	45.00	100.0 %	1954	1954

Full Input Data And Results

8/1 (Circ 3)	3.70	0.00	Y	Arm 12 Ahead	45.00	100.0 %	1921	1921
8/2 (Circ 3)	4.21	0.00	Y	Arm 9 Right	45.00	19.2 %	1970	1970
				Arm 12 Ahead	45.00	80.8 %		
8/3 (Circ 3)	4.17	0.00	Y	Arm 9 Right	45.00	100.0 %	1966	1966
9/1 (Circ 4)	3.46	0.00	Y	Arm 13 Ahead	45.00	100.0 %	1898	1898
9/2 (Circ 4)	4.32	0.00	Y	Arm 13 Ahead	45.00	39.0 %	1981	1981
				Arm 15 Right	45.00	61.0 %		
9/3 (Circ 4)	4.25	0.00	Y	Arm 15 Right	45.00	100.0 %	1974	1974
10/1	Infinite Saturation Flow						Inf	Inf
10/2	Infinite Saturation Flow						Inf	Inf
10/3	Infinite Saturation Flow						Inf	Inf
11/1	Infinite Saturation Flow						Inf	Inf
11/2	Infinite Saturation Flow						Inf	Inf
12/1	Infinite Saturation Flow						Inf	Inf
12/2	Infinite Saturation Flow						Inf	Inf
13/1	Infinite Saturation Flow						Inf	Inf
13/2	Infinite Saturation Flow						Inf	Inf
14/1	Infinite Saturation Flow						Inf	Inf
14/2	Infinite Saturation Flow						Inf	Inf
14/3	Infinite Saturation Flow						Inf	Inf
15/1 (Circ 5)	3.70	0.00	Y	Arm 14 Ahead	45.00	100.0 %	1921	1921
15/2 (Circ 5)	3.94	0.00	Y	Arm 6 Right	45.00	6.2 %	1944	1944
				Arm 14 Ahead	45.00	93.8 %		
15/3 (Circ 5)	4.33	0.00	Y	Arm 6 Right	45.00	100.0 %	1982	1982

Scenario 6: '2026 Assessment PM' (FG10: '2026 Assessment PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
		A	B	C	D	E	Tot.
Origin	A	2	264	576	77	227	1146
	B	245	6	560	72	1677	2560
	C	272	336	0	20	368	996
	D	68	22	18	0	74	182
	E	468	1320	144	23	0	1955
	Tot.	1055	1948	1298	192	2346	6839

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: 2026 Assessment PM
Junction: A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)	
1/1	560
1/2	884
1/3 (with short)	1116(In) 890(Out)
1/4 (short)	226
2/1 (short)	346
2/2 (with short)	660(In) 314(Out)
2/3	336
3/1	74
3/2	108
4/1	949
4/2 (with short)	1006(In) 910(Out)
4/3 (short)	96
5/1	264
5/2	336
5/3 (with short)	546(In) 361(Out)
5/4 (short)	185
6/1	411
6/2	471
6/3	185
7/1	1028
7/2	1073
7/3	228
8/1	1182
8/2	1387
8/3	564
9/1	365
9/2	461
9/3	143
10/1	560
10/2	411
10/3	327
11/1	182
11/2	10
12/1	1256
12/2	1090
13/1	599

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13/2	456
14/1	264
14/2	720
14/3	964
15/1	720
15/2	1039
15/3	110

Full Input Data And Results

Lane Saturation Flows

Junction: A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A5 / A5 (East))	4.00	0.00	Y	Arm 10 Left	50.00	100.0 %	1956	1956
1/2 (A5 / A5 (East))	3.67	0.00	Y	Arm 7 Ahead	50.00	100.0 %	1924	1924
1/3 (A5 / A5 (East))	3.37	0.00	Y	Arm 7 Ahead	50.00	100.0 %	1895	1895
1/4 (A5 / A5 (East))	3.60	0.00	Y	Arm 7 Ahead	50.00	100.0 %	1917	1917
2/1 (A5112 Hereford Road (South))	4.18	0.00	Y	Arm 8 Ahead	30.00	94.2 %	1933	1933
				Arm 11 Left	18.50	5.8 %		
2/2 (A5112 Hereford Road (South))	3.91	0.00	Y	Arm 8 Ahead	34.50	100.0 %	1922	1922
2/3 (A5112 Hereford Road (South))	3.70	0.00	Y	Arm 8 Ahead	34.50	100.0 %	1902	1902
3/1 (Services Access)	3.00	0.00	Y	Arm 12 U-Turn	10.00	100.0 %	1665	1665
3/2 (Services Access)	3.00	0.00	Y	Arm 9 Left	15.00	100.0 %	1741	1741
				Arm 12 U-Turn	14.00	0.0 %		
4/1 (A5 (West))	3.32	0.00	Y	Arm 13 Left	100.00	49.3 %	1918	1918
				Arm 15 Ahead	100.00	50.7 %		
4/2 (A5 (West))	3.20	0.00	Y	Arm 15 Ahead	100.00	100.0 %	1906	1906
4/3 (A5 (West))	3.94	0.00	Y	Arm 15 Ahead	100.00	100.0 %	1979	1979
5/1 (A5112 Hereford Road (North))	5.00	0.00	Y	Arm 14 Left	19.00	100.0 %	1960	1960
5/2 (A5112 Hereford Road (North))	3.88	0.00	Y	Arm 6 Ahead	45.00	100.0 %	1938	1938
5/3 (A5112 Hereford Road (North))	3.73	0.00	Y	Arm 6 Ahead	45.00	100.0 %	1924	1924
5/4 (A5112 Hereford Road (North))	3.50	0.00	Y	Arm 6 Ahead	45.00	100.0 %	1902	1902
6/1 (Circ 1)	3.92	0.00	Y	Arm 10 Ahead	45.00	100.0 %	1942	1942
6/2 (Circ 1)	4.07	0.00	Y	Arm 7 Right	45.00	30.6 %	1957	1957
				Arm 10 Ahead	45.00	69.4 %		
6/3 (Circ 1)	3.90	0.00	Y	Arm 7 Right	45.00	100.0 %	1940	1940
7/1 (Circ 2)	4.28	0.00	Y	Arm 8 Right	45.00	83.3 %	1988	1988
				Arm 11 Ahead	Inf	16.7 %		
7/2 (Circ 2)	3.79	0.00	Y	Arm 8 Right	45.00	100.0 %	1930	1930
7/3 (Circ 2)	4.04	0.00	Y	Arm 8 Right	45.00	100.0 %	1954	1954

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8/1 (Circ 3)	3.70	0.00	Y	Arm 12 Ahead	45.00	100.0 %	1921	1921
8/2 (Circ 3)	4.21	0.00	Y	Arm 9 Right	45.00	21.4 %	1970	1970
				Arm 12 Ahead	45.00	78.6 %		
8/3 (Circ 3)	4.17	0.00	Y	Arm 9 Right	45.00	100.0 %	1966	1966
9/1 (Circ 4)	3.46	0.00	Y	Arm 13 Ahead	45.00	100.0 %	1898	1898
9/2 (Circ 4)	4.32	0.00	Y	Arm 13 Ahead	45.00	48.2 %	1981	1981
				Arm 15 Right	45.00	51.8 %		
9/3 (Circ 4)	4.25	0.00	Y	Arm 15 Right	45.00	100.0 %	1974	1974
10/1	Infinite Saturation Flow						Inf	Inf
10/2	Infinite Saturation Flow						Inf	Inf
10/3	Infinite Saturation Flow						Inf	Inf
11/1	Infinite Saturation Flow						Inf	Inf
11/2	Infinite Saturation Flow						Inf	Inf
12/1	Infinite Saturation Flow						Inf	Inf
12/2	Infinite Saturation Flow						Inf	Inf
13/1	Infinite Saturation Flow						Inf	Inf
13/2	Infinite Saturation Flow						Inf	Inf
14/1	Infinite Saturation Flow						Inf	Inf
14/2	Infinite Saturation Flow						Inf	Inf
14/3	Infinite Saturation Flow						Inf	Inf
15/1 (Circ 5)	3.70	0.00	Y	Arm 14 Ahead	45.00	100.0 %	1921	1921
15/2 (Circ 5)	3.94	0.00	Y	Arm 6 Right	45.00	7.2 %	1944	1944
				Arm 14 Ahead	45.00	92.8 %		
15/3 (Circ 5)	4.33	0.00	Y	Arm 6 Right	45.00	100.0 %	1982	1982

Scenario 7: '2031 Assessment AM' (FG11: '2031 Assessment AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
		A	B	C	D	E	Tot.
Origin	A	3	333	362	95	149	942
	B	228	13	424	72	1391	2128
	C	233	638	0	47	494	1412
	D	54	46	15	0	78	193
	E	389	1480	202	16	0	2087
	Tot.	907	2510	1003	230	2112	6762

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 7: 2031 Assessment AM
Junction: A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)	
1/1	424
1/2	741
1/3 (with short)	963(In) 738(Out)
1/4 (short)	225
2/1 (short)	412
2/2 (with short)	774(In) 362(Out)
2/3	638
3/1	78
3/2	115
4/1	995
4/2 (with short)	1092(In) 920(Out)
4/3 (short)	172
5/1	333
5/2	224
5/3 (with short)	385(In) 242(Out)
5/4 (short)	143
6/1	273
6/2	426
6/3	143
7/1	861
7/2	881
7/3	225
8/1	1043
8/2	1243
8/3	863
9/1	306
9/2	536
9/3	388
10/1	424
10/2	273
10/3	306
11/1	206
11/2	24
12/1	1121
12/2	991
13/1	500

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13/2	407
14/1	333
14/2	930
14/3	1247
15/1	930
15/2	1296
15/3	184

Full Input Data And Results

Lane Saturation Flows

Junction: A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A5 / A5 (East))	4.00	0.00	Y	Arm 10 Left	50.00	100.0 %	1956	1956
1/2 (A5 / A5 (East))	3.67	0.00	Y	Arm 7 Ahead	50.00	100.0 %	1924	1924
1/3 (A5 / A5 (East))	3.37	0.00	Y	Arm 7 Ahead	50.00	100.0 %	1895	1895
1/4 (A5 / A5 (East))	3.60	0.00	Y	Arm 7 Ahead	50.00	100.0 %	1917	1917
2/1 (A5112 Hereford Road (South))	4.18	0.00	Y	Arm 8 Ahead	30.00	88.6 %	1930	1930
				Arm 11 Left	18.50	11.4 %		
2/2 (A5112 Hereford Road (South))	3.91	0.00	Y	Arm 8 Ahead	34.50	100.0 %	1922	1922
2/3 (A5112 Hereford Road (South))	3.70	0.00	Y	Arm 8 Ahead	34.50	100.0 %	1902	1902
3/1 (Services Access)	3.00	0.00	Y	Arm 12 U-Turn	10.00	100.0 %	1665	1665
3/2 (Services Access)	3.00	0.00	Y	Arm 9 Left	15.00	100.0 %	1741	1741
				Arm 12 U-Turn	14.00	0.0 %		
4/1 (A5 (West))	3.32	0.00	Y	Arm 13 Left	100.00	39.1 %	1918	1918
				Arm 15 Ahead	100.00	60.9 %		
4/2 (A5 (West))	3.20	0.00	Y	Arm 15 Ahead	100.00	100.0 %	1906	1906
4/3 (A5 (West))	3.94	0.00	Y	Arm 15 Ahead	100.00	100.0 %	1979	1979
5/1 (A5112 Hereford Road (North))	5.00	0.00	Y	Arm 14 Left	19.00	100.0 %	1960	1960
5/2 (A5112 Hereford Road (North))	3.88	0.00	Y	Arm 6 Ahead	45.00	100.0 %	1938	1938
5/3 (A5112 Hereford Road (North))	3.73	0.00	Y	Arm 6 Ahead	45.00	100.0 %	1924	1924
5/4 (A5112 Hereford Road (North))	3.50	0.00	Y	Arm 6 Ahead	45.00	100.0 %	1902	1902
6/1 (Circ 1)	3.92	0.00	Y	Arm 10 Ahead	45.00	100.0 %	1942	1942
6/2 (Circ 1)	4.07	0.00	Y	Arm 7 Right	45.00	28.2 %	1957	1957
				Arm 10 Ahead	45.00	71.8 %		
6/3 (Circ 1)	3.90	0.00	Y	Arm 7 Right	45.00	100.0 %	1940	1940
7/1 (Circ 2)	4.28	0.00	Y	Arm 8 Right	45.00	78.7 %	1991	1991
				Arm 11 Ahead	Inf	21.3 %		
7/2 (Circ 2)	3.79	0.00	Y	Arm 8 Right	45.00	100.0 %	1930	1930
7/3 (Circ 2)	4.04	0.00	Y	Arm 8 Right	45.00	100.0 %	1954	1954

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8/1 (Circ 3)	3.70	0.00	Y	Arm 12 Ahead	45.00	100.0 %	1921	1921
8/2 (Circ 3)	4.21	0.00	Y	Arm 9 Right	45.00	20.3 %	1970	1970
				Arm 12 Ahead	45.00	79.7 %		
8/3 (Circ 3)	4.17	0.00	Y	Arm 9 Right	45.00	100.0 %	1966	1966
9/1 (Circ 4)	3.46	0.00	Y	Arm 13 Ahead	45.00	100.0 %	1898	1898
9/2 (Circ 4)	4.32	0.00	Y	Arm 13 Ahead	45.00	39.6 %	1981	1981
				Arm 15 Right	45.00	60.4 %		
9/3 (Circ 4)	4.25	0.00	Y	Arm 15 Right	45.00	100.0 %	1974	1974
10/1	Infinite Saturation Flow						Inf	Inf
10/2	Infinite Saturation Flow						Inf	Inf
10/3	Infinite Saturation Flow						Inf	Inf
11/1	Infinite Saturation Flow						Inf	Inf
11/2	Infinite Saturation Flow						Inf	Inf
12/1	Infinite Saturation Flow						Inf	Inf
12/2	Infinite Saturation Flow						Inf	Inf
13/1	Infinite Saturation Flow						Inf	Inf
13/2	Infinite Saturation Flow						Inf	Inf
14/1	Infinite Saturation Flow						Inf	Inf
14/2	Infinite Saturation Flow						Inf	Inf
14/3	Infinite Saturation Flow						Inf	Inf
15/1 (Circ 5)	3.70	0.00	Y	Arm 14 Ahead	45.00	100.0 %	1921	1921
15/2 (Circ 5)	3.94	0.00	Y	Arm 6 Right	45.00	3.8 %	1944	1944
				Arm 14 Ahead	45.00	96.2 %		
15/3 (Circ 5)	4.33	0.00	Y	Arm 6 Right	45.00	100.0 %	1982	1982

Scenario 8: '2031 Assessment PM' (FG12: '2031 Assessment PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
		A	B	C	D	E	Tot.
Origin	A	2	273	596	79	235	1185
	B	254	6	578	74	1738	2650
	C	282	348	0	21	381	1032
	D	70	23	19	0	77	189
	E	485	1368	148	24	0	2025
	Tot.	1093	2018	1341	198	2431	7081

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 8: 2031 Assessment PM
Junction: A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)	
1/1	578
1/2	909
1/3 (with short)	1163(In) 914(Out)
1/4 (short)	249
2/1 (short)	366
2/2 (with short)	684(In) 318(Out)
2/3	348
3/1	77
3/2	112
4/1	982
4/2 (with short)	1043(In) 939(Out)
4/3 (short)	104
5/1	273
5/2	345
5/3 (with short)	567(In) 367(Out)
5/4 (short)	200
6/1	419
6/2	484
6/3	200
7/1	1049
7/2	1112
7/3	251
8/1	1217
8/2	1430
8/3	599
9/1	363
9/2	488
9/3	153
10/1	578
10/2	419
10/3	344
11/1	187
11/2	11
12/1	1294
12/2	1137
13/1	605

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13/2	488
14/1	273
14/2	740
14/3	1005
15/1	740
15/2	1079
15/3	117

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Lane Saturation Flows

Junction: A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A5 / A5 (East))	4.00	0.00	Y	Arm 10 Left	50.00	100.0 %	1956	1956
1/2 (A5 / A5 (East))	3.67	0.00	Y	Arm 7 Ahead	50.00	100.0 %	1924	1924
1/3 (A5 / A5 (East))	3.37	0.00	Y	Arm 7 Ahead	50.00	100.0 %	1895	1895
1/4 (A5 / A5 (East))	3.60	0.00	Y	Arm 7 Ahead	50.00	100.0 %	1917	1917
2/1 (A5112 Hereford Road (South))	4.18	0.00	Y	Arm 8 Ahead	30.00	94.3 %	1933	1933
				Arm 11 Left	18.50	5.7 %		
2/2 (A5112 Hereford Road (South))	3.91	0.00	Y	Arm 8 Ahead	34.50	100.0 %	1922	1922
2/3 (A5112 Hereford Road (South))	3.70	0.00	Y	Arm 8 Ahead	34.50	100.0 %	1902	1902
3/1 (Services Access)	3.00	0.00	Y	Arm 12 U-Turn	10.00	100.0 %	1665	1665
3/2 (Services Access)	3.00	0.00	Y	Arm 9 Left	15.00	100.0 %	1741	1741
				Arm 12 U-Turn	14.00	0.0 %		
4/1 (A5 (West))	3.32	0.00	Y	Arm 13 Left	100.00	49.4 %	1918	1918
				Arm 15 Ahead	100.00	50.6 %		
4/2 (A5 (West))	3.20	0.00	Y	Arm 15 Ahead	100.00	100.0 %	1906	1906
4/3 (A5 (West))	3.94	0.00	Y	Arm 15 Ahead	100.00	100.0 %	1979	1979
5/1 (A5112 Hereford Road (North))	5.00	0.00	Y	Arm 14 Left	19.00	100.0 %	1960	1960
5/2 (A5112 Hereford Road (North))	3.88	0.00	Y	Arm 6 Ahead	45.00	100.0 %	1938	1938
5/3 (A5112 Hereford Road (North))	3.73	0.00	Y	Arm 6 Ahead	45.00	100.0 %	1924	1924
5/4 (A5112 Hereford Road (North))	3.50	0.00	Y	Arm 6 Ahead	45.00	100.0 %	1902	1902
6/1 (Circ 1)	3.92	0.00	Y	Arm 10 Ahead	45.00	100.0 %	1942	1942
6/2 (Circ 1)	4.07	0.00	Y	Arm 7 Right	45.00	28.9 %	1957	1957
				Arm 10 Ahead	45.00	71.1 %		
6/3 (Circ 1)	3.90	0.00	Y	Arm 7 Right	45.00	100.0 %	1940	1940
7/1 (Circ 2)	4.28	0.00	Y	Arm 8 Right	45.00	83.1 %	1988	1988
				Arm 11 Ahead	Inf	16.9 %		
7/2 (Circ 2)	3.79	0.00	Y	Arm 8 Right	45.00	100.0 %	1930	1930
7/3 (Circ 2)	4.04	0.00	Y	Arm 8 Right	45.00	100.0 %	1954	1954

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8/1 (Circ 3)	3.70	0.00	Y	Arm 12 Ahead	45.00	100.0 %	1921	1921
8/2 (Circ 3)	4.21	0.00	Y	Arm 9 Right	45.00	20.5 %	1970	1970
				Arm 12 Ahead	45.00	79.5 %		
8/3 (Circ 3)	4.17	0.00	Y	Arm 9 Right	45.00	100.0 %	1966	1966
9/1 (Circ 4)	3.46	0.00	Y	Arm 13 Ahead	45.00	100.0 %	1898	1898
9/2 (Circ 4)	4.32	0.00	Y	Arm 13 Ahead	45.00	50.2 %	1981	1981
				Arm 15 Right	45.00	49.8 %		
9/3 (Circ 4)	4.25	0.00	Y	Arm 15 Right	45.00	100.0 %	1974	1974
10/1	Infinite Saturation Flow						Inf	Inf
10/2	Infinite Saturation Flow						Inf	Inf
10/3	Infinite Saturation Flow						Inf	Inf
11/1	Infinite Saturation Flow						Inf	Inf
11/2	Infinite Saturation Flow						Inf	Inf
12/1	Infinite Saturation Flow						Inf	Inf
12/2	Infinite Saturation Flow						Inf	Inf
13/1	Infinite Saturation Flow						Inf	Inf
13/2	Infinite Saturation Flow						Inf	Inf
14/1	Infinite Saturation Flow						Inf	Inf
14/2	Infinite Saturation Flow						Inf	Inf
14/3	Infinite Saturation Flow						Inf	Inf
15/1 (Circ 5)	3.70	0.00	Y	Arm 14 Ahead	45.00	100.0 %	1921	1921
15/2 (Circ 5)	3.94	0.00	Y	Arm 6 Right	45.00	6.9 %	1944	1944
				Arm 14 Ahead	45.00	93.1 %		
15/3 (Circ 5)	4.33	0.00	Y	Arm 6 Right	45.00	100.0 %	1982	1982

Scenario 9: '2021 Base AM' (FG1: '2021 Base AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
		A	B	C	D	E	Tot.
Origin	A	3	306	324	88	137	858
	B	209	12	374	66	1278	1939
	C	191	544	0	43	439	1217
	D	49	43	14	0	72	178
	E	358	1359	180	15	0	1912
	Tot.	810	2264	892	212	1926	6104

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 9: 2021 Base AM
Junction: A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)	
1/1	374
1/2	667
1/3 (with short)	898(In) 678(Out)
1/4 (short)	220
2/1 (short)	351
2/2 (with short)	673(In) 322(Out)
2/3	544
3/1	72
3/2	106
4/1	918
4/2 (with short)	994(In) 870(Out)
4/3 (short)	124
5/1	306
5/2	202
5/3 (with short)	350(In) 238(Out)
5/4 (short)	112
6/1	276
6/2	373
6/3	112
7/1	798
7/2	788
7/3	222
8/1	937
8/2	1110
8/3	766
9/1	242
9/2	542
9/3	281
10/1	374
10/2	276
10/3	242
11/1	190
11/2	22
12/1	1009
12/2	917
13/1	421

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13/2	389
14/1	306
14/2	892
14/3	1066
15/1	892
15/2	1140
15/3	135

Full Input Data And Results

Lane Saturation Flows

Junction: A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A5 / A5 (East))	4.00	0.00	Y	Arm 10 Left	50.00	100.0 %	1956	1956
1/2 (A5 / A5 (East))	3.67	0.00	Y	Arm 7 Ahead	50.00	100.0 %	1924	1924
1/3 (A5 / A5 (East))	3.37	0.00	Y	Arm 7 Ahead	50.00	100.0 %	1895	1895
1/4 (A5 / A5 (East))	3.60	0.00	Y	Arm 7 Ahead	50.00	100.0 %	1917	1917
2/1 (A5112 Hereford Road (South))	4.18	0.00	Y	Arm 8 Ahead	30.00	87.7 %	1929	1929
				Arm 11 Left	18.50	12.3 %		
2/2 (A5112 Hereford Road (South))	3.91	0.00	Y	Arm 8 Ahead	34.50	100.0 %	1922	1922
2/3 (A5112 Hereford Road (South))	3.70	0.00	Y	Arm 8 Ahead	34.50	100.0 %	1902	1902
3/1 (Services Access)	3.00	0.00	Y	Arm 12 U-Turn	10.00	100.0 %	1665	1665
3/2 (Services Access)	3.00	0.00	Y	Arm 9 Left	15.00	100.0 %	1741	1741
				Arm 12 U-Turn	14.00	0.0 %		
4/1 (A5 (West))	3.32	0.00	Y	Arm 13 Left	100.00	39.0 %	1918	1918
				Arm 15 Ahead	100.00	61.0 %		
4/2 (A5 (West))	3.20	0.00	Y	Arm 15 Ahead	100.00	100.0 %	1906	1906
4/3 (A5 (West))	3.94	0.00	Y	Arm 15 Ahead	100.00	100.0 %	1979	1979
5/1 (A5112 Hereford Road (North))	5.00	0.00	Y	Arm 14 Left	19.00	100.0 %	1960	1960
5/2 (A5112 Hereford Road (North))	3.88	0.00	Y	Arm 6 Ahead	45.00	100.0 %	1938	1938
5/3 (A5112 Hereford Road (North))	3.73	0.00	Y	Arm 6 Ahead	45.00	100.0 %	1924	1924
5/4 (A5112 Hereford Road (North))	3.50	0.00	Y	Arm 6 Ahead	45.00	100.0 %	1902	1902
6/1 (Circ 1)	3.92	0.00	Y	Arm 10 Ahead	45.00	100.0 %	1942	1942
6/2 (Circ 1)	4.07	0.00	Y	Arm 7 Right	45.00	35.1 %	1957	1957
				Arm 10 Ahead	45.00	64.9 %		
6/3 (Circ 1)	3.90	0.00	Y	Arm 7 Right	45.00	100.0 %	1940	1940
7/1 (Circ 2)	4.28	0.00	Y	Arm 8 Right	45.00	78.8 %	1991	1991
				Arm 11 Ahead	Inf	21.2 %		
7/2 (Circ 2)	3.79	0.00	Y	Arm 8 Right	45.00	100.0 %	1930	1930
7/3 (Circ 2)	4.04	0.00	Y	Arm 8 Right	45.00	100.0 %	1954	1954

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8/1 (Circ 3)	3.70	0.00	Y	Arm 12 Ahead	45.00	100.0 %	1921	1921
8/2 (Circ 3)	4.21	0.00	Y	Arm 9 Right	45.00	17.4 %	1970	1970
				Arm 12 Ahead	45.00	82.6 %		
8/3 (Circ 3)	4.17	0.00	Y	Arm 9 Right	45.00	100.0 %	1966	1966
9/1 (Circ 4)	3.46	0.00	Y	Arm 13 Ahead	45.00	100.0 %	1898	1898
9/2 (Circ 4)	4.32	0.00	Y	Arm 13 Ahead	45.00	38.7 %	1981	1981
				Arm 15 Right	45.00	61.3 %		
9/3 (Circ 4)	4.25	0.00	Y	Arm 15 Right	45.00	100.0 %	1974	1974
10/1	Infinite Saturation Flow						Inf	Inf
10/2	Infinite Saturation Flow						Inf	Inf
10/3	Infinite Saturation Flow						Inf	Inf
11/1	Infinite Saturation Flow						Inf	Inf
11/2	Infinite Saturation Flow						Inf	Inf
12/1	Infinite Saturation Flow						Inf	Inf
12/2	Infinite Saturation Flow						Inf	Inf
13/1	Infinite Saturation Flow						Inf	Inf
13/2	Infinite Saturation Flow						Inf	Inf
14/1	Infinite Saturation Flow						Inf	Inf
14/2	Infinite Saturation Flow						Inf	Inf
14/3	Infinite Saturation Flow						Inf	Inf
15/1 (Circ 5)	3.70	0.00	Y	Arm 14 Ahead	45.00	100.0 %	1921	1921
15/2 (Circ 5)	3.94	0.00	Y	Arm 6 Right	45.00	6.5 %	1944	1944
				Arm 14 Ahead	45.00	93.5 %		
15/3 (Circ 5)	4.33	0.00	Y	Arm 6 Right	45.00	100.0 %	1982	1982

Scenario 10: '2021 Base PM' (FG2: '2021 Base PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
		A	B	C	D	E	Tot.
Origin	A	2	251	527	73	216	1069
	B	233	6	493	68	1595	2395
	C	250	303	0	19	344	916
	D	65	21	17	0	71	174
	E	445	1256	123	22	0	1846
	Tot.	995	1837	1160	182	2226	6400

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 10: 2021 Base PM
Junction: A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)	
1/1	493
1/2	850
1/3 (with short)	1052(In) 849(Out)
1/4 (short)	203
2/1 (short)	274
2/2 (with short)	600(In) 326(Out)
2/3	316
3/1	71
3/2	103
4/1	901
4/2 (with short)	945(In) 876(Out)
4/3 (short)	69
5/1	251
5/2	314
5/3 (with short)	504(In) 343(Out)
5/4 (short)	161
6/1	392
6/2	427
6/3	161
7/1	1002
7/2	1008
7/3	205
8/1	1094
8/2	1334
8/3	521
9/1	338
9/2	433
9/3	126
10/1	493
10/2	392
10/3	275
11/1	172
11/2	10
12/1	1165
12/2	1061
13/1	560

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13/2	435
14/1	251
14/2	677
14/3	909
15/1	677
15/2	987
15/3	84

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Lane Saturation Flows

Junction: A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A5 / A5 (East))	4.00	0.00	Y	Arm 10 Left	50.00	100.0 %	1956	1956
1/2 (A5 / A5 (East))	3.67	0.00	Y	Arm 7 Ahead	50.00	100.0 %	1924	1924
1/3 (A5 / A5 (East))	3.37	0.00	Y	Arm 7 Ahead	50.00	100.0 %	1895	1895
1/4 (A5 / A5 (East))	3.60	0.00	Y	Arm 7 Ahead	50.00	100.0 %	1917	1917
2/1 (A5112 Hereford Road (South))	4.18	0.00	Y	Arm 8 Ahead	30.00	93.1 %	1932	1932
				Arm 11 Left	18.50	6.9 %		
2/2 (A5112 Hereford Road (South))	3.91	0.00	Y	Arm 8 Ahead	34.50	100.0 %	1922	1922
2/3 (A5112 Hereford Road (South))	3.70	0.00	Y	Arm 8 Ahead	34.50	100.0 %	1902	1902
3/1 (Services Access)	3.00	0.00	Y	Arm 12 U-Turn	10.00	100.0 %	1665	1665
3/2 (Services Access)	3.00	0.00	Y	Arm 9 Left	15.00	100.0 %	1741	1741
				Arm 12 U-Turn	14.00	0.0 %		
4/1 (A5 (West))	3.32	0.00	Y	Arm 13 Left	100.00	49.4 %	1918	1918
				Arm 15 Ahead	100.00	50.6 %		
4/2 (A5 (West))	3.20	0.00	Y	Arm 15 Ahead	100.00	100.0 %	1906	1906
4/3 (A5 (West))	3.94	0.00	Y	Arm 15 Ahead	100.00	100.0 %	1979	1979
5/1 (A5112 Hereford Road (North))	5.00	0.00	Y	Arm 14 Left	19.00	100.0 %	1960	1960
5/2 (A5112 Hereford Road (North))	3.88	0.00	Y	Arm 6 Ahead	45.00	100.0 %	1938	1938
5/3 (A5112 Hereford Road (North))	3.73	0.00	Y	Arm 6 Ahead	45.00	100.0 %	1924	1924
5/4 (A5112 Hereford Road (North))	3.50	0.00	Y	Arm 6 Ahead	45.00	100.0 %	1902	1902
6/1 (Circ 1)	3.92	0.00	Y	Arm 10 Ahead	45.00	100.0 %	1942	1942
6/2 (Circ 1)	4.07	0.00	Y	Arm 7 Right	45.00	35.6 %	1957	1957
				Arm 10 Ahead	45.00	64.4 %		
6/3 (Circ 1)	3.90	0.00	Y	Arm 7 Right	45.00	100.0 %	1940	1940
7/1 (Circ 2)	4.28	0.00	Y	Arm 8 Right	45.00	83.7 %	1988	1988
				Arm 11 Ahead	Inf	16.3 %		
7/2 (Circ 2)	3.79	0.00	Y	Arm 8 Right	45.00	100.0 %	1930	1930
7/3 (Circ 2)	4.04	0.00	Y	Arm 8 Right	45.00	100.0 %	1954	1954

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8/1 (Circ 3)	3.70	0.00	Y	Arm 12 Ahead	45.00	100.0 %	1921	1921
8/2 (Circ 3)	4.21	0.00	Y	Arm 9 Right	45.00	20.5 %	1970	1970
				Arm 12 Ahead	45.00	79.5 %		
8/3 (Circ 3)	4.17	0.00	Y	Arm 9 Right	45.00	100.0 %	1966	1966
9/1 (Circ 4)	3.46	0.00	Y	Arm 13 Ahead	45.00	100.0 %	1898	1898
9/2 (Circ 4)	4.32	0.00	Y	Arm 13 Ahead	45.00	49.0 %	1981	1981
				Arm 15 Right	45.00	51.0 %		
9/3 (Circ 4)	4.25	0.00	Y	Arm 15 Right	45.00	100.0 %	1974	1974
10/1	Infinite Saturation Flow						Inf	Inf
10/2	Infinite Saturation Flow						Inf	Inf
10/3	Infinite Saturation Flow						Inf	Inf
11/1	Infinite Saturation Flow						Inf	Inf
11/2	Infinite Saturation Flow						Inf	Inf
12/1	Infinite Saturation Flow						Inf	Inf
12/2	Infinite Saturation Flow						Inf	Inf
13/1	Infinite Saturation Flow						Inf	Inf
13/2	Infinite Saturation Flow						Inf	Inf
14/1	Infinite Saturation Flow						Inf	Inf
14/2	Infinite Saturation Flow						Inf	Inf
14/3	Infinite Saturation Flow						Inf	Inf
15/1 (Circ 5)	3.70	0.00	Y	Arm 14 Ahead	45.00	100.0 %	1921	1921
15/2 (Circ 5)	3.94	0.00	Y	Arm 6 Right	45.00	7.9 %	1944	1944
				Arm 14 Ahead	45.00	92.1 %		
15/3 (Circ 5)	4.33	0.00	Y	Arm 6 Right	45.00	100.0 %	1982	1982

Scenario 11: '2021 Assessment AM' (FG7: '2021 Assessment AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
		A	B	C	D	E	Tot.
Origin	A	3	306	334	88	137	868
	B	209	12	391	66	1278	1956
	C	216	589	0	43	455	1303
	D	49	43	14	0	72	178
	E	358	1359	186	15	0	1918
	Tot.	835	2309	925	212	1942	6223

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 11: 2021 Assessment AM
Junction: A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)	
1/1	391
1/2	669
1/3 (with short)	896(In) 675(Out)
1/4 (short)	221
2/1 (short)	372
2/2 (with short)	714(In) 342(Out)
2/3	589
3/1	72
3/2	106
4/1 4/2 (with short)	901 1017(In) 837(Out)
4/3 (short)	180
5/1	306
5/2	214
5/3 (with short)	348(In) 240(Out)
5/4 (short)	108
6/1	235
6/2	434
6/3	108
7/1	804
7/2	781
7/3	223
8/1	964
8/2	1123
8/3	812
9/1	266
9/2	552
9/3	317
10/1	391
10/2	235
10/3	299
11/1	190
11/2	22
12/1	1036
12/2	906
13/1	445

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13/2	390
14/1	306
14/2	884
14/3	1119
15/1	884
15/2	1140
15/3	194

Full Input Data And Results

Lane Saturation Flows

Junction: A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A5 / A5 (East))	4.00	0.00	Y	Arm 10 Left	50.00	100.0 %	1956	1956
1/2 (A5 / A5 (East))	3.67	0.00	Y	Arm 7 Ahead	50.00	100.0 %	1924	1924
1/3 (A5 / A5 (East))	3.37	0.00	Y	Arm 7 Ahead	50.00	100.0 %	1895	1895
1/4 (A5 / A5 (East))	3.60	0.00	Y	Arm 7 Ahead	50.00	100.0 %	1917	1917
2/1 (A5112 Hereford Road (South))	4.18	0.00	Y	Arm 8 Ahead	30.00	88.4 %	1930	1930
				Arm 11 Left	18.50	11.6 %		
2/2 (A5112 Hereford Road (South))	3.91	0.00	Y	Arm 8 Ahead	34.50	100.0 %	1922	1922
2/3 (A5112 Hereford Road (South))	3.70	0.00	Y	Arm 8 Ahead	34.50	100.0 %	1902	1902
3/1 (Services Access)	3.00	0.00	Y	Arm 12 U-Turn	10.00	100.0 %	1665	1665
3/2 (Services Access)	3.00	0.00	Y	Arm 9 Left	15.00	100.0 %	1741	1741
				Arm 12 U-Turn	14.00	0.0 %		
4/1 (A5 (West))	3.32	0.00	Y	Arm 13 Left	100.00	39.7 %	1918	1918
				Arm 15 Ahead	100.00	60.3 %		
4/2 (A5 (West))	3.20	0.00	Y	Arm 15 Ahead	100.00	100.0 %	1906	1906
4/3 (A5 (West))	3.94	0.00	Y	Arm 15 Ahead	100.00	100.0 %	1979	1979
5/1 (A5112 Hereford Road (North))	5.00	0.00	Y	Arm 14 Left	19.00	100.0 %	1960	1960
5/2 (A5112 Hereford Road (North))	3.88	0.00	Y	Arm 6 Ahead	45.00	100.0 %	1938	1938
5/3 (A5112 Hereford Road (North))	3.73	0.00	Y	Arm 6 Ahead	45.00	100.0 %	1924	1924
5/4 (A5112 Hereford Road (North))	3.50	0.00	Y	Arm 6 Ahead	45.00	100.0 %	1902	1902
6/1 (Circ 1)	3.92	0.00	Y	Arm 10 Ahead	45.00	100.0 %	1942	1942
6/2 (Circ 1)	4.07	0.00	Y	Arm 7 Right	45.00	31.1 %	1957	1957
				Arm 10 Ahead	45.00	68.9 %		
6/3 (Circ 1)	3.90	0.00	Y	Arm 7 Right	45.00	100.0 %	1940	1940
7/1 (Circ 2)	4.28	0.00	Y	Arm 8 Right	45.00	79.0 %	1991	1991
				Arm 11 Ahead	Inf	21.0 %		
7/2 (Circ 2)	3.79	0.00	Y	Arm 8 Right	45.00	100.0 %	1930	1930
7/3 (Circ 2)	4.04	0.00	Y	Arm 8 Right	45.00	100.0 %	1954	1954

Full Input Data And Results

8/1 (Circ 3)	3.70	0.00	Y	Arm 12 Ahead	45.00	100.0 %	1921	1921
8/2 (Circ 3)	4.21	0.00	Y	Arm 9 Right	45.00	19.3 %	1970	1970
				Arm 12 Ahead	45.00	80.7 %		
8/3 (Circ 3)	4.17	0.00	Y	Arm 9 Right	45.00	100.0 %	1966	1966
9/1 (Circ 4)	3.46	0.00	Y	Arm 13 Ahead	45.00	100.0 %	1898	1898
9/2 (Circ 4)	4.32	0.00	Y	Arm 13 Ahead	45.00	38.2 %	1981	1981
				Arm 15 Right	45.00	61.8 %		
9/3 (Circ 4)	4.25	0.00	Y	Arm 15 Right	45.00	100.0 %	1974	1974
10/1	Infinite Saturation Flow						Inf	Inf
10/2	Infinite Saturation Flow						Inf	Inf
10/3	Infinite Saturation Flow						Inf	Inf
11/1	Infinite Saturation Flow						Inf	Inf
11/2	Infinite Saturation Flow						Inf	Inf
12/1	Infinite Saturation Flow						Inf	Inf
12/2	Infinite Saturation Flow						Inf	Inf
13/1	Infinite Saturation Flow						Inf	Inf
13/2	Infinite Saturation Flow						Inf	Inf
14/1	Infinite Saturation Flow						Inf	Inf
14/2	Infinite Saturation Flow						Inf	Inf
14/3	Infinite Saturation Flow						Inf	Inf
15/1 (Circ 5)	3.70	0.00	Y	Arm 14 Ahead	45.00	100.0 %	1921	1921
15/2 (Circ 5)	3.94	0.00	Y	Arm 6 Right	45.00	1.8 %	1944	1944
				Arm 14 Ahead	45.00	98.2 %		
15/3 (Circ 5)	4.33	0.00	Y	Arm 6 Right	45.00	100.0 %	1982	1982

Scenario 12: '2021 Assessment PM' (FG8: '2021 Assessment PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
		A	B	C	D	E	Tot.
Origin	A	2	251	549	73	216	1091
	B	233	6	534	68	1595	2436
	C	259	321	0	19	350	949
	D	65	21	17	0	71	174
	E	445	1256	137	22	0	1860
	Tot.	1004	1855	1237	182	2232	6510

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 12: 2021 Assessment PM
Junction: A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)	
1/1	534
1/2	849
1/3 (with short)	1053(In) 850(Out)
1/4 (short)	203
2/1 (short)	299
2/2 (with short)	627(In) 328(Out)
2/3	322
3/1	71
3/2	103
4/1	905
4/2 (with short)	955(In) 877(Out)
4/3 (short)	78
5/1	251
5/2	321
5/3 (with short)	519(In) 349(Out)
5/4 (short)	170
6/1	404
6/2	442
6/3	170
7/1	992
7/2	1018
7/3	205
8/1	1109
8/2	1346
8/3	527
9/1	359
9/2	430
9/3	135
10/1	534
10/2	404
10/3	299
11/1	172
11/2	10
12/1	1180
12/2	1052
13/1	581

Full Input Data And Results

13/2	423
14/1	251
14/2	690
14/3	914
15/1	690
15/2	997
15/3	93

Full Input Data And Results

Lane Saturation Flows

Junction: A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A5 / A5 (East))	4.00	0.00	Y	Arm 10 Left	50.00	100.0 %	1956	1956
1/2 (A5 / A5 (East))	3.67	0.00	Y	Arm 7 Ahead	50.00	100.0 %	1924	1924
1/3 (A5 / A5 (East))	3.37	0.00	Y	Arm 7 Ahead	50.00	100.0 %	1895	1895
1/4 (A5 / A5 (East))	3.60	0.00	Y	Arm 7 Ahead	50.00	100.0 %	1917	1917
2/1 (A5112 Hereford Road (South))	4.18	0.00	Y	Arm 8 Ahead	30.00	93.6 %	1933	1933
				Arm 11 Left	18.50	6.4 %		
2/2 (A5112 Hereford Road (South))	3.91	0.00	Y	Arm 8 Ahead	34.50	100.0 %	1922	1922
2/3 (A5112 Hereford Road (South))	3.70	0.00	Y	Arm 8 Ahead	34.50	100.0 %	1902	1902
3/1 (Services Access)	3.00	0.00	Y	Arm 12 U-Turn	10.00	100.0 %	1665	1665
3/2 (Services Access)	3.00	0.00	Y	Arm 9 Left	15.00	100.0 %	1741	1741
				Arm 12 U-Turn	14.00	0.0 %		
4/1 (A5 (West))	3.32	0.00	Y	Arm 13 Left	100.00	49.2 %	1918	1918
				Arm 15 Ahead	100.00	50.8 %		
4/2 (A5 (West))	3.20	0.00	Y	Arm 15 Ahead	100.00	100.0 %	1906	1906
4/3 (A5 (West))	3.94	0.00	Y	Arm 15 Ahead	100.00	100.0 %	1979	1979
5/1 (A5112 Hereford Road (North))	5.00	0.00	Y	Arm 14 Left	19.00	100.0 %	1960	1960
5/2 (A5112 Hereford Road (North))	3.88	0.00	Y	Arm 6 Ahead	45.00	100.0 %	1938	1938
5/3 (A5112 Hereford Road (North))	3.73	0.00	Y	Arm 6 Ahead	45.00	100.0 %	1924	1924
5/4 (A5112 Hereford Road (North))	3.50	0.00	Y	Arm 6 Ahead	45.00	100.0 %	1902	1902
6/1 (Circ 1)	3.92	0.00	Y	Arm 10 Ahead	45.00	100.0 %	1942	1942
6/2 (Circ 1)	4.07	0.00	Y	Arm 7 Right	45.00	32.4 %	1957	1957
				Arm 10 Ahead	45.00	67.6 %		
6/3 (Circ 1)	3.90	0.00	Y	Arm 7 Right	45.00	100.0 %	1940	1940
7/1 (Circ 2)	4.28	0.00	Y	Arm 8 Right	45.00	83.6 %	1988	1988
				Arm 11 Ahead	Inf	16.4 %		
7/2 (Circ 2)	3.79	0.00	Y	Arm 8 Right	45.00	100.0 %	1930	1930
7/3 (Circ 2)	4.04	0.00	Y	Arm 8 Right	45.00	100.0 %	1954	1954

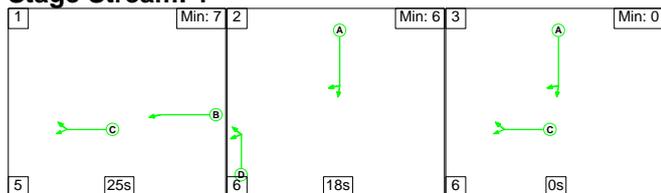
Full Input Data And Results

8/1 (Circ 3)	3.70	0.00	Y	Arm 12 Ahead	45.00	100.0 %	1921	1921
8/2 (Circ 3)	4.21	0.00	Y	Arm 9 Right	45.00	21.8 %	1970	1970
				Arm 12 Ahead	45.00	78.2 %		
8/3 (Circ 3)	4.17	0.00	Y	Arm 9 Right	45.00	100.0 %	1966	1966
9/1 (Circ 4)	3.46	0.00	Y	Arm 13 Ahead	45.00	100.0 %	1898	1898
9/2 (Circ 4)	4.32	0.00	Y	Arm 13 Ahead	45.00	46.5 %	1981	1981
				Arm 15 Right	45.00	53.5 %		
9/3 (Circ 4)	4.25	0.00	Y	Arm 15 Right	45.00	100.0 %	1974	1974
10/1	Infinite Saturation Flow						Inf	Inf
10/2	Infinite Saturation Flow						Inf	Inf
10/3	Infinite Saturation Flow						Inf	Inf
11/1	Infinite Saturation Flow						Inf	Inf
11/2	Infinite Saturation Flow						Inf	Inf
12/1	Infinite Saturation Flow						Inf	Inf
12/2	Infinite Saturation Flow						Inf	Inf
13/1	Infinite Saturation Flow						Inf	Inf
13/2	Infinite Saturation Flow						Inf	Inf
14/1	Infinite Saturation Flow						Inf	Inf
14/2	Infinite Saturation Flow						Inf	Inf
14/3	Infinite Saturation Flow						Inf	Inf
15/1 (Circ 5)	3.70	0.00	Y	Arm 14 Ahead	45.00	100.0 %	1921	1921
15/2 (Circ 5)	3.94	0.00	Y	Arm 6 Right	45.00	8.3 %	1944	1944
				Arm 14 Ahead	45.00	91.7 %		
15/3 (Circ 5)	4.33	0.00	Y	Arm 6 Right	45.00	100.0 %	1982	1982

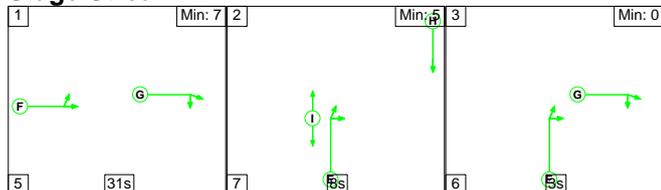
Scenario 1: '2026 Base AM' (FG3: '2026 Base AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

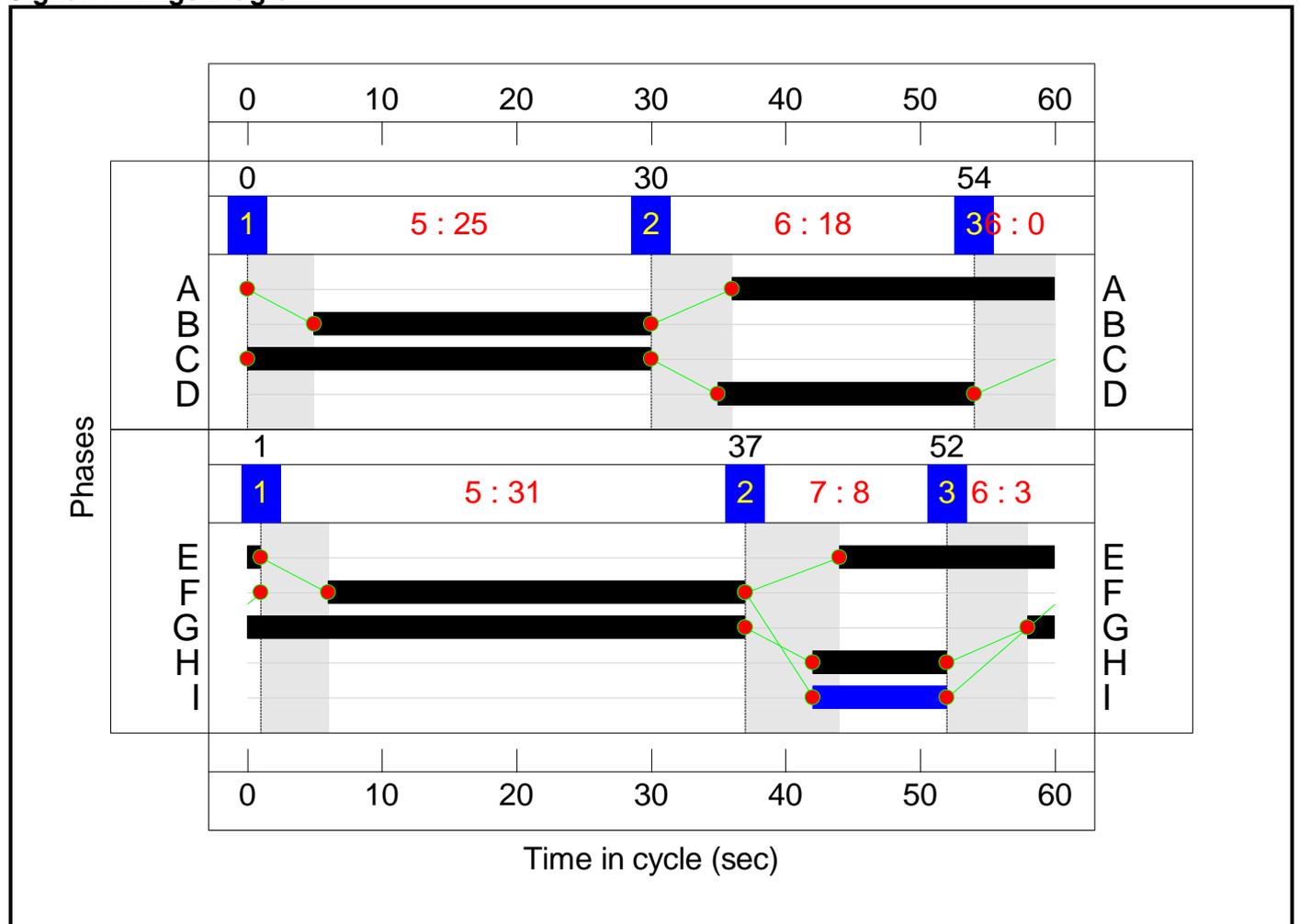
Stage Stream: 1

Stage	1	2	3
Duration	25	18	0
Change Point	0	30	54

Stage Stream: 2

Stage	1	2	3
Duration	31	8	3
Change Point	1	37	52

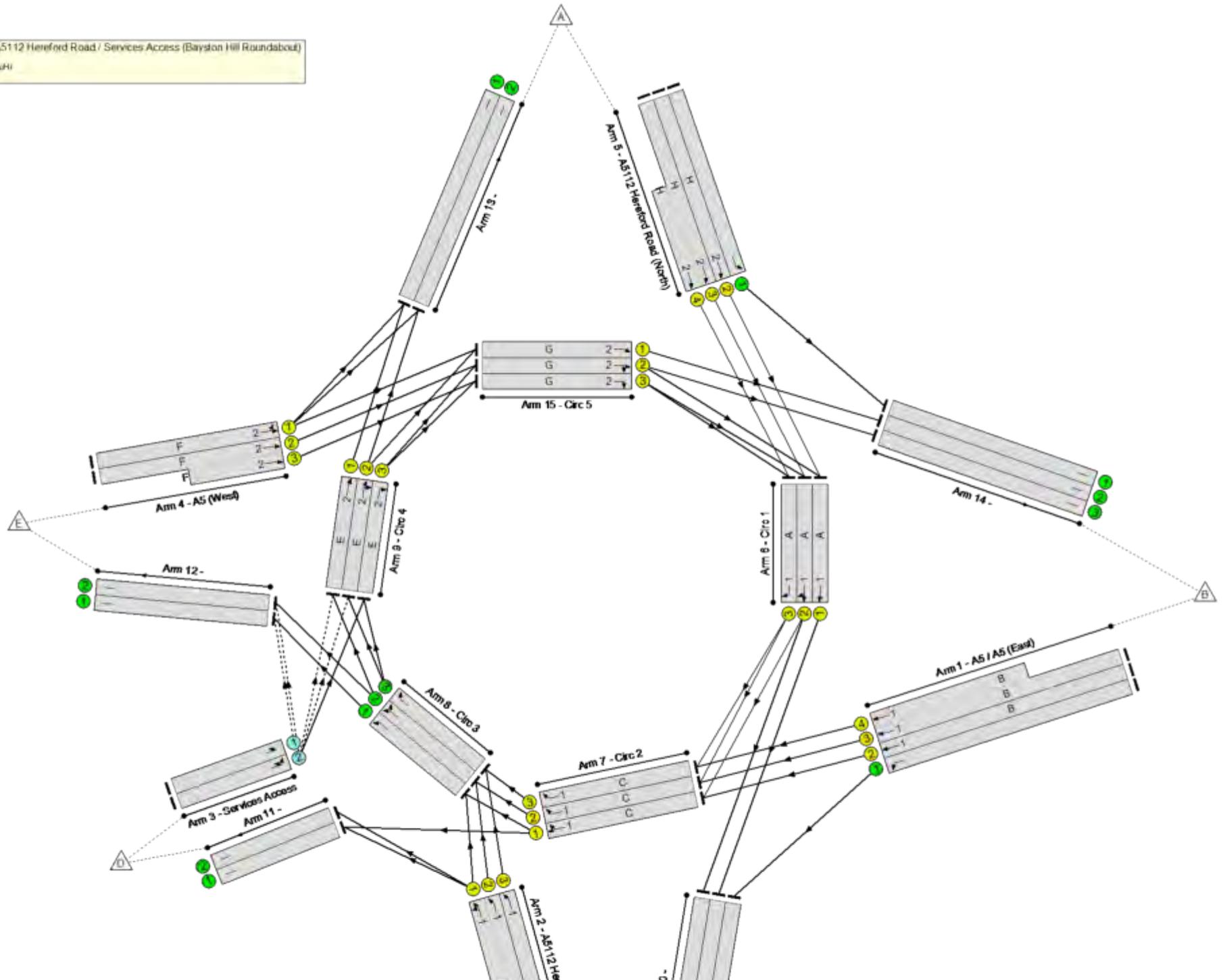
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)
PRC - 11.2 %
Total Traffic Delay 75.2 pcuHr



Full Input Data And Results

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	-	-		-	-	-	-	-	-	100.1%
A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)	-	-	N/A	-	-		-	-	-	-	-	-	100.1%
1/1	A5 / A5 (East) Left	U	N/A	N/A	-		-	-	-	393	1956	1858	21.1%
1/2	A5 / A5 (East) Ahead	U	1	N/A	B		1	25	-	703	1924	792	88.8%
1/3+1/4	A5 / A5 (East) Ahead	U	1	N/A	B		1	25	-	941	1895:1917	780+255	90.9 : 90.9%
2/2+2/1	A5112 Hereford Road (South) Ahead Left	U	1	N/A	D		1	19	-	708	1922:1929	502+550	67.3 : 67.3%
2/3	A5112 Hereford Road (South) Ahead	U	1	N/A	D		1	19	-	572	1902	602	95.0%
3/1	Services Access U-Turn	O	N/A	N/A	-		-	-	-	76	1665	622	12.2%
3/2	Services Access Left U-Turn	O	N/A	N/A	-		-	-	-	112	1741	240	46.7%
4/1	A5 (West) Left Ahead	U	2	N/A	F		1	31	-	945	1918	972	97.2%
4/2+4/3	A5 (West) Ahead	U	2	N/A	F		1	31	-	1065	1906:1979	890+197	98.0 : 98.0%
5/1	A5112 Hereford Road (North) Left	U	N/A	N/A	-		-	-	-	322	1960	1862	17.3%
5/2	A5112 Hereford Road (North) Ahead	U	2	N/A	H		1	10	-	221	1938	338	65.5%
5/3+5/4	A5112 Hereford Road (North) Ahead	U	2	N/A	H		1	10	-	359	1924:1902	335+154	73.4 : 73.4%
6/1	Circ 1 Ahead	U	1	N/A	A		1	24	-	236	1942	769	30.7%

Full Input Data And Results

6/2	Circ 1 Right Ahead	U	1	N/A	A		1	24	-	451	1957	775	58.2%
6/3	Circ 1 Right	U	1	N/A	A		1	24	-	113	1940	768	14.7%
7/1	Circ 2 Right Ahead	U	1	N/A	C		1	30	-	845	1991	977	86.5%
7/2	Circ 2 Right	U	1	N/A	C		1	30	-	820	1930	947	86.6%
7/3	Circ 2 Right	U	1	N/A	C		1	30	-	234	1954	959	24.4%
8/1	Circ 3 Ahead	U	N/A	N/A	-		-	-	-	993	1921	1825	54.4%
8/2	Circ 3 Right Ahead	U	N/A	N/A	-		-	-	-	1158	1970	1871	61.9%
8/3	Circ 3 Right	U	N/A	N/A	-		-	-	-	806	1966	1868	43.2%
9/1	Circ 4 Ahead	U	2	N/A	E		1	17	-	254	1898	541	47.0%
9/2	Circ 4 Ahead Right	U	2	N/A	E		1	17	-	565	1981	565	100.1%
9/3	Circ 4 Right	U	2	N/A	E		1	17	-	301	1974	563	53.5%
10/1		U	N/A	N/A	-		-	-	-	393	Inf	Inf	0.0%
10/2		U	N/A	N/A	-		-	-	-	236	Inf	Inf	0.0%
10/3		U	N/A	N/A	-		-	-	-	309	Inf	Inf	0.0%
11/1		U	N/A	N/A	-		-	-	-	199	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	23	Inf	Inf	0.0%
12/1		U	N/A	N/A	-		-	-	-	1069	Inf	Inf	0.0%
12/2		U	N/A	N/A	-		-	-	-	956	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	442	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	410	Inf	Inf	0.0%
14/1		U	N/A	N/A	-		-	-	-	322	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	912	Inf	Inf	0.0%
14/3		U	N/A	N/A	-		-	-	-	1146	Inf	Inf	0.0%
15/1	Circ 5 Ahead	U	2	N/A	G		1	39	-	912	1921	1217	74.9%
15/2	Circ 5 Right Ahead	U	2	N/A	G		1	39	-	1161	1944	1231	94.3%
15/3	Circ 5 Right	U	2	N/A	G		1	39	-	205	1982	1255	16.3%

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	-	-	159	0	0	34.6	40.5	0.0	75.2	-	-	-	-
A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)	-	-	159	0	0	34.6	40.5	0.0	75.2	-	-	-	-
1/1	393	393	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
1/2	703	703	-	-	-	3.1	3.5	-	6.5	33.4	11.3	3.6	15.0
1/3+1/4	941	941	-	-	-	3.8	4.3	-	8.2	31.2	11.6	4.5	16.2
2/2+2/1	708	708	-	-	-	3.3	1.0	-	4.2	21.5	5.4	1.0	6.4
2/3	572	572	-	-	-	3.1	6.3	-	9.4	58.9	9.7	6.6	16.3
3/1	76	76	76	0	0	0.0	0.1	-	0.1	3.1	0.0	0.1	0.1
3/2	112	112	83	0	0	0.2	0.4	-	0.6	18.6	0.7	0.4	1.1
4/1	945	945	-	-	-	3.6	9.6	-	13.1	50.0	16.0	10.1	26.1
4/2+4/3	1065	1065	-	-	-	3.6	11.2	-	14.8	50.0	16.1	11.8	27.8
5/1	322	322	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
5/2	221	221	-	-	-	1.4	0.9	-	2.3	37.2	3.6	0.9	4.5
5/3+5/4	359	359	-	-	-	2.3	1.3	-	3.5	35.5	4.0	1.4	5.4
6/1	236	236	-	-	-	0.1	0.0	-	0.1	1.4	0.3	0.0	0.3
6/2	451	451	-	-	-	1.1	0.0	-	1.1	8.7	3.5	0.0	3.5
6/3	113	113	-	-	-	0.0	0.0	-	0.0	0.3	0.0	0.0	0.0
7/1	845	845	-	-	-	1.5	0.0	-	1.5	6.6	5.2	0.0	5.2
7/2	820	820	-	-	-	1.6	0.0	-	1.6	7.0	4.9	0.0	4.9
7/3	234	234	-	-	-	0.2	0.0	-	0.2	3.4	0.6	0.0	0.6
8/1	993	993	-	-	-	0.0	0.6	-	0.6	2.1	0.0	0.6	0.6
8/2	1158	1158	-	-	-	0.0	0.8	-	0.8	2.4	0.0	0.8	0.8
8/3	806	806	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4
9/1	254	254	-	-	-	0.3	0.0	-	0.3	4.2	2.7	0.0	2.7

Full Input Data And Results

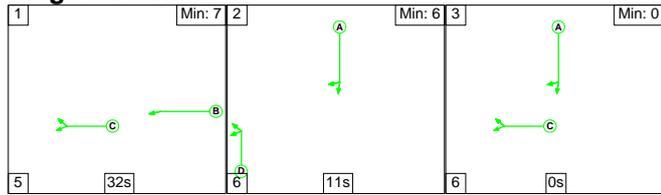
9/2	565	565	-	-	-	2.3	0.2	-	2.5	16.1	9.9	0.2	10.1																					
9/3	301	301	-	-	-	0.3	0.0	-	0.3	3.5	1.7	0.0	1.7																					
10/1	393	393	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
10/2	236	236	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
10/3	309	309	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
11/1	199	199	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
11/2	23	23	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
12/1	1069	1069	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
12/2	956	956	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
13/1	442	442	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
13/2	410	410	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
14/1	322	322	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
14/2	912	912	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
14/3	1146	1146	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
15/1	912	912	-	-	-	1.0	0.0	-	1.0	4.1	8.3	0.0	8.3																					
15/2	1161	1161	-	-	-	1.7	0.0	-	1.7	5.2	8.7	0.0	8.7																					
15/3	205	205	-	-	-	0.2	0.0	-	0.2	3.4	0.8	0.0	0.8																					
<table> <tbody> <tr> <td>C1</td> <td>Stream: 1 PRC for Signalled Lanes (%)</td> <td>-5.5</td> <td>Total Delay for Signalled Lanes (pcuHr):</td> <td>32.82</td> <td>Cycle Time (s):</td> <td>60</td> </tr> <tr> <td>C1</td> <td>Stream: 2 PRC for Signalled Lanes (%)</td> <td>-11.2</td> <td>Total Delay for Signalled Lanes (pcuHr):</td> <td>39.78</td> <td>Cycle Time (s):</td> <td>60</td> </tr> <tr> <td></td> <td>PRC Over All Lanes (%)</td> <td>-11.2</td> <td>Total Delay Over All Lanes(pcuHr):</td> <td>75.16</td> <td></td> <td></td> </tr> </tbody> </table>														C1	Stream: 1 PRC for Signalled Lanes (%)	-5.5	Total Delay for Signalled Lanes (pcuHr):	32.82	Cycle Time (s):	60	C1	Stream: 2 PRC for Signalled Lanes (%)	-11.2	Total Delay for Signalled Lanes (pcuHr):	39.78	Cycle Time (s):	60		PRC Over All Lanes (%)	-11.2	Total Delay Over All Lanes(pcuHr):	75.16		
C1	Stream: 1 PRC for Signalled Lanes (%)	-5.5	Total Delay for Signalled Lanes (pcuHr):	32.82	Cycle Time (s):	60																												
C1	Stream: 2 PRC for Signalled Lanes (%)	-11.2	Total Delay for Signalled Lanes (pcuHr):	39.78	Cycle Time (s):	60																												
	PRC Over All Lanes (%)	-11.2	Total Delay Over All Lanes(pcuHr):	75.16																														

Full Input Data And Results

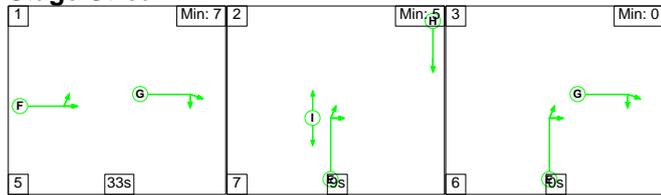
Scenario 2: '2026 Base PM' (FG4: '2026 Base PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

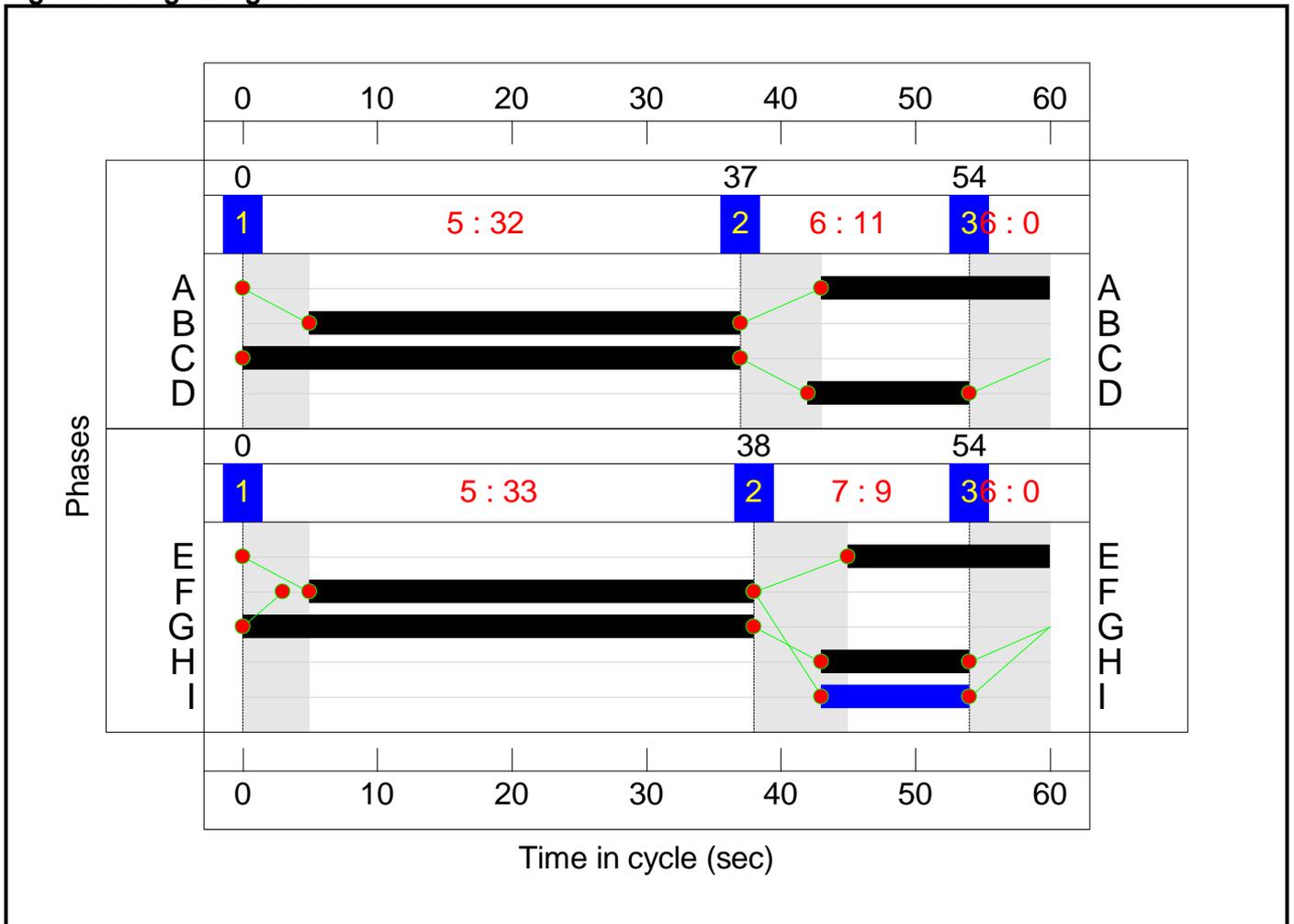
Stage Stream: 1

Stage	1	2	3
Duration	32	11	0
Change Point	0	37	54

Stage Stream: 2

Stage	1	2	3
Duration	33	9	0
Change Point	0	38	54

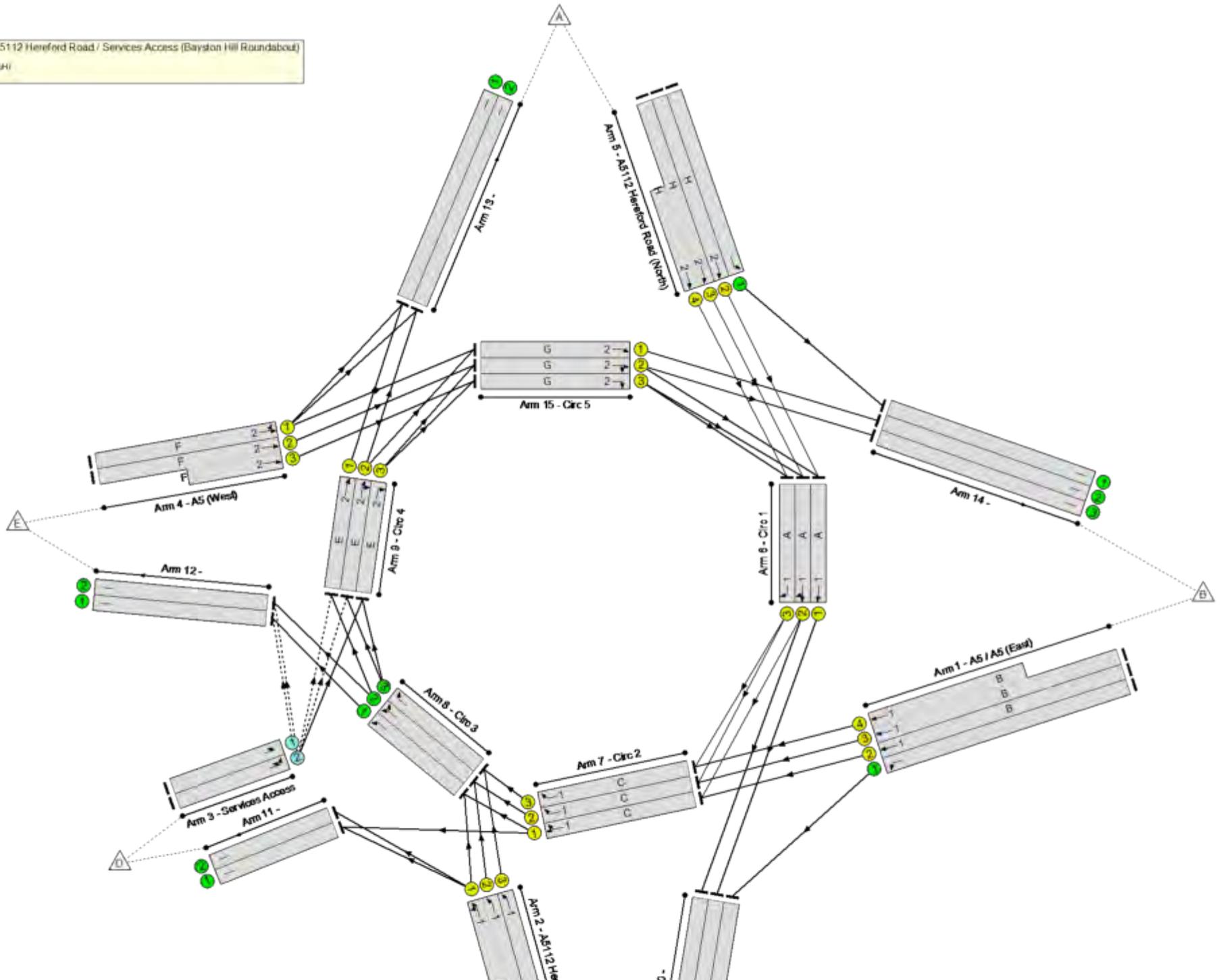
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)
PRC: 9.7 %
Total Traffic Delay: 55.9 pcuH



Full Input Data And Results

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%
A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)	-	-	N/A	-	-		-	-	-	-	-	-	89.4%
1/1	A5 / A5 (East) Left	U	N/A	N/A	-		-	-	-	519	1956	1956	26.5%
1/2	A5 / A5 (East) Ahead	U	1	N/A	B		1	32	-	884	1924	1058	83.5%
1/3+1/4	A5 / A5 (East) Ahead	U	1	N/A	B		1	32	-	1116	1895:1917	1042+266	85.3 : 85.3%
2/2+2/1	A5112 Hereford Road (South) Ahead Left	U	1	N/A	D		1	12	-	645	1922:1933	369+419	81.9 : 81.9%
2/3	A5112 Hereford Road (South) Ahead	U	1	N/A	D		1	12	-	319	1902	412	77.4%
3/1	Services Access U-Turn	O	N/A	N/A	-		-	-	-	74	1665	613	12.1%
3/2	Services Access Left U-Turn	O	N/A	N/A	-		-	-	-	108	1741	235	46.0%
4/1	A5 (West) Left Ahead	U	2	N/A	F		1	33	-	943	1918	1087	86.8%
4/2+4/3	A5 (West) Ahead	U	2	N/A	F		1	33	-	998	1906:1979	1037+102	87.7 : 87.7%
5/1	A5112 Hereford Road (North) Left	U	N/A	N/A	-		-	-	-	264	1960	1960	13.5%
5/2	A5112 Hereford Road (North) Ahead	U	2	N/A	H		1	11	-	325	1938	388	83.8%
5/3+5/4	A5112 Hereford Road (North) Ahead	U	2	N/A	H		1	11	-	535	1924:1902	385+214	89.4 : 89.4%
6/1	Circ 1 Ahead	U	1	N/A	A		1	17	-	392	1942	583	67.3%

Full Input Data And Results

6/2	Circ 1 Right Ahead	U	1	N/A	A		1	17	-	448	1957	587	76.3%
6/3	Circ 1 Right	U	1	N/A	A		1	17	-	191	1940	582	32.8%
7/1	Circ 2 Right Ahead	U	1	N/A	C		1	37	-	1022	1988	1259	81.2%
7/2	Circ 2 Right	U	1	N/A	C		1	37	-	1078	1930	1222	88.2%
7/3	Circ 2 Right	U	1	N/A	C		1	37	-	229	1954	1238	18.5%
8/1	Circ 3 Ahead	U	N/A	N/A	-		-	-	-	1173	1921	1921	61.1%
8/2	Circ 3 Right Ahead	U	N/A	N/A	-		-	-	-	1380	1970	1970	70.1%
8/3	Circ 3 Right	U	N/A	N/A	-		-	-	-	548	1966	1966	27.9%
9/1	Circ 4 Ahead	U	2	N/A	E		1	15	-	355	1898	506	70.1%
9/2	Circ 4 Ahead Right	U	2	N/A	E		1	15	-	455	1981	528	86.1%
9/3	Circ 4 Right	U	2	N/A	E		1	15	-	133	1974	526	25.3%
10/1		U	N/A	N/A	-		-	-	-	519	Inf	Inf	0.0%
10/2		U	N/A	N/A	-		-	-	-	392	Inf	Inf	0.0%
10/3		U	N/A	N/A	-		-	-	-	310	Inf	Inf	0.0%
11/1		U	N/A	N/A	-		-	-	-	182	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	10	Inf	Inf	0.0%
12/1		U	N/A	N/A	-		-	-	-	1247	Inf	Inf	0.0%
12/2		U	N/A	N/A	-		-	-	-	1093	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	589	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	457	Inf	Inf	0.0%
14/1		U	N/A	N/A	-		-	-	-	264	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	707	Inf	Inf	0.0%
14/3		U	N/A	N/A	-		-	-	-	960	Inf	Inf	0.0%
15/1	Circ 5 Ahead	U	2	N/A	G		1	38	-	707	1921	1249	56.6%
15/2	Circ 5 Right Ahead	U	2	N/A	G		1	38	-	1027	1944	1264	81.3%
15/3	Circ 5 Right	U	2	N/A	G		1	38	-	104	1982	1288	8.1%

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	-	-	161	0	0	31.2	24.7	0.0	55.9	-	-	-	-
A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)	-	-	161	0	0	31.2	24.7	0.0	55.9	-	-	-	-
1/1	519	519	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
1/2	884	884	-	-	-	2.8	2.5	-	5.2	21.3	12.0	2.5	14.5
1/3+1/4	1116	1116	-	-	-	3.3	2.8	-	6.1	19.6	12.3	2.8	15.2
2/2+2/1	645	645	-	-	-	4.0	2.2	-	6.2	34.4	5.4	2.2	7.6
2/3	319	319	-	-	-	2.0	1.7	-	3.6	40.8	5.0	1.7	6.6
3/1	74	74	74	0	0	0.0	0.1	-	0.1	3.3	0.0	0.1	0.1
3/2	108	108	87	0	0	0.2	0.4	-	0.6	21.2	0.8	0.4	1.3
4/1	943	943	-	-	-	2.9	3.1	-	6.0	23.1	13.4	3.1	16.5
4/2+4/3	998	998	-	-	-	2.9	3.4	-	6.3	22.7	13.3	3.4	16.7
5/1	264	264	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
5/2	325	325	-	-	-	2.1	2.4	-	4.5	49.8	5.1	2.4	7.6
5/3+5/4	535	535	-	-	-	3.4	3.8	-	7.1	48.0	5.5	3.8	9.3
6/1	392	392	-	-	-	0.5	0.0	-	0.5	4.8	1.4	0.0	1.4
6/2	448	448	-	-	-	0.9	0.0	-	0.9	7.6	2.1	0.0	2.1
6/3	191	191	-	-	-	0.1	0.0	-	0.1	1.1	0.1	0.0	0.1
7/1	1022	1022	-	-	-	0.9	0.0	-	0.9	3.2	4.2	0.0	4.2
7/2	1078	1078	-	-	-	1.0	0.0	-	1.0	3.5	5.2	0.0	5.2
7/3	229	229	-	-	-	0.2	0.0	-	0.2	2.4	0.5	0.0	0.5
8/1	1173	1173	-	-	-	0.0	0.8	-	0.8	2.4	0.0	0.8	0.8
8/2	1380	1380	-	-	-	0.0	1.2	-	1.2	3.0	0.0	1.2	1.2
8/3	548	548	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
9/1	355	355	-	-	-	0.6	0.0	-	0.6	6.3	1.3	0.0	1.3

Full Input Data And Results

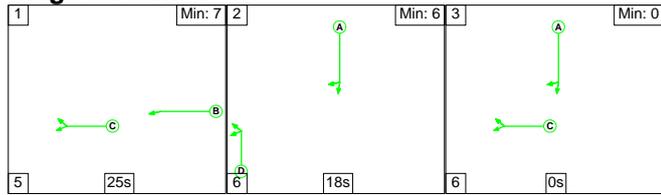
9/2	455	455	-	-	-	1.8	0.0	-	1.8	14.5	6.7	0.0	6.7	
9/3	133	133	-	-	-	0.2	0.0	-	0.2	5.3	0.3	0.0	0.3	
10/1	519	519	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
10/2	392	392	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
10/3	310	310	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
11/1	182	182	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
11/2	10	10	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
12/1	1247	1247	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
12/2	1093	1093	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
13/1	589	589	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
13/2	457	457	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
14/1	264	264	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
14/2	707	707	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
14/3	960	960	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
15/1	707	707	-	-	-	0.5	0.0	-	0.5	2.8	4.7	0.0	4.7	
15/2	1027	1027	-	-	-	0.8	0.0	-	0.8	2.9	3.9	0.0	3.9	
15/3	104	104	-	-	-	0.1	0.0	-	0.1	2.8	0.4	0.0	0.4	
C1 Stream: 1 PRC for Signalled Lanes (%)			2.1			Total Delay for Signalled Lanes (pcuHr):			24.71			Cycle Time (s): 60		
C1 Stream: 2 PRC for Signalled Lanes (%)			0.7			Total Delay for Signalled Lanes (pcuHr):			28.08			Cycle Time (s): 60		
PRC Over All Lanes (%)			0.7			Total Delay Over All Lanes(pcuHr):			55.89					

Full Input Data And Results

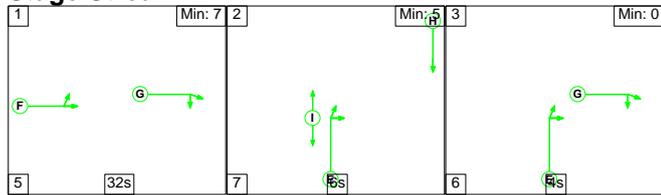
Scenario 3: '2031 Base AM' (FG5: '2031 Base AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

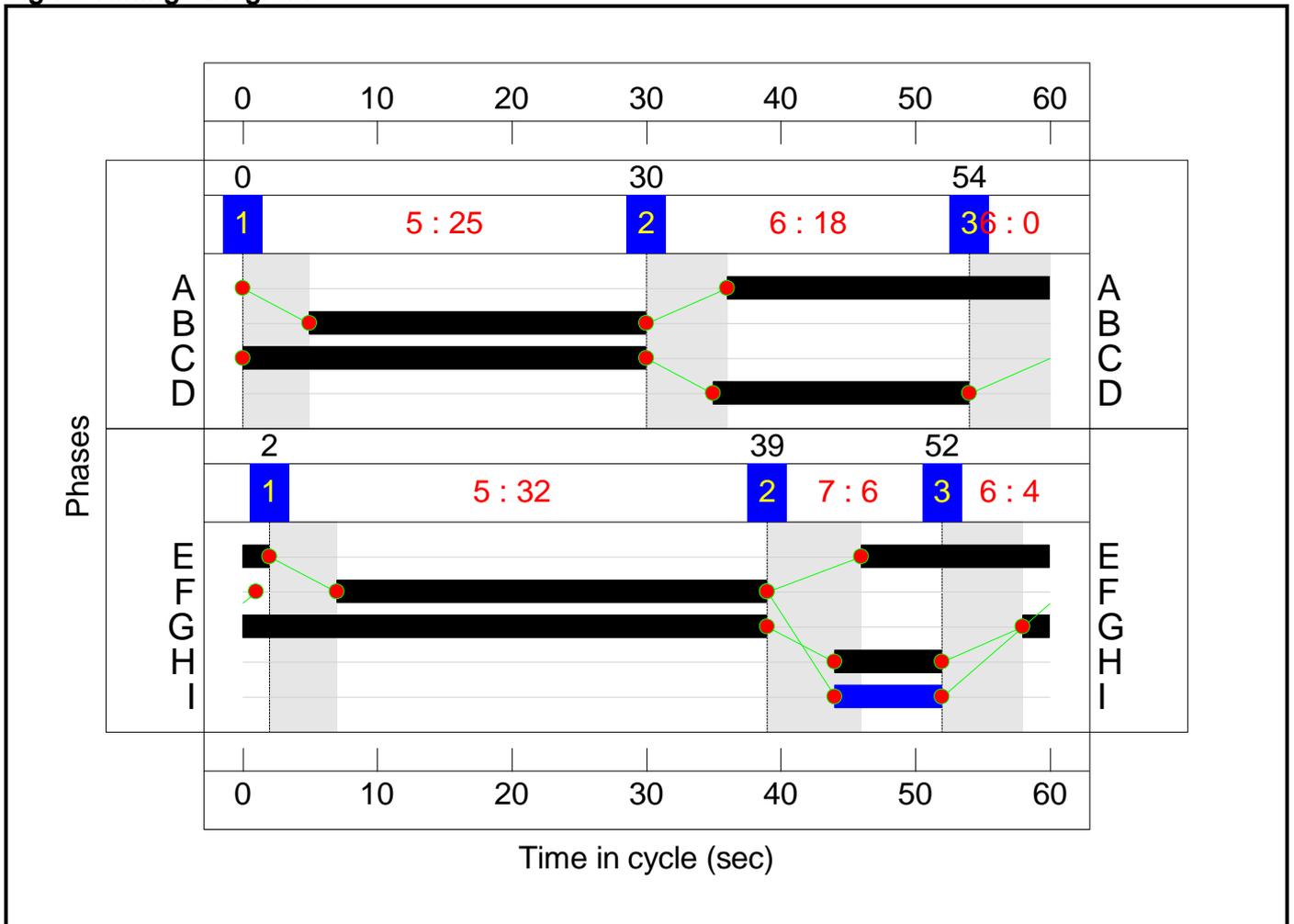
Stage Stream: 1

Stage	1	2	3
Duration	25	18	0
Change Point	0	30	54

Stage Stream: 2

Stage	1	2	3
Duration	32	6	4
Change Point	2	39	52

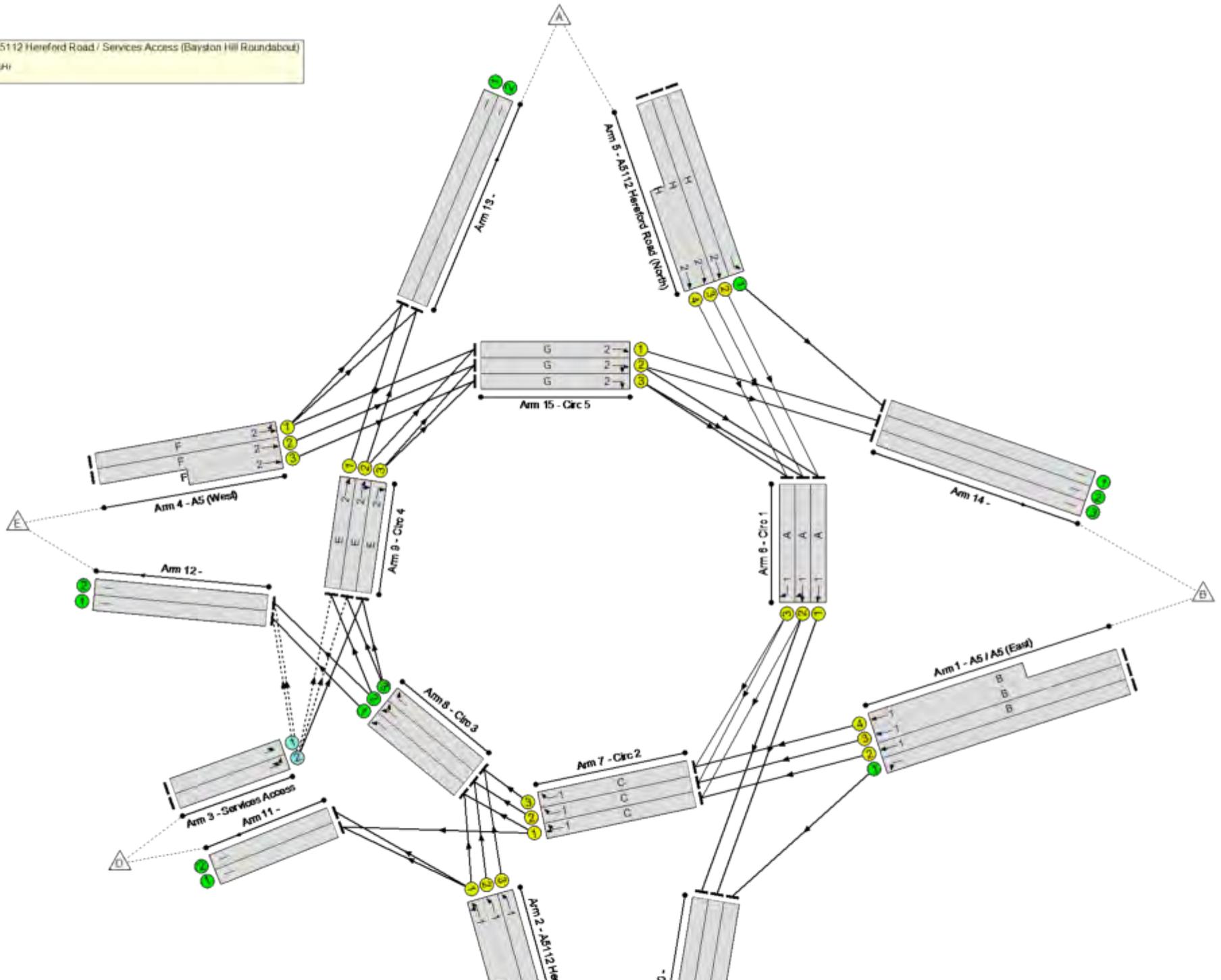
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)
PRC: -11.2 %
Total Traffic Delay: 97.4 pcuHr



Full Input Data And Results

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	-	-		-	-	-	-	-	-	100.1%
A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)	-	-	N/A	-	-		-	-	-	-	-	-	100.1%
1/1	A5 / A5 (East) Left	U	N/A	N/A	-		-	-	-	407	1956	1858	21.9%
1/2	A5 / A5 (East) Ahead	U	1	N/A	B		1	25	-	734	1924	792	92.7%
1/3+1/4	A5 / A5 (East) Ahead	U	1	N/A	B		1	25	-	970	1895:1917	780+248	94.3 : 94.3%
2/2+2/1	A5112 Hereford Road (South) Ahead Left	U	1	N/A	D		1	19	-	733	1922:1929	487+551	70.6 : 70.6%
2/3	A5112 Hereford Road (South) Ahead	U	1	N/A	D		1	19	-	592	1902	602	98.3%
3/1	Services Access U-Turn	O	N/A	N/A	-		-	-	-	78	1665	614	12.7%
3/2	Services Access Left U-Turn	O	N/A	N/A	-		-	-	-	115	1741	225	51.2%
4/1	A5 (West) Left Ahead	U	2	N/A	F		1	32	-	1002	1918	1002	100.0%
4/2+4/3	A5 (West) Ahead	U	2	N/A	F		1	32	-	1079	1906:1979	939+139	100.1 : 100.1%
5/1	A5112 Hereford Road (North) Left	U	N/A	N/A	-		-	-	-	333	1960	1862	17.9%
5/2	A5112 Hereford Road (North) Ahead	U	2	N/A	H		1	8	-	221	1938	276	80.0%
5/3+5/4	A5112 Hereford Road (North) Ahead	U	2	N/A	H		1	8	-	379	1924:1902	274+159	87.5 : 87.5%
6/1	Circ 1 Ahead	U	1	N/A	A		1	24	-	299	1942	769	38.9%

Full Input Data And Results

6/2	Circ 1 Right Ahead	U	1	N/A	A		1	24	-	389	1957	775	50.2%
6/3	Circ 1 Right	U	1	N/A	A		1	24	-	139	1940	768	18.1%
7/1	Circ 2 Right Ahead	U	1	N/A	C		1	30	-	858	1991	977	87.8%
7/2	Circ 2 Right	U	1	N/A	C		1	30	-	874	1930	947	92.3%
7/3	Circ 2 Right	U	1	N/A	C		1	30	-	235	1954	959	24.5%
8/1	Circ 3 Ahead	U	N/A	N/A	-		-	-	-	1017	1921	1825	55.7%
8/2	Circ 3 Right Ahead	U	N/A	N/A	-		-	-	-	1218	1970	1871	65.1%
8/3	Circ 3 Right	U	N/A	N/A	-		-	-	-	827	1966	1868	44.3%
9/1	Circ 4 Ahead	U	2	N/A	E		1	16	-	271	1898	511	53.0%
9/2	Circ 4 Ahead Right	U	2	N/A	E		1	16	-	533	1981	533	100.0%
9/3	Circ 4 Right	U	2	N/A	E		1	16	-	355	1974	531	66.8%
10/1		U	N/A	N/A	-		-	-	-	407	Inf	Inf	0.0%
10/2		U	N/A	N/A	-		-	-	-	299	Inf	Inf	0.0%
10/3		U	N/A	N/A	-		-	-	-	265	Inf	Inf	0.0%
11/1		U	N/A	N/A	-		-	-	-	206	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	24	Inf	Inf	0.0%
12/1		U	N/A	N/A	-		-	-	-	1095	Inf	Inf	0.0%
12/2		U	N/A	N/A	-		-	-	-	1001	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	465	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	417	Inf	Inf	0.0%
14/1		U	N/A	N/A	-		-	-	-	333	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	924	Inf	Inf	0.0%
14/3		U	N/A	N/A	-		-	-	-	1207	Inf	Inf	0.0%
15/1	Circ 5 Ahead	U	2	N/A	G		1	41	-	924	1921	1277	72.3%
15/2	Circ 5 Right Ahead	U	2	N/A	G		1	41	-	1285	1944	1293	99.3%
15/3	Circ 5 Right	U	2	N/A	G		1	41	-	149	1982	1318	11.3%

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	-	-	157	0	0	37.1	60.3	0.0	97.4	-	-	-	-
A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)	-	-	157	0	0	37.1	60.3	0.0	97.4	-	-	-	-
1/1	407	407	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
1/2	734	734	-	-	-	3.3	5.1	-	8.4	41.0	12.0	5.3	17.4
1/3+1/4	970	970	-	-	-	4.1	6.4	-	10.5	38.9	12.3	6.8	19.0
2/2+2/1	733	733	-	-	-	3.4	1.1	-	4.5	22.3	5.7	1.2	6.9
2/3	592	592	-	-	-	3.3	9.4	-	12.6	76.8	10.2	9.9	20.1
3/1	78	78	78	0	0	0.0	0.1	-	0.1	3.2	0.0	0.1	0.1
3/2	115	115	79	0	0	0.2	0.5	-	0.7	21.2	0.7	0.5	1.2
4/1	1002	1002	-	-	-	3.8	15.0	-	18.8	67.4	17.3	15.8	33.1
4/2+4/3	1079	1078	-	-	-	3.8	15.9	-	19.6	65.5	17.6	16.7	34.3
5/1	333	333	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
5/2	221	221	-	-	-	1.5	1.8	-	3.3	53.7	3.7	1.9	5.6
5/3+5/4	379	379	-	-	-	2.6	3.0	-	5.6	52.8	4.1	3.1	7.2
6/1	299	299	-	-	-	0.3	0.0	-	0.3	3.8	1.2	0.0	1.2
6/2	389	389	-	-	-	0.8	0.0	-	0.8	7.4	2.4	0.0	2.4
6/3	139	139	-	-	-	0.0	0.0	-	0.0	0.6	0.0	0.0	0.0
7/1	858	858	-	-	-	1.8	0.0	-	1.8	7.4	5.4	0.0	5.4
7/2	874	874	-	-	-	1.9	0.0	-	1.9	7.7	5.9	0.0	5.9
7/3	235	235	-	-	-	0.2	0.0	-	0.2	3.4	0.6	0.0	0.6
8/1	1017	1017	-	-	-	0.0	0.6	-	0.6	2.1	0.0	0.6	0.6
8/2	1218	1218	-	-	-	0.0	0.9	-	0.9	2.6	0.0	0.9	0.9
8/3	827	827	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4
9/1	271	271	-	-	-	0.4	0.0	-	0.4	5.7	3.8	0.0	3.8

Full Input Data And Results

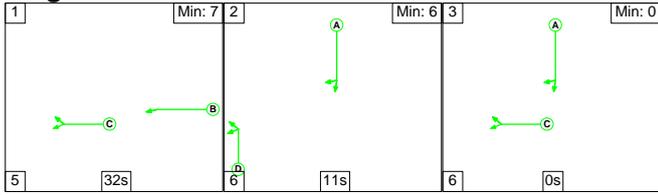
9/2	533	533	-	-	-	2.4	0.0	-	2.4	16.0	9.2	0.0	9.2																					
9/3	355	355	-	-	-	0.4	0.0	-	0.4	4.1	3.0	0.0	3.0																					
10/1	407	407	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
10/2	299	299	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
10/3	265	265	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
11/1	206	206	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
11/2	24	24	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
12/1	1095	1095	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
12/2	1001	1001	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
13/1	465	465	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
13/2	417	417	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
14/1	333	333	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
14/2	924	924	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
14/3	1206	1206	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
15/1	924	924	-	-	-	0.9	0.0	-	0.9	3.5	7.7	0.0	7.7																					
15/2	1284	1284	-	-	-	2.1	0.0	-	2.1	5.9	21.1	0.0	21.1																					
15/3	149	149	-	-	-	0.1	0.0	-	0.1	3.1	0.6	0.0	0.6																					
<table border="0"> <tbody> <tr> <td>C1</td> <td>Stream: 1 PRC for Signalled Lanes (%)</td> <td>-9.2</td> <td>Total Delay for Signalled Lanes (pcuHr):</td> <td>40.97</td> <td>Cycle Time (s):</td> <td>60</td> </tr> <tr> <td>C1</td> <td>Stream: 2 PRC for Signalled Lanes (%)</td> <td>-11.2</td> <td>Total Delay for Signalled Lanes (pcuHr):</td> <td>53.55</td> <td>Cycle Time (s):</td> <td>60</td> </tr> <tr> <td></td> <td>PRC Over All Lanes (%)</td> <td>-11.2</td> <td>Total Delay Over All Lanes(pcuHr):</td> <td>97.36</td> <td></td> <td></td> </tr> </tbody> </table>														C1	Stream: 1 PRC for Signalled Lanes (%)	-9.2	Total Delay for Signalled Lanes (pcuHr):	40.97	Cycle Time (s):	60	C1	Stream: 2 PRC for Signalled Lanes (%)	-11.2	Total Delay for Signalled Lanes (pcuHr):	53.55	Cycle Time (s):	60		PRC Over All Lanes (%)	-11.2	Total Delay Over All Lanes(pcuHr):	97.36		
C1	Stream: 1 PRC for Signalled Lanes (%)	-9.2	Total Delay for Signalled Lanes (pcuHr):	40.97	Cycle Time (s):	60																												
C1	Stream: 2 PRC for Signalled Lanes (%)	-11.2	Total Delay for Signalled Lanes (pcuHr):	53.55	Cycle Time (s):	60																												
	PRC Over All Lanes (%)	-11.2	Total Delay Over All Lanes(pcuHr):	97.36																														

Full Input Data And Results

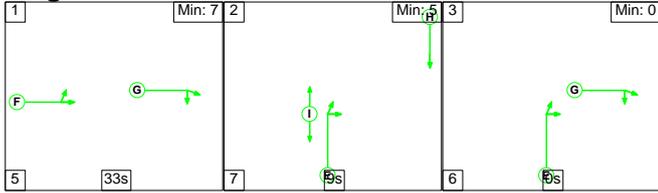
Scenario 4: '2031 Base PM' (FG6: '2031 Base PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

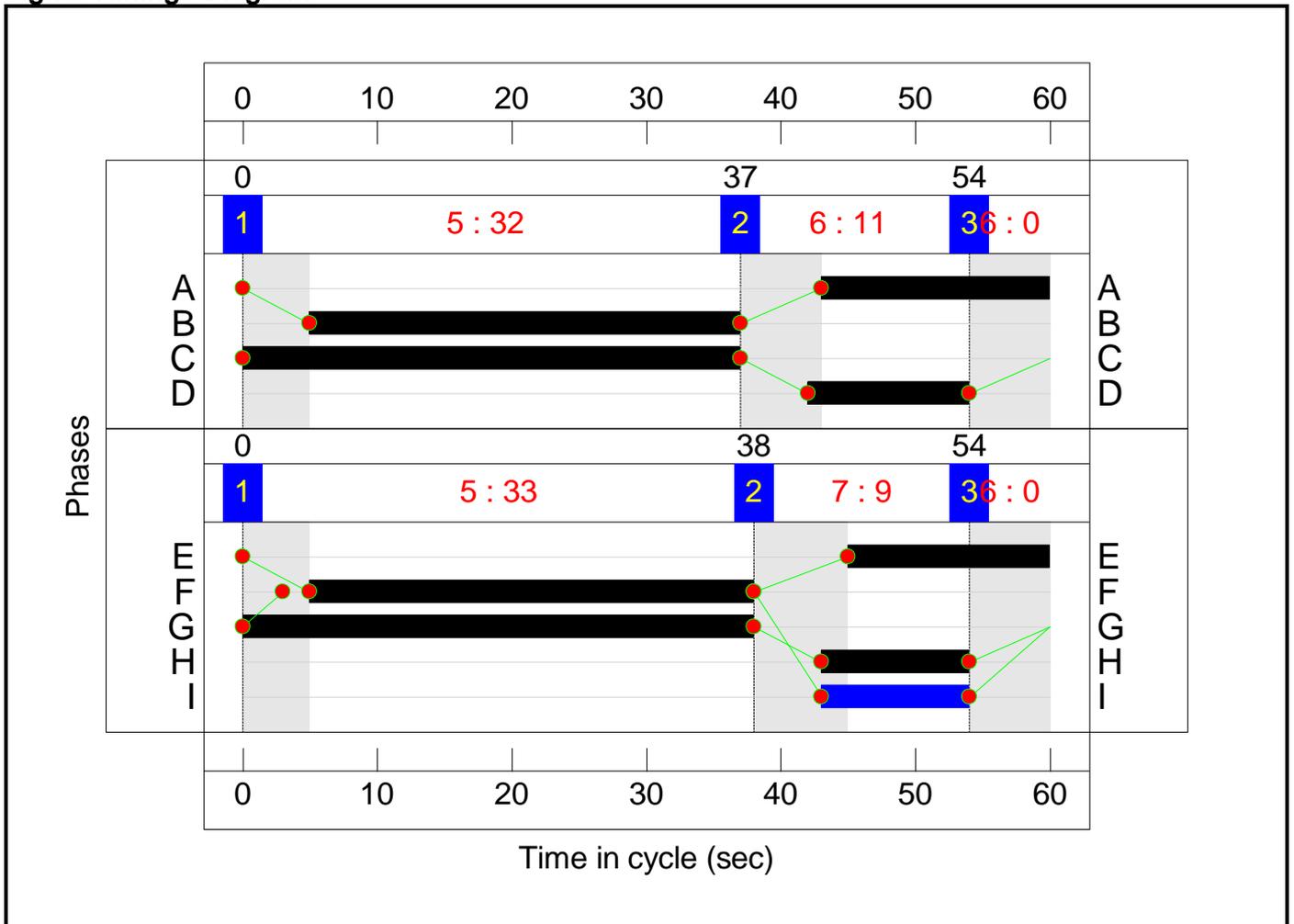
Stage Stream: 1

Stage	1	2	3
Duration	32	11	0
Change Point	0	37	54

Stage Stream: 2

Stage	1	2	3
Duration	33	9	0
Change Point	0	38	54

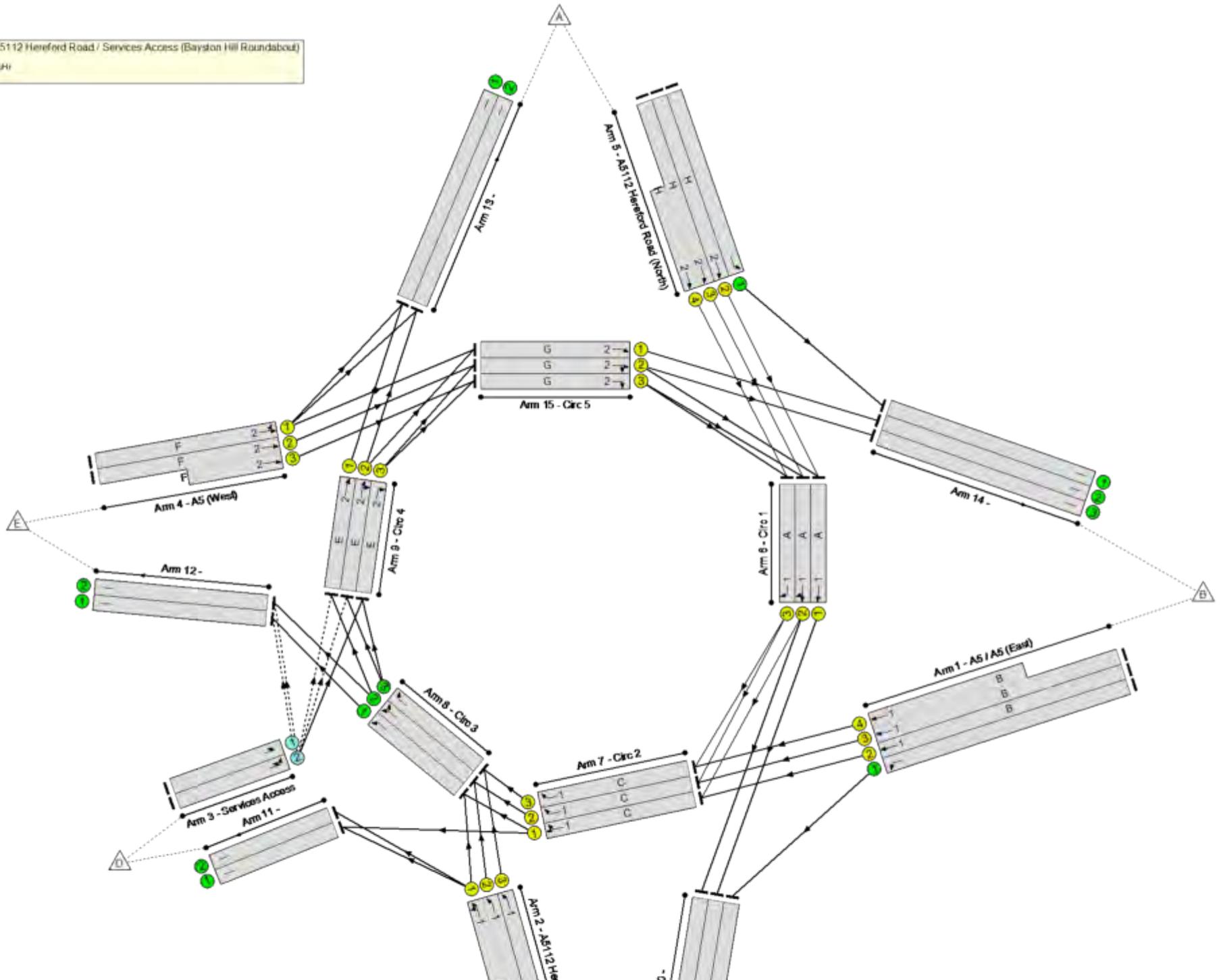
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)
PRC - 2.4 %
Total Traffic Delay 64.0 pcuHr



Full Input Data And Results

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	-	-		-	-	-	-	-	-	92.2%
A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)	-	-	N/A	-	-		-	-	-	-	-	-	92.2%
1/1	A5 / A5 (East) Left	U	N/A	N/A	-		-	-	-	537	1956	1956	27.5%
1/2	A5 / A5 (East) Ahead	U	1	N/A	B		1	32	-	910	1924	1058	86.0%
1/3+1/4	A5 / A5 (East) Ahead	U	1	N/A	B		1	32	-	1162	1895:1917	1042+283	87.7 : 87.7%
2/2+2/1	A5112 Hereford Road (South) Ahead Left	U	1	N/A	D		1	12	-	668	1922:1933	360+419	85.7 : 85.7%
2/3	A5112 Hereford Road (South) Ahead	U	1	N/A	D		1	12	-	330	1902	412	80.1%
3/1	Services Access U-Turn	O	N/A	N/A	-		-	-	-	77	1665	599	12.8%
3/2	Services Access Left U-Turn	O	N/A	N/A	-		-	-	-	112	1741	216	51.8%
4/1	A5 (West) Left Ahead	U	2	N/A	F		1	33	-	979	1918	1087	90.1%
4/2+4/3	A5 (West) Ahead	U	2	N/A	F		1	33	-	1033	1906:1979	1037+101	90.8 : 90.8%
5/1	A5112 Hereford Road (North) Left	U	N/A	N/A	-		-	-	-	273	1960	1960	13.9%
5/2	A5112 Hereford Road (North) Ahead	U	2	N/A	H		1	11	-	338	1938	388	87.2%
5/3+5/4	A5112 Hereford Road (North) Ahead	U	2	N/A	H		1	11	-	552	1924:1902	385+215	92.0 : 92.0%
6/1	Circ 1 Ahead	U	1	N/A	A		1	17	-	408	1942	583	70.0%

Full Input Data And Results

6/2	Circ 1 Right Ahead	U	1	N/A	A		1	17	-	462	1957	587	78.7%
6/3	Circ 1 Right	U	1	N/A	A		1	17	-	198	1940	582	34.0%
7/1	Circ 2 Right Ahead	U	1	N/A	C		1	37	-	1052	1988	1259	83.6%
7/2	Circ 2 Right	U	1	N/A	C		1	37	-	1110	1930	1222	90.8%
7/3	Circ 2 Right	U	1	N/A	C		1	37	-	250	1954	1238	20.2%
8/1	Circ 3 Ahead	U	N/A	N/A	-		-	-	-	1213	1921	1921	63.1%
8/2	Circ 3 Right Ahead	U	N/A	N/A	-		-	-	-	1419	1970	1970	72.0%
8/3	Circ 3 Right	U	N/A	N/A	-		-	-	-	580	1966	1966	29.5%
9/1	Circ 4 Ahead	U	2	N/A	E		1	15	-	354	1898	506	69.9%
9/2	Circ 4 Ahead Right	U	2	N/A	E		1	15	-	487	1981	528	92.2%
9/3	Circ 4 Right	U	2	N/A	E		1	15	-	135	1974	526	25.6%
10/1		U	N/A	N/A	-		-	-	-	537	Inf	Inf	0.0%
10/2		U	N/A	N/A	-		-	-	-	408	Inf	Inf	0.0%
10/3		U	N/A	N/A	-		-	-	-	320	Inf	Inf	0.0%
11/1		U	N/A	N/A	-		-	-	-	187	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	11	Inf	Inf	0.0%
12/1		U	N/A	N/A	-		-	-	-	1290	Inf	Inf	0.0%
12/2		U	N/A	N/A	-		-	-	-	1135	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	596	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	487	Inf	Inf	0.0%
14/1		U	N/A	N/A	-		-	-	-	273	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	737	Inf	Inf	0.0%
14/3		U	N/A	N/A	-		-	-	-	990	Inf	Inf	0.0%
15/1	Circ 5 Ahead	U	2	N/A	G		1	38	-	737	1921	1249	59.0%
15/2	Circ 5 Right Ahead	U	2	N/A	G		1	38	-	1060	1944	1264	83.9%
15/3	Circ 5 Right	U	2	N/A	G		1	38	-	108	1982	1288	8.4%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	165	0	0	33.1	30.9	0.0	64.0	-	-	-	-
A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)	-	-	165	0	0	33.1	30.9	0.0	64.0	-	-	-	-
1/1	537	537	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
1/2	910	910	-	-	-	2.9	3.0	-	5.9	23.2	12.9	3.0	15.8
1/3+1/4	1162	1162	-	-	-	3.5	3.4	-	6.9	21.3	13.2	3.4	16.6
2/2+2/1	668	668	-	-	-	4.1	2.9	-	7.0	37.7	5.7	2.9	8.5
2/3	330	330	-	-	-	2.0	1.9	-	4.0	43.2	5.1	1.9	7.1
3/1	77	77	77	0	0	0.0	0.1	-	0.1	3.4	0.0	0.1	0.1
3/2	112	112	88	0	0	0.2	0.5	-	0.8	24.6	0.9	0.5	1.4
4/1	979	979	-	-	-	3.1	4.2	-	7.3	27.0	14.4	4.2	18.6
4/2+4/3	1033	1033	-	-	-	3.1	4.5	-	7.6	26.6	14.3	4.5	18.8
5/1	273	273	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
5/2	338	338	-	-	-	2.2	3.0	-	5.2	55.6	5.4	3.0	8.5
5/3+5/4	552	552	-	-	-	3.5	4.8	-	8.3	54.0	5.7	4.8	10.5
6/1	408	408	-	-	-	0.6	0.0	-	0.6	5.0	1.5	0.0	1.5
6/2	462	462	-	-	-	1.0	0.0	-	1.0	7.8	2.2	0.0	2.2
6/3	198	198	-	-	-	0.1	0.0	-	0.1	1.1	0.1	0.0	0.1
7/1	1052	1052	-	-	-	1.0	0.0	-	1.0	3.3	4.4	0.0	4.4
7/2	1110	1110	-	-	-	1.1	0.0	-	1.1	3.7	5.5	0.0	5.5
7/3	250	250	-	-	-	0.2	0.0	-	0.2	2.4	0.6	0.0	0.6
8/1	1213	1213	-	-	-	0.0	0.9	-	0.9	2.5	0.0	0.9	0.9
8/2	1419	1419	-	-	-	0.0	1.3	-	1.3	3.3	0.0	1.3	1.3
8/3	580	580	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
9/1	354	354	-	-	-	0.6	0.0	-	0.6	6.1	1.1	0.0	1.1

Full Input Data And Results

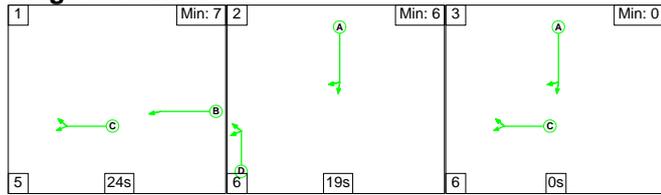
9/2	487	487	-	-	-	2.1	0.0	-	2.1	15.2	7.8	0.0	7.8	
9/3	135	135	-	-	-	0.2	0.0	-	0.2	5.8	0.3	0.0	0.3	
10/1	537	537	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
10/2	408	408	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
10/3	320	320	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
11/1	187	187	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
11/2	11	11	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
12/1	1290	1290	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
12/2	1135	1135	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
13/1	596	596	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
13/2	487	487	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
14/1	273	273	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
14/2	737	737	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
14/3	990	990	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
15/1	737	737	-	-	-	0.6	0.0	-	0.6	2.9	5.0	0.0	5.0	
15/2	1060	1060	-	-	-	0.9	0.0	-	0.9	3.1	4.2	0.0	4.2	
15/3	108	108	-	-	-	0.1	0.0	-	0.1	2.9	0.5	0.0	0.5	
C1 Stream: 1 PRC for Signalled Lanes (%)			-0.9			Total Delay for Signalled Lanes (pcuHr):			27.61			Cycle Time (s): 60		
C1 Stream: 2 PRC for Signalled Lanes (%)			-2.4			Total Delay for Signalled Lanes (pcuHr):			32.97			Cycle Time (s): 60		
PRC Over All Lanes (%)			-2.4			Total Delay Over All Lanes(pcuHr):			64.03					

Full Input Data And Results

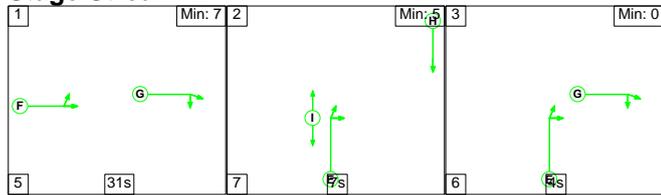
Scenario 5: '2026 Assessment AM' (FG9: '2026 Assessment AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

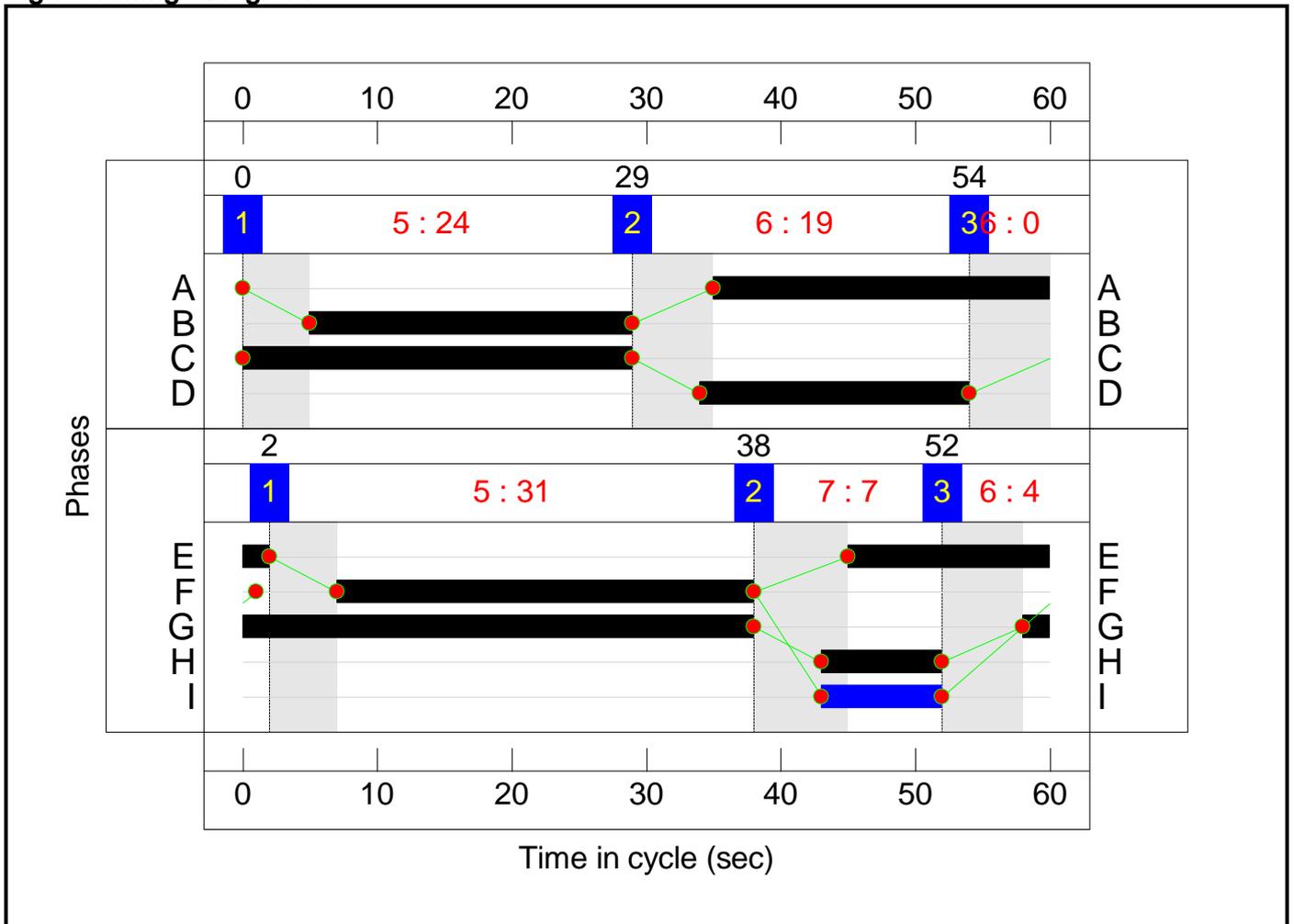
Stage Stream: 1

Stage	1	2	3
Duration	24	19	0
Change Point	0	29	54

Stage Stream: 2

Stage	1	2	3
Duration	31	7	4
Change Point	2	38	52

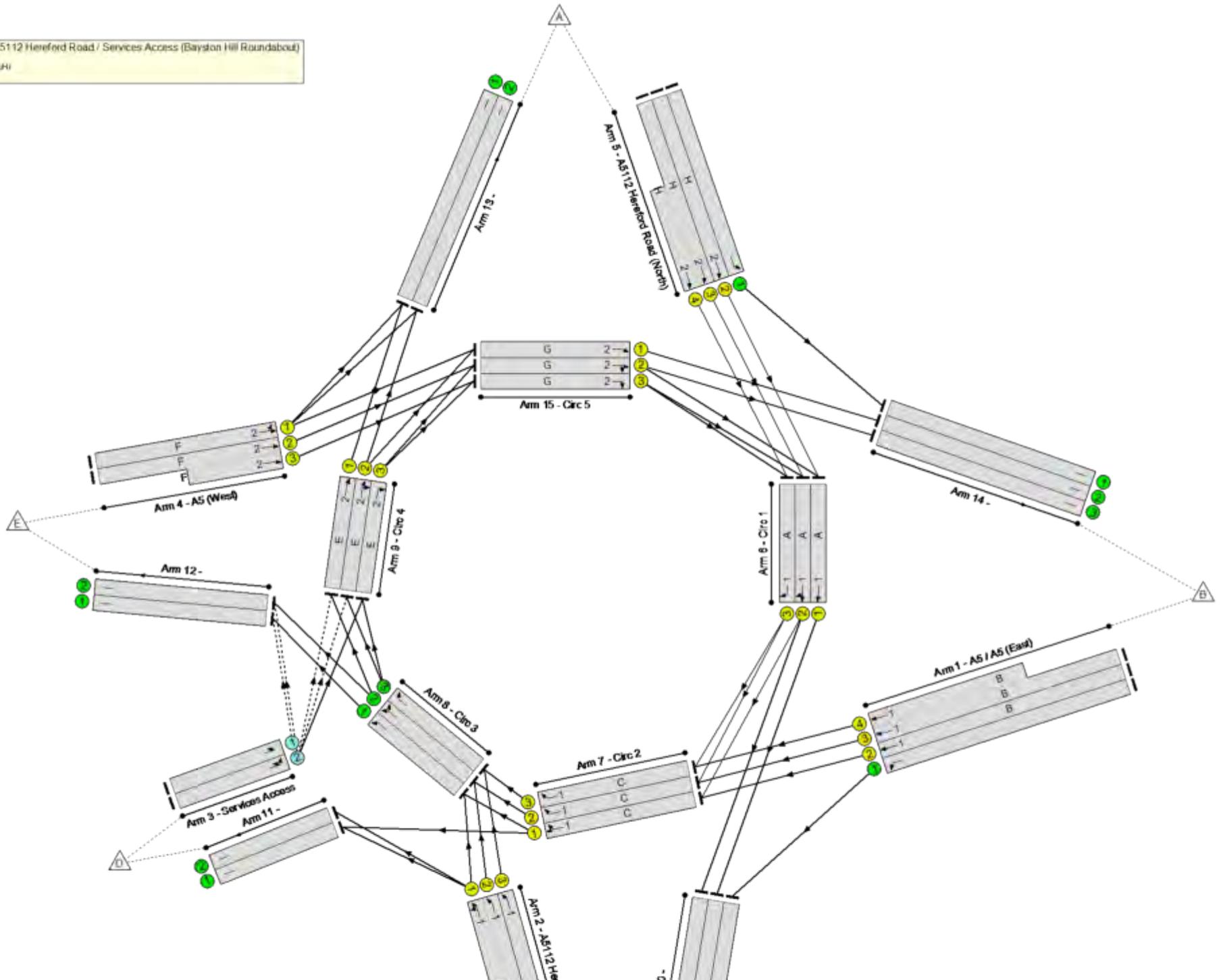
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)
 PRC: 11.4 %
 Total Traffic Delay: 92.7 pcu/H



Full Input Data And Results

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	-	-		-	-	-	-	-	-	100.3%
A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)	-	-	N/A	-	-		-	-	-	-	-	-	100.3%
1/1	A5 / A5 (East) Left	U	N/A	N/A	-		-	-	-	410	1956	1858	22.1%
1/2	A5 / A5 (East) Ahead	U	1	N/A	B		1	24	-	705	1924	762	92.6%
1/3+1/4	A5 / A5 (East) Ahead	U	1	N/A	B		1	24	-	939	1895:1917	750+246	94.3 : 94.3%
2/2+2/1	A5112 Hereford Road (South) Ahead Left	U	1	N/A	D		1	20	-	748	1922:1930	509+567	69.5 : 69.5%
2/3	A5112 Hereford Road (South) Ahead	U	1	N/A	D		1	20	-	617	1902	632	97.6%
3/1	Services Access U-Turn	O	N/A	N/A	-		-	-	-	76	1665	618	12.3%
3/2	Services Access Left U-Turn	O	N/A	N/A	-		-	-	-	112	1741	225	49.8%
4/1	A5 (West) Left Ahead	U	2	N/A	F		1	31	-	967	1918	972	99.5%
4/2+4/3	A5 (West) Ahead	U	2	N/A	F		1	31	-	1049	1906:1979	910+141	99.8 : 99.8%
5/1	A5112 Hereford Road (North) Left	U	N/A	N/A	-		-	-	-	322	1960	1862	17.3%
5/2	A5112 Hereford Road (North) Ahead	U	2	N/A	H		1	9	-	217	1938	307	70.7%
5/3+5/4	A5112 Hereford Road (North) Ahead	U	2	N/A	H		1	9	-	372	1924:1902	305+158	80.4 : 80.4%
6/1	Circ 1 Ahead	U	1	N/A	A		1	25	-	294	1942	799	36.8%

Full Input Data And Results

6/2	Circ 1 Right Ahead	U	1	N/A	A		1	25	-	394	1957	806	48.9%
6/3	Circ 1 Right	U	1	N/A	A		1	25	-	127	1940	799	15.9%
7/1	Circ 2 Right Ahead	U	1	N/A	C		1	29	-	833	1991	946	88.1%
7/2	Circ 2 Right	U	1	N/A	C		1	29	-	833	1930	917	90.9%
7/3	Circ 2 Right	U	1	N/A	C		1	29	-	233	1954	928	25.1%
8/1	Circ 3 Ahead	U	N/A	N/A	-		-	-	-	1005	1921	1825	55.1%
8/2	Circ 3 Right Ahead	U	N/A	N/A	-		-	-	-	1187	1970	1871	63.4%
8/3	Circ 3 Right	U	N/A	N/A	-		-	-	-	850	1966	1868	45.5%
9/1	Circ 4 Ahead	U	2	N/A	E		1	17	-	280	1898	541	51.8%
9/2	Circ 4 Ahead Right	U	2	N/A	E		1	17	-	566	1981	565	100.3%
9/3	Circ 4 Right	U	2	N/A	E		1	17	-	344	1974	563	61.1%
10/1		U	N/A	N/A	-		-	-	-	410	Inf	Inf	0.0%
10/2		U	N/A	N/A	-		-	-	-	294	Inf	Inf	0.0%
10/3		U	N/A	N/A	-		-	-	-	266	Inf	Inf	0.0%
11/1		U	N/A	N/A	-		-	-	-	199	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	23	Inf	Inf	0.0%
12/1		U	N/A	N/A	-		-	-	-	1081	Inf	Inf	0.0%
12/2		U	N/A	N/A	-		-	-	-	959	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	468	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	409	Inf	Inf	0.0%
14/1		U	N/A	N/A	-		-	-	-	322	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	936	Inf	Inf	0.0%
14/3		U	N/A	N/A	-		-	-	-	1167	Inf	Inf	0.0%
15/1	Circ 5 Ahead	U	2	N/A	G		1	40	-	936	1921	1247	74.9%
15/2	Circ 5 Right Ahead	U	2	N/A	G		1	40	-	1244	1944	1262	98.6%
15/3	Circ 5 Right	U	2	N/A	G		1	40	-	149	1982	1287	11.6%

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	-	-	155	0	0	36.9	55.8	0.0	92.7	-	-	-	-
A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)	-	-	155	0	0	36.9	55.8	0.0	92.7	-	-	-	-
1/1	410	410	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
1/2	705	705	-	-	-	3.3	5.0	-	8.2	42.1	11.5	5.3	16.8
1/3+1/4	939	939	-	-	-	4.1	6.3	-	10.4	39.8	11.8	6.7	18.4
2/2+2/1	748	748	-	-	-	3.3	1.1	-	4.4	21.1	5.6	1.1	6.8
2/3	617	617	-	-	-	3.3	8.7	-	12.0	70.0	10.6	9.2	19.8
3/1	76	76	76	0	0	0.0	0.1	-	0.1	3.2	0.0	0.1	0.1
3/2	112	112	79	0	0	0.2	0.5	-	0.6	20.4	0.7	0.5	1.1
4/1	967	967	-	-	-	3.7	13.7	-	17.4	64.8	16.7	14.4	31.1
4/2+4/3	1049	1049	-	-	-	3.8	14.8	-	18.6	63.7	16.7	15.6	32.3
5/1	322	322	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
5/2	217	217	-	-	-	1.4	1.1	-	2.5	42.2	3.6	1.2	4.7
5/3+5/4	372	372	-	-	-	2.4	1.9	-	4.3	41.6	4.1	2.0	6.1
6/1	294	294	-	-	-	0.3	0.0	-	0.3	3.5	1.1	0.0	1.1
6/2	394	394	-	-	-	0.7	0.0	-	0.7	6.8	2.4	0.0	2.4
6/3	127	127	-	-	-	0.0	0.0	-	0.0	0.4	0.0	0.0	0.0
7/1	833	833	-	-	-	1.9	0.0	-	1.9	8.0	5.5	0.0	5.5
7/2	833	833	-	-	-	1.9	0.0	-	1.9	8.4	5.7	0.0	5.7
7/3	233	233	-	-	-	0.2	0.0	-	0.2	3.5	0.6	0.0	0.6
8/1	1005	1005	-	-	-	0.0	0.6	-	0.6	2.1	0.0	0.6	0.6
8/2	1187	1187	-	-	-	0.0	0.8	-	0.8	2.5	0.0	0.9	0.9
8/3	850	850	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
9/1	280	280	-	-	-	0.4	0.0	-	0.4	4.8	3.8	0.0	3.8

Full Input Data And Results

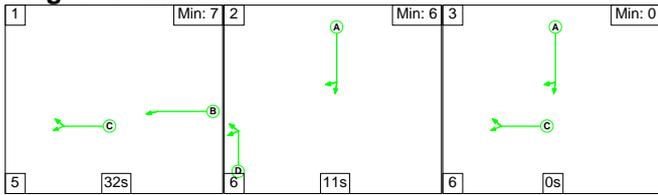
9/2	566	565	-	-	-	2.4	0.7	-	3.1	19.7	10.0	0.7	10.7																					
9/3	344	344	-	-	-	0.3	0.0	-	0.3	3.5	2.5	0.0	2.5																					
10/1	410	410	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
10/2	294	294	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
10/3	266	266	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
11/1	199	199	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
11/2	23	23	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
12/1	1081	1081	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
12/2	959	959	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
13/1	468	468	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
13/2	409	409	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
14/1	322	322	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
14/2	935	935	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
14/3	1167	1167	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
15/1	935	935	-	-	-	1.0	0.0	-	1.0	4.0	8.6	0.0	8.6																					
15/2	1244	1244	-	-	-	2.1	0.0	-	2.1	6.0	19.5	0.0	19.5																					
15/3	149	149	-	-	-	0.1	0.0	-	0.1	3.4	0.6	0.0	0.6																					
<table> <tbody> <tr> <td>C1</td> <td>Stream: 1 PRC for Signalled Lanes (%)</td> <td>-8.4</td> <td>Total Delay for Signalled Lanes (pcuHr):</td> <td>40.07</td> <td>Cycle Time (s):</td> <td>60</td> </tr> <tr> <td>C1</td> <td>Stream: 2 PRC for Signalled Lanes (%)</td> <td>-11.4</td> <td>Total Delay for Signalled Lanes (pcuHr):</td> <td>49.86</td> <td>Cycle Time (s):</td> <td>60</td> </tr> <tr> <td></td> <td>PRC Over All Lanes (%)</td> <td>-11.4</td> <td>Total Delay Over All Lanes(pcuHr):</td> <td>92.66</td> <td></td> <td></td> </tr> </tbody> </table>														C1	Stream: 1 PRC for Signalled Lanes (%)	-8.4	Total Delay for Signalled Lanes (pcuHr):	40.07	Cycle Time (s):	60	C1	Stream: 2 PRC for Signalled Lanes (%)	-11.4	Total Delay for Signalled Lanes (pcuHr):	49.86	Cycle Time (s):	60		PRC Over All Lanes (%)	-11.4	Total Delay Over All Lanes(pcuHr):	92.66		
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	PRC Over All Lanes (%)	-11.4	Total Delay Over All Lanes(pcuHr):	92.66																														

Full Input Data And Results

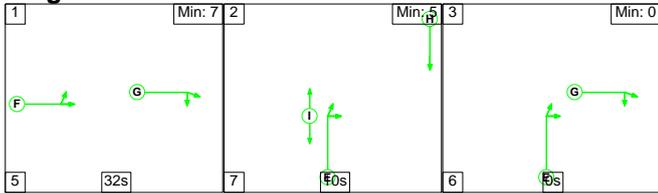
Scenario 6: '2026 Assessment PM' (FG10: '2026 Assessment PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

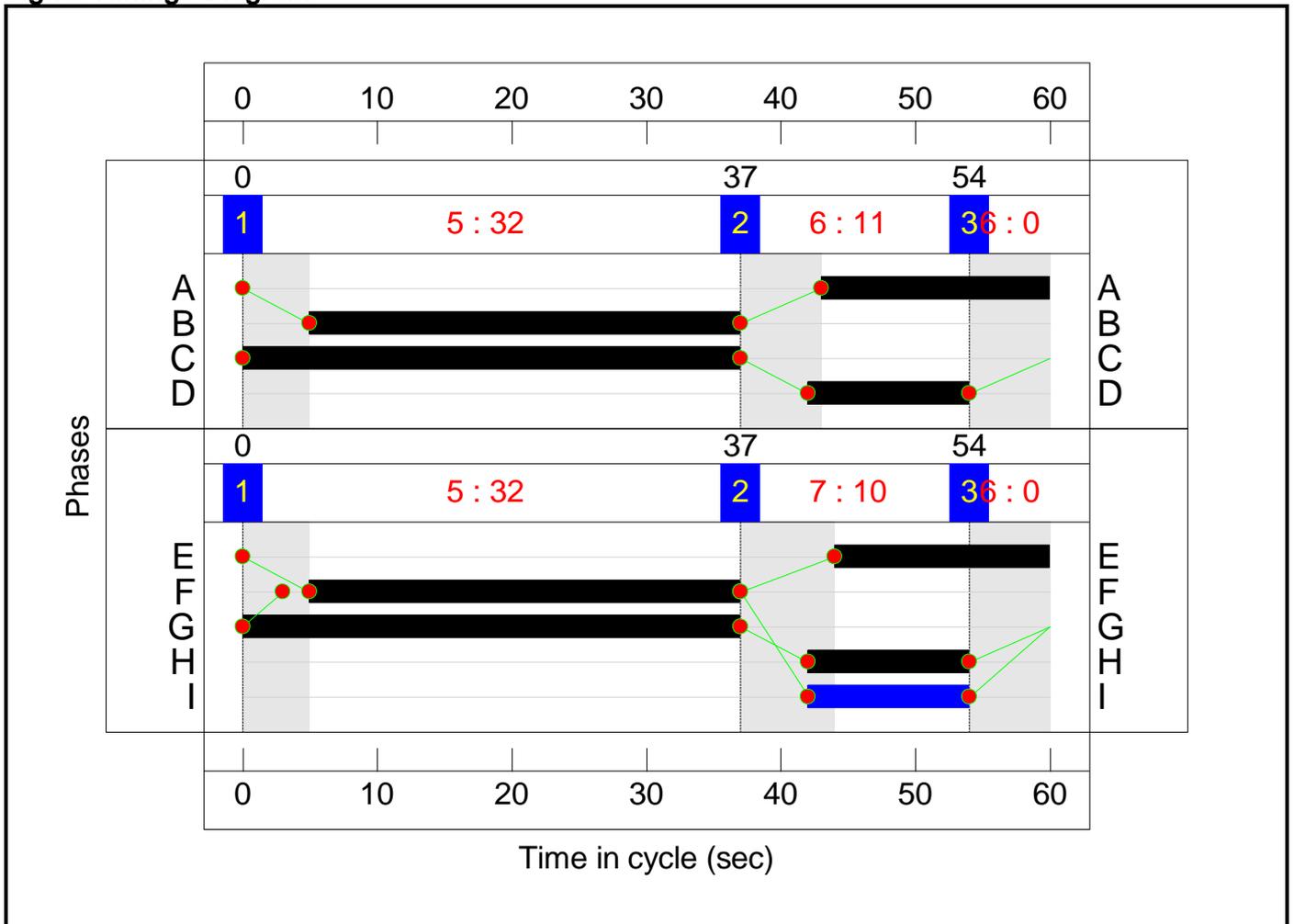
Stage Stream: 1

Stage	1	2	3
Duration	32	11	0
Change Point	0	37	54

Stage Stream: 2

Stage	1	2	3
Duration	32	10	0
Change Point	0	37	54

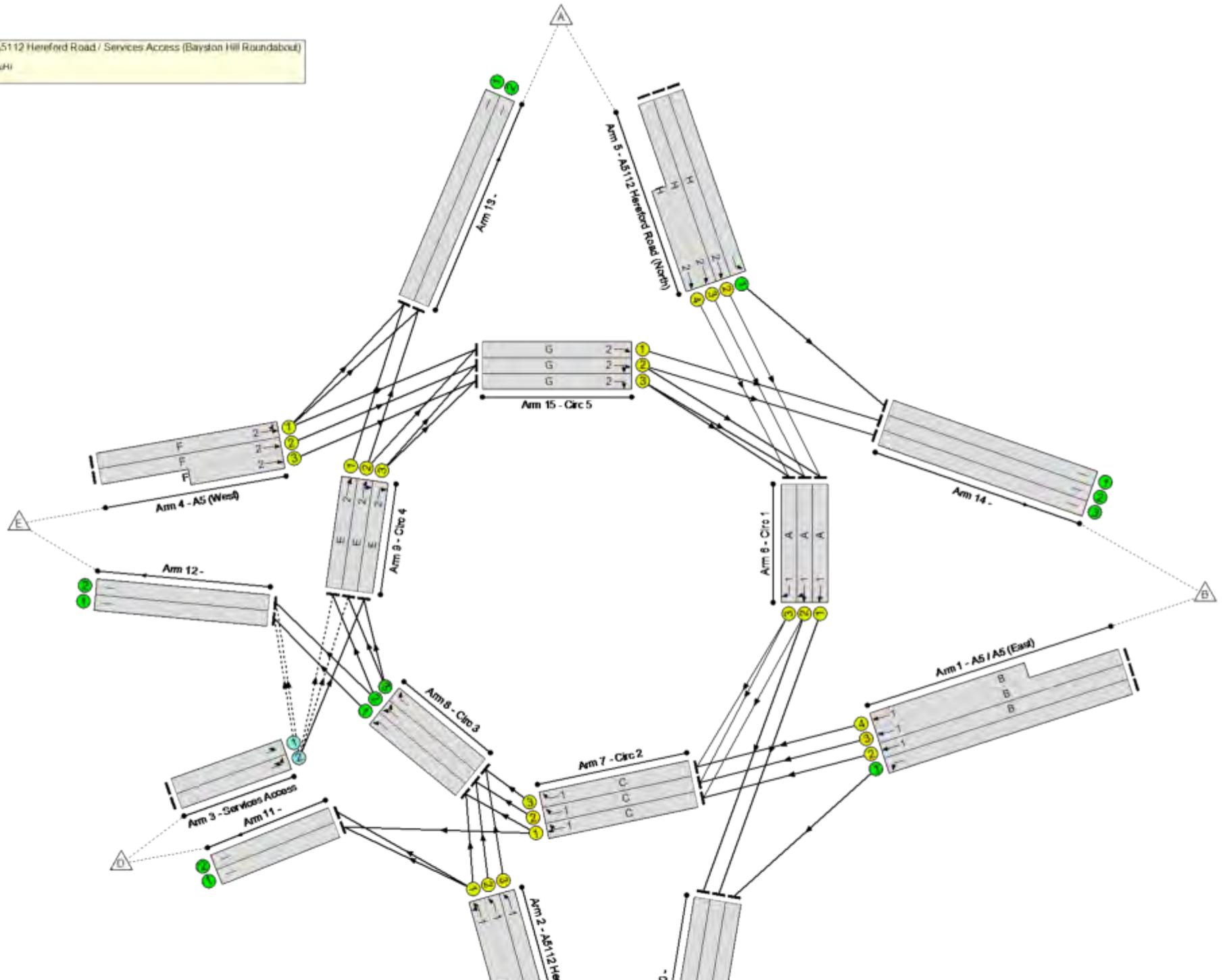
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)
PRC - 0.6 %
Total Traffic Delay 58.4 pcuHr



Full Input Data And Results

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	-	-		-	-	-	-	-	-	90.6%
A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)	-	-	N/A	-	-		-	-	-	-	-	-	90.6%
1/1	A5 / A5 (East) Left	U	N/A	N/A	-		-	-	-	560	1956	1956	28.6%
1/2	A5 / A5 (East) Ahead	U	1	N/A	B		1	32	-	884	1924	1058	83.5%
1/3+1/4	A5 / A5 (East) Ahead	U	1	N/A	B		1	32	-	1116	1895:1917	1042+265	85.4 : 85.4%
2/2+2/1	A5112 Hereford Road (South) Ahead Left	U	1	N/A	D		1	12	-	660	1922:1933	380+419	82.6 : 82.6%
2/3	A5112 Hereford Road (South) Ahead	U	1	N/A	D		1	12	-	336	1902	412	81.5%
3/1	Services Access U-Turn	O	N/A	N/A	-		-	-	-	74	1665	610	12.1%
3/2	Services Access Left U-Turn	O	N/A	N/A	-		-	-	-	108	1741	229	47.1%
4/1	A5 (West) Left Ahead	U	2	N/A	F		1	32	-	949	1918	1055	90.0%
4/2+4/3	A5 (West) Ahead	U	2	N/A	F		1	32	-	1006	1906:1979	1005+106	90.6 : 90.6%
5/1	A5112 Hereford Road (North) Left	U	N/A	N/A	-		-	-	-	264	1960	1960	13.5%
5/2	A5112 Hereford Road (North) Ahead	U	2	N/A	H		1	12	-	336	1938	420	80.0%
5/3+5/4	A5112 Hereford Road (North) Ahead	U	2	N/A	H		1	12	-	546	1924:1902	417+214	86.6 : 86.6%
6/1	Circ 1 Ahead	U	1	N/A	A		1	17	-	411	1942	583	70.5%

Full Input Data And Results

6/2	Circ 1 Right Ahead	U	1	N/A	A		1	17	-	471	1957	587	80.2%
6/3	Circ 1 Right	U	1	N/A	A		1	17	-	185	1940	582	31.8%
7/1	Circ 2 Right Ahead	U	1	N/A	C		1	37	-	1028	1988	1259	81.6%
7/2	Circ 2 Right	U	1	N/A	C		1	37	-	1073	1930	1222	87.8%
7/3	Circ 2 Right	U	1	N/A	C		1	37	-	228	1954	1238	18.4%
8/1	Circ 3 Ahead	U	N/A	N/A	-		-	-	-	1182	1921	1921	61.5%
8/2	Circ 3 Right Ahead	U	N/A	N/A	-		-	-	-	1387	1970	1970	70.4%
8/3	Circ 3 Right	U	N/A	N/A	-		-	-	-	564	1966	1966	28.7%
9/1	Circ 4 Ahead	U	2	N/A	E		1	16	-	365	1898	538	67.9%
9/2	Circ 4 Ahead Right	U	2	N/A	E		1	16	-	461	1981	561	82.1%
9/3	Circ 4 Right	U	2	N/A	E		1	16	-	143	1974	559	25.6%
10/1		U	N/A	N/A	-		-	-	-	560	Inf	Inf	0.0%
10/2		U	N/A	N/A	-		-	-	-	411	Inf	Inf	0.0%
10/3		U	N/A	N/A	-		-	-	-	327	Inf	Inf	0.0%
11/1		U	N/A	N/A	-		-	-	-	182	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	10	Inf	Inf	0.0%
12/1		U	N/A	N/A	-		-	-	-	1256	Inf	Inf	0.0%
12/2		U	N/A	N/A	-		-	-	-	1090	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	599	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	456	Inf	Inf	0.0%
14/1		U	N/A	N/A	-		-	-	-	264	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	720	Inf	Inf	0.0%
14/3		U	N/A	N/A	-		-	-	-	964	Inf	Inf	0.0%
15/1	Circ 5 Ahead	U	2	N/A	G		1	37	-	720	1921	1217	59.2%
15/2	Circ 5 Right Ahead	U	2	N/A	G		1	37	-	1039	1944	1231	84.4%
15/3	Circ 5 Right	U	2	N/A	G		1	37	-	110	1982	1255	8.8%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	160	0	0	32.2	26.2	0.0	58.4	-	-	-	-
A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)	-	-	160	0	0	32.2	26.2	0.0	58.4	-	-	-	-
1/1	560	560	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
1/2	884	884	-	-	-	2.8	2.5	-	5.2	21.3	12.0	2.5	14.5
1/3+1/4	1116	1116	-	-	-	3.3	2.8	-	6.1	19.7	12.4	2.8	15.2
2/2+2/1	660	660	-	-	-	4.1	2.3	-	6.4	34.8	5.5	2.3	7.8
2/3	336	336	-	-	-	2.1	2.1	-	4.2	44.8	5.3	2.1	7.4
3/1	74	74	74	0	0	0.0	0.1	-	0.1	3.4	0.0	0.1	0.1
3/2	108	108	86	0	0	0.2	0.4	-	0.7	22.0	0.8	0.4	1.3
4/1	949	949	-	-	-	3.2	4.2	-	7.3	27.8	14.0	4.2	18.1
4/2+4/3	1006	1006	-	-	-	3.2	4.4	-	7.6	27.2	14.1	4.4	18.6
5/1	264	264	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
5/2	336	336	-	-	-	2.1	1.9	-	4.0	42.8	5.2	1.9	7.1
5/3+5/4	546	546	-	-	-	3.3	3.0	-	6.3	41.8	5.7	3.0	8.7
6/1	411	411	-	-	-	0.5	0.0	-	0.5	4.7	1.5	0.0	1.5
6/2	471	471	-	-	-	0.9	0.0	-	0.9	7.2	2.1	0.0	2.1
6/3	185	185	-	-	-	0.0	0.0	-	0.0	0.9	0.1	0.0	0.1
7/1	1028	1028	-	-	-	0.9	0.0	-	0.9	3.2	4.3	0.0	4.3
7/2	1073	1073	-	-	-	1.1	0.0	-	1.1	3.6	5.2	0.0	5.2
7/3	228	228	-	-	-	0.2	0.0	-	0.2	2.4	0.5	0.0	0.5
8/1	1182	1182	-	-	-	0.0	0.8	-	0.8	2.4	0.0	0.8	0.8
8/2	1387	1387	-	-	-	0.0	1.2	-	1.2	3.1	0.0	1.2	1.2
8/3	564	564	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
9/1	365	365	-	-	-	0.6	0.0	-	0.6	6.3	1.3	0.0	1.3

Full Input Data And Results

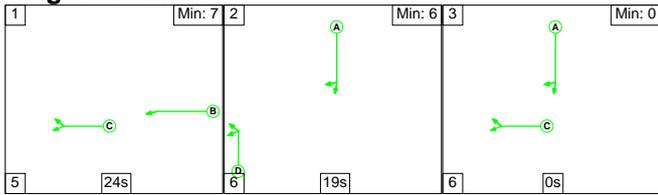
9/2	461	461	-	-	-	1.8	0.0	-	1.8	13.7	5.7	0.0	5.7	
9/3	143	143	-	-	-	0.2	0.0	-	0.2	5.5	0.4	0.0	0.4	
10/1	560	560	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
10/2	411	411	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
10/3	327	327	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
11/1	182	182	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
11/2	10	10	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
12/1	1256	1256	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
12/2	1090	1090	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
13/1	599	599	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
13/2	456	456	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
14/1	264	264	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
14/2	720	720	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
14/3	964	964	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
15/1	720	720	-	-	-	0.7	0.0	-	0.7	3.5	5.1	0.0	5.1	
15/2	1039	1039	-	-	-	1.0	0.0	-	1.0	3.4	4.4	0.0	4.4	
15/3	110	110	-	-	-	0.1	0.0	-	0.1	3.1	0.5	0.0	0.5	
C1 Stream: 1 PRC for Signalled Lanes (%)			2.5			Total Delay for Signalled Lanes (pcuHr):			25.58			Cycle Time (s): 60		
C1 Stream: 2 PRC for Signalled Lanes (%)			-0.6			Total Delay for Signalled Lanes (pcuHr):			29.63			Cycle Time (s): 60		
PRC Over All Lanes (%)			-0.6			Total Delay Over All Lanes(pcuHr):			58.40					

Full Input Data And Results

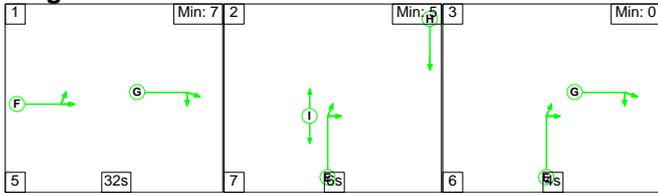
Scenario 7: '2031 Assessment AM' (FG11: '2031 Assessment AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

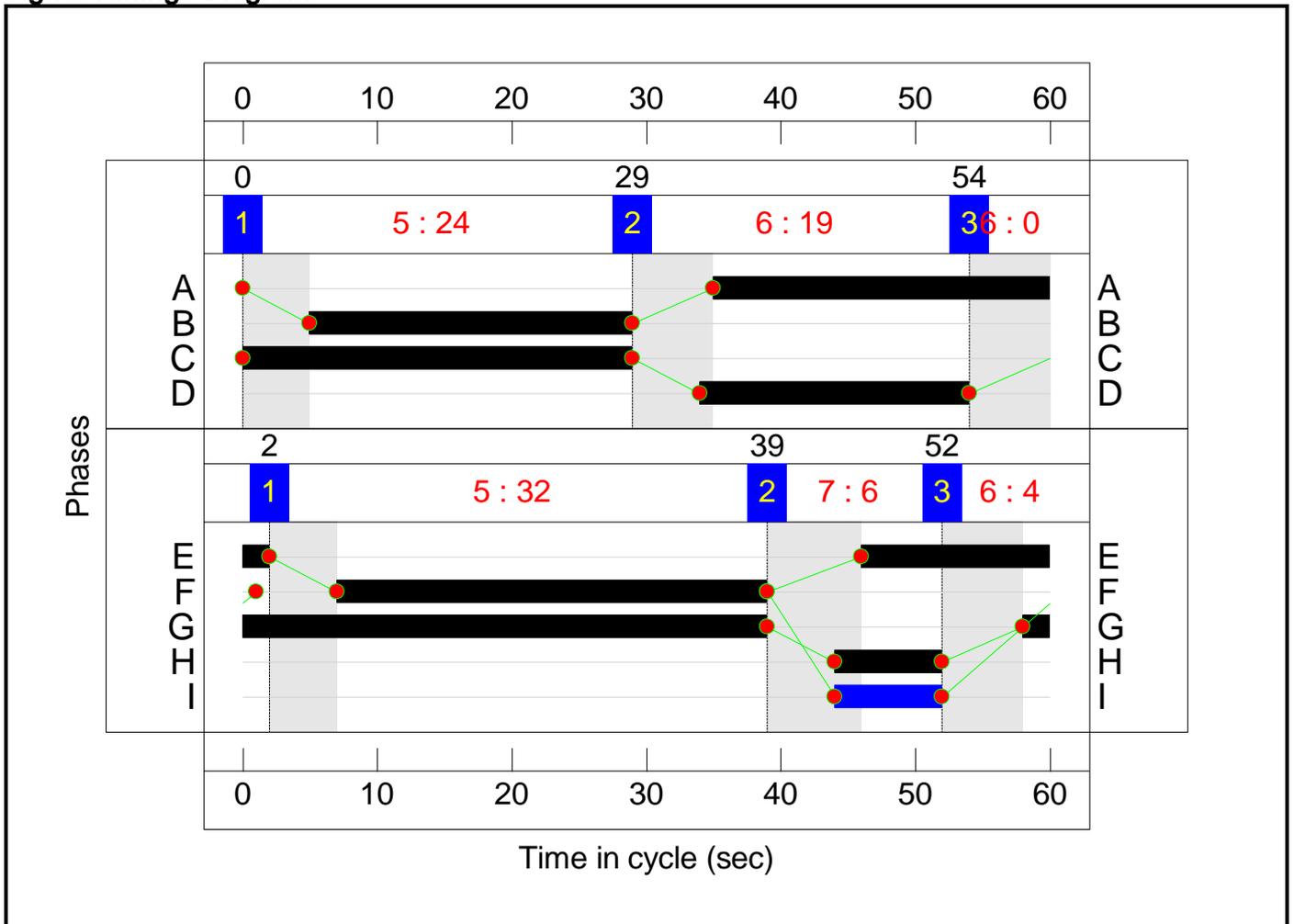
Stage Stream: 1

Stage	1	2	3
Duration	24	19	0
Change Point	0	29	54

Stage Stream: 2

Stage	1	2	3
Duration	32	6	4
Change Point	2	39	52

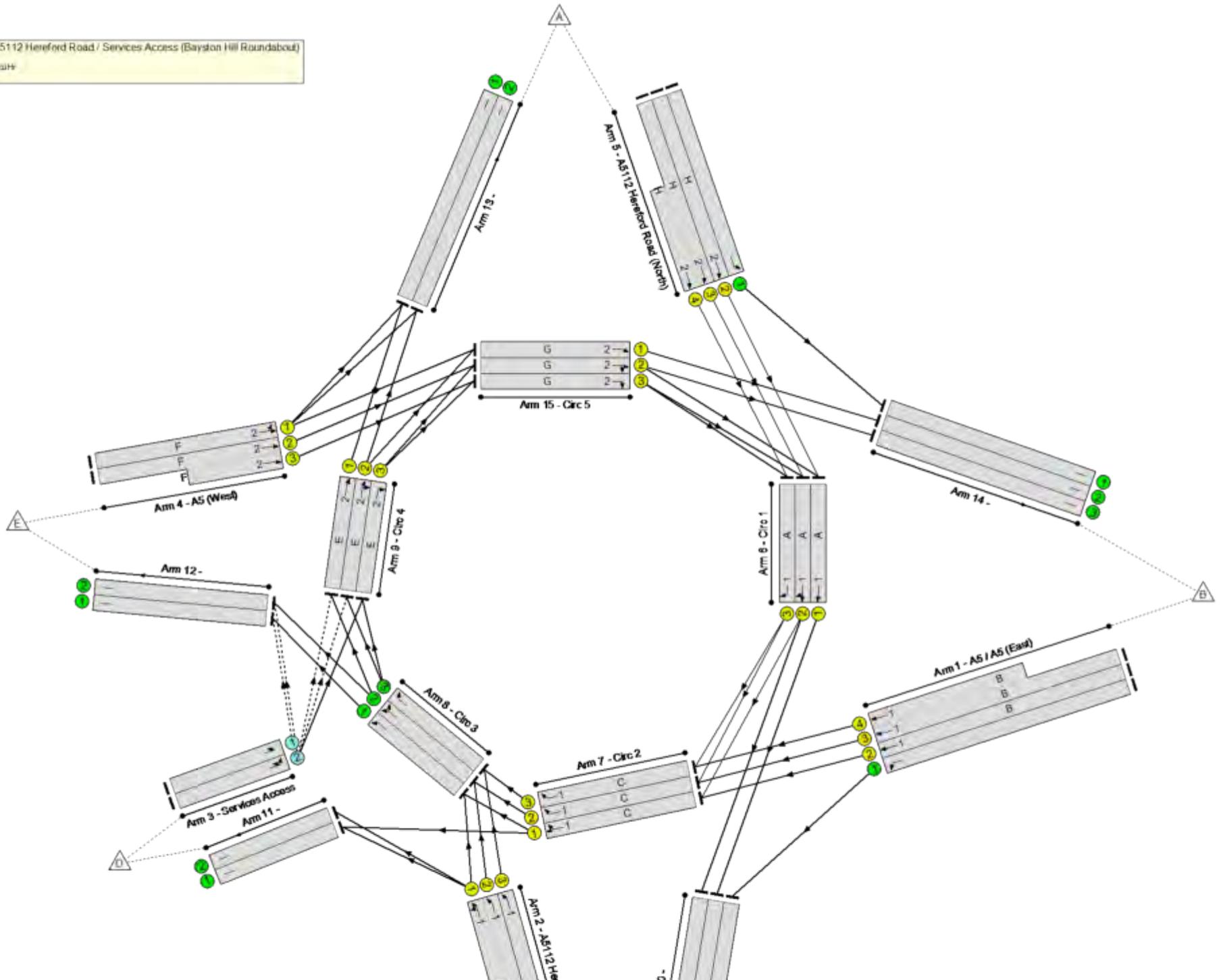
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)
PRC - 12.1 %
Total Traffic Delay 109.7 pcu/h



Full Input Data And Results

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	-	-		-	-	-	-	-	-	100.9%
A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)	-	-	N/A	-	-		-	-	-	-	-	-	100.9%
1/1	A5 / A5 (East) Left	U	N/A	N/A	-		-	-	-	424	1956	1858	22.8%
1/2	A5 / A5 (East) Ahead	U	1	N/A	B		1	24	-	741	1924	762	97.3%
1/3+1/4	A5 / A5 (East) Ahead	U	1	N/A	B		1	24	-	963	1895:1917	750+229	98.4 : 98.4%
2/2+2/1	A5112 Hereford Road (South) Ahead Left	U	1	N/A	D		1	20	-	774	1922:1930	499+567	72.6 : 72.6%
2/3	A5112 Hereford Road (South) Ahead	U	1	N/A	D		1	20	-	638	1902	632	100.9%
3/1	Services Access U-Turn	O	N/A	N/A	-		-	-	-	78	1665	606	12.9%
3/2	Services Access Left U-Turn	O	N/A	N/A	-		-	-	-	115	1741	211	54.4%
4/1	A5 (West) Left Ahead	U	2	N/A	F		1	32	-	995	1918	1002	99.3%
4/2+4/3	A5 (West) Ahead	U	2	N/A	F		1	32	-	1092	1906:1979	926+173	99.4 : 99.4%
5/1	A5112 Hereford Road (North) Left	U	N/A	N/A	-		-	-	-	333	1960	1862	17.9%
5/2	A5112 Hereford Road (North) Ahead	U	2	N/A	H		1	8	-	224	1938	276	81.1%
5/3+5/4	A5112 Hereford Road (North) Ahead	U	2	N/A	H		1	8	-	385	1924:1902	274+162	88.3 : 88.3%
6/1	Circ 1 Ahead	U	1	N/A	A		1	25	-	273	1942	799	34.1%

Full Input Data And Results

6/2	Circ 1 Right Ahead	U	1	N/A	A		1	25	-	426	1957	806	52.9%
6/3	Circ 1 Right	U	1	N/A	A		1	25	-	143	1940	799	17.9%
7/1	Circ 2 Right Ahead	U	1	N/A	C		1	29	-	861	1991	946	91.0%
7/2	Circ 2 Right	U	1	N/A	C		1	29	-	881	1930	917	96.1%
7/3	Circ 2 Right	U	1	N/A	C		1	29	-	225	1954	928	24.2%
8/1	Circ 3 Ahead	U	N/A	N/A	-		-	-	-	1043	1921	1825	57.2%
8/2	Circ 3 Right Ahead	U	N/A	N/A	-		-	-	-	1243	1970	1871	66.4%
8/3	Circ 3 Right	U	N/A	N/A	-		-	-	-	863	1966	1868	45.9%
9/1	Circ 4 Ahead	U	2	N/A	E		1	16	-	306	1898	511	59.9%
9/2	Circ 4 Ahead Right	U	2	N/A	E		1	16	-	536	1981	533	100.0%
9/3	Circ 4 Right	U	2	N/A	E		1	16	-	388	1974	531	72.5%
10/1		U	N/A	N/A	-		-	-	-	424	Inf	Inf	0.0%
10/2		U	N/A	N/A	-		-	-	-	273	Inf	Inf	0.0%
10/3		U	N/A	N/A	-		-	-	-	306	Inf	Inf	0.0%
11/1		U	N/A	N/A	-		-	-	-	206	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	24	Inf	Inf	0.0%
12/1		U	N/A	N/A	-		-	-	-	1121	Inf	Inf	0.0%
12/2		U	N/A	N/A	-		-	-	-	991	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	500	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	407	Inf	Inf	0.0%
14/1		U	N/A	N/A	-		-	-	-	333	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	930	Inf	Inf	0.0%
14/3		U	N/A	N/A	-		-	-	-	1247	Inf	Inf	0.0%
15/1	Circ 5 Ahead	U	2	N/A	G		1	41	-	930	1921	1277	72.6%
15/2	Circ 5 Right Ahead	U	2	N/A	G		1	41	-	1296	1944	1293	100.0%
15/3	Circ 5 Right	U	2	N/A	G		1	41	-	184	1982	1318	14.0%

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	-	-	153	0	0	39.0	70.7	0.0	109.7	-	-	-	-
A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)	-	-	153	0	0	39.0	70.7	0.0	109.7	-	-	-	-
1/1	424	424	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
1/2	741	741	-	-	-	3.5	8.9	-	12.5	60.6	12.6	9.4	22.0
1/3+1/4	963	963	-	-	-	4.3	11.5	-	15.7	58.8	12.7	12.1	24.8
2/2+2/1	774	774	-	-	-	3.5	1.2	-	4.7	21.9	6.0	1.3	7.3
2/3	638	632	-	-	-	3.6	13.4	-	17.0	95.7	11.3	14.1	25.4
3/1	78	78	78	0	0	0.0	0.1	-	0.1	3.2	0.0	0.1	0.1
3/2	115	115	75	0	0	0.2	0.6	-	0.8	24.0	1.1	0.6	1.7
4/1	995	995	-	-	-	3.7	13.4	-	17.1	61.8	17.2	14.1	31.2
4/2+4/3	1092	1092	-	-	-	3.7	14.2	-	17.9	58.9	17.1	14.9	32.1
5/1	333	333	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
5/2	224	224	-	-	-	1.5	1.9	-	3.4	55.1	3.8	2.0	5.8
5/3+5/4	385	385	-	-	-	2.6	3.2	-	5.8	54.0	4.1	3.3	7.4
6/1	273	273	-	-	-	0.2	0.0	-	0.2	2.6	0.7	0.0	0.7
6/2	426	426	-	-	-	0.9	0.0	-	0.9	7.8	3.0	0.0	3.0
6/3	143	143	-	-	-	0.0	0.0	-	0.0	0.5	0.0	0.0	0.0
7/1	861	861	-	-	-	2.2	0.0	-	2.2	9.0	6.0	0.0	6.0
7/2	881	881	-	-	-	2.3	0.0	-	2.3	9.2	7.0	0.0	7.0
7/3	225	225	-	-	-	0.2	0.0	-	0.2	3.5	0.5	0.0	0.5
8/1	1043	1043	-	-	-	0.0	0.6	-	0.6	2.2	0.0	0.7	0.7
8/2	1243	1243	-	-	-	0.0	0.9	-	0.9	2.7	0.0	1.0	1.0
8/3	857	857	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
9/1	306	306	-	-	-	0.6	0.0	-	0.6	6.8	4.5	0.0	4.5

Full Input Data And Results

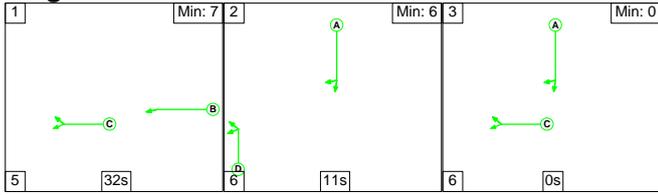
9/2	533	533	-	-	-	2.3	0.1	-	2.4	16.4	9.4	0.1	9.5																					
9/3	385	385	-	-	-	0.5	0.0	-	0.5	4.5	3.9	0.0	3.9																					
10/1	424	424	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
10/2	273	273	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
10/3	306	306	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
11/1	206	206	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
11/2	24	24	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
12/1	1121	1121	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
12/2	991	991	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
13/1	500	500	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
13/2	407	407	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
14/1	333	333	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
14/2	927	927	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
14/3	1244	1244	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
15/1	927	927	-	-	-	0.9	0.0	-	0.9	3.4	7.8	0.0	7.8																					
15/2	1293	1293	-	-	-	2.2	0.1	-	2.3	6.4	22.7	0.1	22.8																					
15/3	184	184	-	-	-	0.2	0.0	-	0.2	3.0	0.8	0.0	0.8																					
<table border="0"> <tbody> <tr> <td>C1</td> <td>Stream: 1 PRC for Signalled Lanes (%)</td> <td>-12.1</td> <td>Total Delay for Signalled Lanes (pcuHr):</td> <td>55.66</td> <td>Cycle Time (s):</td> <td>60</td> </tr> <tr> <td>C1</td> <td>Stream: 2 PRC for Signalled Lanes (%)</td> <td>-11.1</td> <td>Total Delay for Signalled Lanes (pcuHr):</td> <td>50.98</td> <td>Cycle Time (s):</td> <td>60</td> </tr> <tr> <td></td> <td>PRC Over All Lanes (%)</td> <td>-12.1</td> <td>Total Delay Over All Lanes(pcuHr):</td> <td>109.69</td> <td></td> <td></td> </tr> </tbody> </table>														C1	Stream: 1 PRC for Signalled Lanes (%)	-12.1	Total Delay for Signalled Lanes (pcuHr):	55.66	Cycle Time (s):	60	C1	Stream: 2 PRC for Signalled Lanes (%)	-11.1	Total Delay for Signalled Lanes (pcuHr):	50.98	Cycle Time (s):	60		PRC Over All Lanes (%)	-12.1	Total Delay Over All Lanes(pcuHr):	109.69		
C1	Stream: 1 PRC for Signalled Lanes (%)	-12.1	Total Delay for Signalled Lanes (pcuHr):	55.66	Cycle Time (s):	60																												
C1	Stream: 2 PRC for Signalled Lanes (%)	-11.1	Total Delay for Signalled Lanes (pcuHr):	50.98	Cycle Time (s):	60																												
	PRC Over All Lanes (%)	-12.1	Total Delay Over All Lanes(pcuHr):	109.69																														

Full Input Data And Results

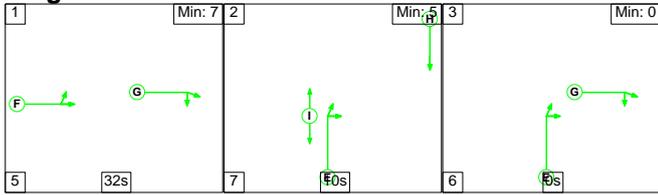
Scenario 8: '2031 Assessment PM' (FG12: '2031 Assessment PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

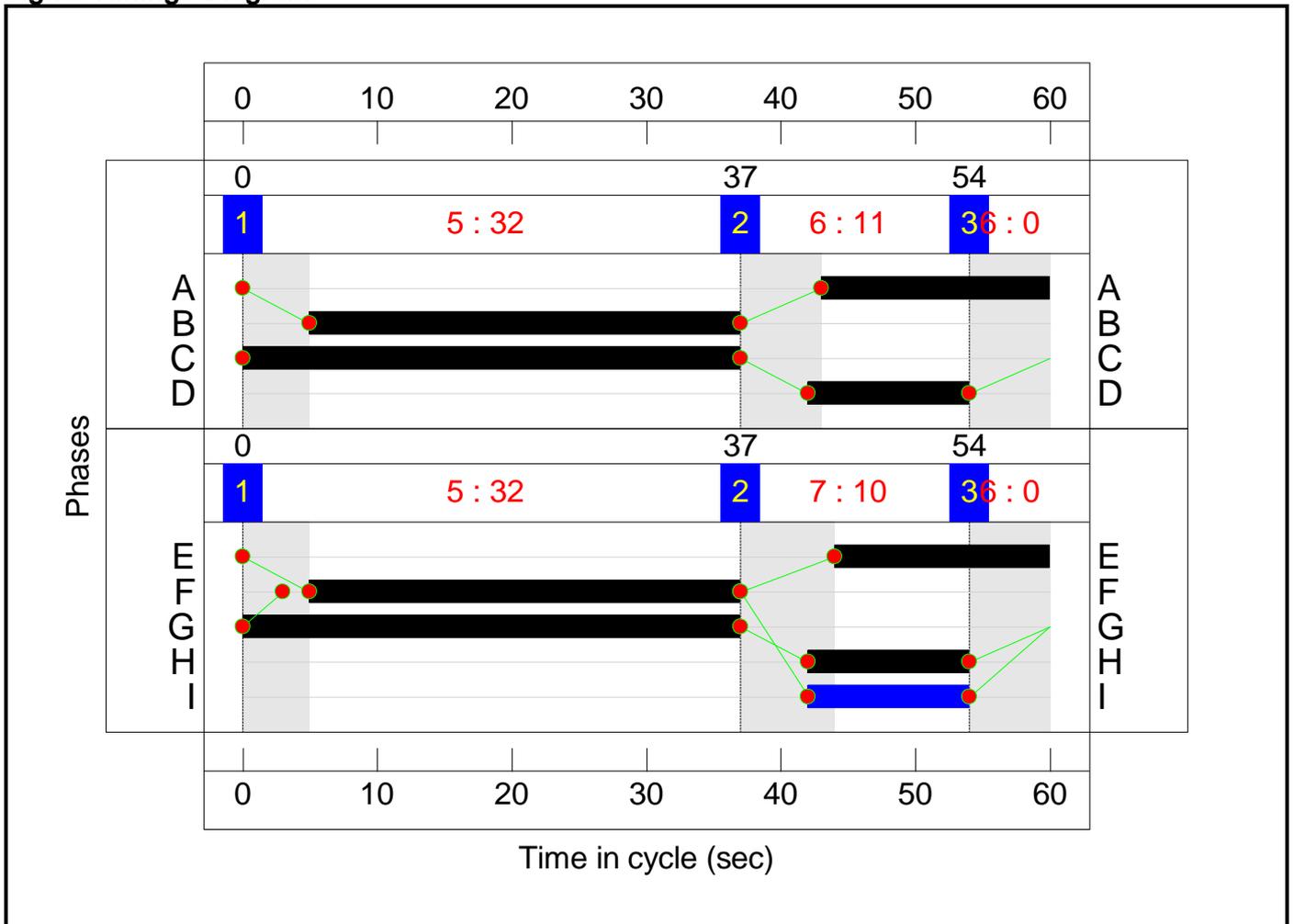
Stage Stream: 1

Stage	1	2	3
Duration	32	11	0
Change Point	0	37	54

Stage Stream: 2

Stage	1	2	3
Duration	32	10	0
Change Point	0	37	54

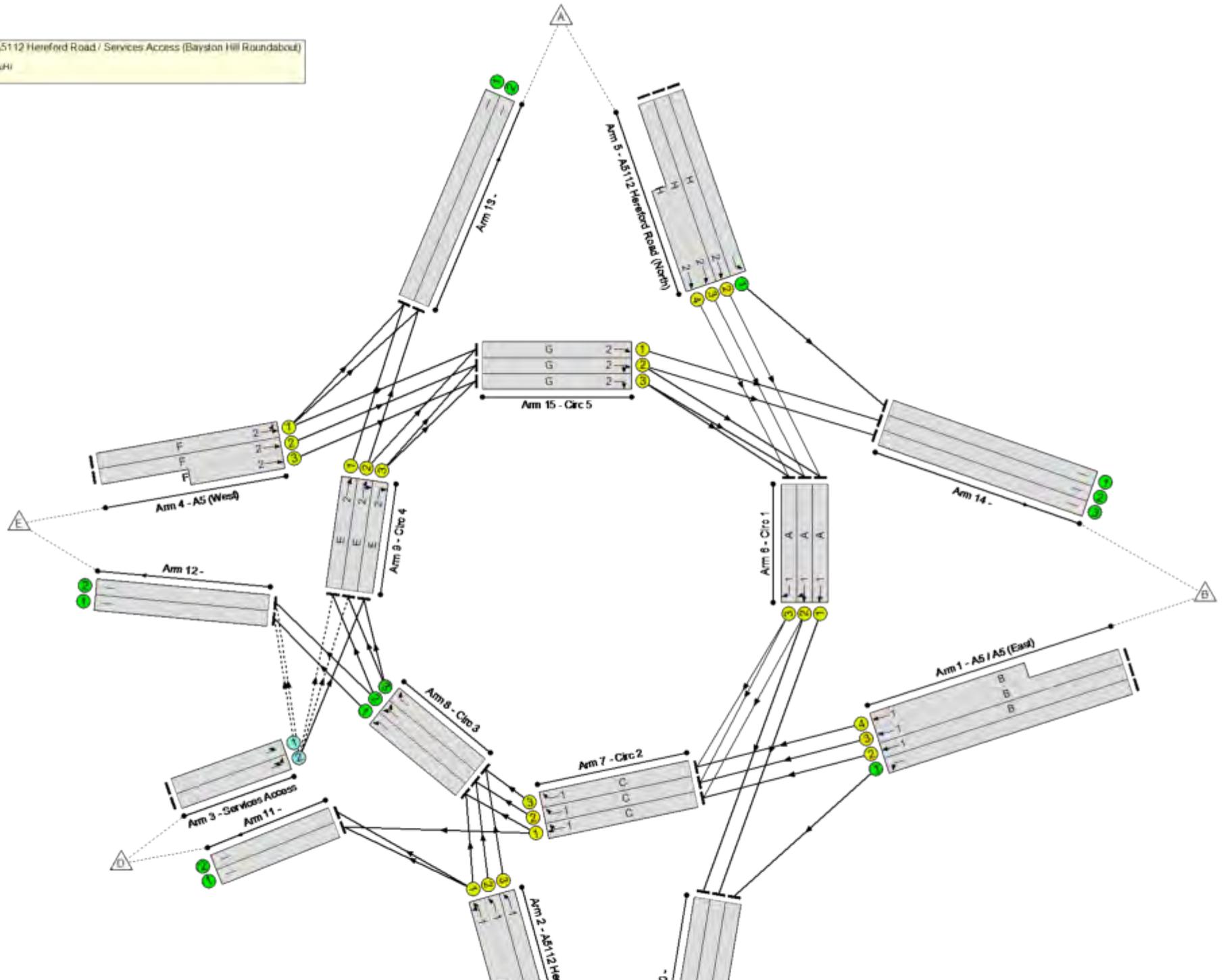
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)
 PRC -4.1 %
 Total Traffic Delay 57.4 pcuHr



Full Input Data And Results

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	-	-		-	-	-	-	-	-	93.7%
A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)	-	-	N/A	-	-		-	-	-	-	-	-	93.7%
1/1	A5 / A5 (East) Left	U	N/A	N/A	-		-	-	-	578	1956	1956	29.6%
1/2	A5 / A5 (East) Ahead	U	1	N/A	B		1	32	-	909	1924	1058	85.9%
1/3+1/4	A5 / A5 (East) Ahead	U	1	N/A	B		1	32	-	1163	1895:1917	1042+284	87.7 : 87.7%
2/2+2/1	A5112 Hereford Road (South) Ahead Left	U	1	N/A	D		1	12	-	684	1922:1933	364+419	87.4 : 87.4%
2/3	A5112 Hereford Road (South) Ahead	U	1	N/A	D		1	12	-	348	1902	412	84.4%
3/1	Services Access U-Turn	O	N/A	N/A	-		-	-	-	77	1665	598	12.9%
3/2	Services Access Left U-Turn	O	N/A	N/A	-		-	-	-	112	1741	214	52.3%
4/1	A5 (West) Left Ahead	U	2	N/A	F		1	32	-	982	1918	1055	93.1%
4/2+4/3	A5 (West) Ahead	U	2	N/A	F		1	32	-	1043	1906:1979	1003+111	93.7 : 93.7%
5/1	A5112 Hereford Road (North) Left	U	N/A	N/A	-		-	-	-	273	1960	1960	13.9%
5/2	A5112 Hereford Road (North) Ahead	U	2	N/A	H		1	12	-	345	1938	420	82.2%
5/3+5/4	A5112 Hereford Road (North) Ahead	U	2	N/A	H		1	12	-	567	1924:1902	417+227	88.0 : 88.0%
6/1	Circ 1 Ahead	U	1	N/A	A		1	17	-	419	1942	583	71.9%

Full Input Data And Results

6/2	Circ 1 Right Ahead	U	1	N/A	A		1	17	-	484	1957	587	82.4%
6/3	Circ 1 Right	U	1	N/A	A		1	17	-	200	1940	582	34.4%
7/1	Circ 2 Right Ahead	U	1	N/A	C		1	37	-	1049	1988	1259	83.3%
7/2	Circ 2 Right	U	1	N/A	C		1	37	-	1112	1930	1222	91.0%
7/3	Circ 2 Right	U	1	N/A	C		1	37	-	251	1954	1238	20.3%
8/1	Circ 3 Ahead	U	N/A	N/A	-		-	-	-	1217	1921	1921	63.4%
8/2	Circ 3 Right Ahead	U	N/A	N/A	-		-	-	-	1430	1970	1970	72.6%
8/3	Circ 3 Right	U	N/A	N/A	-		-	-	-	599	1966	1966	30.5%
9/1	Circ 4 Ahead	U	2	N/A	E		1	16	-	363	1898	538	67.5%
9/2	Circ 4 Ahead Right	U	2	N/A	E		1	16	-	488	1981	561	86.9%
9/3	Circ 4 Right	U	2	N/A	E		1	16	-	153	1974	559	27.4%
10/1		U	N/A	N/A	-		-	-	-	578	Inf	Inf	0.0%
10/2		U	N/A	N/A	-		-	-	-	419	Inf	Inf	0.0%
10/3		U	N/A	N/A	-		-	-	-	344	Inf	Inf	0.0%
11/1		U	N/A	N/A	-		-	-	-	187	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	11	Inf	Inf	0.0%
12/1		U	N/A	N/A	-		-	-	-	1294	Inf	Inf	0.0%
12/2		U	N/A	N/A	-		-	-	-	1137	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	605	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	488	Inf	Inf	0.0%
14/1		U	N/A	N/A	-		-	-	-	273	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	740	Inf	Inf	0.0%
14/3		U	N/A	N/A	-		-	-	-	1005	Inf	Inf	0.0%
15/1	Circ 5 Ahead	U	2	N/A	G		1	37	-	740	1921	1217	60.8%
15/2	Circ 5 Right Ahead	U	2	N/A	G		1	37	-	1079	1944	1231	87.6%
15/3	Circ 5 Right	U	2	N/A	G		1	37	-	117	1982	1255	9.3%

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	-	-	164	0	0	34.3	33.1	0.0	67.4	-	-	-	-
A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)	-	-	164	0	0	34.3	33.1	0.0	67.4	-	-	-	-
1/1	578	578	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
1/2	909	909	-	-	-	2.9	2.9	-	5.8	23.1	12.9	2.9	15.8
1/3+1/4	1163	1163	-	-	-	3.5	3.4	-	6.9	21.3	13.2	3.4	16.6
2/2+2/1	684	684	-	-	-	4.3	3.3	-	7.5	39.5	5.8	3.3	9.0
2/3	348	348	-	-	-	2.2	2.5	-	4.7	48.6	5.5	2.5	8.0
3/1	77	77	77	0	0	0.0	0.1	-	0.1	3.5	0.0	0.1	0.1
3/2	112	112	87	0	0	0.2	0.5	-	0.8	25.0	0.9	0.5	1.4
4/1	982	982	-	-	-	3.4	5.8	-	9.2	33.7	15.0	5.8	20.8
4/2+4/3	1043	1043	-	-	-	3.4	6.3	-	9.7	33.3	14.9	6.3	21.2
5/1	273	273	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
5/2	345	345	-	-	-	2.1	2.2	-	4.3	45.1	5.5	2.2	7.6
5/3+5/4	567	567	-	-	-	3.5	3.4	-	6.8	43.5	5.9	3.4	9.3
6/1	419	419	-	-	-	0.6	0.0	-	0.6	4.8	1.5	0.0	1.5
6/2	484	484	-	-	-	1.0	0.0	-	1.0	7.5	2.3	0.0	2.3
6/3	200	200	-	-	-	0.1	0.0	-	0.1	0.9	0.1	0.0	0.1
7/1	1049	1049	-	-	-	1.0	0.0	-	1.0	3.4	4.4	0.0	4.4
7/2	1112	1112	-	-	-	1.2	0.0	-	1.2	3.9	5.6	0.0	5.6
7/3	251	251	-	-	-	0.2	0.0	-	0.2	2.4	0.6	0.0	0.6
8/1	1217	1217	-	-	-	0.0	0.9	-	0.9	2.6	0.0	0.9	0.9
8/2	1430	1430	-	-	-	0.0	1.3	-	1.3	3.3	0.0	1.3	1.3
8/3	599	599	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
9/1	363	363	-	-	-	0.6	0.0	-	0.6	6.0	1.1	0.0	1.1

Full Input Data And Results

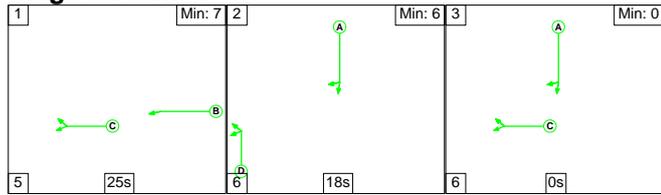
9/2	488	488	-	-	-	2.0	0.0	-	2.0	14.5	6.7	0.0	6.7
9/3	153	153	-	-	-	0.3	0.0	-	0.3	6.1	0.4	0.0	0.4
10/1	578	578	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	419	419	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/3	344	344	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	187	187	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	11	11	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	1294	1294	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	1137	1137	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	605	605	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	488	488	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	273	273	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	740	740	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/3	1005	1005	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	740	740	-	-	-	0.8	0.0	-	0.8	3.9	5.4	0.0	5.4
15/2	1079	1079	-	-	-	1.2	0.0	-	1.2	4.0	5.0	0.0	5.0
15/3	117	117	-	-	-	0.1	0.0	-	0.1	3.3	0.5	0.0	0.5
C1 Stream: 1 PRC for Signalled Lanes (%)			-1.1			Total Delay for Signalled Lanes (pcuHr):			28.89		Cycle Time (s): 60		
C1 Stream: 2 PRC for Signalled Lanes (%)			-4.1			Total Delay for Signalled Lanes (pcuHr):			34.96		Cycle Time (s): 60		
PRC Over All Lanes (%)			-4.1			Total Delay Over All Lanes(pcuHr):			67.39				

Full Input Data And Results

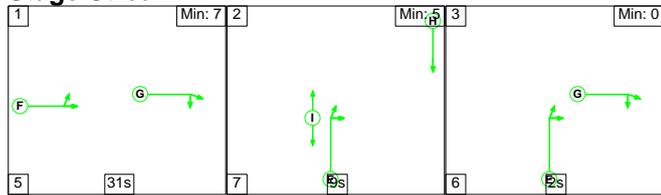
Scenario 9: '2021 Base AM' (FG1: '2021 Base AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

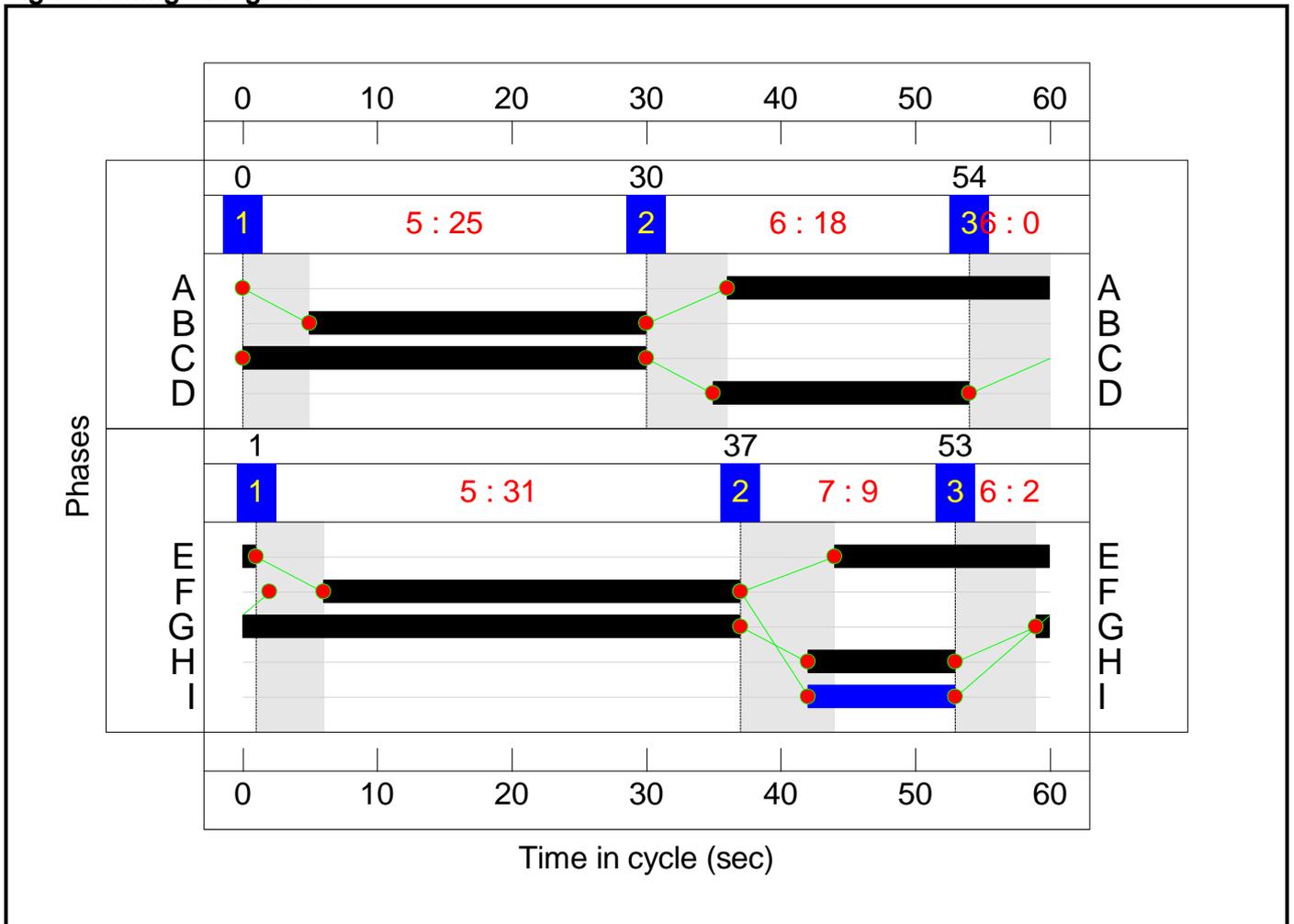
Stage Stream: 1

Stage	1	2	3
Duration	25	18	0
Change Point	0	30	54

Stage Stream: 2

Stage	1	2	3
Duration	31	9	2
Change Point	1	37	53

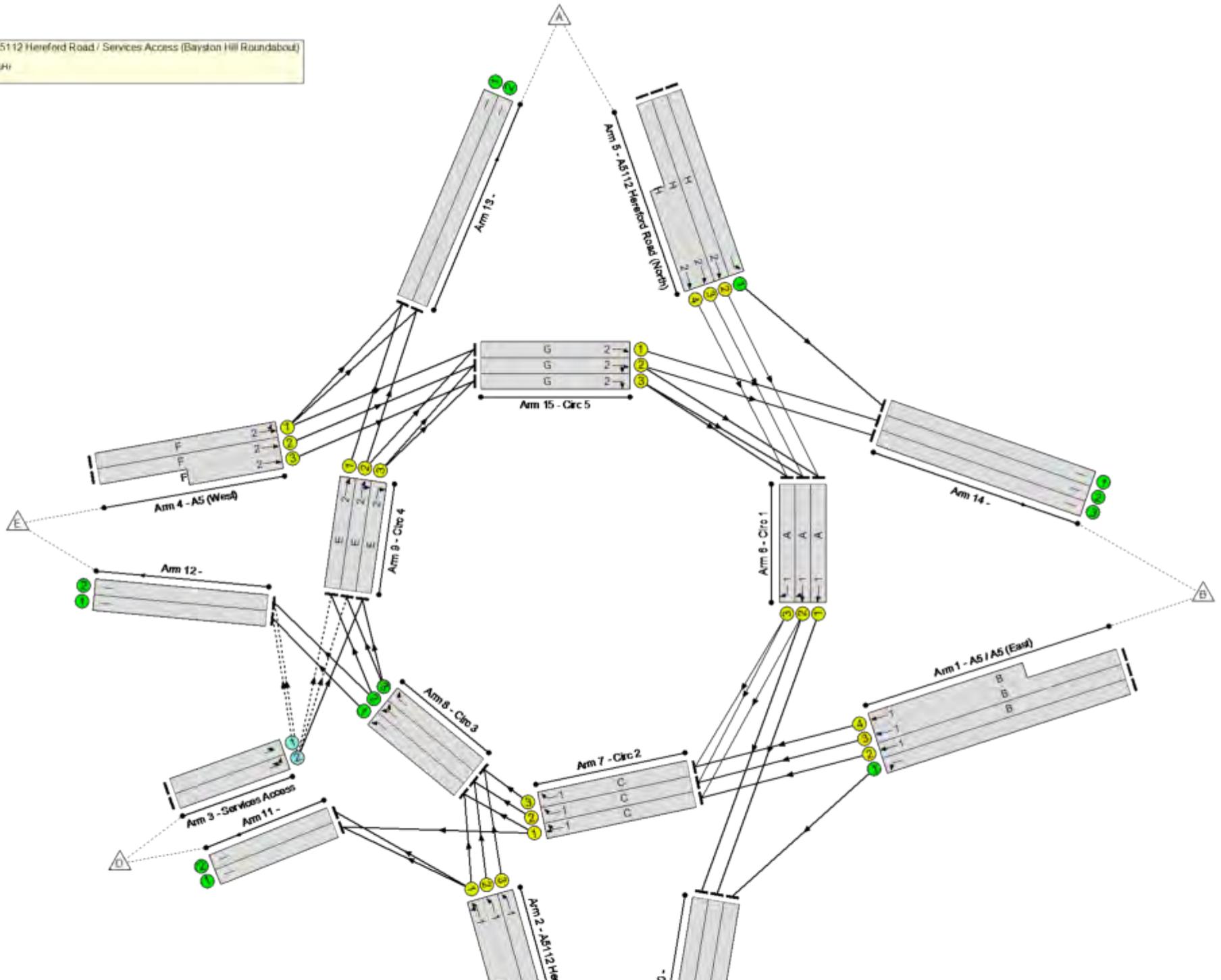
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)
PRC - 0.7 %
Total Traffic Delay 59.0 pcuHr



Full Input Data And Results

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	-	-		-	-	-	-	-	-	96.0%
A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)	-	-	N/A	-	-		-	-	-	-	-	-	96.0%
1/1	A5 / A5 (East) Left	U	N/A	N/A	-		-	-	-	374	1956	1858	20.1%
1/2	A5 / A5 (East) Ahead	U	1	N/A	B		1	25	-	667	1924	792	84.2%
1/3+1/4	A5 / A5 (East) Ahead	U	1	N/A	B		1	25	-	898	1895:1917	780+253	86.9 : 86.9%
2/2+2/1	A5112 Hereford Road (South) Ahead Left	U	1	N/A	D		1	19	-	673	1922:1929	504+550	63.9 : 63.9%
2/3	A5112 Hereford Road (South) Ahead	U	1	N/A	D		1	19	-	544	1902	602	90.3%
3/1	Services Access U-Turn	O	N/A	N/A	-		-	-	-	72	1665	641	11.2%
3/2	Services Access Left U-Turn	O	N/A	N/A	-		-	-	-	106	1741	281	37.7%
4/1	A5 (West) Left Ahead	U	2	N/A	F		1	31	-	918	1918	972	94.5%
4/2+4/3	A5 (West) Ahead	U	2	N/A	F		1	31	-	994	1906:1979	914+130	95.1 : 95.1%
5/1	A5112 Hereford Road (North) Left	U	N/A	N/A	-		-	-	-	306	1960	1862	16.4%
5/2	A5112 Hereford Road (North) Ahead	U	2	N/A	H		1	11	-	202	1938	368	54.9%
5/3+5/4	A5112 Hereford Road (North) Ahead	U	2	N/A	H		1	11	-	350	1924:1902	366+172	65.1 : 65.1%
6/1	Circ 1 Ahead	U	1	N/A	A		1	24	-	276	1942	769	35.9%

Full Input Data And Results

6/2	Circ 1 Right Ahead	U	1	N/A	A		1	24	-	373	1957	775	48.2%
6/3	Circ 1 Right	U	1	N/A	A		1	24	-	112	1940	768	14.6%
7/1	Circ 2 Right Ahead	U	1	N/A	C		1	30	-	798	1991	977	81.7%
7/2	Circ 2 Right	U	1	N/A	C		1	30	-	788	1930	947	83.2%
7/3	Circ 2 Right	U	1	N/A	C		1	30	-	222	1954	959	23.1%
8/1	Circ 3 Ahead	U	N/A	N/A	-		-	-	-	937	1921	1825	51.3%
8/2	Circ 3 Right Ahead	U	N/A	N/A	-		-	-	-	1110	1970	1871	59.3%
8/3	Circ 3 Right	U	N/A	N/A	-		-	-	-	766	1966	1868	41.0%
9/1	Circ 4 Ahead	U	2	N/A	E		1	17	-	242	1898	541	44.7%
9/2	Circ 4 Ahead Right	U	2	N/A	E		1	17	-	542	1981	565	96.0%
9/3	Circ 4 Right	U	2	N/A	E		1	17	-	281	1974	563	49.9%
10/1		U	N/A	N/A	-		-	-	-	374	Inf	Inf	0.0%
10/2		U	N/A	N/A	-		-	-	-	276	Inf	Inf	0.0%
10/3		U	N/A	N/A	-		-	-	-	242	Inf	Inf	0.0%
11/1		U	N/A	N/A	-		-	-	-	190	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	22	Inf	Inf	0.0%
12/1		U	N/A	N/A	-		-	-	-	1009	Inf	Inf	0.0%
12/2		U	N/A	N/A	-		-	-	-	917	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	421	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	389	Inf	Inf	0.0%
14/1		U	N/A	N/A	-		-	-	-	306	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	892	Inf	Inf	0.0%
14/3		U	N/A	N/A	-		-	-	-	1066	Inf	Inf	0.0%
15/1	Circ 5 Ahead	U	2	N/A	G		1	38	-	892	1921	1186	75.2%
15/2	Circ 5 Right Ahead	U	2	N/A	G		1	38	-	1140	1944	1200	95.0%
15/3	Circ 5 Right	U	2	N/A	G		1	38	-	135	1982	1224	11.0%

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	-	-	149	0	0	31.7	27.3	0.0	59.0	-	-	-	-
A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)	-	-	149	0	0	31.7	27.3	0.0	59.0	-	-	-	-
1/1	374	374	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
1/2	667	667	-	-	-	2.8	2.4	-	5.2	28.3	10.3	2.6	12.9
1/3+1/4	898	898	-	-	-	3.6	3.0	-	6.6	26.4	10.7	3.2	13.9
2/2+2/1	673	673	-	-	-	3.1	0.8	-	3.9	20.8	5.0	0.9	5.9
2/3	544	544	-	-	-	2.9	3.9	-	6.8	44.8	9.1	4.1	13.2
3/1	72	72	72	0	0	0.0	0.1	-	0.1	3.0	0.0	0.1	0.1
3/2	106	106	77	0	0	0.1	0.3	-	0.4	14.4	0.6	0.3	0.9
4/1	918	918	-	-	-	3.4	6.5	-	9.8	38.5	15.0	6.8	21.8
4/2+4/3	994	994	-	-	-	3.4	7.2	-	10.6	38.2	15.0	7.6	22.5
5/1	306	306	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
5/2	202	202	-	-	-	1.2	0.6	-	1.8	31.8	3.1	0.6	3.7
5/3+5/4	350	350	-	-	-	2.1	0.9	-	3.0	30.6	3.8	0.9	4.8
6/1	276	276	-	-	-	0.3	0.0	-	0.3	3.6	1.2	0.0	1.2
6/2	373	373	-	-	-	0.7	0.0	-	0.7	6.7	2.2	0.0	2.2
6/3	112	112	-	-	-	0.0	0.0	-	0.0	0.5	0.0	0.0	0.0
7/1	798	798	-	-	-	1.2	0.0	-	1.2	5.4	4.3	0.0	4.3
7/2	788	788	-	-	-	1.3	0.0	-	1.3	6.0	4.3	0.0	4.3
7/3	222	222	-	-	-	0.2	0.0	-	0.2	3.4	0.5	0.0	0.5
8/1	937	937	-	-	-	0.0	0.5	-	0.5	1.9	0.0	0.5	0.5
8/2	1110	1110	-	-	-	0.0	0.7	-	0.7	2.2	0.0	0.7	0.7
8/3	766	766	-	-	-	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
9/1	242	242	-	-	-	0.3	0.0	-	0.3	4.1	2.3	0.0	2.3

Full Input Data And Results

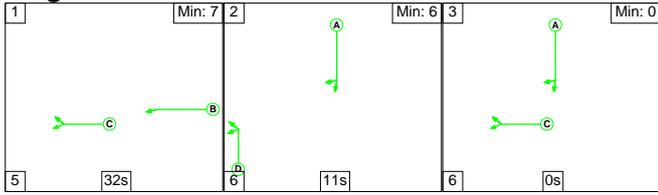
9/2	542	542	-	-	-	2.1	0.0	-	2.1	14.0	9.4	0.0	9.4																					
9/3	281	281	-	-	-	0.2	0.0	-	0.2	3.2	1.3	0.0	1.3																					
10/1	374	374	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
10/2	276	276	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
10/3	242	242	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
11/1	190	190	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
11/2	22	22	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
12/1	1009	1009	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
12/2	917	917	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
13/1	421	421	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
13/2	389	389	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
14/1	306	306	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
14/2	892	892	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
14/3	1066	1066	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
15/1	892	892	-	-	-	1.1	0.0	-	1.1	4.3	8.1	0.0	8.1																					
15/2	1140	1140	-	-	-	1.7	0.0	-	1.7	5.2	8.2	0.0	8.2																					
15/3	135	135	-	-	-	0.1	0.0	-	0.1	3.3	0.5	0.0	0.5																					
<table border="0" style="width: 100%;"> <tbody> <tr> <td style="width: 10%;">C1</td> <td style="width: 15%;">Stream: 1 PRC for Signalled Lanes (%)</td> <td style="width: 15%;">-0.4</td> <td style="width: 15%;">Total Delay for Signalled Lanes (pcuHr):</td> <td style="width: 15%;">26.21</td> <td style="width: 10%;">Cycle Time (s):</td> <td style="width: 10%;">60</td> </tr> <tr> <td>C1</td> <td>Stream: 2 PRC for Signalled Lanes (%)</td> <td>-6.7</td> <td>Total Delay for Signalled Lanes (pcuHr):</td> <td>30.61</td> <td>Cycle Time (s):</td> <td>60</td> </tr> <tr> <td></td> <td>PRC Over All Lanes (%)</td> <td>-6.7</td> <td>Total Delay Over All Lanes (pcuHr):</td> <td>59.03</td> <td></td> <td></td> </tr> </tbody> </table>														C1	Stream: 1 PRC for Signalled Lanes (%)	-0.4	Total Delay for Signalled Lanes (pcuHr):	26.21	Cycle Time (s):	60	C1	Stream: 2 PRC for Signalled Lanes (%)	-6.7	Total Delay for Signalled Lanes (pcuHr):	30.61	Cycle Time (s):	60		PRC Over All Lanes (%)	-6.7	Total Delay Over All Lanes (pcuHr):	59.03		
C1	Stream: 1 PRC for Signalled Lanes (%)	-0.4	Total Delay for Signalled Lanes (pcuHr):	26.21	Cycle Time (s):	60																												
C1	Stream: 2 PRC for Signalled Lanes (%)	-6.7	Total Delay for Signalled Lanes (pcuHr):	30.61	Cycle Time (s):	60																												
	PRC Over All Lanes (%)	-6.7	Total Delay Over All Lanes (pcuHr):	59.03																														

Full Input Data And Results

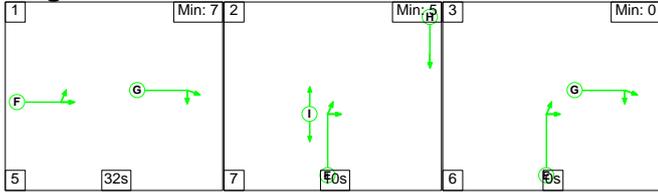
Scenario 10: '2021 Base PM' (FG2: '2021 Base PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

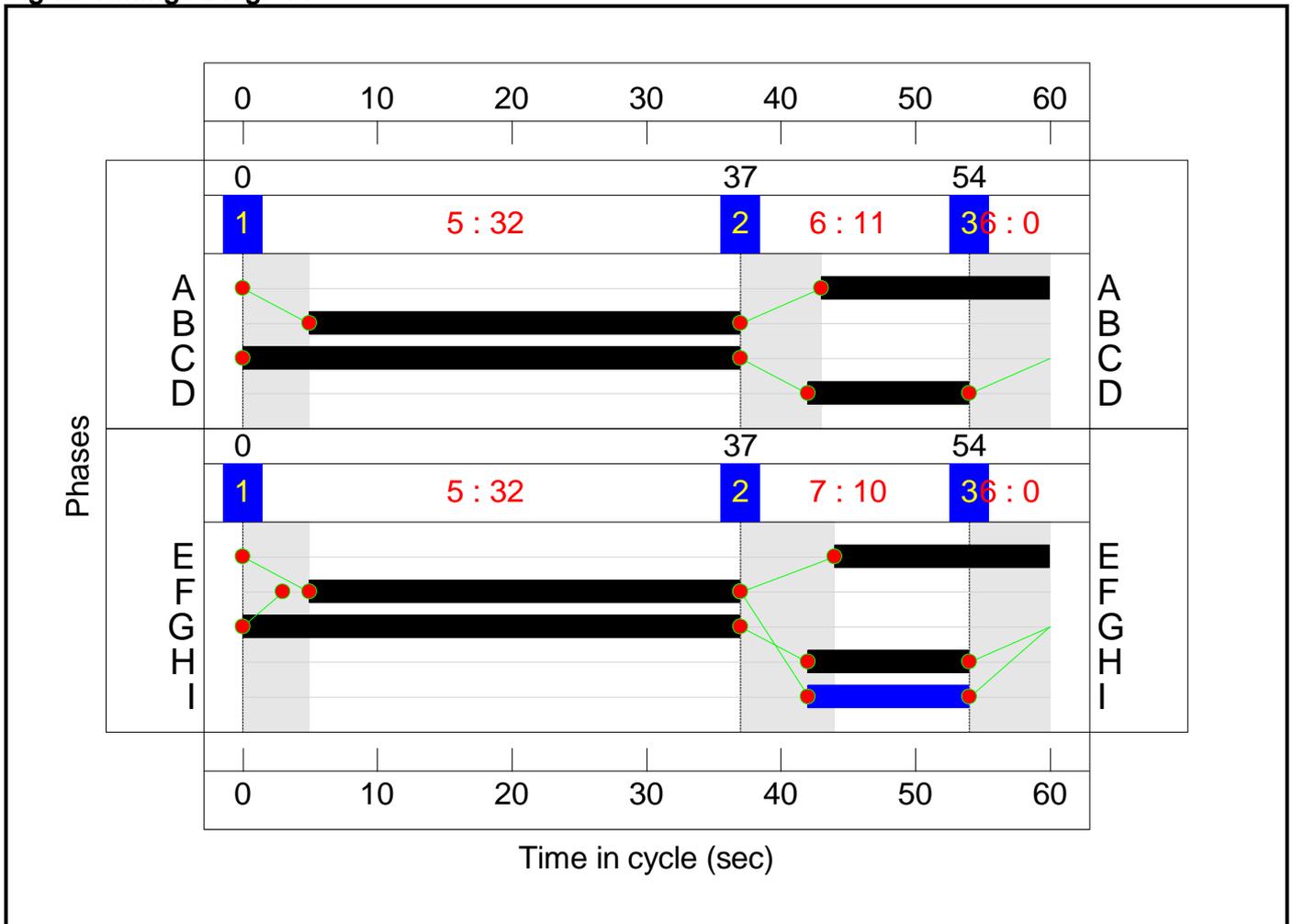
Stage Stream: 1

Stage	1	2	3
Duration	32	11	0
Change Point	0	37	54

Stage Stream: 2

Stage	1	2	3
Duration	32	10	0
Change Point	0	37	54

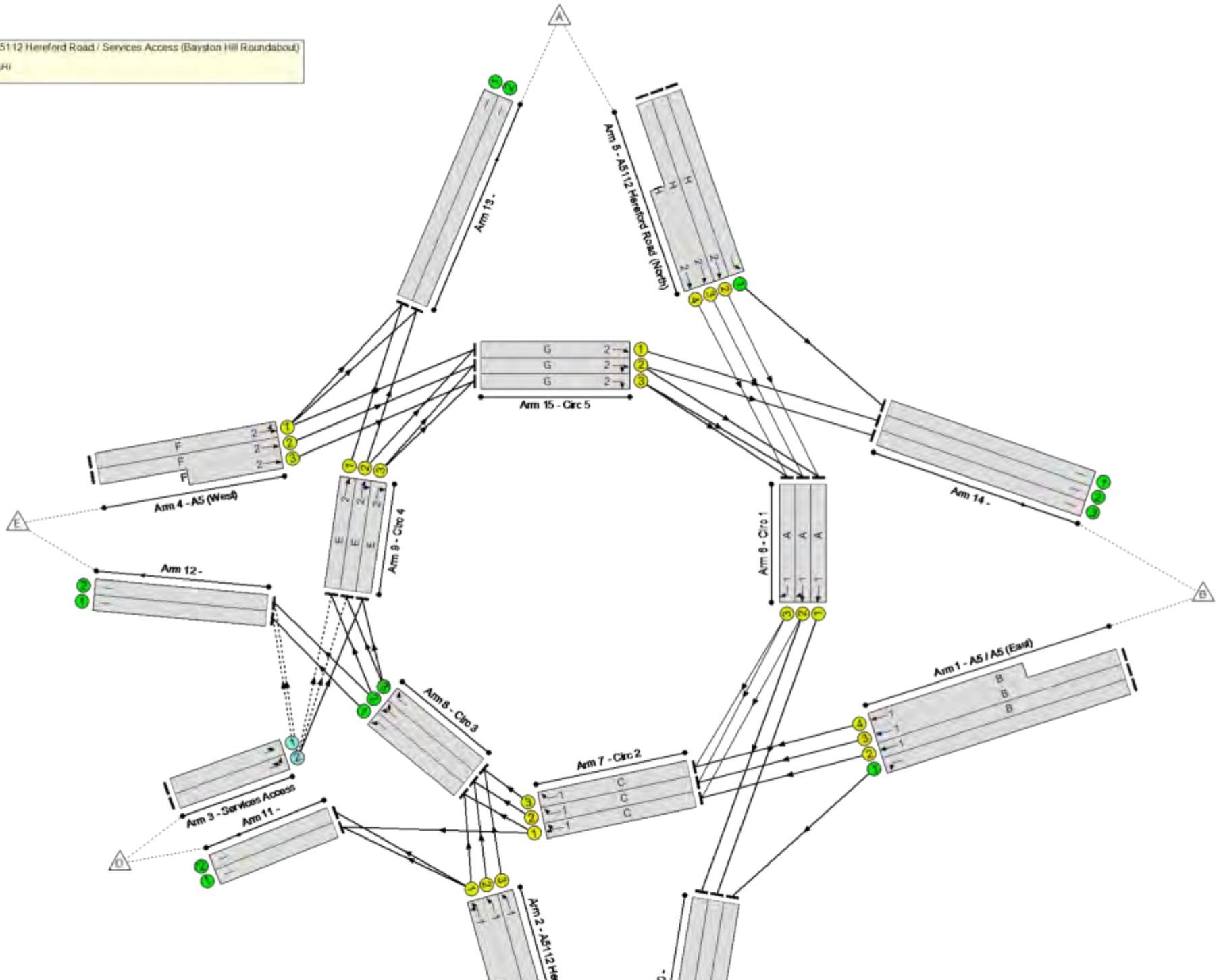
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)
 PRC 4.3 %
 Total Traffic Delay 48.7 pcu/H



Full Input Data And Results

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	-	-		-	-	-	-	-	-	86.2%
A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)	-	-	N/A	-	-		-	-	-	-	-	-	86.2%
1/1	A5 / A5 (East) Left	U	N/A	N/A	-		-	-	-	493	1956	1956	25.2%
1/2	A5 / A5 (East) Ahead	U	1	N/A	B		1	32	-	850	1924	1058	80.3%
1/3+1/4	A5 / A5 (East) Ahead	U	1	N/A	B		1	32	-	1052	1895:1917	1042+249	81.5 : 81.5%
2/2+2/1	A5112 Hereford Road (South) Ahead Left	U	1	N/A	D		1	12	-	600	1922:1932	416+350	78.3 : 78.3%
2/3	A5112 Hereford Road (South) Ahead	U	1	N/A	D		1	12	-	316	1902	412	76.7%
3/1	Services Access U-Turn	O	N/A	N/A	-		-	-	-	71	1665	639	11.1%
3/2	Services Access Left U-Turn	O	N/A	N/A	-		-	-	-	103	1741	270	38.2%
4/1	A5 (West) Left Ahead	U	2	N/A	F		1	32	-	901	1918	1055	85.4%
4/2+4/3	A5 (West) Ahead	U	2	N/A	F		1	32	-	945	1906:1979	1016+80	86.2 : 86.2%
5/1	A5112 Hereford Road (North) Left	U	N/A	N/A	-		-	-	-	251	1960	1960	12.8%
5/2	A5112 Hereford Road (North) Ahead	U	2	N/A	H		1	12	-	314	1938	420	74.8%
5/3+5/4	A5112 Hereford Road (North) Ahead	U	2	N/A	H		1	12	-	504	1924:1902	417+196	82.3 : 82.3%
6/1	Circ 1 Ahead	U	1	N/A	A		1	17	-	392	1942	583	67.3%

Full Input Data And Results

6/2	Circ 1 Right Ahead	U	1	N/A	A		1	17	-	427	1957	587	72.7%
6/3	Circ 1 Right	U	1	N/A	A		1	17	-	161	1940	582	27.7%
7/1	Circ 2 Right Ahead	U	1	N/A	C		1	37	-	1002	1988	1259	79.6%
7/2	Circ 2 Right	U	1	N/A	C		1	37	-	1008	1930	1222	82.5%
7/3	Circ 2 Right	U	1	N/A	C		1	37	-	205	1954	1238	16.6%
8/1	Circ 3 Ahead	U	N/A	N/A	-		-	-	-	1094	1921	1921	56.9%
8/2	Circ 3 Right Ahead	U	N/A	N/A	-		-	-	-	1334	1970	1970	67.7%
8/3	Circ 3 Right	U	N/A	N/A	-		-	-	-	521	1966	1966	26.5%
9/1	Circ 4 Ahead	U	2	N/A	E		1	16	-	338	1898	538	62.9%
9/2	Circ 4 Ahead Right	U	2	N/A	E		1	16	-	433	1981	561	77.1%
9/3	Circ 4 Right	U	2	N/A	E		1	16	-	126	1974	559	22.5%
10/1		U	N/A	N/A	-		-	-	-	493	Inf	Inf	0.0%
10/2		U	N/A	N/A	-		-	-	-	392	Inf	Inf	0.0%
10/3		U	N/A	N/A	-		-	-	-	275	Inf	Inf	0.0%
11/1		U	N/A	N/A	-		-	-	-	172	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	10	Inf	Inf	0.0%
12/1		U	N/A	N/A	-		-	-	-	1165	Inf	Inf	0.0%
12/2		U	N/A	N/A	-		-	-	-	1061	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	560	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	435	Inf	Inf	0.0%
14/1		U	N/A	N/A	-		-	-	-	251	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	677	Inf	Inf	0.0%
14/3		U	N/A	N/A	-		-	-	-	909	Inf	Inf	0.0%
15/1	Circ 5 Ahead	U	2	N/A	G		1	37	-	677	1921	1217	55.6%
15/2	Circ 5 Right Ahead	U	2	N/A	G		1	37	-	987	1944	1231	80.2%
15/3	Circ 5 Right	U	2	N/A	G		1	37	-	84	1982	1255	6.7%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	152	0	0	29.1	19.5	0.0	48.7	-	-	-	-
A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)	-	-	152	0	0	29.1	19.5	0.0	48.7	-	-	-	-
1/1	493	493	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
1/2	850	850	-	-	-	2.6	2.0	-	4.6	19.4	11.3	2.0	13.3
1/3+1/4	1052	1052	-	-	-	3.0	2.2	-	5.1	17.6	11.3	2.2	13.5
2/2+2/1	600	600	-	-	-	3.6	1.8	-	5.4	32.4	5.1	1.8	6.8
2/3	316	316	-	-	-	1.9	1.6	-	3.5	40.2	4.9	1.6	6.5
3/1	71	71	71	0	0	0.0	0.1	-	0.1	3.2	0.0	0.1	0.1
3/2	103	103	81	0	0	0.2	0.3	-	0.5	16.9	0.8	0.3	1.1
4/1	901	901	-	-	-	2.9	2.8	-	5.7	22.7	12.5	2.8	15.3
4/2+4/3	945	945	-	-	-	2.9	3.0	-	5.9	22.5	12.5	3.0	15.5
5/1	251	251	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
5/2	314	314	-	-	-	1.9	1.4	-	3.4	38.5	4.9	1.4	6.3
5/3+5/4	504	504	-	-	-	3.0	2.2	-	5.3	37.6	5.4	2.2	7.7
6/1	392	392	-	-	-	0.5	0.0	-	0.5	4.7	1.5	0.0	1.5
6/2	427	427	-	-	-	0.7	0.0	-	0.7	6.3	1.6	0.0	1.6
6/3	161	161	-	-	-	0.0	0.0	-	0.0	0.9	0.1	0.0	0.1
7/1	1002	1002	-	-	-	0.9	0.0	-	0.9	3.2	4.3	0.0	4.3
7/2	1008	1008	-	-	-	0.9	0.0	-	0.9	3.4	4.5	0.0	4.5
7/3	205	205	-	-	-	0.1	0.0	-	0.1	2.4	0.5	0.0	0.5
8/1	1094	1094	-	-	-	0.0	0.7	-	0.7	2.2	0.0	0.7	0.7
8/2	1334	1334	-	-	-	0.0	1.0	-	1.0	2.8	0.0	1.0	1.0
8/3	521	521	-	-	-	0.0	0.2	-	0.2	1.2	0.0	0.2	0.2
9/1	338	338	-	-	-	0.6	0.0	-	0.6	6.9	1.5	0.0	1.5

Full Input Data And Results

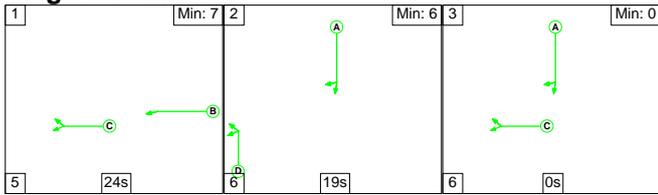
9/2	433	433	-	-	-	1.5	0.0	-	1.5	12.7	5.0	0.0	5.0	
9/3	126	126	-	-	-	0.2	0.0	-	0.2	5.3	0.3	0.0	0.3	
10/1	493	493	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
10/2	392	392	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
10/3	275	275	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
11/1	172	172	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
11/2	10	10	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
12/1	1165	1165	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
12/2	1061	1061	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
13/1	560	560	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
13/2	435	435	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
14/1	251	251	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
14/2	677	677	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
14/3	909	909	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
15/1	677	677	-	-	-	0.6	0.0	-	0.6	3.1	4.5	0.0	4.5	
15/2	987	987	-	-	-	0.8	0.0	-	0.8	3.0	3.6	0.0	3.6	
15/3	84	84	-	-	-	0.1	0.0	-	0.1	3.2	0.4	0.0	0.4	
C1 Stream: 1 PRC for Signalled Lanes (%)			9.1			Total Delay for Signalled Lanes (pcuHr):			21.92			Cycle Time (s): 60		
C1 Stream: 2 PRC for Signalled Lanes (%)			4.3			Total Delay for Signalled Lanes (pcuHr):			24.06			Cycle Time (s): 60		
PRC Over All Lanes (%)			4.3			Total Delay Over All Lanes(pcuHr):			48.66					

Full Input Data And Results

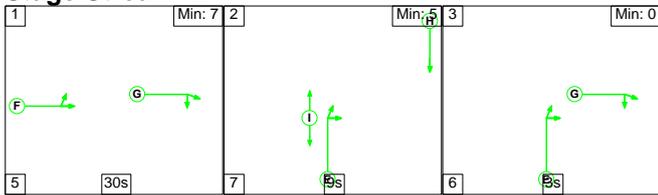
Scenario 11: '2021 Assessment AM' (FG7: '2021 Assessment AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

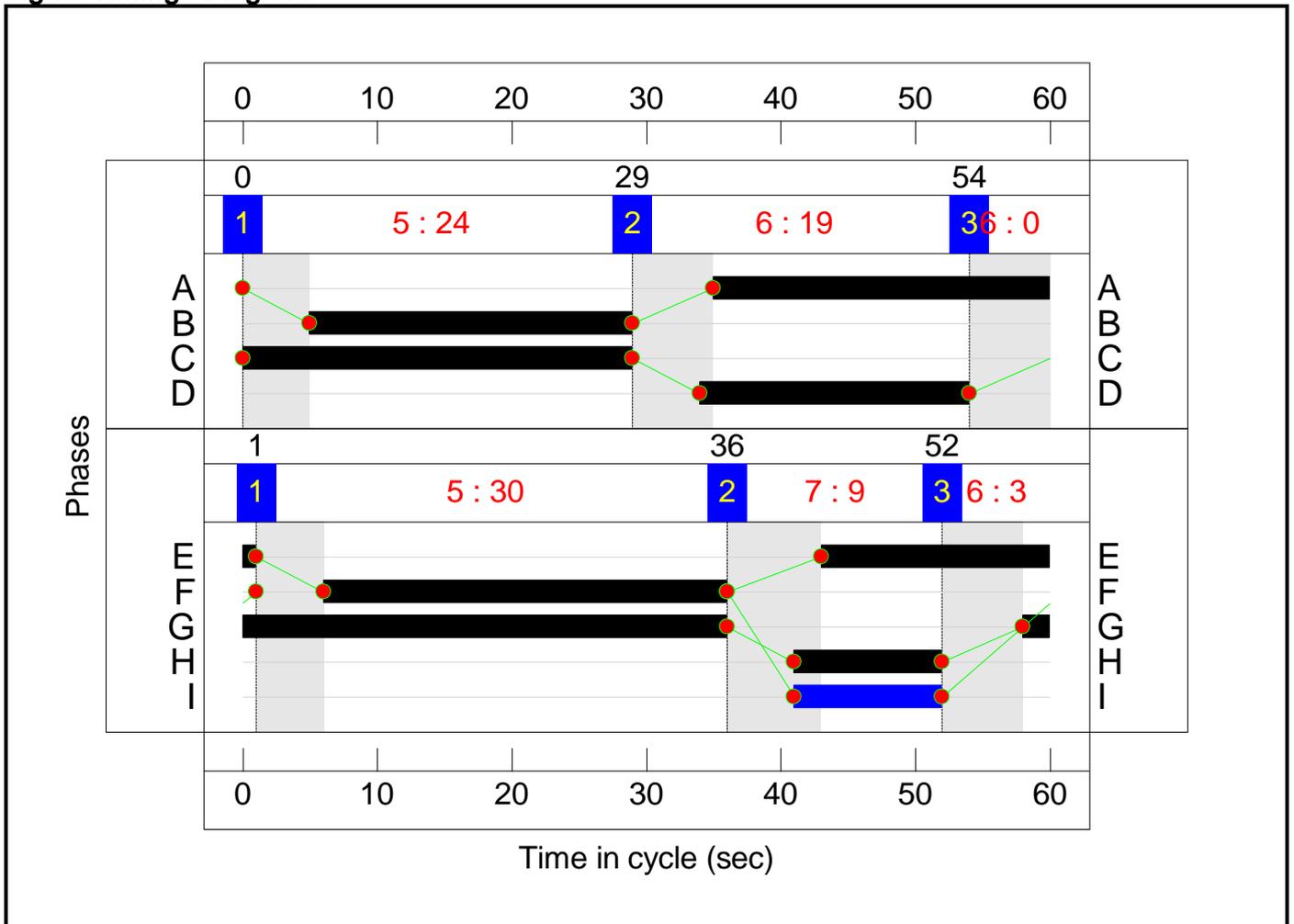
Stage Stream: 1

Stage	1	2	3
Duration	24	19	0
Change Point	0	29	54

Stage Stream: 2

Stage	1	2	3
Duration	30	9	3
Change Point	1	36	52

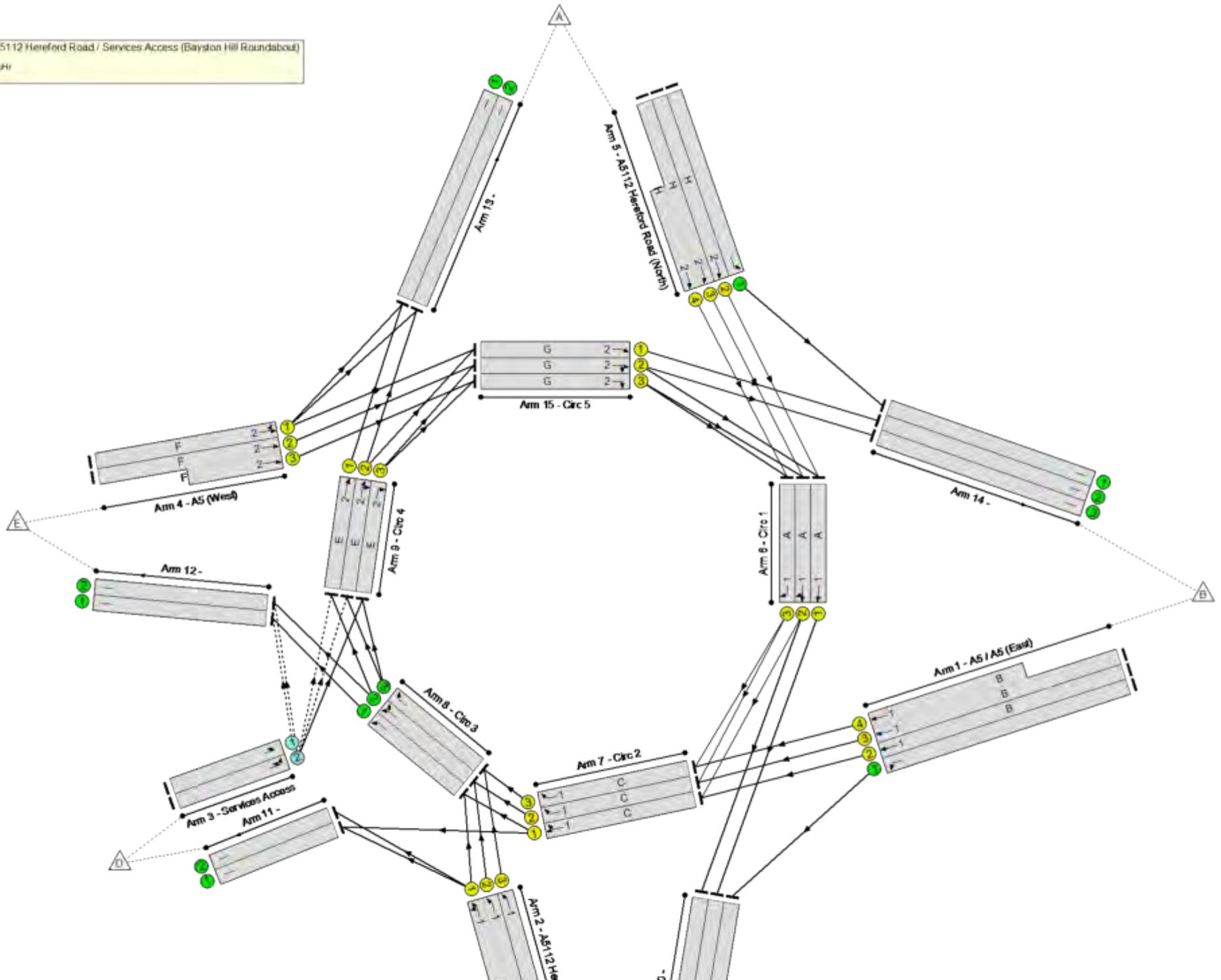
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)
PRC - 7.3 %
Total Traffic Delay 67.0 pcu/Hr



Full Input Data And Results

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	-	-		-	-	-	-	-	-	96.6%
A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)	-	-	N/A	-	-		-	-	-	-	-	-	96.6%
1/1	A5 / A5 (East) Left	U	N/A	N/A	-		-	-	-	391	1956	1858	21.0%
1/2	A5 / A5 (East) Ahead	U	1	N/A	B		1	24	-	669	1924	762	87.8%
1/3+1/4	A5 / A5 (East) Ahead	U	1	N/A	B		1	24	-	896	1895:1917	750+246	90.0 : 90.0%
2/2+2/1	A5112 Hereford Road (South) Ahead Left	U	1	N/A	D		1	20	-	714	1922:1930	520+566	65.8 : 65.8%
2/3	A5112 Hereford Road (South) Ahead	U	1	N/A	D		1	20	-	589	1902	632	93.1%
3/1	Services Access U-Turn	O	N/A	N/A	-		-	-	-	72	1665	632	11.4%
3/2	Services Access Left U-Turn	O	N/A	N/A	-		-	-	-	106	1741	267	39.7%
4/1	A5 (West) Left Ahead	U	2	N/A	F		1	30	-	901	1918	941	95.7%
4/2+4/3	A5 (West) Ahead	U	2	N/A	F		1	30	-	1017	1906:1979	867+186	96.6 : 96.6%
5/1	A5112 Hereford Road (North) Left	U	N/A	N/A	-		-	-	-	306	1960	1862	16.4%
5/2	A5112 Hereford Road (North) Ahead	U	2	N/A	H		1	11	-	214	1938	368	58.1%
5/3+5/4	A5112 Hereford Road (North) Ahead	U	2	N/A	H		1	11	-	348	1924:1902	366+165	65.7 : 65.7%
6/1	Circ 1 Ahead	U	1	N/A	A		1	25	-	235	1942	799	29.4%

Full Input Data And Results

6/2	Circ 1 Right Ahead	U	1	N/A	A		1	25	-	434	1957	806	53.9%
6/3	Circ 1 Right	U	1	N/A	A		1	25	-	108	1940	799	13.5%
7/1	Circ 2 Right Ahead	U	1	N/A	C		1	29	-	804	1991	946	85.0%
7/2	Circ 2 Right	U	1	N/A	C		1	29	-	781	1930	917	85.2%
7/3	Circ 2 Right	U	1	N/A	C		1	29	-	223	1954	928	24.0%
8/1	Circ 3 Ahead	U	N/A	N/A	-		-	-	-	964	1921	1825	52.8%
8/2	Circ 3 Right Ahead	U	N/A	N/A	-		-	-	-	1123	1970	1871	60.0%
8/3	Circ 3 Right	U	N/A	N/A	-		-	-	-	812	1966	1868	43.5%
9/1	Circ 4 Ahead	U	2	N/A	E		1	18	-	266	1898	571	46.6%
9/2	Circ 4 Ahead Right	U	2	N/A	E		1	18	-	552	1981	596	92.6%
9/3	Circ 4 Right	U	2	N/A	E		1	18	-	317	1974	594	53.4%
10/1		U	N/A	N/A	-		-	-	-	391	Inf	Inf	0.0%
10/2		U	N/A	N/A	-		-	-	-	235	Inf	Inf	0.0%
10/3		U	N/A	N/A	-		-	-	-	299	Inf	Inf	0.0%
11/1		U	N/A	N/A	-		-	-	-	190	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	22	Inf	Inf	0.0%
12/1		U	N/A	N/A	-		-	-	-	1036	Inf	Inf	0.0%
12/2		U	N/A	N/A	-		-	-	-	906	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	445	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	390	Inf	Inf	0.0%
14/1		U	N/A	N/A	-		-	-	-	306	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	884	Inf	Inf	0.0%
14/3		U	N/A	N/A	-		-	-	-	1119	Inf	Inf	0.0%
15/1	Circ 5 Ahead	U	2	N/A	G		1	38	-	884	1921	1186	74.5%
15/2	Circ 5 Right Ahead	U	2	N/A	G		1	38	-	1140	1944	1200	95.0%
15/3	Circ 5 Right	U	2	N/A	G		1	38	-	194	1982	1224	15.9%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	146	0	0	33.6	33.4	0.0	67.0	-	-	-	-
A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)	-	-	146	0	0	33.6	33.4	0.0	67.0	-	-	-	-
1/1	391	391	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
1/2	669	669	-	-	-	3.0	3.2	-	6.2	33.3	10.8	3.4	14.1
1/3+1/4	896	896	-	-	-	3.8	3.9	-	7.7	31.0	10.9	4.1	15.0
2/2+2/1	714	714	-	-	-	3.1	0.9	-	4.0	20.3	5.2	1.0	6.2
2/3	589	589	-	-	-	3.1	5.2	-	8.2	50.3	9.8	5.4	15.2
3/1	72	72	72	0	0	0.0	0.1	-	0.1	3.1	0.0	0.1	0.1
3/2	106	106	74	0	0	0.1	0.3	-	0.4	15.2	0.6	0.3	0.9
4/1	901	901	-	-	-	3.5	7.6	-	11.1	44.2	15.0	8.0	23.0
4/2+4/3	1017	1017	-	-	-	3.5	8.8	-	12.4	43.9	15.0	9.3	24.4
5/1	306	306	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
5/2	214	214	-	-	-	1.3	0.7	-	1.9	32.7	3.4	0.7	4.1
5/3+5/4	348	348	-	-	-	2.1	0.9	-	3.0	30.9	3.9	0.9	4.8
6/1	235	235	-	-	-	0.1	0.0	-	0.1	1.3	0.3	0.0	0.3
6/2	434	434	-	-	-	1.0	0.0	-	1.0	8.2	3.3	0.0	3.3
6/3	108	108	-	-	-	0.0	0.0	-	0.0	0.3	0.0	0.0	0.0
7/1	804	804	-	-	-	1.6	0.0	-	1.6	7.0	5.0	0.0	5.0
7/2	781	781	-	-	-	1.6	0.0	-	1.6	7.5	4.8	0.0	4.8
7/3	223	223	-	-	-	0.2	0.0	-	0.2	3.5	0.6	0.0	0.6
8/1	964	964	-	-	-	0.0	0.5	-	0.5	2.0	0.0	0.6	0.6
8/2	1123	1123	-	-	-	0.0	0.7	-	0.7	2.3	0.0	0.7	0.7
8/3	812	812	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4
9/1	266	266	-	-	-	0.3	0.0	-	0.3	3.7	2.7	0.0	2.7

Full Input Data And Results

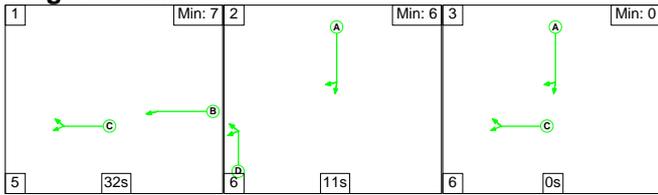
9/2	552	552	-	-	-	2.0	0.0	-	2.0	13.2	9.1	0.0	9.1																					
9/3	317	317	-	-	-	0.3	0.0	-	0.3	3.2	1.7	0.0	1.7																					
10/1	391	391	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
10/2	235	235	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
10/3	299	299	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
11/1	190	190	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
11/2	22	22	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
12/1	1036	1036	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
12/2	906	906	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
13/1	445	445	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
13/2	390	390	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
14/1	306	306	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
14/2	884	884	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
14/3	1119	1119	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
15/1	884	884	-	-	-	1.1	0.0	-	1.1	4.6	8.2	0.0	8.2																					
15/2	1140	1140	-	-	-	1.7	0.0	-	1.7	5.5	8.8	0.0	8.8																					
15/3	194	194	-	-	-	0.2	0.0	-	0.2	3.5	0.8	0.0	0.8																					
<table border="0" style="width: 100%;"> <tbody> <tr> <td style="width: 15%;">C1</td> <td style="width: 25%;">Stream: 1 PRC for Signalled Lanes (%):</td> <td style="width: 15%;">-3.5</td> <td style="width: 20%;">Total Delay for Signalled Lanes (pcuHr):</td> <td style="width: 15%;">30.66</td> <td style="width: 20%;">Cycle Time (s):</td> <td style="width: 5%;">60</td> </tr> <tr> <td>C1</td> <td>Stream: 2 PRC for Signalled Lanes (%):</td> <td>-7.3</td> <td>Total Delay for Signalled Lanes (pcuHr):</td> <td>34.03</td> <td>Cycle Time (s):</td> <td>60</td> </tr> <tr> <td></td> <td>PRC Over All Lanes (%):</td> <td>-7.3</td> <td>Total Delay Over All Lanes(pcuHr):</td> <td>67.03</td> <td></td> <td></td> </tr> </tbody> </table>														C1	Stream: 1 PRC for Signalled Lanes (%):	-3.5	Total Delay for Signalled Lanes (pcuHr):	30.66	Cycle Time (s):	60	C1	Stream: 2 PRC for Signalled Lanes (%):	-7.3	Total Delay for Signalled Lanes (pcuHr):	34.03	Cycle Time (s):	60		PRC Over All Lanes (%):	-7.3	Total Delay Over All Lanes(pcuHr):	67.03		
C1	Stream: 1 PRC for Signalled Lanes (%):	-3.5	Total Delay for Signalled Lanes (pcuHr):	30.66	Cycle Time (s):	60																												
C1	Stream: 2 PRC for Signalled Lanes (%):	-7.3	Total Delay for Signalled Lanes (pcuHr):	34.03	Cycle Time (s):	60																												
	PRC Over All Lanes (%):	-7.3	Total Delay Over All Lanes(pcuHr):	67.03																														

Full Input Data And Results

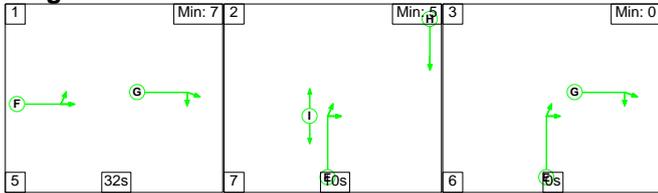
Scenario 12: '2021 Assessment PM' (FG8: '2021 Assessment PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

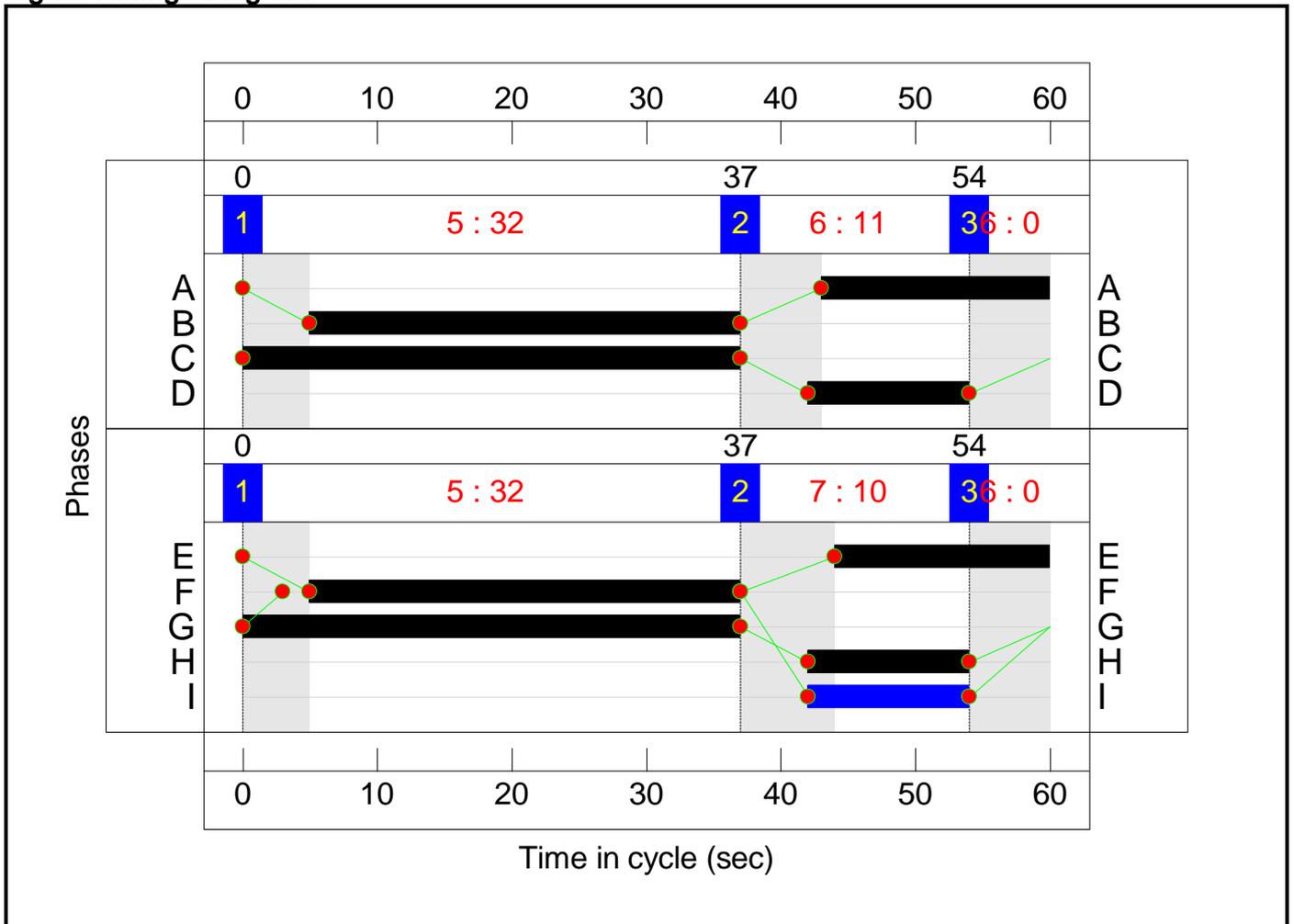
Stage Stream: 1

Stage	1	2	3
Duration	32	11	0
Change Point	0	37	54

Stage Stream: 2

Stage	1	2	3
Duration	32	10	0
Change Point	0	37	54

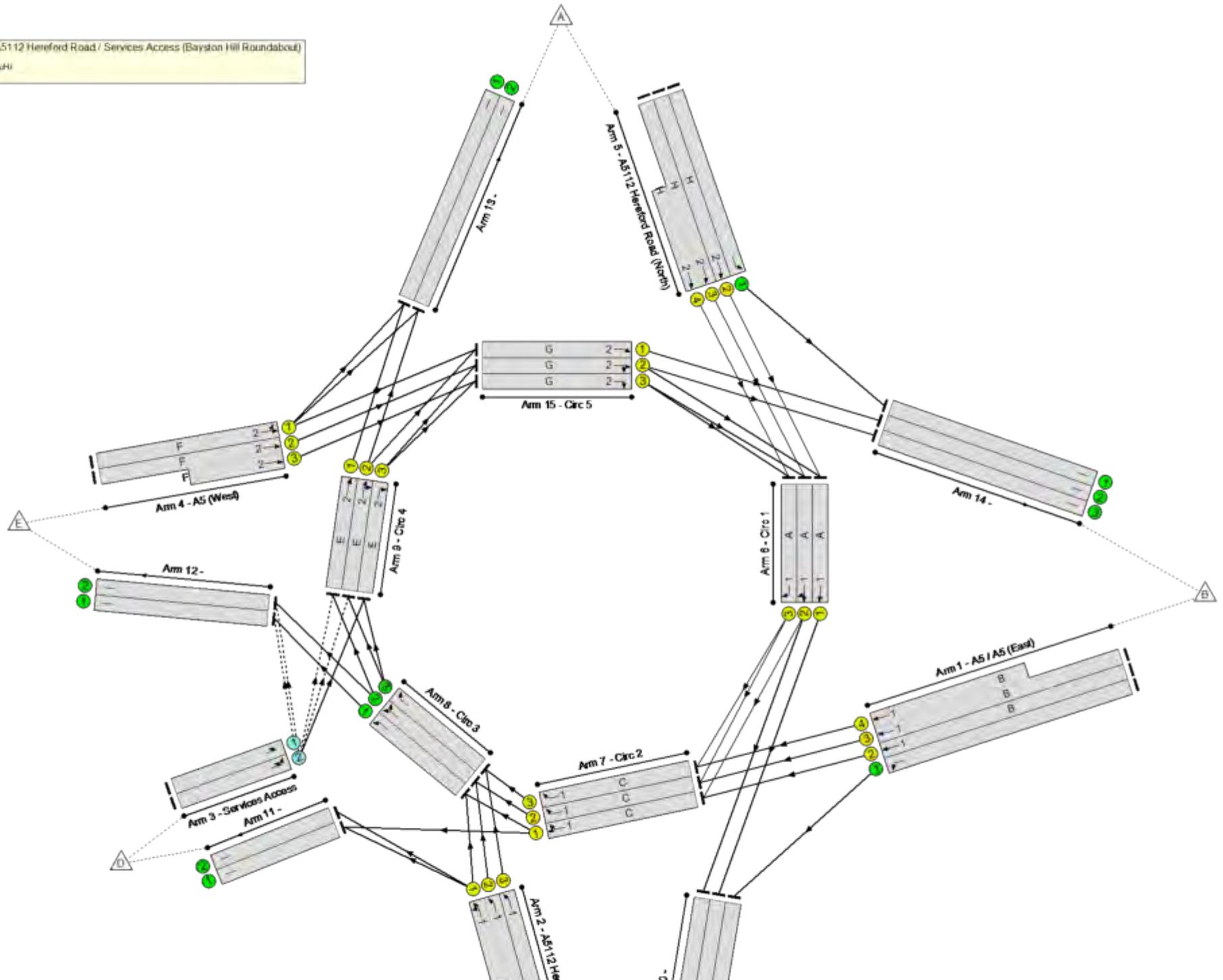
Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)
PRC: 3.8 %
Total Traffic Delay: 50.1 pcu/Hr



Full Input Data And Results

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	-	-		-	-	-	-	-	-	86.7%
A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)	-	-	N/A	-	-		-	-	-	-	-	-	86.7%
1/1	A5 / A5 (East) Left	U	N/A	N/A	-		-	-	-	534	1956	1956	27.3%
1/2	A5 / A5 (East) Ahead	U	1	N/A	B		1	32	-	849	1924	1058	80.2%
1/3+1/4	A5 / A5 (East) Ahead	U	1	N/A	B		1	32	-	1053	1895:1917	1042+249	81.6 : 81.6%
2/2+2/1	A5112 Hereford Road (South) Ahead Left	U	1	N/A	D		1	12	-	627	1922:1933	416+380	78.8 : 78.8%
2/3	A5112 Hereford Road (South) Ahead	U	1	N/A	D		1	12	-	322	1902	412	78.1%
3/1	Services Access U-Turn	O	N/A	N/A	-		-	-	-	71	1665	634	11.2%
3/2	Services Access Left U-Turn	O	N/A	N/A	-		-	-	-	103	1741	266	38.7%
4/1	A5 (West) Left Ahead	U	2	N/A	F		1	32	-	905	1918	1055	85.8%
4/2+4/3	A5 (West) Ahead	U	2	N/A	F		1	32	-	955	1906:1979	1011+90	86.7 : 86.7%
5/1	A5112 Hereford Road (North) Left	U	N/A	N/A	-		-	-	-	251	1960	1960	12.8%
5/2	A5112 Hereford Road (North) Ahead	U	2	N/A	H		1	12	-	321	1938	420	76.4%
5/3+5/4	A5112 Hereford Road (North) Ahead	U	2	N/A	H		1	12	-	519	1924:1902	417+203	83.7 : 83.7%
6/1	Circ 1 Ahead	U	1	N/A	A		1	17	-	404	1942	583	69.3%

Full Input Data And Results

6/2	Circ 1 Right Ahead	U	1	N/A	A		1	17	-	442	1957	587	75.3%
6/3	Circ 1 Right	U	1	N/A	A		1	17	-	170	1940	582	29.2%
7/1	Circ 2 Right Ahead	U	1	N/A	C		1	37	-	992	1988	1259	78.8%
7/2	Circ 2 Right	U	1	N/A	C		1	37	-	1018	1930	1222	83.3%
7/3	Circ 2 Right	U	1	N/A	C		1	37	-	205	1954	1238	16.6%
8/1	Circ 3 Ahead	U	N/A	N/A	-		-	-	-	1109	1921	1921	57.7%
8/2	Circ 3 Right Ahead	U	N/A	N/A	-		-	-	-	1346	1970	1970	68.3%
8/3	Circ 3 Right	U	N/A	N/A	-		-	-	-	527	1966	1966	26.8%
9/1	Circ 4 Ahead	U	2	N/A	E		1	16	-	359	1898	538	66.8%
9/2	Circ 4 Ahead Right	U	2	N/A	E		1	16	-	430	1981	561	76.6%
9/3	Circ 4 Right	U	2	N/A	E		1	16	-	135	1974	559	24.1%
10/1		U	N/A	N/A	-		-	-	-	534	Inf	Inf	0.0%
10/2		U	N/A	N/A	-		-	-	-	404	Inf	Inf	0.0%
10/3		U	N/A	N/A	-		-	-	-	299	Inf	Inf	0.0%
11/1		U	N/A	N/A	-		-	-	-	172	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	10	Inf	Inf	0.0%
12/1		U	N/A	N/A	-		-	-	-	1180	Inf	Inf	0.0%
12/2		U	N/A	N/A	-		-	-	-	1052	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	581	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	423	Inf	Inf	0.0%
14/1		U	N/A	N/A	-		-	-	-	251	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	690	Inf	Inf	0.0%
14/3		U	N/A	N/A	-		-	-	-	914	Inf	Inf	0.0%
15/1	Circ 5 Ahead	U	2	N/A	G		1	37	-	690	1921	1217	56.7%
15/2	Circ 5 Right Ahead	U	2	N/A	G		1	37	-	997	1944	1231	81.0%
15/3	Circ 5 Right	U	2	N/A	G		1	37	-	93	1982	1255	7.4%

Full Input Data And Results

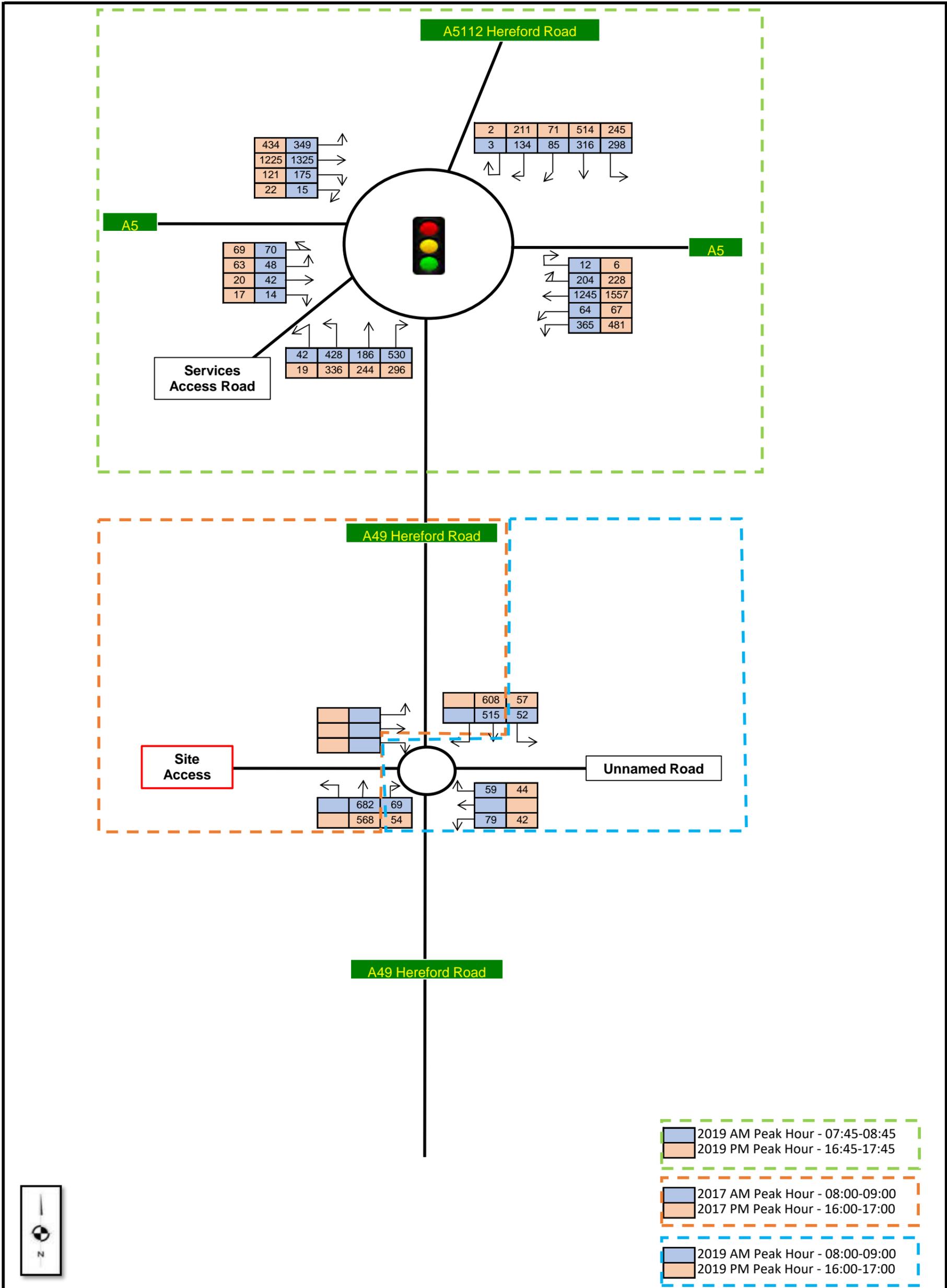
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	152	0	0	29.8	20.3	0.0	50.1	-	-	-	-
A5 / A49 Hereford Road / A5112 Hereford Road / Services Access (Bayston Hill Roundabout)	-	-	152	0	0	29.8	20.3	0.0	50.1	-	-	-	-
1/1	534	534	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
1/2	849	849	-	-	-	2.6	2.0	-	4.6	19.3	11.3	2.0	13.3
1/3+1/4	1053	1053	-	-	-	3.0	2.2	-	5.2	17.6	11.3	2.2	13.5
2/2+2/1	627	627	-	-	-	3.8	1.8	-	5.6	32.4	5.1	1.8	6.9
2/3	322	322	-	-	-	2.0	1.7	-	3.7	41.4	5.0	1.7	6.7
3/1	71	71	71	0	0	0.0	0.1	-	0.1	3.2	0.0	0.1	0.1
3/2	103	103	81	0	0	0.2	0.3	-	0.5	17.2	0.8	0.3	1.1
4/1	905	905	-	-	-	2.9	2.9	-	5.8	23.1	12.8	2.9	15.7
4/2+4/3	955	955	-	-	-	2.9	3.1	-	6.0	22.7	12.5	3.1	15.7
5/1	251	251	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
5/2	321	321	-	-	-	2.0	1.6	-	3.5	39.7	5.0	1.6	6.6
5/3+5/4	519	519	-	-	-	3.1	2.5	-	5.6	38.8	5.5	2.5	8.0
6/1	404	404	-	-	-	0.5	0.0	-	0.5	4.9	1.6	0.0	1.6
6/2	442	442	-	-	-	0.8	0.0	-	0.8	6.7	1.8	0.0	1.8
6/3	170	170	-	-	-	0.0	0.0	-	0.0	0.9	0.1	0.0	0.1
7/1	992	992	-	-	-	0.9	0.0	-	0.9	3.2	4.1	0.0	4.1
7/2	1018	1018	-	-	-	1.0	0.0	-	1.0	3.4	4.7	0.0	4.7
7/3	205	205	-	-	-	0.1	0.0	-	0.1	2.4	0.5	0.0	0.5
8/1	1109	1109	-	-	-	0.0	0.7	-	0.7	2.2	0.0	0.7	0.7
8/2	1346	1346	-	-	-	0.0	1.1	-	1.1	2.9	0.0	1.1	1.1
8/3	527	527	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
9/1	359	359	-	-	-	0.7	0.0	-	0.7	6.8	1.6	0.0	1.6

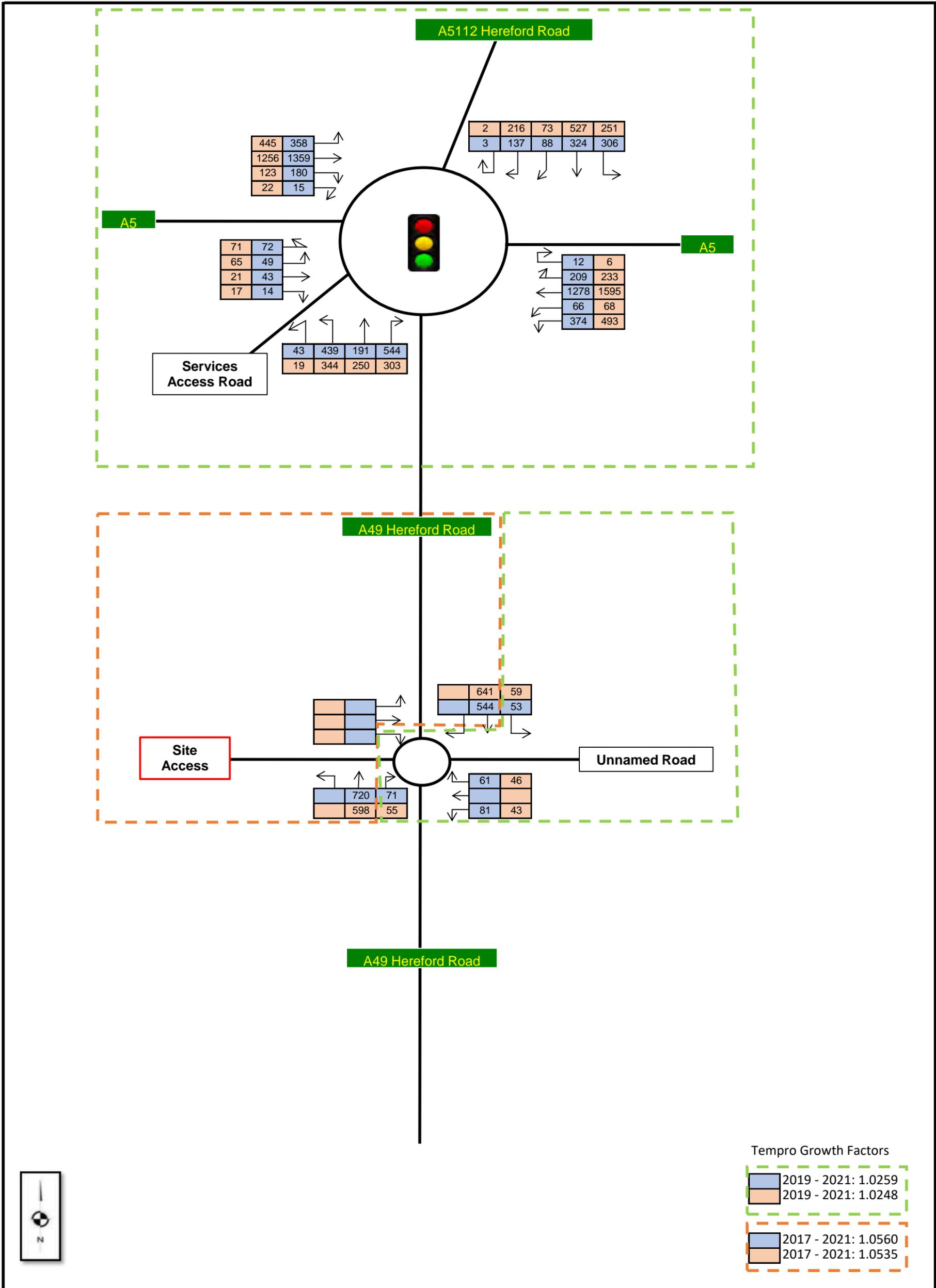
Full Input Data And Results

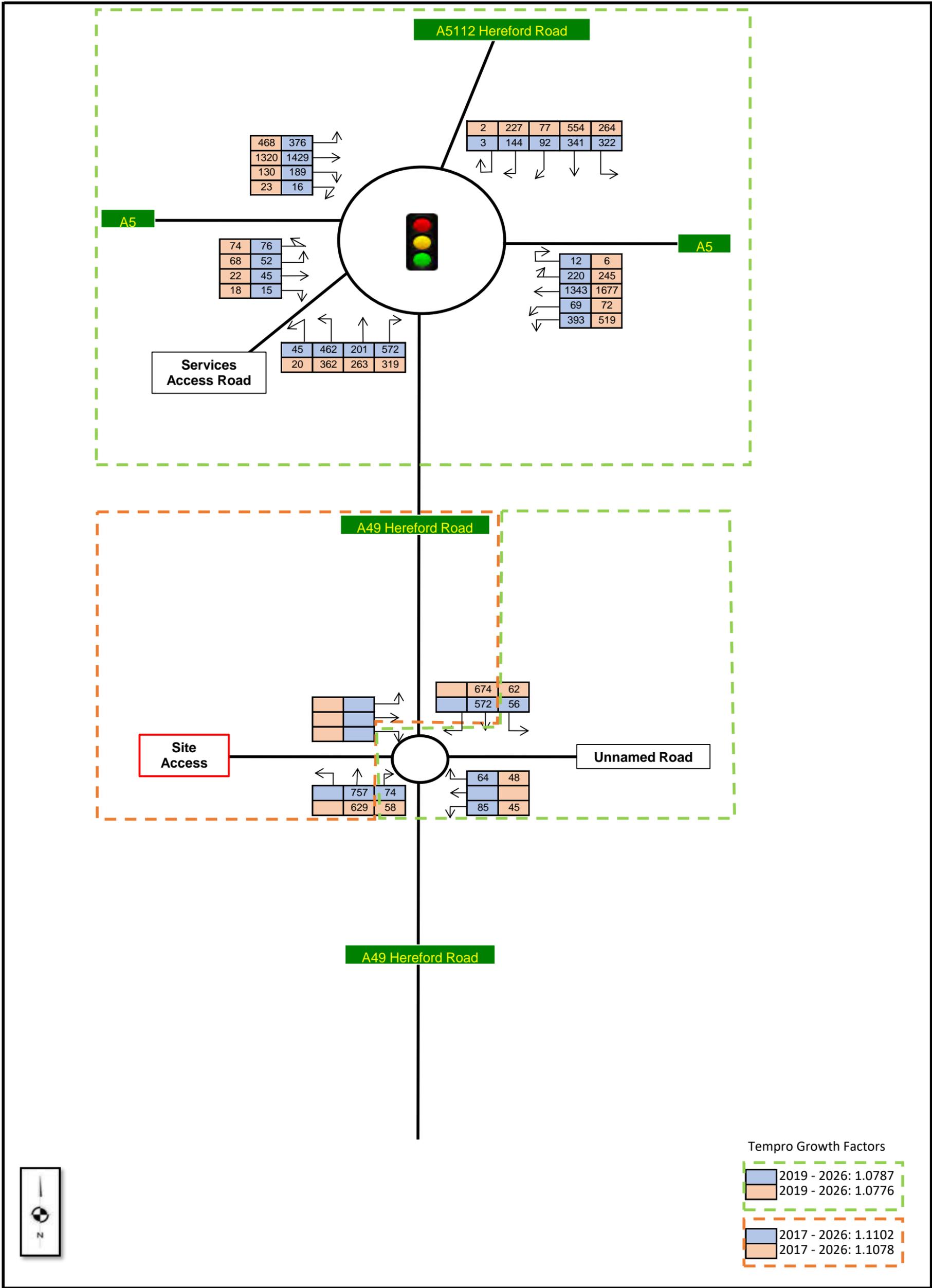
9/2	430	430	-	-	-	1.5	0.0	-	1.5	12.7	4.6	0.0	4.6	
9/3	135	135	-	-	-	0.2	0.0	-	0.2	5.5	0.4	0.0	0.4	
10/1	534	534	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
10/2	404	404	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
10/3	299	299	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
11/1	172	172	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
11/2	10	10	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
12/1	1180	1180	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
12/2	1052	1052	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
13/1	581	581	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
13/2	423	423	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
14/1	251	251	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
14/2	690	690	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
14/3	914	914	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
15/1	690	690	-	-	-	0.6	0.0	-	0.6	3.2	4.6	0.0	4.6	
15/2	997	997	-	-	-	0.9	0.0	-	0.9	3.1	3.9	0.0	3.9	
15/3	93	93	-	-	-	0.1	0.0	-	0.1	3.1	0.4	0.0	0.4	
C1 Stream: 1 PRC for Signalled Lanes (%)			8.1			Total Delay for Signalled Lanes (pcuHr):			22.45			Cycle Time (s): 60		
C1 Stream: 2 PRC for Signalled Lanes (%)			3.8			Total Delay for Signalled Lanes (pcuHr):			24.91			Cycle Time (s): 60		
PRC Over All Lanes (%)			3.8			Total Delay Over All Lanes(pcuHr):			50.11					

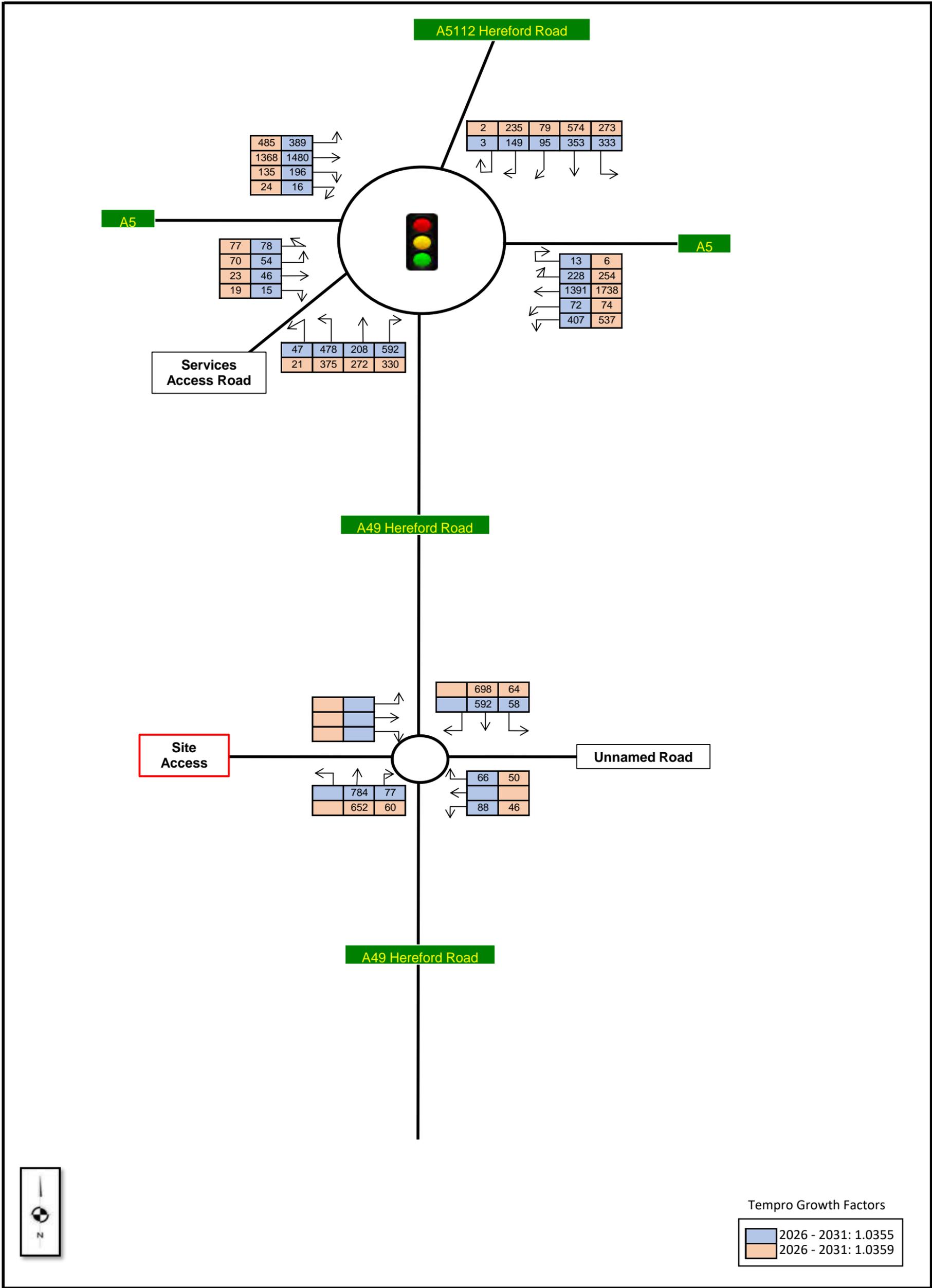
S|C|P

TRAFFIC FLOW FIGURES









Base 2031 Traffic Flows
Proposed Allocation of Land, A49 Hereford Road,
Bayston Hill, Shropshire

11 January 2021
 Job Number - SCP/200728
Traffic Figure 6

