

## **23089-02b Transport Assessment PART 2**

## **Appendix D**



**meraki alliance**

Highways, Transportation & Safety Consulting

Pamington Ashchurch

# Road Safety Audit: Stage 1

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**meraki alliance**

Highways, Transportation & Safety Consulting

Pamington Ashchurch  
**Road Safety Audit: Stage 1**

Report Produced for:	Gloucestershire County Council
Report Produced by:	Jonathan Birkett
Report Dated:	14 November 2023
Report Reference:	MAL/PARSA1Rev0
Road Safety Audit Team Leader:	Jonathan Birkett

## Pamington Ashchurch

# Road Safety Audit: Stage 1

### Contents Amendment Record

This report has been issued & amended as follows:

Issue	Revision	Description	Date	Signed
1	0	Draft Report	13 Nov 2023	JB
1	0	FINAL REPORT	14 Nov 2023	JB/GK

### Report Circulation Record

This report has been circulated, as follows:

Person	Organisation	No. of Copies	Date
	Gloucestershire County Council	Electronic	14 Nov 2023
Simon Tucker	DTA	Electronic	14 Nov 2023
Gillian Kidd	Meraki Alliance Ltd	Electronic	14 Nov 2023

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# 1 Introduction

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## 1.1 General

This report has been prepared in response to a request to undertake a Stage 1 Road Safety Audit (i.e., carried out prior to detailed design), by Simon Tucker (DTA) on behalf of the Overseeing Organisation Gloucestershire County Council. The scheme submitted for Audit is the new development on land to the south of Pamington. The development will be accessed from the B4079 which is controlled by a 40mph speed limit.

The scope of the works included within this Road Safety Audit are:

- New site access junction from the B4079.
- New pedestrian/cycle route between the site and Pamington.

### Overseeing Organisation

Gloucestershire County Council.

### Client

Greystoke Land.

### Design Organisation

DTA.

The audit comprised an examination of documents forming the Audit Brief and an examination of the site.

## 1.2 Documents Forming the Brief

The documents were made available to the Road Safety Audit Team by Simon Tucker (DTA) on behalf of the Overseeing Organisation Gloucestershire County Council. The total documents forming the Audit Brief are listed in Appendix 1:

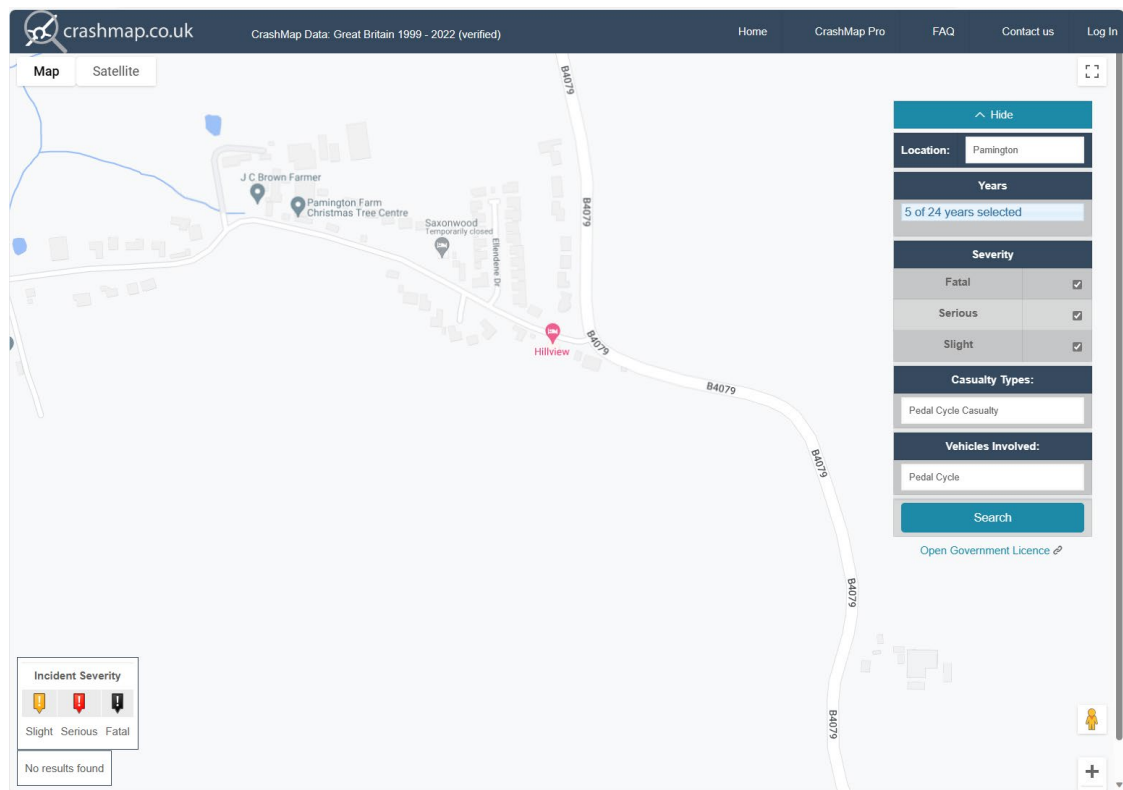
Generally, the Brief comprised:

- Brief.
- Drawings.

## 1.3 Collision Traffic and Speed Data

Collision data was not provided as part of the brief. Personal injury collision data has been obtained from Crashmap for the most recent five years of data available 2018-2022.

During this time there has been no personal injury collisions on the roads affected by the works associated with this scheme.



Detailed traffic data was not available.

Speed data was provided:

ATC Southbound 85<sup>th</sup>tile 40.2mph.

ATC Northbound 85<sup>th</sup>tile 40.7mph.

## 1.4 Details of Site Visit

A site inspection was undertaken on Sunday 12 November 2023 between 08:00 and 09:00 understanding the proposed works and their interaction with the local road network.

During the site visit the weather it was fine, but the road surface was damp. No incidents were observed during the site visit.

## 1.5 RSA Team and Format

It was considered that the information provided was sufficient for the purpose of carrying out the Road Safety Audit Stage 1 requested.

The Road Safety Audit Team membership approved was:

JONATHAN BIRKETT IENG MICE FIHE

Holder of Certificate of Competency

Road Safety Audit Team Leader



G KIDD BSC (HONS) MIHE  
Road Safety Audit Team Member

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

The Terms of Reference are as described in the National Highways 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.

It is the Project Sponsor's responsibility to ensure that all problems raised by the Road Safety Audit Team are given due consideration.

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 RSA Team.

## **1.7 Items Outside the Scope of the Road Safety Audit**

No items identified outside the scope of the RSA.

## 2 Items Raised at Stage 1 Road Safety Audit

This section details the findings of this Stage 1 Road Safety Audit. All locations of identified problems are illustrated on the plans within sections 2.2 and 2.4 below.

### 2.1 RSA Problems Site Access Junction DWG No 23089-05

PROBLEM		1-1
Location:	Site access B4079.	
Summary:	Obstructed visibility will increase the risk of failure to give way type collisions.	
<p>It is proposed to construct a site access junction off the B4079. Details of visibility splays have been provided to the RSA for vehicles exiting the site which are acceptable based on the speed of traffic measured on the B4079. The Audit Team were however concerned about the visibility to/from a right turn vehicle into the site from the B4079. A vehicle waiting to turn right may well have their visibility to an approaching vehicle (northbound) obstructed by the hedge located along the eastern side of the B4079.</p> <p>Obstructed visibility will increase the risk of failure to give way type collisions.</p>		
RECOMMENDATION		
Ensure that 103.9m of forward visibility is provided between approaching northbound vehicles and vehicles waiting to turn right into the site access junction.		

PROBLEM		1-2
Location:	Site access B4079.	
Summary:	A lack of suitable cycle/footway facilities and uncontrolled crossings will increase the both the risk of trips and falls as well as non-motorised user/vehicle collisions.	
<p>It is proposed as part of the site access junction works to construct a 2m footway and a 3m cycle/footway. The Audit Team were concerned that these do not link into any facilities along the B4079 and as such promoting pedestrian or cycle usage at this location could be considered unsafe.</p> <p>There are a number of issues identified.</p> <ol style="list-style-type: none"> <li>1. The footway/cycleway does not link into any existing facilities on the B4079.</li> <li>2. There are no means by which cyclists will rejoin the carriageway northbound onto the B4079.</li> </ol>		

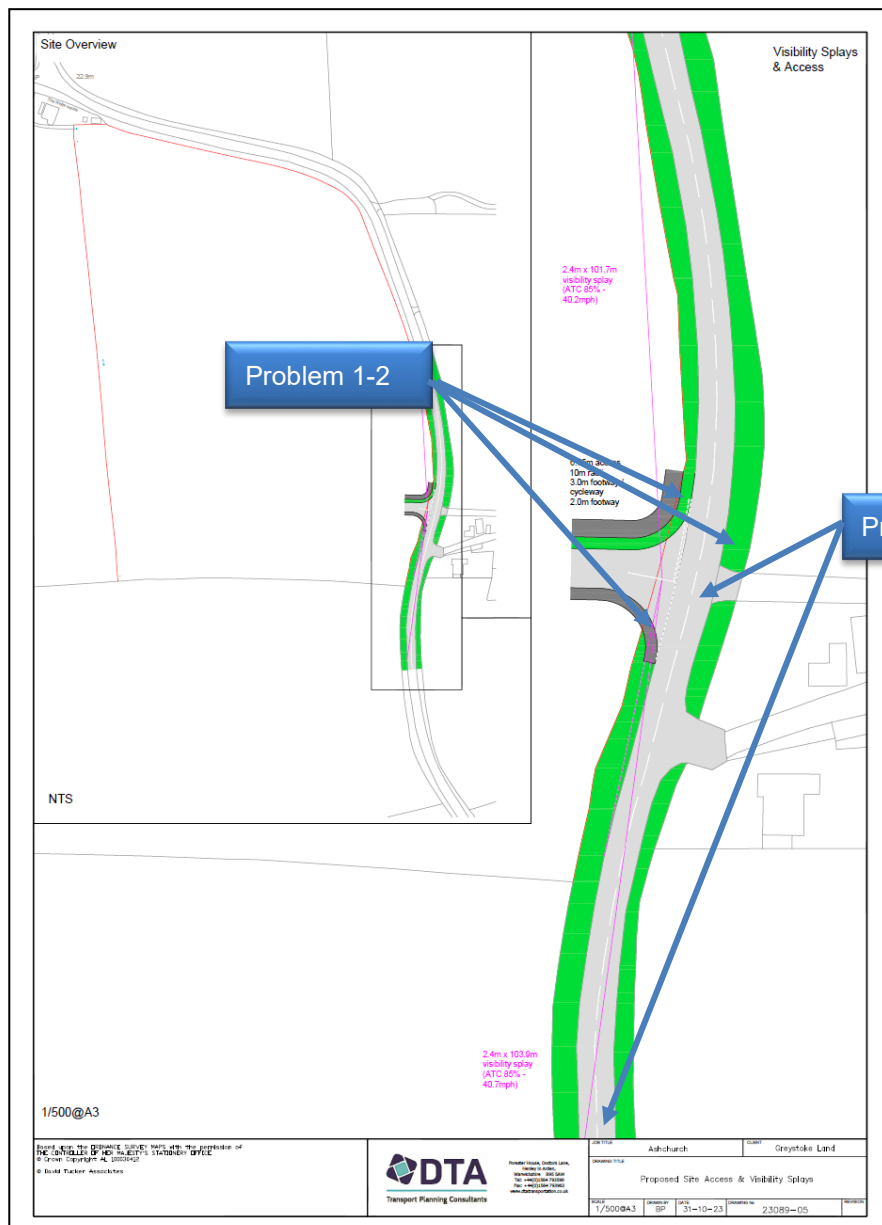
- There is no uncontrolled dropped crossing of the B4079 for pedestrians to access the footpath on the eastern side of the B4079.

A lack of suitable cycle/pedestrian facilities will increase the risk of trips and falls as well as non-motorised users collisions with vehicles.

### RECOMMENDATION

The Audit Team recommend that the provision for non-motorised users at the site access is carefully considered at detailed design.

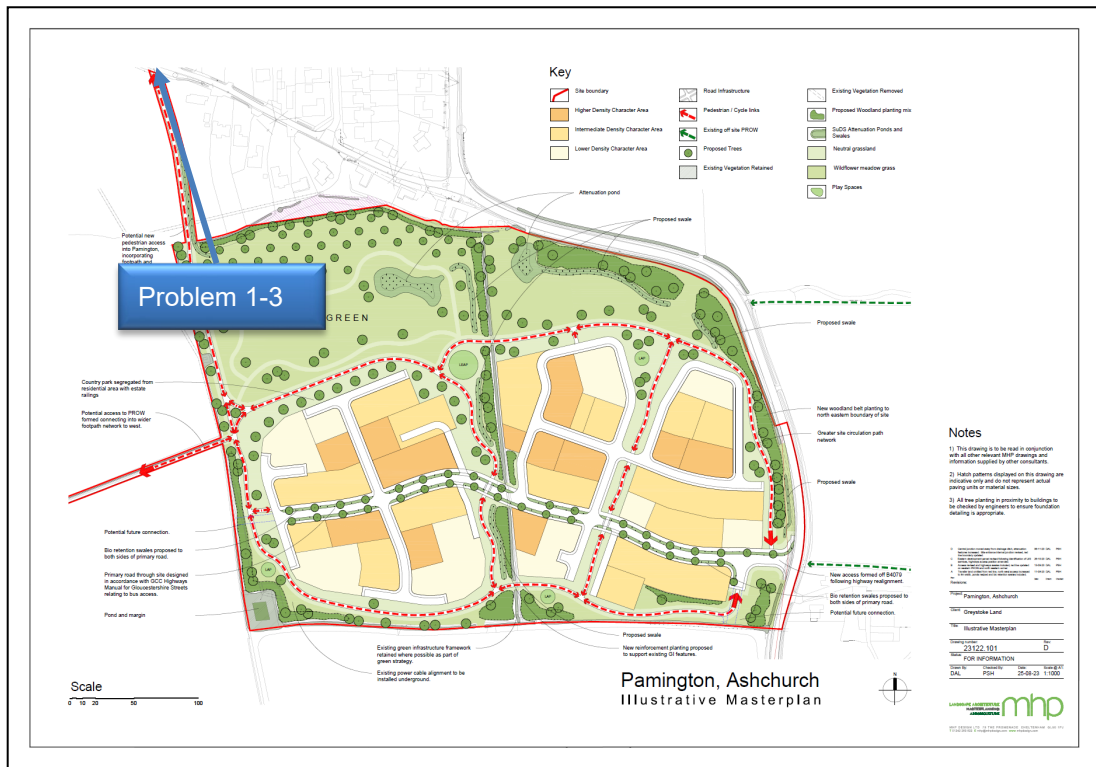
## 2.2 RSA Problem Location Plan Site Access Junction DWG No 23089-05



## 2.3 RSA Problems NMU Link DWG 23122.101 Rev D

PROBLEM		1-3
Location:	NMU link to Pamington.	
Summary:	Unprotected drops and obstructed visibility will increase the risk of NMU falls as well as NMU/vehicle collisions.	
<p>It is proposed to construct an NMU route between the northwestern point of the site and the local access road serving Pamington. The route will emerge onto the local access road roughly 250m west of its junction with the B4079. During the site visit two issues were identified.</p> <ol style="list-style-type: none"> <li>1. That there is significant vegetation and trees within the verge area that may block NMU/vehicle intervisibility.</li> <li>2. The route will cross a drainage ditch.</li> </ol> <p>Unprotected drops and obstructed visibility will increase the risk of NMU falls as well as NMU/vehicle collisions.</p>		
RECOMMENDATION		
<p>At detailed design carefully consider the route and where necessary cut back vegetation and provide a safe route over the ditch.</p>		

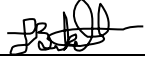

## 2.4 RSA Problem Location Plan NMU Link DWG 23122.101 Rev D



**END OF PROBLEMS IDENTIFIED AND RECOMMENDATIONS PRESENTED IN THIS  
STAGE 1 ROAD SAFETY AUDIT**

### 3 Audit Team Statement

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We certify that this Road Safety Audit has been carried out in accordance with GG119	
ROAD SAFETY AUDIT TEAM LEADER	
NAME:	JONATHAN BIRKETT
SIGNED:	
POSITION:	DIRECTOR
ORGANISATION	MERAKI ALLIANCE LTD
DATE:	14 NOVEMBER 2023
ROAD SAFETY AUDIT TEAM MEMBER	
NAME:	GILLIAN KIDD
SIGNED:	
POSITION:	AUDIT TEAM MEMBER
ORGANISATION	MERAKI ALLIANCE LTD
DATE:	14 NOVEMBER 2023

# Appendix 1 – Audited Documents

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23089-05

23122.101 ILLUSTRATIVE MASTERPLAN REV D

## **Appendix E**



# **Land off B4079, Pamington**

Proposed Site Access

*Road Safety Audit Response Report*



**F1 Project details**

Table F.1 Project Details

<b>Report title:</b>	Land off B4079, Pamington
<b>Date:</b>	29 <sup>th</sup> November 2023
<b>Document Reference and revision:</b>	23089-04
<b>Prepared by:</b>	DTA Transportation
<b>On behalf of:</b>	Gloucestershire County Council

Table F.2 Authorisation Sheet

<b>Project:</b>	Land off B4079, Pamington, Proposed Site access
<b>Report title:</b>	Road Safety Audit Response Report (RSA1)
<b>Prepared by:</b>	
Name:	Nichola Sanderson
Position:	Transport Consultant
Signed	
Organisation:	DTA Transportation
Date:	29 <sup>th</sup> November 2023
<b>Approved by:</b>	
Name:	
Position:	
Signed	
Organisation:	
Date:	

**F2 Introduction**

This report sets out the design organisation response to problems raised in the Stage 1 Road Safety Audit carried out by Meraki Alliance (reference MAL/PARSA1Rev0, 14<sup>th</sup> November 2023).

This audit formally considered the proposed access general arrangements.

The audit has been divided into location specific problems. For ease, the responses below use the same references as the received audit. The received audit is attached as **Appendix A**.



**F3 Key personnel**

Table F.3 Key personnel

<p><b>Overseeing Organisation:</b></p>	<p><u>Gloucestershire County Council</u> Highways Gloucestershire Block 5, Floor 5 Shire Hall Gloucester GL1 2TG</p>
<p><b>RSA Team:</b></p>	<p>Jonathan Birkett – Audit Team Leader Gillian Kidd – Audit Team Member Meraki Alliance Ltd Unit 1 Waterside Old Boston Road Wetherby LS22 5NB</p>
<p><b>Design organisation:</b></p>	<p><u>DTA Transportation</u> Nichola Sanderson (ns@dtatransportation.co.uk) Forester House, Doctors Lane, Henley in Arden, Warwickshire B95 5AW T: 01564 793598</p>



**F4 Road Safety Audit Decision Log**

Table F.4 Road Safety Audit decision log

RSA Problem	RSA recommendation	Design organisation response	Overseeing Organisation response	Agreed RSA action
<p>Problem: 1-1</p> <p>Location: Site Access B4079</p> <p>Summary: Obstructed visibility will increase the risk of failure to give way type collisions.</p> <p>It is proposed to construct a site access junction off the B4079. Details of visibility splays have been provided to the RSA for vehicles exiting the site which are acceptable based on the speed of traffic measured on the B4079. The Audit Team were however concerned about the visibility to/from a right turn vehicle into the site from the B4079. A vehicle waiting to turn right may well have their visibility to an approaching vehicle (northbound) obstructed by the hedge located along the eastern side of the B4079.</p> <p>Obstructed visibility will increase the risk of failure to give way type collisions.</p>	<p>Ensure that 103.9m of forward visibility is provided between approaching northbound vehicles and vehicles waiting to turn right into the site access junction.</p>	<p>The problem and recommendation are accepted.</p> <p>The site access drawing has been updated to provide 103.9m forward visibility between the approaching northbound vehicles and vehicles waiting to turn right into the site access junction. This is shown on <b>Drawing 23089-05a</b>.</p>		

**Land off B4079, Pamington**

Road Safety Audit Response Report



<p>Problem: 1-2</p> <p>Location: Site Access B4079</p> <p>Summary: A lack of suitable cycle/footway facilities and uncontrolled crossings will increase the both the risk of trips and falls as well as non-motorised user/vehicle collisions.</p> <p>It is proposed as part of the site access junction works to construct a 2m footway and a 3m cycle/footway. The Audit Team were concerned that these do not link into any facilities along the B4079 and as such promoting pedestrian or cycle usage at this location could be considered unsafe.</p> <p>There are a number of issues identified.</p> <ol style="list-style-type: none"> <li>1. The footway/cycleway does not link into any existing facilities on the B4079.</li> <li>2. There are no means by which cyclists will rejoin the carriageway northbound onto the B4079.</li> <li>3. There is no uncontrolled dropped crossing of the B4079 for pedestrians to access the footpath on the eastern side of the B4079.</li> </ol> <p>A lack of suitable cycle/pedestrian facilities will increase the risk of trips</p>	<p>The Audit Team recommend that the provision for non-motorised users at the site access is carefully considered at detailed design.</p>	<p>The problem and recommendation are accepted.</p> <p>The site access drawing has been updated to extend the proposed cycle/ footway to join with the carriageway of the B4079. A give-way marking has been provided for cyclists to rejoin the carriageway. This is shown on <b>Drawing 23089-05a</b>.</p> <p>There is no footpath on the eastern side of the B4079.</p>		
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**Land off B4079, Pamington**

Road Safety Audit Response Report

and falls as well as non-motorised users collisions with vehicles.				
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**F5 Design organisation and Overseeing Organisation statements**

Table F.5 Design organisation statement

On behalf of the design organisation I certify that:	
1) The RSA actions and other matters identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the Overseeing Organisation; or	<input type="checkbox"/>
2) The RSA actions and other matters identified in response to the road safety audit problems in this road safety audit cannot be agreed and I wish to proceed to an exception report	<input type="checkbox"/>
Name:	Nichola Sanderson
Signed:	
Position:	Transport Consultant
Organisation:	DTA Transportation
Date:	29 <sup>th</sup> November 2023

Table D.5 Overseeing Organisation statement

On behalf of the Overseeing Organisation I certify that:	
1) The RSA actions and other matters identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the design organisation and will be progressed; or	<input type="checkbox"/>
2) The RSA actions and other matters identified in response to the road safety audit problems in this road safety audit cannot be agreed and I wish to proceed to an exception report	<input type="checkbox"/>
Name:	
Signed:	
Position:	
Organisation:	
Date:	

**Appendix A**  
Safety Audit





**meraki alliance**

Highways, Transportation & Safety Consulting

Pamington Ashchurch

# Road Safety Audit: Stage 1

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**Road Safety Audit: Stage 1**

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Road Safety Audit Team Leader:	Jonathan Birkett

## Pamington Ashchurch

# Road Safety Audit: Stage 1

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# 1 Introduction

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## 1.1 General

This report has been prepared in response to a request to undertake a Stage 1 Road Safety Audit (i.e., carried out prior to detailed design), by Simon Tucker (DTA) on behalf of the Overseeing Organisation Gloucestershire County Council. The scheme submitted for Audit is the new development on land to the south of Pamington. The development will be accessed from the B4079 which is controlled by a 40mph speed limit.

The scope of the works included within this Road Safety Audit are:

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### Design Organisation

DTA.

The audit comprised an examination of documents forming the Audit Brief and an examination of the site.

## 1.2 Documents Forming the Brief

The documents were made available to the Road Safety Audit Team by Simon Tucker (DTA) on behalf of the Overseeing Organisation Gloucestershire County Council. The total documents forming the Audit Brief are listed in Appendix 1:

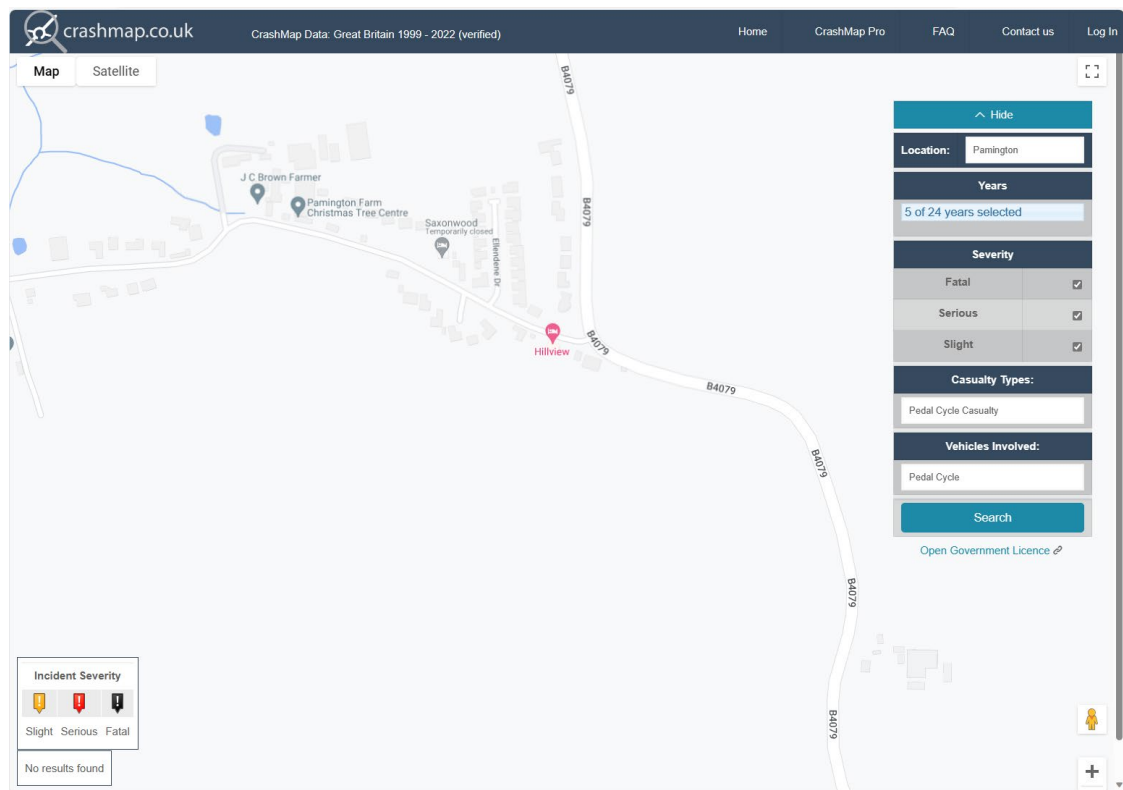
Generally, the Brief comprised:

- Brief.
- Drawings.

## 1.3 Collision Traffic and Speed Data

Collision data was not provided as part of the brief. Personal injury collision data has been obtained from Crashmap for the most recent five years of data available 2018-2022.

During this time there has been no personal injury collisions on the roads affected by the works associated with this scheme.



Detailed traffic data was not available.

Speed data was provided:

ATC Southbound 85<sup>th</sup>tile 40.2mph.

ATC Northbound 85<sup>th</sup>tile 40.7mph.

## 1.4 Details of Site Visit

A site inspection was undertaken on Sunday 12 November 2023 between 08:00 and 09:00 understanding the proposed works and their interaction with the local road network.

During the site visit the weather it was fine, but the road surface was damp. No incidents were observed during the site visit.

## 1.5 RSA Team and Format

It was considered that the information provided was sufficient for the purpose of carrying out the Road Safety Audit Stage 1 requested.

The Road Safety Audit Team membership approved was:

JONATHAN BIRKETT IENG MICE FIHE

Holder of Certificate of Competency

Road Safety Audit Team Leader

G KIDD BSC (HONS) MIHE  
Road Safety Audit Team Member

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

The Terms of Reference are as described in the National Highways 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.

It is the Project Sponsor's responsibility to ensure that all problems raised by the Road Safety Audit Team are given due consideration.

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 RSA Team.

## **1.7 Items Outside the Scope of the Road Safety Audit**

No items identified outside the scope of the RSA.

## 2 Items Raised at Stage 1 Road Safety Audit

This section details the findings of this Stage 1 Road Safety Audit. All locations of identified problems are illustrated on the plans within sections 2.2 and 2.4 below.

### 2.1 RSA Problems Site Access Junction DWG No 23089-05

PROBLEM		1-1
Location:	Site access B4079.	
Summary:	Obstructed visibility will increase the risk of failure to give way type collisions.	
<p>It is proposed to construct a site access junction off the B4079. Details of visibility splays have been provided to the RSA for vehicles exiting the site which are acceptable based on the speed of traffic measured on the B4079. The Audit Team were however concerned about the visibility to/from a right turn vehicle into the site from the B4079. A vehicle waiting to turn right may well have their visibility to an approaching vehicle (northbound) obstructed by the hedge located along the eastern side of the B4079.</p> <p>Obstructed visibility will increase the risk of failure to give way type collisions.</p>		
RECOMMENDATION		
Ensure that 103.9m of forward visibility is provided between approaching northbound vehicles and vehicles waiting to turn right into the site access junction.		

PROBLEM		1-2
Location:	Site access B4079.	
Summary:	A lack of suitable cycle/footway facilities and uncontrolled crossings will increase the both the risk of trips and falls as well as non-motorised user/vehicle collisions.	
<p>It is proposed as part of the site access junction works to construct a 2m footway and a 3m cycle/footway. The Audit Team were concerned that these do not link into any facilities along the B4079 and as such promoting pedestrian or cycle usage at this location could be considered unsafe.</p> <p>There are a number of issues identified.</p> <ol style="list-style-type: none"> <li>1. The footway/cycleway does not link into any existing facilities on the B4079.</li> <li>2. There are no means by which cyclists will rejoin the carriageway northbound onto the B4079.</li> </ol>		



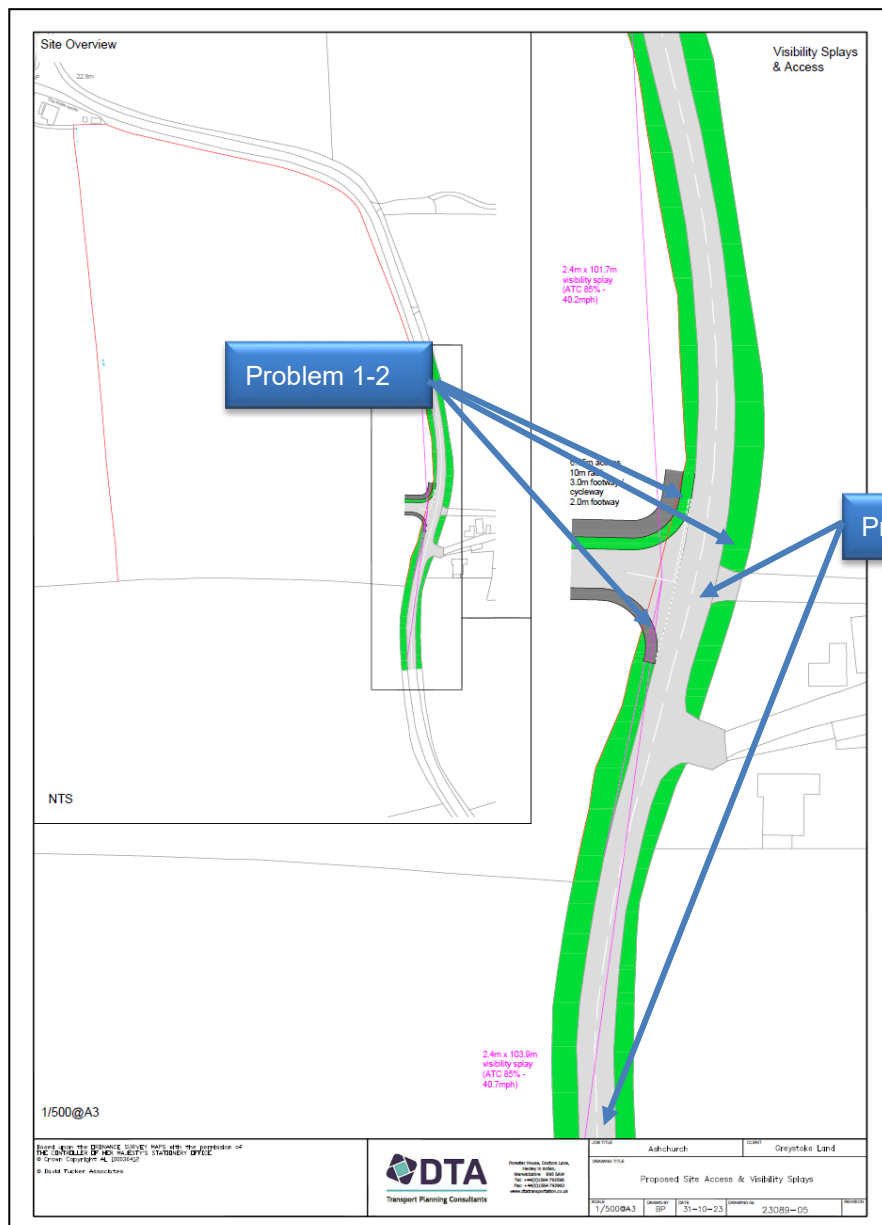
- There is no uncontrolled dropped crossing of the B4079 for pedestrians to access the footpath on the eastern side of the B4079.

A lack of suitable cycle/pedestrian facilities will increase the risk of trips and falls as well as non-motorised users collisions with vehicles.

### RECOMMENDATION

The Audit Team recommend that the provision for non-motorised users at the site access is carefully considered at detailed design.

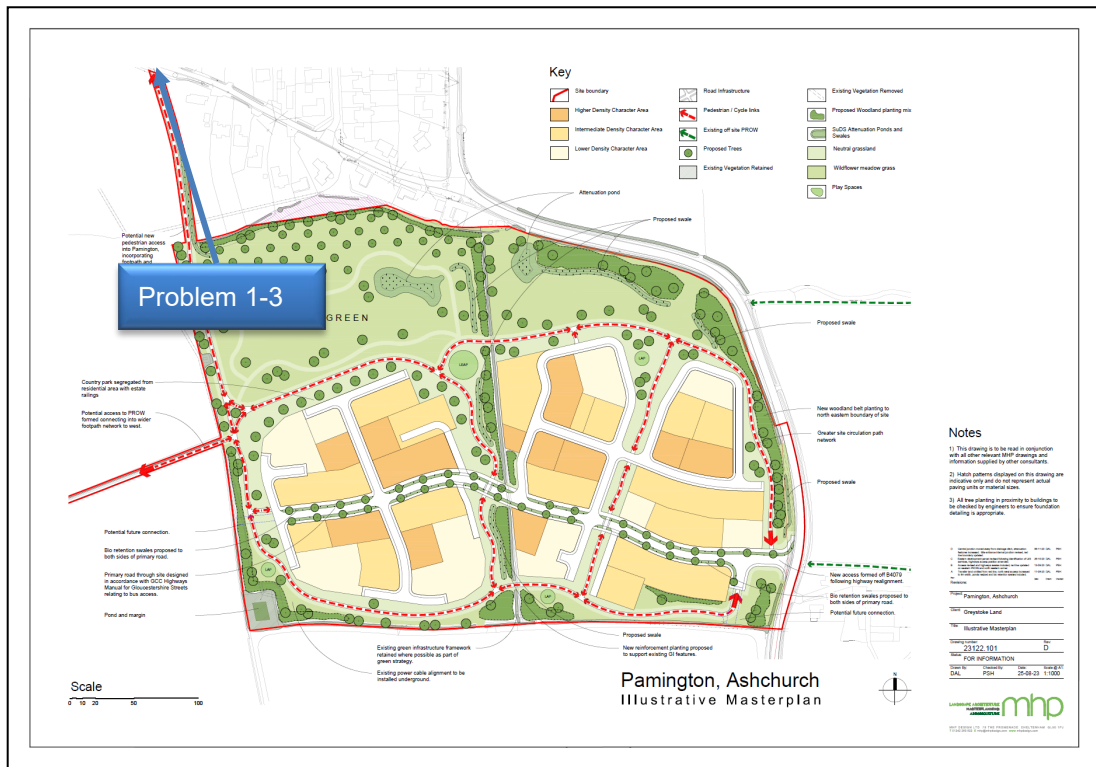
## 2.2 RSA Problem Location Plan Site Access Junction DWG No 23089-05



## 2.3 RSA Problems NMU Link DWG 23122.101 Rev D

PROBLEM		1-3
Location:	NMU link to Pamington.	
Summary:	Unprotected drops and obstructed visibility will increase the risk of NMU falls as well as NMU/vehicle collisions.	
<p>It is proposed to construct an NMU route between the northwestern point of the site and the local access road serving Pamington. The route will emerge onto the local access road roughly 250m west of its junction with the B4079. During the site visit two issues were identified.</p> <ol style="list-style-type: none"> <li>1. That there is significant vegetation and trees within the verge area that may block NMU/vehicle intervisibility.</li> <li>2. The route will cross a drainage ditch.</li> </ol> <p>Unprotected drops and obstructed visibility will increase the risk of NMU falls as well as NMU/vehicle collisions.</p>		
RECOMMENDATION		
<p>At detailed design carefully consider the route and where necessary cut back vegetation and provide a safe route over the ditch.</p>		

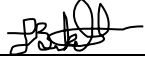

## 2.4 RSA Problem Location Plan NMU Link DWG 23122.101 Rev D



**END OF PROBLEMS IDENTIFIED AND RECOMMENDATIONS PRESENTED IN THIS  
STAGE 1 ROAD SAFETY AUDIT**

### 3 Audit Team Statement

---

We certify that this Road Safety Audit has been carried out in accordance with GG119	
ROAD SAFETY AUDIT TEAM LEADER	
NAME:	JONATHAN BIRKETT
SIGNED:	
POSITION:	DIRECTOR
ORGANISATION	MERAKI ALLIANCE LTD
DATE:	14 NOVEMBER 2023
ROAD SAFETY AUDIT TEAM MEMBER	
NAME:	GILLIAN KIDD
SIGNED:	
POSITION:	AUDIT TEAM MEMBER
ORGANISATION	MERAKI ALLIANCE LTD
DATE:	14 NOVEMBER 2023

# Appendix 1 – Audited Documents

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23089-05

23122.101 ILLUSTRATIVE MASTERPLAN REV D



## **Appendix F**

Calculation Reference: AUDIT-623801-230706-0736

## TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL  
 Category : A - HOUSES PRIVATELY OWNED  
 MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	KC KENT	2 days
	SC SURREY	1 days
	WS WEST SUSSEX	1 days
03	SOUTH WEST	
	DV DEVON	1 days
04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	1 days
	NF NORFOLK	2 days
05	EAST MIDLANDS	
	LE LEICESTERSHIRE	1 days
08	NORTH WEST	
	AC CHESHIRE WEST & CHESTER	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: 83 to 380 (units: )  
 Range Selected by User: 80 to 1000 (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: 01/01/15 to 01/03/23

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

Selected survey days:

Tuesday	3 days
Wednesday	2 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	10 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:

Suburban Area (PPS6 Out of Centre)	2
Neighbourhood Centre (PPS6 Local Centre)	8

*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	2
Village	8



*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.*

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	3 days - Selected
Servicing vehicles Excluded	10 days - Selected

Secondary Filtering selection:

Use Class:

C3	10 days
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*This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.*

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,001 to 5,000	4 days
5,001 to 10,000	4 days
10,001 to 15,000	1 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	2 days
25,001 to 50,000	3 days
50,001 to 75,000	3 days
75,001 to 100,000	1 days
100,001 to 125,000	1 days

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

Car ownership within 5 miles:

1.1 to 1.5	8 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	5 days
No	5 days

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

PTAL Rating:

No PTAL Present	10 days
-----------------	---------

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

LIST OF SITES relevant to selection parameters

1	AC-03-A-06 COMMON LANE NEAR CHESTER WAVERTON Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 99 <i>Survey date: FRIDAY 29/04/22</i>	DETACHED HOUSES	CHESHIRE WEST & CHESTER	<i>Survey Type: MANUAL</i>
2	CA-03-A-08 GIDDING ROAD SAWTRY  Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 83 <i>Survey date: THURSDAY 13/10/22</i>	DETACHED & SEMI-DETACHED	CAMBRIDGESHIRE	<i>Survey Type: MANUAL</i>
3	DV-03-A-02 MILLHEAD ROAD HONITON  Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 116 <i>Survey date: FRIDAY 25/09/15</i>	HOUSES & BUNGALOWS	DEVON	<i>Survey Type: MANUAL</i>
4	KC-03-A-06 MARGATE ROAD HERNE BAY  Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 363 <i>Survey date: WEDNESDAY 27/09/17</i>	MIXED HOUSES & FLATS	KENT	<i>Survey Type: MANUAL</i>
5	KC-03-A-08 MAIDSTONE ROAD CHARING  Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 159 <i>Survey date: TUESDAY 22/05/18</i>	MIXED HOUSES	KENT	<i>Survey Type: MANUAL</i>
6	LE-03-A-02 MELBOURNE ROAD IBSTOCK  Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 85 <i>Survey date: THURSDAY 28/06/18</i>	DETACHED & OTHERS	LEICESTERSHIRE	<i>Survey Type: MANUAL</i>
7	NF-03-A-27 YARMOUTH ROAD NEAR NORWICH BLOFIELD Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 93 <i>Survey date: THURSDAY 16/09/21</i>	MIXED HOUSES & FLATS	NORFOLK	<i>Survey Type: MANUAL</i>
8	NF-03-A-43 MILL LANE NEAR NORWICH HORSFORD Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 125 <i>Survey date: WEDNESDAY 15/09/21</i>	MIXED HOUSES	NORFOLK	<i>Survey Type: MANUAL</i>

LIST OF SITES relevant to selection parameters (Cont.)

9	SC-03-A-09 AMLETS LANE CRANLEIGH	MIXED HOUSES & FLATS	SURREY
	Neighbourhood Centre (PPS6 Local Centre) Village		
	Total No of Dwellings:	136	
	Survey date: <i>TUESDAY</i>	<i>24/05/22</i>	<i>Survey Type: MANUAL</i>
10	WS-03-A-15 HILLAND ROAD BILLINGSHURST	MIXED HOUSES	WEST SUSSEX
	Neighbourhood Centre (PPS6 Local Centre) Village		
	Total No of Dwellings:	380	
	Survey date: <i>TUESDAY</i>	<i>23/11/21</i>	<i>Survey Type: MANUAL</i>

*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

Total People to Total Vehicles ratio (all time periods and directions): 1.75

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	10	164	0.076	10	164	0.264	10	164	0.340
08:00 - 09:00	10	164	0.134	10	164	0.329	10	164	0.463
09:00 - 10:00	10	164	0.133	10	164	0.149	10	164	0.282
10:00 - 11:00	10	164	0.128	10	164	0.162	10	164	0.290
11:00 - 12:00	10	164	0.119	10	164	0.142	10	164	0.261
12:00 - 13:00	10	164	0.171	10	164	0.154	10	164	0.325
13:00 - 14:00	10	164	0.155	10	164	0.143	10	164	0.298
14:00 - 15:00	10	164	0.140	10	164	0.157	10	164	0.297
15:00 - 16:00	10	164	0.227	10	164	0.151	10	164	0.378
16:00 - 17:00	10	164	0.259	10	164	0.181	10	164	0.440
17:00 - 18:00	10	164	0.322	10	164	0.174	10	164	0.496
18:00 - 19:00	10	164	0.263	10	164	0.162	10	164	0.425
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
<b>Total Rates:</b>			<b>2.127</b>			<b>2.168</b>			<b>4.295</b>

*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: 83 - 380 (units: )  
Survey date date range: 01/01/15 - 01/03/23  
Number of weekdays (Monday-Friday): 10  
Number of Saturdays: 0  
Number of Sundays: 0  
Surveys automatically removed from selection: 1  
Surveys manually removed from selection: 0

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

TRIP RATE 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	10	164	0.001	10	164	0.005	10	164	0.006
08:00 - 09:00	10	164	0.001	10	164	0.007	10	164	0.008
09:00 - 10:00	10	164	0.001	10	164	0.001	10	164	0.002
10:00 - 11:00	10	164	0.002	10	164	0.001	10	164	0.003
11:00 - 12:00	10	164	0.001	10	164	0.002	10	164	0.003
12:00 - 13:00	10	164	0.003	10	164	0.001	10	164	0.004
13:00 - 14:00	10	164	0.000	10	164	0.002	10	164	0.002
14:00 - 15:00	10	164	0.001	10	164	0.002	10	164	0.003
15:00 - 16:00	10	164	0.005	10	164	0.002	10	164	0.007
16:00 - 17:00	10	164	0.005	10	164	0.006	10	164	0.011
17:00 - 18:00	10	164	0.005	10	164	0.001	10	164	0.006
18:00 - 19:00	10	164	0.005	10	164	0.002	10	164	0.007
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
<b>Total Rates:</b>			0.030			0.032			0.062

*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 VEHICLE OCCUPANTS  
 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	10	164	0.091	10	164	0.387	10	164	0.478
08:00 - 09:00	10	164	0.162	10	164	0.552	10	164	0.714
09:00 - 10:00	10	164	0.168	10	164	0.202	10	164	0.370
10:00 - 11:00	10	164	0.160	10	164	0.215	10	164	0.375
11:00 - 12:00	10	164	0.156	10	164	0.200	10	164	0.356
12:00 - 13:00	10	164	0.224	10	164	0.208	10	164	0.432
13:00 - 14:00	10	164	0.220	10	164	0.197	10	164	0.417
14:00 - 15:00	10	164	0.192	10	164	0.217	10	164	0.409
15:00 - 16:00	10	164	0.380	10	164	0.212	10	164	0.592
16:00 - 17:00	10	164	0.420	10	164	0.261	10	164	0.681
17:00 - 18:00	10	164	0.515	10	164	0.257	10	164	0.772
18:00 - 19:00	10	164	0.420	10	164	0.250	10	164	0.670
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
<b>Total Rates:</b>			3.108			3.158			6.266

*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	10	164	0.014	10	164	0.031	10	164	0.045
08:00 - 09:00	10	164	0.022	10	164	0.096	10	164	0.118
09:00 - 10:00	10	164	0.039	10	164	0.049	10	164	0.088
10:00 - 11:00	10	164	0.038	10	164	0.030	10	164	0.068
11:00 - 12:00	10	164	0.027	10	164	0.026	10	164	0.053
12:00 - 13:00	10	164	0.019	10	164	0.020	10	164	0.039
13:00 - 14:00	10	164	0.033	10	164	0.033	10	164	0.066
14:00 - 15:00	10	164	0.035	10	164	0.049	10	164	0.084
15:00 - 16:00	10	164	0.120	10	164	0.054	10	164	0.174
16:00 - 17:00	10	164	0.048	10	164	0.032	10	164	0.080
17:00 - 18:00	10	164	0.037	10	164	0.029	10	164	0.066
18:00 - 19:00	10	164	0.036	10	164	0.032	10	164	0.068
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.468			0.481			0.949

*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	10	164	0.000	10	164	0.035	10	164	0.035
08:00 - 09:00	10	164	0.000	10	164	0.023	10	164	0.023
09:00 - 10:00	10	164	0.000	10	164	0.010	10	164	0.010
10:00 - 11:00	10	164	0.007	10	164	0.006	10	164	0.013
11:00 - 12:00	10	164	0.002	10	164	0.004	10	164	0.006
12:00 - 13:00	10	164	0.004	10	164	0.005	10	164	0.009
13:00 - 14:00	10	164	0.006	10	164	0.004	10	164	0.010
14:00 - 15:00	10	164	0.004	10	164	0.005	10	164	0.009
15:00 - 16:00	10	164	0.031	10	164	0.004	10	164	0.035
16:00 - 17:00	10	164	0.016	10	164	0.007	10	164	0.023
17:00 - 18:00	10	164	0.024	10	164	0.002	10	164	0.026
18:00 - 19:00	10	164	0.016	10	164	0.001	10	164	0.017
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
<b>Total Rates:</b>			0.110			0.106			0.216

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 TOTAL PEOPLE

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

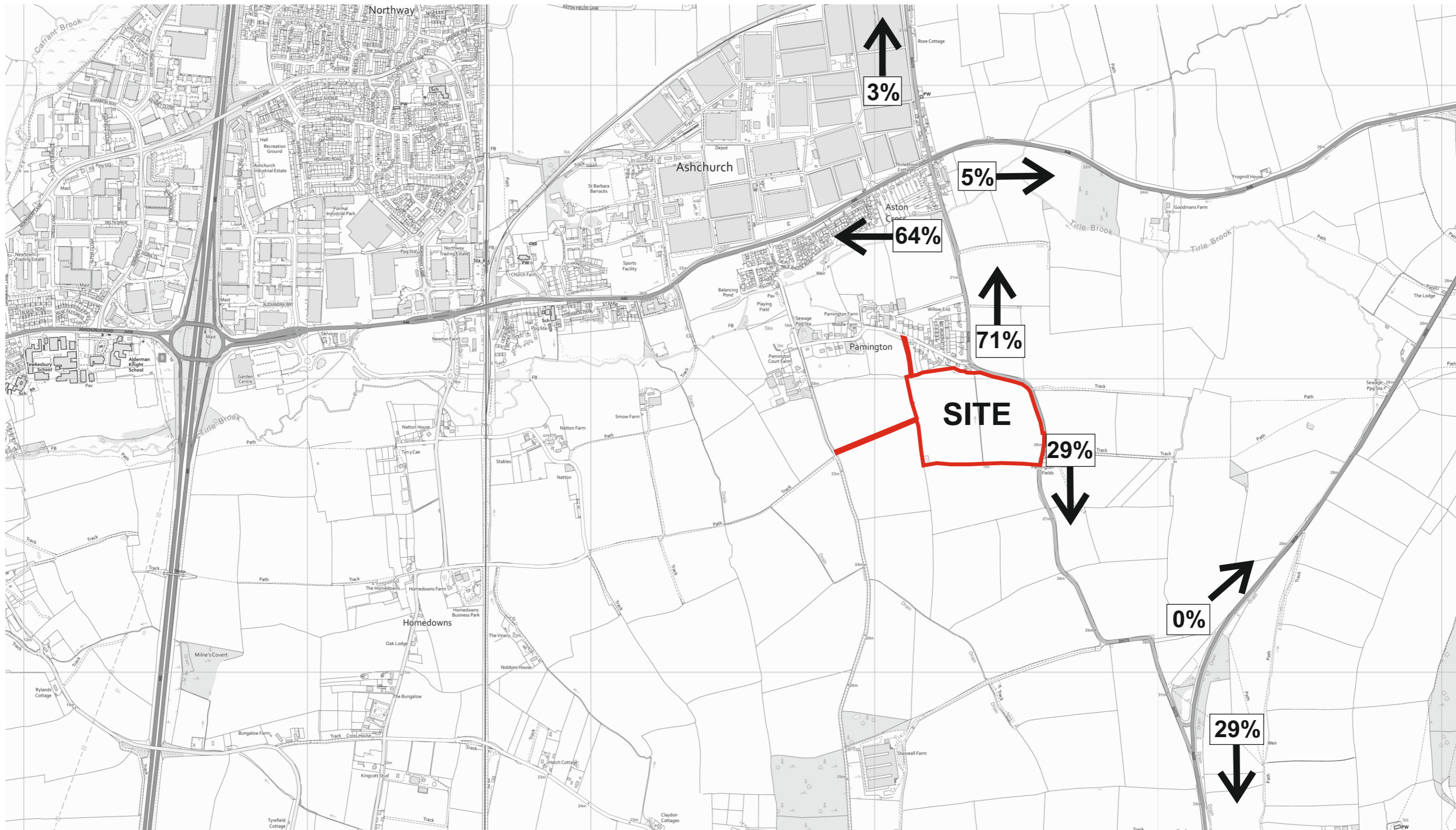
Total People to Total Vehicles ratio (all time periods and directions): 1.75

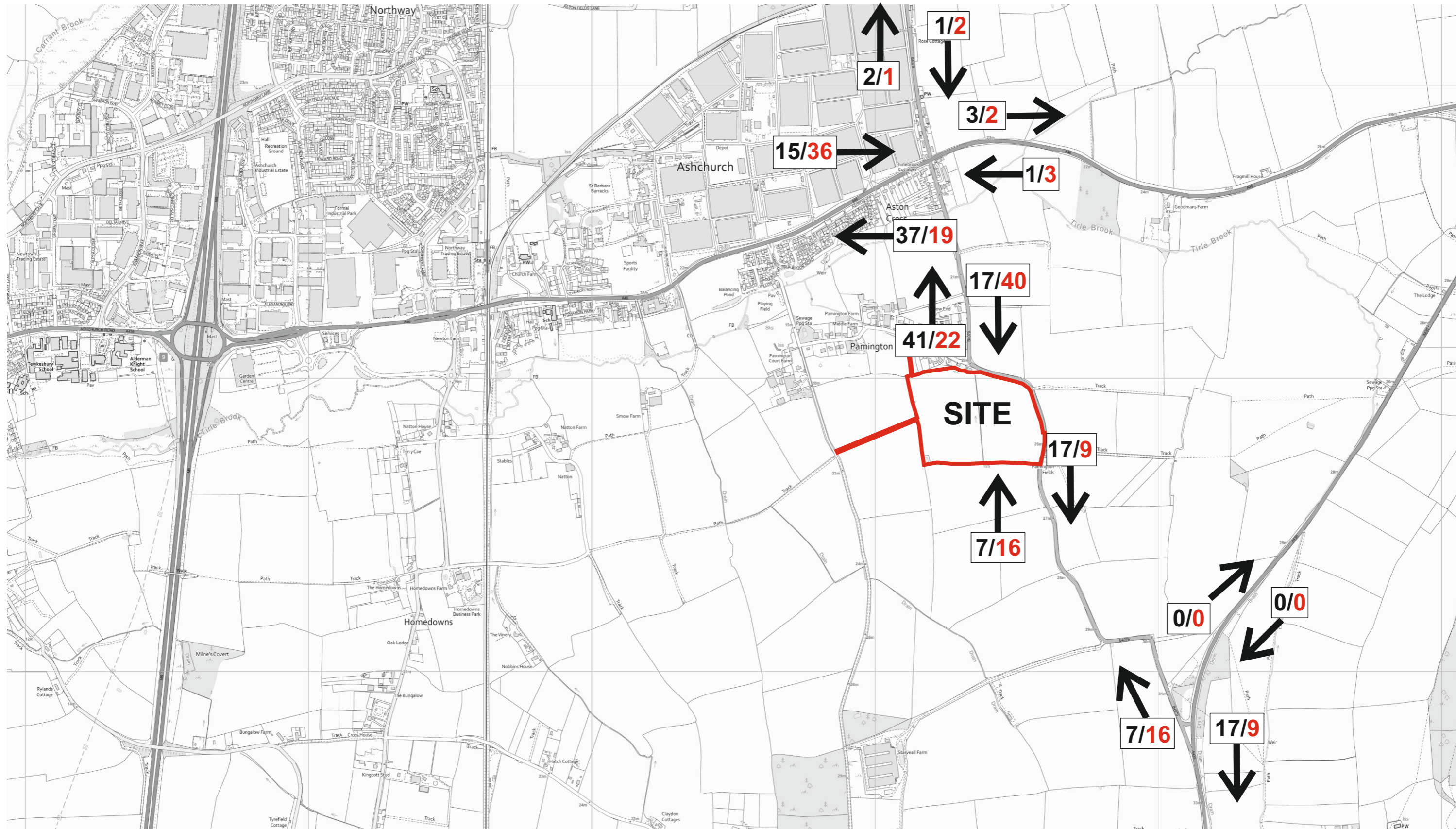
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	10	164	0.106	10	164	0.459	10	164	0.565
08:00 - 09:00	10	164	0.184	10	164	0.678	10	164	0.862
09:00 - 10:00	10	164	0.208	10	164	0.262	10	164	0.470
10:00 - 11:00	10	164	0.207	10	164	0.252	10	164	0.459
11:00 - 12:00	10	164	0.185	10	164	0.232	10	164	0.417
12:00 - 13:00	10	164	0.250	10	164	0.234	10	164	0.484
13:00 - 14:00	10	164	0.259	10	164	0.236	10	164	0.495
14:00 - 15:00	10	164	0.232	10	164	0.273	10	164	0.505
15:00 - 16:00	10	164	0.537	10	164	0.272	10	164	0.809
16:00 - 17:00	10	164	0.489	10	164	0.306	10	164	0.795
17:00 - 18:00	10	164	0.581	10	164	0.290	10	164	0.871
18:00 - 19:00	10	164	0.477	10	164	0.285	10	164	0.762
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
<b>Total Rates:</b>			3.715			3.779			7.494

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.

## **Appendix G**





## **Appendix H**

Junctions 10
PICADY 10 - Priority Intersection Module
Version: 10.0.4.1693 © Copyright TRL Software Limited, 2021
For sales and distribution information, program advice and maintenance, contact TRL Software: +44 (0)1344 379777 software@trl.co.uk trlsoftware.com
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: Proposed Site Access.j10  
 Path: P:\23000's\23089\Junction Assessments  
 Report generation date: 02/08/2023 14:18:30

- »2028 Base + Committed Development + Development, AM
- »2028 Base + Committed Development + Development, PM

**Summary of junction performance**

	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
2028 Base + Committed Development + Development						
Stream B-AC	0.1	7.29	0.11	0.1	6.97	0.06
Stream C-AB	0.1	5.33	0.04	0.2	5.33	0.09

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

**File summary**

**File Description**

<b>Title</b>	Proposed Site Access
<b>Location</b>	Pamington
<b>Site number</b>	
<b>Date</b>	02/08/2023
<b>Version</b>	
<b>Status</b>	(new file)
<b>Identifier</b>	
<b>Client</b>	
<b>Jobnumber</b>	23089
<b>Enumerator</b>	DTA\nicholasanderson
<b>Description</b>	

**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	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		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	2028 Base + Committed Development + Development	AM	ONE HOUR	07:45	09:15	15
D2	2028 Base + Committed Development + Development	PM	ONE HOUR	16:45	18:15	15

### Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

# 2028 Base + Committed Development + Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		1.06	A

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.06	A

## Arms

### Arms

Arm	Name	Description	Arm type
A	B4079 South		Major
B	Site Access		Minor
C	B4079 North		Major

### Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - B4079 North	6.00			120.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

### Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Site Access	One lane	3.00	117	100

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	567	0.103	0.261	0.164	0.373
B-C	687	0.105	0.266	-	-
C-B	643	0.249	0.249	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.



## Traffic Demand

### 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	2028 Base + Committed Development + Development	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 (%)
A - B4079 South		✓	248	100.000
B - Site Access		✓	58	100.000
C - B4079 North		✓	207	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A - B4079 South	B - Site Access	C - B4079 North
From	A - B4079 South	0	7	241
	B - Site Access	17	0	41
	C - B4079 North	190	17	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A - B4079 South	B - Site Access	C - B4079 North
From	A - B4079 South	0	0	0
	B - Site Access	0	0	0
	C - B4079 North	1	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.11	7.29	0.1	A
C-AB	0.04	5.33	0.1	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	44	586	0.074	43	0.1	6.627	A
C-AB	16	693	0.023	16	0.0	5.332	A
C-A	140			140			
A-B	5			5			
A-C	181			181			

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	52	574	0.091	52	0.1	6.891	A
C-AB	20	703	0.029	20	0.0	5.284	A
C-A	166			166			
A-B	6			6			
A-C	217			217			

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	64	558	0.114	64	0.1	7.282	A
C-AB	26	718	0.037	26	0.1	5.221	A
C-A	201			201			
A-B	8			8			
A-C	265			265			

#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	64	558	0.114	64	0.1	7.285	A
C-AB	26	718	0.037	26	0.1	5.225	A
C-A	201			201			
A-B	8			8			
A-C	265			265			

#### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	52	574	0.091	52	0.1	6.894	A
C-AB	20	703	0.029	20	0.0	5.290	A
C-A	166			166			
A-B	6			6			
A-C	217			217			

#### 09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	44	586	0.074	44	0.1	6.637	A
C-AB	16	693	0.023	16	0.0	5.334	A
C-A	140			140			
A-B	5			5			
A-C	181			181			

# 2028 Base + Committed Development + Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.93	A

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.93	A

## 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	2028 Base + Committed Development + Development	PM	ONE HOUR	16:45	18:15	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 (%)
A - B4079 South		✓	251	100.000
B - Site Access		✓	31	100.000
C - B4079 North		✓	283	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A - B4079 South	B - Site Access	C - B4079 North
From	A - B4079 South	0	16	235
	B - Site Access	9	0	22
	C - B4079 North	243	40	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A - B4079 South	B - Site Access	C - B4079 North
From	A - B4079 South	0	0	0
	B - Site Access	0	0	0
	C - B4079 North	1	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.06	6.97	0.1	A
C-AB	0.09	5.33	0.2	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	23	582	0.040	23	0.0	6.442	A
C-AB	40	719	0.056	40	0.1	5.318	A
C-A	173			173			
A-B	12			12			
A-C	177			177			

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	28	569	0.049	28	0.1	6.654	A
C-AB	51	734	0.070	51	0.1	5.286	A
C-A	203			203			
A-B	14			14			
A-C	211			211			

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	34	551	0.062	34	0.1	6.969	A
C-AB	68	757	0.090	68	0.2	5.248	A
C-A	243			243			
A-B	18			18			
A-C	259			259			

#### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	34	551	0.062	34	0.1	6.970	A
C-AB	68	757	0.090	68	0.2	5.252	A
C-A	243			243			
A-B	18			18			
A-C	259			259			

**17:45 - 18:00**

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	28	569	0.049	28	0.1	6.659	A
C-AB	51	735	0.070	52	0.1	5.291	A
C-A	203			203			
A-B	14			14			
A-C	211			211			

**18:00 - 18:15**

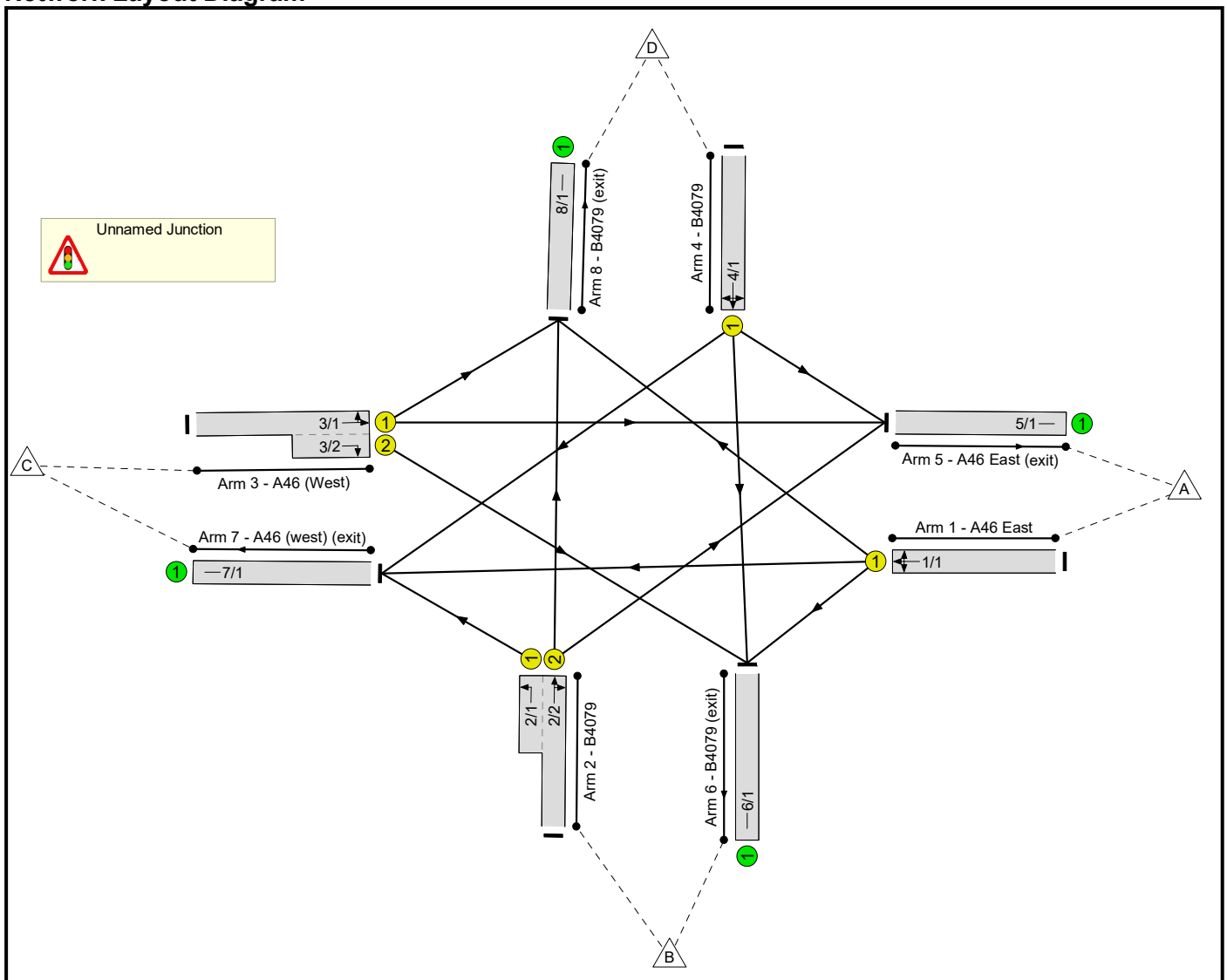
Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	23	582	0.040	23	0.0	6.447	A
C-AB	41	719	0.056	41	0.1	5.325	A
C-A	173			173			
A-B	12			12			
A-C	177			177			

Full Input Data And Results  
**Full Input Data And Results**

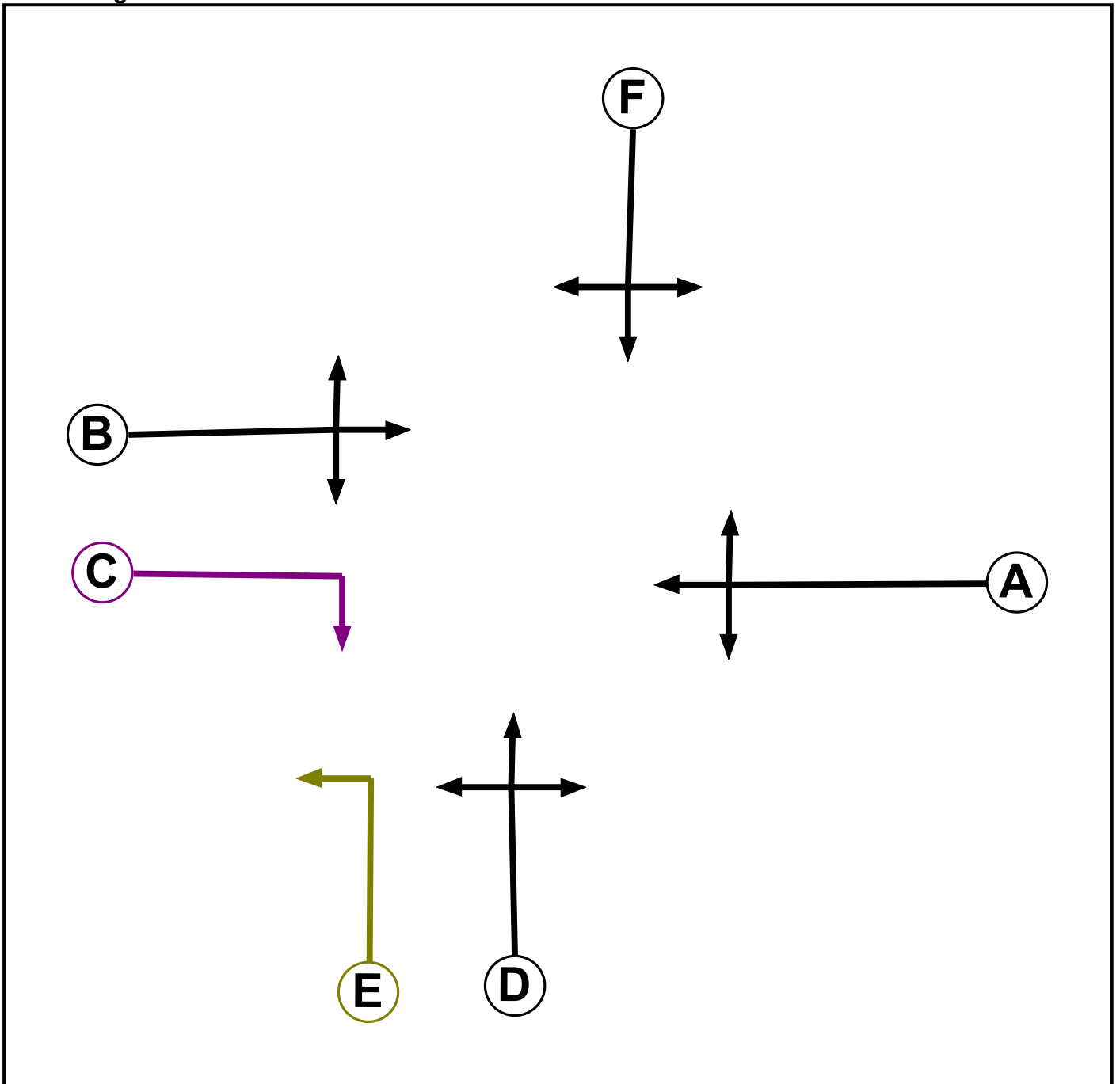
**User and Project Details**

<b>Project:</b>	<b>Land South of Pamington</b>
<b>Title:</b>	<b>A46/ B4079 Aston Cross</b>
<b>Location:</b>	
<b>Additional detail:</b>	
<b>File name:</b>	A46_B4079 Aston Cross.lsg3x
<b>Author:</b>	NS
<b>Company:</b>	DTA Transportation
<b>Address:</b>	Henley in Arden

**Network Layout Diagram**



Phase Diagram



## Full Input Data And Results

### Phase Input Data

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

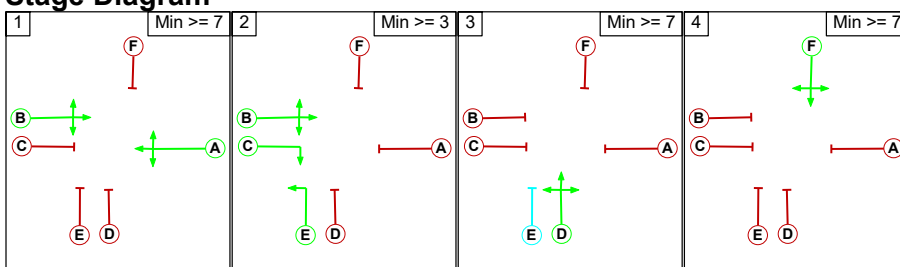
### Phase Intergreens Matrix

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

### Phases in Stage

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

### Stage Diagram



### Phase Delays

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



Full Input Data And Results

**Prohibited Stage Change**

		To Stage			
		1	2	3	4
From Stage	1	■	7	7	6
	2	X	■	6	X
	3	6	6	■	6
	4	6	8	6	■

Full Input Data And Results

**Give-Way Lane Input Data**

**Junction: Unnamed Junction**

There are no Opposed Lanes in this Junction

Full Input Data And Results

**Lane Input Data**

Junction: Unnamed Junction												
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 (A46 East)	U	A	2	3	60.0	Geom	-	3.05	0.00	Y	Arm 6 Left	15.50
											Arm 7 Ahead	Inf
											Arm 8 Right	5.00
2/1 (B4079)	U	D E	2	3	5.0	Geom	-	3.05	0.00	Y	Arm 7 Left	15.50
2/2 (B4079)	U	D	2	3	60.0	Geom	-	3.05	0.00	N	Arm 5 Right	16.50
											Arm 8 Ahead	Inf
3/1 (A46 (West))	U	B	2	3	60.0	Geom	-	3.38	0.00	Y	Arm 5 Ahead	Inf
											Arm 8 Left	12.00
3/2 (A46 (West))	U	B C	2	3	5.0	Geom	-	3.38	0.00	N	Arm 6 Right	5.00
											Arm 5 Left	8.50
4/1 (B4079)	U	F	2	3	60.0	Geom	-	3.05	0.00	Y	Arm 6 Ahead	Inf
											Arm 7 Right	15.50
5/1 (A46 East (exit))	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (B4079 (exit))	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1 (A46 (west) (exit))	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1 (B4079 (exit))	U		2	3	60.0	Inf	-	-	-	-	-	-

**Traffic Flow Groups**

Full Input Data And Results

Flow Group	Start Time	End Time	Duration	Formula
1: '2023 Base AM'	07:15	08:15	01:00	
2: '2023 Base PM'	16:45	17:45	01:00	
3: '2027 Base AM'	07:15	08:15	01:00	
4: '2027 Base PM'	16:45	17:45	01:00	
5: '2027 Base + Committed Development AM'	07:15	08:15	01:00	
6: '2027 Base + Committed Development PM'	16:45	17:45	01:00	
7: '2027 Base + Committed Development + Development AM'	07:15	08:15	01:00	
8: '2027 Base + Committed Development + Development PM'	16:45	17:45	01:00	

Scenario 1: '2023 Base AM' (FG1: '2023 Base AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	0	611	32	643
	B	2	0	150	89	241
	C	711	92	0	28	831
	D	80	97	64	0	241
	Tot.	793	189	825	149	1956

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 1: 2023 Base AM
<b>Junction: Unnamed Junction</b>	
1/1	643
2/1 (short)	150
2/2 (with short)	241(In) 91(Out)
3/1 (with short)	831(In) 739(Out)
3/2 (short)	92
4/1	241
5/1	793
6/1	189
7/1	825
8/1	149

**Lane Saturation Flows**

<b>Junction: Unnamed Junction</b>								
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 (A46 East)	3.05	0.00	Y	Arm 6 Left	15.50	0.0 %	1892	1892
				Arm 7 Ahead	Inf	95.0 %		
				Arm 8 Right	5.00	5.0 %		
2/1 (B4079)	3.05	0.00	Y	Arm 7 Left	15.50	100.0 %	1751	1751
2/2 (B4079)	3.05	0.00	N	Arm 5 Right	16.50	2.2 %	2056	2056
				Arm 8 Ahead	Inf	97.8 %		
3/1 (A46 (West))	3.38	0.00	Y	Arm 5 Ahead	Inf	96.2 %	1944	1944
				Arm 8 Left	12.00	3.8 %		
3/2 (A46 (West))	3.38	0.00	N	Arm 6 Right	5.00	100.0 %	1610	1610
4/1 (B4079)	3.05	0.00	Y	Arm 5 Left	8.50	33.2 %	1771	1771
				Arm 6 Ahead	Inf	40.2 %		
				Arm 7 Right	15.50	26.6 %		
5/1 (A46 East (exit) Lane 1)				Infinite Saturation Flow			Inf	Inf
6/1 (B4079 (exit) Lane 1)				Infinite Saturation Flow			Inf	Inf
7/1 (A46 (west) (exit) Lane 1)				Infinite Saturation Flow			Inf	Inf
8/1 (B4079 (exit) Lane 1)				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

**Scenario 2: '2023 Base PM'** (FG2: '2023 Base PM', Plan 1: 'Network Control Plan 1')

**Traffic Flows, Desired**

**Desired Flow :**

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	3	642	69	714
	B	5	0	97	143	245
	C	641	157	0	75	873
	D	64	88	35	0	187
	Tot.	710	248	774	287	2019

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 2: 2023 Base PM
<b>Junction: Unnamed Junction</b>	
1/1	714
2/1 (short)	97
2/2 (with short)	245(In) 148(Out)
3/1 (with short)	873(In) 716(Out)
3/2 (short)	157
4/1	187
5/1	710
6/1	248
7/1	774
8/1	287

**Lane Saturation Flows**

<b>Junction: Unnamed Junction</b>								
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 (A46 East)	3.05	0.00	Y	Arm 6 Left	15.50	0.4 %	1865	1865
				Arm 7 Ahead	Inf	89.9 %		
				Arm 8 Right	5.00	9.7 %		
2/1 (B4079)	3.05	0.00	Y	Arm 7 Left	15.50	100.0 %	1751	1751
2/2 (B4079)	3.05	0.00	N	Arm 5 Right	16.50	3.4 %	2054	2054
				Arm 8 Ahead	Inf	96.6 %		
3/1 (A46 (West))	3.38	0.00	Y	Arm 5 Ahead	Inf	89.5 %	1928	1928
				Arm 8 Left	12.00	10.5 %		
3/2 (A46 (West))	3.38	0.00	N	Arm 6 Right	5.00	100.0 %	1610	1610
4/1 (B4079)	3.05	0.00	Y	Arm 5 Left	8.50	34.2 %	1780	1780
				Arm 6 Ahead	Inf	47.1 %		
				Arm 7 Right	15.50	18.7 %		
5/1 (A46 East (exit) Lane 1)				Infinite Saturation Flow			Inf	Inf
6/1 (B4079 (exit) Lane 1)				Infinite Saturation Flow			Inf	Inf
7/1 (A46 (west) (exit) Lane 1)				Infinite Saturation Flow			Inf	Inf
8/1 (B4079 (exit) Lane 1)				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

**Scenario 3: '2027 Base AM'** (FG3: '2027 Base AM', Plan 1: 'Network Control Plan 1')

**Traffic Flows, Desired**

**Desired Flow :**

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	0	631	33	664
	B	2	0	155	92	249
	C	734	95	0	29	858
	D	83	100	66	0	249
	Tot.	819	195	852	154	2020



Full Input Data And Results

**Traffic Lane Flows**

Scenario 3: 2027 Base AM	
Junction: Unnamed Junction	
1/1	664
2/1 (short)	155
2/2 (with short)	249(In) 94(Out)
3/1 (with short)	858(In) 763(Out)
3/2 (short)	95
4/1	249
5/1	819
6/1	195
7/1	852
8/1	154

**Lane Saturation Flows**

Junction: Unnamed Junction								
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 (A46 East)	3.05	0.00	Y	Arm 6 Left	15.50	0.0 %	1892	1892
				Arm 7 Ahead	Inf	95.0 %		
				Arm 8 Right	5.00	5.0 %		
2/1 (B4079)	3.05	0.00	Y	Arm 7 Left	15.50	100.0 %	1751	1751
2/2 (B4079)	3.05	0.00	N	Arm 5 Right	16.50	2.1 %	2056	2056
				Arm 8 Ahead	Inf	97.9 %		
3/1 (A46 (West))	3.38	0.00	Y	Arm 5 Ahead	Inf	96.2 %	1944	1944
				Arm 8 Left	12.00	3.8 %		
3/2 (A46 (West))	3.38	0.00	N	Arm 6 Right	5.00	100.0 %	1610	1610
4/1 (B4079)	3.05	0.00	Y	Arm 5 Left	8.50	33.3 %	1770	1770
				Arm 6 Ahead	Inf	40.2 %		
				Arm 7 Right	15.50	26.5 %		
5/1 (A46 East (exit) Lane 1)				Infinite Saturation Flow			Inf	Inf
6/1 (B4079 (exit) Lane 1)				Infinite Saturation Flow			Inf	Inf
7/1 (A46 (west) (exit) Lane 1)				Infinite Saturation Flow			Inf	Inf
8/1 (B4079 (exit) Lane 1)				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

**Scenario 4: '2027 Base PM'** (FG4: '2027 Base PM', Plan 1: 'Network Control Plan 1')

**Traffic Flows, Desired**

**Desired Flow :**

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	3	663	71	737
	B	5	0	100	148	253
	C	662	162	0	77	901
	D	66	91	36	0	193
	Tot.	733	256	799	296	2084

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 4: 2027 Base PM
<b>Junction: Unnamed Junction</b>	
1/1	737
2/1 (short)	100
2/2 (with short)	253(In) 153(Out)
3/1 (with short)	901(In) 739(Out)
3/2 (short)	162
4/1	193
5/1	733
6/1	256
7/1	799
8/1	296

**Lane Saturation Flows**

<b>Junction: Unnamed Junction</b>								
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 (A46 East)	3.05	0.00	Y	Arm 6 Left	15.50	0.4 %	1865	1865
				Arm 7 Ahead	Inf	90.0 %		
				Arm 8 Right	5.00	9.6 %		
2/1 (B4079)	3.05	0.00	Y	Arm 7 Left	15.50	100.0 %	1751	1751
2/2 (B4079)	3.05	0.00	N	Arm 5 Right	16.50	3.3 %	2054	2054
				Arm 8 Ahead	Inf	96.7 %		
3/1 (A46 (West))	3.38	0.00	Y	Arm 5 Ahead	Inf	89.6 %	1928	1928
				Arm 8 Left	12.00	10.4 %		
3/2 (A46 (West))	3.38	0.00	N	Arm 6 Right	5.00	100.0 %	1610	1610
4/1 (B4079)	3.05	0.00	Y	Arm 5 Left	8.50	34.2 %	1780	1780
				Arm 6 Ahead	Inf	47.2 %		
				Arm 7 Right	15.50	18.7 %		
5/1 (A46 East (exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (B4079 (exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A46 (west) (exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (B4079 (exit) Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 5: '2027 Base + Committed Development AM' (FG5: '2027 Base + Committed Development AM', Plan 1:

Full Input Data And Results  
'Network Control Plan 1')

**Traffic Flows, Desired**

**Desired Flow :**

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	694	33	727
	B	2	0	174	92	268
	C	769	128	0	34	931
	D	85	100	69	0	254
	Tot.	856	228	937	159	2180

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 5: 2027 Base + Committed Development AM
<b>Junction: Unnamed Junction</b>	
1/1	727
2/1 (short)	174
2/2 (with short)	268(In) 94(Out)
3/1 (with short)	931(In) 803(Out)
3/2 (short)	128
4/1	254
5/1	856
6/1	228
7/1	937
8/1	159

**Lane Saturation Flows**

<b>Junction: Unnamed Junction</b>								
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 (A46 East)	3.05	0.00	Y	Arm 6 Left	15.50	0.0 %	1894	1894
				Arm 7 Ahead	Inf	95.5 %		
				Arm 8 Right	5.00	4.5 %		
2/1 (B4079)	3.05	0.00	Y	Arm 7 Left	15.50	100.0 %	1751	1751
2/2 (B4079)	3.05	0.00	N	Arm 5 Right	16.50	2.1 %	2056	2056
				Arm 8 Ahead	Inf	97.9 %		
3/1 (A46 (West))	3.38	0.00	Y	Arm 5 Ahead	Inf	95.8 %	1943	1943
				Arm 8 Left	12.00	4.2 %		
3/2 (A46 (West))	3.38	0.00	N	Arm 6 Right	5.00	100.0 %	1610	1610
4/1 (B4079)	3.05	0.00	Y	Arm 5 Left	8.50	33.5 %	1769	1769
				Arm 6 Ahead	Inf	39.4 %		
				Arm 7 Right	15.50	27.2 %		
5/1 (A46 East (exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (B4079 (exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A46 (west) (exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (B4079 (exit) Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

**Scenario 6: '2027 Base + Committed Development PM'** (FG6: '2027 Base + Committed Development PM', Plan 1: 'Network Control Plan 1')

**Traffic Flows, Desired**

**Desired Flow :**

		Destination				
		A	B	C	D	Tot.
Origin	A	0	3	750	71	824
	B	5	0	140	148	293
	C	780	190	0	82	1052
	D	68	91	39	0	198
	Tot.	853	284	929	301	2367

Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 6: 2027 Base + Committed Development PM
<b>Junction: Unnamed Junction</b>	
1/1	824
2/1 (short)	140
2/2 (with short)	293(In) 153(Out)
3/1 (with short)	1052(In) 862(Out)
3/2 (short)	190
4/1	198
5/1	853
6/1	284
7/1	929
8/1	301

**Lane Saturation Flows**

<b>Junction: Unnamed Junction</b>								
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 (A46 East)	3.05	0.00	Y	Arm 6 Left	15.50	0.4 %	1871	1871
				Arm 7 Ahead	Inf	91.0 %		
				Arm 8 Right	5.00	8.6 %		
2/1 (B4079)	3.05	0.00	Y	Arm 7 Left	15.50	100.0 %	1751	1751
2/2 (B4079)	3.05	0.00	N	Arm 5 Right	16.50	3.3 %	2054	2054
				Arm 8 Ahead	Inf	96.7 %		
3/1 (A46 (West))	3.38	0.00	Y	Arm 5 Ahead	Inf	90.5 %	1930	1930
				Arm 8 Left	12.00	9.5 %		
3/2 (A46 (West))	3.38	0.00	N	Arm 6 Right	5.00	100.0 %	1610	1610
4/1 (B4079)	3.05	0.00	Y	Arm 5 Left	8.50	34.3 %	1778	1778
				Arm 6 Ahead	Inf	46.0 %		
				Arm 7 Right	15.50	19.7 %		
5/1 (A46 East (exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (B4079 (exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A46 (west) (exit) Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (B4079 (exit) Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

**Scenario 7: '2027 Base + Committed Development + Development AM'** (FG7: '2027 Base + Committed Development + Development AM', Plan 1: 'Network Control Plan 1')

**Traffic Flows, Desired**

**Desired Flow :**

		Destination				
		A	B	C	D	Tot.
Origin	A	0	1	694	33	728
	B	5	0	211	93	309
	C	769	143	0	34	946
	D	85	101	69	0	255
	Tot.	859	245	974	160	2238



Full Input Data And Results

**Traffic Lane Flows**

Lane	Scenario 7: 2027 Base + Committed Development + Development AM
<b>Junction: Unnamed Junction</b>	
1/1	728
2/1 (short)	211
2/2 (with short)	309(In) 98(Out)
3/1 (with short)	946(In) 803(Out)
3/2 (short)	143
4/1	255
5/1	859
6/1	245
7/1	974
8/1	160

**Lane Saturation Flows**

<b>Junction: Unnamed Junction</b>								
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 (A46 East)	3.05	0.00	Y	Arm 6 Left Arm 7 Ahead Arm 8 Right	15.50 Inf 5.00	0.1 % 95.3 % 4.5 %	1894	1894
2/1 (B4079)	3.05	0.00	Y	Arm 7 Left	15.50	100.0 %	1751	1751
2/2 (B4079)	3.05	0.00	N	Arm 5 Right Arm 8 Ahead	16.50 Inf	5.1 % 94.9 %	2050	2050
3/1 (A46 (West))	3.38	0.00	Y	Arm 5 Ahead Arm 8 Left	Inf 12.00	95.8 % 4.2 %	1943	1943
3/2 (A46 (West))	3.38	0.00	N	Arm 6 Right	5.00	100.0 %	1610	1610
4/1 (B4079)	3.05	0.00	Y	Arm 5 Left Arm 6 Ahead Arm 7 Right	8.50 Inf 15.50	33.3 % 39.6 % 27.1 %	1770	1770
5/1 (A46 East (exit) Lane 1)				Infinite Saturation Flow			Inf	Inf
6/1 (B4079 (exit) Lane 1)				Infinite Saturation Flow			Inf	Inf
7/1 (A46 (west) (exit) Lane 1)				Infinite Saturation Flow			Inf	Inf
8/1 (B4079 (exit) Lane 1)				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

**Scenario 8: '2027 Base + Committed Development + Development PM'** (FG8: '2027 Base + Committed Development + Development PM', Plan 1: 'Network Control Plan 1')

**Traffic Flows, Desired**

**Desired Flow :**

	Destination					
		A	B	C	D	Tot.
Origin	A	0	6	750	71	827
	B	7	0	159	149	315
	C	780	226	0	82	1088
	D	68	92	39	0	199
	Tot.	855	324	948	302	2429

Full Input Data And Results

**Traffic Lane Flows**

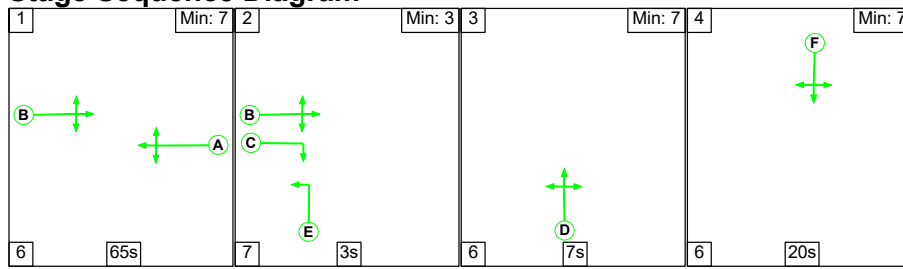
Lane	Scenario 8: 2027 Base + Committed Development + Development PM
<b>Junction: Unnamed Junction</b>	
1/1	827
2/1 (short)	159
2/2 (with short)	315(In) 156(Out)
3/1 (with short)	1088(In) 862(Out)
3/2 (short)	226
4/1	199
5/1	855
6/1	324
7/1	948
8/1	302

**Lane Saturation Flows**

<b>Junction: Unnamed Junction</b>								
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 (A46 East)	3.05	0.00	Y	Arm 6 Left Arm 7 Ahead Arm 8 Right	15.50 Inf 5.00	0.7 % 90.7 % 8.6 %	1871	1871
2/1 (B4079)	3.05	0.00	Y	Arm 7 Left	15.50	100.0 %	1751	1751
2/2 (B4079)	3.05	0.00	N	Arm 5 Right Arm 8 Ahead	16.50 Inf	4.5 % 95.5 %	2052	2052
3/1 (A46 (West))	3.38	0.00	Y	Arm 5 Ahead Arm 8 Left	Inf 12.00	90.5 % 9.5 %	1930	1930
3/2 (A46 (West))	3.38	0.00	N	Arm 6 Right	5.00	100.0 %	1610	1610
4/1 (B4079)	3.05	0.00	Y	Arm 5 Left Arm 6 Ahead Arm 7 Right	8.50 Inf 15.50	34.2 % 46.2 % 19.6 %	1779	1779
5/1 (A46 East (exit) Lane 1)				Infinite Saturation Flow			Inf	Inf
6/1 (B4079 (exit) Lane 1)				Infinite Saturation Flow			Inf	Inf
7/1 (A46 (west) (exit) Lane 1)				Infinite Saturation Flow			Inf	Inf
8/1 (B4079 (exit) Lane 1)				Infinite Saturation Flow			Inf	Inf

Scenario 1: '2023 Base AM' (FG1: '2023 Base AM', Plan 1: 'Network Control Plan 1')

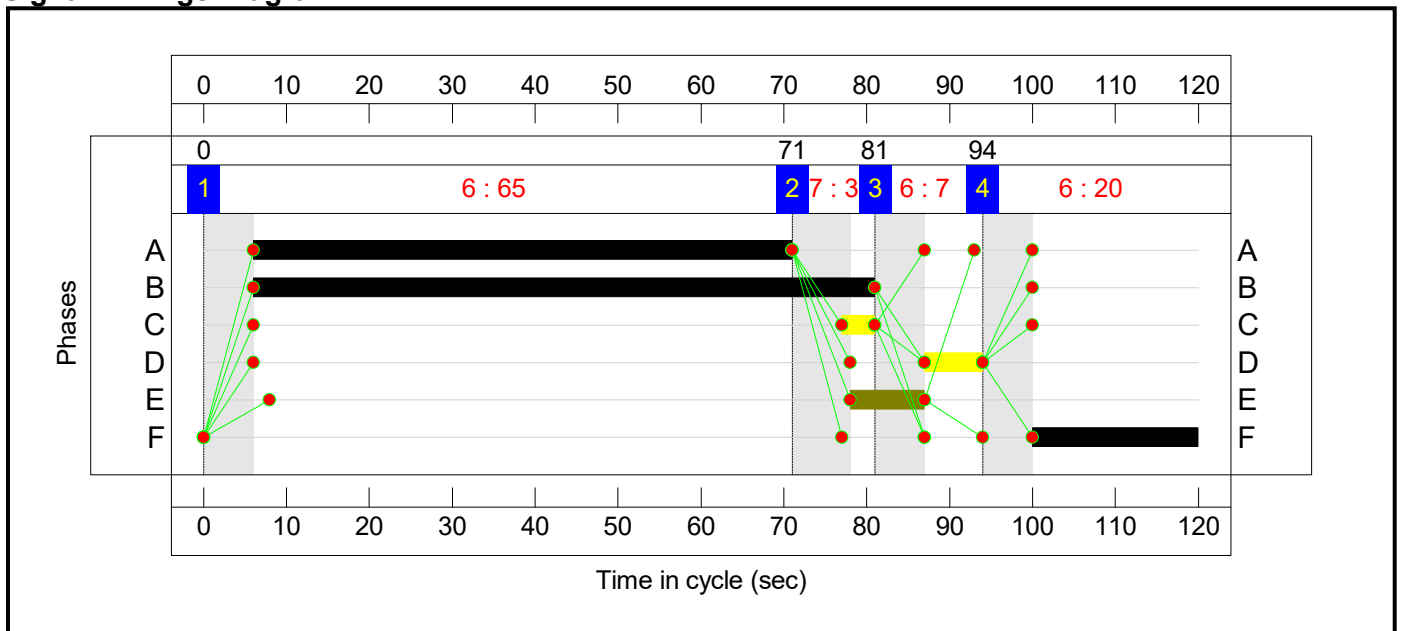
Stage Sequence Diagram



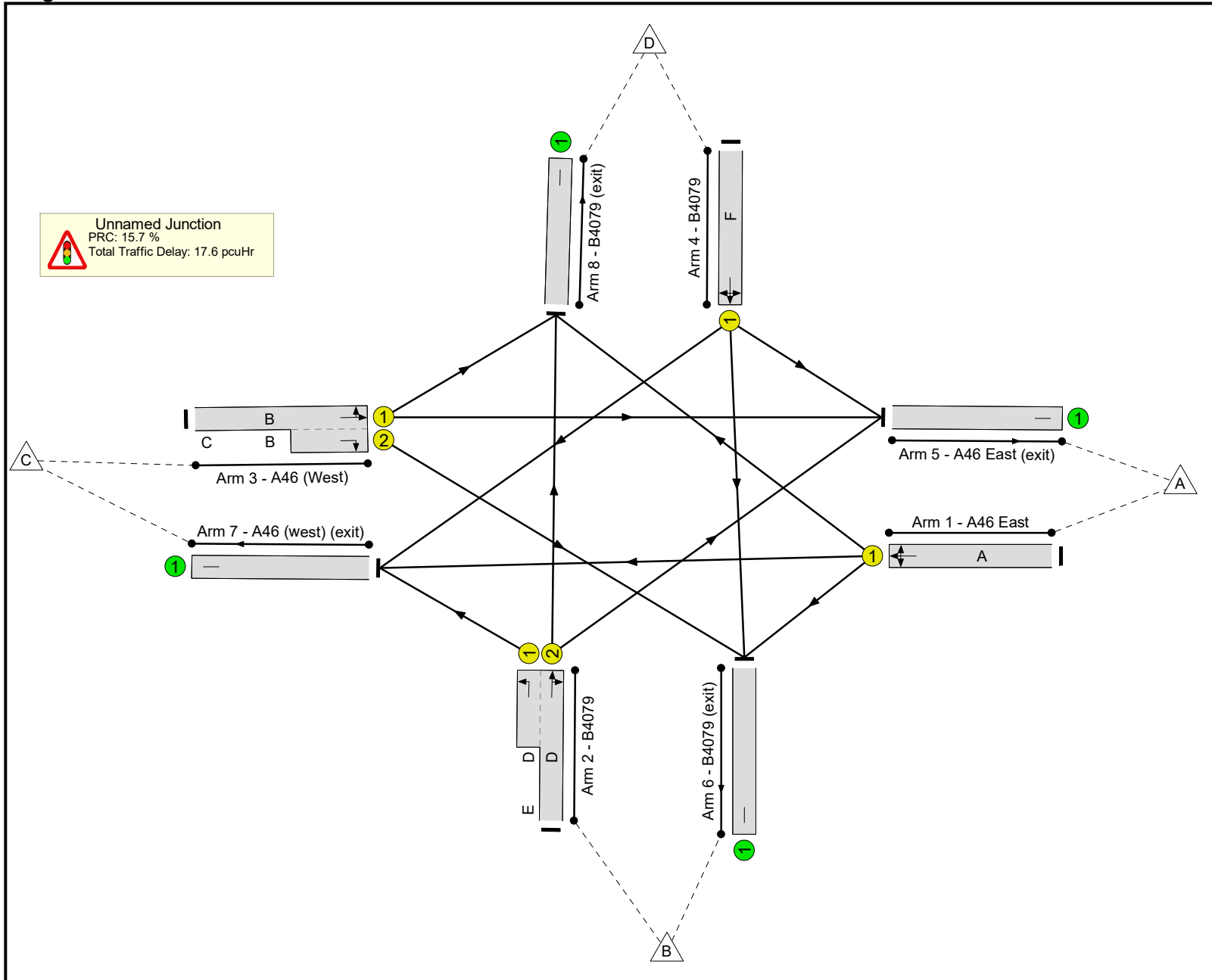
Stage Timings

Stage	1	2	3	4
Duration	65	3	7	20
Change Point	0	71	81	94

Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**



Full Input Data And Results

**Network Results**

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>77.8%</b>
<b>Unnamed Junction</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>77.8%</b>
1/1	A46 East Left Ahead Right	U	N/A	N/A	A		1	65	-	643	1892	1041	61.8%
2/2+2/1	B4079 Right Left Ahead	U	N/A	N/A	D	E	1	7:16	9	241	2056:1751	132+217	69.0 : 69.0%
3/1+3/2	A46 (West) Ahead Right Left	U	N/A	N/A	B	C	1	75	4	831	1944:1610	1094+136	67.6 : 67.6%
4/1	B4079 Left Ahead Right	U	N/A	N/A	F		1	20	-	241	1771	310	77.8%
5/1	A46 East (exit)	U	N/A	N/A	-		-	-	-	793	Inf	Inf	0.0%
6/1	B4079 (exit)	U	N/A	N/A	-		-	-	-	189	Inf	Inf	0.0%
7/1	A46 (west) (exit)	U	N/A	N/A	-		-	-	-	825	Inf	Inf	0.0%
8/1	B4079 (exit)	U	N/A	N/A	-		-	-	-	149	Inf	Inf	0.0%

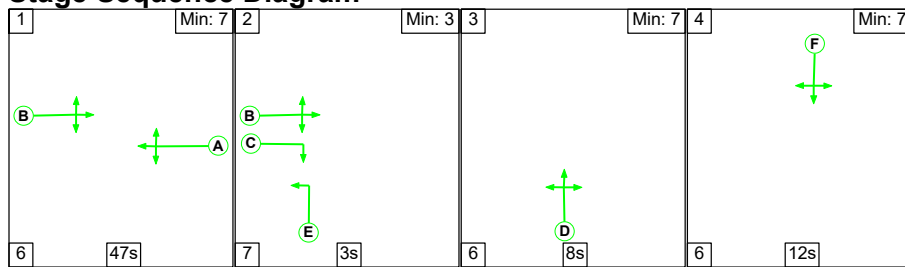
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	13.0	4.6	0.0	17.6	-	-	-	-
Unnamed Junction	-	-	0	0	0	13.0	4.6	0.0	17.6	-	-	-	-
1/1	643	643	-	-	-	3.3	0.8	-	4.1	22.9	14.5	0.8	15.3
2/2+2/1	241	241	-	-	-	3.4	1.1	-	4.5	67.1	4.7	1.1	5.8
3/1+3/2	831	831	-	-	-	3.1	1.0	-	4.1	17.9	16.7	1.0	17.7
4/1	241	241	-	-	-	3.2	1.7	-	4.8	72.2	7.6	1.7	9.3
5/1	793	793	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	189	189	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	825	825	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	149	149	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):		15.7	Total Delay for Signalled Lanes (pcuHr):			17.55	Cycle Time (s): 120			
			PRC Over All Lanes (%):		15.7	Total Delay Over All Lanes(pcuHr):			17.55				

Full Input Data And Results

Scenario 2: '2023 Base PM' (FG2: '2023 Base PM', Plan 1: 'Network Control Plan 1')

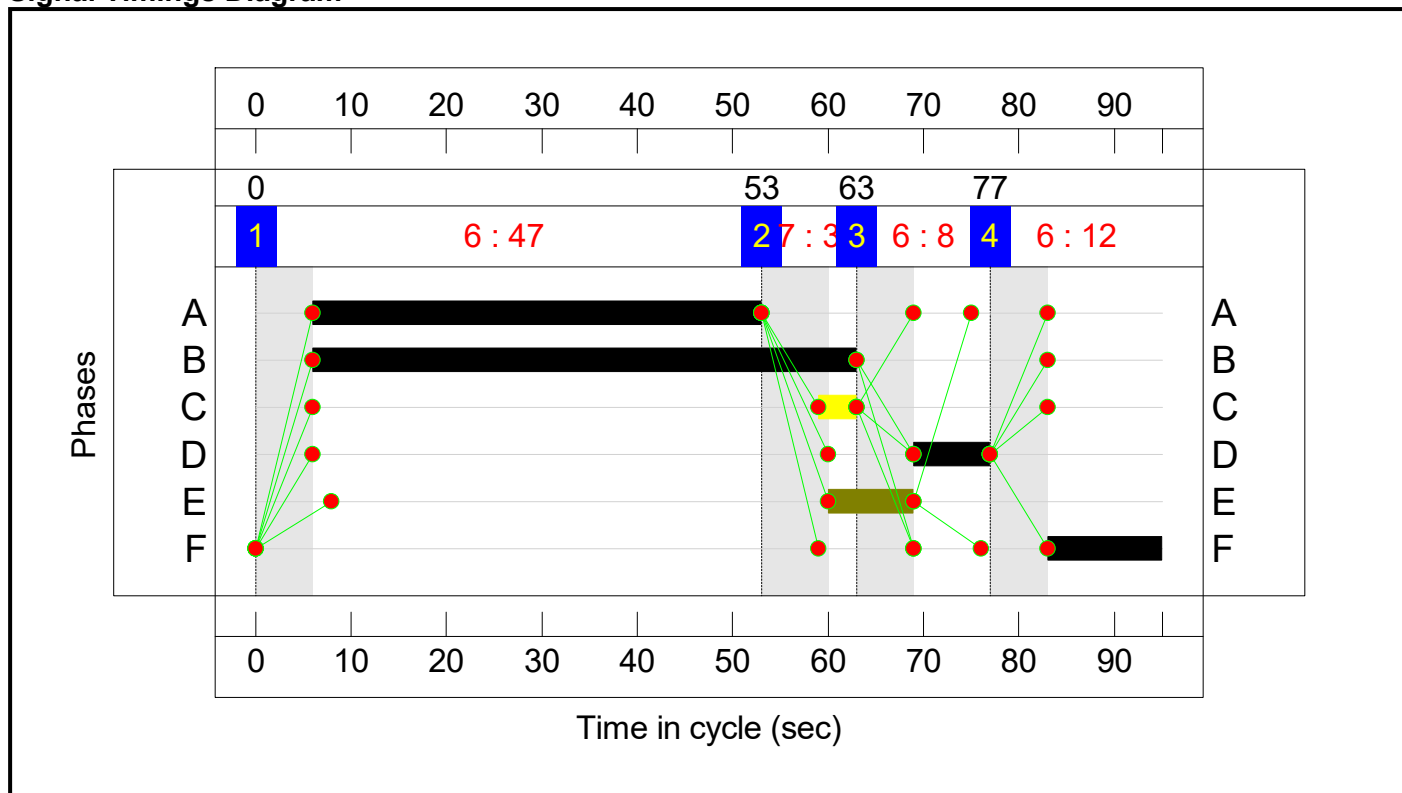
Stage Sequence Diagram



Stage Timings

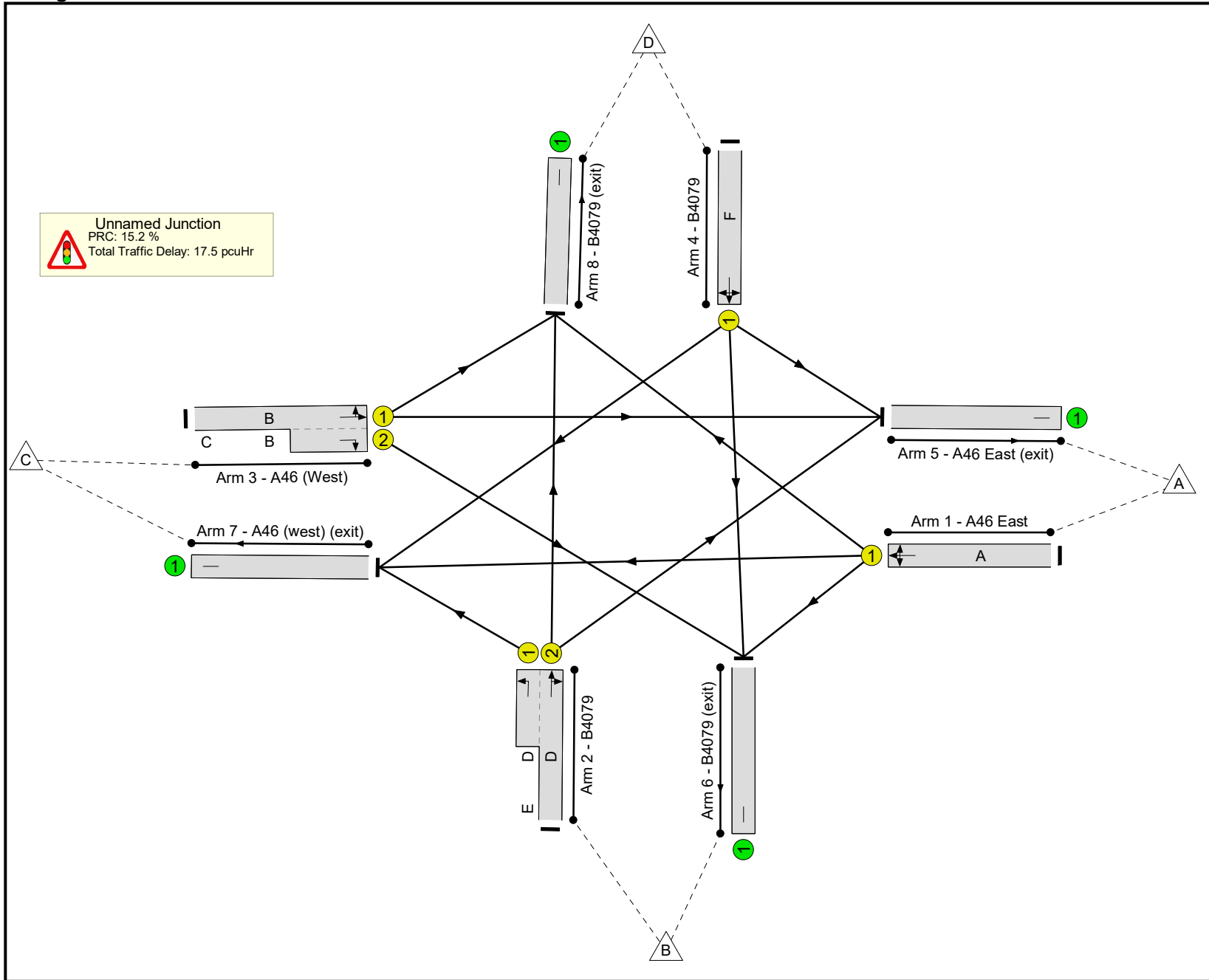
Stage	1	2	3	4
Duration	47	3	8	12
Change Point	0	53	63	77

Signal Timings Diagram





Full Input Data And Results  
**Network Layout Diagram**



Full Input Data And Results

**Network Results**

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>78.1%</b>
<b>Unnamed Junction</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>78.1%</b>
1/1	A46 East Left Ahead Right	U	N/A	N/A	A		1	47	-	714	1865	942	75.8%
2/2+2/1	B4079 Right Left Ahead	U	N/A	N/A	D	E	1	8:17	9	245	2054:1751	189+124	78.1 : 78.1%
3/1+3/2	A46 (West) Ahead Right Left	U	N/A	N/A	B	C	1	57	4	873	1928:1610	977+214	73.3 : 73.3%
4/1	B4079 Left Ahead Right	U	N/A	N/A	F		1	12	-	187	1780	244	76.8%
5/1	A46 East (exit)	U	N/A	N/A	-		-	-	-	710	Inf	Inf	0.0%
6/1	B4079 (exit)	U	N/A	N/A	-		-	-	-	248	Inf	Inf	0.0%
7/1	A46 (west) (exit)	U	N/A	N/A	-		-	-	-	774	Inf	Inf	0.0%
8/1	B4079 (exit)	U	N/A	N/A	-		-	-	-	287	Inf	Inf	0.0%

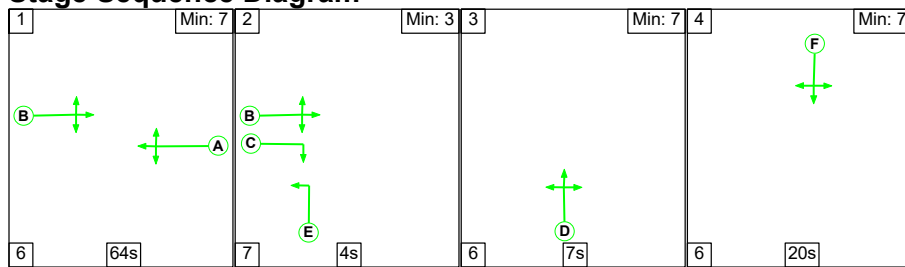
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	0	0	0	11.3	6.2	0.0	17.5	-	-	-	-
<b>Unnamed Junction</b>	-	-	0	0	0	11.3	6.2	0.0	17.5	-	-	-	-
1/1	714	714	-	-	-	3.7	1.5	-	5.3	26.6	15.1	1.5	16.6
2/2+2/1	245	245	-	-	-	2.6	1.7	-	4.3	63.4	3.8	1.7	5.5
3/1+3/2	873	873	-	-	-	2.9	1.4	-	4.2	17.5	14.4	1.4	15.8
4/1	187	187	-	-	-	2.1	1.6	-	3.6	69.7	4.7	1.6	6.3
5/1	710	710	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	248	248	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	774	774	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	287	287	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):		15.2	Total Delay for Signalled Lanes (pcuHr):			17.46	Cycle Time (s): 95			
			PRC Over All Lanes (%):		15.2	Total Delay Over All Lanes(pcuHr):			17.46				

Full Input Data And Results

Scenario 3: '2027 Base AM' (FG3: '2027 Base AM', Plan 1: 'Network Control Plan 1')

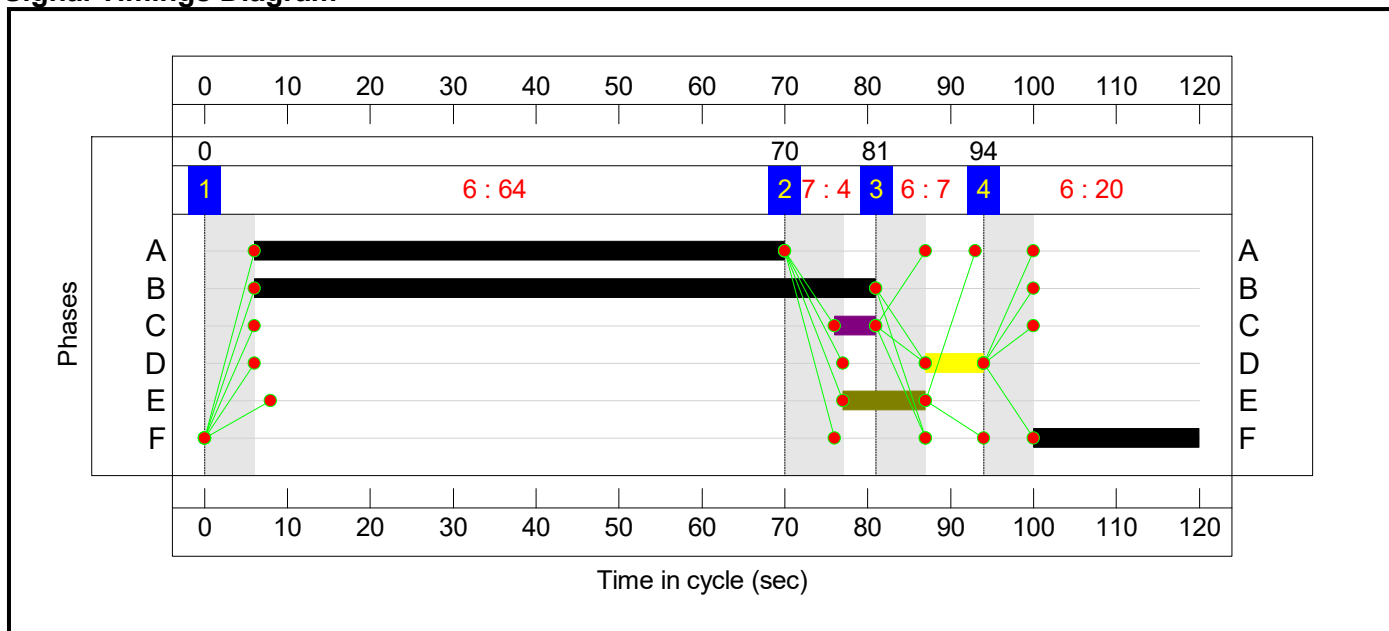
Stage Sequence Diagram



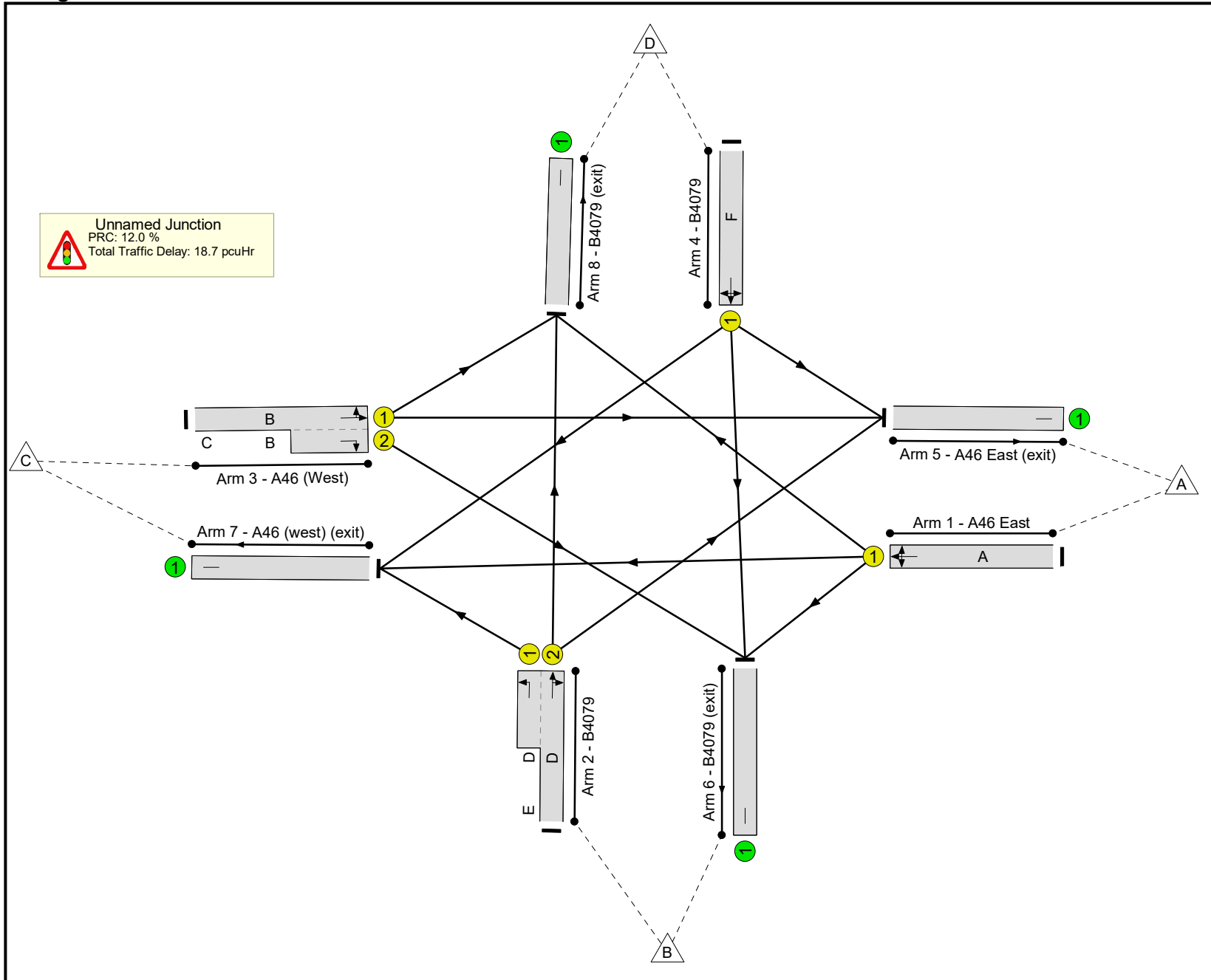
Stage Timings

Stage	1	2	3	4
Duration	64	4	7	20
Change Point	0	70	81	94

Signal Timings Diagram



Full Input Data And Results  
**Network Layout Diagram**



Full Input Data And Results

**Network Results**

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>80.4%</b>
<b>Unnamed Junction</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>80.4%</b>
1/1	A46 East Left Ahead Right	U	N/A	N/A	A		1	64	-	664	1892	1025	64.8%
2/2+2/1	B4079 Right Left Ahead	U	N/A	N/A	D	E	1	7:17	10	249	2056:1751	137+227	68.6 : 68.3%
3/1+3/2	A46 (West) Ahead Right Left	U	N/A	N/A	B	C	1	75	5	858	1944:1610	1094+136	69.8 : 69.8%
4/1	B4079 Left Ahead Right	U	N/A	N/A	F		1	20	-	249	1770	310	80.4%
5/1	A46 East (exit)	U	N/A	N/A	-		-	-	-	819	Inf	Inf	0.0%
6/1	B4079 (exit)	U	N/A	N/A	-		-	-	-	195	Inf	Inf	0.0%
7/1	A46 (west) (exit)	U	N/A	N/A	-		-	-	-	852	Inf	Inf	0.0%
8/1	B4079 (exit)	U	N/A	N/A	-		-	-	-	154	Inf	Inf	0.0%

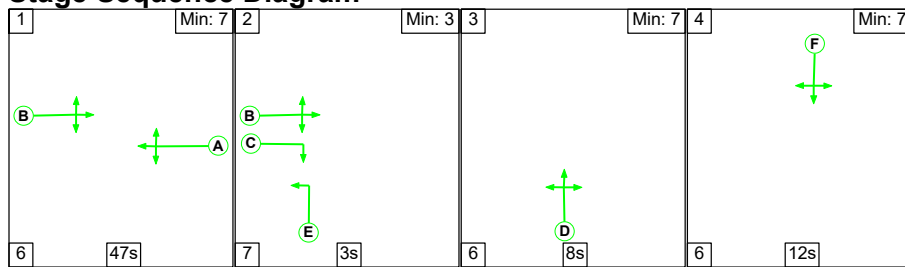
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	0	0	0	13.6	5.1	0.0	18.7	-	-	-	-
<b>Unnamed Junction</b>	-	-	0	0	0	13.6	5.1	0.0	18.7	-	-	-	-
1/1	664	664	-	-	-	3.6	0.9	-	4.5	24.4	15.5	0.9	16.4
2/2+2/1	249	249	-	-	-	3.5	1.1	-	4.5	65.7	4.8	1.1	5.8
3/1+3/2	858	858	-	-	-	3.3	1.1	-	4.4	18.6	17.7	1.1	18.9
4/1	249	249	-	-	-	3.3	1.9	-	5.2	75.4	8.0	1.9	9.9
5/1	819	819	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	195	195	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	852	852	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	154	154	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):		12.0	Total Delay for Signalled Lanes (pcuHr):			18.68	Cycle Time (s): 120			
			PRC Over All Lanes (%):		12.0	Total Delay Over All Lanes(pcuHr):			18.68				

Full Input Data And Results

Scenario 4: '2027 Base PM' (FG4: '2027 Base PM', Plan 1: 'Network Control Plan 1')

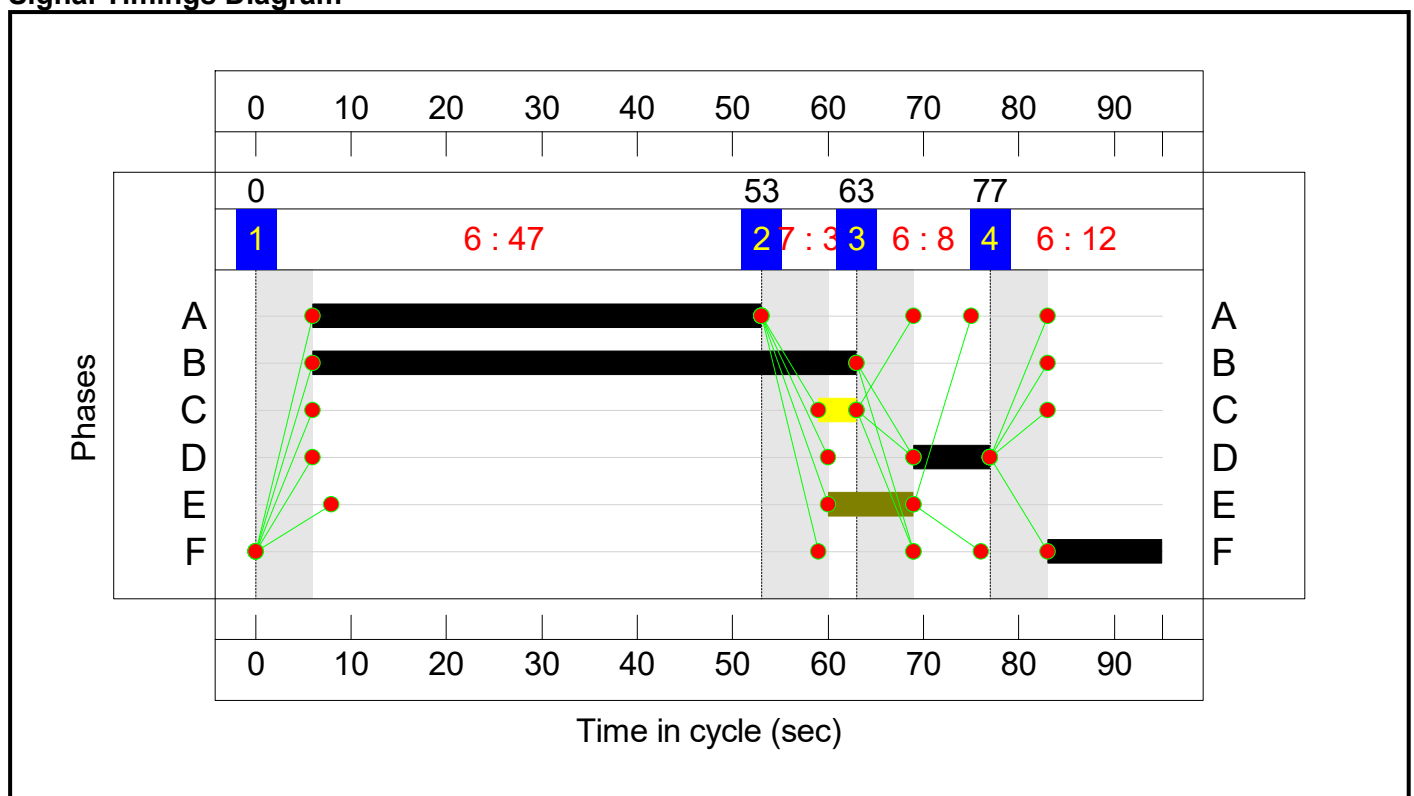
Stage Sequence Diagram



Stage Timings

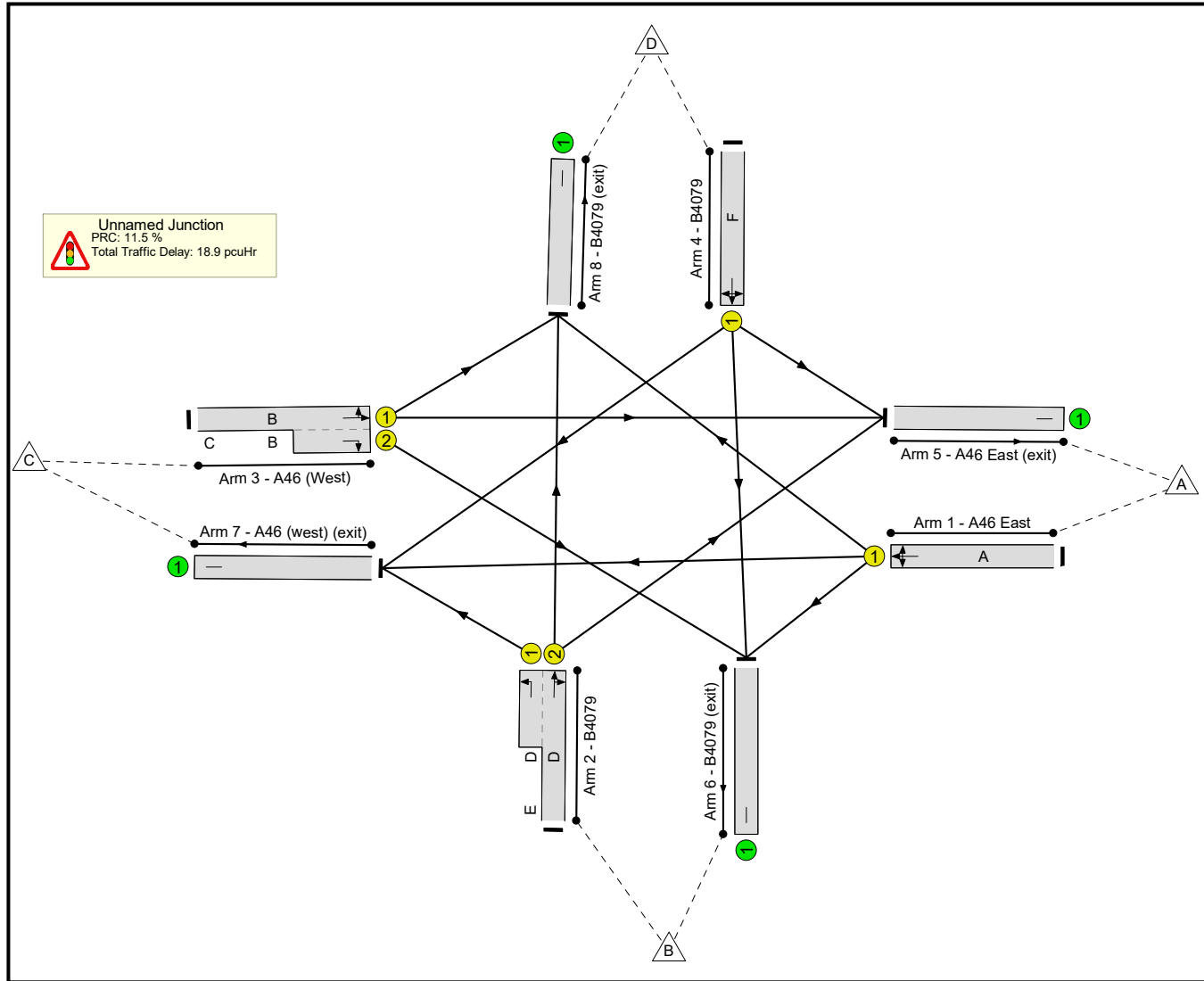
Stage	1	2	3	4
Duration	47	3	8	12
Change Point	0	53	63	77

Signal Timings Diagram





Full Input Data And Results  
Network Layout Diagram



Full Input Data And Results

**Network Results**

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>80.8%</b>
<b>Unnamed Junction</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>80.8%</b>
1/1	A46 East Left Ahead Right	U	N/A	N/A	A		1	47	-	737	1865	942	78.2%
2/2+2/1	B4079 Right Left Ahead	U	N/A	N/A	D	E	1	8:17	9	253	2054:1751	189+124	80.8 : 80.8%
3/1+3/2	A46 (West) Ahead Right Left	U	N/A	N/A	B	C	1	57	4	901	1928:1610	977+214	75.6 : 75.6%
4/1	B4079 Left Ahead Right	U	N/A	N/A	F		1	12	-	193	1780	244	79.2%
5/1	A46 East (exit)	U	N/A	N/A	-		-	-	-	733	Inf	Inf	0.0%
6/1	B4079 (exit)	U	N/A	N/A	-		-	-	-	256	Inf	Inf	0.0%
7/1	A46 (west) (exit)	U	N/A	N/A	-		-	-	-	799	Inf	Inf	0.0%
8/1	B4079 (exit)	U	N/A	N/A	-		-	-	-	296	Inf	Inf	0.0%

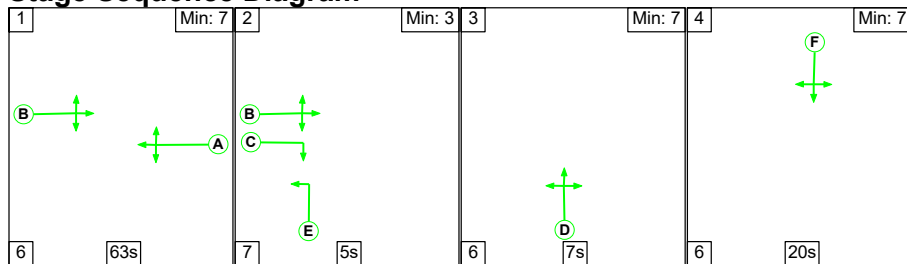
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	0	0	0	11.8	7.1	0.0	18.9	-	-	-	-
<b>Unnamed Junction</b>	-	-	0	0	0	11.8	7.1	0.0	18.9	-	-	-	-
1/1	737	737	-	-	-	3.9	1.8	-	5.7	27.8	15.8	1.8	17.5
2/2+2/1	253	253	-	-	-	2.7	2.0	-	4.7	66.5	3.9	2.0	5.9
3/1+3/2	901	901	-	-	-	3.1	1.5	-	4.6	18.4	15.4	1.5	17.0
4/1	193	193	-	-	-	2.1	1.8	-	3.9	72.9	4.9	1.8	6.7
5/1	733	733	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	256	256	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	799	799	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	296	296	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
<p>C1                      PRC for Signalled Lanes (%): 11.5                      Total Delay for Signalled Lanes (pcuHr): 18.89                      Cycle Time (s): 95</p> <p>   PRC Over All Lanes (%): 11.5                      Total Delay Over All Lanes(pcuHr): 18.89</p>													

Full Input Data And Results

**Scenario 5: '2027 Base + Committed Development AM'** (FG5: '2027 Base + Committed Development AM', Plan 1: 'Network Control Plan 1')

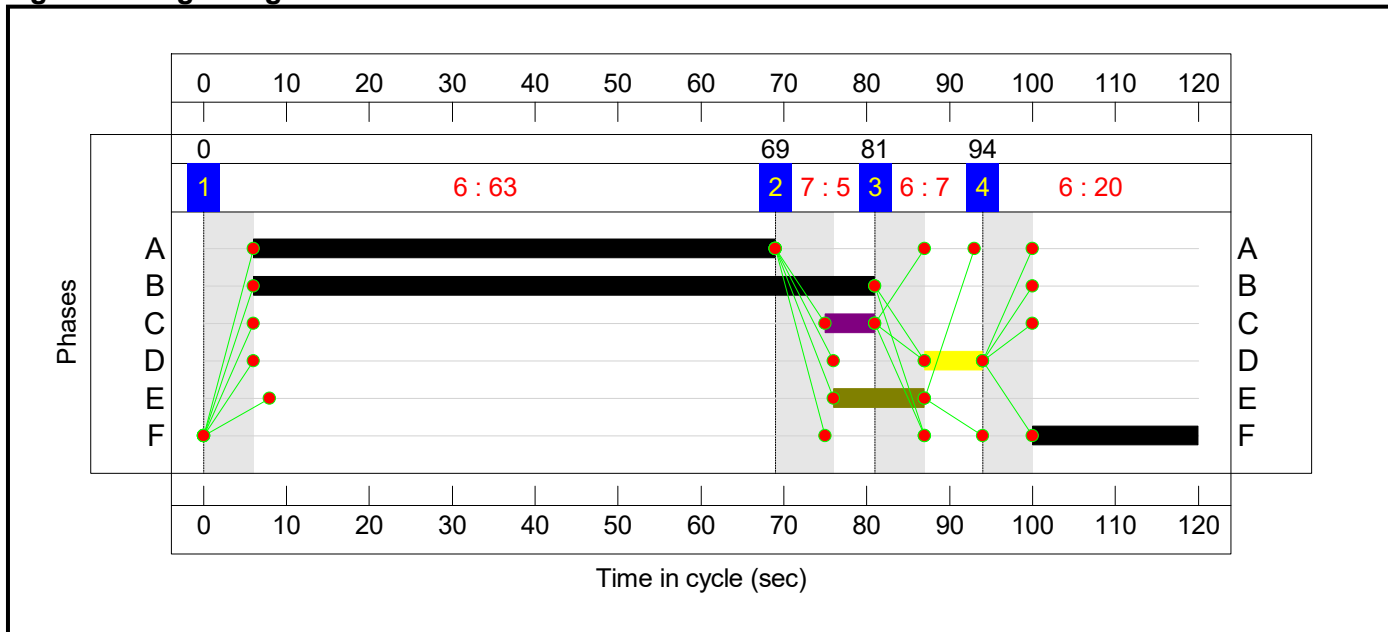
**Stage Sequence Diagram**



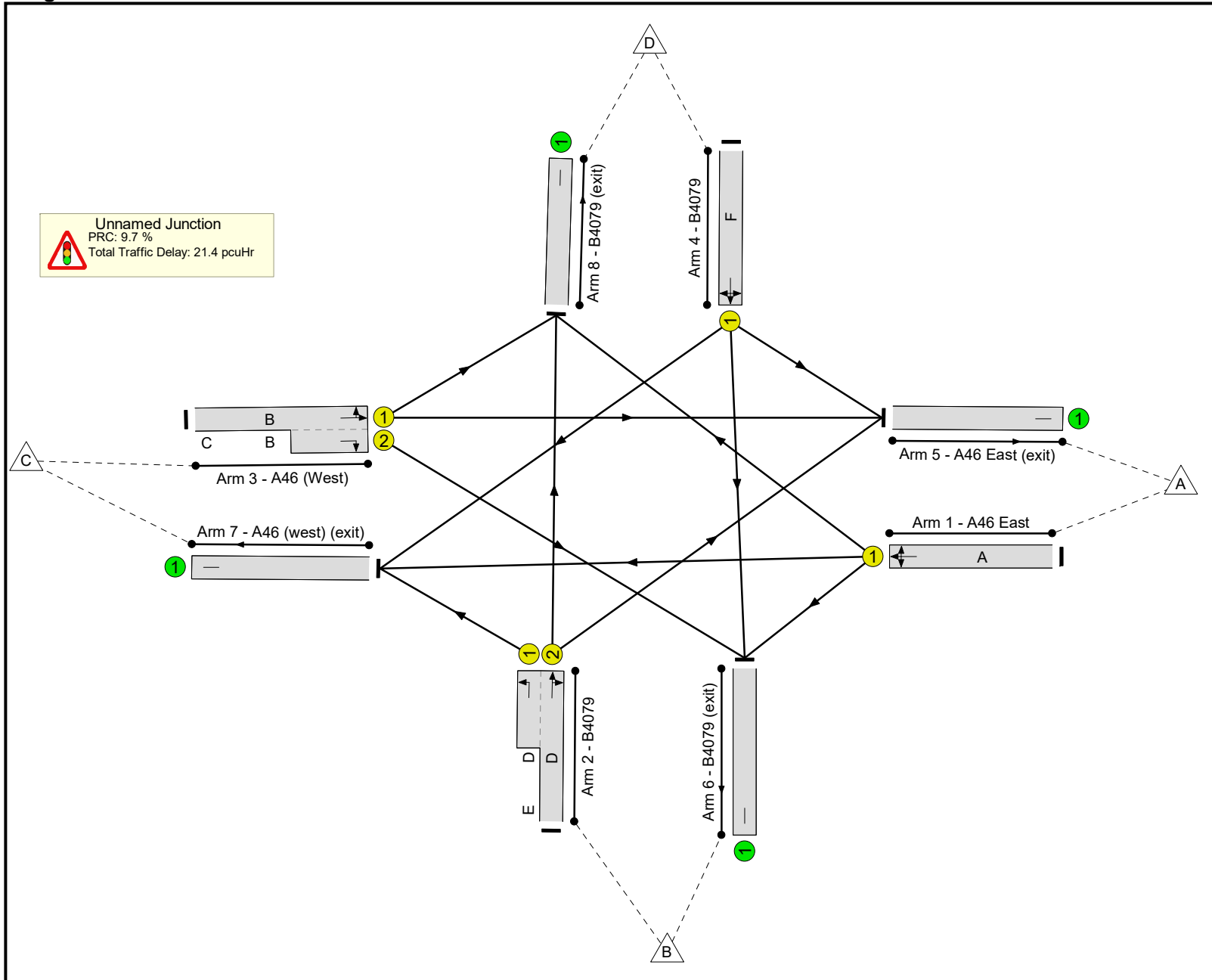
**Stage Timings**

Stage	1	2	3	4
Duration	63	5	7	20
Change Point	0	69	81	94

**Signal Timings Diagram**



Full Input Data And Results  
Network Layout Diagram



Full Input Data And Results

**Network Results**

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>82.0%</b>
<b>Unnamed Junction</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>82.0%</b>
1/1	A46 East Left Ahead Right	U	N/A	N/A	A		1	63	-	727	1894	1010	72.0%
2/2+2/1	B4079 Right Left Ahead	U	N/A	N/A	D	E	1	7:18	11	268	2056:1751	130+240	72.5 : 72.5%
3/1+3/2	A46 (West) Ahead Right Left	U	N/A	N/A	B	C	1	75	6	931	1943:1610	1060+169	75.8 : 75.8%
4/1	B4079 Left Ahead Right	U	N/A	N/A	F		1	20	-	254	1769	310	82.0%
5/1	A46 East (exit)	U	N/A	N/A	-		-	-	-	856	Inf	Inf	0.0%
6/1	B4079 (exit)	U	N/A	N/A	-		-	-	-	228	Inf	Inf	0.0%
7/1	A46 (west) (exit)	U	N/A	N/A	-		-	-	-	937	Inf	Inf	0.0%
8/1	B4079 (exit)	U	N/A	N/A	-		-	-	-	159	Inf	Inf	0.0%

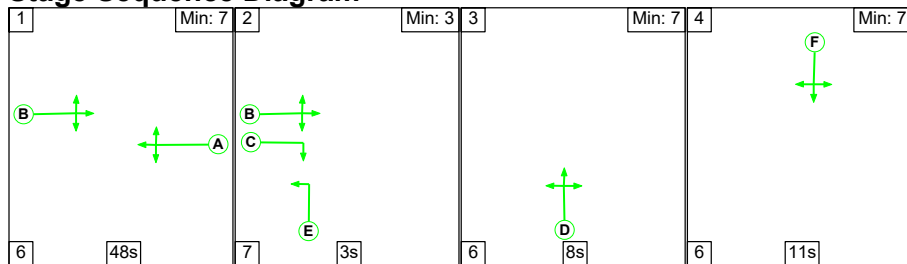
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	15.1	6.2	0.0	21.4	-	-	-	-
Unnamed Junction	-	-	0	0	0	15.1	6.2	0.0	21.4	-	-	-	-
1/1	727	727	-	-	-	4.3	1.3	-	5.6	27.5	18.2	1.3	19.4
2/2+2/1	268	268	-	-	-	3.7	1.3	-	5.0	67.1	5.6	1.3	6.9
3/1+3/2	931	931	-	-	-	3.8	1.5	-	5.3	20.6	20.4	1.5	22.0
4/1	254	254	-	-	-	3.4	2.1	-	5.5	77.8	8.1	2.1	10.2
5/1	856	856	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	228	228	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	937	937	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	159	159	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):		9.7	Total Delay for Signalled Lanes (pcuHr):			21.37	Cycle Time (s): 120			
			PRC Over All Lanes (%):		9.7	Total Delay Over All Lanes(pcuHr):			21.37				

Full Input Data And Results

**Scenario 6: '2027 Base + Committed Development PM'** (FG6: '2027 Base + Committed Development PM', Plan 1: 'Network Control Plan 1')

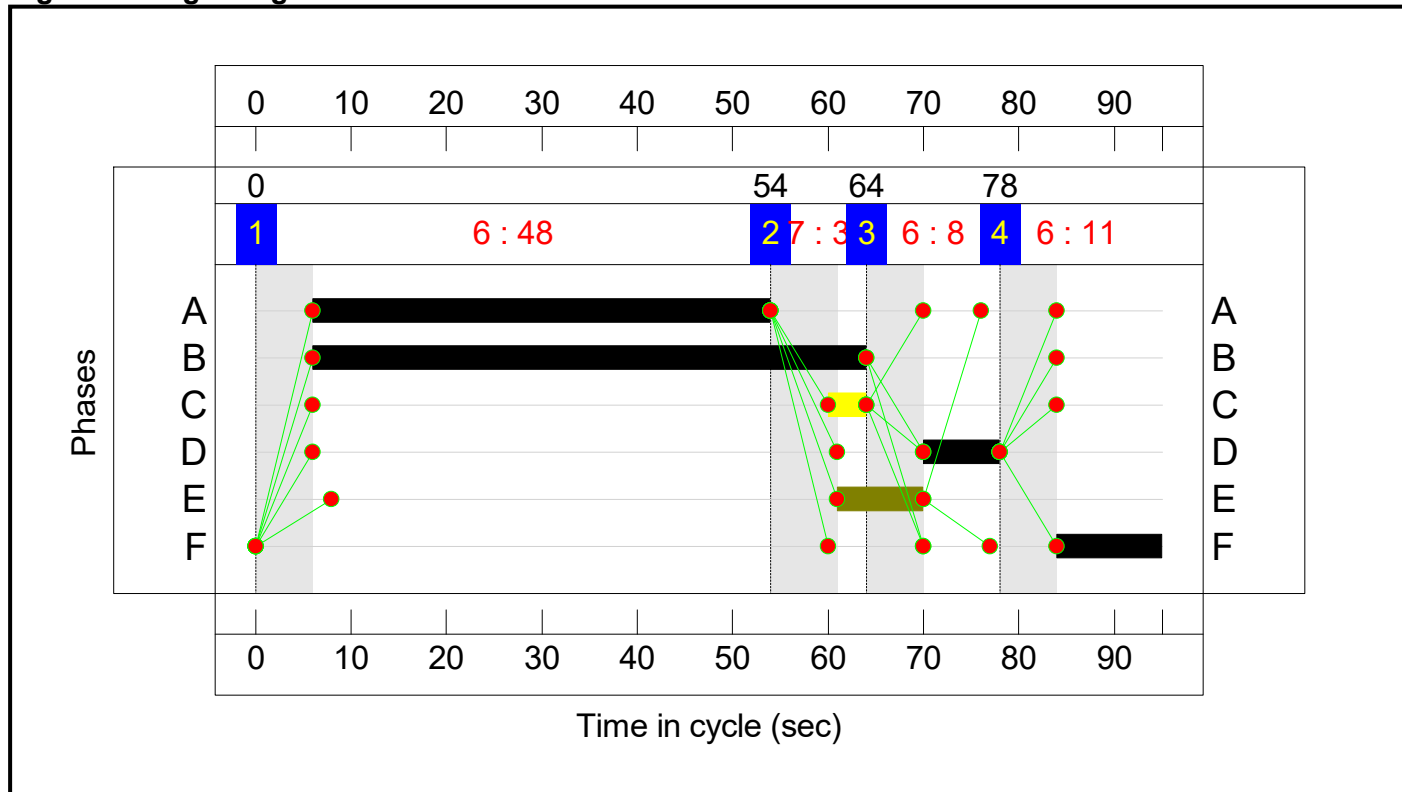
**Stage Sequence Diagram**



**Stage Timings**

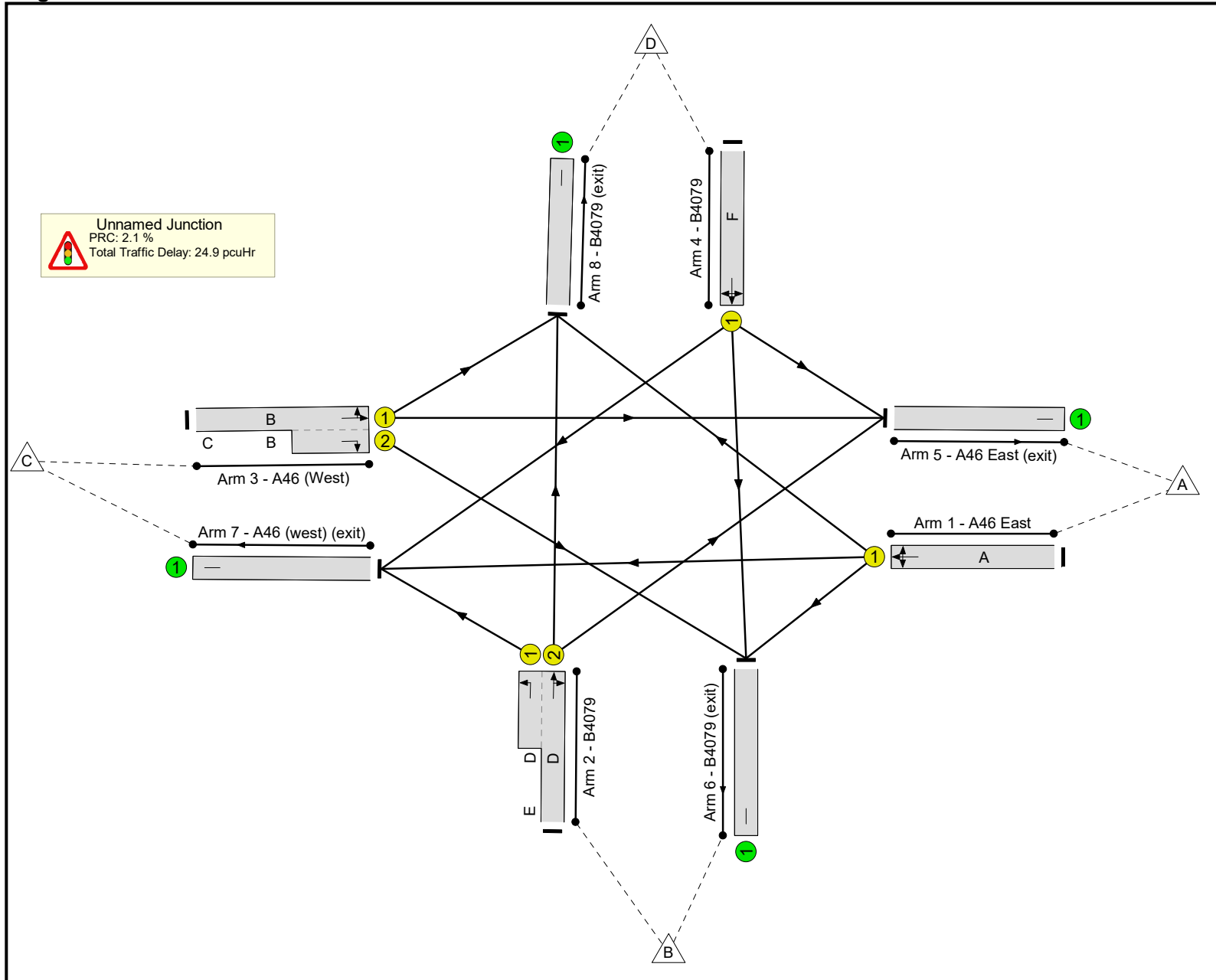
Stage	1	2	3	4
Duration	48	3	8	11
Change Point	0	54	64	78

**Signal Timings Diagram**





Full Input Data And Results  
Network Layout Diagram



Full Input Data And Results

**Network Results**

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>88.2%</b>
<b>Unnamed Junction</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>88.2%</b>
1/1	A46 East Left Ahead Right	U	N/A	N/A	A		1	48	-	824	1871	965	85.4%
2/2+2/1	B4079 Right Left Ahead	U	N/A	N/A	D	E	1	8:17	9	293	2054:1751	189+173	80.8 : 80.8%
3/1+3/2	A46 (West) Ahead Right Left	U	N/A	N/A	B	C	1	58	4	1052	1930:1610	993+219	86.8 : 86.8%
4/1	B4079 Left Ahead Right	U	N/A	N/A	F		1	11	-	198	1778	225	88.2%
5/1	A46 East (exit)	U	N/A	N/A	-		-	-	-	853	Inf	Inf	0.0%
6/1	B4079 (exit)	U	N/A	N/A	-		-	-	-	284	Inf	Inf	0.0%
7/1	A46 (west) (exit)	U	N/A	N/A	-		-	-	-	929	Inf	Inf	0.0%
8/1	B4079 (exit)	U	N/A	N/A	-		-	-	-	301	Inf	Inf	0.0%

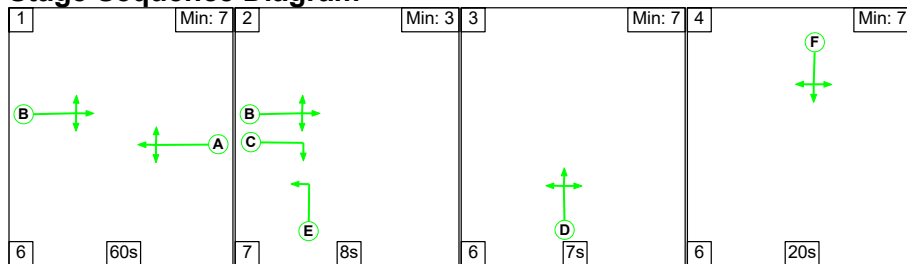
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	0	0	0	13.9	11.0	0.0	24.9	-	-	-	-
<b>Unnamed Junction</b>	-	-	0	0	0	13.9	11.0	0.0	24.9	-	-	-	-
1/1	824	824	-	-	-	4.6	2.8	-	7.4	32.2	18.8	2.8	21.6
2/2+2/1	293	293	-	-	-	3.1	2.0	-	5.1	62.6	3.9	2.0	5.9
3/1+3/2	1052	1052	-	-	-	4.0	3.2	-	7.1	24.4	21.1	3.2	24.3
4/1	198	198	-	-	-	2.2	3.0	-	5.3	95.9	5.1	3.0	8.1
5/1	853	853	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	284	284	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	929	929	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	301	301	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):		2.1	Total Delay for Signalled Lanes (pcuHr):			24.88	Cycle Time (s): 95			
			PRC Over All Lanes (%):		2.1	Total Delay Over All Lanes(pcuHr):			24.88				

Full Input Data And Results

**Scenario 7: '2027 Base + Committed Development + Development AM'** (FG7: '2027 Base + Committed Development + Development AM', Plan 1: 'Network Control Plan 1')

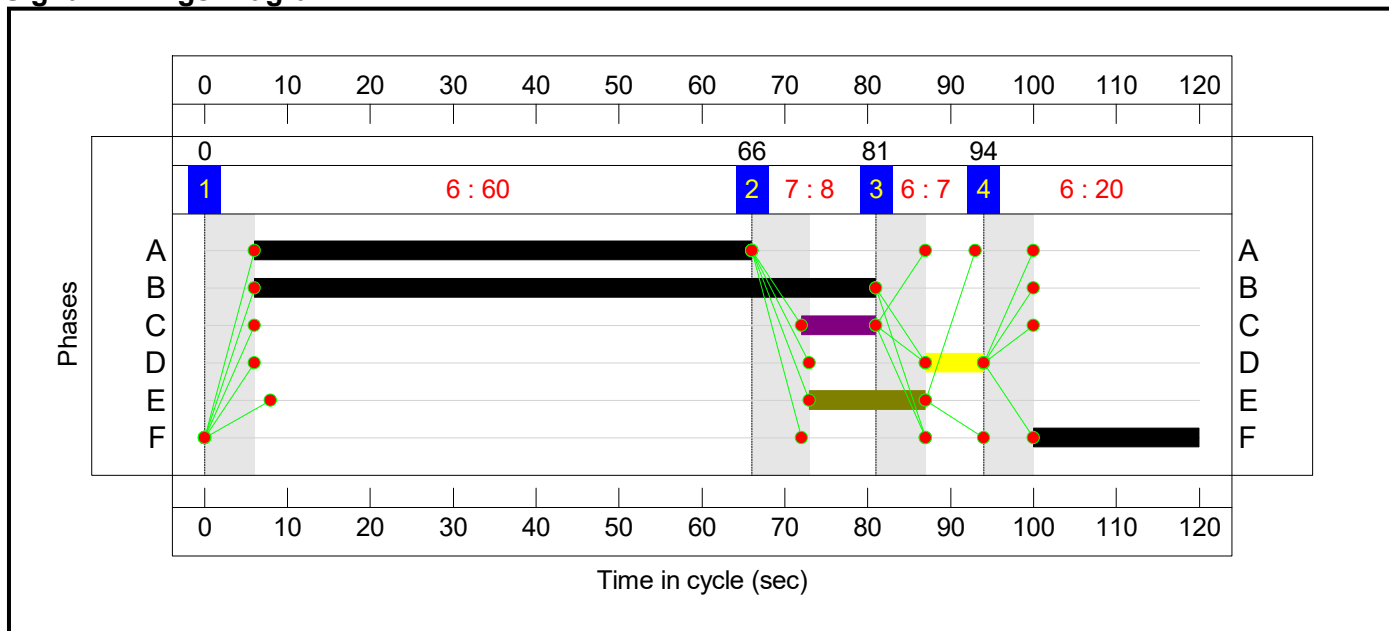
**Stage Sequence Diagram**



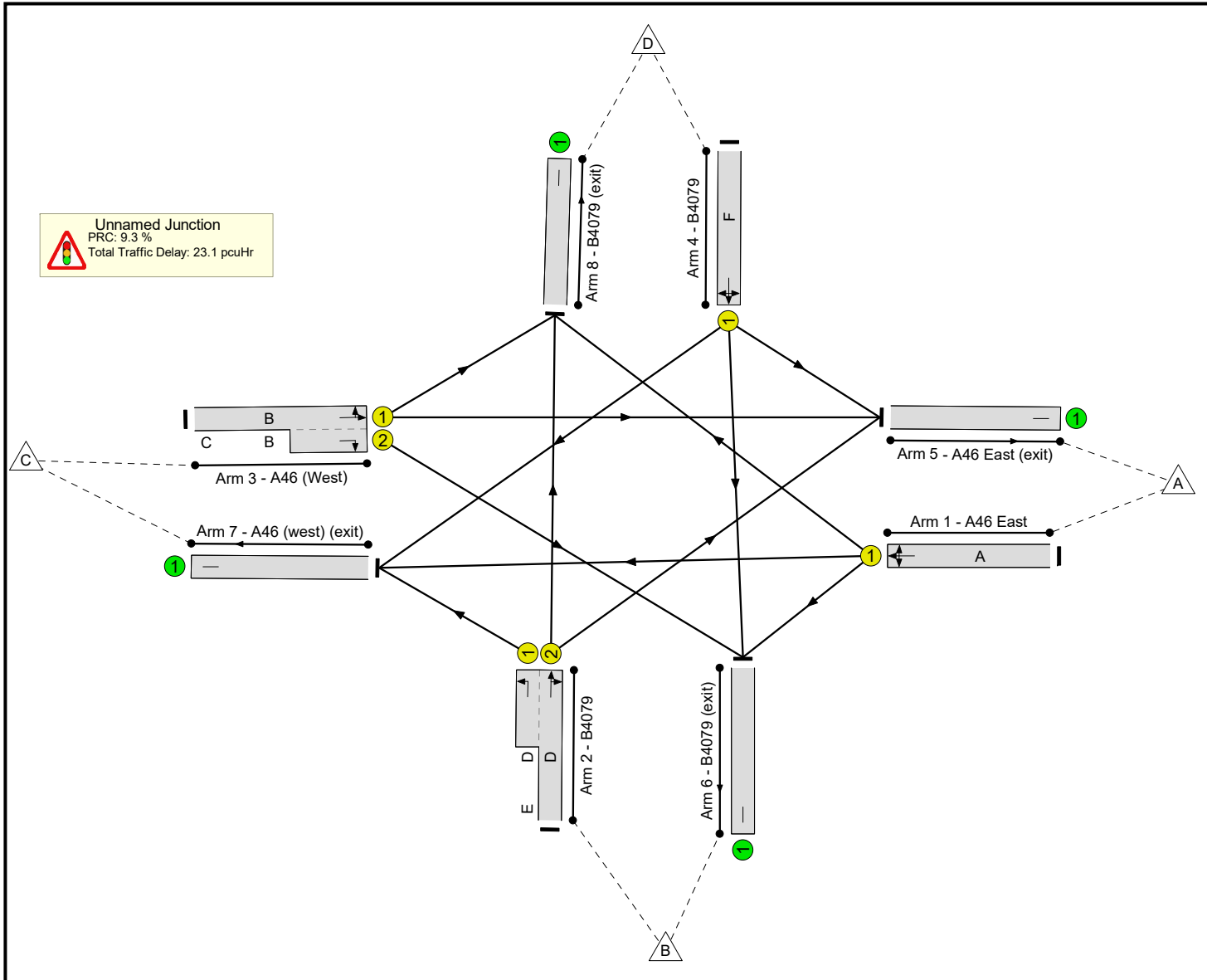
**Stage Timings**

Stage	1	2	3	4
Duration	60	8	7	20
Change Point	0	66	81	94

**Signal Timings Diagram**



Full Input Data And Results  
**Network Layout Diagram**



Full Input Data And Results

**Network Results**

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>82.3%</b>
<b>Unnamed Junction</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>82.3%</b>
1/1	A46 East Left Ahead Right	U	N/A	N/A	A		1	60	-	728	1894	963	75.6%
2/2+2/1	B4079 Right Left Ahead	U	N/A	N/A	D	E	1	7:21	14	309	2050:1751	128+275	76.6 : 76.6%
3/1+3/2	A46 (West) Ahead Right Left	U	N/A	N/A	B	C	1	75	9	946	1943:1610	1043+186	77.0 : 77.0%
4/1	B4079 Left Ahead Right	U	N/A	N/A	F		1	20	-	255	1770	310	82.3%
5/1	A46 East (exit)	U	N/A	N/A	-		-	-	-	859	Inf	Inf	0.0%
6/1	B4079 (exit)	U	N/A	N/A	-		-	-	-	245	Inf	Inf	0.0%
7/1	A46 (west) (exit)	U	N/A	N/A	-		-	-	-	974	Inf	Inf	0.0%
8/1	B4079 (exit)	U	N/A	N/A	-		-	-	-	160	Inf	Inf	0.0%

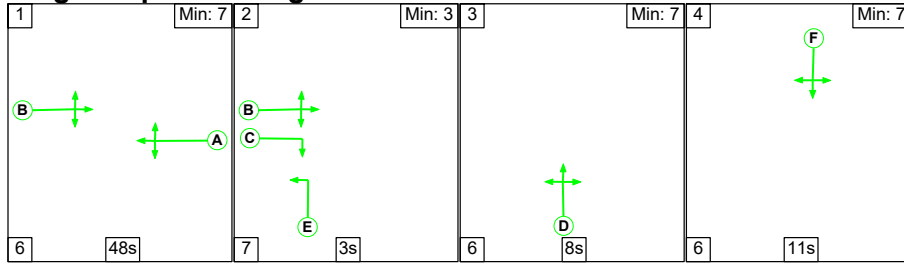
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	0	0	0	16.2	6.9	0.0	23.1	-	-	-	-
<b>Unnamed Junction</b>	-	-	0	0	0	16.2	6.9	0.0	23.1	-	-	-	-
1/1	728	728	-	-	-	4.8	1.5	-	6.3	31.1	19.2	1.5	20.7
2/2+2/1	309	309	-	-	-	4.2	1.6	-	5.8	67.0	7.3	1.6	8.9
3/1+3/2	946	946	-	-	-	3.9	1.7	-	5.5	21.1	20.9	1.7	22.6
4/1	255	255	-	-	-	3.4	2.2	-	5.5	78.2	8.1	2.2	10.3
5/1	859	859	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	245	245	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	974	974	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	160	160	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):		9.3	Total Delay for Signalled Lanes (pcuHr):			23.12	Cycle Time (s): 120			
			PRC Over All Lanes (%):		9.3	Total Delay Over All Lanes(pcuHr):			23.12				

Full Input Data And Results

**Scenario 8: '2027 Base + Committed Development + Development PM'** (FG8: '2027 Base + Committed Development + Development PM', Plan 1: 'Network Control Plan 1')

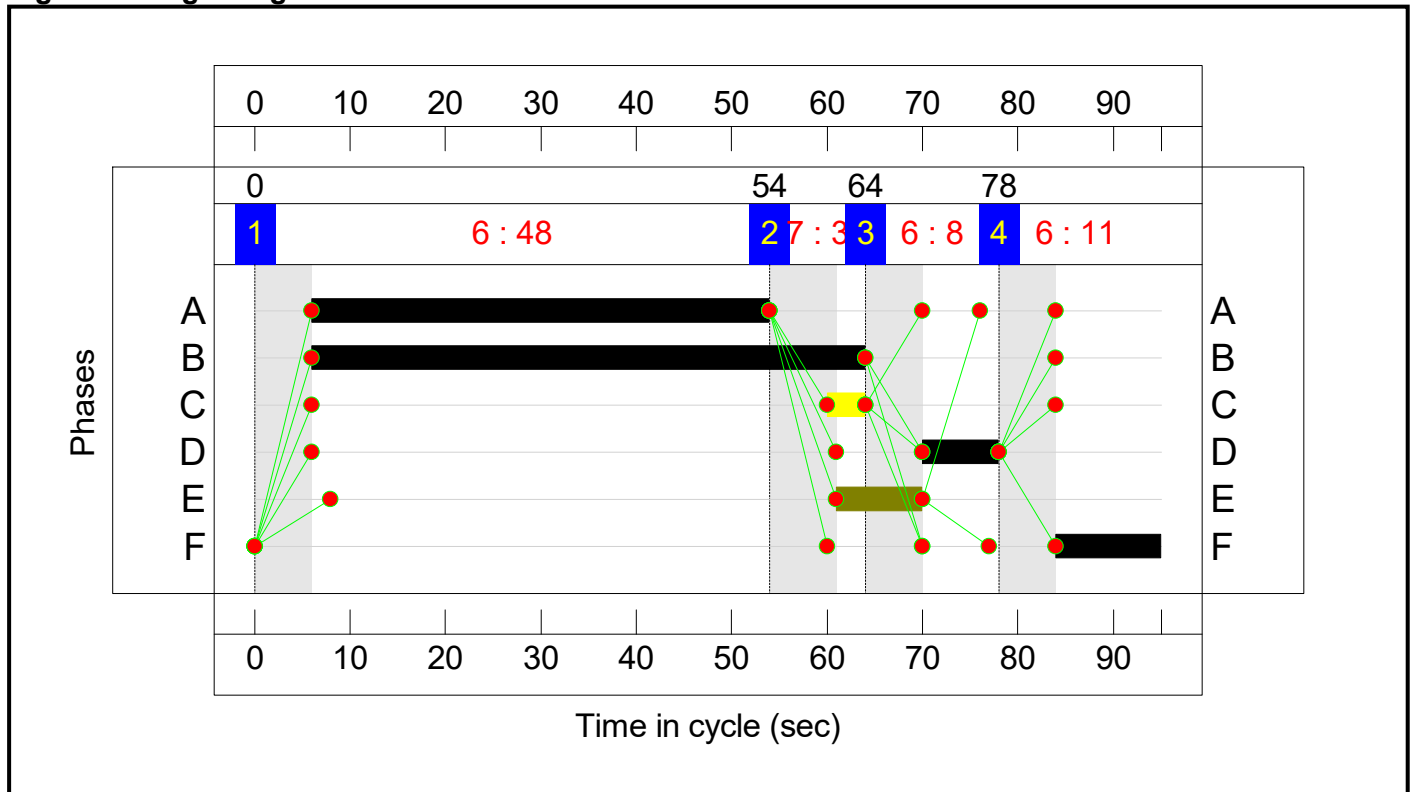
**Stage Sequence Diagram**



**Stage Timings**

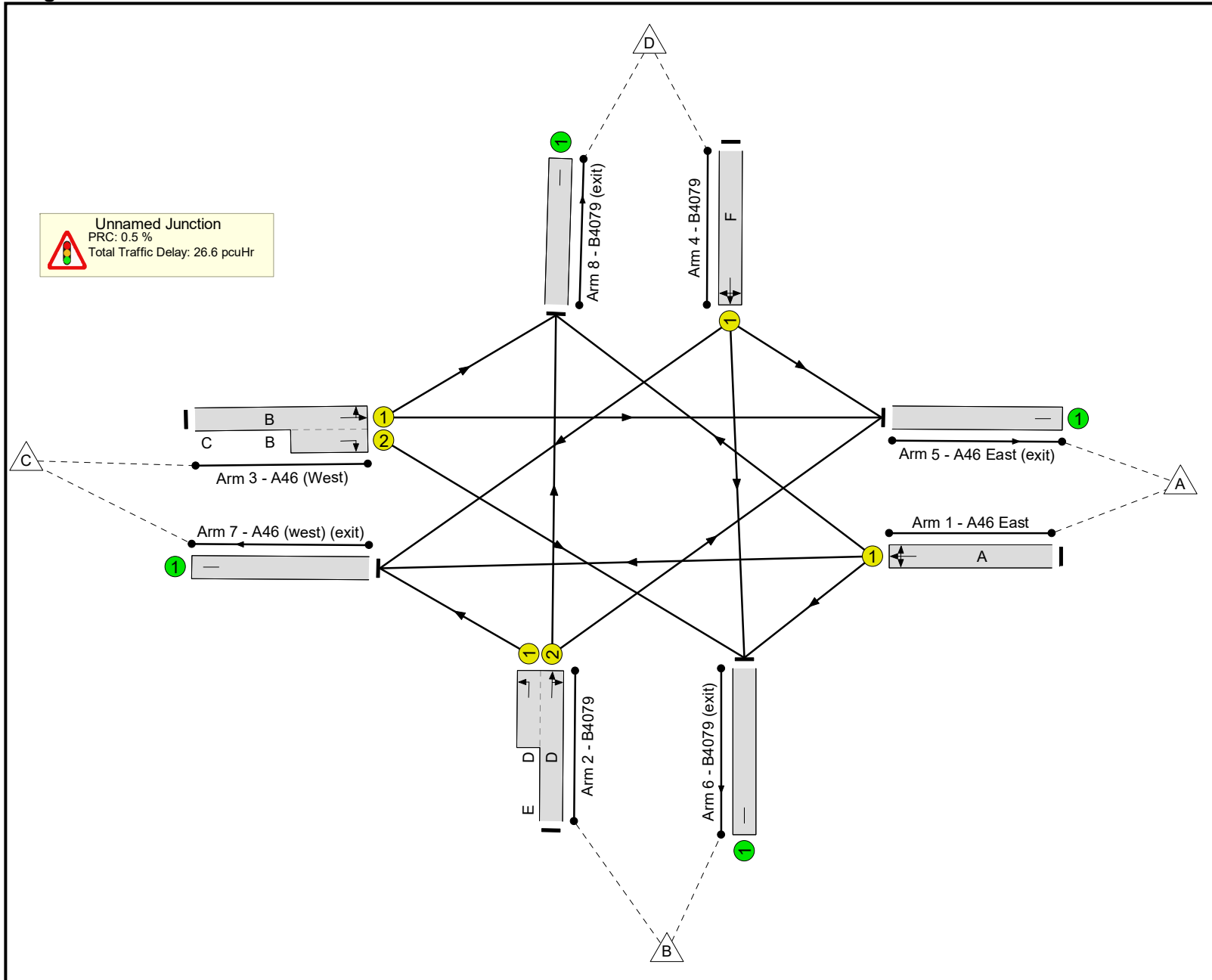
Stage	1	2	3	4
Duration	48	3	8	11
Change Point	0	54	64	78

**Signal Timings Diagram**





Full Input Data And Results  
**Network Layout Diagram**



Full Input Data And Results

**Network Results**

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
<b>Network</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>89.6%</b>
<b>Unnamed Junction</b>	-	-	<b>N/A</b>	-	-		-	-	-	-	-	-	<b>89.6%</b>
1/1	A46 East Left Ahead Right	U	N/A	N/A	A		1	48	-	827	1871	965	85.7%
2/2+2/1	B4079 Right Left Ahead	U	N/A	N/A	D	E	1	8:17	9	315	2052:1751	189+193	82.3 : 82.3%
3/1+3/2	A46 (West) Ahead Right Left	U	N/A	N/A	B	C	1	58	4	1088	1930:1610	962+252	89.6 : 89.6%
4/1	B4079 Left Ahead Right	U	N/A	N/A	F		1	11	-	199	1779	225	88.6%
5/1	A46 East (exit)	U	N/A	N/A	-		-	-	-	855	Inf	Inf	0.0%
6/1	B4079 (exit)	U	N/A	N/A	-		-	-	-	324	Inf	Inf	0.0%
7/1	A46 (west) (exit)	U	N/A	N/A	-		-	-	-	948	Inf	Inf	0.0%
8/1	B4079 (exit)	U	N/A	N/A	-		-	-	-	302	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
<b>Network</b>	-	-	0	0	0	14.4	12.2	0.0	26.6	-	-	-	-
<b>Unnamed Junction</b>	-	-	0	0	0	14.4	12.2	0.0	26.6	-	-	-	-
1/1	827	827	-	-	-	4.6	2.9	-	7.5	32.5	18.8	2.9	21.7
2/2+2/1	315	315	-	-	-	3.3	2.2	-	5.5	63.2	4.0	2.2	6.2
3/1+3/2	1088	1088	-	-	-	4.2	4.0	-	8.3	27.4	22.6	4.0	26.6
4/1	199	199	-	-	-	2.3	3.1	-	5.4	97.2	5.1	3.1	8.3
5/1	855	855	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	324	324	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	948	948	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	302	302	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):		0.5	Total Delay for Signalled Lanes (pcuHr):			26.63	Cycle Time (s): 95			
			PRC Over All Lanes (%):		0.5	Total Delay Over All Lanes(pcuHr):			26.63				

Junctions 10
PICADY 10 - Priority Intersection Module
Version: 10.0.4.1693 © Copyright TRL Software Limited, 2021
For sales and distribution information, program advice and maintenance, contact TRL Software: +44 (0)1344 379777 software@trl.co.uk trlsoftware.com
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: B4079\_A435.j10  
 Path: P:\23000's\23089\Junction Assessments  
 Report generation date: 20/07/2023 10:13:52

- »2023 Base, AM
- »2023 Base, PM
- »2027 Base, AM
- »2027 Base, PM
- »2027 Base + Committed Development, AM
- »2027 Base + Committed Development, PM
- »2027 Base + Committed Development + Development, AM
- »2027 Base + Committed Development + Development, PM

**Summary of junction performance**

	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
2023 Base						
Stream B-AC	2.0	29.60	0.66	4.8	62.92	0.85
Stream C-AB	0.1	4.64	0.05	0.1	4.76	0.08
2027 Base						
Stream B-AC	2.4	34.28	0.70	6.7	85.36	0.91
Stream C-AB	0.1	4.62	0.06	0.2	4.73	0.08
2027 Base + Committed Development						
Stream B-AC	3.8	49.42	0.80	12.8	140.53	1.00
Stream C-AB	0.1	4.62	0.06	0.2	4.73	0.08
2027 Base + Committed Development + Development						
Stream B-AC	5.0	61.50	0.85	15.4	161.72	1.03
Stream C-AB	0.1	4.62	0.06	0.2	4.73	0.08

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

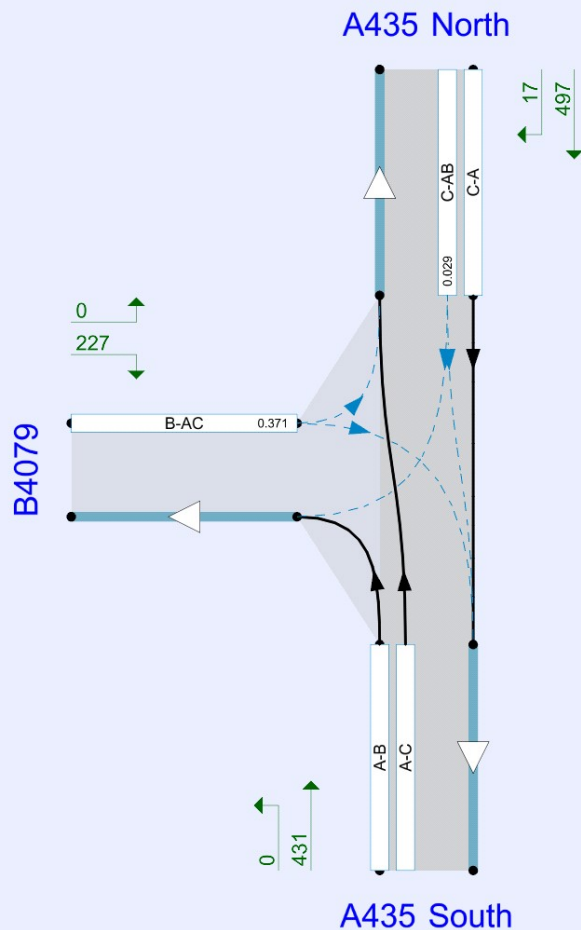
## File summary

### File Description

<b>Title</b>	B4079/ A435
<b>Location</b>	
<b>Site number</b>	
<b>Date</b>	20/07/2023
<b>Version</b>	
<b>Status</b>	(new file)
<b>Identifier</b>	
<b>Client</b>	
<b>Jobnumber</b>	23089
<b>Enumerator</b>	DTA/nicholasanderson
<b>Description</b>	

## 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



Flows show original traffic demand (PCU/hr).  
Streams (downstream end) show RFC ()

The junction diagram reflects the last run of Junctions.

### Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

### Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023 Base	AM	ONE HOUR	07:15	08:45	15	✓
D2	2023 Base	PM	ONE HOUR	16:30	18:00	15	✓
D3	2027 Base	AM	ONE HOUR	07:15	08:45	15	✓
D4	2027 Base	PM	ONE HOUR	16:30	18:00	15	✓
D5	2027 Base + Committed Development	AM	ONE HOUR	07:15	08:45	15	✓
D6	2027 Base + Committed Development	PM	ONE HOUR	16:30	18:00	15	✓
D7	2027 Base + Committed Development + Development	AM	ONE HOUR	07:15	08:45	15	✓
D8	2027 Base + Committed Development + Development	PM	ONE HOUR	16:30	18:00	15	✓

### Analysis Set Details

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

# 2023 Base, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		5.88	A

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.88	A

## Arms

### Arms

Arm	Name	Description	Arm type
A	A435 South		Major
B	B4079		Minor
C	A435 North		Major

### Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
A435 North	7.00			110.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

### Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B4079	One lane	4.60	103	200

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	712	0.124	0.313	0.197	0.448
B-C	870	0.128	0.322	-	-
C-B	638	0.236	0.236	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

### Stream Intercept Adjustments

Stream intercept adjustment	Use adjustment	Reason	Direct intercept adjustment (PCU/hr)
B-AC	✓		-70

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023 Base	AM	ONE HOUR	07:15	08:45	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A435 South		ONE HOUR	✓	431	100.000
B4079		ONE HOUR	✓	227	100.000
A435 North		ONE HOUR	✓	514	100.000

## Origin-Destination Data

### Demand (PCU/hr)

	From	To		
		A435 South	B4079	A435 North
	A435 South	0	0	431
	B4079	227	0	0
	A435 North	497	17	0

## Vehicle Mix

### Heavy Vehicle Percentages

	From	To		
		A435 South	B4079	A435 North
	A435 South	0	0	6
	B4079	5	0	0
	A435 North	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.66	29.60	2.0	D	208	312
C-AB	0.05	4.64	0.1	A	34	51
C-A					437	656
A-B					0	0
A-C					395	593



### Main Results for each time segment

#### 07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	171	43	460	0.371	168	0.0	0.6	12.848	B
C-AB	24	6	819	0.029	23	0.0	0.0	4.628	A
C-A	363	91			363				
A-B	0	0			0				
A-C	324	81			324				

#### 07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	204	51	425	0.480	203	0.6	0.9	16.893	C
C-AB	32	8	857	0.037	32	0.0	0.1	4.466	A
C-A	430	108			430				
A-B	0	0			0				
A-C	387	97			387				

#### 07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	250	62	377	0.664	246	0.9	1.9	28.153	D
C-AB	47	12	913	0.051	47	0.1	0.1	4.271	A
C-A	519	130			519				
A-B	0	0			0				
A-C	475	119			475				

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	250	62	377	0.664	250	1.9	2.0	29.600	D
C-AB	47	12	913	0.051	47	0.1	0.1	4.280	A
C-A	519	130			519				
A-B	0	0			0				
A-C	475	119			475				

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	204	51	425	0.480	208	2.0	1.0	17.703	C
C-AB	32	8	857	0.037	32	0.1	0.1	4.486	A
C-A	430	108			430				
A-B	0	0			0				
A-C	387	97			387				

#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	171	43	460	0.371	172	1.0	0.6	13.196	B
C-AB	24	6	819	0.029	24	0.1	0.0	4.640	A
C-A	363	91			363				
A-B	0	0			0				
A-C	324	81			324				

# 2023 Base, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		13.15	B

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	13.15	B

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2023 Base	PM	ONE HOUR	16:30	18:00	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A435 South		ONE HOUR	✓	523	100.000
B4079		ONE HOUR	✓	268	100.000
A435 North		ONE HOUR	✓	511	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A435 South	B4079	A435 North
From	A435 South	0	0	523
	B4079	264	0	4
	A435 North	486	25	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A435 South	B4079	A435 North
From	A435 South	0	0	3
	B4079	0	0	0
	A435 North	2	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.85	62.92	4.8	F	246	369
C-AB	0.08	4.76	0.1	A	51	76
C-A					418	628
A-B					0	0
A-C					480	720

### Main Results for each time segment

#### 16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	202	50	440	0.459	198	0.0	0.8	14.716	B
C-AB	35	9	800	0.043	34	0.0	0.1	4.745	A
C-A	350	88			350				
A-B	0	0			0				
A-C	394	98			394				

#### 16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	241	60	400	0.602	239	0.8	1.4	21.898	C
C-AB	47	12	836	0.057	47	0.1	0.1	4.610	A
C-A	412	103			412				
A-B	0	0			0				
A-C	470	118			470				

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	295	74	346	0.854	284	1.4	4.2	51.117	F
C-AB	70	17	888	0.078	69	0.1	0.1	4.449	A
C-A	493	123			493				
A-B	0	0			0				
A-C	576	144			576				

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	295	74	346	0.854	293	4.2	4.8	62.923	F
C-AB	70	17	888	0.078	70	0.1	0.1	4.456	A
C-A	493	123			493				
A-B	0	0			0				
A-C	576	144			576				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	241	60	400	0.602	254	4.8	1.6	26.356	D
C-AB	47	12	836	0.057	48	0.1	0.1	4.621	A
C-A	412	103			412				
A-B	0	0			0				
A-C	470	118			470				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	202	50	440	0.459	205	1.6	0.9	15.488	C
C-AB	35	9	800	0.044	35	0.1	0.1	4.755	A
C-A	350	87			350				
A-B	0	0			0				
A-C	394	98			394				

# 2027 Base, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		6.80	A

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.80	A

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2027 Base	AM	ONE HOUR	07:15	08:45	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A435 South		ONE HOUR	✓	446	100.000
B4079		ONE HOUR	✓	235	100.000
A435 North		ONE HOUR	✓	531	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A435 South	B4079	A435 North
From	A435 South	0	0	446
	B4079	235	0	0
	A435 North	513	18	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A435 South	B4079	A435 North
From	A435 South	0	0	6
	B4079	5	0	0
	A435 North	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.70	34.28	2.4	D	216	323
C-AB	0.06	4.62	0.1	A	37	56
C-A					450	675
A-B					0	0
A-C					409	614

### Main Results for each time segment

#### 07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	177	44	454	0.390	174	0.0	0.7	13.390	B
C-AB	25	6	825	0.031	25	0.0	0.0	4.606	A
C-A	374	94			374				
A-B	0	0			0				
A-C	336	84			336				

#### 07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	211	53	418	0.506	210	0.7	1.0	18.032	C
C-AB	35	9	865	0.040	35	0.0	0.1	4.442	A
C-A	443	111			443				
A-B	0	0			0				
A-C	401	100			401				

#### 07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	259	65	367	0.704	254	1.0	2.2	32.005	D
C-AB	51	13	923	0.056	51	0.1	0.1	4.247	A
C-A	533	133			533				
A-B	0	0			0				
A-C	491	123			491				

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	259	65	367	0.704	258	2.2	2.4	34.282	D
C-AB	51	13	923	0.056	51	0.1	0.1	4.257	A
C-A	533	133			533				
A-B	0	0			0				
A-C	491	123			491				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	211	53	418	0.506	216	2.4	1.1	19.192	C
C-AB	35	9	865	0.040	35	0.1	0.1	4.461	A
C-A	443	111			443				
A-B	0	0			0				
A-C	401	100			401				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	177	44	454	0.390	179	1.1	0.7	13.811	B
C-AB	26	6	825	0.031	26	0.1	0.0	4.618	A
C-A	374	94			374				
A-B	0	0			0				
A-C	336	84			336				

# 2027 Base, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		17.79	C

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	17.79	C

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2027 Base	PM	ONE HOUR	16:30	18:00	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A435 South		ONE HOUR	✓	540	100.000
B4079		ONE HOUR	✓	277	100.000
A435 North		ONE HOUR	✓	528	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A435 South	B4079	A435 North
From	A435 South	0	0	540
	B4079	273	0	4
	A435 North	502	26	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A435 South	B4079	A435 North
From	A435 South	0	0	3
	B4079	0	0	0
	A435 North	2	0	0



## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.91	85.36	6.7	F	254	381
C-AB	0.08	4.73	0.2	A	54	81
C-A					430	646
A-B					0	0
A-C					496	743

### Main Results for each time segment

#### 16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	209	52	433	0.481	205	0.0	0.9	15.541	C
C-AB	37	9	806	0.046	37	0.0	0.1	4.722	A
C-A	361	90			361				
A-B	0	0			0				
A-C	407	102			407				

#### 16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	249	62	392	0.635	246	0.9	1.6	24.139	C
C-AB	50	13	843	0.060	50	0.1	0.1	4.586	A
C-A	424	106			424				
A-B	0	0			0				
A-C	485	121			485				

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	305	76	336	0.908	289	1.6	5.5	63.238	F
C-AB	75	19	897	0.083	75	0.1	0.2	4.428	A
C-A	506	127			506				
A-B	0	0			0				
A-C	595	149			595				

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	305	76	336	0.909	300	5.5	6.7	85.364	F
C-AB	75	19	897	0.084	75	0.2	0.2	4.434	A
C-A	506	127			506				
A-B	0	0			0				
A-C	595	149			595				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	249	62	392	0.635	268	6.7	1.9	32.686	D
C-AB	51	13	843	0.060	51	0.2	0.1	4.599	A
C-A	424	106			424				
A-B	0	0			0				
A-C	485	121			485				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	209	52	433	0.482	212	1.9	1.0	16.553	C
C-AB	37	9	806	0.046	37	0.1	0.1	4.731	A
C-A	360	90			360				
A-B	0	0			0				
A-C	407	102			407				

# 2027 Base + Committed Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		10.79	B

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.79	B

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2027 Base + Committed Development	AM	ONE HOUR	07:15	08:45	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A435 South		ONE HOUR	✓	446	100.000
B4079		ONE HOUR	✓	268	100.000
A435 North		ONE HOUR	✓	531	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A435 South	B4079	A435 North
From	A435 South	0	0	446
	B4079	268	0	0
	A435 North	513	18	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A435 South	B4079	A435 North
From	A435 South	0	0	6
	B4079	5	0	0
	A435 North	5	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.80	49.42	3.8	E	246	369
C-AB	0.06	4.62	0.1	A	37	56
C-A					450	675
A-B					0	0
A-C					409	614

### Main Results for each time segment

#### 07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	202	50	454	0.444	199	0.0	0.8	14.611	B
C-AB	25	6	825	0.031	25	0.0	0.0	4.606	A
C-A	374	94			374				
A-B	0	0			0				
A-C	336	84			336				

#### 07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	241	60	418	0.577	239	0.8	1.4	20.860	C
C-AB	35	9	865	0.040	35	0.0	0.1	4.442	A
C-A	443	111			443				
A-B	0	0			0				
A-C	401	100			401				

#### 07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	295	74	367	0.803	287	1.4	3.5	42.920	E
C-AB	51	13	923	0.056	51	0.1	0.1	4.247	A
C-A	533	133			533				
A-B	0	0			0				
A-C	491	123			491				

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	295	74	367	0.803	294	3.5	3.8	49.423	E
C-AB	51	13	923	0.056	51	0.1	0.1	4.255	A
C-A	533	133			533				
A-B	0	0			0				
A-C	491	123			491				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	241	60	418	0.577	250	3.8	1.5	23.636	C
C-AB	35	9	865	0.040	35	0.1	0.1	4.463	A
C-A	443	111			443				
A-B	0	0			0				
A-C	401	100			401				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	202	50	454	0.444	204	1.5	0.9	15.290	C
C-AB	26	6	825	0.031	26	0.1	0.0	4.618	A
C-A	374	94			374				
A-B	0	0			0				
A-C	336	84			336				

# 2027 Base + Committed Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		31.42	D

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	31.42	D

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2027 Base + Committed Development	PM	ONE HOUR	16:30	18:00	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A435 South		ONE HOUR	✓	540	100.000
B4079		ONE HOUR	✓	305	100.000
A435 North		ONE HOUR	✓	528	100.000

## Origin-Destination Data

### Demand (PCU/hr)

From	To			
	A435 South	B4079	A435 North	
A435 South	0	0	540	
B4079	301	0	4	
A435 North	502	26	0	

## Vehicle Mix

### Heavy Vehicle Percentages

From	To			
	A435 South	B4079	A435 North	
A435 South	0	0	3	
B4079	0	0	0	
A435 North	2	0	0	

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	1.00	140.53	12.8	F	280	420
C-AB	0.08	4.73	0.2	A	54	81
C-A					430	646
A-B					0	0
A-C					496	743

### Main Results for each time segment

#### 16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	230	57	433	0.530	225	0.0	1.1	17.000	C
C-AB	37	9	806	0.046	37	0.0	0.1	4.722	A
C-A	361	90			361				
A-B	0	0			0				
A-C	407	102			407				

#### 16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	274	69	392	0.699	270	1.1	2.1	28.550	D
C-AB	50	13	843	0.060	50	0.1	0.1	4.586	A
C-A	424	106			424				
A-B	0	0			0				
A-C	485	121			485				

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	336	84	336	1.001	308	2.1	9.1	88.429	F
C-AB	75	19	897	0.083	75	0.1	0.2	4.428	A
C-A	506	127			506				
A-B	0	0			0				
A-C	595	149			595				

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	336	84	335	1.001	321	9.1	12.8	140.526	F
C-AB	75	19	897	0.084	75	0.2	0.2	4.434	A
C-A	506	127			506				
A-B	0	0			0				
A-C	595	149			595				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	274	69	392	0.700	315	12.8	2.7	60.201	F
C-AB	51	13	843	0.060	51	0.2	0.1	4.599	A
C-A	424	106			424				
A-B	0	0			0				
A-C	485	121			485				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	230	57	433	0.530	236	2.7	1.2	18.740	C
C-AB	37	9	806	0.046	37	0.1	0.1	4.731	A
C-A	360	90			360				
A-B	0	0			0				
A-C	407	102			407				



# 2027 Base + Committed Development + Development, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		14.00	B

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	14.00	B

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2027 Base + Committed Development + Development	AM	ONE HOUR	07:15	08:45	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A435 South		ONE HOUR	✓	446	100.000
B4079		ONE HOUR	✓	284	100.000
A435 North		ONE HOUR	✓	531	100.000

## Origin-Destination Data

### Demand (PCU/hr)

From	To			
	A435 South	B4079	A435 North	
A435 South	0	0	446	
B4079	284	0	0	
A435 North	513	18	0	

## Vehicle Mix

### Heavy Vehicle Percentages

From	To			
	A435 South	B4079	A435 North	
A435 South	0	0	6	
B4079	5	0	0	
A435 North	5	0	0	

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.85	61.50	5.0	F	261	391
C-AB	0.06	4.62	0.1	A	37	56
C-A					450	675
A-B					0	0
A-C					409	614

### Main Results for each time segment

#### 07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	214	53	454	0.471	210	0.0	0.9	15.283	C
C-AB	25	6	825	0.031	25	0.0	0.0	4.606	A
C-A	374	94			374				
A-B	0	0			0				
A-C	336	84			336				

#### 07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	255	64	418	0.611	253	0.9	1.6	22.544	C
C-AB	35	9	865	0.040	35	0.0	0.1	4.442	A
C-A	443	111			443				
A-B	0	0			0				
A-C	401	100			401				

#### 07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	313	78	367	0.851	301	1.6	4.4	50.401	F
C-AB	51	13	923	0.056	51	0.1	0.1	4.247	A
C-A	533	133			533				
A-B	0	0			0				
A-C	491	123			491				

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	313	78	367	0.851	310	4.4	5.0	61.496	F
C-AB	51	13	923	0.056	51	0.1	0.1	4.255	A
C-A	533	133			533				
A-B	0	0			0				
A-C	491	123			491				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	255	64	418	0.611	268	5.0	1.8	27.101	D
C-AB	35	9	865	0.040	35	0.1	0.1	4.461	A
C-A	443	111			443				
A-B	0	0			0				
A-C	401	100			401				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	214	53	454	0.471	217	1.8	1.0	16.150	C
C-AB	26	6	825	0.031	26	0.1	0.0	4.616	A
C-A	374	94			374				
A-B	0	0			0				
A-C	336	84			336				

# 2027 Base + Committed Development + Development, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		36.86	E

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	36.86	E

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2027 Base + Committed Development + Development	PM	ONE HOUR	16:30	18:00	15	✓

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

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A435 South		ONE HOUR	✓	540	100.000
B4079		ONE HOUR	✓	313	100.000
A435 North		ONE HOUR	✓	528	100.000

## Origin-Destination Data

### Demand (PCU/hr)

From	To			
	A435 South	B4079	A435 North	
A435 South	0	0	540	
B4079	309	0	4	
A435 North	502	26	0	

## Vehicle Mix

### Heavy Vehicle Percentages

From	To			
	A435 South	B4079	A435 North	
A435 South	0	0	3	
B4079	0	0	0	
A435 North	2	0	0	

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	1.03	161.72	15.4	F	287	431
C-AB	0.08	4.73	0.2	A	54	81
C-A					430	646
A-B					0	0
A-C					496	743

### Main Results for each time segment

#### 16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	236	59	433	0.544	231	0.0	1.1	17.465	C
C-AB	37	9	806	0.046	37	0.0	0.1	4.722	A
C-A	361	90			361				
A-B	0	0			0				
A-C	407	102			407				

#### 16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	281	70	392	0.718	277	1.1	2.3	30.079	D
C-AB	50	13	843	0.060	50	0.1	0.1	4.586	A
C-A	424	106			424				
A-B	0	0			0				
A-C	485	121			485				

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	345	86	335	1.027	312	2.3	10.4	97.236	F
C-AB	75	19	897	0.083	75	0.1	0.2	4.428	A
C-A	506	127			506				
A-B	0	0			0				
A-C	595	149			595				

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	345	86	335	1.028	325	10.4	15.4	161.721	F
C-AB	75	19	897	0.084	75	0.2	0.2	4.434	A
C-A	506	127			506				
A-B	0	0			0				
A-C	595	149			595				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	281	70	392	0.718	331	15.4	3.0	77.358	F
C-AB	51	13	843	0.060	51	0.2	0.1	4.599	A
C-A	424	106			424				
A-B	0	0			0				
A-C	485	121			485				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	236	59	433	0.544	243	3.0	1.2	19.561	C
C-AB	37	9	806	0.046	37	0.1	0.1	4.731	A
C-A	360	90			360				
A-B	0	0			0				
A-C	407	102			407				

Junctions 10
ARCADY 10 - Roundabout Module
Version: 10.0.4.1693 © Copyright TRL Software Limited, 2021
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Filename: Proposed Roundabout.j10  
 Path: P:\23000's\23089\Junction Assessments  
 Report generation date: 07/11/2023 15:02:15

- »2028 Base + Committed Development, AM
- »2028 Base + Committed Development, PM
- »2028 Base + Committed Development + Development, AM
- »2028 Base + Committed Development + Development, PM

**Summary of junction performance**

	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
2028 Base + Committed Development						
1 - A435 South	0.3	2.28	0.23	0.4	2.37	0.28
2 - B4079	0.4	4.82	0.27	0.5	5.19	0.33
3 - A435 North	0.6	3.58	0.36	0.6	3.53	0.36
2028 Base + Committed Development + Development						
1 - A435 South	0.3	2.28	0.23	0.4	2.37	0.28
2 - B4079	0.4	4.93	0.29	0.5	5.26	0.33
3 - A435 North	0.6	3.61	0.36	0.6	3.55	0.36

*There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.*

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

**File summary**

**File Description**

<b>Title</b>	Proposed A435/ B4079 Roundabout
<b>Location</b>	
<b>Site number</b>	
<b>Date</b>	07/11/2023
<b>Version</b>	
<b>Status</b>	(new file)
<b>Identifier</b>	
<b>Client</b>	
<b>Jobnumber</b>	23089
<b>Enumerator</b>	DTA\NicholaSanderson
<b>Description</b>	

**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	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		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)
D5	2028 Base + Committed Development	AM	ONE HOUR	07:45	09:15	15
D6	2028 Base + Committed Development	PM	ONE HOUR	16:45	18:15	15
D7	2028 Base + Committed Development + Development	AM	ONE HOUR	07:45	09:15	15
D8	2028 Base + Committed Development + Development	PM	ONE HOUR	16:45	18:15	15

### Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000



# 2028 Base + Committed Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A435 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	3.38	A

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.38	A

## Arms

### Arms

Arm	Name	Description	No give-way line
1	A435 South		
2	B4079		
3	A435 North		

### 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)	Entry only	Exit only
1 - A435 South	4.10	8.00	65.0	21.6	60.0	38.0		
2 - B4079	3.10	6.90	6.2	17.8	60.0	30.0		
3 - A435 North	3.50	7.90	26.2	18.1	60.0	47.0		

### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A435 South	0.634	2180
2 - B4079	0.490	1320
3 - A435 North	0.558	1804

*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)
D5	2028 Base + Committed Development	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 - A435 South		✓	446	100.000
2 - B4079		✓	268	100.000
3 - A435 North		✓	531	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		1 - A435 South	2 - B4079	3 - A435 North
From	1 - A435 South	0	0	446
	2 - B4079	268	0	0
	3 - A435 North	513	18	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		1 - A435 South	2 - B4079	3 - A435 North
From	1 - A435 South	0	0	6
	2 - B4079	5	0	0
	3 - A435 North	5	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A435 South	0.23	2.28	0.3	A
2 - B4079	0.27	4.82	0.4	A
3 - A435 North	0.36	3.58	0.6	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 - A435 South	336	14	2171	0.155	335	0.2	2.077	A
2 - B4079	202	335	1156	0.175	201	0.2	3.954	A
3 - A435 North	400	201	1692	0.236	398	0.3	2.915	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 - A435 South	401	16	2169	0.185	401	0.2	2.157	A
2 - B4079	241	401	1124	0.214	241	0.3	4.279	A
3 - A435 North	477	241	1670	0.286	477	0.4	3.164	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 - A435 South	491	20	2167	0.227	491	0.3	2.276	A
2 - B4079	295	491	1080	0.273	295	0.4	4.812	A
3 - A435 North	585	295	1640	0.357	584	0.6	3.573	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 - A435 South	491	20	2167	0.227	491	0.3	2.276	A
2 - B4079	295	491	1080	0.273	295	0.4	4.817	A
3 - A435 North	585	295	1639	0.357	585	0.6	3.576	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 - A435 South	401	16	2169	0.185	401	0.2	2.159	A
2 - B4079	241	401	1124	0.214	241	0.3	4.286	A
3 - A435 North	477	241	1669	0.286	478	0.4	3.170	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 - A435 South	336	14	2171	0.155	336	0.2	2.079	A
2 - B4079	202	336	1156	0.175	202	0.2	3.964	A
3 - A435 North	400	202	1691	0.236	400	0.3	2.925	A

# 2028 Base + Committed Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A435 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	3.44	A

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.44	A

## 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)
D6	2028 Base + Committed Development	PM	ONE HOUR	16:45	18:15	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 - A435 South		✓	540	100.000
2 - B4079		✓	305	100.000
3 - A435 North		✓	528	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		1 - A435 South	2 - B4079	3 - A435 North
From	1 - A435 South	0	0	540
	2 - B4079	301	0	4
	3 - A435 North	502	26	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		1 - A435 South	2 - B4079	3 - A435 North
From	1 - A435 South	0	0	3
	2 - B4079	0	0	0
	3 - A435 North	2	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A435 South	0.28	2.37	0.4	A
2 - B4079	0.33	5.19	0.5	A
3 - A435 North	0.36	3.53	0.6	A

### Main Results for each time segment

#### 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 - A435 South	407	20	2167	0.188	406	0.2	2.103	A
2 - B4079	230	406	1121	0.205	229	0.3	4.028	A
3 - A435 North	398	226	1678	0.237	396	0.3	2.859	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 - A435 South	485	23	2165	0.224	485	0.3	2.207	A
2 - B4079	274	485	1083	0.253	274	0.3	4.449	A
3 - A435 North	475	270	1653	0.287	474	0.4	3.111	A

#### 17:15 - 17:30

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 - A435 South	595	29	2162	0.275	594	0.4	2.365	A
2 - B4079	336	594	1029	0.326	335	0.5	5.183	A
3 - A435 North	581	331	1619	0.359	581	0.6	3.530	A

#### 17:30 - 17:45

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 - A435 South	595	29	2162	0.275	595	0.4	2.365	A
2 - B4079	336	595	1029	0.326	336	0.5	5.193	A
3 - A435 North	581	331	1619	0.359	581	0.6	3.534	A

#### 17:45 - 18:00

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 - A435 South	485	23	2165	0.224	486	0.3	2.208	A
2 - B4079	274	486	1082	0.253	275	0.3	4.461	A
3 - A435 North	475	271	1653	0.287	475	0.4	3.119	A

#### 18:00 - 18:15

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 - A435 South	407	20	2167	0.188	407	0.2	2.106	A
2 - B4079	230	407	1121	0.205	230	0.3	4.041	A
3 - A435 North	398	227	1677	0.237	398	0.3	2.867	A

# 2028 Base + Committed Development + Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A435 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	3.43	A

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.43	A

## 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)
D7	2028 Base + Committed Development + Development	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 - A435 South		✓	446	100.000
2 - B4079		✓	284	100.000
3 - A435 North		✓	531	100.000

## Origin-Destination Data

### Demand (PCU/hr)

From	To		
	1 - A435 South	2 - B4079	3 - A435 North
1 - A435 South	0	0	446
2 - B4079	284	0	0
3 - A435 North	513	18	0

## Vehicle Mix

### Heavy Vehicle Percentages

From	To		
	1 - A435 South	2 - B4079	3 - A435 North
1 - A435 South	0	0	6
2 - B4079	5	0	0
3 - A435 North	5	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A435 South	0.23	2.28	0.3	A
2 - B4079	0.29	4.93	0.4	A
3 - A435 North	0.36	3.61	0.6	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 - A435 South	336	14	2171	0.155	335	0.2	2.077	A
2 - B4079	214	335	1156	0.185	213	0.2	4.003	A
3 - A435 North	400	213	1685	0.237	398	0.3	2.930	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 - A435 South	401	16	2169	0.185	401	0.2	2.157	A
2 - B4079	255	401	1124	0.227	255	0.3	4.350	A
3 - A435 North	477	255	1662	0.287	477	0.4	3.185	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 - A435 South	491	20	2167	0.227	491	0.3	2.276	A
2 - B4079	313	491	1080	0.290	312	0.4	4.921	A
3 - A435 North	585	312	1630	0.359	584	0.6	3.606	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 - A435 South	491	20	2167	0.227	491	0.3	2.276	A
2 - B4079	313	491	1080	0.290	313	0.4	4.928	A
3 - A435 North	585	313	1630	0.359	585	0.6	3.610	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 - A435 South	401	16	2169	0.185	401	0.2	2.158	A
2 - B4079	255	401	1124	0.227	256	0.3	4.359	A
3 - A435 North	477	256	1661	0.287	478	0.4	3.192	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 - A435 South	336	14	2171	0.155	336	0.2	2.079	A
2 - B4079	214	336	1156	0.185	214	0.2	4.017	A
3 - A435 North	400	214	1685	0.237	400	0.3	2.938	A



# 2028 Base + Committed Development + Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A435 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

## Junction Network

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	3.47	A

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.47	A

## 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	2028 Base + Committed Development + Development	PM	ONE HOUR	16:45	18:15	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 - A435 South		✓	540	100.000
2 - B4079		✓	313	100.000
3 - A435 North		✓	528	100.000

## Origin-Destination Data

### Demand (PCU/hr)

From	To		
	1 - A435 South	2 - B4079	3 - A435 North
1 - A435 South	0	0	540
2 - B4079	309	0	4
3 - A435 North	502	26	0

## Vehicle Mix

### Heavy Vehicle Percentages

From	To		
	1 - A435 South	2 - B4079	3 - A435 North
1 - A435 South	0	0	3
2 - B4079	0	0	0
3 - A435 North	2	0	0

## Results

### Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A435 South	0.28	2.37	0.4	A
2 - B4079	0.33	5.26	0.5	A
3 - A435 North	0.36	3.55	0.6	A

### Main Results for each time segment

#### 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 - A435 South	407	20	2167	0.188	406	0.2	2.103	A
2 - B4079	236	406	1121	0.210	235	0.3	4.054	A
3 - A435 North	398	232	1675	0.237	396	0.3	2.866	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 - A435 South	485	23	2165	0.224	485	0.3	2.207	A
2 - B4079	281	485	1083	0.260	281	0.3	4.489	A
3 - A435 North	475	277	1649	0.288	474	0.4	3.122	A

#### 17:15 - 17:30

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 - A435 South	595	29	2162	0.275	594	0.4	2.365	A
2 - B4079	345	594	1029	0.335	344	0.5	5.250	A
3 - A435 North	581	340	1614	0.360	581	0.6	3.547	A

#### 17:30 - 17:45


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 - A435 South	595	29	2162	0.275	595	0.4	2.365	A
2 - B4079	345	595	1029	0.335	345	0.5	5.259	A
3 - A435 North	581	340	1614	0.360	581	0.6	3.550	A

#### 17:45 - 18:00

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 - A435 South	485	23	2165	0.224	486	0.3	2.208	A
2 - B4079	281	486	1082	0.260	282	0.4	4.501	A
3 - A435 North	475	278	1649	0.288	475	0.4	3.127	A

18:00 - 18:15

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 - A435 South	407	20	2167	0.188	407	0.2	2.106	A
2 - B4079	236	407	1121	0.210	236	0.3	4.069	A
3 - A435 North	398	233	1674	0.237	398	0.3	2.874	A



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