

0 45 90 180 270 360
Meters

The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified before any works are undertaken. Crown copyright Reserved








Scale: 1:7158
Width: 2000m
Printed By: G1KANAGA
Print Date: 15/03/2021
Map Centre: 486796,187181
Grid Reference: SU8687SE

Comments:







ALS Water Map Key

Water Pipes (Operated & Maintained by Thames Water)


- 
4" Distribution Main: The most common pipe shown on water maps. With few exceptions, domestic connections are only made to distribution mains.
- 
16" Trunk Main: A main carrying water from a source of supply to a treatment plant or reservoir, or from one treatment plant or reservoir to another. Also a main transferring water in bulk to smaller water mains used for supplying individual customers.
- 
3" SUPPLY Supply Main: A supply main indicates that the water main is used as a supply for a single property or group of properties.
- 
3" FIRE Fire Main: Where a pipe is used as a fire supply, the word FIRE will be displayed along the pipe.
- 
3" METERED Metered Pipe: A metered main indicates that the pipe in question supplies water for a single property or group of properties and that quantity of water passing through the pipe is metered even though there may be no meter symbol shown.
- 
Transmission Tunnel: A very large diameter water pipe. Most tunnels are buried very deep underground. These pipes are not expected to affect the structural integrity of buildings shown on the map provided.
- 
Proposed Main: A main that is still in the planning stages or in the process of being laid. More details of the proposed main and its reference number are generally included near the main.

PIPE DIAMETER	DEPTH BELOW GROUND
Up to 300mm (12")	900mm (3')
300mm - 600mm (12" - 24")	1100mm (3' 8")
600mm and bigger (24" plus)	1200mm (4')

Valves

-  General Purpose Valve
-  Air Valve
-  Pressure Control Valve
-  Customer Valve

Hydrants








-  Single Hydrant

Meters










-  Meter

End Items

Symbol indicating what happens at the end of a water main.

-  Blank Flange
-  Capped End
-  Emptying Pit
-  Undefined End
-  Manifold
-  Customer Supply
-  Fire Supply



Operational Sites

-  Booster Station
-  Other
-  Other (Proposed)
-  Pumping Station
-  Service Reservoir
-  Shaft Inspection
-  Treatment Works
-  Unknown
-  Water Tower

Other Symbols

-  Data Logger

Other Water Pipes (Not Operated or Maintained by Thames Water)

-  **Other Water Company Main:** Occasionally other water company water pipes may overlap the border of our clean water coverage area. These mains are denoted in purple and in most cases have the owner of the pipe displayed along them.
-  **Private Main:** Indicates that the water main in question is not owned by Thames Water. These mains normally have text associated with them indicating the diameter and owner of the pipe.



ID: NL_GW3B_3SWP_800948 View extent: 2890m, 3670m		Map not to be used for construction		Map 1 of 1 (GAS)	
USER: natasha.hopka		LP MAINS		This plan shows those pipes owned by Cadent Gas Limited in its role as a Licensed Gas Transporter (GT). Gas pipes owned by other GTs, or otherwise privately owned, may be present in this area. Information with regard to such pipes should be obtained from the relevant owners. The information shown on this plan is given without warranty, the accuracy thereof cannot be guaranteed. Service pipes, valves, syphons, stub connections, etc. are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Cadent Gas Limited or their agents, servants or contractors for any error or omission. Safe digging practices, in accordance with HS(G)47, must be used to verify and establish the actual position of mains, pipes, services and other apparatus on site before any mechanical plant is used. It is your responsibility to ensure that this information is provided to all persons (either direct labour or contractors) working for you on or near gas apparatus. The information included on this plan should not be referred to beyond a period of 28 days from the date of issue.	
DATE: 18/03/2021		MP MAINS		MAPS Plot Server Version 1.11.0	
DATA DATE: 17/03/2021		IP MAINS			
REF: NOC/ADDWK846		LHP MAINS		Your Gas Network	
MAP REF: SU8687		NHP MAINS		Requested by: National One Call	
CENTRE: 486713, 187243				This plan is reproduced from or based on the OS map by Cadent Gas Limited, with the sanction of the controller of HM Stationery Office. Crown Copyright Reserved. Ordnance Survey Licence number 100024886	
Some examples of Plant Items:					

Maps by email Plant Information Reply



IMPORTANT WARNING

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KEY TO BT SYMBOLS

	Planned	Live	Change Of State	+	Hatchings	
PCP			Split Coupling		Built	
Pole			Duct Tee		Planned	
Box			Building		Inferred	
Manhole			Kiosk		Duct	
Cabinet			Other proposed plant is shown using dashed lines. BT Symbols not listed above may be disregarded. Existing BT Plant may not be recorded. Information valid at time of preparation. Maps are only valid for 90 days after the date of publication.			
	Pending Add	In Place	Pending Remove	Not In Use		
Power Cable						
Power Duct				N/A		

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BT Ref : CSD02363I

Map Reference : (centre) SU8631787498

Easting/Northing : (centre) 486317,187498

Issued : 15/03/2021 14:36:58

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Maps by email Plant Information Reply



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KEY TO BT SYMBOLS		Change Of State	+	Hatchings		
	<i>Planned</i>	<i>Live</i>	Split Coupling	×	Built	
PCP			Duct Tee	▲	Planned	
Pole			Building		Inferred	
Box			Kiosk		Duct	
Manhole			Other proposed plant is shown using dashed lines. BT Symbols not listed above may be disregarded. Existing BT Plant may not be recorded. Information valid at time of preparation. Maps are only valid for 90 days after the date of publication.			
Cabinet						
	<i>Pending Add</i>	<i>In Place</i>	<i>Pending Remove</i>	<i>Not In Use</i>		
Power Cable						
Power Duct				N/A		

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BT Ref : XOT02357V

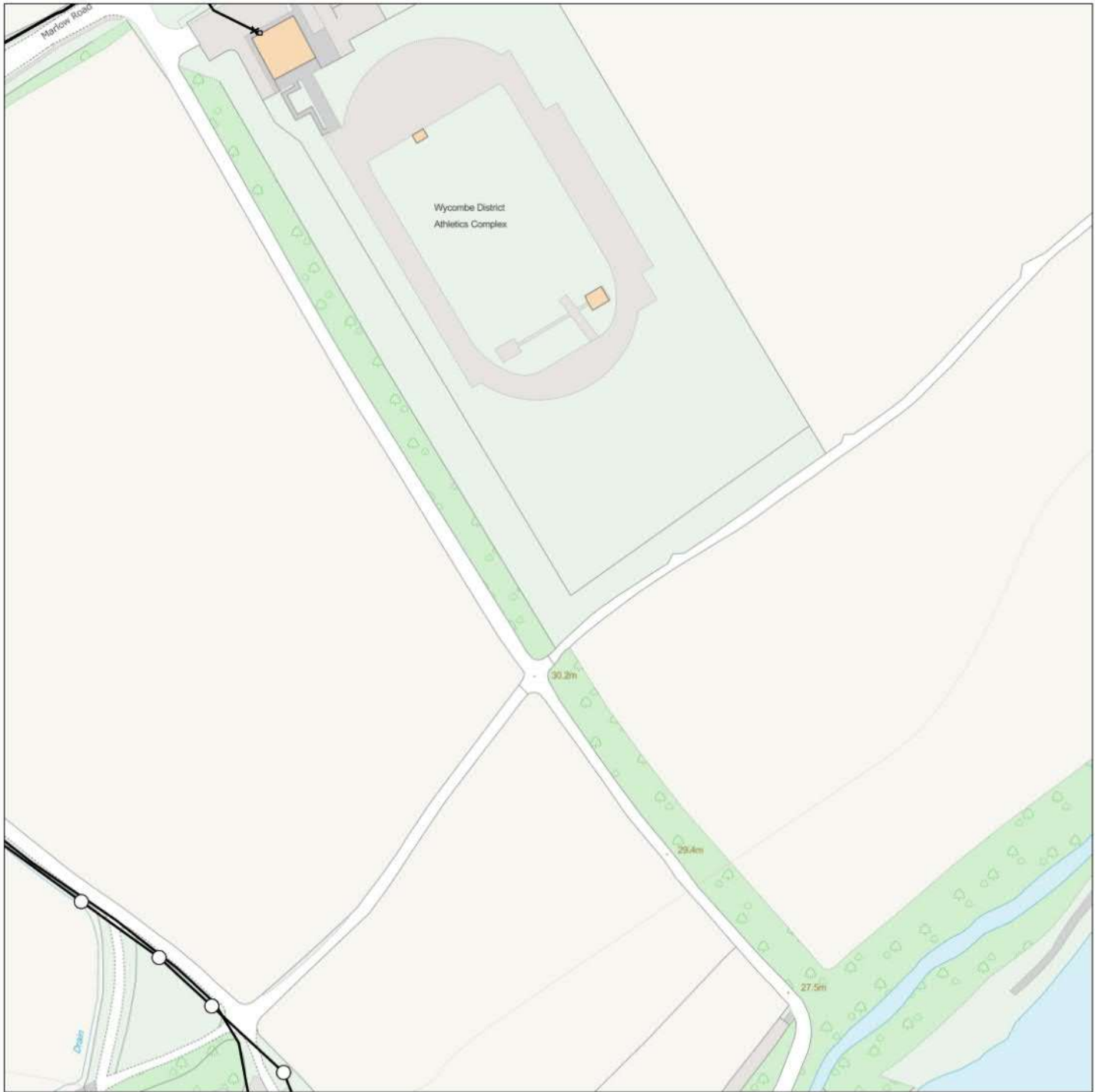
Map Reference : (centre) SU8649287542

Easting/Northing : (centre) 486492,187542

Issued : 15/03/2021 14:35:58

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KEY TO BT SYMBOLS		Change Of State	+	Hatchings		
	<i>Planned</i>	<i>Live</i>	Split Coupling	×	Built	
PCP			Duct Tee	▲	Planned	
Pole			Building		Inferred	
Box			Kiosk		Duct	
Manhole			Other proposed plant is shown using dashed lines. BT Symbols not listed above may be disregarded. Existing BT Plant may not be recorded. Information valid at time of preparation. Maps are only valid for 90 days after the date of publication.			
Cabinet						
	<i>Pending Add</i>	<i>In Place</i>	<i>Pending Remove</i>	<i>Not In Use</i>		
Power Cable						
Power Duct				N/A		

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BT Ref : LQY02357H

Map Reference : (centre) SU8680287591

Easting/Northing : (centre) 486802,187591

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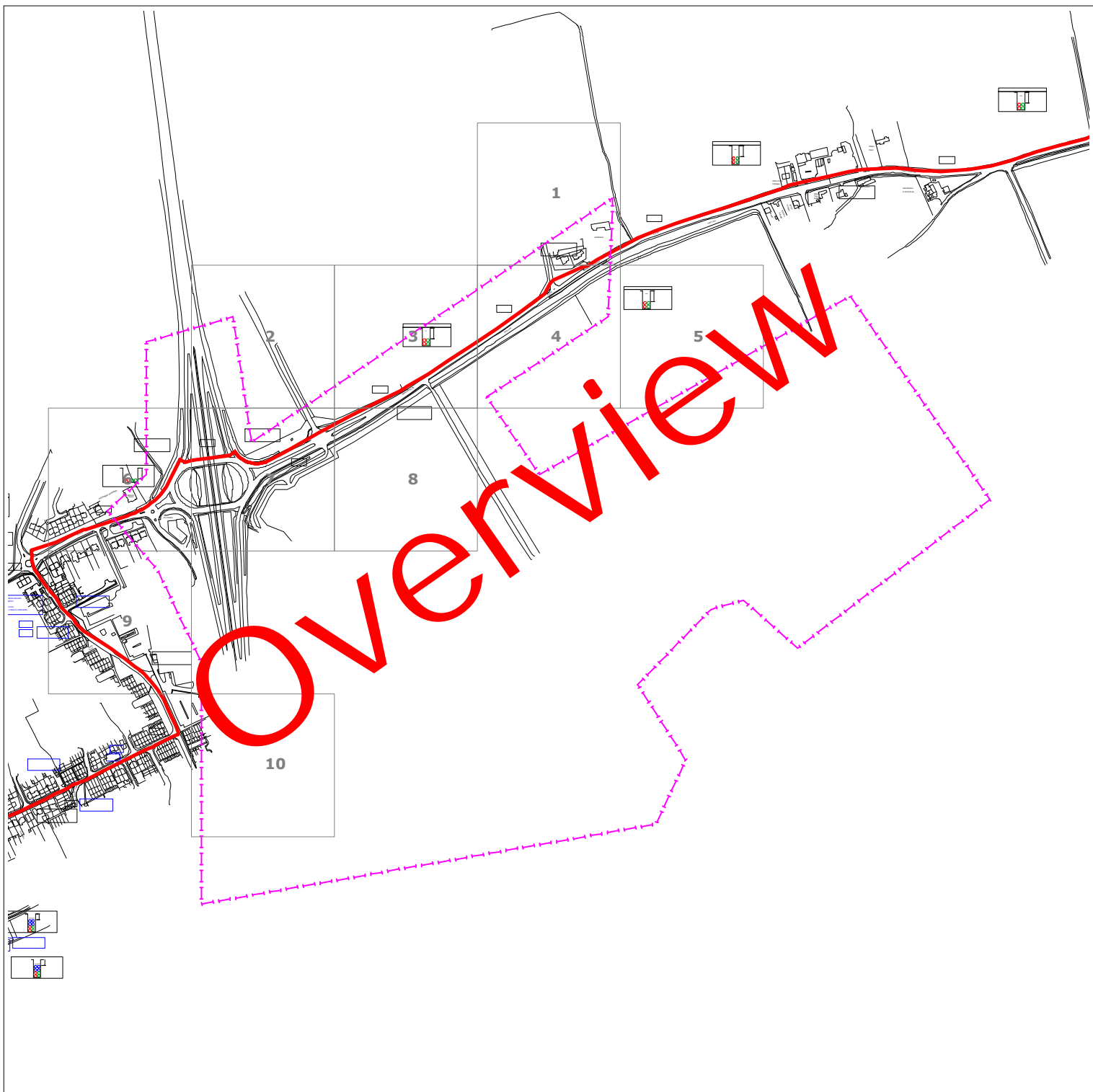


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Duct, Trench	Chamber	Cabinet

BTnever@national-one-call.co.uk
NOCADWKB6





Date Requested: 12/03/2021

Requested by: Brian McMaster

Company: PlanToDig

Job Reference: 21561632

Your Scheme/Reference: NOC/ADDWK846

Route

Dig Sites: Line Area

Scale on A4 paper: 1:1250

TATA COMMUNICATIONS

Tata Communications Plant Protection Centre

c/o JSM Group Ltd
 Plant Protection Department
 Sterling House
 Mutton Lane
 Potters Bar
 Herts, EN6 3AR



01992 655 919
 tatadiversion@jsmgroup.com

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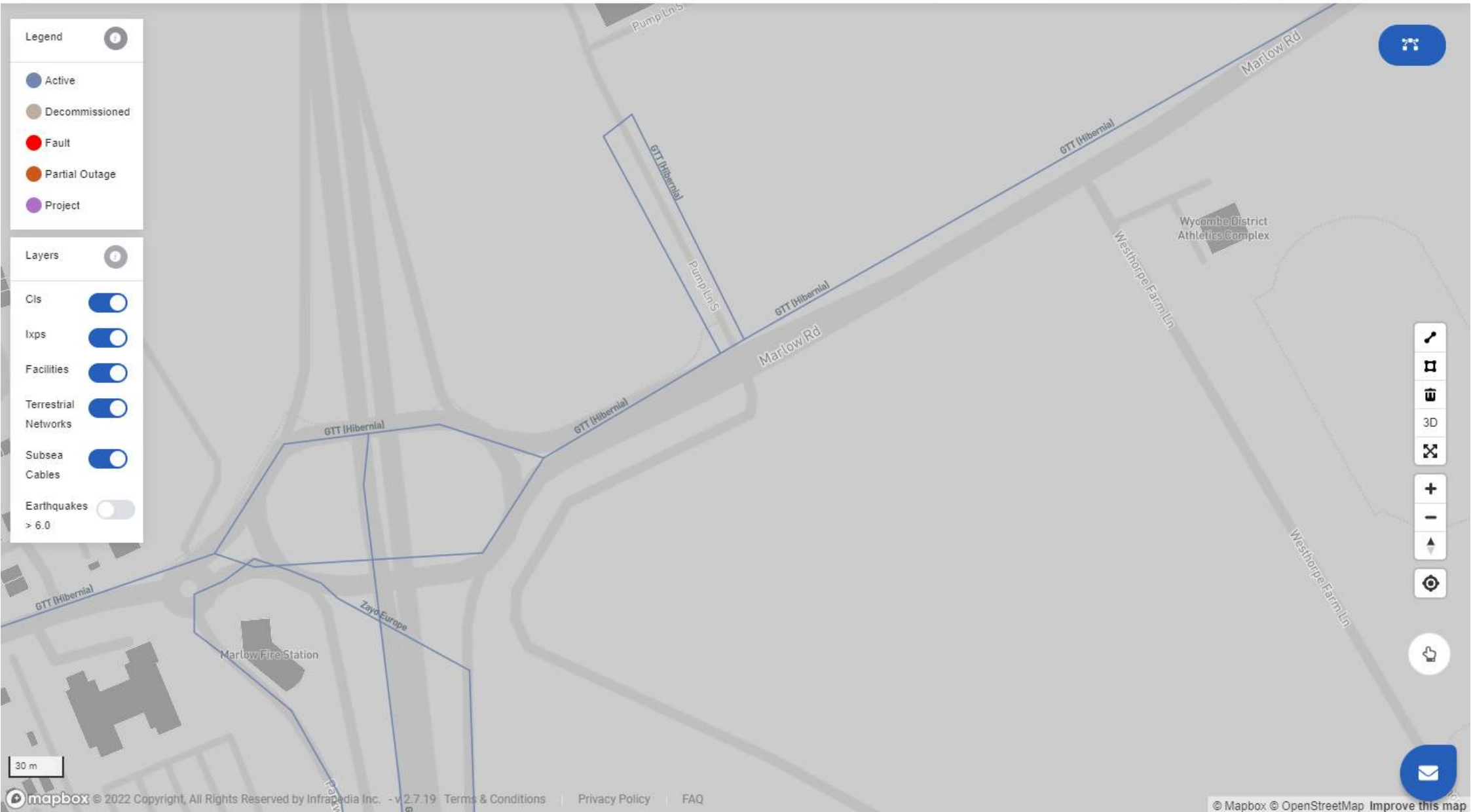


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7 April 2022

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F. TRICS Outputs

Appendices

Document 9, Transport Assessment

Project Number: WIE18037

Document Reference: WIE18037.110.R.2.1.3 TA

Site Reference: SC-16-A-03 Multi-Modal Site
 Created: Version: 2011(b)v6.8.2 12/09/11
 Latitude/Longitude: 51.40760, -0.46360
 Land Use Type: 16 - MIXED/A - MISCELLANEOUS
 Region/Area: SOUTH EAST/SURREY

Description: FILM STUDIOS
 Street: STUDIOS ROAD
 District: LITTLETON
 Town: SHEPPERTON
 Post Code: TW17 0QD
 Planning Authority:

Location: Edge of Town
 Location Sub Category: No Sub Category
 Use Class: n/a

Population within 500m: 434
 Population within 1 Mile: 5,001 to 10,000
 Population within 5 Miles: 250,001 to 500,000
 Car ownership within 5 Miles: 1.6 to 2.0

Public Transport Provision Summary

Day	Period	Total buses/trams within 400m	Total Trains within 1000m	Total Services
Monday-Friday	0700-1900	11		11
Monday-Friday	0700-1000	4		4
Monday-Friday	1600-1900			
Saturday	0700-1900			
Sunday	0700-1900			

Is site associated with a travel plan: Yes
 If not, are there any plans to implement a Travel Plan in the future?
 Is survey data available before the implementation of the Travel Plan? Yes
 Is the location of the site hilly or flat: Flat
 Urban Regeneration: No

Next survey SC-16-A-04

No. of developments for this Site: 1
 No. of survey Days for this Site: 1

Comments

This site is located at the north-western edge of Shepperton.
 There is some residential development locally, with the Queen Mary Reservoir at the site's northern boundary.

Bus (or tram) site accessibility

1. Is there a site specific company bus service associated with the development?: Yes
2. If Yes to question 1, for how many years: 4
3. Is there at least 1 bus (or tram) stop within the site frontage or within 400m of the site frontage? : Yes

11. Please enter general comments/views about the relevance, quality and importance of public transport services relating to this development.

There are 3 buses per day (route 400) which head to Staines Bus Station, the journey time taking 13 minutes. There are also less frequent services to Tesco in Sunbury, with site-specific shuttle buses also running to Shepperton and Staines railway stations. Note that the two bus routes do not operate in the pm peak period.

Design features encouraging non-car modes

12. Pedestrians

None

13. Pedal cycles

The site contains two sheds dedicated to cycle parking and storage.

14. Public transport

There is a free shuttle bus service available to all employees, tenants and visitors. Admission to buses is upon presentation of proof of identity (studio ID card or visitor pass). The bus runs to Staines and Shepperton railway stations, with onward services to London.

Design features encouraging non-car modes

Road Network Distance to Local Developments	
Year of Analysis	2011
Nearest Primary School	0.5 kilometres
Nearest Secondary School	6.4 kilometres
Nearest Local Shop/Corner Shop	2.6 kilometres
Nearest Main Supermarket	2.4 kilometres
Nearest Doctors Surgery	2.0 kilometres
Nearest Hospital with Minor Injuries/A & E	7.4 kilometres
Nearest Sports/Leisure Centre	4.2 kilometres

Census Data	
Year of Census	2001
Census Output Area/Data Zone	43UHFY0005
Number of people employed within Census Output Area	154
Number of households within Census Output Area	116
Number of people living within Census Output Area	264
Area of Census Output Area (hectares)	20.61
Population density within Census Output Area (per hectare)	12.70

Site reference: SC-16-A-03 Multi-Modal survey site
 Trade name: SHEPPERTON STUDIOS

Site area (h/a): 10.32

Open since 1931
 Total Employees 67
 Full Time Employees 66 98%
 Part Time Employees 1 2%

Approximate % of total employees working standard 9-5 hours or similar %

Approximate % of employees living within the following radii of the site
 3Km 12%
 5Km %
 >5Km %

Name of nearest site PINWOOD STUDIOS
 Distance to nearest similar site 24.0 Km

OPENING TIMES (24 Hour format)

Mon to Thurs 00:00 to 24:00
 Friday 00:00 to 24:00
 Saturday 00:00 to 24:00
 Sunday 00:00 to 24:00

Comments

The Gross Floor Area of the site is 52,574m². There are 65 separate buildings, and there are also a large number of portakabin-style buildings that are used as office space or for on-site amenities and services. The site hosts over 100 individual units on site related to film, television, theatre and studio production in a wide range of fields. The full list of units is available at www.pinewoodgroup.com/kotl/2011/. The site opened in 1931 as Sound City Studios. Different parts of the site run on different hours. For example, the standard starting time for post-production companies is 0800, but other areas start later. Due to the number of companies present on-site, and the seasonal variations, exact figures for the total staff onsite on any one day cannot be obtained, and this will fluctuate considerably. The staff figures shown represent the total staff directly employed by Shepperton Studios.

Multi-Modal survey site

On-Site parking

Total no. of parking spaces 888

Number of spaces

Employee 655
 Disabled 2
 Visitor/Customer 0
 OGV parking bays 0
 Cycle racks 30
 OGV loading bays 24
 Parent & Toddler 0
 Motorcycle spaces 0

Parking charges No

Comments about the management of the site car park, along with enforcement measures

Access to the site is monitored by a security check-point.

Site parking surface or non-surface (multi-storey/underground)

Surface

General Comments on Parking

Also included within the 888 total parking spaces are 203 "reserved" spaces and 4 taxi spaces in a rank. On the day of the survey a film unit occupied most of the spaces in the south car park.

The majority of parking is surface, but there is a multi-storey car park at the extreme north-east of the site.

In addition to the on-site parking spaces there is a 600-space overflow car park to the north of the site and to the south of the reservoir wall. This was in use on the day of the survey.

Off-Site parking details

Is there off-site parking available

Yes

Off-Site parking included in the counts

Yes

Free On-Street parking available nearby

Yes

If yes, considered easy to find a space

Yes

If prepared to pay, easy to find somewhere to park off-site all day

No

Parking restrictions

Area subject to parking restrictions (controlled parking zone - CPZ)

No

Off-Street parking

Off-Street parking available NO

Park & Ride

Park & Ride Type Facility providing relevant means of accessing the site

No

Additional Travel Plan Features

The company participates in a cycle scheme for employees, and staff are able to claim a cycling mileage allowance. A "biker's breakfast" is provided six times per year for cyclists, and the company run "Dr Bike" clinics from time to time.

Travel Plan Type

Type Compulsory

Travel Plan History

Date of Travel Plan implementation January 2009

Has the Travel Plan been accredited, or received an award in recognition of its quality, from either a national body such as ACT or a local authority? No

Travel Plan Target Group

Main target market(s) for the Travel Plan





Staff	Target group
Visitors	Target group
Customers	Not present
Students	Not present
Patients	Not present
All site users	Target group
Other	

Travel Plan Co-Ordinator

Is there a Travel Plan co-ordinator - a member of staff whose job it is to manage the implementation of the Travel Plan? Yes

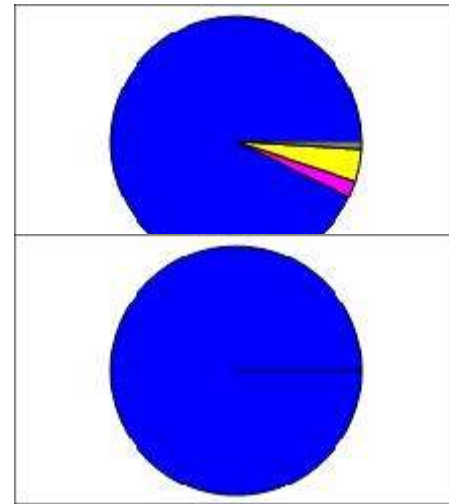
If YES to the above, do they work on the Travel Plan full time or part time? Part time

Pre-Travel Plan Mode Split

Was modal split data obtained before the introduction of the Travel Plan? Yes
 If YES, when? 2004
 Vehicle Occupants 93% 
 Cyclists 2% 
 Public Transport Users 4% 
 Pedestrians 1% 

Travel Plan Modal Split Targets

Did the Travel Plan identify mode split targets? Yes
 If YES, when? January 2009
 Vehicle Occupants 88% 
 Cyclists 
 Public Transport Users 
 Pedestrians 



Changes in site environment and circumstances

Since the travel plan was implemented, have any of the following changes occurred?

Has there been large scale changes in numbers of staff on site? No
 The number of people working at the studio varies on a regular basis. At times the site can be empty with few people and at other times it can be extremely busy. This is dependent on the level of business and whether 'extras' are needed.

Has there been a change in site function from, for example, call centre to head office; or from administrative to sales, etc? No

Have parking controls been implemented around a site where previously many staff parked at no charge? No

Has there been large scale changes in local public transport services? No

Has the site been relocated to somewhere with different accessibility characteristics (e.g. from city centre to edge of town)? No

Factors that may have affected trip rates
 None

Additional Travel Plan comments

Cycling Measures

Covered cycle racks close to building entrances Yes
 Date implemented 2008
 Capital cost 10000
 Annual operating cost 0

Good lighting in cycle parking areas No
 Date implemented
 Capital cost
 Annual operating cost

Lockers/Facilities for staff who cycle to store their clothing No
 Date implemented
 Capital cost
 Annual operating cost

Secure well-lit/covered cycle parking compound No
 Date implemented
 Capital cost
 Annual operating cost

CCTV coverage of cycle parking areas No
 Date implemented
 Capital cost
 Annual operating cost

Shower and changing facilities for staff who cycle and walk Yes
 Date implemented 2008
 Capital cost
 Annual operating cost

Good network of cycle routes linking the site to main residential areas locally No
 Date implemented
 Capital cost
 Annual operating cost

Additional comments

The months of implementation for travel plan elements shown in this section are not known. The capital cost and annual cost of shower and changing facilities are not known.

Car Sharing Measures

Car-share matching system where employer takes active role in setting up car-share teams (i.e. more than just a voluntary noticeboard) Yes
 Date implemented 2010
 Capital cost 0
 Annual operating cost 0

Guaranteed free ride home available to all staff if they car-share and need to get home in an emergency Yes
 Date implemented 2010
 Capital cost
 Annual operating cost

Priority parking spaces for car-sharers close to building entrances No
 Date implemented
 Capital cost
 Annual operating cost

Car Club available locally that could be used by occupants of the site No

Does the site operate its own Car Club, or subscribe to an independent Car Club organisation? No

Additional comments

The dates of implementation of travel plan elements shown in this section are not known. The capital and annual costs for the guaranteed free ride home service are not known. Part of the car-matching system is organised and paid for by the London Borough of Richmond Upon Thames.

Car Parking Management

Limited availability of on-site parking spaces (on-site parking supply is set at less than demand for target group of Travel Plan) Yes

Parking permit eligibility restrictions (e.g. only staff without viable public transport alternative are issued with a permit) No
 Date implemented
 Capital cost
 Annual operating cost

Charging for parking for Travel Plan target group (e.g. staff, patients, visitors, etc.) No
 Date implemented
 Capital cost
 Annual operating cost
 Charge
 Period of Charge

Parking enforcement (e.g. barrier control, parking attendants, clamping, ticketing) on-site Yes
 Date implemented
 Capital cost
 Annual operating cost

Additional comments

Some tenants have dedicated parking bays, but these can be and are removed when a large film production locates to the studio.

Limited availability of parking spaces is dependent on the level of activity at the site, which fluctuates according to workload and time of year.

The date of implementation and the capital/annual costs for parking enforcement are not known (this is part of security's overall duties).

Financial Incentives

Daily payment of £2 or more to staff not to use the car (also known as cash-out) No
 Date implemented
 Capital cost
 Annual operating cost
 Daily payment value

Annual payment to give up entitlement to a parking permit No
 Date implemented
 Capital cost
 Annual operating cost
 Annual payment value

Site provides employees with season ticket/cycle loans Yes
 Date implemented 2010
 Capital cost
 Annual operating cost
 Annual loans value

Additional comments

The month of implementation and the capital cost, annual operating cost and the annual loans value of the season ticket/cycle loan scheme are not known.

Public Transport Measures

Bus waiting facilities (clean, graffiti-free bus shelter and seats close to (e.g. within 400 metres) the site's main entrance

No

Date implemented

Capital cost

Annual operating cost

New/improved bus services close to the site

No

Date implemented

Capital cost

Annual operating cost

Secure well-lit pedestrian routes to bus/tram stops within 400 metres

Yes

Date implemented

Capital cost

0

Annual operating cost

0

Secure well-lit pedestrian routes to railway stations within 1000 metres

No

Date implemented

Capital cost

Annual operating cost

Public transport information provided on site on paper and/or computer

Yes

Date implemented

Capital cost

Annual operating cost

Publicity and awareness raising material about local public transport

Yes

Date implemented

2010

Capital cost

Annual operating cost

Personalised journey planning/travel assistance (e.g. helpline, etc).

Yes

Date implemented

2010

Capital cost

Annual operating cost

Additional comments

Secure well-lit pedestrian routes to local bus stops are provided by the local authority and not the site. The dates of implementation of travel plan elements are not known, nor are capital or annual costs.

Shuttle Bus

Shuttle bus(es) to main staff/customer residential areas

Yes

Date implemented

January 2007

Capital cost

Annual operating cost

Shuttle bus(es) to railway and/or bus station(s)

Yes

Date implemented

January 2007

Capital cost

Annual operating cost

Additional comments

The capital and annual costs for the travel plan elements in this section are not known (confidential information). Pinewood Studios Group received a grant of £1,000 from the Sustainable Routes Fund to enable the company to implement a shuttle bus scheme at their three locations (one of which is Shepperton Studios). It was estimated that the scheme would help Pinewood to save 1,055 tonnes of carbon dioxide emissions annually.

Waterman Boreham Regent House Brentwood

Licence No: 701701

Site reference: SC-16-A-03 Survey date: 13/07/11 Day of week: Wednesday

Multi-Modal survey site

Vehicles surveyed: Total vehicles

Survey type: Manual Count

AM weather: Mild and Light Rain

PM weather: Mild and Cloudy

Initial car park occupancy: 223 Final car park occupancy: 188

BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE

Parking Capacity 71% (888 On-Site Spaces)

Data proportions in %

Motor cars	71	Motor cycles	3	Public service	2
Light goods	17	OGV (1)	4	OGV (2)	1
				Taxis	2

Servicing Vehicles count recorded No

Time	Arr 1279	Dep 1314	Totals 2593	Parking Accum
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	182	39	221	366
08:00-09:00	194	71	265	489
09:00-10:00	141	96	237	534
10:00-11:00	138	72	210	600
11:00-12:00	87	77	164	610
12:00-13:00	131	111	242	630
13:00-14:00	98	94	192	634
14:00-15:00	88	101	189	621
15:00-16:00	72	105	177	588
16:00-17:00	74	165	239	497
17:00-18:00	44	243	287	298
18:00-19:00	30	140	170	188
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

Site reference: SC-16-A-03 Survey date: 13/07/11 Day of week: Wednesday
 Multi-Modal survey site
 Vehicles surveyed: OGV

Data proportions in % OGV (1) 75 OGV (2) 25

1 occupant per OGV is assumed, and included in the vehicle occupants count

Time	Arr 77	Dep 69	Totals 146	Accumulation
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	6	6	12	(0)
08:00-09:00	7	3	10	(4)
09:00-10:00	12	8	20	(8)
10:00-11:00	8	5	13	(11)
11:00-12:00	5	9	14	(7)
12:00-13:00	11	4	15	(14)
13:00-14:00	4	6	10	(12)
14:00-15:00	14	5	19	(21)
15:00-16:00	3	7	10	(17)
16:00-17:00	7	6	13	(18)
17:00-18:00	0	9	9	(9)
18:00-19:00	0	1	1	(8)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

Waterman Boreham Regent House Brentwood

Licence No: 701701

Site reference: SC-16-A-03

Survey date: 13/07/11

Day of week: Wednesday

Multi-Modal survey site

Vehicles surveyed: PSV

Time	Arr 26	Dep 26	Totals 52	Accumulation
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	2	2	4	(0)
08:00-09:00	1	1	2	(0)
09:00-10:00	3	3	6	(0)
10:00-11:00	3	3	6	(0)
11:00-12:00	2	2	4	(0)
12:00-13:00	2	2	4	(0)
13:00-14:00	2	2	4	(0)
14:00-15:00	3	3	6	(0)
15:00-16:00	0	0	0	(0)
16:00-17:00	5	4	9	(1)
17:00-18:00	3	4	7	(0)
18:00-19:00	0	0	0	(0)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

Waterman Boreham Regent House Brentwood

Licence No: 701701

Site reference: SC-16-A-03

Survey date: 13/07/11

Day of week: Wednesday

Multi-Modal survey site

Vehicles surveyed: Taxis

Time	Arr 21	Dep 21	Totals 42	Accumulation
00:00-01:00				
01:00-02:00				
02:00-03:00				
03:00-04:00				
04:00-05:00				
05:00-06:00				
06:00-07:00				
07:00-08:00	4	4	8	(0)
08:00-09:00	7	7	14	(0)
09:00-10:00	2	1	3	(1)
10:00-11:00	1	2	3	(0)
11:00-12:00	3	3	6	(0)
12:00-13:00	0	0	0	(0)
13:00-14:00	2	2	4	(0)
14:00-15:00	0	0	0	(0)
15:00-16:00	1	0	1	(1)
16:00-17:00	1	2	3	(0)
17:00-18:00	0	0	0	(0)
18:00-19:00	0	0	0	(0)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

Waterman Boreham Regent House Brentwood

Licence No: 701701

Site reference: SC-16-A-03

Survey date: 13/07/11

Day of week: Wednesday

Multi-Modal survey site

Vehicles surveyed: Cycles

Time	Arr 31	Dep 27	Totals 58	Accumulation
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	9	0	9	(9)
08:00-09:00	10	0	10	(19)
09:00-10:00	0	0	0	(19)
10:00-11:00	1	0	1	(20)
11:00-12:00	2	0	2	(22)
12:00-13:00	4	2	6	(24)
13:00-14:00	0	1	1	(23)
14:00-15:00	3	3	6	(23)
15:00-16:00	1	3	4	(21)
16:00-17:00	0	5	5	(16)
17:00-18:00	1	8	9	(9)
18:00-19:00	0	5	5	(4)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

Waterman Boreham Regent House Brentwood

Licence No: 701701

Site reference: SC-16-A-03

Survey date: 13/07/11

Day of week: Wednesday

Multi-Modal survey site

People Surveyed: Pedestrians

Time	Arr 29	Dep 25	Totals 54	Accumulation
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	9	0	9	(9)
08:00-09:00	2	5	7	(6)
09:00-10:00	4	2	6	(8)
10:00-11:00	3	0	3	(11)
11:00-12:00	0	1	1	(10)
12:00-13:00	5	1	6	(14)
13:00-14:00	1	2	3	(13)
14:00-15:00	0	1	1	(12)
15:00-16:00	0	12	12	(0)
16:00-17:00	1	1	2	(0)
17:00-18:00	1	0	1	(1)
18:00-19:00	3	0	3	(4)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

Site reference: SC-16-A-03

Survey date: 13/07/11

Day of week: Wednesday

Multi-Modal survey site

People surveyed: Public transport Users

Time	Arr 64	Dep 52	Totals 116	Accumulation
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	16	0	16	(16)
08:00-09:00	10	0	10	(26)
09:00-10:00	13	0	13	(39)
10:00-11:00	16	0	16	(55)
11:00-12:00	3	0	3	(58)
12:00-13:00	4	0	4	(62)
13:00-14:00	0	0	0	(62)
14:00-15:00	1	4	5	(59)
15:00-16:00	0	14	14	(45)
16:00-17:00	0	8	8	(37)
17:00-18:00	1	14	15	(24)
18:00-19:00	0	12	12	(12)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

Site reference: SC-16-A-03

Survey date: 13/07/11

Day of week: Wednesday

Multi-Modal survey site

People Surveyed: Bus/Tram Passengers

Time	Arr 9	Dep 9	Totals 18	Accumulation
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	1	0	1	(1)
08:00-09:00	0	0	0	(1)
09:00-10:00	2	0	2	(3)
10:00-11:00	1	0	1	(4)
11:00-12:00	1	0	1	(5)
12:00-13:00	3	0	3	(8)
13:00-14:00	0	0	0	(8)
14:00-15:00	1	2	3	(7)
15:00-16:00	0	2	2	(5)
16:00-17:00	0	3	3	(2)
17:00-18:00	0	1	1	(1)
18:00-19:00	0	1	1	(0)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

Waterman Boreham Regent House Brentwood

Licence No: 701701

Site reference: SC-16-A-03 Survey date: 13/07/11 Day of week: Wednesday
 Multi-Modal survey site
 People Surveyed: Total Rail Passengers

Time	Arr 55	Dep 43	Totals 98	Accumulation
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	15	0	15	(15)
08:00-09:00	10	0	10	(25)
09:00-10:00	11	0	11	(36)
10:00-11:00	15	0	15	(51)
11:00-12:00	2	0	2	(53)
12:00-13:00	1	0	1	(54)
13:00-14:00	0	0	0	(54)
14:00-15:00	0	2	2	(52)
15:00-16:00	0	12	12	(40)
16:00-17:00	0	5	5	(35)
17:00-18:00	1	13	14	(23)
18:00-19:00	0	11	11	(12)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

Site reference: SC-16-A-03

Survey date: 13/07/11

Day of week: Wednesday

Multi-Modal survey site

People Surveyed: Total people

Time	Arr 1668	Dep 1682	Totals 3350	Accumulation
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	245	48	293	(197)
08:00-09:00	238	91	329	(344)
09:00-10:00	191	129	320	(406)
10:00-11:00	214	81	295	(539)
11:00-12:00	108	89	197	(558)
12:00-13:00	159	138	297	(579)
13:00-14:00	126	123	249	(582)
14:00-15:00	111	127	238	(566)
15:00-16:00	88	163	251	(491)
16:00-17:00	91	215	306	(367)
17:00-18:00	58	298	356	(127)
18:00-19:00	39	180	219	(-14)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

Site Reference: SC-16-A-04 Multi-Modal Site
 Created: Version: 7.1.1 03/10/13
 Latitude/Longitude: 51.40760, -0.46360
 Land Use Type: 16 - MIXED/A - MISCELLANEOUS
 Region/Area: SOUTH EAST/SURREY

Description: FILM STUDIOS
 Street: STUDIOS ROAD
 District: LITTLETON
 Town: SHEPPERTON
 Post Code: TW17 0QD
 Planning Authority:

Location: Edge of Town
 Location Sub Category: No Sub Category
 Use Class: n/a

Population within 500m: 883
 Population within 1 Mile: 5,001 to 10,000
 Population within 5 Miles: 250,001 to 500,000
 Car ownership within 5 Miles: 1.6 to 2.0

Public Transport Provision Summary

Day	Period	Total buses/trams within 400m	Total Trains within 1000m	Total Services
Monday-Friday	0700-1900	26		26
Monday-Friday	0700-1000	11		11
Monday-Friday	1600-1900	5		5
Saturday	0700-1900			
Sunday	0700-1900			

Is site associated with a travel plan: Yes
 If not, are there any plans to implement a Travel Plan in the future?
 Is survey data available before the implementation of the Travel Plan? Yes
 Is the location of the site hilly or flat: Flat
 Urban Regeneration: No

Previous survey: SC-16-A-03
 Next survey: SC-16-A-05

No. of developments for this Site: 1
 No. of survey Days for this Site: 1

Comments

This site is located at the north-western edge of Shepperton.
 There is some residential development locally, with the Queen Mary Reservoir at the site's northern boundary.

Bus (or tram) site accessibility

1. Is there a site specific company bus service associated with the development?: Yes
2. If Yes to question 1, for how many years: 6
3. Is there at least 1 bus (or tram) stop within the site frontage or within 400m of the site frontage? : Yes

11. Please enter general comments/views about the relevance, quality and importance of public transport services relating to this development.

There is an hourly bus service available to Staines Bus Station, with a less frequent service available to Tesco in Sunbury. In addition to these public services, there are site-specific shuttle services operating at peak morning and evening times between the site and Shepperton and Staines railway stations (not included in the public transport services summary table).

Design features encouraging non-car modes

12. Pedestrians

None

13. Pedal cycles

The site contains two sheds dedicated to cycle parking and storage.

14. Public transport

There is a free shuttle bus available to all studio employees, tenants and visitors. Admission to the buses is upon proof of identity (studio ID card or visitor pass). The shuttle bus runs to Staines and Shepperton rail stations, with onward services to London.

Design features encouraging non-car modes

Road Network Distance to Local Developments	
Year of Analysis	2013
Nearest Primary School	0.5 kilometres
Nearest Secondary School	6.4 kilometres
Nearest Local Shop/Corner Shop	2.6 kilometres
Nearest Main Supermarket	2.4 kilometres
Nearest Doctors Surgery	2.0 kilometres
Nearest Hospital with Minor Injuries/A & E	7.4 kilometres
Nearest Sports/Leisure Centre	4.2 kilometres

Census Data	
Year of Census	2011
Census Output Area/Data Zone	E00156659
Number of people employed within Census Output Area	136
Number of households within Census Output Area	113
Number of people living within Census Output Area	251
Area of Census Output Area (hectares)	21.00
Population density within Census Output Area (per hectare)	12.10

Site reference:	SC-16-A-04	Multi-Modal survey site
Trade name:	SHEPPERTON STUDIOS	
Site area (h/a):	10.32	
Open since	1931	
Total Employees	67	
Full Time Employees	66	98%
Part Time Employees	1	2%
Approximate % of total employees working standard 9-5 hours or similar	%	
Approximate % of employees living within the following radii of the site		
	3Km	12%
	5Km	%
	>5Km	%
Name of nearest site	PINEWOOD STUDIOS	
Distance to nearest similar site	24.0 Km	

OPENING TIMES (24 Hour format)

Mon to Thurs	00:00	to	24:00
Friday	00:00	to	24:00
Saturday	00:00	to	24:00
Sunday	00:00	to	24:00

Comments

This site originally opened in 1931 as Sound City Studios.
 The site hosts over 100 individual units related to film, television, theatre and studio production, in a wide range of fields. The full list of units is available at www.pinewoodgroup.com/kotl/2011/.
 The employees shown are staff directly employed by Shepperton Studios.
 There are a large number of portakabin style buildings that are used as office space or for on-site amenities and services.
 Different parts of the site run on different hours. For example, the standard starting time for post-production companies is 0800, but other areas start later.
 The percentage of employees living within 5 kilometres radius of the site is not known.

Multi-Modal survey site

On-Site parking

Total no. of parking spaces 944

Number of spaces

Employee 904
 Disabled 2
 Visitor/Customer 4
 OGV parking bays 0
 Cycle racks 30
 OGV loading bays 24
 Parent & Toddler 0
 Motorcycle spaces 10

Parking charges No

Comments about the management of the site car park, along with enforcement measures

Access to the site is monitored by a security check-point.

Site parking surface or non-surface (multi-storey/underground)

Surface

General Comments on Parking

In addition to the on-site parking spaces there is a 600-space overflow car park to the north of the site and to the south of the reservoir wall. However, this was not in use on the day of the survey.

The 4 visitor spaces shown above are in fact taxi rank spaces.

The majority of parking is surface, but there is a small multi-storey car park at the extreme north-east of the site.

Off-Site parking details

Is there off-site parking available

Yes

Off-Site parking included in the counts

Yes

Free On-Street parking available nearby

Yes

If yes, considered easy to find a space

Yes

If prepared to pay, easy to find somewhere to park off-site all day

No

Parking restrictions

Area subject to parking restrictions (controlled parking zone - CPZ)

No

Off-Street parking

Off-Street parking available NO

Park & Ride

Park & Ride Type Facility providing relevant means of accessing the site

No

Additional Travel Plan Features

The company participates in a cycle scheme for employees, and staff are able to claim a cycling mileage allowance. A "biker's breakfast" is provided six times per year for cyclists, and the company run "Dr Bike" clinics from time to time.

Changes from Previous Survey

There have been no changes since the previous survey.

Travel Plan Type

Type Compulsory

Travel Plan History

Date of Travel Plan implementation January 2009

Has the Travel Plan been accredited, or received an award in recognition of its quality, from either a national body such as ACT or a local authority? No

Travel Plan Target Group

Main target market(s) for the Travel Plan

Staff	Target group
Visitors	Target group
Customers	Not present
Students	Not present
Patients	Not present
All site users	Target group
Other	

Travel Plan Co-Ordinator

Is there a Travel Plan co-ordinator - a member of staff whose job it is to manage the implementation of the Travel Plan? Yes

If YES to the above, do they work on the Travel Plan full time or part time? Part time

Pre-Travel Plan Mode Split

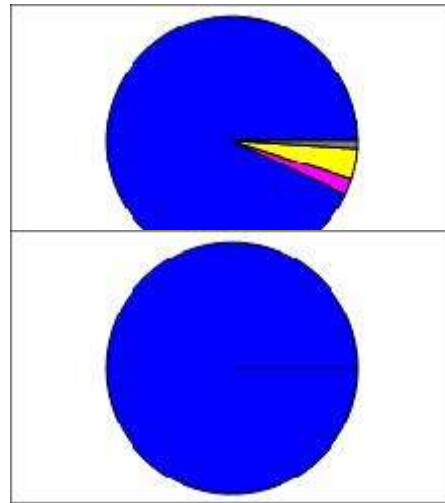
Was modal split data obtained before the introduction of the Travel Plan?

If YES, when? Yes 2004
 Vehicle Occupants 93% 
 Cyclists 2% 
 Public Transport Users 4% 
 Pedestrians 1% 

Travel Plan Modal Split Targets

Did the Travel Plan identify mode split targets? Yes
 If YES, when? January 2009
 Vehicle Occupants 88% 

Cyclists 
 Public Transport Users 
 Pedestrians 



Changes in site environment and circumstances

Since the travel plan was implemented, have any of the following changes occurred?

Has there been large scale changes in numbers of staff on site? No
 The number of people working at the studio varies on a regular basis. At times the site can be empty with few people, and at other times it can be extremely busy. This is dependent on the level of business and whether "extras" are needed.

Has there been a change in site function from, for example, call centre to head office; or from administrative to sales, etc? No

Have parking controls been implemented around a site where previously many staff parked at no charge? No

Has there been large scale changes in local public transport services? No

Has the site been relocated to somewhere with different accessibility characteristics (e.g. from city centre to edge of town)? No

Factors that may have affected trip rates

Additional Travel Plan comments

Cycling Measures

Covered cycle racks close to building entrances Yes
 Date implemented 2008
 Capital cost 10000
 Annual operating cost 0

Good lighting in cycle parking areas No
 Date implemented
 Capital cost
 Annual operating cost

Lockers/Facilities for staff who cycle to store their clothing No
 Date implemented
 Capital cost
 Annual operating cost

Secure well-lit/covered cycle parking compound No
 Date implemented
 Capital cost
 Annual operating cost

CCTV coverage of cycle parking areas No
 Date implemented
 Capital cost
 Annual operating cost

Shower and changing facilities for staff who cycle and walk Yes
 Date implemented 2008
 Capital cost
 Annual operating cost

Good network of cycle routes linking the site to main residential areas locally No
 Date implemented
 Capital cost
 Annual operating cost

Additional comments

The months of implementation for travel plan elements shown in this section are not known. The capital cost and annual cost of shower and changing facilities are not known.

Car Sharing Measures

Car-share matching system where employer takes active role in setting up car-share teams (i.e. more than just a voluntary noticeboard) Yes
 Date implemented 2010
 Capital cost 0
 Annual operating cost 0

Guaranteed free ride home available to all staff if they car-share and need to get home in an emergency Yes
 Date implemented 2010
 Capital cost
 Annual operating cost

Priority parking spaces for car-sharers close to building entrances No
 Date implemented
 Capital cost
 Annual operating cost

Car Club available locally that could be used by occupants of the site No

Does the site operate its own Car Club, or subscribe to an independent Car Club organisation? No

Additional comments

The dates of implementation of travel plan elements shown in this section are not known. The capital and annual costs for the guaranteed free ride home service are not known. Part of the car-matching system is organised and paid for by the London Borough of Richmond Upon Thames.

Car Parking Management

Limited availability of on-site parking spaces (on-site parking supply is set at less than demand for target group of Travel Plan) Yes

Parking permit eligibility restrictions (e.g. only staff without viable public transport alternative are issued with a permit) No
 Date implemented
 Capital cost
 Annual operating cost

Charging for parking for Travel Plan target group (e.g. staff, patients, visitors, etc.) No
 Date implemented
 Capital cost
 Annual operating cost
 Charge
 Period of Charge

Parking enforcement (e.g. barrier control, parking attendants, clamping, ticketing) on-site Yes
 Date implemented
 Capital cost
 Annual operating cost

Additional comments

Some tenants have dedicated parking bays, but these can be and are removed when a large film production locates to the studio.

Limited availability of parking spaces is dependent on the level of activity at the site, which fluctuates according to workload and time of year.

The date of implementation and the capital/annual costs for parking enforcement are not known (this is part of security's overall duties).

Financial Incentives

Daily payment of £2 or more to staff not to use the car (also known as cash-out) No
 Date implemented
 Capital cost
 Annual operating cost
 Daily payment value

Annual payment to give up entitlement to a parking permit No
 Date implemented
 Capital cost
 Annual operating cost
 Annual payment value

Site provides employees with season ticket/cycle loans Yes
 Date implemented 2010
 Capital cost
 Annual operating cost
 Annual loans value

Additional comments

The month of implementation and the capital cost, annual operating cost and the annual loans value of the season ticket/cycle loan scheme are not known.

Public Transport Measures

Bus waiting facilities (clean, graffiti-free bus shelter and seats close to (e.g. within 400 metres) the site's main entrance

No

Date implemented

Capital cost

Annual operating cost

New/improved bus services close to the site

No

Date implemented

Capital cost

Annual operating cost

Secure well-lit pedestrian routes to bus/tram stops within 400 metres

Yes

Date implemented

Capital cost

0

Annual operating cost

0

Secure well-lit pedestrian routes to railway stations within 1000 metres

No

Date implemented

Capital cost

Annual operating cost

Public transport information provided on site on paper and/or computer

Yes

Date implemented

Capital cost

Annual operating cost

Publicity and awareness raising material about local public transport

Yes

Date implemented

2010

Capital cost

Annual operating cost

Personalised journey planning/travel assistance (e.g. helpline, etc).

Yes

Date implemented

2010

Capital cost

Annual operating cost

Additional comments

Secure well-lit pedestrian routes to local bus stops are provided by the local authority and not the site. The dates of implementation of travel plan elements are not known, nor are capital or annual costs.

Shuttle Bus

Shuttle bus(es) to main staff/customer residential areas

Yes

Date implemented

January 2007

Capital cost

Annual operating cost

Shuttle bus(es) to railway and/or bus station(s)

Yes

Date implemented

January 2007

Capital cost

Annual operating cost

Additional comments

The capital and annual costs for the travel plan elements in this section are not known (confidential information). Pinewood Studios Group received a grant of £1,000 from the Sustainable Routes Fund to enable the company to implement a shuttle bus scheme at their three locations (one of which is Shepperton Studios). It was estimated that the scheme would help Pinewood to save 1,055 tonnes of carbon dioxide emissions annually.

Waterman Boreham Regent House Brentwood

Licence No: 701701

Site reference: SC-16-A-04 Survey date: 13/08/13 Day of week: Tuesday
 Multi-Modal survey site
 Vehicles surveyed: Total vehicles
 Survey type: Manual Count
 AM weather: Mild and Clear
 PM weather: Mild and Cloudy

Initial car park occupancy: 191 Final car park occupancy: 257

BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE

Parking Capacity 82% (944 On-Site Spaces)

Data proportions in %

Motor cars	76	Motor cycles	3	Public service	0
Light goods	17	OGV (1)	2	OGV (2)	1
				Taxis	1

Servicing Vehicles count recorded No

Time	Arr 1154	Dep 1088	Totals 2242	Parking Accum
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	313	33	346	471
08:00-09:00	181	55	236	597
09:00-10:00	106	20	126	683
10:00-11:00	132	50	182	765
11:00-12:00	63	57	120	771
12:00-13:00	45	64	109	752
13:00-14:00	87	99	186	740
14:00-15:00	76	73	149	743
15:00-16:00	49	55	104	737
16:00-17:00	31	110	141	658
17:00-18:00	42	228	270	472
18:00-19:00	29	244	273	257
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

Waterman Boreham Regent House Brentwood

Licence No: 701701

Site reference: SC-16-A-04 Survey date: 13/08/13 Day of week: Tuesday
 Multi-Modal survey site
 Vehicles surveyed: OGV

Data proportions in % OGV (1) 80 OGV (2) 20

1 occupant per OGV is assumed, and included in the vehicle occupants count

Time	Arr 31	Dep 35	Totals 66	Accumulation
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	3	5	8	(-2)
08:00-09:00	0	4	4	(-6)
09:00-10:00	3	3	6	(-6)
10:00-11:00	4	6	10	(-8)
11:00-12:00	4	6	10	(-10)
12:00-13:00	3	2	5	(-9)
13:00-14:00	3	0	3	(-6)
14:00-15:00	1	2	3	(-7)
15:00-16:00	7	4	11	(-4)
16:00-17:00	0	2	2	(-6)
17:00-18:00	2	1	3	(-5)
18:00-19:00	1	0	1	(-4)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

Site reference: SC-16-A-04

Survey date: 13/08/13

Day of week: Tuesday

Multi-Modal survey site

Vehicles surveyed: PSV

Time	Arr 14	Dep 14	Totals 28	Accumulation
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	2	2	4	(0)
08:00-09:00	2	2	4	(0)
09:00-10:00	2	2	4	(0)
10:00-11:00	1	1	2	(0)
11:00-12:00	1	1	2	(0)
12:00-13:00	0	0	0	(0)
13:00-14:00	0	0	0	(0)
14:00-15:00	1	1	2	(0)
15:00-16:00	1	1	2	(0)
16:00-17:00	1	1	2	(0)
17:00-18:00	2	2	4	(0)
18:00-19:00	1	1	2	(0)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

Waterman Boreham Regent House Brentwood

Licence No: 701701

Site reference: SC-16-A-04

Survey date: 13/08/13

Day of week: Tuesday

Multi-Modal survey site

Vehicles surveyed: Taxis

Time	Arr 12	Dep 13	Totals 25	Accumulation
00:00-01:00				
01:00-02:00				
02:00-03:00				
03:00-04:00				
04:00-05:00				
05:00-06:00				
06:00-07:00				
07:00-08:00	4	5	9	(-1)
08:00-09:00	1	1	2	(-1)
09:00-10:00	0	0	0	(-1)
10:00-11:00	3	3	6	(-1)
11:00-12:00	0	0	0	(-1)
12:00-13:00	0	0	0	(-1)
13:00-14:00	0	0	0	(-1)
14:00-15:00	1	0	1	(0)
15:00-16:00	1	1	2	(0)
16:00-17:00	1	1	2	(0)
17:00-18:00	0	1	1	(-1)
18:00-19:00	1	1	2	(-1)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

Site reference: SC-16-A-04

Survey date: 13/08/13

Day of week: Tuesday

Multi-Modal survey site

Vehicles surveyed: Cars

Time	Arr 876	Dep 797	Totals 1673	Accumulation
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	266	14	280	(252)
08:00-09:00	156	21	177	(387)
09:00-10:00	90	8	98	(469)
10:00-11:00	98	22	120	(545)
11:00-12:00	35	30	65	(550)
12:00-13:00	24	46	70	(528)
13:00-14:00	68	78	146	(518)
14:00-15:00	60	45	105	(533)
15:00-16:00	29	37	66	(525)
16:00-17:00	16	87	103	(454)
17:00-18:00	19	191	210	(282)
18:00-19:00	15	218	233	(79)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

Site reference: SC-16-A-04

Survey date: 13/08/13

Day of week: Tuesday

Multi-Modal survey site

Vehicles surveyed: LGV

Time	Arr 193	Dep 198	Totals 391	Accumulation
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	30	7	37	(23)
08:00-09:00	14	27	41	(10)
09:00-10:00	11	7	18	(14)
10:00-11:00	23	17	40	(20)
11:00-12:00	22	19	41	(23)
12:00-13:00	18	15	33	(26)
13:00-14:00	16	19	35	(23)
14:00-15:00	13	24	37	(12)
15:00-16:00	10	12	22	(10)
16:00-17:00	9	13	22	(6)
17:00-18:00	17	21	38	(2)
18:00-19:00	10	17	27	(-5)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

Site reference: SC-16-A-04

Survey date: 13/08/13

Day of week: Tuesday

Multi-Modal survey site

Vehicles surveyed: Motor Cycles

Time	Arr 28	Dep 31	Totals 59	Accumulation
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	8	0	8	(8)
08:00-09:00	8	0	8	(16)
09:00-10:00	0	0	0	(16)
10:00-11:00	3	1	4	(18)
11:00-12:00	1	1	2	(18)
12:00-13:00	0	1	1	(17)
13:00-14:00	0	2	2	(15)
14:00-15:00	0	1	1	(14)
15:00-16:00	1	0	1	(15)
16:00-17:00	4	6	10	(13)
17:00-18:00	2	12	14	(3)
18:00-19:00	1	7	8	(-3)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

Waterman Boreham Regent House Brentwood

Licence No: 701701

Site reference: SC-16-A-04

Survey date: 13/08/13

Day of week: Tuesday

Multi-Modal survey site

Vehicles surveyed: Cycles

Time	Arr 36	Dep 37	Totals 73	Accumulation
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	13	0	13	(13)
08:00-09:00	10	0	10	(23)
09:00-10:00	5	0	5	(28)
10:00-11:00	4	0	4	(32)
11:00-12:00	0	0	0	(32)
12:00-13:00	1	2	3	(31)
13:00-14:00	1	2	3	(30)
14:00-15:00	0	1	1	(29)
15:00-16:00	1	4	5	(26)
16:00-17:00	0	8	8	(18)
17:00-18:00	0	12	12	(6)
18:00-19:00	1	8	9	(-1)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

Site reference: SC-16-A-04

Survey date: 13/08/13

Day of week: Tuesday

Multi-Modal survey site

People Surveyed: Pedestrians

Time	Arr 30	Dep 26	Totals 56	Accumulation
00:00-01:00				
01:00-02:00				
02:00-03:00				
03:00-04:00				
04:00-05:00				
05:00-06:00				
06:00-07:00				
07:00-08:00	7	0	7	(7)
08:00-09:00	1	0	1	(8)
09:00-10:00	6	0	6	(14)
10:00-11:00	4	0	4	(18)
11:00-12:00	2	0	2	(20)
12:00-13:00	2	2	4	(20)
13:00-14:00	2	2	4	(20)
14:00-15:00	4	2	6	(22)
15:00-16:00	1	7	8	(16)
16:00-17:00	1	10	11	(7)
17:00-18:00	0	0	0	(7)
18:00-19:00	0	3	3	(4)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

Waterman Boreham Regent House Brentwood

Licence No: 701701

Site reference: SC-16-A-04 Survey date: 13/08/13 Day of week: Tuesday
 Multi-Modal survey site
 People surveyed: Public transport Users

Time	Arr 57	Dep 50	Totals 107	Accumulation
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	27	0	27	(27)
08:00-09:00	11	0	11	(38)
09:00-10:00	9	0	9	(47)
10:00-11:00	3	1	4	(49)
11:00-12:00	2	4	6	(47)
12:00-13:00	0	7	7	(40)
13:00-14:00	0	7	7	(33)
14:00-15:00	4	0	4	(37)
15:00-16:00	1	1	2	(37)
16:00-17:00	0	4	4	(33)
17:00-18:00	0	8	8	(25)
18:00-19:00	0	18	18	(7)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

Site reference: SC-16-A-04

Survey date: 13/08/13

Day of week: Tuesday

Multi-Modal survey site

People surveyed: Bus/Tram Passengers

Time	Arr 9	Dep 8	Totals 17	Accumulation
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	1	0	1	(1)
08:00-09:00	0	0	0	(1)
09:00-10:00	2	0	2	(3)
10:00-11:00	2	0	2	(5)
11:00-12:00	1	0	1	(6)
12:00-13:00	0	0	0	(6)
13:00-14:00	0	1	1	(5)
14:00-15:00	2	0	2	(7)
15:00-16:00	1	1	2	(7)
16:00-17:00	0	1	1	(6)
17:00-18:00	0	3	3	(3)
18:00-19:00	0	2	2	(1)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

Site reference: SC-16-A-04

Survey date: 13/08/13

Day of week: Tuesday

Multi-Modal survey site

People Surveyed: Total Rail Passengers

Time	Arr 48	Dep 42	Totals 90	Accumulation
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	26	0	26	(26)
08:00-09:00	11	0	11	(37)
09:00-10:00	7	0	7	(44)
10:00-11:00	1	1	2	(44)
11:00-12:00	1	4	5	(41)
12:00-13:00	0	7	7	(34)
13:00-14:00	0	6	6	(28)
14:00-15:00	2	0	2	(30)
15:00-16:00	0	0	0	(30)
16:00-17:00	0	3	3	(27)
17:00-18:00	0	5	5	(22)
18:00-19:00	0	16	16	(6)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

Waterman Boreham Regent House Brentwood

Licence No: 701701

Site reference: SC-16-A-04

Survey date: 13/08/13

Day of week: Tuesday

Multi-Modal survey site

People Surveyed: Total people

Time	Arr 1403	Dep 1352	Totals 2755	Accumulation
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	396	39	435	(357)
08:00-09:00	222	58	280	(521)
09:00-10:00	139	29	168	(631)
10:00-11:00	161	54	215	(738)
11:00-12:00	70	66	136	(742)
12:00-13:00	50	87	137	(705)
13:00-14:00	97	133	230	(669)
14:00-15:00	97	80	177	(686)
15:00-16:00	59	78	137	(667)
16:00-17:00	33	158	191	(542)
17:00-18:00	48	275	323	(315)
18:00-19:00	31	295	326	(51)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

Site Reference: SC-16-A-05 Multi-Modal Site
Created: Version: 7.2.4 29/10/15
Latitude/Longitude: 51.40760, -0.46360
Land Use Type: 16 - MIXED/A - MISCELLANEOUS
Region/Area: SOUTH EAST/SURREY

Description: FILM STUDIOS
Street: STUDIOS ROAD
District: LITTLETON
Town: SHEPPERTON
Post Code: TW17 0QD
Planning Authority:

Location: Edge of Town
Location Sub Category: No Sub Category
Use Class: n/a

Population within 500m: 883
Population within 1 Mile: 5,001 to 10,000
Population within 5 Miles: 250,001 to 500,000
Car ownership within 5 Miles: 1.6 to 2.0

Public Transport Provision Summary

Day	Period	Total buses/trams within 400m	Total Trains within 1000m	Total Services
Monday-Friday	0700-1900	26		26
Monday-Friday	0700-1000	11		11
Monday-Friday	1600-1900	5		5
Saturday	0700-1900			
Sunday	0700-1900			

Is site associated with a travel plan: Yes
If not, are there any plans to implement a Travel Plan in the future?
Is survey data available before the implementation of the Travel Plan? Yes
Is the location of the site hilly or flat: Flat
Urban Regeneration: No

Previous survey SC-16-A-04

No. of developments for this Site: 1
No. of survey Days for this Site: 1

Comments

This site is located at the north-western edge of Shepperton.
There is some residential development locally, with the Queen Mary Reservoir at the site's northern boundary.

Bus (or tram) site accessibility

1. Is there a site specific company bus service associated with the development?: Yes
2. If Yes to question 1, for how many years: 8
3. Is there at least 1 bus (or tram) stop within the site frontage or within 400m of the site frontage? : Yes

11. Please enter general comments/views about the relevance, quality and importance of public transport services relating to this development.

There is an hourly bus service available to Staines Bus Station, with a less frequent service available to Tesco in Sunbury. In addition to these public services, there are site-specific shuttle services operating at peak morning and evening times between the site and Shepperton and Staines railway stations (not included in the public transport services summary table).

Design features encouraging non-car modes

12. Pedestrians

None

13. Pedal cycles

The site contains two sheds dedicated to cycle parking and storage.

14. Public transport

There is a free shuttle bus available to all studio employees, tenants and visitors. Admission to the buses is upon proof of identity (studio ID card or visitor pass). The shuttle bus runs to Staines and Shepperton rail stations, with onward services to London.

Design features encouraging non-car modes

Road Network Distance to Local Developments	
Year of Analysis	2015
Nearest Primary School	0.5 kilometres
Nearest Secondary School	6.4 kilometres
Nearest Local Shop/Corner Shop	2.6 kilometres
Nearest Main Supermarket	2.4 kilometres
Nearest Doctors Surgery	2.0 kilometres
Nearest Hospital with Minor Injuries/A & E	7.4 kilometres
Nearest Sports/Leisure Centre	4.2 kilometres

Census Data	
Year of Census	2011
Census Output Area/Data Zone	E00156659
Number of people employed within Census Output Area	136
Number of households within Census Output Area	113
Number of people living within Census Output Area	251
Area of Census Output Area (hectares)	21.00
Population density within Census Output Area (per hectare)	12.10

Site reference:	SC-16-A-05	Multi-Modal survey site
Trade name:	SHEPPERTON STUDIOS	
Site area (h/a):	10.32	
Open since	1932	
Total Employees	67	
Full Time Employees	67	
Part Time Employees	0	
Approximate % of total employees working standard 9-5 hours or similar	60%	
Name of nearest site	PINEWOOD STUDIOS	
Distance to nearest similar site	24.0 Km	

OPENING TIMES (24 Hour format)

Mon to Thurs	00:00	to	24:00
Friday	00:00	to	24:00
Saturday	00:00	to	24:00
Sunday	00:00	to	24:00

Comments

This site originally opened in 1931 as Sound City Studios.

The site hosts over 100 individual units related to film, television, theatre and studio production, in a wide range of fields. The full list of units is available at www.pinewoodgroup.com/kotl/2011/. The Gross Floor Area of the site is 53,470m2.

The employees shown are staff directly employed by Shepperton Studios.

There are a large number of portakabin style buildings that are used as office space or for on-site amenities and services.

Different parts of the site run on different hours. For example, the standard starting time for post-production companies is 0800, but other areas start later. On the evening of the survey there was a TV show being filmed at the site with a live studio audience.

The percentage of employees living within 5 kilometres radius of the site is not known.

Multi-Modal survey site

On-Site parking

Total no. of parking spaces 832

Number of spaces

Employee 797
 Disabled 2
 Visitor/Customer 4
 OGV parking bays 0
 Cycle racks 40
 OGV loading bays 24
 Parent & Toddler 0
 Motorcycle spaces 10

Parking charges No

Comments about the management of the site car park, along with enforcement measures

Access to the site is monitored by a security checkpoint.

Site parking surface or non-surface (multi-storey/underground)

Surface

General Comments on Parking

In addition to the on-site parking spaces there is a 600-space overflow car park to the north of the site and to the south of the reservoir wall, which was in use on the day of the survey.

The 4 visitor spaces shown above are in fact taxi rank spaces.

The majority of parking is surface, but there is a small multi-storey car park at the extreme north-east of the site.

Types of servicing vehicle parking taking place

on-site (internal, within specified bays or otherwise)

Yes

off-site (on-street, in designated loading/servicing bays)

No

off-site (in restricted areas e.g. double yellow lines)

No

Off-Site parking details

Is there off-site parking available

Yes

Off-Site parking included in the counts

Yes

Free On-Street parking available nearby

Yes

If yes, considered easy to find a space

Yes

If prepared to pay, easy to find somewhere to park off-site all day

No

Parking restrictions

Area subject to parking restrictions (controlled parking zone - CPZ)

No

Off-Street parking

Off-Street parking available NO

Park & Ride

Park & Ride Type Facility providing relevant means of accessing the site

No

Additional Travel Plan Features

The company participates in a cycle scheme for employees, and staff are able to claim a cycling mileage allowance. A "biker's breakfast" is provided six times per year for cyclists, and the company run "Dr Bike" clinics from time to time.

Changes from Previous Survey

There have been no changes since the previous survey.

Travel Plan Type

Type Compulsory

Travel Plan History

Date of Travel Plan implementation January 2009

Has the Travel Plan been accredited, or received an award in recognition of its quality, from either a national body such as ACT or a local authority? No

Travel Plan Target Group

Main target market(s) for the Travel Plan





Staff	Target group
Visitors	Target group
Customers	Not present
Students	Not present
Patients	Not present
All site users	Target group
Other	

Travel Plan Co-Ordinator

Is there a Travel Plan co-ordinator - a member of staff whose job it is to manage the implementation of the Travel Plan? Yes

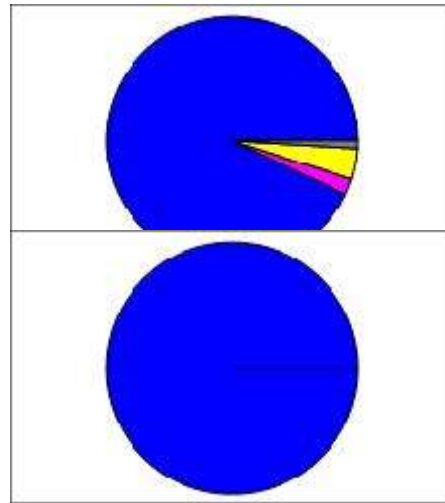
If YES to the above, do they work on the Travel Plan full time or part time? Part time

Pre-Travel Plan Mode Split

Was modal split data obtained before the introduction of the Travel Plan? Yes
 If YES, when? 2004
 Vehicle Occupants 93% 
 Cyclists 2% 
 Public Transport Users 4% 
 Pedestrians 1% 

Travel Plan Modal Split Targets

Did the Travel Plan identify mode split targets? Yes
 If YES, when? January 2009
 Vehicle Occupants 88% 
 Cyclists 
 Public Transport Users 
 Pedestrians 



Changes in site environment and circumstances

Since the travel plan was implemented, have any of the following changes occurred?

Has there been large scale changes in numbers of staff on site? No
 The number of people working at the studio varies on a regular basis. At times the site can be empty with few people, and at other times it can be extremely busy. This is dependent on the level of business and whether "extras" are needed.

Has there been a change in site function from, for example, call centre to head office; or from administrative to sales, etc? No

Have parking controls been implemented around a site where previously many staff parked at no charge? No

Has there been large scale changes in local public transport services? No

Has the site been relocated to somewhere with different accessibility characteristics (e.g. from city centre to edge of town)? No

Factors that may have affected trip rates

Additional Travel Plan comments

Cycling Measures

Covered cycle racks close to building entrances Yes
 Date implemented 2008
 Capital cost 10000
 Annual operating cost 0

Good lighting in cycle parking areas No
 Date implemented
 Capital cost
 Annual operating cost

Lockers/Facilities for staff who cycle to store their clothing No
 Date implemented
 Capital cost
 Annual operating cost

Secure well-lit/covered cycle parking compound No
 Date implemented
 Capital cost
 Annual operating cost

CCTV coverage of cycle parking areas No
 Date implemented
 Capital cost
 Annual operating cost

Shower and changing facilities for staff who cycle and walk Yes
 Date implemented 2008
 Capital cost
 Annual operating cost

Good network of cycle routes linking the site to main residential areas locally No
 Date implemented
 Capital cost
 Annual operating cost

Additional comments

The months of implementation for travel plan elements shown in this section are not known. The capital cost and annual cost of shower and changing facilities are not known.

The company participates in a cycle scheme for employees, and staff are able to claim a cycling mileage allowance. A "biker's breakfast" is provided six times per year for cyclists, and the company run "Dr Bike" clinics from time to time.

Car Sharing Measures

Car-share matching system where employer takes active role in setting up car-share teams (i.e. more than just a voluntary noticeboard) Yes
 Date implemented 2010
 Capital cost 0
 Annual operating cost 0

Guaranteed free ride home available to all staff if they car-share and need to get home in an emergency Yes
 Date implemented 2010
 Capital cost
 Annual operating cost

Priority parking spaces for car-sharers close to building entrances No
 Date implemented
 Capital cost
 Annual operating cost

Car Club available locally that could be used by occupants of the site No

Does the site operate its own Car Club, or subscribe to an independent Car Club organisation? No

Additional comments

The dates of implementation of travel plan elements shown in this section are not known. The capital and annual costs for the guaranteed free ride home service are not known. Part of the car-matching system is organised and paid for by the London Borough of Richmond Upon Thames.

Car Parking Management

Limited availability of on-site parking spaces (on-site parking supply is set at less than demand for target group of Travel Plan) Yes

Parking permit eligibility restrictions (e.g. only staff without viable public transport alternative are issued with a permit) No
 Date implemented
 Capital cost
 Annual operating cost

Charging for parking for Travel Plan target group (e.g. staff, patients, visitors, etc.) No
 Date implemented
 Capital cost
 Annual operating cost
 Charge
 Period of Charge

Parking enforcement (e.g. barrier control, parking attendants, clamping, ticketing) on-site Yes
 Date implemented
 Capital cost
 Annual operating cost

Additional comments

Some tenants have dedicated parking bays, but these can be and are removed when a large film production locates to the studio.

Limited availability of parking spaces is dependent on the level of activity at the site, which fluctuates according to workload and time of year.

The date of implementation and the capital/annual costs for parking enforcement are not known (this is part of security's overall duties).

Financial Incentives

Daily payment of £2 or more to staff not to use the car (also known as cash-out) No
 Date implemented
 Capital cost
 Annual operating cost
 Daily payment value

Annual payment to give up entitlement to a parking permit No
 Date implemented
 Capital cost
 Annual operating cost
 Annual payment value

Site provides employees with season ticket/cycle loans Yes
 Date implemented 2010
 Capital cost
 Annual operating cost
 Annual loans value

Additional comments

The month of implementation and the capital cost, annual operating cost and the annual loans value of the season ticket/cycle loan scheme are not known.

Public Transport Measures

Bus waiting facilities (clean, graffiti-free bus shelter and seats close to (e.g. within 400 metres) the site's main entrance

No

Date implemented

Capital cost

Annual operating cost

New/improved bus services close to the site

No

Date implemented

Capital cost

Annual operating cost

Secure well-lit pedestrian routes to bus/tram stops within 400 metres

Yes

Date implemented

Capital cost

0

Annual operating cost

0

Secure well-lit pedestrian routes to railway stations within 1000 metres

No

Date implemented

Capital cost

Annual operating cost

Public transport information provided on site on paper and/or computer

Yes

Date implemented

Capital cost

Annual operating cost

Publicity and awareness raising material about local public transport

Yes

Date implemented

2010

Capital cost

Annual operating cost

Personalised journey planning/travel assistance (e.g. helpline, etc).

Yes

Date implemented

2010

Capital cost

Annual operating cost

Additional comments

Secure well-lit pedestrian routes to local bus stops are provided by the local authority and not the site. The dates of implementation of travel plan elements are not known, nor are capital or annual costs.

Shuttle Bus

Shuttle bus(es) to main staff/customer residential areas

Yes

Date implemented

January 2007

Capital cost

Annual operating cost

Shuttle bus(es) to railway and/or bus station(s)

Yes

Date implemented

January 2007

Capital cost

Annual operating cost

Additional comments

The capital and annual costs for the travel plan elements in this section are not known (confidential information). Pinewood Studios Group received a grant of £1,000 from the Sustainable Routes Fund to enable the company to implement a shuttle bus scheme at their three locations (one of which is Shepperton Studios). It was estimated that the scheme would help Pinewood to save 1,055 tonnes of carbon dioxide emissions annually.

Site reference: SC-16-A-05 Survey date: 23/09/15 Day of week: Wednesday
 Multi-Modal survey site
 Vehicles surveyed: Total vehicles
 Survey type: Manual Count
 AM weather: Mild and Clear
 PM weather: Mild and Clear

Initial car park occupancy: 112 Final car park occupancy: 409

BRACKETED ACCUMULATION FIGURES ARE NOT ABSOLUTE

Parking Capacity 63% (832 On-Site Spaces)

Data proportions in %

Motor cars	70	Motor cycles	1	Public service	1
Light goods	16	OGV (1)	3	OGV (2)	1
				Taxis	8

Servicing Vehicles count recorded No

Time	Arr 1105	Dep 808	Totals 1913	Parking Accum
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	155	25	180	242
08:00-09:00	156	25	181	373
09:00-10:00	149	41	190	481
10:00-11:00	89	53	142	517
11:00-12:00	48	41	89	524
12:00-13:00	59	79	138	504
13:00-14:00	79	64	143	519
14:00-15:00	49	47	96	521
15:00-16:00	44	63	107	502
16:00-17:00	79	80	159	501
17:00-18:00	111	186	297	426
18:00-19:00	87	104	191	409
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

Comments

The large difference between total arrivals and total departures during the survey can be explained by the fact that a television show was being filmed on the evening of the survey with a live studio audience. Many more departures would have taken place following the end of the survey. This also explains the relatively high taxis count for this survey when compared to earlier surveys at the site.

Waterman Boreham Regent House Brentwood

Licence No: 701701

Site reference: SC-16-A-05 Survey date: 23/09/15 Day of week: Wednesday
 Multi-Modal survey site
 Vehicles surveyed: OGV

Data proportions in % OGV (1) 68 OGV (2) 32

1 occupant per OGV is assumed, and included in the vehicle occupants count

Time	Arr 41	Dep 40	Totals 81	Accumulation
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	12	11	23	(1)
08:00-09:00	4	3	7	(2)
09:00-10:00	4	2	6	(4)
10:00-11:00	3	6	9	(1)
11:00-12:00	5	1	6	(5)
12:00-13:00	4	6	10	(3)
13:00-14:00	6	4	10	(5)
14:00-15:00	1	4	5	(2)
15:00-16:00	2	2	4	(2)
16:00-17:00	0	1	1	(1)
17:00-18:00	0	0	0	(1)
18:00-19:00	0	0	0	(1)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

Waterman Boreham Regent House Brentwood

Licence No: 701701

Site reference: SC-16-A-05

Survey date: 23/09/15

Day of week: Wednesday

Multi-Modal survey site

Vehicles surveyed: PSV

Time	Arr 14	Dep 14	Totals 28	Accumulation
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	2	2	4	(0)
08:00-09:00	2	2	4	(0)
09:00-10:00	2	2	4	(0)
10:00-11:00	1	1	2	(0)
11:00-12:00	0	0	0	(0)
12:00-13:00	0	0	0	(0)
13:00-14:00	0	0	0	(0)
14:00-15:00	0	0	0	(0)
15:00-16:00	2	2	4	(0)
16:00-17:00	2	2	4	(0)
17:00-18:00	2	2	4	(0)
18:00-19:00	1	1	2	(0)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

Waterman Boreham Regent House Brentwood

Licence No: 701701

Site reference: SC-16-A-05

Survey date: 23/09/15

Day of week: Wednesday

Multi-Modal survey site

Vehicles surveyed: Taxis

Time	Arr 78	Dep 78	Totals 156	Accumulation
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	1	1	2	(0)
08:00-09:00	1	1	2	(0)
09:00-10:00	12	12	24	(0)
10:00-11:00	8	8	16	(0)
11:00-12:00	3	3	6	(0)
12:00-13:00	6	6	12	(0)
13:00-14:00	6	6	12	(0)
14:00-15:00	3	3	6	(0)
15:00-16:00	4	4	8	(0)
16:00-17:00	5	5	10	(0)
17:00-18:00	15	15	30	(0)
18:00-19:00	14	14	28	(0)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

Site reference: SC-16-A-05

Survey date: 23/09/15

Day of week: Wednesday

Multi-Modal survey site

Vehicles surveyed: Cars

Time	Arr 800	Dep 512	Totals 1312	Accumulation
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	119	5	124	(114)
08:00-09:00	129	11	140	(232)
09:00-10:00	108	15	123	(325)
10:00-11:00	53	20	73	(358)
11:00-12:00	22	17	39	(363)
12:00-13:00	31	46	77	(348)
13:00-14:00	50	40	90	(358)
14:00-15:00	33	31	64	(360)
15:00-16:00	24	41	65	(343)
16:00-17:00	69	57	126	(355)
17:00-18:00	92	145	237	(302)
18:00-19:00	70	84	154	(288)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

Site reference: SC-16-A-05

Survey date: 23/09/15

Day of week: Wednesday

Multi-Modal survey site

Vehicles surveyed: LGV

Time	Arr 160	Dep 154	Totals 314	Accumulation
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	19	6	25	(13)
08:00-09:00	19	8	27	(24)
09:00-10:00	19	10	29	(33)
10:00-11:00	24	18	42	(39)
11:00-12:00	18	20	38	(37)
12:00-13:00	17	19	36	(35)
13:00-14:00	16	14	30	(37)
14:00-15:00	10	9	19	(38)
15:00-16:00	11	12	23	(37)
16:00-17:00	3	13	16	(27)
17:00-18:00	2	23	25	(6)
18:00-19:00	2	2	4	(6)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

Waterman Boreham Regent House Brentwood

Licence No: 701701

Site reference: SC-16-A-05

Survey date: 23/09/15

Day of week: Wednesday

Multi-Modal survey site

Vehicles surveyed: Motor Cycles

Time	Arr 12	Dep 10	Totals 22	Accumulation
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	2	0	2	(2)
08:00-09:00	1	0	1	(3)
09:00-10:00	4	0	4	(7)
10:00-11:00	0	0	0	(7)
11:00-12:00	0	0	0	(7)
12:00-13:00	1	2	3	(6)
13:00-14:00	1	0	1	(7)
14:00-15:00	2	0	2	(9)
15:00-16:00	1	2	3	(8)
16:00-17:00	0	2	2	(6)
17:00-18:00	0	1	1	(5)
18:00-19:00	0	3	3	(2)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

Site reference: SC-16-A-05

Survey date: 23/09/15

Day of week: Wednesday

Multi-Modal survey site

Vehicles surveyed: Cycles

Time	Arr 28	Dep 26	Totals 54	Accumulation
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	0	10	(10)
08:00-09:00	9	1	10	(18)
09:00-10:00	6	3	9	(21)
10:00-11:00	1	0	1	(22)
11:00-12:00	0	0	0	(22)
12:00-13:00	1	3	4	(20)
13:00-14:00	1	5	6	(16)
14:00-15:00	0	3	3	(13)
15:00-16:00	0	4	4	(9)
16:00-17:00	0	6	6	(3)
17:00-18:00	0	1	1	(2)
18:00-19:00	0	0	0	(2)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

Waterman Boreham Regent House Brentwood

Licence No: 701701

Site reference: SC-16-A-05

Survey date: 23/09/15

Day of week: Wednesday

Multi-Modal survey site

People Surveyed: Pedestrians

Time	Arr 18	Dep 13	Totals 31	Accumulation
00:00-01:00				
01:00-02:00				
02:00-03:00				
03:00-04:00				
04:00-05:00				
05:00-06:00				
06:00-07:00				
07:00-08:00	4	0	4	(4)
08:00-09:00	7	0	7	(11)
09:00-10:00	1	0	1	(12)
10:00-11:00	2	0	2	(14)
11:00-12:00	0	1	1	(13)
12:00-13:00	0	0	0	(13)
13:00-14:00	0	2	2	(11)
14:00-15:00	0	2	2	(9)
15:00-16:00	2	1	3	(10)
16:00-17:00	0	0	0	(10)
17:00-18:00	2	3	5	(9)
18:00-19:00	0	4	4	(5)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

Site reference: SC-16-A-05

Survey date: 23/09/15

Day of week: Wednesday

Multi-Modal survey site

People surveyed: Public transport Users

Time	Arr 84	Dep 64	Totals 148	Accumulation
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	13	0	13	(13)
08:00-09:00	20	0	20	(33)
09:00-10:00	22	0	22	(55)
10:00-11:00	5	0	5	(60)
11:00-12:00	0	0	0	(60)
12:00-13:00	0	0	0	(60)
13:00-14:00	0	0	0	(60)
14:00-15:00	0	0	0	(60)
15:00-16:00	3	12	15	(51)
16:00-17:00	4	28	32	(27)
17:00-18:00	6	14	20	(19)
18:00-19:00	11	10	21	(20)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

Site reference: SC-16-A-05

Survey date: 23/09/15

Day of week: Wednesday

Multi-Modal survey site

People Surveyed: Bus/Tram Passengers

Time	Arr 7	Dep 11	Totals 18	Accumulation
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	3	0	3	(3)
08:00-09:00	3	0	3	(6)
09:00-10:00	1	0	1	(7)
10:00-11:00	0	0	0	(7)
11:00-12:00	0	0	0	(7)
12:00-13:00	0	0	0	(7)
13:00-14:00	0	0	0	(7)
14:00-15:00	0	0	0	(7)
15:00-16:00	0	4	4	(3)
16:00-17:00	0	5	5	(-2)
17:00-18:00	0	1	1	(-3)
18:00-19:00	0	1	1	(-4)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

Site reference: SC-16-A-05

Survey date: 23/09/15

Day of week: Wednesday

Multi-Modal survey site

People Surveyed: Total Rail Passengers

Time	Arr 77	Dep 53	Totals 130	Accumulation
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	0	10	(10)
08:00-09:00	17	0	17	(27)
09:00-10:00	21	0	21	(48)
10:00-11:00	5	0	5	(53)
11:00-12:00	0	0	0	(53)
12:00-13:00	0	0	0	(53)
13:00-14:00	0	0	0	(53)
14:00-15:00	0	0	0	(53)
15:00-16:00	3	8	11	(48)
16:00-17:00	4	23	27	(29)
17:00-18:00	6	13	19	(22)
18:00-19:00	11	9	20	(24)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				

Waterman Boreham Regent House Brentwood

Licence No: 701701

Site reference: SC-16-A-05

Survey date: 23/09/15

Day of week: Wednesday

Multi-Modal survey site

People Surveyed: Total people

Time	Arr 1640	Dep 1016	Totals 2656	Accumulation
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	197	26	223	(171)
08:00-09:00	204	28	232	(347)
09:00-10:00	202	54	256	(495)
10:00-11:00	119	66	185	(548)
11:00-12:00	55	48	103	(555)
12:00-13:00	69	107	176	(517)
13:00-14:00	102	87	189	(532)
14:00-15:00	58	55	113	(535)
15:00-16:00	63	83	146	(515)
16:00-17:00	153	124	277	(544)
17:00-18:00	228	215	443	(557)
18:00-19:00	190	123	313	(624)
19:00-20:00				
20:00-21:00				
21:00-22:00				
22:00-23:00				
23:00-24:00				



G. Trip Rates

Appendices

Document 9, Transport Assessment

Project Number: WIE18037

Document Reference: WIE18037.110.R.2.1.3 TA



H. Network Flow Diagrams

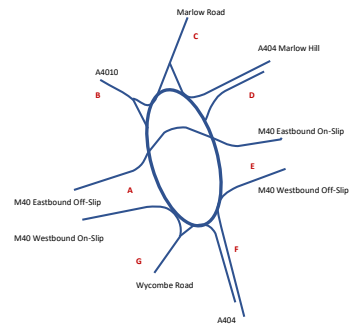
Appendices

Document 9, Transport Assessment

Project Number: WIE18037

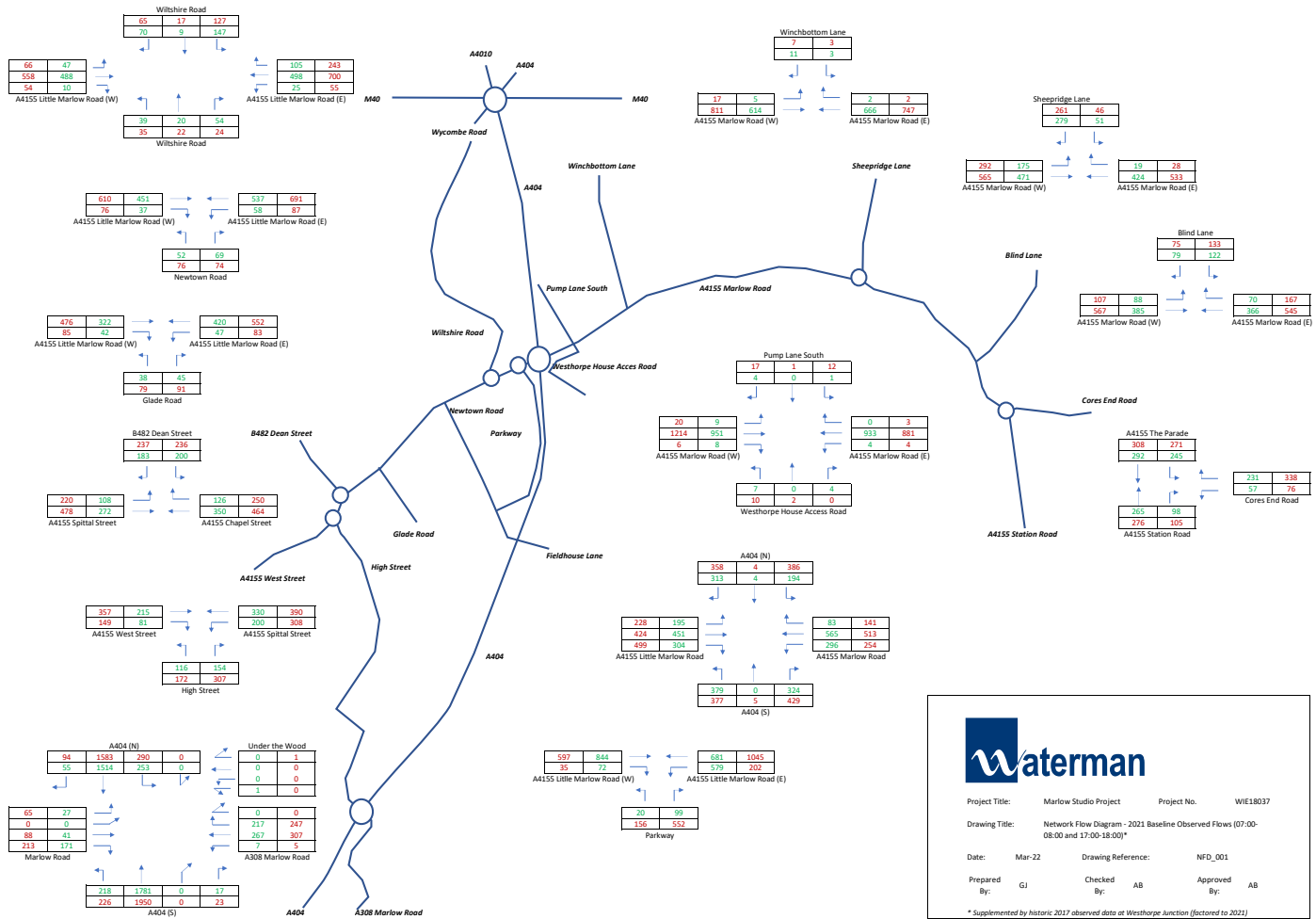
Document Reference: WIE18037.110.R.2.1.3 TA


M40 Junction 4 - Handy Cross Roundabout



Traffic Movement (pcus)		AM Peak	PM Peak
A	to B	103	76
	to C	111	116
	to D	203	202
	to E	3	4
B	to A	491	451
	to F	53	72
	to G	78	96
	to H	26	30
C	to A	153	228
	to D	456	438
	to E	356	457
	to F	51	82
D	to A	85	98
	to B	42	38
	to C	24	29
	to E	264	181
E	to A	207	199
	to B	24	36
	to C	73	76
	to D	139	193
F	to A	56	54
	to B	286	327
	to C	404	381
	to D	46	68
G	to A	1	1
	to B	328	322
	to C	151	192
	to D	276	351
H	to A	547	535
	to B	81	121
	to C	125	126
	to D	236	271
I	to A	119	168
	to B	205	300
	to C	578	592
	to D	2	3
J	to A	37	36
	to B	49	49
	to C	28	31
	to D	52	56
K	to E	124	92
	to F	10	4

Key
 AM Peak (07:00-08:00) 100
 PM Peak (17:00-18:00) 100
 All flows in PCUs (Passenger Car Units)

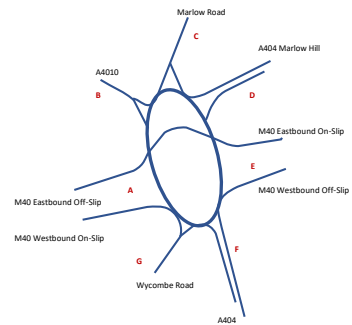




Project Title: Marlow Studio Project Project No. WIE18037
 Drawing Title: Network Flow Diagram - 2021 Baseline Observed Flows (07:00-08:00 and 17:00-18:00)*
 Date: Mar-22 Drawing Reference: NFD_001
 Prepared By: GJ Checked By: AB Approved By: AB

* Supplemented by historic 2017 observed data at Westhorpe Junction (factored to 2021)

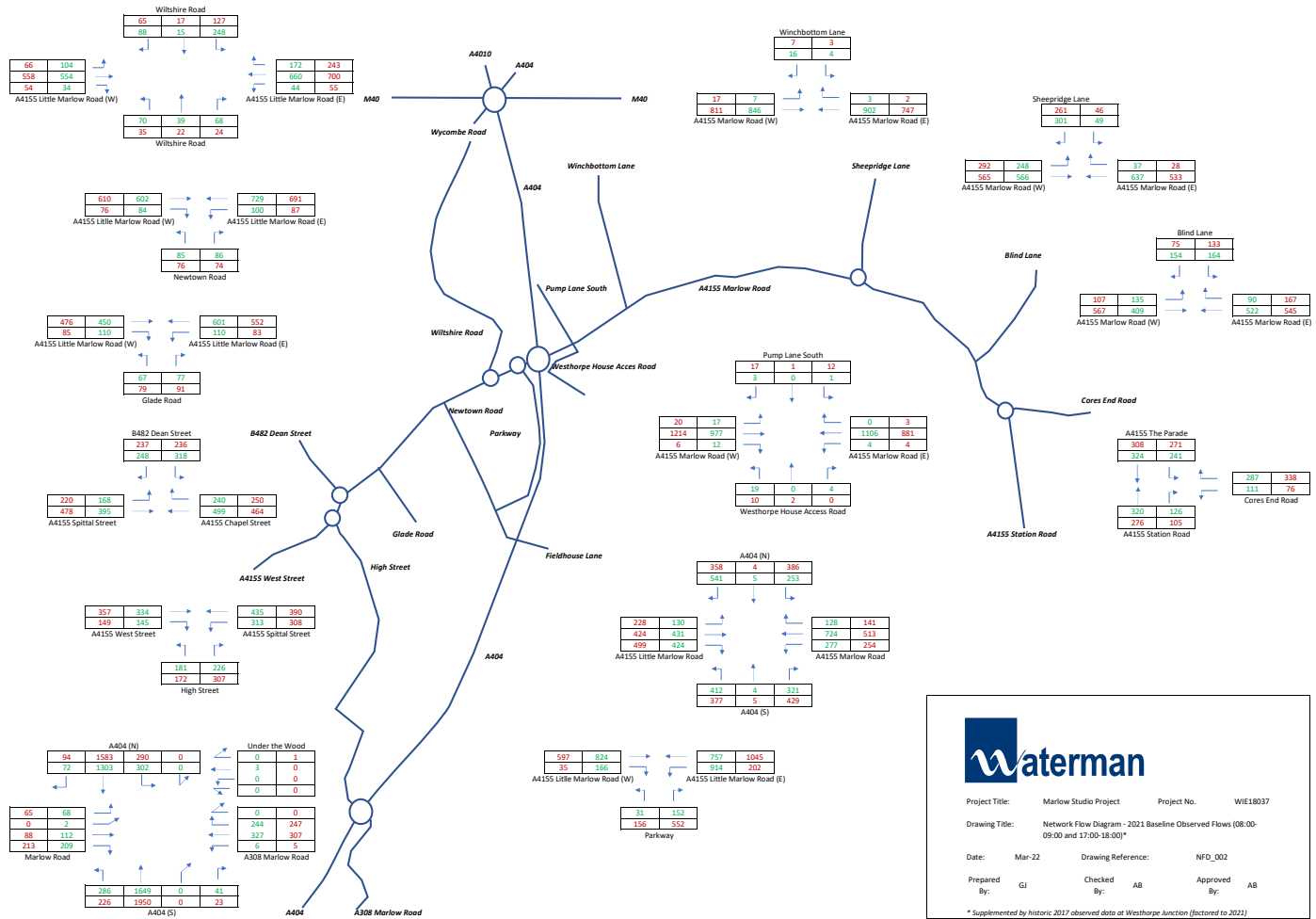
M40 Junction 4 - Handy Cross Roundabout



Traffic Movement (pcus)		AM Peak	PM Peak
A	to B	113	76
	to C	141	116
	to D	225	202
	to E	0	4
	to F	450	451
B	to A	75	98
	to C	33	30
	to D	191	228
	to E	352	438
	to F	342	457
C	to A	98	98
	to B	36	38
	to D	27	29
	to E	177	181
	to F	198	199
D	to A	59	76
	to B	179	193
	to C	62	54
	to E	308	327
	to F	402	381
E	to A	3	1
	to B	358	322
	to C	206	192
	to D	314	351
	to F	566	535
F	to A	109	121
	to B	262	271
	to C	161	168
	to D	258	300
	to E	441	592
G	to A	28	36
	to B	71	49
	to C	45	31
	to D	79	56
	to E	117	92

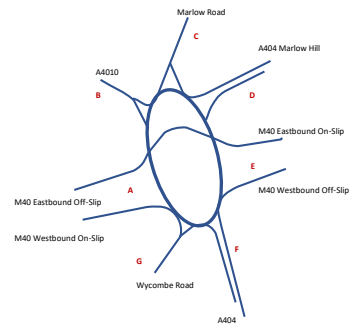
Key

AM Peak (08:00-09:00) 100
 PM Peak (17:00-18:00) 100
 All flows in PCUs (Passenger Car Units)



Project Title: Marlow Studio Project Project No. WIE18037
 Drawing Title: Network Flow Diagram - 2021 Baseline Observed Flows (08:00-09:00 and 17:00-18:00)*
 Date: Mar-22 Drawing Reference: NFD_002
 Prepared By: GJ Checked By: AB Approved By: AB
 * Supplemented by historic 2017 observed data at Westhorpe Junction (factored to 2021)

M40 Junction 4 - Handy Cross Roundabout



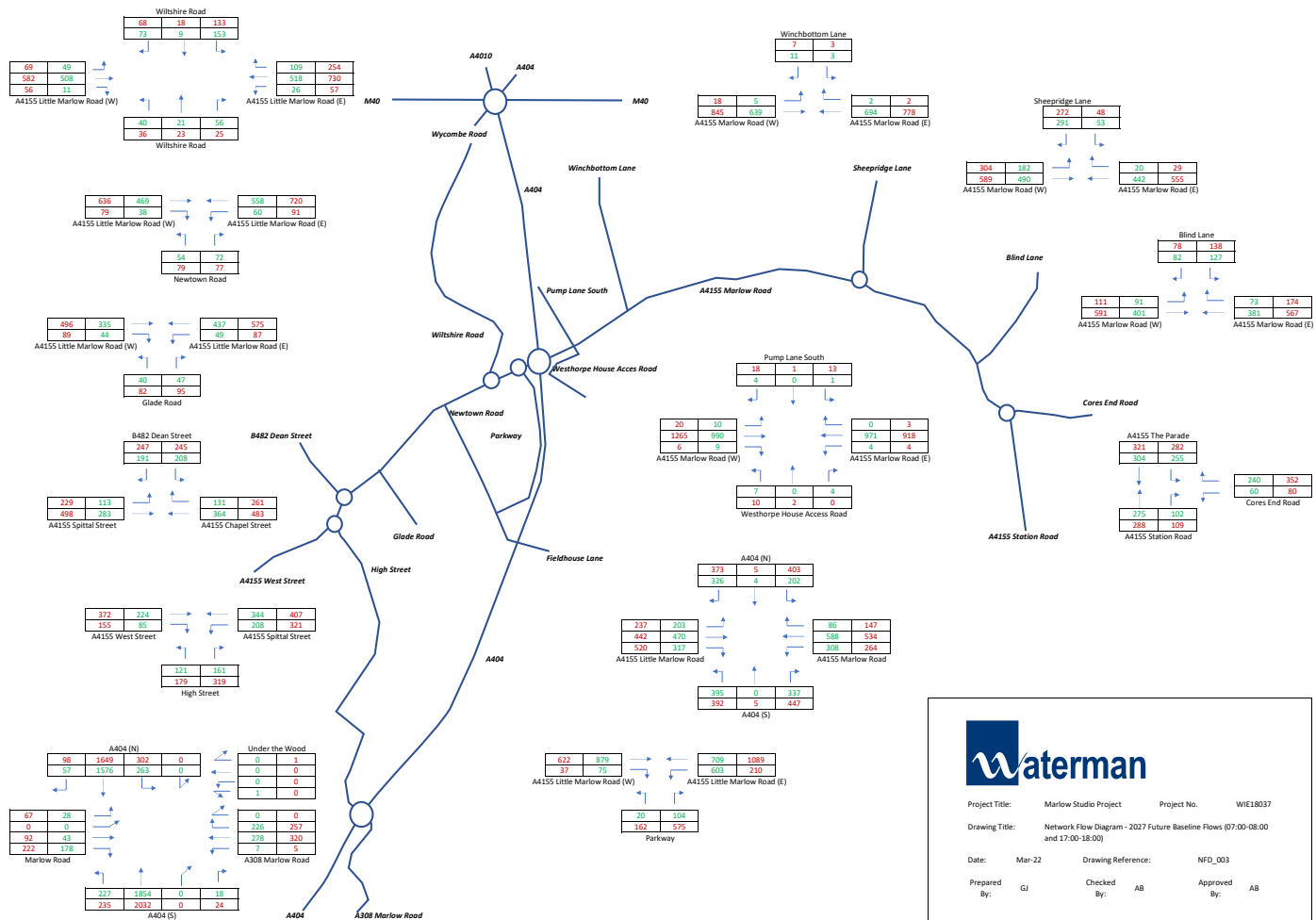

Traffic Movement (pcus)		AM Peak	PM Peak
A	to B	107	79
	to C	115	121
	to D	211	210
	to E	3	4
	to F	511	470
B	to A	81	102
	to D	159	238
	to E	475	457
	to F	370	477
	to G	53	86
C	to A	88	102
	to B	44	40
	to D	25	31
	to E	275	188
	to F	215	207
D	to A	76	79
	to B	144	201
	to C	58	56
	to E	298	341
	to F	423	397
E	to A	1	1
	to B	342	335
	to C	157	200
	to D	287	365
	to F	569	558
F	to A	84	126
	to B	245	282
	to C	124	175
	to D	213	312
	to E	602	617
G	to A	39	38
	to B	57	51
	to C	29	33
	to D	54	58
	to E	129	95

Key

AM Peak (07:00-08:00)

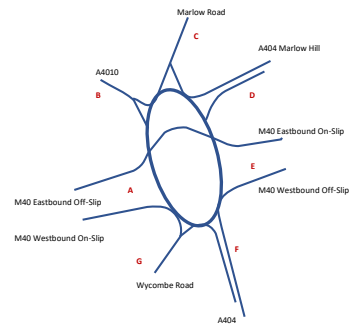
PM Peak (17:00-18:00)

All flows in PCUs (Passenger Car Units)

Project Title: Marlow Studio Project Project No. WIE18037
 Drawing Title: Network Flow Diagram - 2027 Future Baseline Flows (07:00-08:00 and 17:00-18:00)
 Date: Mar-22 Drawing Reference: NFD_003
 Prepared By: GJ Checked By: AB Approved By: AB

M40 Junction 4 - Handy Cross Roundabout



Traffic Movement (pcus)		AM Peak	PM Peak
A	to B	118	79
	to C	147	121
	to D	235	210
	to E	0	4
	to F	469	470
B	to A	78	102
	to C	35	31
	to D	199	238
	to E	367	457
	to F	356	477
C	to A	102	102
	to B	37	40
	to D	28	31
	to E	184	188
	to F	206	207
D	to A	62	79
	to B	187	201
	to C	65	56
	to E	320	341
	to F	418	397
E	to A	3	1
	to B	372	335
	to C	215	200
	to D	326	365
	to F	590	558
F	to A	113	126
	to B	273	282
	to C	167	175
	to D	269	312
	to E	459	617
G	to A	29	38
	to B	74	51
	to C	47	33
	to D	83	58
	to F	122	95

Key

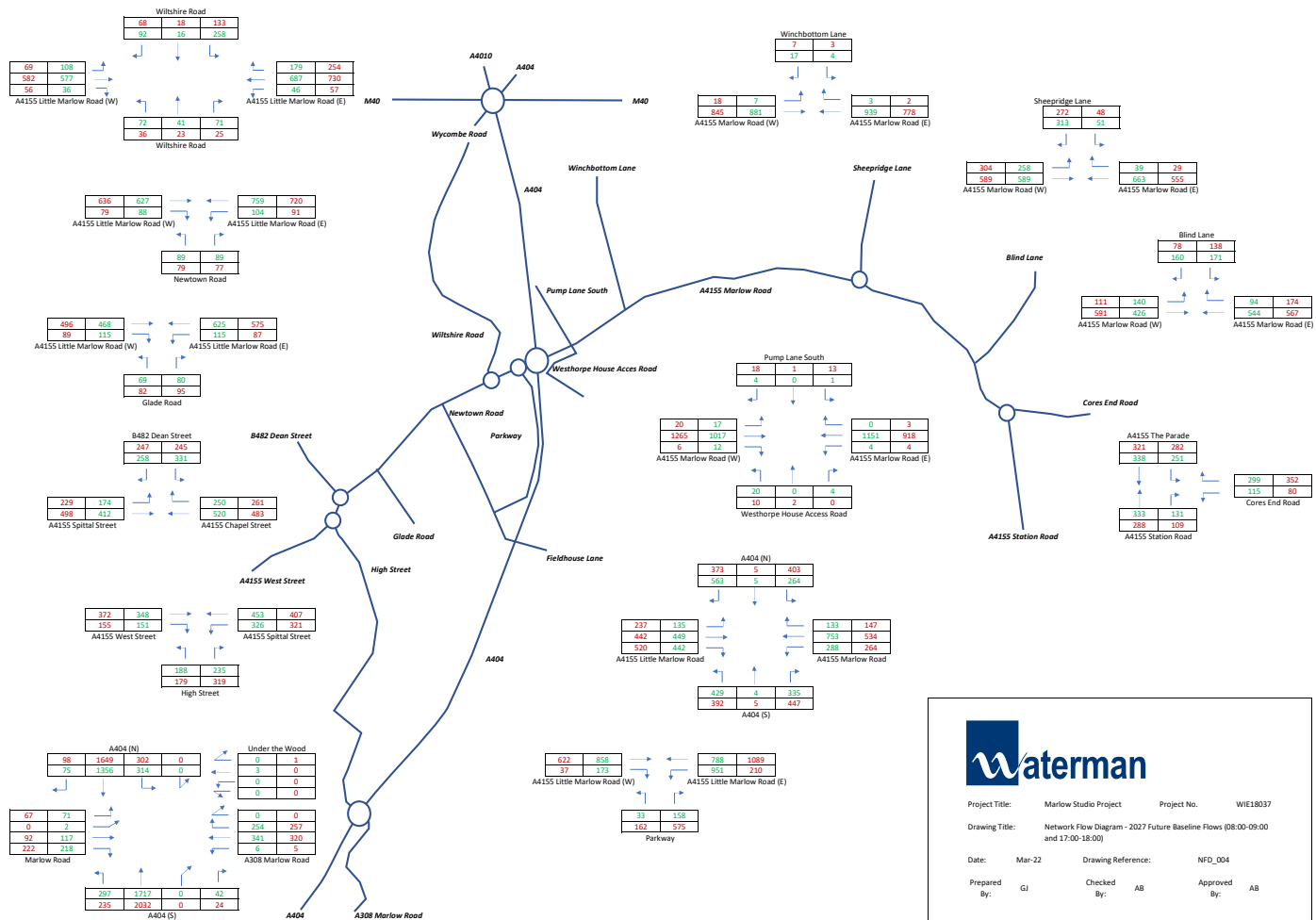
AM Peak (08:00-09:00)

PM Peak (17:00-18:00)

All flows in PCUs (Passenger Car Units)

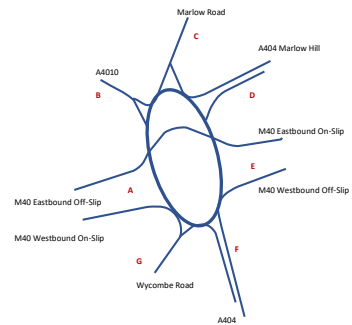
100

100



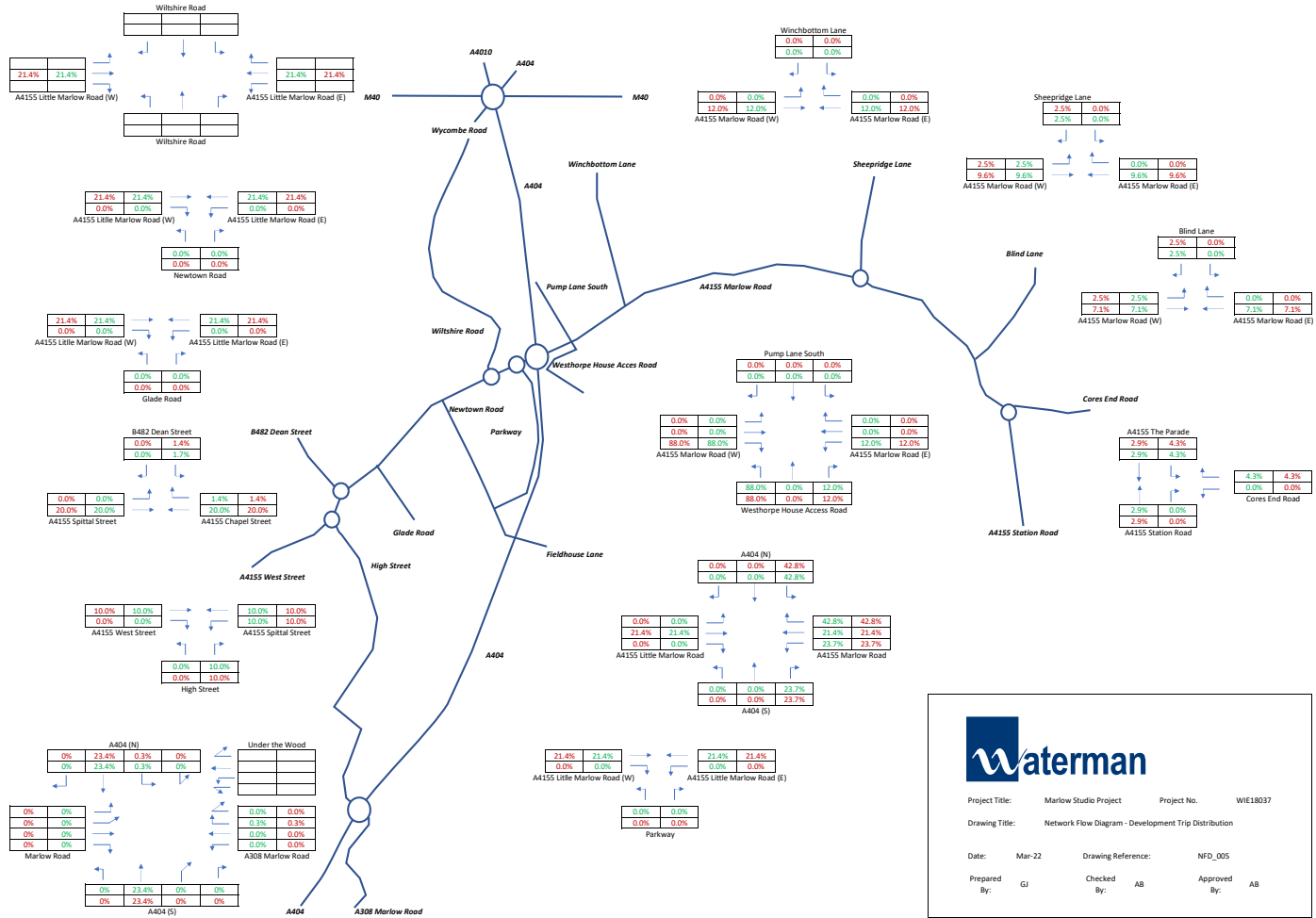
Project Title: Marlow Studio Project Project No. WIE18037
 Drawing Title: Network Flow Diagram - 2027 Future Baseline Flows (08:00-09:00 and 17:00-18:00)
 Date: Mar-22 Drawing Reference: NFD_004
 Prepared By: GJ Checked By: AB Approved By: AB

M40 Junction 4 - Handy Cross Roundabout



Traffic Movement (pcus)		AM Peak	PM Peak
A	to B	0.0%	0.0%
	to C	0.0%	0.0%
	to D	0.0%	0.0%
	to E	0.0%	0.0%
	to F	8.3%	8.3%
	to G	9.9%	9.9%
	to A	0.0%	0.0%
B	to A	0.0%	0.0%
	to C	0.0%	0.0%
	to D	0.0%	0.0%
	to E	0.0%	0.0%
	to F	8.3%	8.3%
	to G	0.0%	0.0%
	to B	0.0%	0.0%
C	to A	0.0%	0.0%
	to B	0.0%	0.0%
	to D	0.0%	0.0%
	to E	0.0%	0.0%
	to F	0.0%	0.0%
	to G	0.0%	0.0%
	to C	0.0%	0.0%
D	to A	0.0%	0.0%
	to B	0.0%	0.0%
	to C	0.0%	0.0%
	to E	0.0%	0.0%
	to F	13.1%	13.1%
	to G	0.0%	0.0%
	to D	0.0%	0.0%
E	to A	0.0%	0.0%
	to B	0.0%	0.0%
	to C	0.0%	0.0%
	to D	0.0%	0.0%
	to F	11.5%	11.5%
	to G	0.0%	0.0%
	to E	0.0%	0.0%
F	to A	9.9%	9.9%
	to B	8.3%	8.3%
	to C	0.0%	0.0%
	to D	13.1%	13.1%
	to E	11.5%	11.5%
	to G	0.0%	0.0%
	to F	0.0%	0.0%
G	to A	0.0%	0.0%
	to B	0.0%	0.0%
	to C	0.0%	0.0%
	to D	0.0%	0.0%
	to E	0.0%	0.0%
	to F	0.0%	0.0%
	to G	0.0%	0.0%

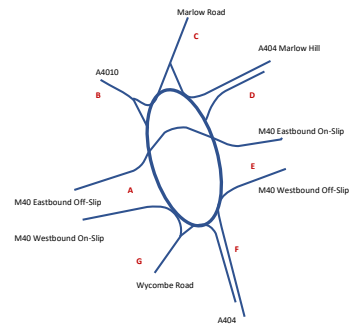
Key
 AM Peak (08:00-09:00) 100.0%
 PM Peak (17:00-18:00) 100.0%
 All flows in PCUs (Passenger Car Units)



Waterman

Project Title: Marlow Studio Project Project No. WIE18037
 Drawing Title: Network Flow Diagram - Development Trip Distribution
 Date: Mar-22 Drawing Reference: NFD_005
 Prepared By: GJ Checked By: AB Approved By: AB

M40 Junction 4 - Handy Cross Roundabout

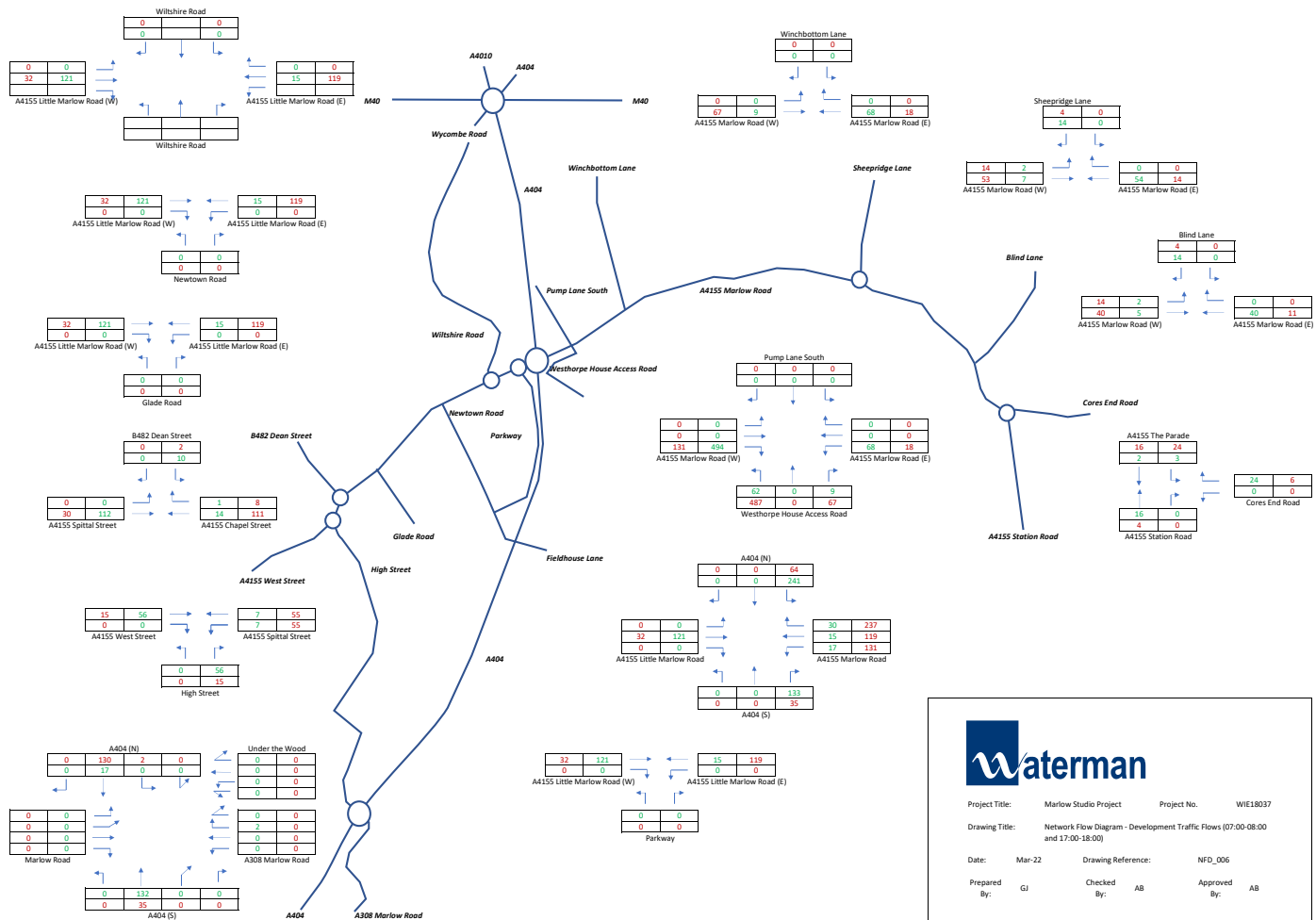


Traffic Movement (pcus)		AM Peak	PM Peak
A	to B	0	0
	to C	0	0
	to D	0	0
	to E	0	0
	to F	47	12
	to G	55	15
	to A	0	0
B	to A	0	0
	to C	0	0
	to D	0	0
	to E	0	0
	to F	47	12
	to G	0	0
	to B	0	0
C	to A	0	0
	to B	0	0
	to D	0	0
	to E	0	0
	to F	0	0
	to G	0	0
	to C	0	0
D	to A	0	0
	to B	0	0
	to C	0	0
	to E	0	0
	to F	74	20
	to G	0	0
	to D	0	0
E	to A	0	0
	to B	0	0
	to C	0	0
	to D	0	0
	to F	65	17
	to G	0	0
	to E	0	0
F	to A	7	55
	to B	6	46
	to C	0	0
	to D	9	73
	to E	8	64
	to G	0	0
	to F	0	0
G	to A	0	0
	to B	0	0
	to C	0	0
	to D	0	0
	to E	0	0
	to F	0	0
	to G	0	0

Key

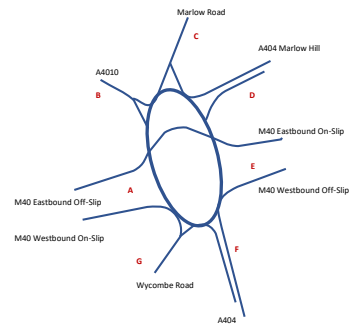
	Arrivals	Departures
AM Peak (07:00-08:00)	562	78
PM Peak (17:00-18:00)	149	554

All flows in PCUs (Passenger Car Units)



Project Title: Marlow Studio Project Project No. WIE18037
 Drawing Title: Network Flow Diagram - Development Traffic Flows (07:00-08:00 and 17:00-18:00)
 Date: Mar-22 Drawing Reference: NFD_006
 Prepared By: GJ Checked By: AB Approved By: AB

M40 Junction 4 - Handy Cross Roundabout

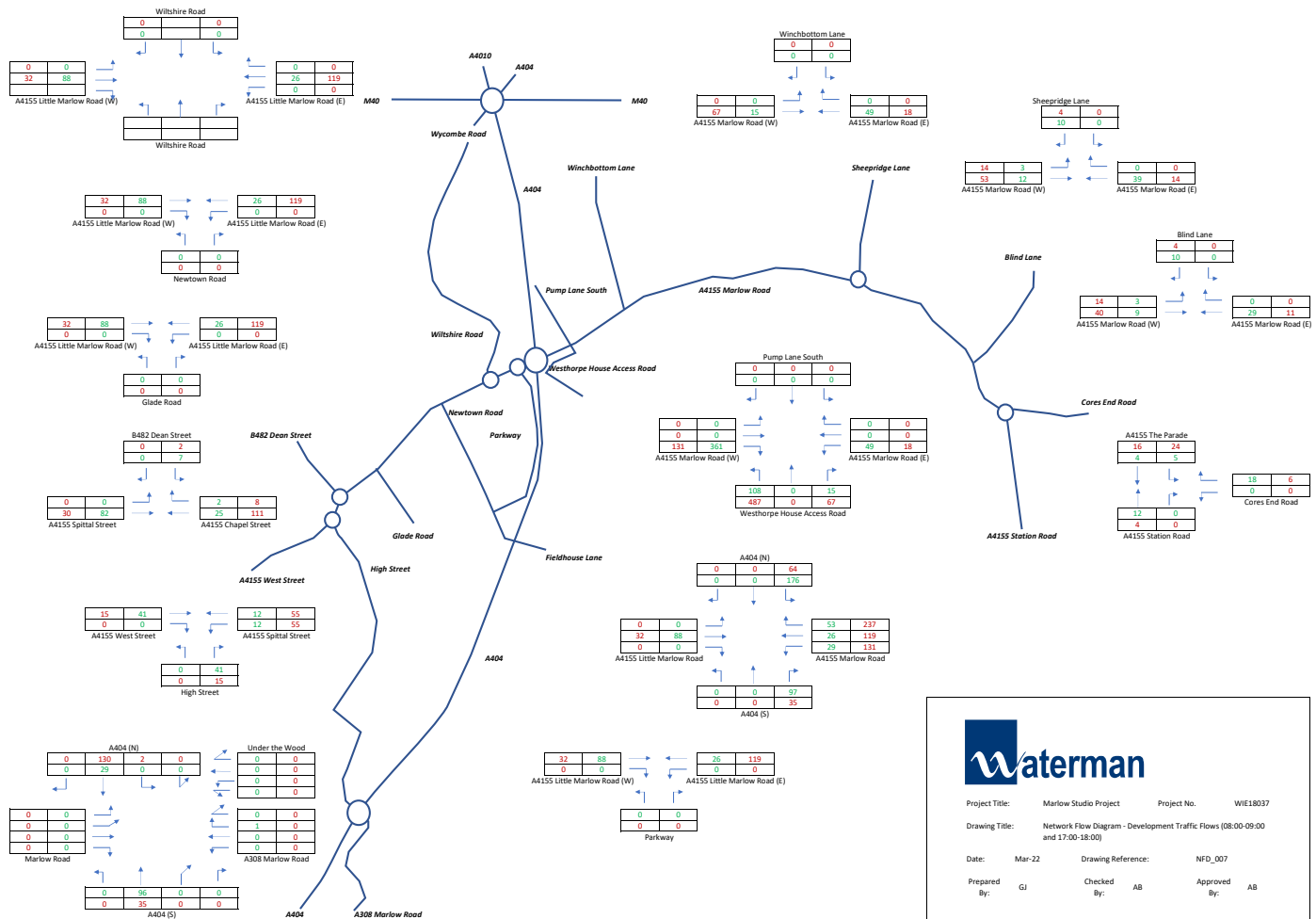


Traffic Movement (pcus)		AM Peak	PM Peak
A	to B	0	0
	to C	0	0
	to D	0	0
	to E	0	0
	to F	34	12
	to G	41	15
	to A	0	0
B	to A	0	0
	to C	0	0
	to D	0	0
	to E	0	0
	to F	0	0
	to G	0	0
	to B	0	0
C	to A	0	0
	to B	0	0
	to D	0	0
	to E	0	0
	to F	0	0
	to G	0	0
	to C	0	0
D	to A	0	0
	to B	0	0
	to C	0	0
	to E	0	0
	to F	54	20
	to G	0	0
	to D	0	0
E	to A	0	0
	to B	0	0
	to C	0	0
	to D	0	0
	to F	0	0
	to G	47	17
	to E	0	0
F	to A	12	55
	to B	10	46
	to C	0	0
	to D	16	73
	to E	14	64
	to G	0	0
	to F	0	0
G	to A	0	0
	to B	0	0
	to C	0	0
	to D	0	0
	to E	0	0
	to F	0	0
	to G	0	0

Key

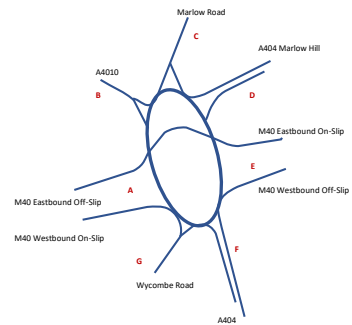
	Arrivals	Departures
AM Peak (08:00-09:00)	411	322
PM Peak (17:00-18:00)	149	554

All flows in PCUs (Passenger Car Units)



Project Title: Marlow Studio Project Project No. WIE18037
 Drawing Title: Network Flow Diagram - Development Traffic Flows (08:00-09:00 and 17:00-18:00)
 Date: Mar-22 Drawing Reference: NFD_007
 Prepared By: GJ Checked By: AB Approved By: AB

M40 Junction 4 - Handy Cross Roundabout

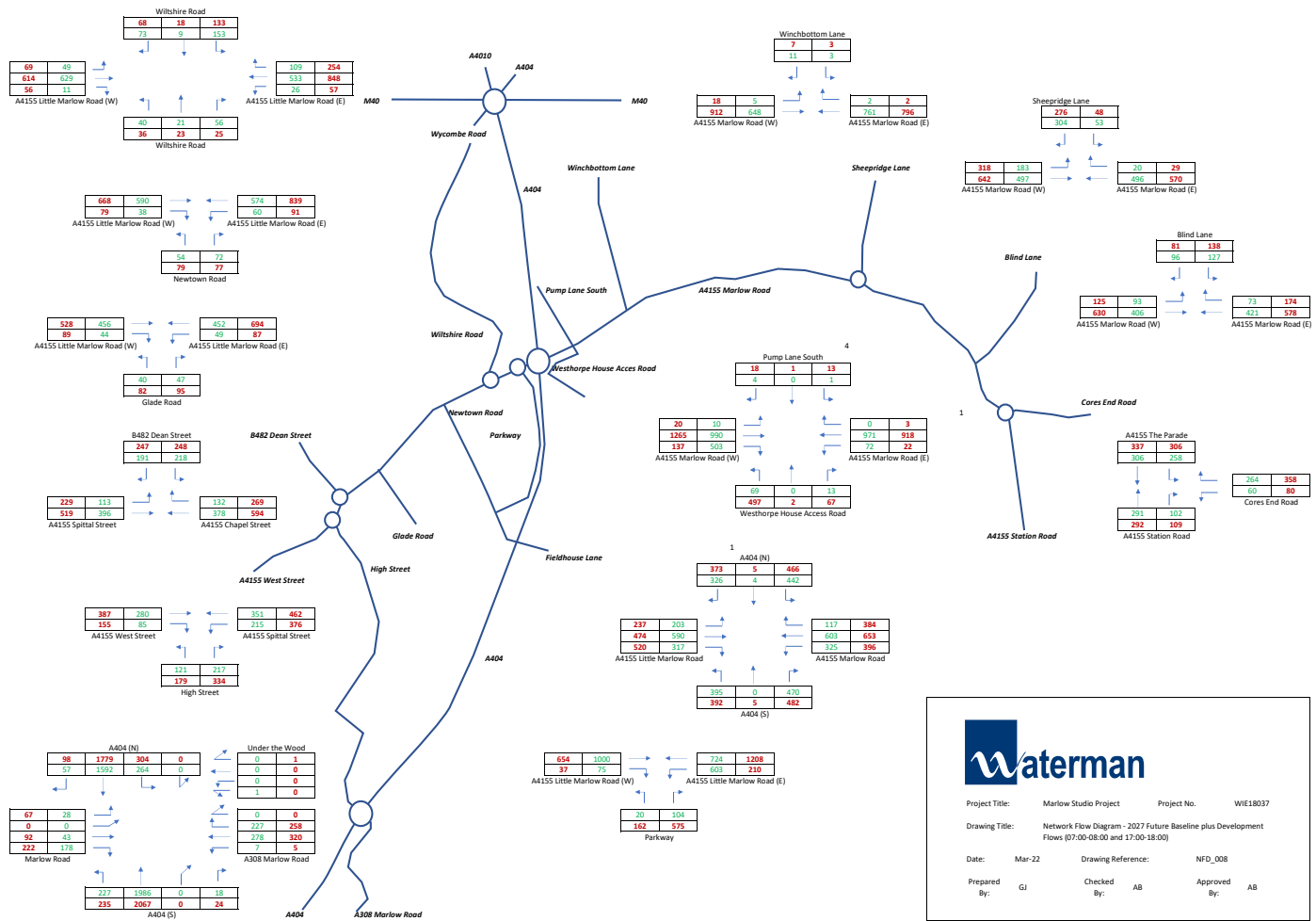


Traffic Movement (pcus)		AM Peak	PM Peak
A	to B	107	79
	to C	115	121
	to D	211	210
	to E	3	4
	to F	566	485
B	to A	81	102
	to D	159	238
	to E	475	457
	to F	417	489
	to G	53	86
C	to A	88	102
	to B	44	40
	to D	25	31
	to E	275	188
	to F	215	207
D	to A	76	79
	to B	144	201
	to C	58	56
	to E	298	341
	to F	495	417
E	to A	1	1
	to B	342	335
	to C	157	200
	to D	287	365
	to F	634	575
F	to A	38	126
	to B	138	186
	to C	251	328
	to D	124	175
	to E	222	385
G	to A	610	680
	to B	2	3
	to C	29	33
	to D	54	58
	to E	129	95

Key

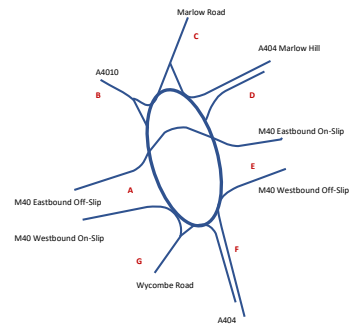
AM Peak (07:00-08:00) 100
 PM Peak (17:00-18:00) 100

All flows in PCUs (Passenger Car Units)



Project Title: Marlow Studio Project Project No. WIE18037
 Drawing Title: Network Flow Diagram - 2027 Future Baseline plus Development Flows (07:00-08:00 and 17:00-18:00)
 Date: Mar-22 Drawing Reference: NFD_008
 Prepared By: GJ Checked By: AB Approved By: AB

M40 Junction 4 - Handy Cross Roundabout

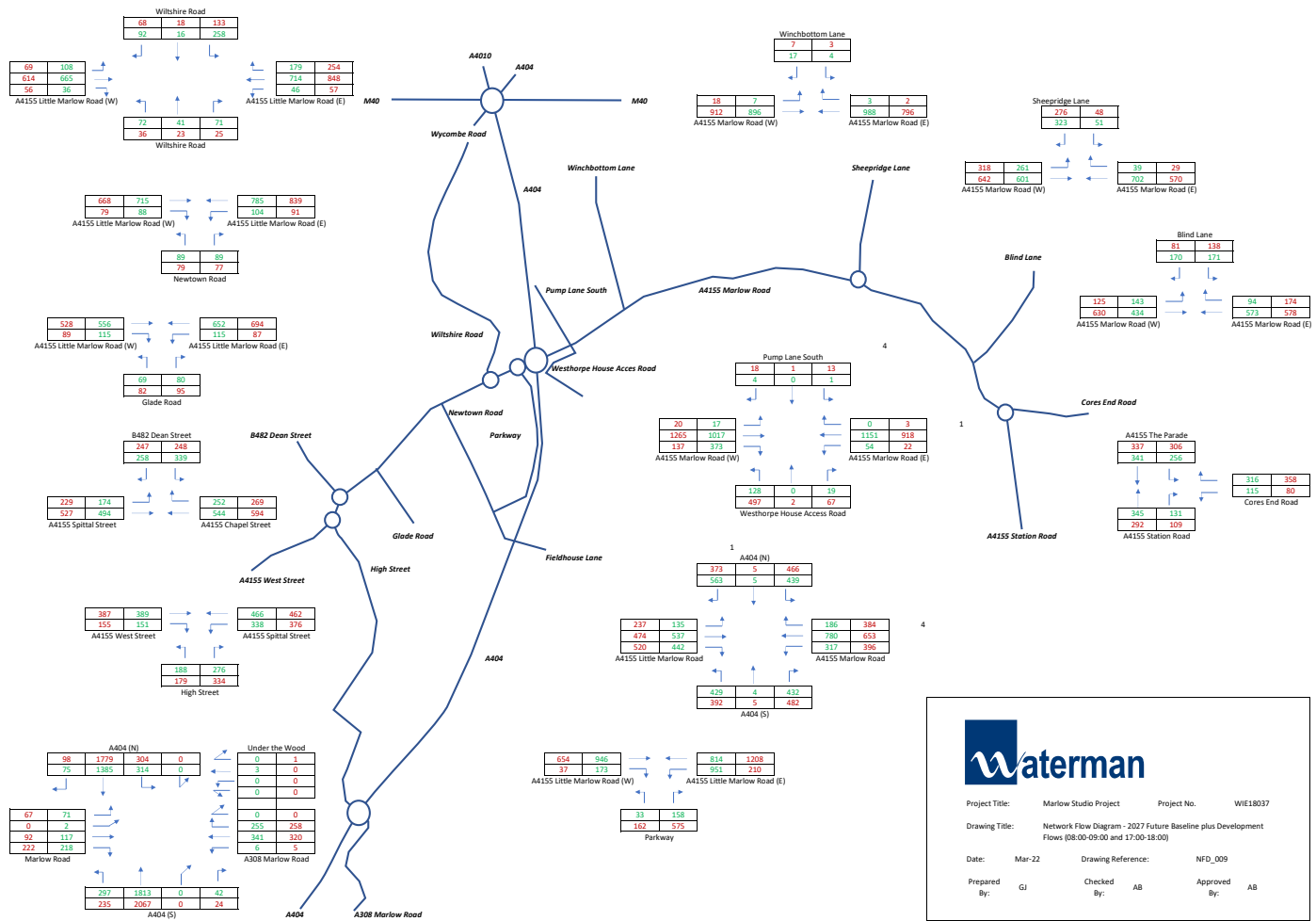


Traffic Movement (pcus)		AM Peak	PM Peak
A	to B	118	79
	to C	147	121
	to D	235	210
	to E	0	4
	to F	509	485
	to G	74	75
	to A	78	102
B	to A	35	31
	to D	199	238
	to E	367	457
	to F	391	489
	to G	87	86
	to A	102	102
	to B	37	40
C	to D	28	31
	to E	184	188
	to F	206	207
	to G	36	38
	to A	62	79
	to B	187	201
	to C	65	56
D	to E	320	341
	to F	472	417
	to G	71	71
	to A	3	1
	to B	372	335
	to C	215	200
	to D	326	365
E	to F	637	575
	to G	113	126
	to A	118	188
	to B	283	328
	to C	167	175
	to D	285	385
	to E	473	680
F	to G	7	3
	to A	29	38
	to B	74	51
	to C	47	33
	to D	83	58
	to E	122	95
	to F	16	4

Key

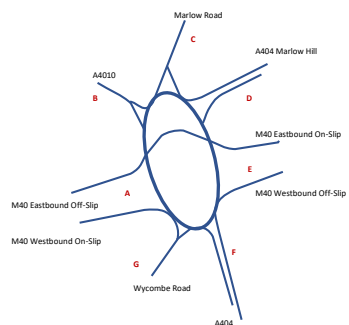
AM Peak (08:00-09:00) 100
 PM Peak (17:00-18:00) 100

All flows in PCUs (Passenger Car Units)



Project Title: Marlow Studio Project Project No. WIE18037
 Drawing Title: Network Flow Diagram - 2027 Future Baseline plus Development
 Flows (08:00-09:00 and 17:00-18:00)
 Date: Mar-22 Drawing Reference: NFD_009
 Prepared By: GJ Checked By: AB Approved By: AB

M40 Junction 4 - Handy Cross Roundabout

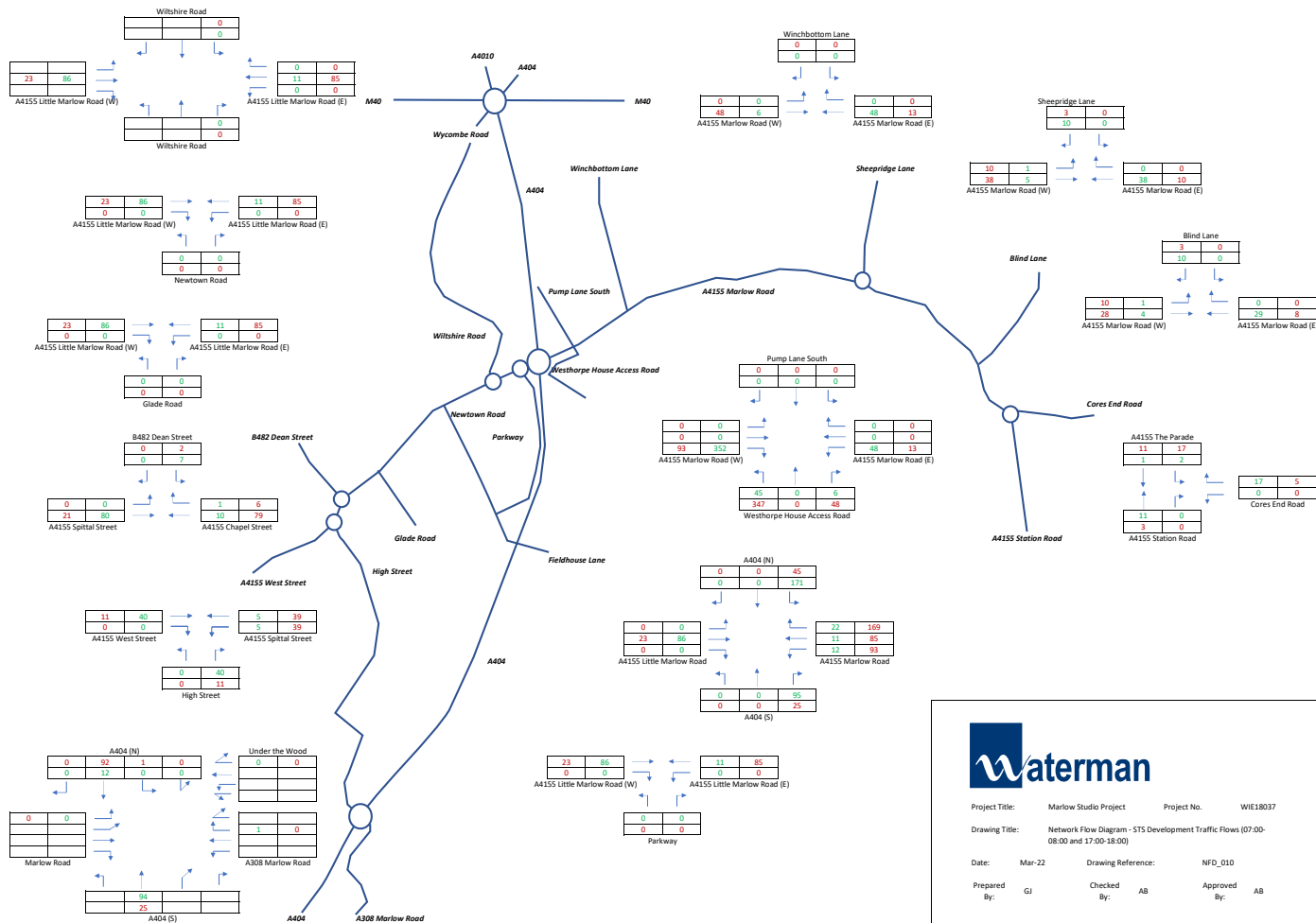


Traffic Movement (pcus)		AM Peak	PM Peak
A	to B	0	0
	to C	0	0
	to D	0	0
	to E	0	0
	to F	40	10
	to G	0	0
	to A	0	0
B	to A	0	0
	to C	0	0
	to D	0	0
	to E	0	0
	to F	33	9
	to G	0	0
	to B	0	0
C	to A	0	0
	to B	0	0
	to D	0	0
	to E	0	0
	to F	0	0
	to G	0	0
	to C	0	0
D	to A	0	0
	to B	0	0
	to C	0	0
	to E	0	0
	to F	53	14
	to G	0	0
	to D	0	0
E	to A	0	0
	to B	0	0
	to C	0	0
	to D	0	0
	to F	46	12
	to G	0	0
	to E	0	0
F	to A	5	39
	to B	4	33
	to C	0	0
	to D	7	52
	to E	6	45
	to G	0	0
	to F	0	0
G	to A	0	0
	to B	0	0
	to C	0	0
	to D	0	0
	to E	0	0
	to F	0	0
	to G	0	0

Key

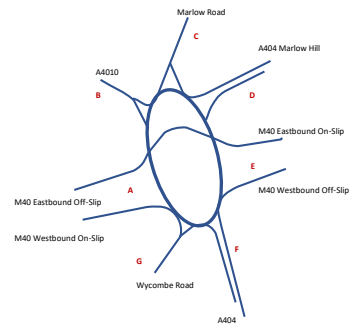
	Arrivals	Departures
AM Peak (07:00-08:00)	400	53
PM Peak (17:00-18:00)	106	395

All flows in PCUs (Passenger Car Units)



Project Title: Marlow Studio Project Project No. WIE18037
 Drawing Title: Network Flow Diagram - STS Development Traffic Flows (07:00-08:00 and 17:00-18:00)
 Date: Mar-22 Drawing Reference: NFD_010
 Prepared By: GJ Checked By: AB Approved By: AB

M40 Junction 4 - Handy Cross Roundabout

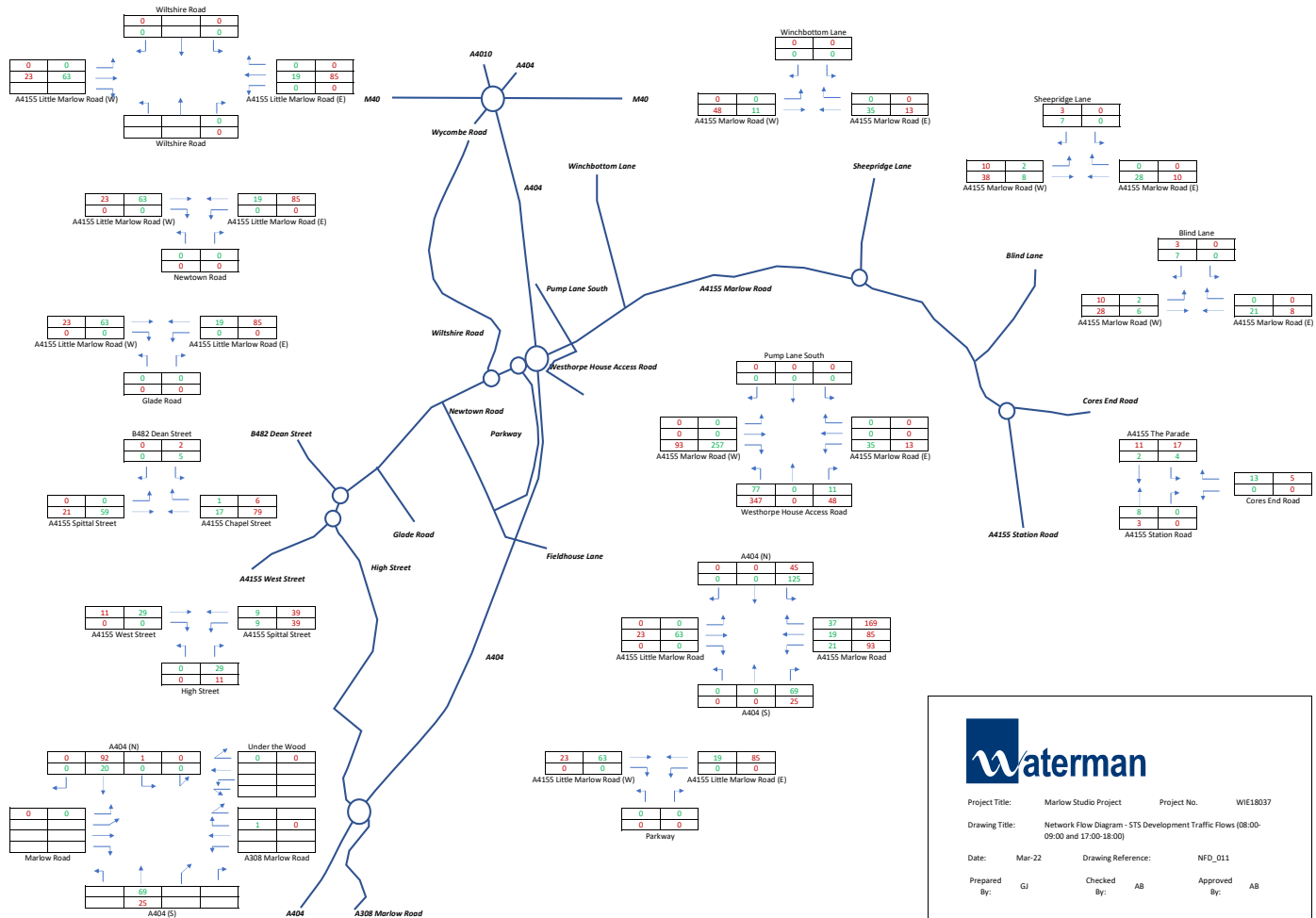


Traffic Movement (pcus)		AM Peak	PM Peak
A	to B	0	0
	to C	0	0
	to D	0	0
	to E	0	0
	to F	24	9
	to G	29	10
	to A	0	0
B	to A	0	0
	to C	0	0
	to D	0	0
	to E	0	0
	to F	0	0
	to G	0	0
	to B	0	0
C	to A	0	0
	to B	0	0
	to D	0	0
	to E	0	0
	to F	0	0
	to G	0	0
	to C	0	0
D	to A	0	0
	to B	0	0
	to C	0	0
	to E	38	14
	to F	34	12
	to G	0	0
	to D	0	0
E	to A	0	0
	to B	0	0
	to C	0	0
	to D	0	0
	to F	0	0
	to G	0	0
	to E	0	0
F	to A	9	39
	to B	7	33
	to C	0	0
	to D	11	52
	to E	10	45
	to G	0	0
	to F	0	0
G	to A	0	0
	to B	0	0
	to C	0	0
	to D	0	0
	to E	0	0
	to F	0	0
	to G	0	0

Key

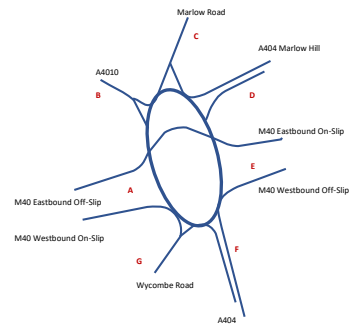
	Arrivals	Departures
AM Peak (08:00-09:00)	239	37
PM Peak (17:00-18:00)	106	395

All flows in PCUs (Passenger Car Units)



Project Title: Marlow Studio Project Project No. WIE18037
 Drawing Title: Network Flow Diagram - STS Development Traffic Flows (08:00-09:00 and 17:00-18:00)
 Date: Mar-22 Drawing Reference: NFD_011
 Prepared By: GJ Checked By: AB Approved By: AB

M40 Junction 4 - Handy Cross Roundabout

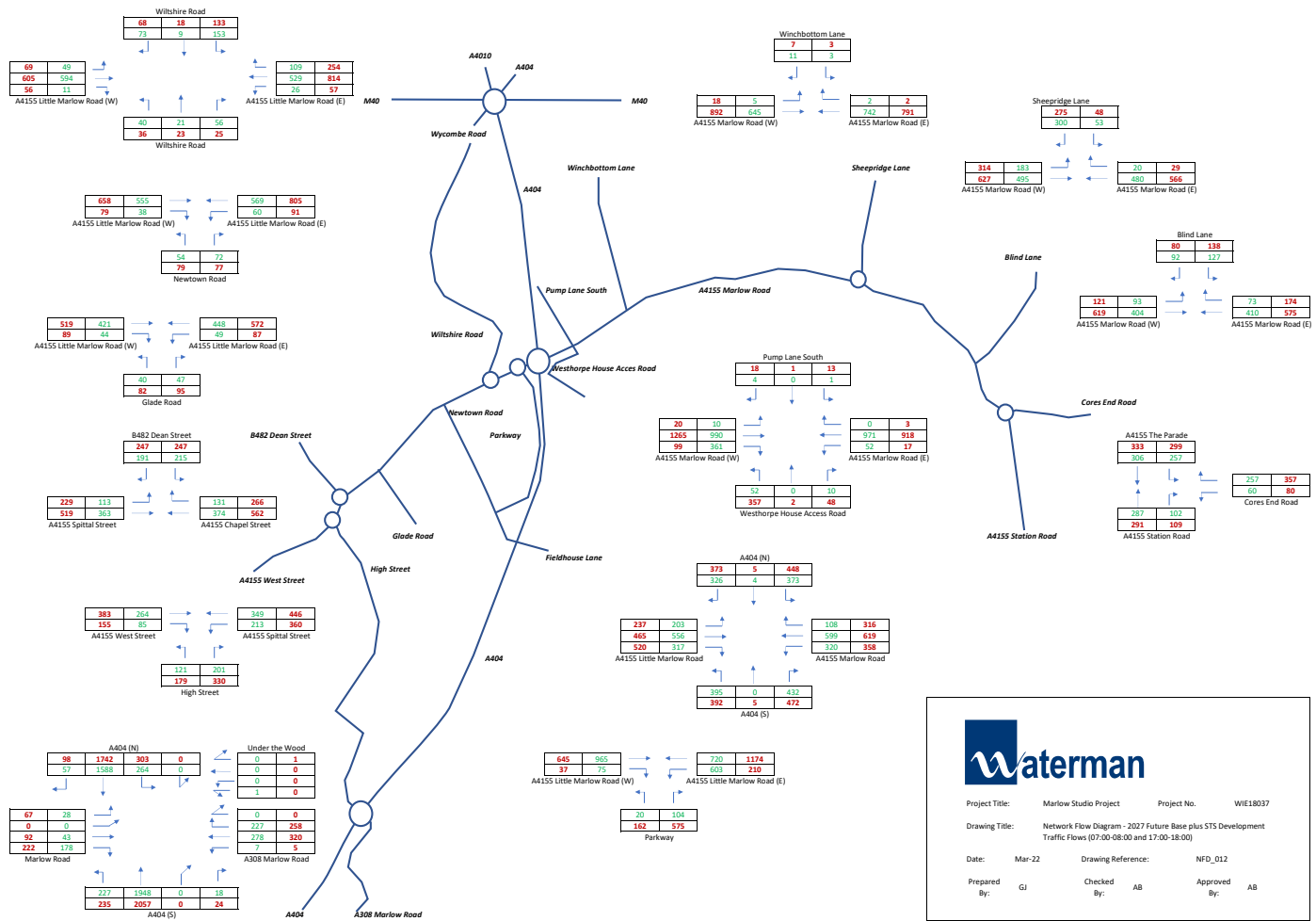


Traffic Movement (pcus)		AM Peak	PM Peak
A	to B	107	79
	to C	115	121
	to D	211	210
	to E	3	4
	to F	550	481
B	to A	81	102
	to D	159	238
	to E	475	457
	to F	404	485
	to G	53	86
C	to A	88	102
	to B	44	40
	to D	25	31
	to E	225	188
	to F	215	207
D	to A	76	79
	to B	144	201
	to C	58	56
	to E	298	341
	to F	473	411
E	to A	1	1
	to B	342	335
	to C	157	200
	to D	287	365
	to F	616	570
F	to A	84	126
	to B	138	170
	to C	250	315
	to D	124	175
	to E	220	364
G	to A	607	662
	to B	2	3
	to C	29	33
	to D	54	58
	to E	129	95

Key

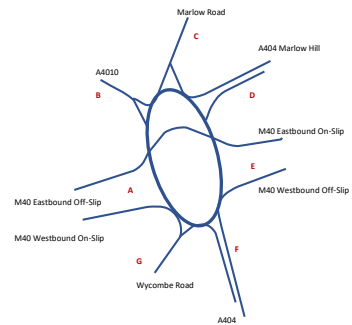
AM Peak (07:00-09:00) 100
 PM Peak (17:00-18:00) 100

All flows in PCUs (Passenger Car Units)



Project Title: Marlow Studio Project Project No. WIE18037
 Drawing Title: Network Flow Diagram - 2027 Future Base plus STS Development
 Traffic Flows (07:00-09:00 and 17:00-18:00)
 Date: Mar-22 Drawing Reference: NFD_012
 Prepared By: GJ Checked By: AB Approved By: AB

M40 Junction 4 - Handy Cross Roundabout

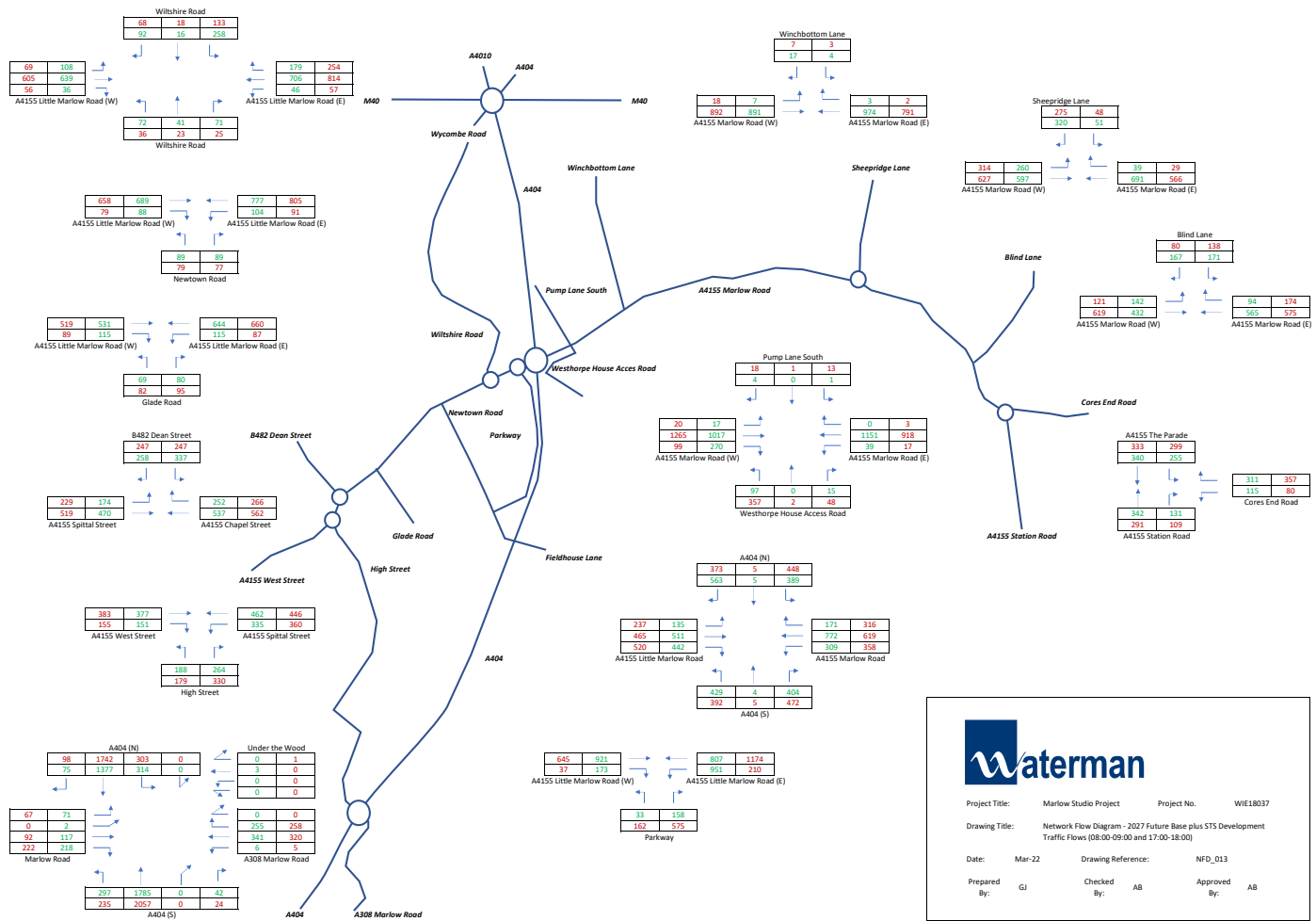


Traffic Movement (pcus)		AM Peak	PM Peak
A	to B	118	79
	to C	147	121
	to D	235	210
	to E	0	4
	to F	498	481
	to G	74	75
	to A	78	102
B	to A	35	31
	to D	199	238
	to E	367	457
	to F	381	485
	to G	87	86
	to A	102	102
	to B	37	40
C	to D	28	31
	to E	184	188
	to F	206	207
	to G	36	38
	to A	62	79
	to B	187	201
	to C	65	56
D	to E	320	341
	to F	457	411
	to G	71	71
	to A	3	1
	to B	372	335
	to C	215	200
	to D	326	365
E	to F	623	570
	to G	113	126
	to A	112	170
	to B	280	315
	to C	167	175
	to D	280	364
	to E	469	662
F	to G	7	3
	to A	29	38
	to B	74	51
	to C	47	33
	to D	83	58
	to E	122	95
	to F	16	4

Key

AM Peak (08:00-09:00) 100
 PM Peak (17:00-18:00) 100

All flows in PCUs (Passenger Car Units)



Project Title: Marlow Studio Project Project No. WIE18037
 Drawing Title: Network Flow Diagram - 2027 Future Base plus STS Development
 Traffic Flows (08:00-09:00 and 17:00-18:00)
 Date: Mar-22 Drawing Reference: NFD_013
 Prepared By: GJ Checked By: AB Approved By: AB



I. Junctions 10 Modelling Output

Appendices

Document 9, Transport Assessment

Project Number: WIE18037

Document Reference: WIE18037.110.R.2.1.3 TA

Junctions 10
ARCADY 10 - Roundabout Module
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Filename: 1) A4155_Parkway RBT.j10
Path: N:\Projects\WIE18037\110 - Transport\5_Technical\Junctions 10\2022 Modelling
Report generation date: 05/04/2022 17:41:27

- »(Default Analysis Set) - 2021 Base, AM 0700-0800
- »(Default Analysis Set) - 2021 Base, AM 0800-0900
- »(Default Analysis Set) - 2021 Base, PM 1700-1800
- »(Default Analysis Set) - 2027 Base, AM 0700-0800
- »(Default Analysis Set) - 2027 Base, AM 0800-0900
- »(Default Analysis Set) - 2027 Base, PM 1700-1800
- »(Default Analysis Set) - 2027 Base + Prop Dev Traffic, AM 0700-0800
- »(Default Analysis Set) - 2027 Base + Prop Dev Traffic, AM 0800-0900
- »(Default Analysis Set) - 2027 Base + Prop Dev Traffic, PM 1700-1800
- »(Default Analysis Set) - 2027 Base + STS Prop Dev Traffic, AM 0700-0800
- »(Default Analysis Set) - 2027 Base + STS Prop Dev Traffic, AM 0800-0900
- »(Default Analysis Set) - 2027 Base + STS Prop Dev Traffic, PM 1700-1800

Summary of junction performance

	AM 0700-0800			AM 0800-0900			PM 1700-1800		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
A1 - 2021 Base									
1 - A4155 (East)	1.6	4.13	0.61	5.1	10.21	0.84	1.5	3.88	0.59
2 - Parkway	0.2	4.17	0.13	0.3	5.06	0.21	25.5	113.94	1.03
3 - A4155 (West)	1.6	5.66	0.61	2.1	6.93	0.67	1.1	5.60	0.52
A1 - 2027 Base									
1 - A4155 (East)	1.8	4.42	0.64	6.7	13.09	0.87	1.6	4.14	0.62
2 - Parkway	0.2	4.29	0.14	0.3	5.27	0.23	49.8	200.99	1.11
3 - A4155 (West)	1.8	6.08	0.64	2.4	7.65	0.70	1.2	5.78	0.54
A1 - 2027 Base + Prop Dev Traffic									
1 - A4155 (East)	1.8	4.51	0.64	7.5	14.51	0.89	2.1	4.87	0.68
2 - Parkway	0.2	4.34	0.14	0.3	5.40	0.23	87.4	363.15	1.25
3 - A4155 (West)	2.5	7.81	0.72	3.2	9.58	0.76	1.2	5.74	0.55
A1 - 2027 Base + STS Prop Dev Traffic									
1 - A4155 (East)	1.8	4.49	0.64	7.3	14.10	0.88	1.9	4.64	0.66
2 - Parkway	0.2	4.32	0.14	0.3	5.37	0.23	76.3	312.07	1.21
3 - A4155 (West)	2.3	7.22	0.69	2.9	8.94	0.75	1.2	5.75	0.54

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

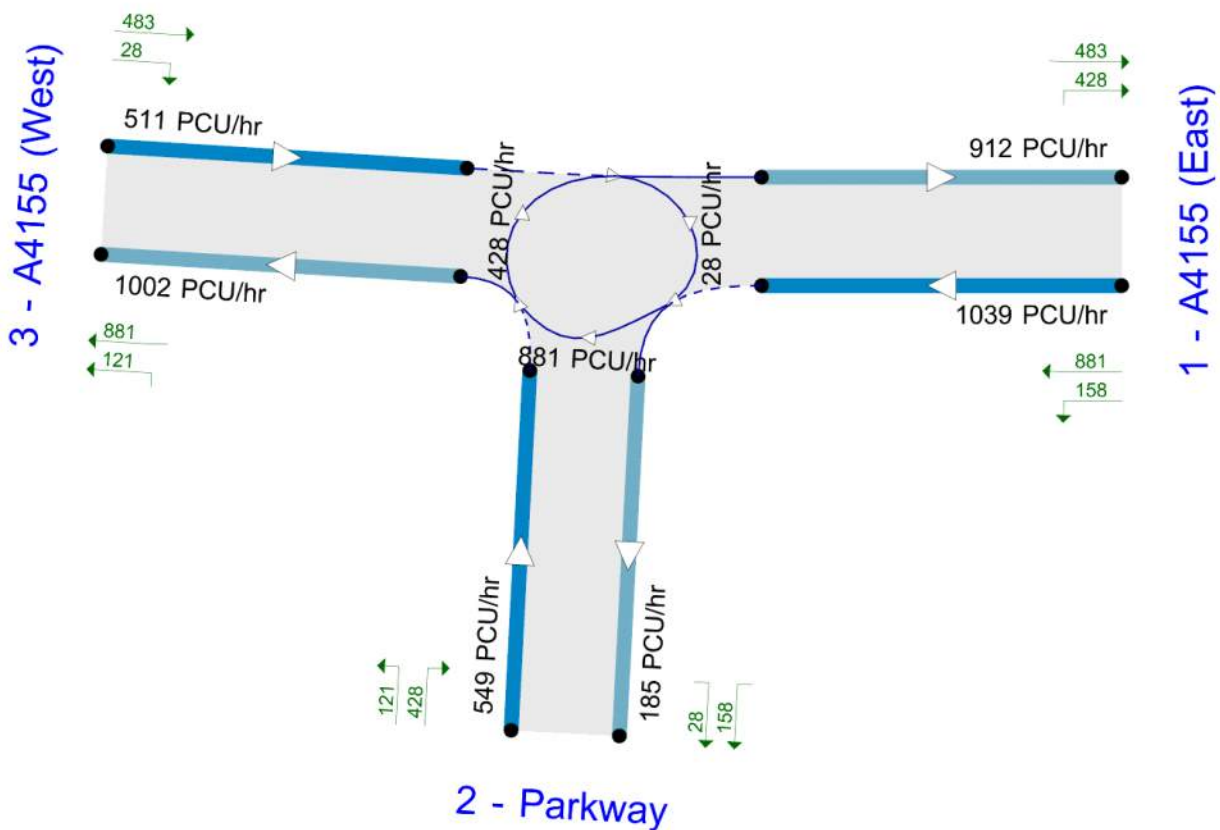
File summary

File Description

Title	A4155 - Parkway Roundabout
Location	Marlow
Site number	
Date	17/03/2022
Version	
Status	
Identifier	
Client	
Jobnumber	WIE18037
Enumerator	Jack Wellings
Description	

Units

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



Flows show modified flow through junction (PCU/hr).
Time Segment: 16:45-17:00

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	2021 Base	AM 0700-0800	ONE HOUR	06:45	08:15	15	✓
D2	2021 Base	AM 0800-0900	ONE HOUR	07:45	09:15	15	✓
D3	2021 Base	PM 1700-1800	ONE HOUR	16:45	18:15	15	✓
D4	2027 Base	AM 0700-0800	ONE HOUR	06:45	08:15	15	✓
D5	2027 Base	AM 0800-0900	ONE HOUR	07:45	09:15	15	✓
D6	2027 Base	PM 1700-1800	ONE HOUR	16:45	18:15	15	✓
D7	2027 Base + Prop Dev Traffic	AM 0700-0800	ONE HOUR	06:45	08:15	15	✓
D8	2027 Base + Prop Dev Traffic	AM 0800-0900	ONE HOUR	07:45	09:15	15	✓
D9	2027 Base + Prop Dev Traffic	PM 1700-1800	ONE HOUR	16:45	18:15	15	✓
D10	2027 Base + STS Prop Dev Traffic	AM 0700-0800	ONE HOUR	06:45	08:15	15	✓
D11	2027 Base + STS Prop Dev Traffic	AM 0800-0900	ONE HOUR	07:45	09:15	15	✓
D12	2027 Base + STS Prop Dev Traffic	PM 1700-1800	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

(Default Analysis Set) - 2021 Base, AM 0700-0800

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4155 - Parkway Roundabout	Standard Roundabout		1, 2, 3	4.74	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.74	A

Arms

Arms

Arm	Name	Description	No give-way line
1	A4155 (East)		
2	Parkway		
3	A4155 (West)		

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 - A4155 (East)	7.72	7.84	0.5	17.7	22.5	30.5		
2 - Parkway	4.32	5.99	2.6	15.1	22.5	29.0		
3 - A4155 (West)	3.74	7.93	13.6	46.0	22.5	45.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A4155 (East)	0.793	2340
2 - Parkway	0.610	1459
3 - A4155 (West)	0.662	1728

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2021 Base	AM 0700-0800	ONE HOUR	06:45	08:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A4155 (East)		ONE HOUR	✓	1260	100.000
2 - Parkway		ONE HOUR	✓	119	100.000
3 - A4155 (West)		ONE HOUR	✓	916	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
		1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)		0	579	681
2 - Parkway		99	0	20
3 - A4155 (West)		844	72	0

Proportions

From	To			
		1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)		0.00	0.46	0.54
2 - Parkway		0.83	0.00	0.17
3 - A4155 (West)		0.92	0.08	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)		0	1	3
2 - Parkway		1	0	0
3 - A4155 (West)		2	0	0

Average PCU Per Veh

From	To			
		1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)		1.000	1.010	1.030
2 - Parkway		1.010	1.000	1.000
3 - A4155 (West)		1.020	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
06:45-07:00	1 - A4155 (East)	949	949
	2 - Parkway	90	90
	3 - A4155 (West)	690	690
07:00-07:15	1 - A4155 (East)	1133	1133
	2 - Parkway	107	107
	3 - A4155 (West)	823	823
07:15-07:30	1 - A4155 (East)	1387	1387
	2 - Parkway	131	131
	3 - A4155 (West)	1009	1009
07:30-07:45	1 - A4155 (East)	1387	1387
	2 - Parkway	131	131
	3 - A4155 (West)	1009	1009
07:45-08:00	1 - A4155 (East)	1133	1133
	2 - Parkway	107	107
	3 - A4155 (West)	823	823
08:00-08:15	1 - A4155 (East)	949	949
	2 - Parkway	90	90
	3 - A4155 (West)	690	690

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
1 - A4155 (East)	0.61	4.13	1.6	A	1156	1734	98.12	3.39	1.09	98.13	3.39
2 - Parkway	0.13	4.17	0.2	A	109	164	10.36	3.79	0.12	10.36	3.79
3 - A4155 (West)	0.61	5.66	1.6	A	841	1261	97.16	4.62	1.08	97.17	4.62

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	949	237	54	2298	0.413	946	707	0.0	0.7	2.712	A
2 - Parkway	90	22	511	1147	0.078	89	489	0.0	0.1	3.430	A
3 - A4155 (West)	690	172	74	1679	0.411	687	526	0.0	0.7	3.683	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1133	283	65	2289	0.495	1132	847	0.7	1.0	3.172	A
2 - Parkway	107	27	612	1086	0.098	107	585	0.1	0.1	3.706	A
3 - A4155 (West)	823	206	89	1670	0.493	822	630	0.7	1.0	4.322	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1387	347	79	2278	0.609	1385	1036	1.0	1.6	4.105	A
2 - Parkway	131	33	749	1003	0.131	131	716	0.1	0.2	4.164	A
3 - A4155 (West)	1009	252	109	1656	0.609	1006	771	1.0	1.6	5.618	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1387	347	79	2277	0.609	1387	1038	1.6	1.6	4.127	A
2 - Parkway	131	33	750	1002	0.131	131	717	0.2	0.2	4.167	A
3 - A4155 (West)	1009	252	109	1656	0.609	1008	772	1.6	1.6	5.659	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1133	283	65	2289	0.495	1135	850	1.6	1.0	3.192	A
2 - Parkway	107	27	613	1085	0.099	107	586	0.2	0.1	3.714	A
3 - A4155 (West)	823	206	89	1669	0.493	826	631	1.6	1.0	4.356	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	949	237	54	2297	0.413	950	711	1.0	0.7	2.730	A
2 - Parkway	90	22	513	1146	0.078	90	491	0.1	0.1	3.438	A
3 - A4155 (West)	690	172	75	1679	0.411	691	528	1.0	0.7	3.713	A

Queueing Delay Results for each time segment
06:45 - 07:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	10.49	0.70	2.712	A
2 - Parkway	1.25	0.08	3.430	A
3 - A4155 (West)	10.29	0.69	3.683	A

07:00 - 07:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	14.61	0.97	3.172	A
2 - Parkway	1.62	0.11	3.706	A
3 - A4155 (West)	14.38	0.96	4.322	A

07:15 - 07:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	22.89	1.53	4.105	A
2 - Parkway	2.23	0.15	4.164	A
3 - A4155 (West)	22.57	1.50	5.618	A

07:30 - 07:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	23.67	1.58	4.127	A
2 - Parkway	2.27	0.15	4.167	A
3 - A4155 (West)	23.53	1.57	5.659	A

07:45 - 08:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	15.46	1.03	3.192	A
2 - Parkway	1.69	0.11	3.714	A
3 - A4155 (West)	15.44	1.03	4.356	A

08:00 - 08:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	11.01	0.73	2.730	A
2 - Parkway	1.31	0.09	3.438	A
3 - A4155 (West)	10.95	0.73	3.713	A

(Default Analysis Set) - 2021 Base, AM 0800-0900

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4155 - Parkway Roundabout	Standard Roundabout		1, 2, 3	8.73	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.73	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
D2	2021 Base	AM 0800-0900	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A4155 (East)		ONE HOUR	✓	1671	100.000
2 - Parkway		ONE HOUR	✓	183	100.000
3 - A4155 (West)		ONE HOUR	✓	990	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)	0	914	757
2 - Parkway	152	0	31
3 - A4155 (West)	824	166	0

Proportions

From	To		
	1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)	0.00	0.55	0.45
2 - Parkway	0.83	0.00	0.17
3 - A4155 (West)	0.83	0.17	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)	0	1	2
2 - Parkway	6	0	3
3 - A4155 (West)	2	0	0

Average PCU Per Veh

From	To		
	1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)	1.000	1.010	1.020
2 - Parkway	1.060	1.000	1.030
3 - A4155 (West)	1.020	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	1 - A4155 (East)	1258	1258
	2 - Parkway	138	138
	3 - A4155 (West)	745	745
08:00-08:15	1 - A4155 (East)	1502	1502
	2 - Parkway	165	165
	3 - A4155 (West)	890	890
08:15-08:30	1 - A4155 (East)	1840	1840
	2 - Parkway	201	201
	3 - A4155 (West)	1090	1090
08:30-08:45	1 - A4155 (East)	1840	1840
	2 - Parkway	201	201
	3 - A4155 (West)	1090	1090
08:45-09:00	1 - A4155 (East)	1502	1502
	2 - Parkway	165	165
	3 - A4155 (West)	890	890
09:00-09:15	1 - A4155 (East)	1258	1258
	2 - Parkway	138	138
	3 - A4155 (West)	745	745

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
1 - A4155 (East)	0.84	10.21	5.1	B	1533	2300	245.17	6.40	2.72	245.19	6.40
2 - Parkway	0.21	5.06	0.3	A	168	252	18.75	4.47	0.21	18.75	4.47
3 - A4155 (West)	0.67	6.93	2.1	A	908	1363	121.76	5.36	1.35	121.77	5.36

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1258	315	124	2242	0.561	1253	732	0.0	1.3	3.674	A
2 - Parkway	138	34	568	1113	0.124	137	810	0.0	0.1	3.888	A
3 - A4155 (West)	745	186	114	1653	0.451	742	591	0.0	0.8	4.003	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1502	376	149	2222	0.676	1499	876	1.3	2.1	5.028	A
2 - Parkway	165	41	679	1045	0.157	164	969	0.1	0.2	4.310	A
3 - A4155 (West)	890	222	136	1638	0.543	889	707	0.8	1.2	4.872	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1840	460	182	2196	0.838	1828	1071	2.1	4.9	9.652	A
2 - Parkway	201	50	828	954	0.211	201	1182	0.2	0.3	5.041	A
3 - A4155 (West)	1090	273	167	1618	0.674	1087	862	1.2	2.1	6.842	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1840	460	183	2195	0.838	1839	1075	4.9	5.1	10.205	B
2 - Parkway	201	50	833	951	0.212	201	1189	0.3	0.3	5.065	A
3 - A4155 (West)	1090	273	167	1618	0.674	1090	867	2.1	2.1	6.931	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1502	376	150	2222	0.676	1514	881	5.1	2.2	5.243	A
2 - Parkway	165	41	686	1041	0.158	165	978	0.3	0.2	4.335	A
3 - A4155 (West)	890	222	137	1638	0.543	893	714	2.1	1.2	4.937	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1258	315	125	2241	0.561	1261	736	2.2	1.3	3.742	A
2 - Parkway	138	34	571	1111	0.124	138	815	0.2	0.2	3.904	A
3 - A4155 (West)	745	186	115	1653	0.451	747	595	1.2	0.8	4.048	A

Queueing Delay Results for each time segment
07:45 - 08:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	18.66	1.24	3.674	A
2 - Parkway	2.18	0.15	3.888	A
3 - A4155 (West)	12.05	0.80	4.003	A

08:00 - 08:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	30.03	2.00	5.028	A
2 - Parkway	2.89	0.19	4.310	A
3 - A4155 (West)	17.43	1.16	4.872	A

08:15 - 08:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	66.82	4.45	9.652	A
2 - Parkway	4.12	0.27	5.041	A
3 - A4155 (West)	29.33	1.96	6.842	A

08:30 - 08:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	75.22	5.01	10.205	B
2 - Parkway	4.22	0.28	5.065	A
3 - A4155 (West)	31.00	2.07	6.931	A

08:45 - 09:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	34.21	2.28	5.243	A
2 - Parkway	3.04	0.20	4.335	A
3 - A4155 (West)	19.01	1.27	4.937	A

09:00 - 09:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	20.23	1.35	3.742	A
2 - Parkway	2.29	0.15	3.904	A
3 - A4155 (West)	12.94	0.86	4.048	A

(Default Analysis Set) - 2021 Base, PM 1700-1800

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4155 - Parkway Roundabout	Standard Roundabout		1, 2, 3	34.42	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	34.42	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
D3	2021 Base	PM 1700-1800	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A4155 (East)		ONE HOUR	✓	1247	100.000
2 - Parkway		ONE HOUR	✓	708	100.000
3 - A4155 (West)		ONE HOUR	✓	632	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)	0	202	1045
2 - Parkway	552	0	156
3 - A4155 (West)	597	35	0

Proportions

From	To		
	1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)	0.00	0.16	0.84
2 - Parkway	0.78	0.00	0.22
3 - A4155 (West)	0.94	0.06	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)	0	1	1
2 - Parkway	0	0	0
3 - A4155 (West)	1	0	0

Average PCU Per Veh

From	To		
	1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)	1.000	1.010	1.010
2 - Parkway	1.000	1.000	1.000
3 - A4155 (West)	1.010	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:45-17:00	1 - A4155 (East)	939	939
	2 - Parkway	533	533
	3 - A4155 (West)	476	476
17:00-17:15	1 - A4155 (East)	1121	1121
	2 - Parkway	636	636
	3 - A4155 (West)	568	568
17:15-17:30	1 - A4155 (East)	1373	1373
	2 - Parkway	780	780
	3 - A4155 (West)	696	696
17:30-17:45	1 - A4155 (East)	1373	1373
	2 - Parkway	780	780
	3 - A4155 (West)	696	696
17:45-18:00	1 - A4155 (East)	1121	1121
	2 - Parkway	636	636
	3 - A4155 (West)	568	568
18:00-18:15	1 - A4155 (East)	939	939
	2 - Parkway	533	533
	3 - A4155 (West)	476	476

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
1 - A4155 (East)	0.59	3.88	1.5	A	1144	1716	92.48	3.23	1.03	92.48	3.23
2 - Parkway	1.03	113.94	25.5	F	650	975	664.95	40.94	7.39	664.99	40.94
3 - A4155 (West)	0.52	5.60	1.1	A	580	870	67.36	4.65	0.75	67.36	4.65

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	939	235	26	2320	0.405	936	860	0.0	0.7	2.622	A
2 - Parkway	533	133	784	981	0.543	528	178	0.0	1.2	7.879	A
3 - A4155 (West)	476	119	412	1456	0.327	474	901	0.0	0.5	3.692	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1121	280	31	2315	0.484	1120	1028	0.7	0.9	3.038	A
2 - Parkway	636	159	939	887	0.718	631	213	1.2	2.4	13.832	B
3 - A4155 (West)	568	142	492	1403	0.405	567	1078	0.5	0.7	4.347	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1373	343	38	2310	0.594	1371	1219	0.9	1.5	3.864	A
2 - Parkway	780	195	1149	759	1.028	723	261	2.4	16.6	62.682	F
3 - A4155 (West)	696	174	563	1356	0.513	694	1308	0.7	1.1	5.483	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1373	343	39	2310	0.594	1373	1237	1.5	1.5	3.881	A
2 - Parkway	780	195	1151	758	1.029	744	261	16.6	25.5	113.937	F
3 - A4155 (West)	696	174	580	1345	0.517	696	1314	1.1	1.1	5.599	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1121	280	32	2315	0.484	1123	1105	1.5	1.0	3.054	A
2 - Parkway	636	159	941	885	0.719	728	213	25.5	2.8	34.525	D
3 - A4155 (West)	568	142	567	1353	0.420	569	1101	1.1	0.7	4.645	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	939	235	26	2319	0.405	940	871	1.0	0.7	2.637	A
2 - Parkway	533	133	788	979	0.545	539	179	2.8	1.2	8.298	A
3 - A4155 (West)	476	119	420	1450	0.328	477	906	0.7	0.5	3.735	A

Queueing Delay Results for each time segment
16:45 - 17:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	10.04	0.67	2.622	A
2 - Parkway	16.57	1.10	7.879	A
3 - A4155 (West)	7.13	0.48	3.692	A

17:00 - 17:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	13.87	0.92	3.038	A
2 - Parkway	33.24	2.22	13.832	B
3 - A4155 (West)	10.01	0.67	4.347	A

17:15 - 17:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	21.37	1.42	3.864	A
2 - Parkway	161.40	10.76	62.682	F
3 - A4155 (West)	15.29	1.02	5.483	A

17:30 - 17:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	22.04	1.47	3.881	A
2 - Parkway	318.50	21.23	113.937	F
3 - A4155 (West)	15.99	1.07	5.599	A

17:45 - 18:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	14.63	0.98	3.054	A
2 - Parkway	115.84	7.72	34.525	D
3 - A4155 (West)	11.34	0.76	4.645	A

18:00 - 18:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	10.52	0.70	2.637	A
2 - Parkway	19.40	1.29	8.298	A
3 - A4155 (West)	7.59	0.51	3.735	A

(Default Analysis Set) - 2027 Base, AM 0700-0800

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4155 - Parkway Roundabout	Standard Roundabout		1, 2, 3	5.08	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.08	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
D4	2027 Base	AM 0700-0800	ONE HOUR	06:45	08:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A4155 (East)		ONE HOUR	✓	1312	100.000
2 - Parkway		ONE HOUR	✓	124	100.000
3 - A4155 (West)		ONE HOUR	✓	954	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
		1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)		0	603	709
2 - Parkway		104	0	20
3 - A4155 (West)		879	75	0

Proportions

From	To			
		1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)		0.00	0.46	0.54
2 - Parkway		0.84	0.00	0.16
3 - A4155 (West)		0.92	0.08	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)		0	1	3
2 - Parkway		1	0	0
3 - A4155 (West)		2	0	0

Average PCU Per Veh

From	To			
		1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)		1.000	1.010	1.030
2 - Parkway		1.010	1.000	1.000
3 - A4155 (West)		1.020	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
06:45-07:00	1 - A4155 (East)	988	988
	2 - Parkway	93	93
	3 - A4155 (West)	718	718
07:00-07:15	1 - A4155 (East)	1179	1179
	2 - Parkway	111	111
	3 - A4155 (West)	858	858
07:15-07:30	1 - A4155 (East)	1445	1445
	2 - Parkway	137	137
	3 - A4155 (West)	1050	1050
07:30-07:45	1 - A4155 (East)	1445	1445
	2 - Parkway	137	137
	3 - A4155 (West)	1050	1050
07:45-08:00	1 - A4155 (East)	1179	1179
	2 - Parkway	111	111
	3 - A4155 (West)	858	858
08:00-08:15	1 - A4155 (East)	988	988
	2 - Parkway	93	93
	3 - A4155 (West)	718	718

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
1 - A4155 (East)	0.64	4.42	1.8	A	1204	1806	107.60	3.57	1.20	107.61	3.58
2 - Parkway	0.14	4.29	0.2	A	114	171	11.04	3.88	0.12	11.04	3.88
3 - A4155 (West)	0.64	6.08	1.8	A	875	1313	106.77	4.88	1.19	106.78	4.88

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	988	247	56	2296	0.430	985	737	0.0	0.8	2.797	A
2 - Parkway	93	23	532	1135	0.082	93	509	0.0	0.1	3.485	A
3 - A4155 (West)	718	180	78	1677	0.428	715	547	0.0	0.8	3.802	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1179	295	67	2287	0.516	1178	882	0.8	1.1	3.311	A
2 - Parkway	111	28	637	1071	0.104	111	609	0.1	0.1	3.782	A
3 - A4155 (West)	858	214	93	1667	0.515	856	655	0.8	1.1	4.519	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1445	361	82	2275	0.635	1442	1080	1.1	1.8	4.396	A
2 - Parkway	137	34	779	984	0.139	136	745	0.1	0.2	4.281	A
3 - A4155 (West)	1050	263	114	1653	0.636	1048	801	1.1	1.7	6.033	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1445	361	83	2275	0.635	1444	1082	1.8	1.8	4.425	A
2 - Parkway	137	34	781	983	0.139	137	746	0.2	0.2	4.287	A
3 - A4155 (West)	1050	263	115	1653	0.636	1050	803	1.7	1.8	6.084	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1179	295	68	2287	0.516	1182	886	1.8	1.1	3.333	A
2 - Parkway	111	28	639	1070	0.104	112	611	0.2	0.1	3.792	A
3 - A4155 (West)	858	214	94	1666	0.515	860	657	1.8	1.1	4.562	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	988	247	57	2295	0.430	989	741	1.1	0.8	2.814	A
2 - Parkway	93	23	534	1133	0.082	93	511	0.1	0.1	3.493	A
3 - A4155 (West)	718	180	78	1677	0.428	720	550	1.1	0.8	3.837	A

Queueing Delay Results for each time segment
06:45 - 07:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	11.25	0.75	2.797	A
2 - Parkway	1.32	0.09	3.485	A
3 - A4155 (West)	11.05	0.74	3.802	A

07:00 - 07:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	15.85	1.06	3.311	A
2 - Parkway	1.73	0.12	3.782	A
3 - A4155 (West)	15.63	1.04	4.519	A

07:15 - 07:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	25.43	1.70	4.396	A
2 - Parkway	2.38	0.16	4.281	A
3 - A4155 (West)	25.12	1.67	6.033	A

07:30 - 07:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	26.39	1.76	4.425	A
2 - Parkway	2.43	0.16	4.287	A
3 - A4155 (West)	26.31	1.75	6.084	A

07:45 - 08:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	16.85	1.12	3.333	A
2 - Parkway	1.80	0.12	3.792	A
3 - A4155 (West)	16.87	1.12	4.562	A

08:00 - 08:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	11.84	0.79	2.814	A
2 - Parkway	1.38	0.09	3.493	A
3 - A4155 (West)	11.79	0.79	3.837	A

(Default Analysis Set) - 2027 Base, AM 0800-0900

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4155 - Parkway Roundabout	Standard Roundabout		1, 2, 3	10.69	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.69	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	AM 0800-0900	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A4155 (East)		ONE HOUR	✓	1739	100.000
2 - Parkway		ONE HOUR	✓	191	100.000
3 - A4155 (West)		ONE HOUR	✓	1031	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)	0	951	788
2 - Parkway	158	0	33
3 - A4155 (West)	858	173	0

Proportions

From	To		
	1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)	0.00	0.55	0.45
2 - Parkway	0.83	0.00	0.17
3 - A4155 (West)	0.83	0.17	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)	0	1	2
2 - Parkway	6	0	3
3 - A4155 (West)	2	0	0

Average PCU Per Veh

From	To		
	1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)	1.000	1.010	1.020
2 - Parkway	1.060	1.000	1.030
3 - A4155 (West)	1.020	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	1 - A4155 (East)	1309	1309
	2 - Parkway	144	144
	3 - A4155 (West)	776	776
08:00-08:15	1 - A4155 (East)	1563	1563
	2 - Parkway	172	172
	3 - A4155 (West)	927	927
08:15-08:30	1 - A4155 (East)	1915	1915
	2 - Parkway	210	210
	3 - A4155 (West)	1135	1135
08:30-08:45	1 - A4155 (East)	1915	1915
	2 - Parkway	210	210
	3 - A4155 (West)	1135	1135
08:45-09:00	1 - A4155 (East)	1563	1563
	2 - Parkway	172	172
	3 - A4155 (West)	927	927
09:00-09:15	1 - A4155 (East)	1309	1309
	2 - Parkway	144	144
	3 - A4155 (West)	776	776

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
1 - A4155 (East)	0.87	13.09	6.7	B	1596	2394	299.85	7.52	3.33	299.87	7.52
2 - Parkway	0.23	5.27	0.3	A	175	263	20.18	4.61	0.22	20.18	4.61
3 - A4155 (West)	0.70	7.65	2.4	A	946	1419	136.00	5.75	1.51	136.01	5.75

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1309	327	130	2238	0.585	1304	761	0.0	1.4	3.887	A
2 - Parkway	144	36	591	1099	0.131	143	843	0.0	0.2	3.970	A
3 - A4155 (West)	776	194	118	1650	0.470	773	615	0.0	0.9	4.154	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1563	391	155	2217	0.705	1559	912	1.4	2.4	5.522	A
2 - Parkway	172	43	707	1028	0.167	171	1008	0.2	0.2	4.430	A
3 - A4155 (West)	927	232	142	1635	0.567	925	736	0.9	1.3	5.146	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1915	479	190	2190	0.874	1899	1115	2.4	6.4	11.931	B
2 - Parkway	210	53	860	935	0.225	210	1228	0.2	0.3	5.238	A
3 - A4155 (West)	1135	284	174	1614	0.704	1131	897	1.3	2.3	7.520	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1915	479	190	2189	0.875	1913	1119	6.4	6.7	13.087	B
2 - Parkway	210	53	867	930	0.226	210	1237	0.3	0.3	5.271	A
3 - A4155 (West)	1135	284	174	1613	0.704	1135	903	2.3	2.4	7.646	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1563	391	156	2216	0.705	1580	917	6.7	2.5	5.888	A
2 - Parkway	172	43	716	1023	0.168	172	1020	0.3	0.2	4.466	A
3 - A4155 (West)	927	232	142	1634	0.567	931	746	2.4	1.3	5.235	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1309	327	131	2237	0.585	1313	767	2.5	1.4	3.972	A
2 - Parkway	144	36	595	1096	0.131	144	849	0.2	0.2	3.988	A
3 - A4155 (West)	776	194	119	1650	0.471	778	620	1.3	0.9	4.206	A

Queueing Delay Results for each time segment
07:45 - 08:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	20.49	1.37	3.887	A
2 - Parkway	2.32	0.15	3.970	A
3 - A4155 (West)	13.01	0.87	4.154	A

08:00 - 08:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	34.10	2.27	5.522	A
2 - Parkway	3.10	0.21	4.430	A
3 - A4155 (West)	19.12	1.27	5.146	A

08:15 - 08:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	84.08	5.61	11.931	B
2 - Parkway	4.46	0.30	5.238	A
3 - A4155 (West)	33.32	2.22	7.520	A

08:30 - 08:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	98.61	6.57	13.087	B
2 - Parkway	4.59	0.31	5.271	A
3 - A4155 (West)	35.51	2.37	7.646	A

08:45 - 09:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	40.15	2.68	5.888	A
2 - Parkway	3.27	0.22	4.466	A
3 - A4155 (West)	21.02	1.40	5.235	A

09:00 - 09:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	22.41	1.49	3.972	A
2 - Parkway	2.44	0.16	3.988	A
3 - A4155 (West)	14.03	0.94	4.206	A

(Default Analysis Set) - 2027 Base, PM 1700-1800

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4155 - Parkway Roundabout	Standard Roundabout		1, 2, 3	58.37	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	58.37	F

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	PM 1700-1800	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A4155 (East)		ONE HOUR	✓	1299	100.000
2 - Parkway		ONE HOUR	✓	737	100.000
3 - A4155 (West)		ONE HOUR	✓	659	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)	0	210	1089
2 - Parkway	575	0	162
3 - A4155 (West)	622	37	0

Proportions

From	To		
	1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)	0.00	0.16	0.84
2 - Parkway	0.78	0.00	0.22
3 - A4155 (West)	0.94	0.06	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)	0	1	1
2 - Parkway	0	0	0
3 - A4155 (West)	1	0	0

Average PCU Per Veh

From	To		
	1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)	1.000	1.010	1.010
2 - Parkway	1.000	1.000	1.000
3 - A4155 (West)	1.010	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:45-17:00	1 - A4155 (East)	978	978
	2 - Parkway	555	555
	3 - A4155 (West)	496	496
17:00-17:15	1 - A4155 (East)	1168	1168
	2 - Parkway	663	663
	3 - A4155 (West)	592	592
17:15-17:30	1 - A4155 (East)	1430	1430
	2 - Parkway	811	811
	3 - A4155 (West)	726	726
17:30-17:45	1 - A4155 (East)	1430	1430
	2 - Parkway	811	811
	3 - A4155 (West)	726	726
17:45-18:00	1 - A4155 (East)	1168	1168
	2 - Parkway	663	663
	3 - A4155 (West)	592	592
18:00-18:15	1 - A4155 (East)	978	978
	2 - Parkway	555	555
	3 - A4155 (West)	496	496

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
1 - A4155 (East)	0.62	4.14	1.6	A	1192	1788	101.15	3.39	1.12	101.15	3.39
2 - Parkway	1.11	200.99	49.8	F	676	1014	1322.35	78.21	14.69	1322.41	78.22
3 - A4155 (West)	0.54	5.78	1.2	A	605	907	73.81	4.88	0.82	73.82	4.88

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	978	244	28	2318	0.422	975	895	0.0	0.7	2.701	A
2 - Parkway	555	139	817	961	0.578	550	185	0.0	1.3	8.648	A
3 - A4155 (West)	496	124	429	1445	0.343	494	938	0.0	0.5	3.814	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1168	292	33	2314	0.505	1167	1070	0.7	1.0	3.166	A
2 - Parkway	663	166	978	863	0.768	656	222	1.3	3.1	16.839	C
3 - A4155 (West)	592	148	512	1390	0.426	592	1122	0.5	0.7	4.546	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1430	358	41	2308	0.620	1428	1238	1.0	1.6	4.118	A
2 - Parkway	811	203	1197	729	1.113	711	271	3.1	28.1	94.372	F
3 - A4155 (West)	726	181	555	1361	0.533	724	1353	0.7	1.1	5.689	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1430	358	41	2308	0.620	1430	1250	1.6	1.6	4.141	A
2 - Parkway	811	203	1199	728	1.115	725	272	28.1	49.8	200.987	F
3 - A4155 (West)	726	181	565	1354	0.536	726	1358	1.1	1.2	5.778	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1168	292	33	2314	0.505	1170	1217	1.6	1.0	3.187	A
2 - Parkway	663	166	981	861	0.770	841	223	49.8	5.1	123.661	F
3 - A4155 (West)	592	148	656	1294	0.458	594	1166	1.2	0.9	5.197	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	978	244	28	2318	0.422	979	914	1.0	0.7	2.719	A
2 - Parkway	555	139	821	959	0.579	569	186	5.1	1.4	9.580	A
3 - A4155 (West)	496	124	444	1435	0.346	497	946	0.9	0.5	3.883	A

Queueing Delay Results for each time segment
16:45 - 17:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	10.76	0.72	2.701	A
2 - Parkway	18.83	1.26	8.648	A
3 - A4155 (West)	7.67	0.51	3.814	A

17:00 - 17:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	15.03	1.00	3.166	A
2 - Parkway	41.24	2.75	16.839	C
3 - A4155 (West)	10.90	0.73	4.546	A

17:15 - 17:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	23.66	1.58	4.118	A
2 - Parkway	247.67	16.51	94.372	F
3 - A4155 (West)	16.52	1.10	5.689	A

17:30 - 17:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	24.48	1.63	4.141	A
2 - Parkway	584.72	38.98	200.987	F
3 - A4155 (West)	17.23	1.15	5.778	A

17:45 - 18:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	15.91	1.06	3.187	A
2 - Parkway	406.17	27.08	123.661	F
3 - A4155 (West)	13.26	0.88	5.197	A

18:00 - 18:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	11.30	0.75	2.719	A
2 - Parkway	23.71	1.58	9.580	A
3 - A4155 (West)	8.24	0.55	3.883	A

(Default Analysis Set) - 2027 Base + Prop Dev Traffic, AM 0700-0800

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4155 - Parkway Roundabout	Standard Roundabout		1, 2, 3	5.91	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.91	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
D7	2027 Base + Prop Dev Traffic	AM 0700-0800	ONE HOUR	06:45	08:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A4155 (East)		ONE HOUR	✓	1327	100.000
2 - Parkway		ONE HOUR	✓	124	100.000
3 - A4155 (West)		ONE HOUR	✓	1075	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)	0	603	724
2 - Parkway	104	0	20
3 - A4155 (West)	1000	75	0

Proportions

From	To		
	1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)	0.00	0.45	0.55
2 - Parkway	0.84	0.00	0.16
3 - A4155 (West)	0.93	0.07	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)	0	1	3
2 - Parkway	1	0	0
3 - A4155 (West)	2	0	0

Average PCU Per Veh

From	To		
	1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)	1.000	1.010	1.030
2 - Parkway	1.010	1.000	1.000
3 - A4155 (West)	1.020	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
06:45-07:00	1 - A4155 (East)	999	999
	2 - Parkway	93	93
	3 - A4155 (West)	809	809
07:00-07:15	1 - A4155 (East)	1193	1193
	2 - Parkway	111	111
	3 - A4155 (West)	966	966
07:15-07:30	1 - A4155 (East)	1461	1461
	2 - Parkway	137	137
	3 - A4155 (West)	1184	1184
07:30-07:45	1 - A4155 (East)	1461	1461
	2 - Parkway	137	137
	3 - A4155 (West)	1184	1184
07:45-08:00	1 - A4155 (East)	1193	1193
	2 - Parkway	111	111
	3 - A4155 (West)	966	966
08:00-08:15	1 - A4155 (East)	999	999
	2 - Parkway	93	93
	3 - A4155 (West)	809	809

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
1 - A4155 (East)	0.64	4.51	1.8	A	1218	1827	110.47	3.63	1.23	110.47	3.63
2 - Parkway	0.14	4.34	0.2	A	114	171	11.15	3.92	0.12	11.15	3.92
3 - A4155 (West)	0.72	7.81	2.5	A	986	1480	143.96	5.84	1.60	143.97	5.84

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	999	250	56	2296	0.435	996	827	0.0	0.8	2.820	A
2 - Parkway	93	23	543	1128	0.083	93	509	0.0	0.1	3.508	A
3 - A4155 (West)	809	202	78	1677	0.483	806	558	0.0	0.9	4.191	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1193	298	67	2287	0.522	1192	991	0.8	1.1	3.350	A
2 - Parkway	111	28	650	1063	0.105	111	609	0.1	0.1	3.815	A
3 - A4155 (West)	966	242	93	1667	0.580	965	668	0.9	1.4	5.209	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1461	365	82	2275	0.642	1458	1211	1.1	1.8	4.484	A
2 - Parkway	137	34	796	974	0.140	136	745	0.1	0.2	4.332	A
3 - A4155 (West)	1184	296	114	1653	0.716	1179	818	1.4	2.5	7.670	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1461	365	83	2275	0.642	1461	1215	1.8	1.8	4.515	A
2 - Parkway	137	34	797	973	0.140	137	746	0.2	0.2	4.339	A
3 - A4155 (West)	1184	296	115	1653	0.716	1183	819	2.5	2.5	7.807	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1193	298	68	2287	0.522	1196	997	1.8	1.1	3.379	A
2 - Parkway	111	28	652	1061	0.105	112	611	0.2	0.1	3.825	A
3 - A4155 (West)	966	242	94	1666	0.580	971	670	2.5	1.4	5.305	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	999	250	57	2295	0.435	1000	833	1.1	0.8	2.842	A
2 - Parkway	93	23	546	1126	0.083	93	511	0.1	0.1	3.514	A
3 - A4155 (West)	809	202	78	1677	0.483	811	561	1.4	1.0	4.246	A

Queueing Delay Results for each time segment
06:45 - 07:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	11.47	0.76	2.820	A
2 - Parkway	1.33	0.09	3.508	A
3 - A4155 (West)	13.67	0.91	4.191	A

07:00 - 07:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	16.22	1.08	3.350	A
2 - Parkway	1.74	0.12	3.815	A
3 - A4155 (West)	20.16	1.34	5.209	A

07:15 - 07:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	26.20	1.75	4.484	A
2 - Parkway	2.41	0.16	4.332	A
3 - A4155 (West)	35.35	2.36	7.670	A

07:30 - 07:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	27.23	1.82	4.515	A
2 - Parkway	2.46	0.16	4.339	A
3 - A4155 (West)	37.77	2.52	7.807	A

07:45 - 08:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	17.26	1.15	3.379	A
2 - Parkway	1.81	0.12	3.825	A
3 - A4155 (West)	22.23	1.48	5.305	A

08:00 - 08:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	12.08	0.81	2.842	A
2 - Parkway	1.39	0.09	3.514	A
3 - A4155 (West)	14.77	0.98	4.246	A

(Default Analysis Set) - 2027 Base + Prop Dev Traffic, AM 0800-0900

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4155 - Parkway Roundabout	Standard Roundabout		1, 2, 3	12.15	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	12.15	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
D8	2027 Base + Prop Dev Traffic	AM 0800-0900	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A4155 (East)		ONE HOUR	✓	1765	100.000
2 - Parkway		ONE HOUR	✓	191	100.000
3 - A4155 (West)		ONE HOUR	✓	1119	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)	0	951	814
2 - Parkway	158	0	33
3 - A4155 (West)	946	173	0

Proportions

From	To		
	1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)	0.00	0.54	0.46
2 - Parkway	0.83	0.00	0.17
3 - A4155 (West)	0.85	0.15	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)	0	1	2
2 - Parkway	6	0	3
3 - A4155 (West)	2	0	0

Average PCU Per Veh

From	To		
	1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)	1.000	1.010	1.020
2 - Parkway	1.060	1.000	1.030
3 - A4155 (West)	1.020	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	1 - A4155 (East)	1329	1329
	2 - Parkway	144	144
	3 - A4155 (West)	842	842
08:00-08:15	1 - A4155 (East)	1587	1587
	2 - Parkway	172	172
	3 - A4155 (West)	1006	1006
08:15-08:30	1 - A4155 (East)	1943	1943
	2 - Parkway	210	210
	3 - A4155 (West)	1232	1232
08:30-08:45	1 - A4155 (East)	1943	1943
	2 - Parkway	210	210
	3 - A4155 (West)	1232	1232
08:45-09:00	1 - A4155 (East)	1587	1587
	2 - Parkway	172	172
	3 - A4155 (West)	1006	1006
09:00-09:15	1 - A4155 (East)	1329	1329
	2 - Parkway	144	144
	3 - A4155 (West)	842	842

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
1 - A4155 (East)	0.89	14.51	7.5	B	1620	2429	324.93	8.02	3.61	324.96	8.03
2 - Parkway	0.23	5.40	0.3	A	175	263	20.57	4.69	0.23	20.57	4.69
3 - A4155 (West)	0.76	9.58	3.2	A	1027	1540	172.60	6.72	1.92	172.62	6.72

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1329	332	130	2238	0.594	1323	827	0.0	1.5	3.968	A
2 - Parkway	144	36	610	1087	0.132	143	842	0.0	0.2	4.020	A
3 - A4155 (West)	842	211	118	1650	0.511	838	635	0.0	1.0	4.486	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1587	397	155	2217	0.716	1583	990	1.5	2.5	5.717	A
2 - Parkway	172	43	730	1014	0.169	171	1008	0.2	0.2	4.505	A
3 - A4155 (West)	1006	251	142	1635	0.615	1004	759	1.0	1.6	5.781	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1943	486	190	2190	0.887	1925	1210	2.5	7.1	12.965	B
2 - Parkway	210	53	888	918	0.229	210	1227	0.2	0.3	5.361	A
3 - A4155 (West)	1232	308	174	1614	0.764	1226	924	1.6	3.1	9.295	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1943	486	190	2189	0.888	1942	1215	7.1	7.5	14.506	B
2 - Parkway	210	53	895	913	0.230	210	1237	0.3	0.3	5.401	A
3 - A4155 (West)	1232	308	174	1613	0.764	1232	932	3.1	3.2	9.575	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1587	397	156	2216	0.716	1606	998	7.5	2.6	6.173	A
2 - Parkway	172	43	741	1007	0.170	172	1022	0.3	0.2	4.548	A
3 - A4155 (West)	1006	251	142	1634	0.616	1012	771	3.2	1.7	5.944	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1329	332	131	2237	0.594	1333	833	2.6	1.5	4.063	A
2 - Parkway	144	36	615	1084	0.133	144	849	0.2	0.2	4.040	A
3 - A4155 (West)	842	211	119	1650	0.511	845	640	1.7	1.1	4.562	A

Queueing Delay Results for each time segment
07:45 - 08:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	21.22	1.41	3.968	A
2 - Parkway	2.35	0.16	4.020	A
3 - A4155 (West)	15.20	1.01	4.486	A

08:00 - 08:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	35.76	2.38	5.717	A
2 - Parkway	3.15	0.21	4.505	A
3 - A4155 (West)	23.15	1.54	5.781	A

08:15 - 08:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	91.91	6.13	12.965	B
2 - Parkway	4.57	0.30	5.361	A
3 - A4155 (West)	43.86	2.92	9.295	A

08:30 - 08:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	109.95	7.33	14.506	B
2 - Parkway	4.70	0.31	5.401	A
3 - A4155 (West)	47.84	3.19	9.575	A

08:45 - 09:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	42.82	2.85	6.173	A
2 - Parkway	3.34	0.22	4.548	A
3 - A4155 (West)	25.98	1.73	5.944	A

09:00 - 09:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	23.27	1.55	4.063	A
2 - Parkway	2.47	0.16	4.040	A
3 - A4155 (West)	16.56	1.10	4.562	A

(Default Analysis Set) - 2027 Base + Prop Dev Traffic, PM 1700-1800

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4155 - Parkway Roundabout	Standard Roundabout		1, 2, 3	97.86	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	97.86	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2027 Base + Prop Dev Traffic	PM 1700-1800	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A4155 (East)		ONE HOUR	✓	1418	100.000
2 - Parkway		ONE HOUR	✓	737	100.000
3 - A4155 (West)		ONE HOUR	✓	691	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
		1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)		0	210	1208
2 - Parkway		575	0	162
3 - A4155 (West)		654	37	0

Proportions

From	To			
		1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)		0.00	0.15	0.85
2 - Parkway		0.78	0.00	0.22
3 - A4155 (West)		0.95	0.05	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)		0	1	1
2 - Parkway		0	0	0
3 - A4155 (West)		1	0	0

Average PCU Per Veh

From	To			
		1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)		1.000	1.010	1.010
2 - Parkway		1.000	1.000	1.000
3 - A4155 (West)		1.010	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:45-17:00	1 - A4155 (East)	1068	1068
	2 - Parkway	555	555
	3 - A4155 (West)	520	520
17:00-17:15	1 - A4155 (East)	1275	1275
	2 - Parkway	663	663
	3 - A4155 (West)	621	621
17:15-17:30	1 - A4155 (East)	1561	1561
	2 - Parkway	811	811
	3 - A4155 (West)	761	761
17:30-17:45	1 - A4155 (East)	1561	1561
	2 - Parkway	811	811
	3 - A4155 (West)	761	761
17:45-18:00	1 - A4155 (East)	1275	1275
	2 - Parkway	663	663
	3 - A4155 (West)	621	621
18:00-18:15	1 - A4155 (East)	1068	1068
	2 - Parkway	555	555
	3 - A4155 (West)	520	520

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
1 - A4155 (East)	0.68	4.87	2.1	A	1301	1952	124.39	3.82	1.38	124.40	3.82
2 - Parkway	1.25	363.15	87.4	F	676	1014	2844.47	168.24	31.61	2844.57	168.25
3 - A4155 (West)	0.55	5.74	1.2	A	634	951	79.29	5.00	0.88	79.30	5.00

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1068	267	28	2318	0.460	1064	918	0.0	0.9	2.892	A
2 - Parkway	555	139	907	906	0.612	549	185	0.0	1.5	9.905	A
3 - A4155 (West)	520	130	428	1445	0.360	518	1027	0.0	0.6	3.910	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1275	319	33	2314	0.551	1273	1095	0.9	1.2	3.489	A
2 - Parkway	663	166	1085	798	0.831	652	222	1.5	4.3	23.102	C
3 - A4155 (West)	621	155	508	1392	0.446	620	1228	0.6	0.8	4.702	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1561	390	41	2308	0.676	1558	1220	1.2	2.1	4.824	A
2 - Parkway	811	203	1327	650	1.249	643	271	4.3	46.4	156.993	F
3 - A4155 (West)	761	190	501	1397	0.545	759	1468	0.8	1.2	5.687	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1561	390	41	2308	0.676	1561	1225	2.1	2.1	4.868	A
2 - Parkway	811	203	1330	648	1.252	647	272	46.4	87.4	363.152	F
3 - A4155 (West)	761	190	505	1394	0.546	761	1472	1.2	1.2	5.736	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1275	319	33	2314	0.551	1278	1202	2.1	1.2	3.520	A
2 - Parkway	663	166	1089	795	0.833	786	223	87.4	56.5	326.112	F
3 - A4155 (West)	621	155	613	1323	0.470	622	1262	1.2	0.9	5.198	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1068	267	28	2318	0.461	1069	1097	1.2	0.9	2.913	A
2 - Parkway	555	139	911	904	0.614	774	186	56.5	1.7	78.292	F
3 - A4155 (West)	520	130	604	1329	0.391	521	1081	0.9	0.7	4.506	A

Queueing Delay Results for each time segment
16:45 - 17:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	12.55	0.84	2.892	A
2 - Parkway	21.41	1.43	9.905	A
3 - A4155 (West)	8.24	0.55	3.910	A

17:00 - 17:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	18.01	1.20	3.489	A
2 - Parkway	54.66	3.64	23.102	C
3 - A4155 (West)	11.80	0.79	4.702	A

17:15 - 17:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	29.97	2.00	4.824	A
2 - Parkway	387.50	25.83	156.993	F
3 - A4155 (West)	17.31	1.15	5.687	A

17:30 - 17:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	31.32	2.09	4.868	A
2 - Parkway	1004.28	66.95	363.152	F
3 - A4155 (West)	17.98	1.20	5.736	A

17:45 - 18:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	19.27	1.28	3.520	A
2 - Parkway	1079.68	71.98	326.112	F
3 - A4155 (West)	13.91	0.93	5.198	A

18:00 - 18:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	13.26	0.88	2.913	A
2 - Parkway	296.95	19.80	78.292	F
3 - A4155 (West)	10.05	0.67	4.506	A

(Default Analysis Set) - 2027 Base + STS Prop Dev Traffic, AM 0700-0800

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4155 - Parkway Roundabout	Standard Roundabout		1, 2, 3	5.62	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.62	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
D10	2027 Base + STS Prop Dev Traffic	AM 0700-0800	ONE HOUR	06:45	08:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A4155 (East)		ONE HOUR	✓	1323	100.000
2 - Parkway		ONE HOUR	✓	124	100.000
3 - A4155 (West)		ONE HOUR	✓	1040	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
		1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)	0	603	720	
2 - Parkway	104	0	20	
3 - A4155 (West)	965	75	0	

Proportions

From	To			
		1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)	0.00	0.46	0.54	
2 - Parkway	0.84	0.00	0.16	
3 - A4155 (West)	0.93	0.07	0.00	

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)	0	1	3	
2 - Parkway	1	0	0	
3 - A4155 (West)	2	0	0	

Average PCU Per Veh

From	To			
		1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)	1.000	1.010	1.030	
2 - Parkway	1.010	1.000	1.000	
3 - A4155 (West)	1.020	1.000	1.000	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
06:45-07:00	1 - A4155 (East)	996	996
	2 - Parkway	93	93
	3 - A4155 (West)	783	783
07:00-07:15	1 - A4155 (East)	1189	1189
	2 - Parkway	111	111
	3 - A4155 (West)	935	935
07:15-07:30	1 - A4155 (East)	1457	1457
	2 - Parkway	137	137
	3 - A4155 (West)	1145	1145
07:30-07:45	1 - A4155 (East)	1457	1457
	2 - Parkway	137	137
	3 - A4155 (West)	1145	1145
07:45-08:00	1 - A4155 (East)	1189	1189
	2 - Parkway	111	111
	3 - A4155 (West)	935	935
08:00-08:15	1 - A4155 (East)	996	996
	2 - Parkway	93	93
	3 - A4155 (West)	783	783

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
1 - A4155 (East)	0.64	4.49	1.8	A	1214	1821	109.69	3.61	1.22	109.70	3.61
2 - Parkway	0.14	4.32	0.2	A	114	171	11.12	3.91	0.12	11.12	3.91
3 - A4155 (West)	0.69	7.22	2.3	A	954	1431	131.71	5.52	1.46	131.72	5.52

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	996	249	56	2296	0.434	993	801	0.0	0.8	2.813	A
2 - Parkway	93	23	540	1130	0.083	93	509	0.0	0.1	3.502	A
3 - A4155 (West)	783	196	78	1677	0.467	779	555	0.0	0.9	4.071	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1189	297	67	2287	0.520	1188	959	0.8	1.1	3.339	A
2 - Parkway	111	28	647	1065	0.105	111	609	0.1	0.1	3.806	A
3 - A4155 (West)	935	234	93	1667	0.561	933	665	0.9	1.3	4.989	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1457	364	82	2275	0.640	1454	1173	1.1	1.8	4.460	A
2 - Parkway	137	34	791	977	0.140	136	745	0.1	0.2	4.318	A
3 - A4155 (West)	1145	286	114	1653	0.693	1141	813	1.3	2.2	7.114	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1457	364	83	2275	0.640	1457	1177	1.8	1.8	4.490	A
2 - Parkway	137	34	793	976	0.140	137	746	0.2	0.2	4.325	A
3 - A4155 (West)	1145	286	115	1653	0.693	1145	815	2.2	2.3	7.216	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1189	297	68	2287	0.520	1192	965	1.8	1.1	3.367	A
2 - Parkway	111	28	649	1064	0.105	112	611	0.2	0.1	3.813	A
3 - A4155 (West)	935	234	94	1666	0.561	939	667	2.3	1.3	5.066	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	996	249	57	2295	0.434	997	806	1.1	0.8	2.835	A
2 - Parkway	93	23	543	1128	0.083	93	511	0.1	0.1	3.510	A
3 - A4155 (West)	783	196	78	1677	0.467	785	558	1.3	0.9	4.118	A

Queueing Delay Results for each time segment
06:45 - 07:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	11.41	0.76	2.813	A
2 - Parkway	1.33	0.09	3.502	A
3 - A4155 (West)	12.86	0.86	4.071	A

07:00 - 07:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	16.12	1.07	3.339	A
2 - Parkway	1.74	0.12	3.806	A
3 - A4155 (West)	18.72	1.25	4.989	A

07:15 - 07:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	25.99	1.73	4.460	A
2 - Parkway	2.40	0.16	4.318	A
3 - A4155 (West)	31.92	2.13	7.114	A

07:30 - 07:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	27.00	1.80	4.490	A
2 - Parkway	2.45	0.16	4.325	A
3 - A4155 (West)	33.87	2.26	7.216	A

07:45 - 08:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	17.15	1.14	3.367	A
2 - Parkway	1.81	0.12	3.813	A
3 - A4155 (West)	20.50	1.37	5.066	A

08:00 - 08:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	12.02	0.80	2.835	A
2 - Parkway	1.39	0.09	3.510	A
3 - A4155 (West)	13.84	0.92	4.118	A

(Default Analysis Set) - 2027 Base + STS Prop Dev Traffic, AM 0800-0900

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4155 - Parkway Roundabout	Standard Roundabout		1, 2, 3	11.69	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	11.69	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
D11	2027 Base + STS Prop Dev Traffic	AM 0800-0900	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A4155 (East)		ONE HOUR	✓	1758	100.000
2 - Parkway		ONE HOUR	✓	191	100.000
3 - A4155 (West)		ONE HOUR	✓	1094	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)	0	951	807
2 - Parkway	158	0	33
3 - A4155 (West)	921	173	0

Proportions

From	To		
	1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)	0.00	0.54	0.46
2 - Parkway	0.83	0.00	0.17
3 - A4155 (West)	0.84	0.16	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)	0	1	2
2 - Parkway	6	0	3
3 - A4155 (West)	2	0	0

Average PCU Per Veh

From	To		
	1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)	1.000	1.010	1.020
2 - Parkway	1.060	1.000	1.030
3 - A4155 (West)	1.020	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	1 - A4155 (East)	1324	1324
	2 - Parkway	144	144
	3 - A4155 (West)	824	824
08:00-08:15	1 - A4155 (East)	1580	1580
	2 - Parkway	172	172
	3 - A4155 (West)	983	983
08:15-08:30	1 - A4155 (East)	1936	1936
	2 - Parkway	210	210
	3 - A4155 (West)	1205	1205
08:30-08:45	1 - A4155 (East)	1936	1936
	2 - Parkway	210	210
	3 - A4155 (West)	1205	1205
08:45-09:00	1 - A4155 (East)	1580	1580
	2 - Parkway	172	172
	3 - A4155 (West)	983	983
09:00-09:15	1 - A4155 (East)	1324	1324
	2 - Parkway	144	144
	3 - A4155 (West)	824	824

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
1 - A4155 (East)	0.88	14.10	7.3	B	1613	2420	317.82	7.88	3.53	317.85	7.88
2 - Parkway	0.23	5.37	0.3	A	175	263	20.46	4.67	0.23	20.46	4.67
3 - A4155 (West)	0.75	8.94	2.9	A	1004	1506	160.93	6.41	1.79	160.95	6.41

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1324	331	130	2238	0.592	1318	808	0.0	1.5	3.947	A
2 - Parkway	144	36	605	1090	0.132	143	842	0.0	0.2	4.006	A
3 - A4155 (West)	824	206	118	1650	0.499	820	630	0.0	1.0	4.387	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1580	395	155	2217	0.713	1576	968	1.5	2.5	5.662	A
2 - Parkway	172	43	724	1018	0.169	171	1008	0.2	0.2	4.484	A
3 - A4155 (West)	983	246	142	1635	0.602	981	753	1.0	1.5	5.586	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1936	484	190	2190	0.884	1918	1183	2.5	6.9	12.671	B
2 - Parkway	210	53	880	922	0.228	210	1227	0.2	0.3	5.328	A
3 - A4155 (West)	1205	301	174	1614	0.747	1199	917	1.5	2.9	8.714	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1936	484	190	2189	0.884	1934	1188	6.9	7.3	14.096	B
2 - Parkway	210	53	888	918	0.229	210	1237	0.3	0.3	5.366	A
3 - A4155 (West)	1205	301	174	1613	0.747	1204	924	2.9	2.9	8.935	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1580	395	156	2216	0.713	1599	975	7.3	2.6	6.090	A
2 - Parkway	172	43	734	1011	0.170	172	1021	0.3	0.2	4.526	A
3 - A4155 (West)	983	246	142	1634	0.602	989	764	2.9	1.6	5.722	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1324	331	131	2237	0.592	1328	814	2.6	1.5	4.037	A
2 - Parkway	144	36	610	1087	0.132	144	849	0.2	0.2	4.025	A
3 - A4155 (West)	824	206	119	1650	0.499	826	634	1.6	1.0	4.454	A

Queueing Delay Results for each time segment
07:45 - 08:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	21.02	1.40	3.947	A
2 - Parkway	2.34	0.16	4.006	A
3 - A4155 (West)	14.54	0.97	4.387	A

08:00 - 08:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	35.30	2.35	5.662	A
2 - Parkway	3.14	0.21	4.484	A
3 - A4155 (West)	21.92	1.46	5.586	A

08:15 - 08:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	89.70	5.98	12.671	B
2 - Parkway	4.54	0.30	5.328	A
3 - A4155 (West)	40.45	2.70	8.714	A

08:30 - 08:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	106.70	7.11	14.096	B
2 - Parkway	4.67	0.31	5.366	A
3 - A4155 (West)	43.78	2.92	8.935	A

08:45 - 09:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	42.07	2.80	6.090	A
2 - Parkway	3.32	0.22	4.526	A
3 - A4155 (West)	24.44	1.63	5.722	A

09:00 - 09:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	23.04	1.54	4.037	A
2 - Parkway	2.46	0.16	4.025	A
3 - A4155 (West)	15.80	1.05	4.454	A

(Default Analysis Set) - 2027 Base + STS Prop Dev Traffic, PM 1700-1800

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A4155 - Parkway Roundabout	Standard Roundabout		1, 2, 3	85.74	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	85.74	F

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
D12	2027 Base + STS Prop Dev Traffic	PM 1700-1800	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A4155 (East)		ONE HOUR	✓	1384	100.000
2 - Parkway		ONE HOUR	✓	737	100.000
3 - A4155 (West)		ONE HOUR	✓	682	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)	0	210	1174
2 - Parkway	575	0	162
3 - A4155 (West)	645	37	0

Proportions

From	To		
	1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)	0.00	0.15	0.85
2 - Parkway	0.78	0.00	0.22
3 - A4155 (West)	0.95	0.05	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)	0	1	1
2 - Parkway	0	0	0
3 - A4155 (West)	1	0	0

Average PCU Per Veh

From	To		
	1 - A4155 (East)	2 - Parkway	3 - A4155 (West)
1 - A4155 (East)	1.000	1.010	1.010
2 - Parkway	1.000	1.000	1.000
3 - A4155 (West)	1.010	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:45-17:00	1 - A4155 (East)	1042	1042
	2 - Parkway	555	555
	3 - A4155 (West)	513	513
17:00-17:15	1 - A4155 (East)	1244	1244
	2 - Parkway	663	663
	3 - A4155 (West)	613	613
17:15-17:30	1 - A4155 (East)	1524	1524
	2 - Parkway	811	811
	3 - A4155 (West)	751	751
17:30-17:45	1 - A4155 (East)	1524	1524
	2 - Parkway	811	811
	3 - A4155 (West)	751	751
17:45-18:00	1 - A4155 (East)	1244	1244
	2 - Parkway	663	663
	3 - A4155 (West)	613	613
18:00-18:15	1 - A4155 (East)	1042	1042
	2 - Parkway	555	555
	3 - A4155 (West)	513	513

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
1 - A4155 (East)	0.66	4.64	1.9	A	1270	1905	117.14	3.69	1.30	117.15	3.69
2 - Parkway	1.21	312.07	76.3	F	676	1014	2334.89	138.10	25.94	2334.97	138.11
3 - A4155 (West)	0.54	5.75	1.2	A	626	939	77.71	4.97	0.86	77.72	4.97

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1042	260	28	2318	0.449	1039	912	0.0	0.8	2.834	A
2 - Parkway	555	139	881	922	0.602	549	185	0.0	1.5	9.511	A
3 - A4155 (West)	513	128	428	1445	0.355	511	1002	0.0	0.6	3.879	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1244	311	33	2314	0.538	1243	1088	0.8	1.2	3.389	A
2 - Parkway	663	166	1054	816	0.812	653	222	1.5	3.8	20.936	C
3 - A4155 (West)	613	153	510	1391	0.441	612	1198	0.6	0.8	4.658	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1524	381	41	2308	0.660	1521	1226	1.2	1.9	4.599	A
2 - Parkway	811	203	1290	673	1.207	663	271	3.8	40.9	136.571	F
3 - A4155 (West)	751	188	517	1386	0.542	749	1436	0.8	1.2	5.693	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1524	381	41	2308	0.660	1524	1233	1.9	1.9	4.636	A
2 - Parkway	811	203	1293	671	1.209	670	272	40.9	76.3	312.072	F
3 - A4155 (West)	751	188	523	1383	0.543	751	1440	1.2	1.2	5.751	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1244	311	33	2314	0.538	1247	1208	1.9	1.2	3.420	A
2 - Parkway	663	166	1058	814	0.814	803	223	76.3	41.0	262.802	F
3 - A4155 (West)	613	153	627	1314	0.467	614	1235	1.2	0.9	5.206	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A4155 (East)	1042	260	28	2318	0.449	1043	1043	1.2	0.8	2.854	A
2 - Parkway	555	139	885	919	0.603	713	186	41.0	1.6	35.614	E
3 - A4155 (West)	513	128	556	1361	0.377	515	1042	0.9	0.6	4.302	A

Queueing Delay Results for each time segment
16:45 - 17:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	12.02	0.80	2.834	A
2 - Parkway	20.60	1.37	9.511	A
3 - A4155 (West)	8.07	0.54	3.879	A

17:00 - 17:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	17.10	1.14	3.389	A
2 - Parkway	50.08	3.34	20.936	C
3 - A4155 (West)	11.54	0.77	4.658	A

17:15 - 17:30

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	27.97	1.86	4.599	A
2 - Parkway	344.44	22.96	136.571	F
3 - A4155 (West)	17.10	1.14	5.693	A

17:30 - 17:45

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	29.14	1.94	4.636	A
2 - Parkway	878.98	58.60	312.072	F
3 - A4155 (West)	17.78	1.19	5.751	A

17:45 - 18:00

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	18.24	1.22	3.420	A
2 - Parkway	879.73	58.65	262.802	F
3 - A4155 (West)	13.75	0.92	5.206	A

18:00 - 18:15

Arm	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A4155 (East)	12.67	0.84	2.854	A
2 - Parkway	161.05	10.74	35.614	E
3 - A4155 (West)	9.46	0.63	4.302	A

Junctions 10
ARCADY 10 - Roundabout Module
Version: 10.0.2.1574 © Copyright TRL Software Limited, 2021
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Filename: 2) A404_A4155 Westhorpe RBT.j10
 Path: N:\Projects\WIE18037\110 - Transport\5_Technical\Junctions 10\2022 Modelling
 Report generation date: 05/04/2022 17:37:11

- »2021 Base, AM 07:00-08:00
- »2021 Base, AM 08:00-09:00
- »2021 Base, PM 17:00-18:00
- »2027 Base, AM 07:00-08:00
- »2027 Base, AM 08:00-09:00
- »2027 Base, PM 17:00-18:00
- »2027 Base + Prop Dev Traffic, AM 07:00-08:00
- »2027 Base + Prop Dev Traffic, AM 08:00-09:00
- »2027 Base + Prop Dev Traffic, PM 17:00-18:00
- »2027 Base + STS Prop Dev Traffic, AM 07:00-08:00
- »2027 Base + STS Prop Dev Traffic, AM 08:00-09:00
- »2027 Base + STS Prop Dev Traffic, PM 17:00-18:00

Summary of junction performance

	AM 07:00-08:00			AM 08:00-09:00			PM 17:00-18:00		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
2021 Base									
1 - A404 (North)	0.8	4.87	0.43	2.5	10.56	0.72	3.2	14.37	0.77
2 - A4155 East	0.6	2.15	0.38	1.2	3.52	0.55	0.7	2.55	0.41
3 - A404 South	1.2	5.62	0.54	3.6	16.35	0.79	1.9	7.58	0.65
4 - A4155 West	0.6	2.14	0.38	0.7	2.29	0.40	1.0	2.83	0.50
2027 Base									
1 - A404 (North)	0.9	5.34	0.46	3.4	13.63	0.77	4.8	21.20	0.84
2 - A4155 East	0.7	2.25	0.40	1.4	3.90	0.58	0.8	2.72	0.44
3 - A404 South	1.4	6.30	0.58	5.5	24.80	0.86	2.3	8.98	0.70
4 - A4155 West	0.7	2.22	0.40	0.7	2.39	0.42	1.1	3.03	0.53
2027 Base + Prop Dev Traffic									
1 - A404 (North)	4.1	18.18	0.81	45.4	133.61	1.07	12.2	50.16	0.95
2 - A4155 East	0.7	2.35	0.43	1.6	4.21	0.62	2.0	4.54	0.67
3 - A404 South	2.4	9.33	0.71	20.2	76.44	1.00	11.7	46.30	0.95
4 - A4155 West	1.0	2.82	0.49	1.0	2.92	0.49	1.7	4.43	0.62
2027 Base + STS Prop Dev Traffic									
1 - A404 (North)	2.3	10.94	0.70	17.3	60.66	0.98	8.9	37.65	0.92
2 - A4155 East	0.7	2.32	0.42	1.6	4.22	0.62	1.5	3.81	0.60
3 - A404 South	2.1	8.22	0.67	14.4	58.53	0.97	5.9	23.59	0.87
4 - A4155 West	0.9	2.61	0.46	0.9	2.74	0.47	1.5	3.92	0.59

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

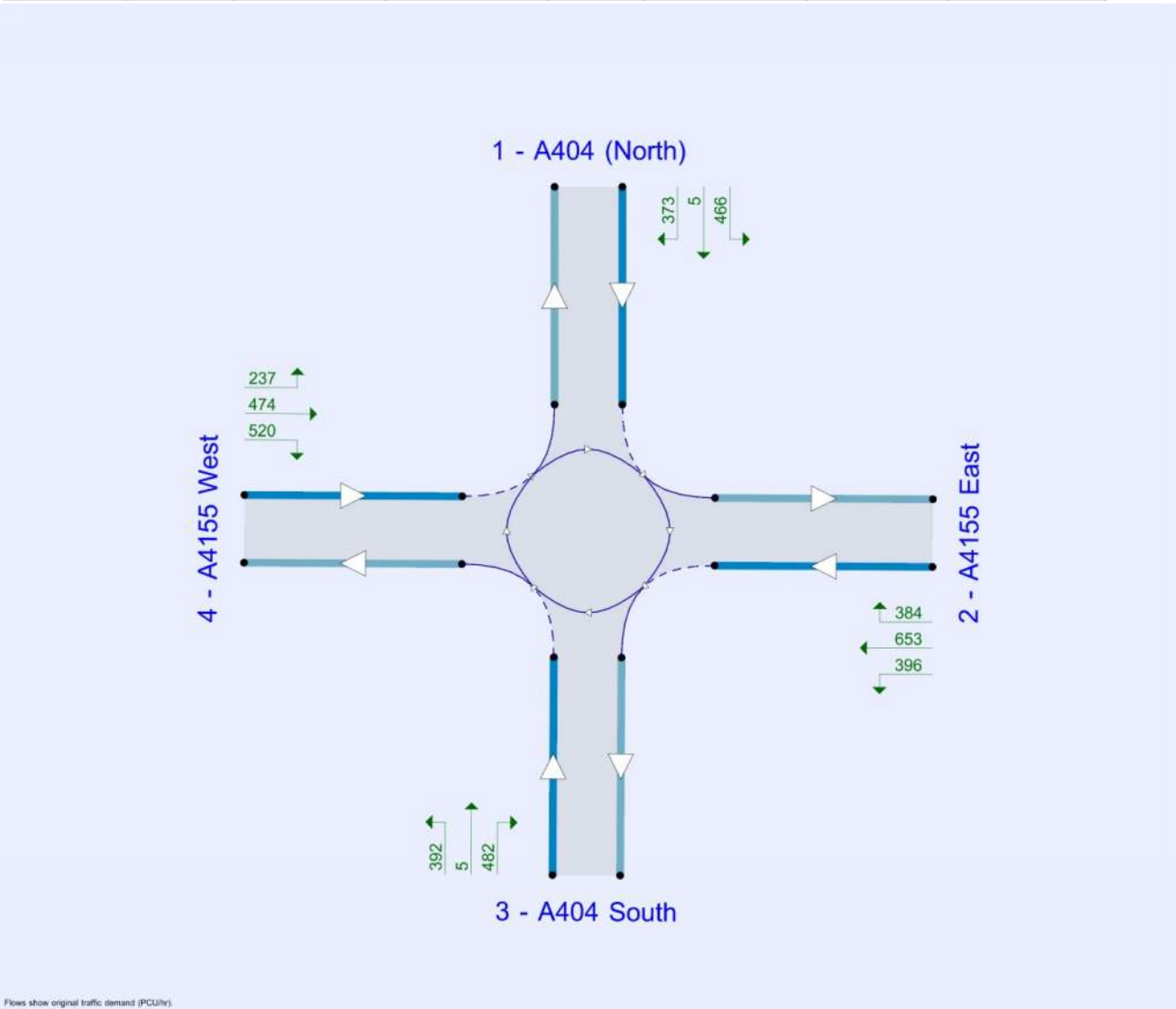
File summary

File Description

Title	A404 / A4155 Westhorpe Grade Separated Roundabout
Location	Marlow
Site number	
Date	17/03/2022
Version	
Status	
Identifier	
Client	
Jobnumber	WIE18037
Enumerator	Jack Wellings
Description	

Units

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



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	2021 Base	AM 07:00-08:00	ONE HOUR	06:45	08:15	15	✓
D2	2021 Base	AM 08:00-09:00	ONE HOUR	07:45	09:15	15	✓
D3	2021 Base	PM 17:00-18:00	ONE HOUR	16:45	18:15	15	✓
D4	2027 Base	AM 07:00-08:00	ONE HOUR	06:45	08:15	15	✓
D5	2027 Base	AM 08:00-09:00	ONE HOUR	07:45	09:15	15	✓
D6	2027 Base	PM 17:00-18:00	ONE HOUR	16:45	18:15	15	✓
D7	2027 Base + Prop Dev Traffic	AM 07:00-08:00	ONE HOUR	06:45	08:15	15	✓
D8	2027 Base + Prop Dev Traffic	AM 08:00-09:00	ONE HOUR	07:45	09:15	15	✓
D9	2027 Base + Prop Dev Traffic	PM 17:00-18:00	ONE HOUR	16:45	18:15	15	✓
D10	2027 Base + STS Prop Dev Traffic	AM 07:00-08:00	ONE HOUR	06:45	08:15	15	✓
D11	2027 Base + STS Prop Dev Traffic	AM 08:00-09:00	ONE HOUR	07:45	09:15	15	✓
D12	2027 Base + STS Prop Dev Traffic	PM 17:00-18:00	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

2021 Base, AM 07:00-08:00

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A404 / A4155 Westhorpe Grade Separated Roundabout	Large Roundabout		1, 2, 3, 4	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	A404 (North)		
2	A4155 East		
3	A404 South		
4	A4155 West		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - A404 (North)	6.03	6.29	1.0	38.8	96.0	39.0		
2 - A4155 East	7.30	9.57	15.0	39.1	89.0	18.0		
3 - A404 South	5.98	6.26	0.9	43.1	90.0	36.0		
4 - A4155 West	7.59	8.20	3.0	49.2	89.0	25.0		

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1 - A404 (North)	886	✓	89.00
2 - A4155 East	661	✓	10.00
3 - A404 South	878	✓	87.00
4 - A4155 West	408	✓	10.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A404 (North)	0.850	2327
2 - A4155 East	1.198	3547
3 - A404 South	0.867	2342
4 - A4155 West	1.159	3278

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2021 Base	AM 07:00-08:00	ONE HOUR	06:45	08:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A404 (North)		ONE HOUR	✓	511	100.000
2 - A4155 East		ONE HOUR	✓	944	100.000
3 - A404 South		ONE HOUR	✓	703	100.000
4 - A4155 West		ONE HOUR	✓	950	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	0	194	4	313
	2 - A4155 East	83	0	296	565
	3 - A404 South	0	324	0	379
	4 - A4155 West	195	451	304	0

Proportions

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	0.00	0.38	0.01	0.61
	2 - A4155 East	0.09	0.00	0.31	0.60
	3 - A404 South	0.00	0.46	0.00	0.54
	4 - A4155 West	0.21	0.47	0.32	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	0	1	0	3
	2 - A4155 East	1	0	0	1
	3 - A404 South	0	0	0	3
	4 - A4155 West	3	1	2	0

Average PCU Per Veh

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	1.000	1.010	1.000	1.030
	2 - A4155 East	1.010	1.000	1.000	1.010
	3 - A404 South	1.000	1.000	1.000	1.030
	4 - A4155 West	1.030	1.010	1.020	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
06:45-07:00	1 - A404 (North)	385	385
	2 - A4155 East	711	711
	3 - A404 South	529	529
	4 - A4155 West	715	715
07:00-07:15	1 - A404 (North)	459	459
	2 - A4155 East	849	849
	3 - A404 South	632	632
	4 - A4155 West	854	854
07:15-07:30	1 - A404 (North)	563	563
	2 - A4155 East	1039	1039
	3 - A404 South	774	774
	4 - A4155 West	1046	1046
07:30-07:45	1 - A404 (North)	563	563
	2 - A4155 East	1039	1039
	3 - A404 South	774	774
	4 - A4155 West	1046	1046
07:45-08:00	1 - A404 (North)	459	459
	2 - A4155 East	849	849
	3 - A404 South	632	632
	4 - A4155 West	854	854
08:00-08:15	1 - A404 (North)	385	385
	2 - A4155 East	711	711
	3 - A404 South	529	529
	4 - A4155 West	715	715

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-hr)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-hr/min)	Inclusive Total Queueing Delay (PCU-hr)	Inclusive Average Queueing Delay (s)
1 - A404 (North)	0.43	4.87	0.8	A	469	703	0.75	3.86	0.01	0.75	3.86
2 - A4155 East	0.38	2.15	0.6	A	866	1299	0.67	1.87	0.01	0.67	1.87
3 - A404 South	0.54	5.62	1.2	A	645	968	1.15	4.27	0.01	1.15	4.27
4 - A4155 West	0.38	2.14	0.6	A	872	1308	0.69	1.90	0.01	0.69	1.90

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	385	96	810	1638	0.235	383	209	0.0	0.3	2.929	A
2 - A4155 East	711	178	466	2989	0.238	709	728	0.0	0.3	1.590	A
3 - A404 South	529	132	722	1716	0.308	527	454	0.0	0.5	3.073	A
4 - A4155 West	715	179	305	2924	0.245	714	944	0.0	0.3	1.656	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	459	115	969	1503	0.306	459	250	0.3	0.4	3.520	A
2 - A4155 East	849	212	558	2879	0.295	848	870	0.3	0.4	1.784	A
3 - A404 South	632	158	863	1593	0.397	631	543	0.5	0.7	3.796	A
4 - A4155 West	854	214	365	2855	0.299	854	1129	0.3	0.4	1.829	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	563	141	1186	1319	0.427	561	306	0.4	0.8	4.849	A
2 - A4155 East	1039	260	683	2730	0.381	1039	1065	0.4	0.6	2.142	A
3 - A404 South	774	194	1057	1426	0.543	772	665	0.7	1.2	5.576	A
4 - A4155 West	1046	261	447	2760	0.379	1045	1382	0.4	0.6	2.134	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	563	141	1188	1318	0.427	563	306	0.8	0.8	4.873	A
2 - A4155 East	1039	260	684	2728	0.381	1039	1067	0.6	0.6	2.145	A
3 - A404 South	774	194	1058	1425	0.543	774	665	1.2	1.2	5.621	A
4 - A4155 West	1046	261	448	2759	0.379	1046	1384	0.6	0.6	2.137	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	459	115	972	1501	0.306	461	250	0.8	0.5	3.538	A
2 - A4155 East	849	212	559	2877	0.295	849	873	0.6	0.4	1.789	A
3 - A404 South	632	158	865	1592	0.397	634	543	1.2	0.7	3.826	A
4 - A4155 West	854	214	367	2853	0.299	855	1132	0.6	0.4	1.835	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	385	96	813	1636	0.235	385	209	0.5	0.3	2.942	A
2 - A4155 East	711	178	468	2987	0.238	711	730	0.4	0.3	1.594	A
3 - A404 South	529	132	724	1714	0.309	530	455	0.7	0.5	3.092	A
4 - A4155 West	715	179	307	2923	0.245	716	947	0.4	0.3	1.661	A

Queueing Delay Results for each time segment
06:45 - 07:00

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.08	0.01	2.929	A
2 - A4155 East	0.08	0.01	1.590	A
3 - A404 South	0.11	0.01	3.073	A
4 - A4155 West	0.08	0.01	1.656	A

07:00 - 07:15

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.11	0.01	3.520	A
2 - A4155 East	0.10	0.01	1.784	A
3 - A404 South	0.16	0.01	3.796	A
4 - A4155 West	0.11	0.01	1.829	A

07:15 - 07:30

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.18	0.01	4.849	A
2 - A4155 East	0.15	0.01	2.142	A
3 - A404 South	0.29	0.02	5.576	A
4 - A4155 West	0.15	0.01	2.134	A

07:30 - 07:45

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.19	0.01	4.873	A
2 - A4155 East	0.15	0.01	2.145	A
3 - A404 South	0.30	0.02	5.621	A
4 - A4155 West	0.15	0.01	2.137	A

07:45 - 08:00

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.12	0.01	3.538	A
2 - A4155 East	0.11	0.01	1.789	A
3 - A404 South	0.17	0.01	3.826	A
4 - A4155 West	0.11	0.01	1.835	A

08:00 - 08:15

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.08	0.01	2.942	A
2 - A4155 East	0.08	0.01	1.594	A
3 - A404 South	0.12	0.01	3.092	A
4 - A4155 West	0.08	0.01	1.661	A

2021 Base, AM 08:00-09:00

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A404 / A4155 Westhorpe Grade Separated Roundabout	Large Roundabout		1, 2, 3, 4	7.32	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.32	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1 - A404 (North)	1137	✓	89.00
2 - A4155 East	855	✓	10.00
3 - A404 South	1284	✓	87.00
4 - A4155 West	478	✓	10.00

Slope / Intercept / Capacity

[same as above]

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	2021 Base	AM 08:00-09:00	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A404 (North)		ONE HOUR	✓	799	100.000
2 - A4155 East		ONE HOUR	✓	1129	100.000
3 - A404 South		ONE HOUR	✓	737	100.000
4 - A4155 West		ONE HOUR	✓	985	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	0	253	5	541
	2 - A4155 East	128	0	277	724
	3 - A404 South	4	321	0	412
	4 - A4155 West	130	431	424	0

Proportions

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	0.00	0.32	0.01	0.68
	2 - A4155 East	0.11	0.00	0.25	0.64
	3 - A404 South	0.01	0.44	0.00	0.56
	4 - A4155 West	0.13	0.44	0.43	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	0	3	0	2
	2 - A4155 East	0	0	1	1
	3 - A404 South	0	1	0	2
	4 - A4155 West	7	0	3	0

Average PCU Per Veh

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	1.000	1.030	1.000	1.020
	2 - A4155 East	1.000	1.000	1.010	1.010
	3 - A404 South	1.000	1.010	1.000	1.020
	4 - A4155 West	1.070	1.000	1.030	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	1 - A404 (North)	602	602
	2 - A4155 East	850	850
	3 - A404 South	555	555
	4 - A4155 West	742	742
08:00-08:15	1 - A404 (North)	718	718
	2 - A4155 East	1015	1015
	3 - A404 South	663	663
	4 - A4155 West	885	885
08:15-08:30	1 - A404 (North)	880	880
	2 - A4155 East	1243	1243
	3 - A404 South	811	811
	4 - A4155 West	1085	1085
08:30-08:45	1 - A404 (North)	880	880
	2 - A4155 East	1243	1243
	3 - A404 South	811	811
	4 - A4155 West	1085	1085
08:45-09:00	1 - A404 (North)	718	718
	2 - A4155 East	1015	1015
	3 - A404 South	663	663
	4 - A4155 West	885	885
09:00-09:15	1 - A404 (North)	602	602
	2 - A4155 East	850	850
	3 - A404 South	555	555
	4 - A4155 West	742	742

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-hr)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-hr/min)	Inclusive Total Queueing Delay (PCU-hr)	Inclusive Average Queueing Delay (s)
1 - A404 (North)	0.72	10.56	2.5	B	733	1100	2.05	6.71	0.02	2.05	6.71
2 - A4155 East	0.55	3.52	1.2	A	1036	1554	1.18	2.73	0.01	1.18	2.73
3 - A404 South	0.79	16.35	3.6	C	676	1014	2.53	9.00	0.03	2.53	9.00
4 - A4155 West	0.40	2.29	0.7	A	904	1356	0.75	2.00	0.01	0.75	2.00

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	602	150	883	1559	0.386	599	197	0.0	0.6	3.828	A
2 - A4155 East	850	212	728	2665	0.319	848	754	0.0	0.5	1.997	A
3 - A404 South	555	139	1046	1419	0.391	552	530	0.0	0.6	4.203	A
4 - A4155 West	742	185	340	2874	0.258	740	1258	0.0	0.4	1.724	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	718	180	1056	1419	0.506	717	235	0.6	1.0	5.229	A
2 - A4155 East	1015	254	871	2500	0.406	1014	902	0.5	0.7	2.442	A
3 - A404 South	663	166	1251	1257	0.527	661	634	0.6	1.1	6.110	A
4 - A4155 West	885	221	406	2798	0.317	885	1505	0.4	0.5	1.923	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	880	220	1290	1231	0.715	874	288	1.0	2.5	10.152	B
2 - A4155 East	1243	311	1064	2278	0.546	1241	1100	0.7	1.2	3.493	A
3 - A404 South	811	203	1528	1037	0.783	802	776	1.1	3.4	15.036	C
4 - A4155 West	1085	271	495	2697	0.402	1084	1836	0.5	0.7	2.279	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	880	220	1294	1228	0.717	879	288	2.5	2.5	10.557	B
2 - A4155 East	1243	311	1068	2274	0.547	1243	1106	1.2	1.2	3.523	A
3 - A404 South	811	203	1534	1033	0.786	811	777	3.4	3.6	16.346	C
4 - A4155 West	1085	271	498	2692	0.403	1084	1846	0.7	0.7	2.287	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	718	180	1062	1415	0.508	724	236	2.5	1.1	5.378	A
2 - A4155 East	1015	254	876	2494	0.407	1017	910	1.2	0.7	2.463	A
3 - A404 South	663	166	1258	1251	0.529	672	636	3.6	1.2	6.415	A
4 - A4155 West	885	221	412	2791	0.317	886	1518	0.7	0.5	1.931	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	602	150	887	1556	0.387	603	197	1.1	0.6	3.873	A
2 - A4155 East	850	212	732	2660	0.319	851	758	0.7	0.5	2.009	A
3 - A404 South	555	139	1051	1416	0.392	557	532	1.2	0.7	4.266	A
4 - A4155 West	742	185	342	2871	0.258	742	1265	0.5	0.4	1.729	A

Queueing Delay Results for each time segment
07:45 - 08:00

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.16	0.01	3.828	A
2 - A4155 East	0.12	0.01	1.997	A
3 - A404 South	0.16	0.01	4.203	A
4 - A4155 West	0.09	0.01	1.724	A

08:00 - 08:15

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.25	0.02	5.229	A
2 - A4155 East	0.17	0.01	2.442	A
3 - A404 South	0.27	0.02	6.110	A
4 - A4155 West	0.12	0.01	1.923	A

08:15 - 08:30

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.57	0.04	10.152	B
2 - A4155 East	0.29	0.02	3.493	A
3 - A404 South	0.76	0.05	15.036	C
4 - A4155 West	0.17	0.01	2.279	A

08:30 - 08:45

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.63	0.04	10.557	B
2 - A4155 East	0.30	0.02	3.523	A
3 - A404 South	0.87	0.06	16.346	C
4 - A4155 West	0.17	0.01	2.287	A

08:45 - 09:00

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.28	0.02	5.378	A
2 - A4155 East	0.18	0.01	2.463	A
3 - A404 South	0.31	0.02	6.415	A
4 - A4155 West	0.12	0.01	1.931	A

09:00 - 09:15

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.17	0.01	3.873	A
2 - A4155 East	0.12	0.01	2.009	A
3 - A404 South	0.17	0.01	4.266	A
4 - A4155 West	0.09	0.01	1.729	A

2021 Base, PM 17:00-18:00

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A404 / A4155 Westhorpe Grade Separated Roundabout	Large Roundabout		1, 2, 3, 4	6.21	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.21	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1 - A404 (North)	1213	✓	89.00
2 - A4155 East	799	✓	10.00
3 - A404 South	1027	✓	87.00
4 - A4155 West	429	✓	10.00

Slope / Intercept / Capacity

[same as above]

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	2021 Base	PM 17:00-18:00	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A404 (North)		ONE HOUR	✓	748	100.000
2 - A4155 East		ONE HOUR	✓	908	100.000
3 - A404 South		ONE HOUR	✓	811	100.000
4 - A4155 West		ONE HOUR	✓	1151	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	0	386	4	358
	2 - A4155 East	141	0	254	513
	3 - A404 South	5	429	0	377
	4 - A4155 West	228	424	499	0

Proportions

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	0.00	0.52	0.01	0.48
	2 - A4155 East	0.16	0.00	0.28	0.56
	3 - A404 South	0.01	0.53	0.00	0.46
	4 - A4155 West	0.20	0.37	0.43	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	0	1	100	0
	2 - A4155 East	0	0	0	0
	3 - A404 South	0	0	0	2
	4 - A4155 West	1	0	0	0

Average PCU Per Veh

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	1.000	1.010	2.000	1.000
	2 - A4155 East	1.000	1.000	1.000	1.000
	3 - A404 South	1.000	1.000	1.000	1.020
	4 - A4155 West	1.010	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:45-17:00	1 - A404 (North)	563	563
	2 - A4155 East	684	684
	3 - A404 South	611	611
	4 - A4155 West	867	867
17:00-17:15	1 - A404 (North)	672	672
	2 - A4155 East	816	816
	3 - A404 South	729	729
	4 - A4155 West	1035	1035
17:15-17:30	1 - A404 (North)	824	824
	2 - A4155 East	1000	1000
	3 - A404 South	893	893
	4 - A4155 West	1267	1267
17:30-17:45	1 - A404 (North)	824	824
	2 - A4155 East	1000	1000
	3 - A404 South	893	893
	4 - A4155 West	1267	1267
17:45-18:00	1 - A404 (North)	672	672
	2 - A4155 East	816	816
	3 - A404 South	729	729
	4 - A4155 West	1035	1035
18:00-18:15	1 - A404 (North)	563	563
	2 - A4155 East	684	684
	3 - A404 South	611	611
	4 - A4155 West	867	867

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-hr)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-hr/min)	Inclusive Total Queueing Delay (PCU-hr)	Inclusive Average Queueing Delay (s)
1 - A404 (North)	0.77	14.37	3.2	B	686	1030	2.36	8.25	0.03	2.36	8.25
2 - A4155 East	0.41	2.55	0.7	A	833	1250	0.74	2.13	0.01	0.74	2.13
3 - A404 South	0.65	7.58	1.9	A	744	1116	1.64	5.29	0.02	1.64	5.29
4 - A4155 West	0.50	2.83	1.0	A	1056	1584	1.03	2.35	0.01	1.03	2.35

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	563	141	1015	1449	0.389	561	281	0.0	0.6	4.074	A
2 - A4155 East	684	171	646	2763	0.247	682	930	0.0	0.3	1.730	A
3 - A404 South	611	153	760	1670	0.366	608	569	0.0	0.6	3.416	A
4 - A4155 West	867	217	431	2775	0.312	865	937	0.0	0.5	1.885	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	672	168	1214	1291	0.521	671	336	0.6	1.1	5.830	A
2 - A4155 East	816	204	773	2616	0.312	816	1112	0.3	0.5	2.000	A
3 - A404 South	729	182	909	1545	0.472	728	680	0.6	0.9	4.442	A
4 - A4155 West	1035	259	516	2678	0.386	1034	1120	0.5	0.6	2.193	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	824	206	1485	1077	0.765	816	411	1.1	3.1	13.493	B
2 - A4155 East	1000	250	943	2417	0.414	999	1358	0.5	0.7	2.537	A
3 - A404 South	893	223	1110	1376	0.649	889	833	0.9	1.8	7.412	A
4 - A4155 West	1267	317	631	2545	0.498	1266	1368	0.6	1.0	2.817	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	824	206	1488	1074	0.766	823	412	3.1	3.2	14.368	B
2 - A4155 East	1000	250	948	2412	0.415	1000	1364	0.7	0.7	2.548	A
3 - A404 South	893	223	1114	1372	0.651	893	833	1.8	1.9	7.575	A
4 - A4155 West	1267	317	633	2543	0.498	1267	1374	1.0	1.0	2.827	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	672	168	1219	1288	0.522	681	337	3.2	1.1	6.057	A
2 - A4155 East	816	204	779	2609	0.313	817	1121	0.7	0.5	2.011	A
3 - A404 South	729	182	914	1540	0.474	733	681	1.9	0.9	4.525	A
4 - A4155 West	1035	259	519	2674	0.387	1036	1128	1.0	0.6	2.205	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	563	141	1019	1445	0.390	565	282	1.1	0.6	4.129	A
2 - A4155 East	684	171	649	2759	0.248	684	935	0.5	0.3	1.737	A
3 - A404 South	611	153	763	1667	0.366	612	570	0.9	0.6	3.447	A
4 - A4155 West	867	217	434	2773	0.313	867	941	0.6	0.5	1.895	A

Queueing Delay Results for each time segment

16:45 - 17:00

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.15	0.01	4.074	A
2 - A4155 East	0.08	0.01	1.730	A
3 - A404 South	0.14	0.01	3.416	A
4 - A4155 West	0.11	0.01	1.885	A

17:00 - 17:15

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.26	0.02	5.830	A
2 - A4155 East	0.11	0.01	2.000	A
3 - A404 South	0.22	0.01	4.442	A
4 - A4155 West	0.16	0.01	2.193	A

17:15 - 17:30

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.69	0.05	13.493	B
2 - A4155 East	0.17	0.01	2.537	A
3 - A404 South	0.43	0.03	7.412	A
4 - A4155 West	0.24	0.02	2.817	A

17:30 - 17:45

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.79	0.05	14.368	B
2 - A4155 East	0.18	0.01	2.548	A
3 - A404 South	0.46	0.03	7.575	A
4 - A4155 West	0.25	0.02	2.827	A

17:45 - 18:00

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.30	0.02	6.057	A
2 - A4155 East	0.12	0.01	2.011	A
3 - A404 South	0.24	0.02	4.525	A
4 - A4155 West	0.16	0.01	2.205	A

18:00 - 18:15

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.17	0.01	4.129	A
2 - A4155 East	0.08	0.01	1.737	A
3 - A404 South	0.15	0.01	3.447	A
4 - A4155 West	0.12	0.01	1.895	A

2027 Base, AM 07:00-08:00

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A404 / A4155 Westhorpe Grade Separated Roundabout	Large Roundabout		1, 2, 3, 4	3.66	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.66	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1 - A404 (North)	917	✓	89.00
2 - A4155 East	684	✓	10.00
3 - A404 South	909	✓	87.00
4 - A4155 West	423	✓	10.00

Slope / Intercept / Capacity

[same as above]

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	AM 07:00-08:00	ONE HOUR	06:45	08:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A404 (North)		ONE HOUR	✓	532	100.000
2 - A4155 East		ONE HOUR	✓	982	100.000
3 - A404 South		ONE HOUR	✓	732	100.000
4 - A4155 West		ONE HOUR	✓	990	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	0	202	4	326
	2 - A4155 East	86	0	308	588
	3 - A404 South	0	337	0	395
	4 - A4155 West	203	470	317	0

Proportions

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	0.00	0.38	0.01	0.61
	2 - A4155 East	0.09	0.00	0.31	0.60
	3 - A404 South	0.00	0.46	0.00	0.54
	4 - A4155 West	0.21	0.47	0.32	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	0	1	0	3
	2 - A4155 East	1	0	0	1
	3 - A404 South	0	0	0	3
	4 - A4155 West	3	1	2	0

Average PCU Per Veh

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	1.000	1.010	1.000	1.030
	2 - A4155 East	1.010	1.000	1.000	1.010
	3 - A404 South	1.000	1.000	1.000	1.030
	4 - A4155 West	1.030	1.010	1.020	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
06:45-07:00	1 - A404 (North)	401	401
	2 - A4155 East	739	739
	3 - A404 South	551	551
	4 - A4155 West	745	745
07:00-07:15	1 - A404 (North)	478	478
	2 - A4155 East	883	883
	3 - A404 South	658	658
	4 - A4155 West	890	890
07:15-07:30	1 - A404 (North)	586	586
	2 - A4155 East	1081	1081
	3 - A404 South	806	806
	4 - A4155 West	1090	1090
07:30-07:45	1 - A404 (North)	586	586
	2 - A4155 East	1081	1081
	3 - A404 South	806	806
	4 - A4155 West	1090	1090
07:45-08:00	1 - A404 (North)	478	478
	2 - A4155 East	883	883
	3 - A404 South	658	658
	4 - A4155 West	890	890
08:00-08:15	1 - A404 (North)	401	401
	2 - A4155 East	739	739
	3 - A404 South	551	551
	4 - A4155 West	745	745

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-hr)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-hr/min)	Inclusive Total Queueing Delay (PCU-hr)	Inclusive Average Queueing Delay (s)
1 - A404 (North)	0.46	5.34	0.9	A	488	732	0.84	4.13	0.01	0.84	4.13
2 - A4155 East	0.40	2.25	0.7	A	901	1352	0.73	1.94	0.01	0.73	1.94
3 - A404 South	0.58	6.30	1.4	A	672	1008	1.30	4.64	0.01	1.30	4.64
4 - A4155 West	0.40	2.22	0.7	A	908	1363	0.74	1.96	0.01	0.74	1.96

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	401	100	844	1607	0.249	399	217	0.0	0.3	3.043	A
2 - A4155 East	739	185	486	2963	0.250	738	758	0.0	0.3	1.629	A
3 - A404 South	551	138	751	1688	0.327	549	473	0.0	0.5	3.206	A
4 - A4155 West	745	186	317	2908	0.256	744	983	0.0	0.3	1.692	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	478	120	1010	1468	0.326	478	260	0.3	0.5	3.715	A
2 - A4155 East	883	221	581	2849	0.310	882	906	0.3	0.5	1.842	A
3 - A404 South	658	165	898	1561	0.422	657	565	0.5	0.7	4.042	A
4 - A4155 West	890	222	380	2836	0.314	890	1176	0.3	0.5	1.880	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	586	146	1236	1277	0.459	584	318	0.5	0.9	5.303	A
2 - A4155 East	1081	270	711	2694	0.401	1080	1109	0.5	0.7	2.245	A
3 - A404 South	806	201	1100	1388	0.581	803	692	0.7	1.4	6.232	A
4 - A4155 West	1090	273	464	2738	0.398	1089	1438	0.5	0.7	2.219	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	586	146	1238	1275	0.459	586	318	0.9	0.9	5.335	A
2 - A4155 East	1081	270	712	2693	0.402	1081	1111	0.7	0.7	2.248	A
3 - A404 South	806	201	1101	1386	0.581	806	693	1.4	1.4	6.300	A
4 - A4155 West	1090	273	466	2737	0.398	1090	1441	0.7	0.7	2.223	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	478	120	1012	1465	0.326	480	260	0.9	0.5	3.737	A
2 - A4155 East	883	221	583	2847	0.310	884	909	0.7	0.5	1.848	A
3 - A404 South	658	165	900	1559	0.422	661	566	1.4	0.7	4.082	A
4 - A4155 West	890	222	382	2834	0.314	891	1180	0.7	0.5	1.887	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	401	100	847	1605	0.250	401	218	0.5	0.3	3.060	A
2 - A4155 East	739	185	488	2961	0.250	740	761	0.5	0.3	1.631	A
3 - A404 South	551	138	754	1686	0.327	552	474	0.7	0.5	3.231	A
4 - A4155 West	745	186	319	2906	0.256	746	987	0.5	0.4	1.694	A

Queueing Delay Results for each time segment
06:45 - 07:00

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.08	0.01	3.043	A
2 - A4155 East	0.08	0.01	1.629	A
3 - A404 South	0.12	0.01	3.206	A
4 - A4155 West	0.09	0.01	1.692	A

07:00 - 07:15

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.12	0.01	3.715	A
2 - A4155 East	0.11	0.01	1.842	A
3 - A404 South	0.18	0.01	4.042	A
4 - A4155 West	0.11	0.01	1.880	A

07:15 - 07:30

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.21	0.01	5.303	A
2 - A4155 East	0.17	0.01	2.245	A
3 - A404 South	0.33	0.02	6.232	A
4 - A4155 West	0.17	0.01	2.219	A

07:30 - 07:45

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.22	0.01	5.335	A
2 - A4155 East	0.17	0.01	2.248	A
3 - A404 South	0.35	0.02	6.300	A
4 - A4155 West	0.17	0.01	2.223	A

07:45 - 08:00

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.13	0.01	3.737	A
2 - A4155 East	0.11	0.01	1.848	A
3 - A404 South	0.19	0.01	4.082	A
4 - A4155 West	0.12	0.01	1.887	A

08:00 - 08:15

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.09	0.01	3.060	A
2 - A4155 East	0.08	0.01	1.631	A
3 - A404 South	0.13	0.01	3.231	A
4 - A4155 West	0.09	0.01	1.694	A

2027 Base, AM 08:00-09:00

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A404 / A4155 Westhorpe Grade Separated Roundabout	Large Roundabout		1, 2, 3, 4	9.85	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.85	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1 - A404 (North)	1177	✓	89.00
2 - A4155 East	885	✓	10.00
3 - A404 South	1329	✓	87.00
4 - A4155 West	494	✓	10.00

Slope / Intercept / Capacity

[same as above]

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	AM 08:00-09:00	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A404 (North)		ONE HOUR	✓	832	100.000
2 - A4155 East		ONE HOUR	✓	1174	100.000
3 - A404 South		ONE HOUR	✓	768	100.000
4 - A4155 West		ONE HOUR	✓	1026	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	0	264	5	563
	2 - A4155 East	133	0	288	753
	3 - A404 South	4	335	0	429
	4 - A4155 West	135	449	442	0

Proportions

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	0.00	0.32	0.01	0.68
	2 - A4155 East	0.11	0.00	0.25	0.64
	3 - A404 South	0.01	0.44	0.00	0.56
	4 - A4155 West	0.13	0.44	0.43	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	0	3	0	2
	2 - A4155 East	0	0	1	1
	3 - A404 South	0	1	0	2
	4 - A4155 West	7	0	3	0

Average PCU Per Veh

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	1.000	1.030	1.000	1.020
	2 - A4155 East	1.000	1.000	1.010	1.010
	3 - A404 South	1.000	1.010	1.000	1.020
	4 - A4155 West	1.070	1.000	1.030	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	1 - A404 (North)	626	626
	2 - A4155 East	884	884
	3 - A404 South	578	578
	4 - A4155 West	772	772
08:00-08:15	1 - A404 (North)	748	748
	2 - A4155 East	1055	1055
	3 - A404 South	690	690
	4 - A4155 West	922	922
08:15-08:30	1 - A404 (North)	916	916
	2 - A4155 East	1293	1293
	3 - A404 South	846	846
	4 - A4155 West	1130	1130
08:30-08:45	1 - A404 (North)	916	916
	2 - A4155 East	1293	1293
	3 - A404 South	846	846
	4 - A4155 West	1130	1130
08:45-09:00	1 - A404 (North)	748	748
	2 - A4155 East	1055	1055
	3 - A404 South	690	690
	4 - A4155 West	922	922
09:00-09:15	1 - A404 (North)	626	626
	2 - A4155 East	884	884
	3 - A404 South	578	578
	4 - A4155 West	772	772

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-hr)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-hr/min)	Inclusive Total Queueing Delay (PCU-hr)	Inclusive Average Queueing Delay (s)
1 - A404 (North)	0.77	13.63	3.4	B	763	1145	2.53	7.96	0.03	2.53	7.96
2 - A4155 East	0.58	3.90	1.4	A	1077	1616	1.32	2.93	0.01	1.32	2.94
3 - A404 South	0.86	24.80	5.5	C	705	1057	3.45	11.76	0.04	3.45	11.76
4 - A4155 West	0.42	2.39	0.7	A	941	1412	0.81	2.08	0.01	0.81	2.08

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	626	157	920	1526	0.411	624	204	0.0	0.7	4.070	A
2 - A4155 East	884	221	758	2629	0.336	882	786	0.0	0.5	2.077	A
3 - A404 South	578	145	1087	1385	0.418	575	552	0.0	0.7	4.499	A
4 - A4155 West	772	193	354	2855	0.271	771	1309	0.0	0.4	1.765	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	748	187	1101	1382	0.541	746	244	0.7	1.2	5.771	A
2 - A4155 East	1055	264	906	2459	0.429	1054	940	0.5	0.8	2.584	A
3 - A404 South	690	173	1301	1218	0.567	688	660	0.7	1.3	6.872	A
4 - A4155 West	922	231	423	2776	0.332	922	1565	0.4	0.5	1.983	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	916	229	1343	1189	0.770	908	299	1.2	3.2	12.727	B
2 - A4155 East	1293	323	1106	2231	0.579	1290	1144	0.8	1.4	3.851	A
3 - A404 South	846	211	1588	992	0.852	831	808	1.3	5.0	20.952	C
4 - A4155 West	1130	282	513	2674	0.422	1129	1906	0.5	0.7	2.379	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	916	229	1349	1184	0.773	915	299	3.2	3.4	13.634	B
2 - A4155 East	1293	323	1112	2224	0.581	1293	1153	1.4	1.4	3.897	A
3 - A404 South	846	211	1595	987	0.857	844	809	5.0	5.5	24.803	C
4 - A4155 West	1130	282	519	2667	0.424	1130	1920	0.7	0.7	2.391	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	748	187	1110	1375	0.544	756	245	3.4	1.2	6.039	A
2 - A4155 East	1055	264	914	2450	0.431	1058	952	1.4	0.8	2.612	A
3 - A404 South	690	173	1310	1210	0.571	707	662	5.5	1.4	7.495	A
4 - A4155 West	922	231	432	2766	0.333	923	1585	0.7	0.5	1.996	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	626	157	925	1523	0.411	628	205	1.2	0.7	4.128	A
2 - A4155 East	884	221	762	2624	0.337	885	791	0.8	0.5	2.090	A
3 - A404 South	578	145	1093	1380	0.419	581	554	1.4	0.7	4.585	A
4 - A4155 West	772	193	357	2852	0.271	773	1317	0.5	0.4	1.768	A

Queueing Delay Results for each time segment

07:45 - 08:00

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.17	0.01	4.070	A
2 - A4155 East	0.13	0.01	2.077	A
3 - A404 South	0.17	0.01	4.499	A
4 - A4155 West	0.09	0.01	1.765	A

08:00 - 08:15

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.29	0.02	5.771	A
2 - A4155 East	0.19	0.01	2.584	A
3 - A404 South	0.31	0.02	6.872	A
4 - A4155 West	0.13	0.01	1.983	A

08:15 - 08:30

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.73	0.05	12.727	B
2 - A4155 East	0.33	0.02	3.851	A
3 - A404 South	1.06	0.07	20.952	C
4 - A4155 West	0.18	0.01	2.379	A

08:30 - 08:45

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.83	0.06	13.634	B
2 - A4155 East	0.35	0.02	3.897	A
3 - A404 South	1.33	0.09	24.803	C
4 - A4155 West	0.19	0.01	2.391	A

08:45 - 09:00

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.33	0.02	6.039	A
2 - A4155 East	0.20	0.01	2.612	A
3 - A404 South	0.38	0.03	7.495	A
4 - A4155 West	0.13	0.01	1.996	A

09:00 - 09:15

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.18	0.01	4.128	A
2 - A4155 East	0.13	0.01	2.090	A
3 - A404 South	0.19	0.01	4.585	A
4 - A4155 West	0.10	0.01	1.768	A

2027 Base, PM 17:00-18:00

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A404 / A4155 Westhorpe Grade Separated Roundabout	Large Roundabout		1, 2, 3, 4	8.05	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.05	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1 - A404 (North)	1256	✓	89.00
2 - A4155 East	828	✓	10.00
3 - A404 South	1065	✓	87.00
4 - A4155 West	445	✓	10.00

Slope / Intercept / Capacity

[same as above]

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	PM 17:00-18:00	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A404 (North)		ONE HOUR	✓	781	100.000
2 - A4155 East		ONE HOUR	✓	945	100.000
3 - A404 South		ONE HOUR	✓	844	100.000
4 - A4155 West		ONE HOUR	✓	1199	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	0	403	5	373
	2 - A4155 East	147	0	264	534
	3 - A404 South	5	447	0	392
	4 - A4155 West	237	442	520	0

Proportions

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	0.00	0.52	0.01	0.48
	2 - A4155 East	0.16	0.00	0.28	0.57
	3 - A404 South	0.01	0.53	0.00	0.46
	4 - A4155 West	0.20	0.37	0.43	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	0	1	100	0
	2 - A4155 East	0	0	0	0
	3 - A404 South	0	0	0	2
	4 - A4155 West	1	0	0	0

Average PCU Per Veh

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	1.000	1.010	2.000	1.000
	2 - A4155 East	1.000	1.000	1.000	1.000
	3 - A404 South	1.000	1.000	1.000	1.020
	4 - A4155 West	1.010	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:45-17:00	1 - A404 (North)	588	588
	2 - A4155 East	711	711
	3 - A404 South	635	635
	4 - A4155 West	903	903
17:00-17:15	1 - A404 (North)	702	702
	2 - A4155 East	850	850
	3 - A404 South	759	759
	4 - A4155 West	1078	1078
17:15-17:30	1 - A404 (North)	860	860
	2 - A4155 East	1040	1040
	3 - A404 South	929	929
	4 - A4155 West	1320	1320
17:30-17:45	1 - A404 (North)	860	860
	2 - A4155 East	1040	1040
	3 - A404 South	929	929
	4 - A4155 West	1320	1320
17:45-18:00	1 - A404 (North)	702	702
	2 - A4155 East	850	850
	3 - A404 South	759	759
	4 - A4155 West	1078	1078
18:00-18:15	1 - A404 (North)	588	588
	2 - A4155 East	711	711
	3 - A404 South	635	635
	4 - A4155 West	903	903

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-hr)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-hr/min)	Inclusive Total Queueing Delay (PCU-hr)	Inclusive Average Queueing Delay (s)
1 - A404 (North)	0.84	21.20	4.8	C	717	1075	3.18	10.63	0.04	3.18	10.63
2 - A4155 East	0.44	2.72	0.8	A	867	1301	0.81	2.24	0.01	0.81	2.24
3 - A404 South	0.70	8.98	2.3	A	774	1162	1.92	5.95	0.02	1.92	5.95
4 - A4155 West	0.53	3.03	1.1	A	1100	1650	1.13	2.47	0.01	1.13	2.47

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	588	147	1058	1413	0.416	585	292	0.0	0.7	4.369	A
2 - A4155 East	711	178	674	2729	0.261	710	969	0.0	0.4	1.783	A
3 - A404 South	635	159	791	1640	0.387	633	593	0.0	0.6	3.598	A
4 - A4155 West	903	226	449	2753	0.328	901	975	0.0	0.5	1.946	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	702	176	1265	1251	0.561	700	349	0.7	1.3	6.563	A
2 - A4155 East	850	212	806	2576	0.330	849	1159	0.4	0.5	2.084	A
3 - A404 South	759	190	946	1511	0.502	757	709	0.6	1.0	4.810	A
4 - A4155 West	1078	269	538	2651	0.407	1077	1166	0.5	0.7	2.290	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	860	215	1547	1030	0.835	847	428	1.3	4.5	18.661	C
2 - A4155 East	1040	260	982	2373	0.439	1039	1413	0.5	0.8	2.697	A
3 - A404 South	929	232	1153	1338	0.694	924	868	1.0	2.2	8.678	A
4 - A4155 West	1320	330	657	2514	0.525	1318	1421	0.7	1.1	3.013	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	860	215	1551	1027	0.837	859	428	4.5	4.8	21.200	C
2 - A4155 East	1040	260	988	2365	0.440	1040	1422	0.8	0.8	2.717	A
3 - A404 South	929	232	1160	1333	0.697	929	869	2.2	2.3	8.984	A
4 - A4155 West	1320	330	659	2511	0.526	1320	1430	1.1	1.1	3.028	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	702	176	1271	1247	0.563	716	350	4.8	1.3	7.020	A
2 - A4155 East	850	212	815	2566	0.331	851	1172	0.8	0.5	2.100	A
3 - A404 South	759	190	955	1503	0.505	764	710	2.3	1.0	4.943	A
4 - A4155 West	1078	269	541	2647	0.407	1080	1177	1.1	0.7	2.303	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	588	147	1062	1410	0.417	590	293	1.3	0.7	4.443	A
2 - A4155 East	711	178	678	2725	0.261	712	975	0.5	0.4	1.791	A
3 - A404 South	635	159	795	1637	0.388	637	595	1.0	0.6	3.639	A
4 - A4155 West	903	226	452	2750	0.328	903	980	0.7	0.5	1.954	A

Queueing Delay Results for each time segment
16:45 - 17:00

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.17	0.01	4.369	A
2 - A4155 East	0.09	0.01	1.783	A
3 - A404 South	0.15	0.01	3.598	A
4 - A4155 West	0.12	0.01	1.946	A

17:00 - 17:15

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.30	0.02	6.563	A
2 - A4155 East	0.12	0.01	2.084	A
3 - A404 South	0.24	0.02	4.810	A
4 - A4155 West	0.17	0.01	2.290	A

17:15 - 17:30

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.97	0.06	18.661	C
2 - A4155 East	0.19	0.01	2.697	A
3 - A404 South	0.52	0.03	8.678	A
4 - A4155 West	0.27	0.02	3.013	A

17:30 - 17:45

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	1.18	0.08	21.200	C
2 - A4155 East	0.20	0.01	2.717	A
3 - A404 South	0.56	0.04	8.984	A
4 - A4155 West	0.28	0.02	3.028	A

17:45 - 18:00

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.36	0.02	7.020	A
2 - A4155 East	0.13	0.01	2.100	A
3 - A404 South	0.27	0.02	4.943	A
4 - A4155 West	0.18	0.01	2.303	A

18:00 - 18:15

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.19	0.01	4.443	A
2 - A4155 East	0.09	0.01	1.791	A
3 - A404 South	0.16	0.01	3.639	A
4 - A4155 West	0.12	0.01	1.954	A

2027 Base + Prop Dev Traffic, AM 07:00-08:00

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A404 / A4155 Westthorpe Grade Separated Roundabout	Large Roundabout		1, 2, 3, 4	7.30	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.30	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1 - A404 (North)	1116	✓	89.00
2 - A4155 East	684	✓	10.00
3 - A404 South	942	✓	87.00
4 - A4155 West	534	✓	10.00

Slope / Intercept / Capacity

[same as above]

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 + Prop Dev Traffic	AM 07:00-08:00	ONE HOUR	06:45	08:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A404 (North)		ONE HOUR	✓	772	100.000
2 - A4155 East		ONE HOUR	✓	1045	100.000
3 - A404 South		ONE HOUR	✓	865	100.000
4 - A4155 West		ONE HOUR	✓	1110	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	0	442	4	326
	2 - A4155 East	117	0	325	603
	3 - A404 South	0	470	0	395
	4 - A4155 West	203	590	317	0

Proportions

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	0.00	0.57	0.01	0.42
	2 - A4155 East	0.11	0.00	0.31	0.58
	3 - A404 South	0.00	0.54	0.00	0.46
	4 - A4155 West	0.18	0.53	0.29	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	0	1	0	3
	2 - A4155 East	1	0	0	1
	3 - A404 South	0	0	0	3
	4 - A4155 West	3	1	2	0

Average PCU Per Veh

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	1.000	1.010	1.000	1.030
	2 - A4155 East	1.010	1.000	1.000	1.010
	3 - A404 South	1.000	1.000	1.000	1.030
	4 - A4155 West	1.030	1.010	1.020	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
06:45-07:00	1 - A404 (North)	581	581
	2 - A4155 East	787	787
	3 - A404 South	651	651
	4 - A4155 West	836	836
07:00-07:15	1 - A404 (North)	694	694
	2 - A4155 East	939	939
	3 - A404 South	778	778
	4 - A4155 West	998	998
07:15-07:30	1 - A404 (North)	850	850
	2 - A4155 East	1151	1151
	3 - A404 South	952	952
	4 - A4155 West	1222	1222
07:30-07:45	1 - A404 (North)	850	850
	2 - A4155 East	1151	1151
	3 - A404 South	952	952
	4 - A4155 West	1222	1222
07:45-08:00	1 - A404 (North)	694	694
	2 - A4155 East	939	939
	3 - A404 South	778	778
	4 - A4155 West	998	998
08:00-08:15	1 - A404 (North)	581	581
	2 - A4155 East	787	787
	3 - A404 South	651	651
	4 - A4155 West	836	836

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-hr)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-hr/min)	Inclusive Total Queueing Delay (PCU-hr)	Inclusive Average Queueing Delay (s)
1 - A404 (North)	0.81	18.18	4.1	C	708	1063	2.84	9.62	0.03	2.84	9.62
2 - A4155 East	0.43	2.35	0.7	A	959	1438	0.80	2.00	0.01	0.80	2.00
3 - A404 South	0.71	9.33	2.4	A	794	1191	2.02	6.10	0.02	2.02	6.10
4 - A4155 West	0.49	2.82	1.0	A	1019	1528	1.00	2.36	0.01	1.00	2.36

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	581	145	1034	1438	0.404	578	240	0.0	0.7	4.250	A
2 - A4155 East	787	197	485	2963	0.265	785	1127	0.0	0.4	1.664	A
3 - A404 South	651	163	785	1655	0.393	649	485	0.0	0.7	3.615	A
4 - A4155 West	836	209	440	2751	0.304	834	994	0.0	0.4	1.906	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	694	174	1236	1274	0.545	692	287	0.7	1.2	6.270	A
2 - A4155 East	939	235	581	2850	0.330	939	1348	0.4	0.5	1.896	A
3 - A404 South	778	194	939	1524	0.510	776	580	0.7	1.0	4.869	A
4 - A4155 West	998	249	527	2653	0.376	997	1188	0.4	0.6	2.208	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	850	212	1512	1052	0.808	839	352	1.2	3.9	16.471	C
2 - A4155 East	1151	288	707	2699	0.426	1150	1644	0.5	0.7	2.339	A
3 - A404 South	952	238	1146	1347	0.707	947	711	1.0	2.4	9.015	A
4 - A4155 West	1222	306	643	2522	0.485	1221	1450	0.6	1.0	2.810	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	850	212	1516	1049	0.811	849	352	3.9	4.1	18.183	C
2 - A4155 East	1151	288	712	2693	0.427	1151	1653	0.7	0.7	2.349	A
3 - A404 South	952	238	1151	1342	0.709	952	711	2.4	2.4	9.334	A
4 - A4155 West	1222	306	646	2518	0.485	1222	1457	1.0	1.0	2.822	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	694	174	1242	1270	0.546	706	288	4.1	1.2	6.621	A
2 - A4155 East	939	235	587	2842	0.331	940	1361	0.7	0.5	1.908	A
3 - A404 South	778	194	946	1518	0.512	783	581	2.4	1.1	5.000	A
4 - A4155 West	998	249	531	2649	0.377	999	1198	1.0	0.6	2.219	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	581	145	1038	1435	0.405	583	241	1.2	0.7	4.318	A
2 - A4155 East	787	197	488	2960	0.266	787	1133	0.5	0.4	1.667	A
3 - A404 South	651	163	789	1652	0.394	653	487	1.1	0.7	3.654	A
4 - A4155 West	836	209	443	2748	0.304	836	999	0.6	0.4	1.916	A

Queueing Delay Results for each time segment
06:45 - 07:00

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.17	0.01	4.250	A
2 - A4155 East	0.09	0.01	1.664	A
3 - A404 South	0.16	0.01	3.615	A
4 - A4155 West	0.11	0.01	1.906	A

07:00 - 07:15

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.29	0.02	6.270	A
2 - A4155 East	0.12	0.01	1.896	A
3 - A404 South	0.25	0.02	4.869	A
4 - A4155 West	0.15	0.01	2.208	A

07:15 - 07:30

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.86	0.06	16.471	C
2 - A4155 East	0.18	0.01	2.339	A
3 - A404 South	0.55	0.04	9.015	A
4 - A4155 West	0.23	0.02	2.810	A

07:30 - 07:45

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	1.01	0.07	18.183	C
2 - A4155 East	0.19	0.01	2.349	A
3 - A404 South	0.60	0.04	9.334	A
4 - A4155 West	0.24	0.02	2.822	A

07:45 - 08:00

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.34	0.02	6.621	A
2 - A4155 East	0.13	0.01	1.908	A
3 - A404 South	0.28	0.02	5.000	A
4 - A4155 West	0.16	0.01	2.219	A

08:00 - 08:15

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.18	0.01	4.318	A
2 - A4155 East	0.09	0.01	1.667	A
3 - A404 South	0.17	0.01	3.654	A
4 - A4155 West	0.11	0.01	1.916	A

2027 Base + Prop Dev Traffic, AM 08:00-09:00

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A404 / A4155 Westhorpe Grade Separated Roundabout	Large Roundabout		1, 2, 3, 4	49.03	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	49.03	E

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1 - A404 (North)	1323	✓	89.00
2 - A4155 East	885	✓	10.00
3 - A404 South	1384	✓	87.00
4 - A4155 West	595	✓	10.00

Slope / Intercept / Capacity

[same as above]

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 + Prop Dev Traffic	AM 08:00-09:00	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A404 (North)		ONE HOUR	✓	1007	100.000
2 - A4155 East		ONE HOUR	✓	1283	100.000
3 - A404 South		ONE HOUR	✓	865	100.000
4 - A4155 West		ONE HOUR	✓	1114	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	0	439	5	563
	2 - A4155 East	186	0	317	780
	3 - A404 South	4	432	0	429
	4 - A4155 West	135	537	442	0

Proportions

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	0.00	0.44	0.00	0.56
	2 - A4155 East	0.14	0.00	0.25	0.61
	3 - A404 South	0.00	0.50	0.00	0.50
	4 - A4155 West	0.12	0.48	0.40	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	0	3	0	2
	2 - A4155 East	0	0	1	1
	3 - A404 South	0	1	0	2
	4 - A4155 West	7	0	3	0

Average PCU Per Veh

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	1.000	1.030	1.000	1.020
	2 - A4155 East	1.000	1.000	1.010	1.010
	3 - A404 South	1.000	1.010	1.000	1.020
	4 - A4155 West	1.070	1.000	1.030	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	1 - A404 (North)	758	758
	2 - A4155 East	966	966
	3 - A404 South	651	651
	4 - A4155 West	839	839
08:00-08:15	1 - A404 (North)	905	905
	2 - A4155 East	1153	1153
	3 - A404 South	778	778
	4 - A4155 West	1001	1001
08:15-08:30	1 - A404 (North)	1109	1109
	2 - A4155 East	1413	1413
	3 - A404 South	952	952
	4 - A4155 West	1227	1227
08:30-08:45	1 - A404 (North)	1109	1109
	2 - A4155 East	1413	1413
	3 - A404 South	952	952
	4 - A4155 West	1227	1227
08:45-09:00	1 - A404 (North)	905	905
	2 - A4155 East	1153	1153
	3 - A404 South	778	778
	4 - A4155 West	1001	1001
09:00-09:15	1 - A404 (North)	758	758
	2 - A4155 East	966	966
	3 - A404 South	651	651
	4 - A4155 West	839	839

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-hr)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-hr/min)	Inclusive Total Queueing Delay (PCU-hr)	Inclusive Average Queueing Delay (s)
1 - A404 (North)	1.07	133.61	45.4	F	924	1386	18.01	46.79	0.20	18.01	46.79
2 - A4155 East	0.62	4.21	1.6	A	1177	1766	1.56	3.18	0.02	1.56	3.18
3 - A404 South	1.00	76.44	20.2	F	794	1191	8.95	27.05	0.10	8.95	27.05
4 - A4155 West	0.49	2.92	1.0	A	1022	1533	1.04	2.43	0.01	1.04	2.43

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	758	190	1059	1410	0.538	753	244	0.0	1.2	5.581	A
2 - A4155 East	966	241	757	2630	0.367	964	1055	0.0	0.6	2.176	A
3 - A404 South	651	163	1147	1337	0.487	647	574	0.0	1.0	5.269	A
4 - A4155 West	839	210	466	2714	0.309	837	1328	0.0	0.5	1.954	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	905	226	1266	1250	0.724	900	292	1.2	2.6	10.355	B
2 - A4155 East	1153	288	905	2461	0.469	1152	1261	0.6	0.9	2.771	A
3 - A404 South	778	194	1370	1164	0.668	774	686	1.0	2.0	9.257	A
4 - A4155 West	1001	250	557	2613	0.383	1001	1587	0.5	0.6	2.276	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	1109	277	1529	1048	1.058	1015	357	2.6	25.9	63.577	F
2 - A4155 East	1413	353	1059	2285	0.618	1410	1485	0.9	1.6	4.134	A
3 - A404 South	952	238	1629	964	0.988	905	839	2.0	13.9	44.298	E
4 - A4155 West	1227	307	660	2497	0.491	1225	1873	0.6	1.0	2.884	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	1109	277	1541	1038	1.068	1031	358	25.9	45.4	133.610	F
2 - A4155 East	1413	353	1068	2274	0.621	1413	1504	1.6	1.6	4.213	A
3 - A404 South	952	238	1640	956	0.997	927	841	13.9	20.2	76.440	F
4 - A4155 West	1227	307	672	2484	0.494	1226	1895	1.0	1.0	2.918	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	905	226	1305	1220	0.742	1074	293	45.4	3.2	48.698	E
2 - A4155 East	1153	288	1004	2348	0.491	1156	1375	1.6	1.0	3.052	A
3 - A404 South	778	194	1471	1086	0.716	848	689	20.2	2.7	19.580	C
4 - A4155 West	1001	250	595	2571	0.390	1003	1724	1.0	0.7	2.345	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	758	190	1066	1404	0.540	766	245	3.2	1.2	5.854	A
2 - A4155 East	966	241	765	2620	0.369	967	1067	1.0	0.6	2.198	A
3 - A404 South	651	163	1157	1329	0.490	658	576	2.7	1.0	5.495	A
4 - A4155 West	839	210	472	2708	0.310	839	1343	0.7	0.5	1.965	A

Queueing Delay Results for each time segment
07:45 - 08:00

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.28	0.02	5.581	A
2 - A4155 East	0.14	0.01	2.176	A
3 - A404 South	0.23	0.02	5.269	A
4 - A4155 West	0.11	0.01	1.954	A

08:00 - 08:15

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.60	0.04	10.355	B
2 - A4155 East	0.22	0.01	2.771	A
3 - A404 South	0.47	0.03	9.257	A
4 - A4155 West	0.16	0.01	2.276	A

08:15 - 08:30

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	3.94	0.26	63.577	F
2 - A4155 East	0.39	0.03	4.134	A
3 - A404 South	2.38	0.16	44.298	E
4 - A4155 West	0.24	0.02	2.884	A

08:30 - 08:45

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	8.95	0.60	133.610	F
2 - A4155 East	0.41	0.03	4.213	A
3 - A404 South	4.31	0.29	76.440	F
4 - A4155 West	0.25	0.02	2.918	A

08:45 - 09:00

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	3.92	0.26	48.698	E
2 - A4155 East	0.25	0.02	3.052	A
3 - A404 South	1.31	0.09	19.580	C
4 - A4155 West	0.17	0.01	2.345	A

09:00 - 09:15

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.32	0.02	5.854	A
2 - A4155 East	0.15	0.01	2.198	A
3 - A404 South	0.26	0.02	5.495	A
4 - A4155 West	0.12	0.01	1.965	A

2027 Base + Prop Dev Traffic, PM 17:00-18:00

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A404 / A4155 Westhorpe Grade Separated Roundabout	Large Roundabout		1, 2, 3, 4	21.65	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	21.65	C

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1 - A404 (North)	1309	✓	89.00
2 - A4155 East	828	✓	10.00
3 - A404 South	1314	✓	87.00
4 - A4155 West	613	✓	10.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2027 Base + Prop Dev Traffic	PM 17:00-18:00	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A404 (North)		ONE HOUR	✓	844	100.000
2 - A4155 East		ONE HOUR	✓	1433	100.000
3 - A404 South		ONE HOUR	✓	879	100.000
4 - A4155 West		ONE HOUR	✓	1231	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	0	466	5	373
	2 - A4155 East	384	0	396	653
	3 - A404 South	5	482	0	392
	4 - A4155 West	237	474	520	0

Proportions

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	0.00	0.55	0.01	0.44
	2 - A4155 East	0.27	0.00	0.28	0.46
	3 - A404 South	0.01	0.55	0.00	0.45
	4 - A4155 West	0.19	0.39	0.42	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	0	1	100	0
	2 - A4155 East	0	0	0	0
	3 - A404 South	0	0	0	2
	4 - A4155 West	1	0	0	0

Average PCU Per Veh

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	1.000	1.010	2.000	1.000
	2 - A4155 East	1.000	1.000	1.000	1.000
	3 - A404 South	1.000	1.000	1.000	1.020
	4 - A4155 West	1.010	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:45-17:00	1 - A404 (North)	635	635
	2 - A4155 East	1079	1079
	3 - A404 South	662	662
	4 - A4155 West	927	927
17:00-17:15	1 - A404 (North)	759	759
	2 - A4155 East	1288	1288
	3 - A404 South	790	790
	4 - A4155 West	1107	1107
17:15-17:30	1 - A404 (North)	929	929
	2 - A4155 East	1578	1578
	3 - A404 South	968	968
	4 - A4155 West	1355	1355
17:30-17:45	1 - A404 (North)	929	929
	2 - A4155 East	1578	1578
	3 - A404 South	968	968
	4 - A4155 West	1355	1355
17:45-18:00	1 - A404 (North)	759	759
	2 - A4155 East	1288	1288
	3 - A404 South	790	790
	4 - A4155 West	1107	1107
18:00-18:15	1 - A404 (North)	635	635
	2 - A4155 East	1079	1079
	3 - A404 South	662	662
	4 - A4155 West	927	927

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-hr)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-hr/min)	Inclusive Total Queueing Delay (PCU-hr)	Inclusive Average Queueing Delay (s)
1 - A404 (North)	0.95	50.16	12.2	F	774	1162	6.01	18.62	0.07	6.01	18.62
2 - A4155 East	0.67	4.54	2.0	A	1315	1972	1.79	3.26	0.02	1.79	3.26
3 - A404 South	0.95	46.30	11.7	E	807	1210	5.91	17.59	0.07	5.91	17.59
4 - A4155 West	0.62	4.43	1.7	A	1130	1694	1.55	3.28	0.02	1.55	3.28

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	635	159	1107	1373	0.463	632	470	0.0	0.9	4.879	A
2 - A4155 East	1079	270	674	2729	0.395	1076	1066	0.0	0.7	2.171	A
3 - A404 South	662	165	1058	1408	0.470	658	692	0.0	0.9	4.819	A
4 - A4155 West	927	232	653	2504	0.370	924	1063	0.0	0.6	2.281	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	759	190	1324	1205	0.630	755	562	0.9	1.7	8.017	A
2 - A4155 East	1288	322	805	2577	0.500	1287	1274	0.7	1.0	2.789	A
3 - A404 South	790	198	1265	1246	0.634	787	827	0.9	1.7	7.862	A
4 - A4155 West	1107	277	781	2362	0.469	1105	1271	0.6	0.9	2.868	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	929	232	1606	987	0.941	898	687	1.7	9.5	33.216	D
2 - A4155 East	1578	394	973	2382	0.662	1574	1531	1.0	1.9	4.435	A
3 - A404 South	968	242	1536	1032	0.937	937	1012	1.7	9.3	31.519	D
4 - A4155 West	1355	339	941	2183	0.621	1352	1532	0.9	1.6	4.326	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	929	232	1620	977	0.952	918	689	9.5	12.2	50.161	F
2 - A4155 East	1578	394	984	2370	0.666	1578	1554	1.9	2.0	4.540	A
3 - A404 South	968	242	1547	1023	0.946	958	1014	9.3	11.7	46.296	E
4 - A4155 West	1355	339	954	2169	0.625	1355	1552	1.6	1.7	4.429	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	759	190	1351	1184	0.641	800	565	12.2	1.8	10.454	B
2 - A4155 East	1288	322	827	2551	0.505	1292	1324	2.0	1.0	2.868	A
3 - A404 South	790	198	1289	1227	0.644	830	831	11.7	1.9	10.021	B
4 - A4155 West	1107	277	806	2334	0.474	1110	1312	1.7	0.9	2.955	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	635	159	1114	1367	0.465	639	472	1.8	0.9	5.012	A
2 - A4155 East	1079	270	678	2724	0.396	1080	1075	1.0	0.7	2.193	A
3 - A404 South	662	165	1064	1404	0.471	666	694	1.9	0.9	4.948	A
4 - A4155 West	927	232	658	2498	0.371	928	1072	0.9	0.6	2.300	A

Queueing Delay Results for each time segment

16:45 - 17:00

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.21	0.01	4.879	A
2 - A4155 East	0.16	0.01	2.171	A
3 - A404 South	0.21	0.01	4.819	A
4 - A4155 West	0.14	0.01	2.281	A

17:00 - 17:15

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.40	0.03	8.017	A
2 - A4155 East	0.24	0.02	2.789	A
3 - A404 South	0.41	0.03	7.862	A
4 - A4155 West	0.22	0.01	2.868	A

17:15 - 17:30

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	1.77	0.12	33.216	D
2 - A4155 East	0.47	0.03	4.435	A
3 - A404 South	1.76	0.12	31.519	D
4 - A4155 West	0.39	0.03	4.326	A

17:30 - 17:45

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	2.76	0.18	50.161	F
2 - A4155 East	0.49	0.03	4.540	A
3 - A404 South	2.67	0.18	46.296	E
4 - A4155 West	0.41	0.03	4.429	A

17:45 - 18:00

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.65	0.04	10.454	B
2 - A4155 East	0.26	0.02	2.868	A
3 - A404 South	0.63	0.04	10.021	B
4 - A4155 West	0.23	0.02	2.955	A

18:00 - 18:15

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.23	0.02	5.012	A
2 - A4155 East	0.17	0.01	2.193	A
3 - A404 South	0.24	0.02	4.948	A
4 - A4155 West	0.15	0.01	2.300	A

2027 Base + STS Prop Dev Traffic, AM 07:00-08:00

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A404 / A4155 Westhorpe Grade Separated Roundabout	Large Roundabout		1, 2, 3, 4	5.42	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.42	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1 - A404 (North)	974	✓	89.00
2 - A4155 East	727	✓	10.00
3 - A404 South	966	✓	87.00
4 - A4155 West	448	✓	10.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2027 Base + STS Prop Dev Traffic	AM 07:00-08:00	ONE HOUR	06:45	08:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A404 (North)		ONE HOUR	✓	703	100.000
2 - A4155 East		ONE HOUR	✓	1027	100.000
3 - A404 South		ONE HOUR	✓	827	100.000
4 - A4155 West		ONE HOUR	✓	1076	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	0	373	4	326
	2 - A4155 East	108	0	320	599
	3 - A404 South	0	432	0	395
	4 - A4155 West	203	556	317	0

Proportions

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	0.00	0.53	0.01	0.46
	2 - A4155 East	0.11	0.00	0.31	0.58
	3 - A404 South	0.00	0.52	0.00	0.48
	4 - A4155 West	0.19	0.52	0.29	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	0	1	0	3
	2 - A4155 East	1	0	0	1
	3 - A404 South	0	0	0	3
	4 - A4155 West	3	1	2	0

Average PCU Per Veh

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	1.000	1.010	1.000	1.030
	2 - A4155 East	1.010	1.000	1.000	1.010
	3 - A404 South	1.000	1.000	1.000	1.030
	4 - A4155 West	1.030	1.010	1.020	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
06:45-07:00	1 - A404 (North)	529	529
	2 - A4155 East	773	773
	3 - A404 South	623	623
	4 - A4155 West	810	810
07:00-07:15	1 - A404 (North)	632	632
	2 - A4155 East	923	923
	3 - A404 South	743	743
	4 - A4155 West	967	967
07:15-07:30	1 - A404 (North)	774	774
	2 - A4155 East	1131	1131
	3 - A404 South	911	911
	4 - A4155 West	1185	1185
07:30-07:45	1 - A404 (North)	774	774
	2 - A4155 East	1131	1131
	3 - A404 South	911	911
	4 - A4155 West	1185	1185
07:45-08:00	1 - A404 (North)	632	632
	2 - A4155 East	923	923
	3 - A404 South	743	743
	4 - A4155 West	967	967
08:00-08:15	1 - A404 (North)	529	529
	2 - A4155 East	773	773
	3 - A404 South	623	623
	4 - A4155 West	810	810

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-hr)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-hr/min)	Inclusive Total Queueing Delay (PCU-hr)	Inclusive Average Queueing Delay (s)
1 - A404 (North)	0.70	10.94	2.3	B	645	968	1.84	6.85	0.02	1.84	6.85
2 - A4155 East	0.42	2.32	0.7	A	942	1414	0.78	1.99	0.01	0.78	1.99
3 - A404 South	0.67	8.22	2.1	A	759	1138	1.77	5.60	0.02	1.77	5.60
4 - A4155 West	0.46	2.61	0.9	A	987	1481	0.91	2.22	0.01	0.91	2.22

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	529	132	980	1490	0.355	527	234	0.0	0.6	3.804	A
2 - A4155 East	773	193	486	2958	0.261	772	1021	0.0	0.4	1.658	A
3 - A404 South	623	156	776	1662	0.375	620	482	0.0	0.6	3.499	A
4 - A4155 West	810	203	405	2803	0.289	808	991	0.0	0.4	1.832	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	632	158	1172	1329	0.475	631	279	0.6	0.9	5.239	A
2 - A4155 East	923	231	581	2846	0.324	923	1222	0.4	0.5	1.884	A
3 - A404 South	743	186	928	1532	0.485	742	576	0.6	0.9	4.613	A
4 - A4155 West	967	242	485	2712	0.357	967	1185	0.4	0.6	2.097	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	774	194	1434	1111	0.697	769	342	0.9	2.3	10.548	B
2 - A4155 East	1131	283	710	2694	0.420	1130	1493	0.5	0.7	2.317	A
3 - A404 South	911	228	1134	1357	0.671	906	705	0.9	2.0	8.031	A
4 - A4155 West	1185	296	592	2588	0.458	1184	1448	0.6	0.9	2.603	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	774	194	1437	1109	0.698	774	342	2.3	2.3	10.937	B
2 - A4155 East	1131	283	712	2690	0.420	1131	1498	0.7	0.7	2.323	A
3 - A404 South	911	228	1137	1354	0.673	910	706	2.0	2.1	8.225	A
4 - A4155 West	1185	296	594	2585	0.458	1185	1453	0.9	0.9	2.612	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	632	158	1176	1326	0.477	637	280	2.3	0.9	5.371	A
2 - A4155 East	923	231	585	2841	0.325	924	1229	0.7	0.5	1.893	A
3 - A404 South	743	186	932	1529	0.486	748	577	2.1	1.0	4.699	A
4 - A4155 West	967	242	488	2708	0.357	968	1192	0.9	0.6	2.105	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	529	132	984	1486	0.356	531	234	0.9	0.6	3.844	A
2 - A4155 East	773	193	488	2955	0.262	774	1026	0.5	0.4	1.661	A
3 - A404 South	623	156	779	1659	0.375	624	483	1.0	0.6	3.534	A
4 - A4155 West	810	203	407	2801	0.289	811	995	0.6	0.4	1.838	A

Queueing Delay Results for each time segment
06:45 - 07:00

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.14	0.01	3.804	A
2 - A4155 East	0.09	0.01	1.658	A
3 - A404 South	0.15	0.01	3.499	A
4 - A4155 West	0.10	0.01	1.832	A

07:00 - 07:15

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.22	0.01	5.239	A
2 - A4155 East	0.12	0.01	1.884	A
3 - A404 South	0.23	0.02	4.613	A
4 - A4155 West	0.14	0.01	2.097	A

07:15 - 07:30

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.52	0.03	10.548	B
2 - A4155 East	0.18	0.01	2.317	A
3 - A404 South	0.48	0.03	8.031	A
4 - A4155 West	0.21	0.01	2.603	A

07:30 - 07:45

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.57	0.04	10.937	B
2 - A4155 East	0.18	0.01	2.323	A
3 - A404 South	0.51	0.03	8.225	A
4 - A4155 West	0.21	0.01	2.612	A

07:45 - 08:00

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.24	0.02	5.371	A
2 - A4155 East	0.12	0.01	1.893	A
3 - A404 South	0.25	0.02	4.699	A
4 - A4155 West	0.14	0.01	2.105	A

08:00 - 08:15

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.15	0.01	3.844	A
2 - A4155 East	0.09	0.01	1.661	A
3 - A404 South	0.16	0.01	3.534	A
4 - A4155 West	0.10	0.01	1.838	A

2027 Base + STS Prop Dev Traffic, AM 08:00-09:00

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A404 / A4155 Westhorpe Grade Separated Roundabout	Large Roundabout		1, 2, 3, 4	27.89	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	27.89	D

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1 - A404 (North)	1251	✓	89.00
2 - A4155 East	940	✓	10.00
3 - A404 South	1412	✓	87.00
4 - A4155 West	525	✓	10.00

Slope / Intercept / Capacity

[same as above]

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
D11	2027 Base + STS Prop Dev Traffic	AM 08:00-09:00	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A404 (North)		ONE HOUR	✓	957	100.000
2 - A4155 East		ONE HOUR	✓	1252	100.000
3 - A404 South		ONE HOUR	✓	837	100.000
4 - A4155 West		ONE HOUR	✓	1088	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	0	389	5	563
	2 - A4155 East	171	0	309	772
	3 - A404 South	4	404	0	429
	4 - A4155 West	135	511	442	0

Proportions

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	0.00	0.41	0.01	0.59
	2 - A4155 East	0.14	0.00	0.25	0.62
	3 - A404 South	0.00	0.48	0.00	0.51
	4 - A4155 West	0.12	0.47	0.41	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	0	3	0	2
	2 - A4155 East	0	0	1	1
	3 - A404 South	0	1	0	2
	4 - A4155 West	7	0	3	0

Average PCU Per Veh

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	1.000	1.030	1.000	1.020
	2 - A4155 East	1.000	1.000	1.010	1.010
	3 - A404 South	1.000	1.010	1.000	1.020
	4 - A4155 West	1.070	1.000	1.030	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	1 - A404 (North)	720	720
	2 - A4155 East	943	943
	3 - A404 South	630	630
	4 - A4155 West	819	819
08:00-08:15	1 - A404 (North)	860	860
	2 - A4155 East	1126	1126
	3 - A404 South	752	752
	4 - A4155 West	978	978
08:15-08:30	1 - A404 (North)	1054	1054
	2 - A4155 East	1378	1378
	3 - A404 South	922	922
	4 - A4155 West	1198	1198
08:30-08:45	1 - A404 (North)	1054	1054
	2 - A4155 East	1378	1378
	3 - A404 South	922	922
	4 - A4155 West	1198	1198
08:45-09:00	1 - A404 (North)	860	860
	2 - A4155 East	1126	1126
	3 - A404 South	752	752
	4 - A4155 West	978	978
09:00-09:15	1 - A404 (North)	720	720
	2 - A4155 East	943	943
	3 - A404 South	630	630
	4 - A4155 West	819	819

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-hr)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-hr/min)	Inclusive Total Queueing Delay (PCU-hr)	Inclusive Average Queueing Delay (s)
1 - A404 (North)	0.98	60.66	17.3	F	878	1317	7.95	21.72	0.09	7.95	21.72
2 - A4155 East	0.62	4.22	1.6	A	1149	1723	1.49	3.12	0.02	1.49	3.12
3 - A404 South	0.97	58.53	14.4	F	768	1152	6.74	21.05	0.07	6.74	21.05
4 - A4155 West	0.47	2.74	0.9	A	998	1498	0.96	2.31	0.01	0.96	2.31

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	720	180	1018	1444	0.499	716	233	0.0	1.0	5.038	A
2 - A4155 East	943	236	757	2627	0.359	940	978	0.0	0.6	2.150	A
3 - A404 South	630	158	1130	1350	0.467	627	568	0.0	0.9	5.029	A
4 - A4155 West	819	205	434	2760	0.297	817	1322	0.0	0.4	1.888	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	860	215	1218	1288	0.668	856	278	1.0	2.0	8.460	A
2 - A4155 East	1126	281	905	2460	0.458	1124	1169	0.6	0.8	2.716	A
3 - A404 South	752	188	1351	1180	0.638	749	679	0.9	1.7	8.413	A
4 - A4155 West	978	245	519	2664	0.367	977	1581	0.4	0.6	2.178	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	1054	263	1476	1086	0.970	1011	341	2.0	12.6	37.495	E
2 - A4155 East	1378	345	1086	2255	0.611	1376	1401	0.8	1.6	4.115	A
3 - A404 South	922	230	1631	964	0.956	886	831	1.7	10.6	36.725	E
4 - A4155 West	1198	299	620	2549	0.470	1197	1897	0.6	0.9	2.713	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	1054	263	1487	1077	0.978	1035	341	12.6	17.3	60.656	F
2 - A4155 East	1378	345	1101	2239	0.616	1378	1421	1.6	1.6	4.219	A
3 - A404 South	922	230	1647	952	0.968	906	832	10.6	14.4	58.531	F
4 - A4155 West	1198	299	630	2538	0.472	1198	1923	0.9	0.9	2.741	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	860	215	1245	1267	0.679	920	279	17.3	2.2	12.487	B
2 - A4155 East	1126	281	944	2416	0.466	1128	1221	1.6	0.9	2.828	A
3 - A404 South	752	188	1391	1149	0.655	802	681	14.4	2.0	12.051	B
4 - A4155 West	978	245	545	2634	0.371	979	1648	0.9	0.6	2.221	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	720	180	1024	1440	0.500	725	234	2.2	1.0	5.193	A
2 - A4155 East	943	236	764	2620	0.360	944	986	0.9	0.6	2.167	A
3 - A404 South	630	158	1138	1344	0.469	634	570	2.0	0.9	5.184	A
4 - A4155 West	819	205	438	2755	0.297	820	1334	0.6	0.4	1.900	A

Queueing Delay Results for each time segment

07:45 - 08:00

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.24	0.02	5.038	A
2 - A4155 East	0.14	0.01	2.150	A
3 - A404 South	0.21	0.01	5.029	A
4 - A4155 West	0.11	0.01	1.888	A

08:00 - 08:15

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.47	0.03	8.460	A
2 - A4155 East	0.21	0.01	2.716	A
3 - A404 South	0.41	0.03	8.413	A
4 - A4155 West	0.15	0.01	2.178	A

08:15 - 08:30

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	2.25	0.15	37.495	E
2 - A4155 East	0.38	0.03	4.115	A
3 - A404 South	1.93	0.13	36.725	E
4 - A4155 West	0.22	0.01	2.713	A

08:30 - 08:45

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	3.79	0.25	60.656	F
2 - A4155 East	0.40	0.03	4.219	A
3 - A404 South	3.18	0.21	58.531	F
4 - A4155 West	0.23	0.02	2.741	A

08:45 - 09:00

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.93	0.06	12.487	B
2 - A4155 East	0.23	0.02	2.828	A
3 - A404 South	0.77	0.05	12.051	B
4 - A4155 West	0.15	0.01	2.221	A

09:00 - 09:15

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.27	0.02	5.193	A
2 - A4155 East	0.14	0.01	2.167	A
3 - A404 South	0.24	0.02	5.184	A
4 - A4155 West	0.11	0.01	1.900	A

2027 Base + STS Prop Dev Traffic, PM 17:00-18:00

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A404 / A4155 Westhorpe Grade Separated Roundabout	Large Roundabout		1, 2, 3, 4	14.56	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	14.56	B

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1 - A404 (North)	1334	✓	89.00
2 - A4155 East	879	✓	10.00
3 - A404 South	1130	✓	87.00
4 - A4155 West	472	✓	10.00

Slope / Intercept / Capacity

[same as above]

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
D12	2027 Base + STS Prop Dev Traffic	PM 17:00-18:00	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A404 (North)		ONE HOUR	✓	826	100.000
2 - A4155 East		ONE HOUR	✓	1293	100.000
3 - A404 South		ONE HOUR	✓	869	100.000
4 - A4155 West		ONE HOUR	✓	1222	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	0	448	5	373
	2 - A4155 East	316	0	358	619
	3 - A404 South	5	472	0	392
	4 - A4155 West	237	465	520	0

Proportions

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	0.00	0.54	0.01	0.45
	2 - A4155 East	0.24	0.00	0.28	0.48
	3 - A404 South	0.01	0.54	0.00	0.45
	4 - A4155 West	0.19	0.38	0.43	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	0	1	100	0
	2 - A4155 East	0	0	0	0
	3 - A404 South	0	0	0	2
	4 - A4155 West	1	0	0	0

Average PCU Per Veh

		To			
		1 - A404 (North)	2 - A4155 East	3 - A404 South	4 - A4155 West
From	1 - A404 (North)	1.000	1.010	2.000	1.000
	2 - A4155 East	1.000	1.000	1.000	1.000
	3 - A404 South	1.000	1.000	1.000	1.020
	4 - A4155 West	1.010	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:45-17:00	1 - A404 (North)	622	622
	2 - A4155 East	973	973
	3 - A404 South	654	654
	4 - A4155 West	920	920
17:00-17:15	1 - A404 (North)	743	743
	2 - A4155 East	1162	1162
	3 - A404 South	781	781
	4 - A4155 West	1099	1099
17:15-17:30	1 - A404 (North)	909	909
	2 - A4155 East	1424	1424
	3 - A404 South	957	957
	4 - A4155 West	1345	1345
17:30-17:45	1 - A404 (North)	909	909
	2 - A4155 East	1424	1424
	3 - A404 South	957	957
	4 - A4155 West	1345	1345
17:45-18:00	1 - A404 (North)	743	743
	2 - A4155 East	1162	1162
	3 - A404 South	781	781
	4 - A4155 West	1099	1099
18:00-18:15	1 - A404 (North)	622	622
	2 - A4155 East	973	973
	3 - A404 South	654	654
	4 - A4155 West	920	920

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-hr)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-hr/min)	Inclusive Total Queueing Delay (PCU-hr)	Inclusive Average Queueing Delay (s)
1 - A404 (North)	0.92	37.65	8.9	E	758	1137	4.84	15.33	0.05	4.84	15.33
2 - A4155 East	0.60	3.81	1.5	A	1186	1780	1.42	2.88	0.02	1.42	2.88
3 - A404 South	0.87	23.59	5.9	C	797	1196	3.73	11.22	0.04	3.73	11.22
4 - A4155 West	0.59	3.92	1.5	A	1121	1682	1.40	2.99	0.02	1.40	2.99

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	622	155	1093	1383	0.450	619	419	0.0	0.8	4.732	A
2 - A4155 East	973	243	674	2726	0.357	971	1038	0.0	0.6	2.049	A
3 - A404 South	654	164	982	1478	0.443	651	663	0.0	0.8	4.376	A
4 - A4155 West	920	230	595	2583	0.356	918	1038	0.0	0.6	2.163	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	743	186	1308	1218	0.610	740	501	0.8	1.5	7.545	A
2 - A4155 East	1162	291	806	2575	0.451	1161	1242	0.6	0.8	2.546	A
3 - A404 South	781	195	1174	1320	0.592	779	793	0.8	1.4	6.673	A
4 - A4155 West	1099	275	711	2449	0.449	1098	1241	0.6	0.8	2.667	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	909	227	1594	998	0.911	886	613	1.5	7.5	27.888	D
2 - A4155 East	1424	356	977	2379	0.599	1421	1503	0.8	1.5	3.748	A
3 - A404 South	957	239	1427	1112	0.860	941	970	1.4	5.4	19.695	C
4 - A4155 West	1345	336	864	2275	0.592	1343	1505	0.8	1.4	3.862	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	909	227	1603	991	0.918	904	614	7.5	8.9	37.648	E
2 - A4155 East	1424	356	986	2368	0.601	1424	1521	1.5	1.5	3.811	A
3 - A404 South	957	239	1438	1104	0.867	954	972	5.4	5.9	23.593	C
4 - A4155 West	1345	336	872	2265	0.594	1345	1520	1.4	1.5	3.920	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	743	186	1321	1207	0.615	772	503	8.9	1.6	8.866	A
2 - A4155 East	1162	291	822	2556	0.455	1165	1271	1.5	0.8	2.592	A
3 - A404 South	781	195	1191	1306	0.598	799	796	5.9	1.5	7.399	A
4 - A4155 West	1099	275	723	2436	0.451	1101	1266	1.5	0.8	2.707	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A404 (North)	622	155	1099	1378	0.451	625	421	1.6	0.8	4.843	A
2 - A4155 East	973	243	678	2721	0.358	975	1046	0.8	0.6	2.062	A
3 - A404 South	654	164	987	1474	0.444	657	666	1.5	0.8	4.465	A
4 - A4155 West	920	230	599	2578	0.357	921	1045	0.8	0.6	2.179	A

Queueing Delay Results for each time segment
16:45 - 17:00

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.20	0.01	4.732	A
2 - A4155 East	0.14	0.01	2.049	A
3 - A404 South	0.19	0.01	4.376	A
4 - A4155 West	0.14	0.01	2.163	A

17:00 - 17:15

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.37	0.02	7.545	A
2 - A4155 East	0.20	0.01	2.546	A
3 - A404 South	0.34	0.02	6.673	A
4 - A4155 West	0.20	0.01	2.667	A

17:15 - 17:30

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	1.47	0.10	27.888	D
2 - A4155 East	0.36	0.02	3.748	A
3 - A404 South	1.13	0.08	19.695	C
4 - A4155 West	0.35	0.02	3.862	A

17:30 - 17:45

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	2.08	0.14	37.648	E
2 - A4155 East	0.37	0.02	3.811	A
3 - A404 South	1.43	0.10	23.593	C
4 - A4155 West	0.36	0.02	3.920	A

17:45 - 18:00

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.51	0.03	8.866	A
2 - A4155 East	0.21	0.01	2.592	A
3 - A404 South	0.43	0.03	7.399	A
4 - A4155 West	0.21	0.01	2.707	A

18:00 - 18:15

Arm	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
1 - A404 (North)	0.22	0.01	4.843	A
2 - A4155 East	0.14	0.01	2.062	A
3 - A404 South	0.21	0.01	4.465	A
4 - A4155 West	0.14	0.01	2.179	A

Junctions 10
ARCADY 10 - Roundabout Module
Version: 10.0.2.1574 © Copyright TRL Software Limited, 2021
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Filename: 2a) A404_A4155 Westhorpe RBT +LT slip.j10
Path: N:\Projects\WIE18037\110 - Transport\5_Technical\Junctions 10\2022 Modelling
Report generation date: 24/03/2022 16:02:35

- »2027 Base, AM 07:00-08:00
- »2027 Base, AM 08:00-09:00
- »2027 Base, PM 17:00-18:00
- »2027 Base + Prop Dev Traffic, AM 07:00-08:00
- »2027 Base + Prop Dev Traffic, AM 08:00-09:00
- »2027 Base + Prop Dev Traffic, PM 17:00-18:00
- »2027 Base + STS Prop Dev Traffic, AM 07:00-08:00
- »2027 Base + STS Prop Dev Traffic, AM 08:00-09:00
- »2027 Base + STS Prop Dev Traffic, PM 17:00-18:00

Summary of junction performance

	AM 07:00-08:00			AM 08:00-09:00			PM 17:00-18:00		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
2027 Base									
Arm 1	0.9	5.34	0.46	3.4	13.68	0.77	4.8	21.23	0.84
Arm 2	0.7	2.25	0.40	1.4	3.90	0.58	0.8	2.72	0.44
Arm 3	1.0	5.31	0.50	2.4	12.76	0.71	2.0	8.34	0.67
Arm 4	0.7	2.22	0.40	0.7	2.39	0.42	1.1	3.03	0.53
2027 Base + Prop Dev Traffic									
Arm 1	4.1	18.21	0.81	49.6	145.07	1.08	12.5	51.23	0.95
Arm 2	0.7	2.35	0.43	1.6	4.19	0.62	2.0	4.54	0.67
Arm 3	1.7	7.32	0.63	5.0	23.41	0.84	8.7	35.70	0.91
Arm 4	1.0	2.82	0.49	1.0	2.95	0.50	1.7	4.44	0.63
2027 Base + STS Prop Dev Traffic									
Arm 1	2.3	10.94	0.70	18.5	64.48	0.98	8.9	37.88	0.92
Arm 2	0.7	2.32	0.42	1.6	4.22	0.62	1.5	3.81	0.60
Arm 3	1.5	6.61	0.59	4.2	20.36	0.82	4.9	19.82	0.84
Arm 4	0.9	2.61	0.46	0.9	2.76	0.47	1.5	3.92	0.59

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

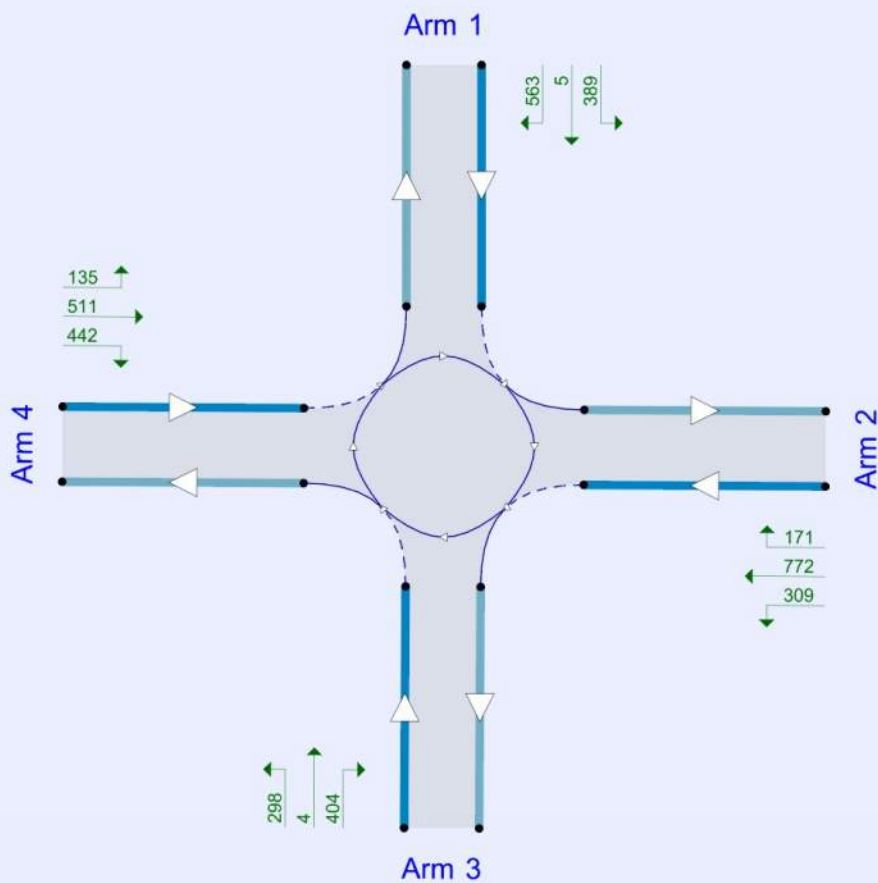
File summary

File Description

Title	A404 / A4155 Westthorpe Grade Separated RBT + LT slip from A404S to Parkway
Location	Marlow
Site number	
Date	17/03/2022
Version	
Status	
Identifier	
Client	
Jobnumber	WIE18037
Enumerator	Jack Wellings
Description	

Units

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



Flows show original traffic demand (PCU/hr).

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
D4	2027 Base	AM 07:00-08:00	ONE HOUR	06:45	08:15	15	✓
D5	2027 Base	AM 08:00-09:00	ONE HOUR	07:45	09:15	15	✓
D6	2027 Base	PM 17:00-18:00	ONE HOUR	16:45	18:15	15	✓
D7	2027 Base + Prop Dev Traffic	AM 07:00-08:00	ONE HOUR	06:45	08:15	15	✓
D8	2027 Base + Prop Dev Traffic	AM 08:00-09:00	ONE HOUR	07:45	09:15	15	✓
D9	2027 Base + Prop Dev Traffic	PM 17:00-18:00	ONE HOUR	16:45	18:15	15	✓
D10	2027 Base + STS Prop Dev Traffic	AM 07:00-08:00	ONE HOUR	06:45	08:15	15	✓
D11	2027 Base + STS Prop Dev Traffic	AM 08:00-09:00	ONE HOUR	07:45	09:15	15	✓
D12	2027 Base + STS Prop Dev Traffic	PM 17:00-18:00	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

2027 Base, AM 07:00-08:00

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A404 / A4155 Westhorpe Grade Separated Roundabout	Large Roundabout		1, 2, 3, 4	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	A404 (North)		
2	A4155 East		
3	A404 South		
4	A4155 West		

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	6.03	6.29	1.0	38.8	96.0	39.0		
2	7.30	9.57	15.0	39.1	89.0	18.0		
3	5.98	6.26	0.9	43.1	90.0	36.0		
4	7.59	8.20	3.0	49.2	89.0	25.0		

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1	917	✓	89.00
2	684	✓	10.00
3	909	✓	87.00
4	423	✓	10.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.844	2319
2	1.192	3542
3	0.861	2334
4	1.156	3275

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2027 Base	AM 07:00-08:00	ONE HOUR	06:45	08:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	532	100.000
2		ONE HOUR	✓	982	100.000
3		ONE HOUR	✓	634	100.000
4		ONE HOUR	✓	990	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	202	4	326
	2	86	0	308	588
	3	0	337	0	297
	4	203	470	317	0

Proportions

		To			
		1	2	3	4
From	1	0.00	0.38	0.01	0.61
	2	0.09	0.00	0.31	0.60
	3	0.00	0.53	0.00	0.47
	4	0.21	0.47	0.32	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	1	0	3
	2	1	0	0	1
	3	0	0	0	3
	4	3	1	2	0

Average PCU Per Veh

		To			
		1	2	3	4
From	1	1.000	1.010	1.000	1.030
	2	1.010	1.000	1.000	1.010
	3	1.000	1.000	1.000	1.030
	4	1.030	1.010	1.020	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
06:45-07:00	1	401	401
	2	739	739
	3	477	477
	4	745	745
07:00-07:15	1	478	478
	2	883	883
	3	570	570
	4	890	890
07:15-07:30	1	586	586
	2	1081	1081
	3	698	698
	4	1090	1090
07:30-07:45	1	586	586
	2	1081	1081
	3	698	698
	4	1090	1090
07:45-08:00	1	478	478
	2	883	883
	3	570	570
	4	890	890
08:00-08:15	1	401	401
	2	739	739
	3	477	477
	4	745	745

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.46	5.34	0.9	A	488	732
2	0.40	2.25	0.7	A	901	1352
3	0.50	5.31	1.0	A	582	873
4	0.40	2.22	0.7	A	908	1363

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	401	100	844	1607	0.249	399	217	0.0	0.3	3.044	A
2	739	185	486	2963	0.250	738	758	0.0	0.3	1.629	A
3	477	119	751	1687	0.283	476	473	0.0	0.4	3.008	A
4	745	186	317	2908	0.256	744	909	0.0	0.3	1.692	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	478	120	1010	1467	0.326	478	260	0.3	0.5	3.716	A
2	883	221	581	2849	0.310	882	906	0.3	0.5	1.842	A
3	570	142	898	1560	0.365	569	565	0.4	0.6	3.680	A
4	890	222	380	2836	0.314	890	1088	0.3	0.5	1.880	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	586	146	1236	1276	0.459	584	318	0.5	0.9	5.306	A
2	1081	270	711	2694	0.401	1080	1109	0.5	0.7	2.245	A
3	698	175	1100	1387	0.503	696	692	0.6	1.0	5.270	A
4	1090	273	465	2738	0.398	1089	1331	0.5	0.7	2.220	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	586	146	1238	1275	0.459	586	318	0.9	0.9	5.337	A
2	1081	270	712	2693	0.402	1081	1111	0.7	0.7	2.248	A
3	698	175	1101	1386	0.504	698	693	1.0	1.0	5.305	A
4	1090	273	466	2737	0.398	1090	1333	0.7	0.7	2.223	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	478	120	1012	1465	0.326	480	260	0.9	0.5	3.737	A
2	883	221	583	2847	0.310	884	909	0.7	0.5	1.848	A
3	570	142	900	1559	0.366	572	566	1.0	0.6	3.703	A
4	890	222	381	2834	0.314	891	1091	0.7	0.5	1.887	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	401	100	847	1605	0.250	401	218	0.5	0.3	3.060	A
2	739	185	488	2961	0.250	740	760	0.5	0.3	1.634	A
3	477	119	754	1685	0.283	478	474	0.6	0.4	3.027	A
4	745	186	319	2906	0.256	746	913	0.5	0.4	1.694	A

2027 Base, AM 08:00-09:00

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A404 / A4155 Westhorpe Grade Separated Roundabout	Large Roundabout		1, 2, 3, 4	7.23	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.23	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1	1177	✓	89.00
2	885	✓	10.00
3	1329	✓	87.00
4	494	✓	10.00

Slope / Intercept / Capacity

[same as above]

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	AM 08:00-09:00	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	832	100.000
2		ONE HOUR	✓	1174	100.000
3		ONE HOUR	✓	637	100.000
4		ONE HOUR	✓	1026	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	264	5	563
	2	133	0	288	753
	3	4	335	0	298
	4	135	449	442	0

Proportions

		To			
		1	2	3	4
From	1	0.00	0.32	0.01	0.68
	2	0.11	0.00	0.25	0.64
	3	0.01	0.53	0.00	0.47
	4	0.13	0.44	0.43	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	3	0	2
	2	0	0	1	1
	3	0	1	0	2
	4	7	0	3	0

Average PCU Per Veh

		To			
		1	2	3	4
From	1	1.000	1.030	1.000	1.020
	2	1.000	1.000	1.010	1.010
	3	1.000	1.010	1.000	1.020
	4	1.070	1.000	1.030	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	1	626	626
	2	884	884
	3	480	480
	4	772	772
08:00-08:15	1	748	748
	2	1055	1055
	3	573	573
	4	922	922
08:15-08:30	1	916	916
	2	1293	1293
	3	701	701
	4	1130	1130
08:30-08:45	1	916	916
	2	1293	1293
	3	701	701
	4	1130	1130
08:45-09:00	1	748	748
	2	1055	1055
	3	573	573
	4	922	922
09:00-09:15	1	626	626
	2	884	884
	3	480	480
	4	772	772

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.77	13.68	3.4	B	763	1145
2	0.58	3.90	1.4	A	1077	1616
3	0.71	12.76	2.4	B	585	877
4	0.42	2.39	0.7	A	941	1412

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	626	157	921	1526	0.411	624	204	0.0	0.7	4.071	A
2	884	221	758	2629	0.336	882	786	0.0	0.5	2.077	A
3	480	120	1087	1384	0.346	477	552	0.0	0.5	4.019	A
4	772	193	354	2855	0.271	771	1211	0.0	0.4	1.765	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	748	187	1101	1382	0.541	746	244	0.7	1.2	5.776	A
2	1055	264	906	2459	0.429	1054	941	0.5	0.8	2.584	A
3	573	143	1301	1217	0.470	571	660	0.5	0.9	5.641	A
4	922	231	423	2776	0.332	922	1448	0.4	0.5	1.984	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	916	229	1346	1186	0.772	908	299	1.2	3.3	12.851	B
2	1293	323	1106	2231	0.579	1290	1148	0.8	1.4	3.850	A
3	701	175	1588	992	0.707	696	808	0.9	2.3	12.091	B
4	1130	282	516	2670	0.423	1129	1767	0.5	0.7	2.385	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	916	229	1350	1184	0.774	916	299	3.3	3.4	13.680	B
2	1293	323	1112	2224	0.581	1293	1154	1.4	1.4	3.897	A
3	701	175	1595	986	0.711	701	809	2.3	2.4	12.760	B
4	1130	282	519	2666	0.424	1130	1777	0.7	0.7	2.393	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	748	187	1106	1378	0.543	757	245	3.4	1.2	6.009	A
2	1055	264	914	2450	0.431	1058	948	1.4	0.8	2.612	A
3	573	143	1310	1210	0.473	579	662	2.4	0.9	5.842	A
4	922	231	428	2771	0.333	923	1461	0.7	0.5	1.991	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	626	157	924	1523	0.411	628	205	1.2	0.7	4.129	A
2	884	221	762	2624	0.337	885	791	0.8	0.5	2.090	A
3	480	120	1093	1380	0.348	481	554	0.9	0.5	4.071	A
4	772	193	356	2852	0.271	773	1218	0.5	0.4	1.768	A

2027 Base, PM 17:00-18:00

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A404 / A4155 Westhorpe Grade Separated Roundabout	Large Roundabout		1, 2, 3, 4	7.91	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.91	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1	1256	✓	89.00
2	828	✓	10.00
3	1065	✓	87.00
4	445	✓	10.00

Slope / Intercept / Capacity

[same as above]

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	PM 17:00-18:00	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	781	100.000
2		ONE HOUR	✓	945	100.000
3		ONE HOUR	✓	815	100.000
4		ONE HOUR	✓	1199	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	403	5	373
	2	147	0	264	534
	3	5	447	0	363
	4	237	442	520	0

Proportions

		To			
		1	2	3	4
From	1	0.00	0.52	0.01	0.48
	2	0.16	0.00	0.28	0.57
	3	0.01	0.55	0.00	0.45
	4	0.20	0.37	0.43	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	1	100	0
	2	0	0	0	0
	3	0	0	0	2
	4	1	0	0	0

Average PCU Per Veh

		To			
		1	2	3	4
From	1	1.000	1.010	2.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.020
	4	1.010	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:45-17:00	1	588	588
	2	711	711
	3	614	614
	4	903	903
17:00-17:15	1	702	702
	2	850	850
	3	733	733
	4	1078	1078
17:15-17:30	1	860	860
	2	1040	1040
	3	897	897
	4	1320	1320
17:30-17:45	1	860	860
	2	1040	1040
	3	897	897
	4	1320	1320
17:45-18:00	1	702	702
	2	850	850
	3	733	733
	4	1078	1078
18:00-18:15	1	588	588
	2	711	711
	3	614	614
	4	903	903

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.84	21.23	4.8	C	717	1075
2	0.44	2.72	0.8	A	867	1301
3	0.67	8.34	2.0	A	748	1122
4	0.53	3.03	1.1	A	1100	1650

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	588	147	1058	1413	0.416	585	292	0.0	0.7	4.371	A
2	711	178	674	2729	0.261	710	969	0.0	0.4	1.783	A
3	614	153	791	1639	0.374	611	593	0.0	0.6	3.525	A
4	903	226	449	2753	0.328	901	953	0.0	0.5	1.946	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	702	176	1265	1251	0.561	700	349	0.7	1.3	6.566	A
2	850	212	806	2576	0.330	849	1159	0.4	0.5	2.084	A
3	733	183	946	1510	0.485	731	709	0.6	0.9	4.653	A
4	1078	269	538	2651	0.407	1077	1140	0.5	0.7	2.290	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	860	215	1548	1030	0.835	847	428	1.3	4.5	18.692	C
2	1040	260	982	2373	0.439	1039	1413	0.5	0.8	2.697	A
3	897	224	1153	1338	0.671	893	868	0.9	2.0	8.091	A
4	1320	330	657	2514	0.525	1318	1390	0.7	1.1	3.014	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	860	215	1551	1027	0.837	859	428	4.5	4.8	21.228	C
2	1040	260	988	2365	0.440	1040	1422	0.8	0.8	2.717	A
3	897	224	1160	1332	0.673	897	869	2.0	2.0	8.336	A
4	1320	330	659	2511	0.526	1320	1398	1.1	1.1	3.028	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	702	176	1270	1247	0.563	716	350	4.8	1.3	7.021	A
2	850	212	815	2566	0.331	851	1172	0.8	0.5	2.100	A
3	733	183	955	1503	0.488	737	710	2.0	1.0	4.769	A
4	1078	269	541	2647	0.407	1080	1151	1.1	0.7	2.303	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	588	147	1062	1409	0.417	590	293	1.3	0.7	4.445	A
2	711	178	678	2725	0.261	712	975	0.5	0.4	1.791	A
3	614	153	795	1636	0.375	615	595	1.0	0.6	3.563	A
4	903	226	452	2750	0.328	903	958	0.7	0.5	1.955	A

2027 Base + Prop Dev Traffic, AM 07:00-08:00

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A404 / A4155 Westhorpe Grade Separated Roundabout	Large Roundabout		1, 2, 3, 4	6.84	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.84	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1	1116	✓	89.00
2	684	✓	10.00
3	942	✓	87.00
4	534	✓	10.00

Slope / Intercept / Capacity

[same as above]

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 + Prop Dev Traffic	AM 07:00-08:00	ONE HOUR	06:45	08:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	772	100.000
2		ONE HOUR	✓	1045	100.000
3		ONE HOUR	✓	767	100.000
4		ONE HOUR	✓	1110	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	
From	1	0	442	4	326	
	2	117	0	325	603	
	3	0	470	0	297	
	4	203	590	317	0	

Proportions

		To				
		1	2	3	4	
From	1	0.00	0.57	0.01	0.42	
	2	0.11	0.00	0.31	0.58	
	3	0.00	0.61	0.00	0.39	
	4	0.18	0.53	0.29	0.00	

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	
From	1	0	1	0	3	
	2	1	0	0	1	
	3	0	0	0	3	
	4	3	1	2	0	

Average PCU Per Veh

		To				
		1	2	3	4	
From	1	1.000	1.010	1.000	1.030	
	2	1.010	1.000	1.000	1.010	
	3	1.000	1.000	1.000	1.030	
	4	1.030	1.010	1.020	1.000	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
06:45-07:00	1	581	581
	2	787	787
	3	577	577
	4	836	836
07:00-07:15	1	694	694
	2	939	939
	3	690	690
	4	998	998
07:15-07:30	1	850	850
	2	1151	1151
	3	844	844
	4	1222	1222
07:30-07:45	1	850	850
	2	1151	1151
	3	844	844
	4	1222	1222
07:45-08:00	1	694	694
	2	939	939
	3	690	690
	4	998	998
08:00-08:15	1	581	581
	2	787	787
	3	577	577
	4	836	836

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.81	18.21	4.1	C	708	1063
2	0.43	2.35	0.7	A	959	1438
3	0.63	7.32	1.7	A	704	1056
4	0.49	2.82	1.0	A	1019	1528

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	581	145	1034	1438	0.404	578	240	0.0	0.7	4.251	A
2	787	197	485	2963	0.265	785	1127	0.0	0.4	1.664	A
3	577	144	785	1655	0.349	575	485	0.0	0.5	3.365	A
4	836	209	440	2751	0.304	834	920	0.0	0.4	1.906	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	694	174	1237	1274	0.545	692	287	0.7	1.2	6.274	A
2	939	235	581	2850	0.330	939	1348	0.4	0.5	1.896	A
3	690	172	939	1523	0.453	688	580	0.5	0.8	4.354	A
4	998	249	527	2653	0.376	997	1101	0.4	0.6	2.208	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	850	212	1513	1051	0.809	839	352	1.2	3.9	16.530	C
2	1151	288	707	2699	0.426	1150	1645	0.5	0.7	2.339	A
3	844	211	1146	1346	0.627	841	711	0.8	1.7	7.163	A
4	1222	306	644	2521	0.485	1221	1343	0.6	1.0	2.812	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	850	212	1516	1048	0.811	849	352	3.9	4.1	18.212	C
2	1151	288	712	2693	0.427	1151	1653	0.7	0.7	2.349	A
3	844	211	1151	1342	0.629	844	711	1.7	1.7	7.315	A
4	1222	306	646	2518	0.485	1222	1349	1.0	1.0	2.822	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	694	174	1241	1271	0.546	706	288	4.1	1.2	6.616	A
2	939	235	587	2842	0.331	940	1360	0.7	0.5	1.905	A
3	690	172	946	1518	0.454	693	581	1.7	0.8	4.434	A
4	998	249	530	2650	0.377	999	1109	1.0	0.6	2.218	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	581	145	1038	1435	0.405	583	241	1.2	0.7	4.318	A
2	787	197	488	2960	0.266	787	1133	0.5	0.4	1.667	A
3	577	144	789	1652	0.350	579	487	0.8	0.5	3.398	A
4	836	209	443	2748	0.304	836	925	0.6	0.4	1.916	A

2027 Base + Prop Dev Traffic, AM 08:00-09:00

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A404 / A4155 Westhorpe Grade Separated Roundabout	Large Roundabout		1, 2, 3, 4	41.55	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	41.55	E

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1	1323	✓	89.00
2	885	✓	10.00
3	1384	✓	87.00
4	595	✓	10.00

Slope / Intercept / Capacity

[same as above]

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 + Prop Dev Traffic	AM 08:00-09:00	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	1007	100.000
2		ONE HOUR	✓	1283	100.000
3		ONE HOUR	✓	734	100.000
4		ONE HOUR	✓	1114	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	
From	1	0	439	5	563	
	2	186	0	317	780	
	3	4	432	0	298	
	4	135	537	442	0	

Proportions

		To				
		1	2	3	4	
From	1	0.00	0.44	0.00	0.56	
	2	0.14	0.00	0.25	0.61	
	3	0.01	0.59	0.00	0.41	
	4	0.12	0.48	0.40	0.00	

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	
From	1	0	3	0	2	
	2	0	0	1	1	
	3	0	1	0	2	
	4	7	0	3	0	

Average PCU Per Veh

		To				
		1	2	3	4	
From	1	1.000	1.030	1.000	1.020	
	2	1.000	1.000	1.010	1.010	
	3	1.000	1.010	1.000	1.020	
	4	1.070	1.000	1.030	1.000	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	1	758	758
	2	966	966
	3	553	553
	4	839	839
08:00-08:15	1	905	905
	2	1153	1153
	3	660	660
	4	1001	1001
08:15-08:30	1	1109	1109
	2	1413	1413
	3	808	808
	4	1227	1227
08:30-08:45	1	1109	1109
	2	1413	1413
	3	808	808
	4	1227	1227
08:45-09:00	1	905	905
	2	1153	1153
	3	660	660
	4	1001	1001
09:00-09:15	1	758	758
	2	966	966
	3	553	553
	4	839	839

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1.08	145.07	49.6	F	924	1386
2	0.62	4.19	1.6	A	1177	1766
3	0.84	23.41	5.0	C	674	1010
4	0.50	2.95	1.0	A	1022	1533

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	758	190	1059	1409	0.538	753	244	0.0	1.2	5.579	A
2	966	241	757	2630	0.367	964	1055	0.0	0.6	2.176	A
3	553	138	1147	1337	0.413	550	574	0.0	0.7	4.622	A
4	839	210	466	2714	0.309	837	1230	0.0	0.5	1.954	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	905	226	1266	1249	0.725	900	292	1.2	2.6	10.375	B
2	1153	288	905	2461	0.469	1152	1262	0.6	0.9	2.771	A
3	660	165	1370	1164	0.567	657	686	0.7	1.3	7.177	A
4	1001	250	558	2612	0.383	1001	1470	0.5	0.6	2.277	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1109	277	1545	1035	1.071	1006	357	2.6	28.2	68.149	F
2	1413	353	1054	2291	0.617	1410	1497	0.9	1.6	4.108	A
3	808	202	1624	968	0.835	795	839	1.3	4.5	19.885	C
4	1227	307	677	2479	0.495	1225	1742	0.6	1.0	2.926	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1109	277	1552	1029	1.077	1023	358	28.2	49.6	145.066	F
2	1413	353	1064	2279	0.620	1413	1512	1.6	1.6	4.189	A
3	808	202	1636	959	0.843	806	841	4.5	5.0	23.412	C
4	1227	307	684	2471	0.496	1227	1758	1.0	1.0	2.949	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	905	226	1278	1241	0.730	1092	293	49.6	3.0	51.328	F
2	1153	288	1014	2336	0.494	1156	1356	1.6	1.0	3.081	A
3	660	165	1481	1078	0.612	673	689	5.0	1.6	9.295	A
4	1001	250	567	2601	0.385	1003	1586	1.0	0.6	2.300	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	758	190	1065	1405	0.540	765	245	3.0	1.2	5.832	A
2	966	241	765	2621	0.369	968	1066	1.0	0.6	2.199	A
3	553	138	1156	1329	0.416	556	576	1.6	0.7	4.745	A
4	839	210	471	2709	0.310	839	1242	0.6	0.5	1.965	A

2027 Base + Prop Dev Traffic, PM 17:00-18:00

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A404 / A4155 Westhorpe Grade Separated Roundabout	Large Roundabout		1, 2, 3, 4	19.63	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	19.63	C

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1	1309	✓	89.00
2	828	✓	10.00
3	1314	✓	87.00
4	613	✓	10.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2027 Base + Prop Dev Traffic	PM 17:00-18:00	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	844	100.000
2		ONE HOUR	✓	1433	100.000
3		ONE HOUR	✓	850	100.000
4		ONE HOUR	✓	1231	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	
From	1	0	466	5	373	
	2	384	0	396	653	
	3	5	482	0	363	
	4	237	474	520	0	

Proportions

		To				
		1	2	3	4	
From	1	0.00	0.55	0.01	0.44	
	2	0.27	0.00	0.28	0.46	
	3	0.01	0.57	0.00	0.43	
	4	0.19	0.39	0.42	0.00	

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	
From	1	0	1	100	0	
	2	0	0	0	0	
	3	0	0	0	2	
	4	1	0	0	0	

Average PCU Per Veh

		To				
		1	2	3	4	
From	1	1.000	1.010	2.000	1.000	
	2	1.000	1.000	1.000	1.000	
	3	1.000	1.000	1.000	1.020	
	4	1.010	1.000	1.000	1.000	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:45-17:00	1	635	635
	2	1079	1079
	3	640	640
	4	927	927
17:00-17:15	1	759	759
	2	1288	1288
	3	764	764
	4	1107	1107
17:15-17:30	1	929	929
	2	1578	1578
	3	936	936
	4	1355	1355
17:30-17:45	1	929	929
	2	1578	1578
	3	936	936
	4	1355	1355
17:45-18:00	1	759	759
	2	1288	1288
	3	764	764
	4	1107	1107
18:00-18:15	1	635	635
	2	1079	1079
	3	640	640
	4	927	927

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.95	51.23	12.5	F	774	1162
2	0.67	4.54	2.0	A	1315	1972
3	0.91	35.70	8.7	E	780	1170
4	0.63	4.44	1.7	A	1130	1694

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	635	159	1107	1372	0.463	632	470	0.0	0.9	4.881	A
2	1079	270	674	2729	0.395	1076	1066	0.0	0.7	2.171	A
3	640	160	1058	1408	0.455	637	692	0.0	0.8	4.688	A
4	927	232	653	2504	0.370	924	1042	0.0	0.6	2.281	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	759	190	1324	1205	0.630	755	562	0.9	1.7	8.023	A
2	1288	322	805	2577	0.500	1287	1274	0.7	1.0	2.789	A
3	764	191	1265	1245	0.614	761	827	0.8	1.6	7.457	A
4	1107	277	781	2361	0.469	1105	1245	0.6	0.9	2.869	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	929	232	1610	984	0.944	897	688	1.7	9.7	33.811	D
2	1578	394	973	2383	0.662	1574	1534	1.0	1.9	4.432	A
3	936	234	1536	1032	0.907	913	1012	1.6	7.3	26.558	D
4	1355	339	945	2179	0.622	1352	1504	0.9	1.6	4.347	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	929	232	1622	975	0.953	918	689	9.7	12.5	51.229	F
2	1578	394	984	2370	0.666	1578	1556	1.9	2.0	4.539	A
3	936	234	1547	1023	0.915	930	1014	7.3	8.7	35.697	E
4	1355	339	956	2167	0.626	1355	1522	1.6	1.7	4.443	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	759	190	1345	1189	0.638	801	565	12.5	1.8	10.395	B
2	1288	322	828	2551	0.505	1292	1319	2.0	1.0	2.867	A
3	764	191	1289	1226	0.623	792	831	8.7	1.7	8.884	A
4	1107	277	800	2340	0.473	1110	1281	1.7	0.9	2.939	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	635	159	1114	1367	0.465	639	472	1.8	0.9	5.011	A
2	1079	270	678	2724	0.396	1080	1075	1.0	0.7	2.192	A
3	640	160	1064	1403	0.456	643	694	1.7	0.9	4.799	A
4	927	232	658	2498	0.371	928	1050	0.9	0.6	2.300	A

2027 Base + STS Prop Dev Traffic, AM 07:00-08:00

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A404 / A4155 Westhorpe Grade Separated Roundabout	Large Roundabout		1, 2, 3, 4	5.01	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.01	A

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1	974	✓	89.00
2	727	✓	10.00
3	966	✓	87.00
4	448	✓	10.00

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2027 Base + STS Prop Dev Traffic	AM 07:00-08:00	ONE HOUR	06:45	08:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	703	100.000
2		ONE HOUR	✓	1027	100.000
3		ONE HOUR	✓	729	100.000
4		ONE HOUR	✓	1076	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	
From	1	0	373	4	326	
	2	108	0	320	599	
	3	0	432	0	297	
	4	203	556	317	0	

Proportions

		To				
		1	2	3	4	
From	1	0.00	0.53	0.01	0.46	
	2	0.11	0.00	0.31	0.58	
	3	0.00	0.59	0.00	0.41	
	4	0.19	0.52	0.29	0.00	

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	
From	1	0	1	0	3	
	2	1	0	0	1	
	3	0	0	0	3	
	4	3	1	2	0	

Average PCU Per Veh

		To				
		1	2	3	4	
From	1	1.000	1.010	1.000	1.030	
	2	1.010	1.000	1.000	1.010	
	3	1.000	1.000	1.000	1.030	
	4	1.030	1.010	1.020	1.000	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
06:45-07:00	1	529	529
	2	773	773
	3	549	549
	4	810	810
07:00-07:15	1	632	632
	2	923	923
	3	655	655
	4	967	967
07:15-07:30	1	774	774
	2	1131	1131
	3	803	803
	4	1185	1185
07:30-07:45	1	774	774
	2	1131	1131
	3	803	803
	4	1185	1185
07:45-08:00	1	632	632
	2	923	923
	3	655	655
	4	967	967
08:00-08:15	1	529	529
	2	773	773
	3	549	549
	4	810	810

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.70	10.94	2.3	B	645	968
2	0.42	2.32	0.7	A	942	1414
3	0.59	6.61	1.5	A	669	1003
4	0.46	2.61	0.9	A	987	1481

Main Results for each time segment

06:45 - 07:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	529	132	980	1489	0.355	527	234	0.0	0.6	3.805	A
2	773	193	486	2958	0.261	772	1021	0.0	0.4	1.658	A
3	549	137	776	1661	0.330	547	482	0.0	0.5	3.264	A
4	810	203	405	2803	0.289	808	917	0.0	0.4	1.832	A

07:00 - 07:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	632	158	1172	1329	0.475	631	279	0.6	0.9	5.241	A
2	923	231	581	2846	0.324	923	1222	0.4	0.5	1.884	A
3	655	164	928	1532	0.428	654	576	0.5	0.8	4.148	A
4	967	242	485	2711	0.357	967	1097	0.4	0.6	2.098	A

07:15 - 07:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	774	194	1434	1111	0.697	769	342	0.9	2.3	10.567	B
2	1131	283	709	2694	0.420	1130	1493	0.5	0.7	2.317	A
3	803	201	1134	1356	0.592	800	705	0.8	1.4	6.518	A
4	1185	296	593	2587	0.458	1184	1341	0.6	0.9	2.604	A

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	774	194	1437	1108	0.698	774	342	2.3	2.3	10.945	B
2	1131	283	712	2690	0.420	1131	1498	0.7	0.7	2.323	A
3	803	201	1137	1353	0.593	803	706	1.4	1.5	6.611	A
4	1185	296	595	2585	0.458	1185	1345	0.9	0.9	2.612	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	632	158	1176	1326	0.477	637	280	2.3	0.9	5.371	A
2	923	231	585	2841	0.325	924	1229	0.7	0.5	1.890	A
3	655	164	932	1528	0.429	658	577	1.5	0.8	4.200	A
4	967	242	487	2709	0.357	968	1103	0.9	0.6	2.105	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	529	132	984	1486	0.356	531	234	0.9	0.6	3.846	A
2	773	193	488	2955	0.262	774	1026	0.5	0.4	1.663	A
3	549	137	779	1658	0.331	550	483	0.8	0.5	3.291	A
4	810	203	407	2801	0.289	811	921	0.6	0.4	1.841	A

2027 Base + STS Prop Dev Traffic, AM 08:00-09:00

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A404 / A4155 Westhorpe Grade Separated Roundabout	Large Roundabout		1, 2, 3, 4	21.07	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	21.07	C

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1	1251	✓	89.00
2	940	✓	10.00
3	1412	✓	87.00
4	525	✓	10.00

Slope / Intercept / Capacity

[same as above]

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
D11	2027 Base + STS Prop Dev Traffic	AM 08:00-09:00	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	957	100.000
2		ONE HOUR	✓	1252	100.000
3		ONE HOUR	✓	706	100.000
4		ONE HOUR	✓	1088	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	
From	1	0	389	5	563	
	2	171	0	309	772	
	3	4	404	0	298	
	4	135	511	442	0	

Proportions

		To				
		1	2	3	4	
From	1	0.00	0.41	0.01	0.59	
	2	0.14	0.00	0.25	0.62	
	3	0.01	0.57	0.00	0.42	
	4	0.12	0.47	0.41	0.00	

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	
From	1	0	3	0	2	
	2	0	0	1	1	
	3	0	1	0	2	
	4	7	0	3	0	

Average PCU Per Veh

		To				
		1	2	3	4	
From	1	1.000	1.030	1.000	1.020	
	2	1.000	1.000	1.010	1.010	
	3	1.000	1.010	1.000	1.020	
	4	1.070	1.000	1.030	1.000	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	1	720	720
	2	943	943
	3	532	532
	4	819	819
08:00-08:15	1	860	860
	2	1126	1126
	3	635	635
	4	978	978
08:15-08:30	1	1054	1054
	2	1378	1378
	3	777	777
	4	1198	1198
08:30-08:45	1	1054	1054
	2	1378	1378
	3	777	777
	4	1198	1198
08:45-09:00	1	860	860
	2	1126	1126
	3	635	635
	4	978	978
09:00-09:15	1	720	720
	2	943	943
	3	532	532
	4	819	819

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.98	64.48	18.5	F	878	1317
2	0.62	4.22	1.6	A	1149	1723
3	0.82	20.36	4.2	C	648	972
4	0.47	2.76	0.9	A	998	1498

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	720	180	1019	1444	0.499	716	233	0.0	1.0	5.041	A
2	943	236	757	2627	0.359	940	978	0.0	0.6	2.150	A
3	532	133	1130	1349	0.394	529	568	0.0	0.7	4.436	A
4	819	205	434	2759	0.297	817	1225	0.0	0.4	1.889	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	860	215	1218	1287	0.668	856	278	1.0	2.0	8.472	A
2	1126	281	905	2460	0.458	1124	1169	0.6	0.8	2.716	A
3	635	159	1351	1179	0.538	633	679	0.7	1.2	6.651	A
4	978	245	519	2663	0.367	977	1464	0.4	0.6	2.179	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1054	263	1487	1077	0.978	1008	341	2.0	13.5	39.461	E
2	1378	345	1084	2257	0.611	1376	1410	0.8	1.6	4.104	A
3	777	194	1629	965	0.805	767	831	1.2	3.8	17.523	C
4	1198	299	631	2536	0.472	1197	1765	0.6	0.9	2.739	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1054	263	1493	1072	0.983	1034	341	13.5	18.5	64.481	F
2	1378	345	1100	2239	0.616	1378	1427	1.6	1.6	4.215	A
3	777	194	1646	952	0.816	776	832	3.8	4.2	20.361	C
4	1198	299	637	2530	0.473	1198	1786	0.9	0.9	2.756	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	860	215	1228	1280	0.672	925	279	18.5	2.2	12.333	B
2	1126	281	947	2412	0.467	1128	1206	1.6	0.9	2.835	A
3	635	159	1394	1146	0.554	646	681	4.2	1.3	7.473	A
4	978	245	528	2653	0.369	979	1513	0.9	0.6	2.197	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	720	180	1024	1440	0.500	725	234	2.2	1.0	5.187	A
2	943	236	763	2620	0.360	944	985	0.9	0.6	2.169	A
3	532	133	1137	1343	0.396	534	570	1.3	0.7	4.525	A
4	819	205	437	2756	0.297	820	1234	0.6	0.4	1.897	A

2027 Base + STS Prop Dev Traffic, PM 17:00-18:00

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A404 / A4155 Westhorpe Grade Separated Roundabout	Large Roundabout		1, 2, 3, 4	13.79	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	13.79	B

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Has entry-to-exit separation	Entry-to-exit separation (m)
1	1334	✓	89.00
2	879	✓	10.00
3	1130	✓	87.00
4	472	✓	10.00

Slope / Intercept / Capacity

[same as above]

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
D12	2027 Base + STS Prop Dev Traffic	PM 17:00-18:00	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	826	100.000
2		ONE HOUR	✓	1293	100.000
3		ONE HOUR	✓	840	100.000
4		ONE HOUR	✓	1222	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	
From	1	0	448	5	373	
	2	316	0	358	619	
	3	5	472	0	363	
	4	237	465	520	0	

Proportions

		To				
		1	2	3	4	
From	1	0.00	0.54	0.01	0.45	
	2	0.24	0.00	0.28	0.48	
	3	0.01	0.56	0.00	0.43	
	4	0.19	0.38	0.43	0.00	

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	
From	1	0	1	100	0	
	2	0	0	0	0	
	3	0	0	0	2	
	4	1	0	0	0	

Average PCU Per Veh

		To				
		1	2	3	4	
From	1	1.000	1.010	2.000	1.000	
	2	1.000	1.000	1.000	1.000	
	3	1.000	1.000	1.000	1.020	
	4	1.010	1.000	1.000	1.000	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:45-17:00	1	622	622
	2	973	973
	3	632	632
	4	920	920
17:00-17:15	1	743	743
	2	1162	1162
	3	755	755
	4	1099	1099
17:15-17:30	1	909	909
	2	1424	1424
	3	925	925
	4	1345	1345
17:30-17:45	1	909	909
	2	1424	1424
	3	925	925
	4	1345	1345
17:45-18:00	1	743	743
	2	1162	1162
	3	755	755
	4	1099	1099
18:00-18:15	1	622	622
	2	973	973
	3	632	632
	4	920	920

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.92	37.88	8.9	E	758	1137
2	0.60	3.81	1.5	A	1186	1780
3	0.84	19.82	4.9	C	771	1156
4	0.59	3.92	1.5	A	1121	1682

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	622	155	1093	1382	0.450	619	419	0.0	0.8	4.734	A
2	973	243	674	2726	0.357	971	1038	0.0	0.6	2.049	A
3	632	158	982	1477	0.428	629	663	0.0	0.7	4.267	A
4	920	230	595	2583	0.356	918	1016	0.0	0.6	2.163	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	743	186	1308	1218	0.610	740	501	0.8	1.5	7.549	A
2	1162	291	806	2575	0.451	1161	1242	0.6	0.8	2.546	A
3	755	189	1174	1320	0.572	753	793	0.7	1.3	6.379	A
4	1099	275	711	2449	0.449	1098	1215	0.6	0.8	2.667	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	909	227	1595	997	0.912	885	613	1.5	7.6	28.091	D
2	1424	356	977	2379	0.598	1421	1504	0.8	1.5	3.747	A
3	925	231	1427	1112	0.832	912	970	1.3	4.5	17.230	C
4	1345	336	865	2273	0.592	1343	1474	0.8	1.4	3.869	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	909	227	1603	991	0.918	904	614	7.6	8.9	37.879	E
2	1424	356	986	2368	0.601	1424	1521	1.5	1.5	3.811	A
3	925	231	1438	1103	0.838	923	972	4.5	4.9	19.823	C
4	1345	336	872	2265	0.594	1345	1489	1.4	1.5	3.922	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	743	186	1320	1209	0.614	772	503	8.9	1.6	8.851	A
2	1162	291	822	2556	0.455	1165	1270	1.5	0.8	2.592	A
3	755	189	1191	1306	0.578	769	796	4.9	1.4	6.932	A
4	1099	275	721	2438	0.451	1101	1239	1.5	0.8	2.703	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	622	155	1099	1378	0.451	625	421	1.6	0.8	4.842	A
2	973	243	678	2721	0.358	975	1046	0.8	0.6	2.062	A
3	632	158	987	1473	0.429	635	666	1.4	0.8	4.346	A
4	920	230	599	2578	0.357	921	1023	0.8	0.6	2.179	A

Junctions 10
PICADY 10 - Priority Intersection Module
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Filename: 3) A4155_Site Access_Pump Lane S.j10
Path: N:\Projects\WIE18037\110 - Transport\5_Technical\Junctions 10\2022 Modelling
Report generation date: 05/04/2022 18:07:42

- »(Default Analysis Set) - 2021 Base, AM 0700-0800
- »(Default Analysis Set) - 2021 Base, AM 0800-0900
- »(Default Analysis Set) - 2021 Base, PM
- »(Default Analysis Set) - 2027 Future Base, AM 0700-0800
- »(Default Analysis Set) - 2027 Future Base, AM 0800-0900
- »(Default Analysis Set) - 2027 Future Base, PM
- »(Default Analysis Set) - 2027 + Development Traffic, AM 0700-0800
- »(Default Analysis Set) - 2027 + Development Traffic, AM 0800-0900
- »(Default Analysis Set) - 2027 + Development Traffic, PM
- »(Default Analysis Set) - 2027 + STS Development Traffic, AM 0700-0800
- »(Default Analysis Set) - 2027 + STS Development Traffic, AM 0800-0900
- »(Default Analysis Set) - 2027 + STS Development Traffic, PM

Summary of junction performance

	AM 0700-0800			AM 0800-0900			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
A1 - 2021 Base									
Stream B-ACD	0.0	13.62	0.04	0.1	14.37	0.09	0.0	11.74	0.04
Stream A-BCD	0.0	0.00	0.00	0.0	0.00	0.00	0.0	3.94	0.02
Stream D-ABC	0.0	15.95	0.02	0.0	0.00	0.00	0.2	22.42	0.17
Stream C-ABD	0.0	11.23	0.02	0.0	10.70	0.04	0.0	9.02	0.02
A1 - 2027 Future Base									
Stream B-ACD	0.0	14.52	0.05	0.1	15.48	0.10	0.0	12.47	0.04
Stream A-BCD	0.0	0.00	0.00	0.0	0.00	0.00	0.0	3.88	0.03
Stream D-ABC	0.0	17.40	0.02	0.0	21.57	0.03	0.3	26.81	0.21
Stream C-ABD	0.0	11.55	0.03	0.0	11.08	0.04	0.0	9.24	0.02
A1 - 2027 + Development Traffic									
Stream B-ACD	81.8	59999940.00	999999999.00	114.9	2604.11	999999999.00	259.4	2395.24	2.33
Stream A-BCD	0.0	0.00	0.00	0.0	0.00	0.00	0.0	3.92	0.03
Stream D-ABC	4.8	59999940.00	999999999.00	4.3	59999940.00	999999999.00	31.2	59999940.00	999999999.00
Stream C-ABD	346.6	1876.33	1.51	164.6	984.96	1.27	0.6	14.92	0.39
A1 - 2027 + STS Development Traffic									
Stream B-ACD	3.2	161.45	0.92	12.3	315.02	1.22	88.6	814.85	1.57
Stream A-BCD	0.0	0.00	0.00	0.0	0.00	0.00	0.0	3.91	0.03
Stream D-ABC	0.1	79.69	0.11	0.1	89.73	0.12	17.8	1836.12	999999999.00
Stream C-ABD	64.7	362.15	1.07	10.5	42.29	0.91	0.4	12.68	0.28

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

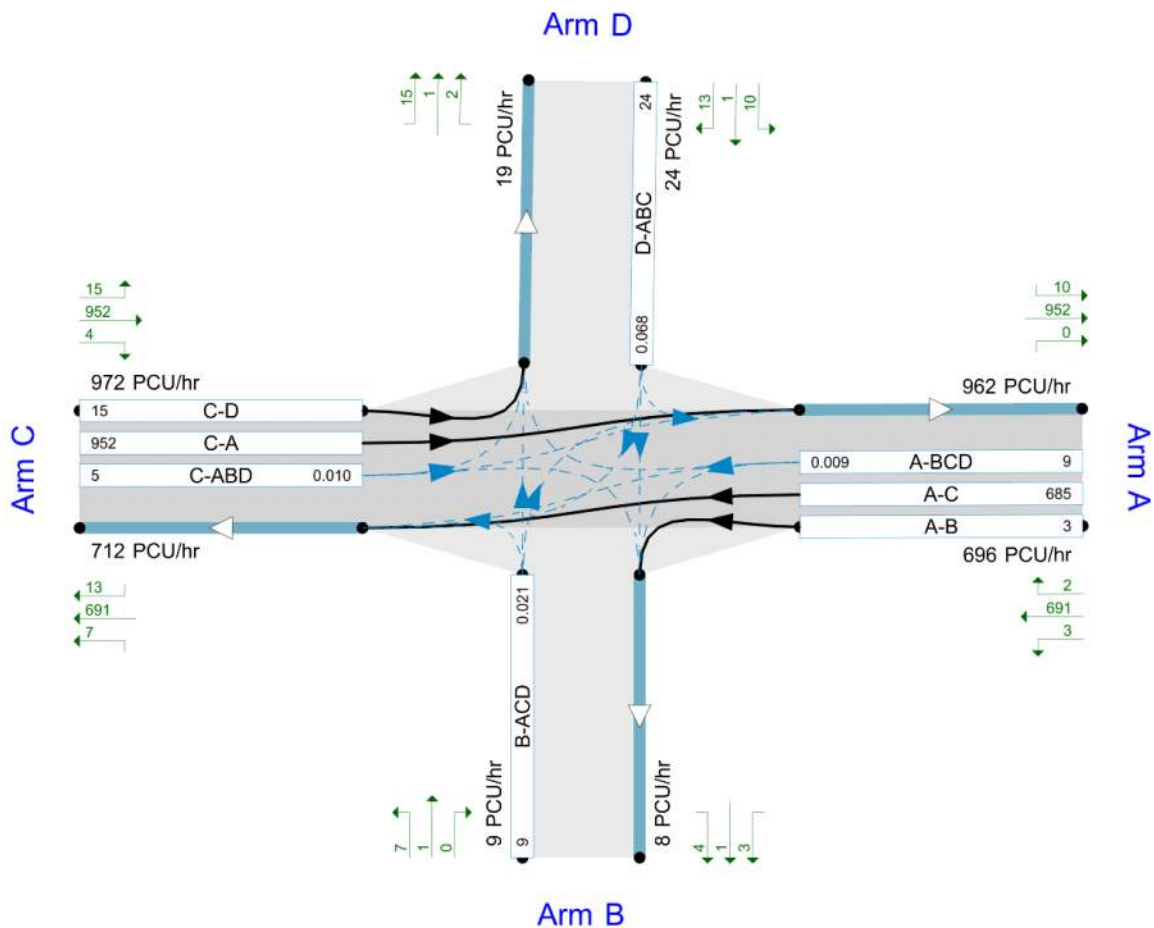
File summary

File Description

Title	A4155 - Westthorpe Farm - Pump Lane South
Location	Marlow
Site number	
Date	03/08/2021
Version	
Status	
Identifier	
Client	
Jobnumber	
Enumerator	BMJW1
Description	

Units

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



Flows show modified flow through junction (PCU/hr).
Streams (upstream end) show Total Demand (PCU/hr); Streams (downstream end) show RFC (s)
Time Segment: 16:45-17:00

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	2021 Base	AM 0700-0800	ONE HOUR	06:45	08:15	15	✓
D2	2021 Base	AM 0800-0900	ONE HOUR	07:45	09:15	15	✓
D3	2021 Base	PM	ONE HOUR	16:45	18:15	15	✓
D4	2027 Future Base	AM 0700-0800	ONE HOUR	06:45	08:15	15	✓
D5	2027 Future Base	AM 0800-0900	ONE HOUR	07:45	09:15	15	✓
D6	2027 Future Base	PM	ONE HOUR	16:45	18:15	15	✓
D7	2027 + Development Traffic	AM 0700-0800	ONE HOUR	06:45	08:15	15	✓
D8	2027 + Development Traffic	AM 0800-0900	ONE HOUR	07:45	09:15	15	✓
D9	2027 + Development Traffic	PM	ONE HOUR	16:45	18:15	15	✓
D10	2027 + STS Development Traffic	AM 0700-0800	ONE HOUR	06:45	08:15	15	✓
D11	2027 + STS Development Traffic	AM 0800-0900	ONE HOUR	07:45	09:15	15	✓
D12	2027 + STS Development Traffic	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	(Default Analysis Set)	✓	100.000	100.000

(Default Analysis Set) - 2021 Base, AM 0700-0800

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	(untitled)	Crossroads	Two-way	Two-way	Two-way	Two-way		0.17	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.17	A

Arms

Arms

Arm	Name	Description	Arm type
A	A4155 (East)		Major
B	Westhorpe Farm Access Road		Minor
C	A4155 (West)		Major
D	Pump Lane South		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
A	7.30	✓	4.40		100.0	✓	0.00
C	7.30	✓	4.40		100.0	✓	8.50

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	One lane	3.00	28	28
D	One lane	5.00	37	33

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
A-D	632	-	-	-	-	-	-	0.231	0.330	0.231	-	-	-
B-A	550	0.086	0.217	0.217	-	-	-	0.137	0.311	-	0.217	0.217	0.109
B-C	642	0.093	0.235	-	-	-	-	-	-	-	-	-	-
B-D, nearside lane	550	0.086	0.217	0.217	-	-	-	0.137	0.311	0.137	-	-	-
B-D, offside lane	550	0.086	0.217	0.217	-	-	-	0.137	0.311	0.137	-	-	-
C-B	632	0.231	0.231	0.330	-	-	-	-	-	-	-	-	-
D-A	774	-	-	-	-	-	-	0.283	-	0.112	-	-	-
D-B, nearside lane	667	0.166	0.166	0.377	-	-	-	0.264	0.264	0.104	-	-	-
D-B, offside lane	667	0.166	0.166	0.377	-	-	-	0.264	0.264	0.104	-	-	-
D-C	667	-	0.166	0.377	0.132	0.264	0.264	0.264	0.264	0.104	-	-	-

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)	Run automatically
D1	2021 Base	AM 0700-0800	ONE HOUR	06:45	08:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	937	100.000
B		ONE HOUR	✓	11	100.000
C		ONE HOUR	✓	968	100.000
D		ONE HOUR	✓	5	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A	B	C	D	
From	A	0	4	933	0	
	B	4	0	7	0	
	C	951	8	0	9	
	D	1	0	4	0	

Proportions

		To				
		A	B	C	D	
From	A	0.00	0.00	1.00	0.00	
	B	0.36	0.00	0.64	0.00	
	C	0.98	0.01	0.00	0.01	
	D	0.20	0.00	0.80	0.00	

Vehicle Mix

Heavy Vehicle Percentages

		To				
		A	B	C	D	
From	A	0	0	3	33	
	B	0	0	0	0	
	C	6	20	0	0	
	D	25	0	0	0	

Average PCU Per Veh

		To				
		A	B	C	D	
From	A	1.000	1.000	1.030	1.330	
	B	1.000	1.000	1.000	1.000	
	C	1.060	1.200	1.000	1.000	
	D	1.250	1.000	1.000	1.000	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
06:45-07:00	A	705	705
	B	8	8
	C	729	729
	D	4	4
07:00-07:15	A	842	842
	B	10	10
	C	870	870
	D	4	4
07:15-07:30	A	1032	1032
	B	12	12
	C	1066	1066
	D	6	6
07:30-07:45	A	1032	1032
	B	12	12
	C	1066	1066
	D	6	6
07:45-08:00	A	842	842
	B	10	10
	C	870	870
	D	4	4
08:00-08:15	A	705	705
	B	8	8
	C	729	729
	D	4	4

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)	Total Queueing Delay (PCU-hr)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-hr/min)	Inclusive Total Queueing Delay (PCU-hr)	Inclusive Average Queueing Delay (s)
B-ACD	0.04	13.62	0.0	B	10	15	0.05	11.37	0.00	0.05	11.37
ABCD	0.00	0.00	0.0	A	0	0	0.00	0.00	0.00	0.00	0.00
A-B					4	6					
A-C					856	1284					
D-ABC	0.02	15.95	0.0	C	5	7	0.02	12.66	0.00	0.02	12.66
C-ABD	0.02	11.23	0.0	B	7	11	0.03	10.29	0.00	0.03	10.29
C-D					8	12					
C-A					873	1309					

Main Results for each time segment

06:45 - 07:00

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-ACD	8	2	390	0.021	8	0.0	0.0	9.415	A
A-BCD	0	0	463	0.000	0	0.0	0.0	0.000	A
A-B	3	0.75			3				
A-C	702	176			702				
D-ABC	4	0.94	386	0.010	4	0.0	0.0	9.805	A
C-ABD	6	2	469	0.013	6	0.0	0.0	9.329	A
C-D	7	2			7				
C-A	716	179			716				

07:00 - 07:15

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-ACD	10	2	345	0.029	10	0.0	0.0	10.751	B
A-BCD	0	0	430	0.000	0	0.0	0.0	0.000	A
A-B	4	0.90			4				
A-C	839	210			839				
D-ABC	4	1	326	0.014	4	0.0	0.0	11.667	B
C-ABD	7	2	437	0.016	7	0.0	0.0	10.043	B
C-D	8	2			8				
C-A	855	214			855				

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-ACD	12	3	277	0.044	12	0.0	0.0	13.609	B
A-BCD	0	0	385	0.000	0	0.0	0.0	0.000	A
A-B	4	1			4				
A-C	1027	257			1027				
D-ABC	6	1	241	0.023	5	0.0	0.0	15.941	C
C-ABD	9	2	394	0.022	9	0.0	0.0	11.226	B
C-D	10	2			10				
C-A	1047	262			1047				

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-ACD	12	3	276	0.044	12	0.0	0.0	13.615	B
A-BCD	0	0	385	0.000	0	0.0	0.0	0.000	A
A-B	4	1			4				
A-C	1027	257			1027				
D-ABC	6	1	241	0.023	6	0.0	0.0	15.947	C
C-ABD	9	2	394	0.022	9	0.0	0.0	11.226	B
C-D	10	2			10				
C-A	1047	262			1047				

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-ACD	10	2	345	0.029	10	0.0	0.0	10.755	B
A-BCD	0	0	430	0.000	0	0.0	0.0	0.000	A
A-B	4	0.90			4				
A-C	839	210			839				
D-ABC	4	1	326	0.014	5	0.0	0.0	11.673	B
C-ABD	7	2	437	0.016	7	0.0	0.0	10.046	B
C-D	8	2			8				
C-A	855	214			855				

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-ACD	8	2	390	0.021	8	0.0	0.0	9.420	A
A-BCD	0	0	463	0.000	0	0.0	0.0	0.000	A
A-B	3	0.75			3				
A-C	702	176			702				
D-ABC	4	0.94	386	0.010	4	0.0	0.0	9.809	A
C-ABD	6	2	469	0.013	6	0.0	0.0	9.334	A
C-D	7	2			7				
C-A	716	179			716				

Queueing Delay Results for each time segment
06:45 - 07:00

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.01	0.00	9.415	A
A-BCD	0.00	0.00	0.000	A
D-ABC	0.00	0.00	9.805	A
C-ABD	0.00	0.00	9.329	A

07:00 - 07:15

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.01	0.00	10.751	B
A-BCD	0.00	0.00	0.000	A
D-ABC	0.00	0.00	11.667	B
C-ABD	0.00	0.00	10.043	B

07:15 - 07:30

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.01	0.00	13.609	B
A-BCD	0.00	0.00	0.000	A
D-ABC	0.01	0.00	15.941	C
C-ABD	0.01	0.00	11.226	B

07:30 - 07:45

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.01	0.00	13.615	B
A-BCD	0.00	0.00	0.000	A
D-ABC	0.01	0.00	15.947	C
C-ABD	0.01	0.00	11.226	B

07:45 - 08:00

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.01	0.00	10.755	B
A-BCD	0.00	0.00	0.000	A
D-ABC	0.00	0.00	11.673	B
C-ABD	0.01	0.00	10.046	B

08:00 - 08:15

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.01	0.00	9.420	A
A-BCD	0.00	0.00	0.000	A
D-ABC	0.00	0.00	9.809	A
C-ABD	0.00	0.00	9.334	A

(Default Analysis Set) - 2021 Base, AM 0800-0900

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	(untitled)	Crossroads	Two-way	Two-way	Two-way	Two-way		0.21	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.21	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
D2	2021 Base	AM 0800-0900	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1110	100.000
B		ONE HOUR	✓	23	100.000
C		ONE HOUR	✓	1006	100.000
D		ONE HOUR	✓	4	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	4	1106	0
	B	4	0	19	0
	C	977	12	0	17
	D	1	0	3	0

Proportions

		To			
		A	B	C	D
From	A	0.00	0.00	1.00	0.00
	B	0.17	0.00	0.83	0.00
	C	0.97	0.01	0.00	0.02
	D	0.25	0.00	0.75	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	4	0
	B	0	0	0	0
	C	4	0	0	7
	D	0	0	0	0

Average PCU Per Veh

		To			
		A	B	C	D
From	A	1.000	1.000	1.040	1.000
	B	1.000	1.000	1.000	1.000
	C	1.040	1.000	1.000	1.070
	D	1.000	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	A	836	836
	B	17	17
	C	757	757
	D	0	0
08:00-08:15	A	998	998
	B	21	21
	C	904	904
	D	0	0
08:15-08:30	A	1222	1222
	B	25	25
	C	1108	1108
	D	0	0
08:30-08:45	A	1222	1222
	B	25	25
	C	1108	1108
	D	0	0
08:45-09:00	A	998	998
	B	21	21
	C	904	904
	D	0	0
09:00-09:15	A	836	836
	B	17	17
	C	757	757
	D	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)	Total Queueing Delay (PCU-hr)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-hr/min)	Inclusive Total Queueing Delay (PCU-hr)	Inclusive Average Queueing Delay (s)
B-ACD	0.09	14.37	0.1	B	21	32	0.10	11.71	0.00	0.10	11.71
A-BCD	0.00	0.00	0.0	A	0	0	0.00	0.00	0.00	0.00	0.00
A-B					4	6					
A-C					1015	1522					
D-ABC	0.00	0.00	0.0	A	0	0	0.00	0.00	0.00	0.00	0.00
C-ABD	0.04	10.70	0.0	B	11	17	0.04	9.55	0.00	0.04	9.55
C-D					16	23					
C-A					897	1345					

Main Results for each time segment

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-ACD	17	4	399	0.043	17	0.0	0.0	9.428	A
A-BCD	0	0	456	0.000	0	0.0	0.0	0.000	A
A-B	3	0.75			3				
A-C	833	208			833				
D-ABC	0	0	367	0.000	0	0.0	0.0	0.000	A
C-ABD	9	2	439	0.021	9	0.0	0.0	8.374	A
C-D	13	3			13				
C-A	736	184			736				

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-ACD	21	5	351	0.059	21	0.0	0.1	10.908	B
A-BCD	0	0	422	0.000	0	0.0	0.0	0.000	A
A-B	4	0.90			4				
A-C	994	249			994				
D-ABC	0	0	301	0.000	0	0.0	0.0	0.000	A
C-ABD	11	3	401	0.027	11	0.0	0.0	9.216	A
C-D	15	4			15				
C-A	878	220			878				

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-ACD	25	6	276	0.092	25	0.1	0.1	14.356	B
A-BCD	0	0	375	0.000	0	0.0	0.0	0.000	A
A-B	4	1			4				
A-C	1218	304			1218				
D-ABC	0	0	205	0.000	0	0.0	0.0	0.000	A
C-ABD	13	3	350	0.038	13	0.0	0.0	10.699	B
C-D	19	5			19				
C-A	1076	269			1076				

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-ACD	25	6	276	0.092	25	0.1	0.1	14.373	B
A-BCD	0	0	375	0.000	0	0.0	0.0	0.000	A
A-B	4	1			4				
A-C	1218	304			1218				
D-ABC	0	0	205	0.000	0	0.0	0.0	0.000	A
C-ABD	13	3	350	0.038	13	0.0	0.0	10.701	B
C-D	19	5			19				
C-A	1076	269			1076				

08:45 - 09:00

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-ACD	21	5	351	0.059	21	0.1	0.1	10.922	B
A-BCD	0	0	422	0.000	0	0.0	0.0	0.000	A
A-B	4	0.90			4				
A-C	994	249			994				
D-ABC	0	0	301	0.000	0	0.0	0.0	0.000	A
C-ABD	11	3	401	0.027	11	0.0	0.0	9.220	A
C-D	15	4			15				
C-A	878	220			878				

09:00 - 09:15

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-ACD	17	4	399	0.043	17	0.1	0.0	9.441	A
A-BCD	0	0	456	0.000	0	0.0	0.0	0.000	A
A-B	3	0.75			3				
A-C	833	208			833				
D-ABC	0	0	367	0.000	0	0.0	0.0	0.000	A
C-ABD	9	2	439	0.021	9	0.0	0.0	8.377	A
C-D	13	3			13				
C-A	736	184			736				

Queueing Delay Results for each time segment
07:45 - 08:00

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.01	0.00	9.428	A
A-BCD	0.00	0.00	0.000	A
D-ABC	0.00	0.00	0.000	A
C-ABD	0.01	0.00	8.374	A

08:00 - 08:15

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.02	0.00	10.908	B
A-BCD	0.00	0.00	0.000	A
D-ABC	0.00	0.00	0.000	A
C-ABD	0.01	0.00	9.216	A

08:15 - 08:30

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.02	0.00	14.356	B
A-BCD	0.00	0.00	0.000	A
D-ABC	0.00	0.00	0.000	A
C-ABD	0.01	0.00	10.699	B

08:30 - 08:45

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.02	0.00	14.373	B
A-BCD	0.00	0.00	0.000	A
D-ABC	0.00	0.00	0.000	A
C-ABD	0.01	0.00	10.701	B

08:45 - 09:00

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.02	0.00	10.922	B
A-BCD	0.00	0.00	0.000	A
D-ABC	0.00	0.00	0.000	A
C-ABD	0.01	0.00	9.220	A

09:00 - 09:15

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.01	0.00	9.441	A
A-BCD	0.00	0.00	0.000	A
D-ABC	0.00	0.00	0.000	A
C-ABD	0.01	0.00	8.377	A

(Default Analysis Set) - 2021 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	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	(untitled)	Crossroads	Two-way	Two-way	Two-way	Two-way		0.43	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.43	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)	Run automatically
D3	2021 Base	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	888	100.000
B		ONE HOUR	✓	12	100.000
C		ONE HOUR	✓	1240	100.000
D		ONE HOUR	✓	30	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	4	881	3
	B	0	0	10	2
	C	1214	6	0	20
	D	12	1	17	0

Proportions

		To			
		A	B	C	D
From	A	0.00	0.00	0.99	0.00
	B	0.00	0.00	0.83	0.17
	C	0.98	0.00	0.00	0.02
	D	0.40	0.03	0.57	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	1	0
	B	0	0	0	0
	C	1	0	0	0
	D	0	0	0	0

Average PCU Per Veh

		To			
		A	B	C	D
From	A	1.000	1.000	1.010	1.000
	B	1.000	1.000	1.000	1.000
	C	1.010	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A	669	669
	B	9	9
	C	934	934
	D	23	23
17:00-17:15	A	798	798
	B	11	11
	C	1115	1115
	D	27	27
17:15-17:30	A	978	978
	B	13	13
	C	1365	1365
	D	33	33
17:30-17:45	A	978	978
	B	13	13
	C	1365	1365
	D	33	33
17:45-18:00	A	798	798
	B	11	11
	C	1115	1115
	D	27	27
18:00-18:15	A	669	669
	B	9	9
	C	934	934
	D	23	23

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)	Total Queueing Delay (PCU-hr)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-hr/min)	Inclusive Total Queueing Delay (PCU-hr)	Inclusive Average Queueing Delay (s)
B-ACD	0.04	11.74	0.0	B	11	17	0.05	10.01	0.00	0.05	10.01
A-BCD	0.02	3.94	0.0	A	16	23	0.03	4.06	0.00	0.03	4.06
A-B					4	5					
A-C					796	1194					
D-ABC	0.17	22.42	0.2	C	28	41	0.18	15.70	0.00	0.18	15.71
C-ABD	0.02	9.02	0.0	A	6	8	0.02	8.33	0.00	0.02	8.33
C-D					18	28					
C-A					1114	1671					

Main Results for each time segment

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-ACD	9	2	431	0.021	9	0.0	0.0	8.518	A
A-BCD	8	2	928	0.009	8	0.0	0.0	3.939	A
A-B	3	0.75			3				
A-C	658	164			658				
D-ABC	23	6	368	0.061	22	0.0	0.1	10.402	B
C-ABD	5	1	477	0.009	4	0.0	0.0	7.614	A
C-D	15	4			15				
C-A	914	228			914				

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-ACD	11	3	388	0.028	11	0.0	0.0	9.535	A
A-BCD	13	3	1004	0.013	13	0.0	0.0	3.658	A
A-B	4	0.89			4				
A-C	782	195			782				
D-ABC	27	7	298	0.091	27	0.1	0.1	13.284	B
C-ABD	5	1	447	0.012	5	0.0	0.0	8.147	A
C-D	18	4			18				
C-A	1091	273			1091				

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-ACD	13	3	320	0.041	13	0.0	0.0	11.735	B
A-BCD	26	6	1119	0.023	26	0.0	0.0	3.318	A
A-B	4	1			4				
A-C	948	237			948				
D-ABC	33	8	194	0.171	33	0.1	0.2	22.304	C
C-ABD	7	2	406	0.016	7	0.0	0.0	9.019	A
C-D	22	6			22				
C-A	1337	334			1337				

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-ACD	13	3	320	0.041	13	0.0	0.0	11.737	B
A-BCD	26	6	1119	0.023	26	0.0	0.0	3.321	A
A-B	4	1			4				
A-C	948	237			948				
D-ABC	33	8	194	0.171	33	0.2	0.2	22.415	C
C-ABD	7	2	406	0.016	7	0.0	0.0	9.020	A
C-D	22	6			22				
C-A	1337	334			1337				

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-ACD	11	3	388	0.028	11	0.0	0.0	9.540	A
A-BCD	13	3	1004	0.013	13	0.0	0.0	3.661	A
A-B	4	0.89			4				
A-C	782	195			782				
D-ABC	27	7	298	0.091	27	0.2	0.1	13.341	B
C-ABD	5	1	447	0.012	5	0.0	0.0	8.150	A
C-D	18	4			18				
C-A	1091	273			1091				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	9	2	431	0.021	9	0.0	0.0	8.524	A
A-BCD	8	2	928	0.009	8	0.0	0.0	3.942	A
A-B	3	0.75			3				
A-C	658	164			658				
D-ABC	23	6	368	0.061	23	0.1	0.1	10.428	B
C-ABD	5	1	477	0.009	5	0.0	0.0	7.615	A
C-D	15	4			15				
C-A	914	228			914				

Queueing Delay Results for each time segment
16:45 - 17:00

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.01	0.00	8.518	A
A-BCD	0.00	0.00	3.939	A
D-ABC	0.02	0.00	10.402	B
C-ABD	0.00	0.00	7.614	A

17:00 - 17:15

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.01	0.00	9.535	A
A-BCD	0.00	0.00	3.658	A
D-ABC	0.02	0.00	13.284	B
C-ABD	0.00	0.00	8.147	A

17:15 - 17:30

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.01	0.00	11.735	B
A-BCD	0.01	0.00	3.318	A
D-ABC	0.05	0.00	22.304	C
C-ABD	0.00	0.00	9.019	A

17:30 - 17:45

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.01	0.00	11.737	B
A-BCD	0.01	0.00	3.321	A
D-ABC	0.05	0.00	22.415	C
C-ABD	0.00	0.00	9.020	A

17:45 - 18:00

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.01	0.00	9.540	A
A-BCD	0.00	0.00	3.661	A
D-ABC	0.03	0.00	13.341	B
C-ABD	0.00	0.00	8.150	A

18:00 - 18:15

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.01	0.00	8.524	A
A-BCD	0.00	0.00	3.942	A
D-ABC	0.02	0.00	10.428	B
C-ABD	0.00	0.00	7.615	A

(Default Analysis Set) - 2027 Future Base, AM 0700-0800

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	(untitled)	Crossroads	Two-way	Two-way	Two-way	Two-way		0.18	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.18	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
D4	2027 Future Base	AM 0700-0800	ONE HOUR	06:45	08:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	975	100.000
B		ONE HOUR	✓	11	100.000
C		ONE HOUR	✓	1009	100.000
D		ONE HOUR	✓	5	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	4	971	0
	B	4	0	7	0
	C	990	9	0	10
	D	1	0	4	0

Proportions

		To			
		A	B	C	D
From	A	0.00	0.00	1.00	0.00
	B	0.36	0.00	0.64	0.00
	C	0.98	0.01	0.00	0.01
	D	0.20	0.00	0.80	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To				
	A	B	C	D	
From	A	0	0	3	33
	B	0	0	0	0
	C	6	20	0	0
	D	25	0	0	0

Average PCU Per Veh

	To				
	A	B	C	D	
From	A	1.000	1.000	1.030	1.330
	B	1.000	1.000	1.000	1.000
	C	1.060	1.200	1.000	1.000
	D	1.250	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
06:45-07:00	A	734	734
	B	8	8
	C	760	760
	D	4	4
07:00-07:15	A	877	877
	B	10	10
	C	907	907
	D	4	4
07:15-07:30	A	1073	1073
	B	12	12
	C	1111	1111
	D	6	6
07:30-07:45	A	1073	1073
	B	12	12
	C	1111	1111
	D	6	6
07:45-08:00	A	877	877
	B	10	10
	C	907	907
	D	4	4
08:00-08:15	A	734	734
	B	8	8
	C	760	760
	D	4	4

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)	Total Queueing Delay (PCU-hr)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-hr/min)	Inclusive Total Queueing Delay (PCU-hr)	Inclusive Average Queueing Delay (s)
B-ACD	0.05	14.52	0.0	B	10	15	0.05	11.91	0.00	0.05	11.91
A-BCD	0.00	0.00	0.0	A	0	0	0.00	0.00	0.00	0.00	0.00
A-B					4	6					
A-C					891	1337					
D-ABC	0.02	17.40	0.0	C	5	7	0.03	13.48	0.00	0.03	13.48
C-ABD	0.03	11.55	0.0	B	8	12	0.04	10.53	0.00	0.04	10.53
C-D					9	14					
C-A					908	1363					

Main Results for each time segment

06:45 - 07:00

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-ACD	8	2	381	0.022	8	0.0	0.0	9.655	A
ABCD	0	0	456	0.000	0	0.0	0.0	0.000	A
A-B	3	0.75			3				
A-C	731	183			731				
D-ABC	4	0.94	373	0.010	4	0.0	0.0	10.142	B
C-ABD	7	2	462	0.015	7	0.0	0.0	9.480	A
C-D	8	2			8				
C-A	745	186			745				

07:00 - 07:15

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-ACD	10	2	333	0.030	10	0.0	0.0	11.148	B
ABCD	0	0	422	0.000	0	0.0	0.0	0.000	A
A-B	4	0.90			4				
A-C	873	218			873				
D-ABC	4	1	310	0.014	4	0.0	0.0	12.256	B
C-ABD	8	2	429	0.019	8	0.0	0.0	10.252	B
C-D	9	2			9				
C-A	890	222			890				

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-ACD	12	3	260	0.047	12	0.0	0.0	14.514	B
ABCD	0	0	374	0.000	0	0.0	0.0	0.000	A
A-B	4	1			4				
A-C	1069	267			1069				
D-ABC	6	1	221	0.025	5	0.0	0.0	17.384	C
C-ABD	10	2	384	0.026	10	0.0	0.0	11.549	B
C-D	11	3			11				
C-A	1090	273			1090				

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-ACD	12	3	260	0.047	12	0.0	0.0	14.520	B
ABCD	0	0	374	0.000	0	0.0	0.0	0.000	A
A-B	4	1			4				
A-C	1069	267			1069				
D-ABC	6	1	221	0.025	6	0.0	0.0	17.395	C
C-ABD	10	2	384	0.026	10	0.0	0.0	11.549	B
C-D	11	3			11				
C-A	1090	273			1090				

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-ACD	10	2	333	0.030	10	0.0	0.0	11.158	B
A-BCD	0	0	422	0.000	0	0.0	0.0	0.000	A
A-B	4	0.90			4				
A-C	873	218			873				
D-ABC	4	1	310	0.014	5	0.0	0.0	12.264	B
C-ABD	8	2	429	0.019	8	0.0	0.0	10.254	B
C-D	9	2			9				
C-A	890	222			890				

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-ACD	8	2	381	0.022	8	0.0	0.0	9.663	A
A-BCD	0	0	456	0.000	0	0.0	0.0	0.000	A
A-B	3	0.75			3				
A-C	731	183			731				
D-ABC	4	0.94	373	0.010	4	0.0	0.0	10.146	B
C-ABD	7	2	462	0.015	7	0.0	0.0	9.485	A
C-D	8	2			8				
C-A	745	186			745				

Queueing Delay Results for each time segment
06:45 - 07:00

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.01	0.00	9.655	A
A-BCD	0.00	0.00	0.000	A
D-ABC	0.00	0.00	10.142	B
C-ABD	0.00	0.00	9.480	A

07:00 - 07:15

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.01	0.00	11.148	B
A-BCD	0.00	0.00	0.000	A
D-ABC	0.00	0.00	12.256	B
C-ABD	0.01	0.00	10.252	B

07:15 - 07:30

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.01	0.00	14.514	B
A-BCD	0.00	0.00	0.000	A
D-ABC	0.01	0.00	17.384	C
C-ABD	0.01	0.00	11.549	B

07:30 - 07:45

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.01	0.00	14.520	B
A-BCD	0.00	0.00	0.000	A
D-ABC	0.01	0.00	17.395	C
C-ABD	0.01	0.00	11.549	B

07:45 - 08:00

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.01	0.00	11.158	B
A-BCD	0.00	0.00	0.000	A
D-ABC	0.00	0.00	12.264	B
C-ABD	0.01	0.00	10.254	B

08:00 - 08:15

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.01	0.00	9.663	A
A-BCD	0.00	0.00	0.000	A
D-ABC	0.00	0.00	10.146	B
C-ABD	0.00	0.00	9.485	A

(Default Analysis Set) - 2027 Future Base, AM 0800-0900

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	(untitled)	Crossroads	Two-way	Two-way	Two-way	Two-way		0.27	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.27	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
D5	2027 Future Base	AM 0800-0900	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1155	100.000
B		ONE HOUR	✓	24	100.000
C		ONE HOUR	✓	1046	100.000
D		ONE HOUR	✓	5	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	4	1151	0
	B	4	0	20	0
	C	1017	12	0	17
	D	1	0	4	0

Proportions

		To			
		A	B	C	D
From	A	0.00	0.00	1.00	0.00
	B	0.17	0.00	0.83	0.00
	C	0.97	0.01	0.00	0.02
	D	0.20	0.00	0.80	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To				
	A	B	C	D	
From	A	0	0	4	0
	B	0	0	0	0
	C	4	0	0	7
	D	0	0	0	0

Average PCU Per Veh

	To				
	A	B	C	D	
From	A	1.000	1.000	1.040	1.000
	B	1.000	1.000	1.000	1.000
	C	1.040	1.000	1.000	1.070
	D	1.000	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	A	870	870
	B	18	18
	C	787	787
	D	4	4
08:00-08:15	A	1038	1038
	B	22	22
	C	940	940
	D	4	4
08:15-08:30	A	1272	1272
	B	26	26
	C	1152	1152
	D	6	6
08:30-08:45	A	1272	1272
	B	26	26
	C	1152	1152
	D	6	6
08:45-09:00	A	1038	1038
	B	22	22
	C	940	940
	D	4	4
09:00-09:15	A	870	870
	B	18	18
	C	787	787
	D	4	4

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)	Total Queueing Delay (PCU-hr)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-hr/min)	Inclusive Total Queueing Delay (PCU-hr)	Inclusive Average Queueing Delay (s)
B-ACD	0.10	15.48	0.1	C	22	33	0.11	12.31	0.00	0.11	12.31
A-BCD	0.00	0.00	0.0	A	0	0	0.00	0.00	0.00	0.00	0.00
A-B					4	6					
A-C					1056	1584					
D-ABC	0.03	21.57	0.0	C	5	7	0.03	15.53	0.00	0.03	15.53
C-ABD	0.04	11.08	0.0	B	11	17	0.05	9.82	0.00	0.05	9.82
C-D					16	23					
C-A					933	1400					

Main Results for each time segment

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-ACD	18	5	391	0.046	18	0.0	0.0	9.653	A
ABCD	0	0	449	0.000	0	0.0	0.0	0.000	A
A-B	3	0.75			3				
A-C	867	217			867				
D-ABC	4	0.94	343	0.011	4	0.0	0.0	10.612	B
C-ABD	9	2	431	0.021	9	0.0	0.0	8.526	A
C-D	13	3			13				
C-A	766	191			766				

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-ACD	22	5	340	0.063	21	0.0	0.1	11.306	B
ABCD	0	0	414	0.000	0	0.0	0.0	0.000	A
A-B	4	0.90			4				
A-C	1035	259			1035				
D-ABC	4	1	273	0.016	4	0.0	0.0	13.414	B
C-ABD	11	3	392	0.028	11	0.0	0.0	9.441	A
C-D	15	4			15				
C-A	914	229			914				

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-ACD	26	7	259	0.102	26	0.1	0.1	15.464	C
ABCD	0	0	365	0.000	0	0.0	0.0	0.000	A
A-B	4	1			4				
A-C	1267	317			1267				
D-ABC	6	1	172	0.032	5	0.0	0.0	21.544	C
C-ABD	13	3	338	0.039	13	0.0	0.0	11.076	B
C-D	19	5			19				
C-A	1120	280			1120				

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-ACD	26	7	259	0.102	26	0.1	0.1	15.477	C
ABCD	0	0	365	0.000	0	0.0	0.0	0.000	A
A-B	4	1			4				
A-C	1267	317			1267				
D-ABC	6	1	172	0.032	6	0.0	0.0	21.567	C
C-ABD	13	3	338	0.039	13	0.0	0.0	11.078	B
C-D	19	5			19				
C-A	1120	280			1120				

08:45 - 09:00

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-ACD	22	5	340	0.063	22	0.1	0.1	11.323	B
A-BCD	0	0	414	0.000	0	0.0	0.0	0.000	A
A-B	4	0.90			4				
A-C	1035	259			1035				
D-ABC	4	1	273	0.016	5	0.0	0.0	13.424	B
C-ABD	11	3	392	0.028	11	0.0	0.0	9.446	A
C-D	15	4			15				
C-A	914	229			914				

09:00 - 09:15

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-ACD	18	5	391	0.046	18	0.1	0.0	9.668	A
A-BCD	0	0	449	0.000	0	0.0	0.0	0.000	A
A-B	3	0.75			3				
A-C	867	217			867				
D-ABC	4	0.94	343	0.011	4	0.0	0.0	10.621	B
C-ABD	9	2	431	0.021	9	0.0	0.0	8.531	A
C-D	13	3			13				
C-A	766	191			766				

Queueing Delay Results for each time segment
07:45 - 08:00

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.01	0.00	9.653	A
A-BCD	0.00	0.00	0.000	A
D-ABC	0.00	0.00	10.612	B
C-ABD	0.01	0.00	8.526	A

08:00 - 08:15

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.02	0.00	11.306	B
A-BCD	0.00	0.00	0.000	A
D-ABC	0.00	0.00	13.414	B
C-ABD	0.01	0.00	9.441	A

08:15 - 08:30

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.03	0.00	15.464	C
A-BCD	0.00	0.00	0.000	A
D-ABC	0.01	0.00	21.544	C
C-ABD	0.01	0.00	11.076	B

08:30 - 08:45

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.03	0.00	15.477	C
A-BCD	0.00	0.00	0.000	A
D-ABC	0.01	0.00	21.567	C
C-ABD	0.01	0.00	11.078	B

08:45 - 09:00

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.02	0.00	11.323	B
A-BCD	0.00	0.00	0.000	A
D-ABC	0.00	0.00	13.424	B
C-ABD	0.01	0.00	9.446	A

09:00 - 09:15

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.01	0.00	9.668	A
A-BCD	0.00	0.00	0.000	A
D-ABC	0.00	0.00	10.621	B
C-ABD	0.01	0.00	8.531	A

(Default Analysis Set) - 2027 Future 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	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	(untitled)	Crossroads	Two-way	Two-way	Two-way	Two-way		0.50	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.50	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
D6	2027 Future Base	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	925	100.000
B		ONE HOUR	✓	12	100.000
C		ONE HOUR	✓	1291	100.000
D		ONE HOUR	✓	32	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	4	918	3
	B	0	0	10	2
	C	1265	6	0	20
	D	13	1	18	0

Proportions

		To			
		A	B	C	D
From	A	0.00	0.00	0.99	0.00
	B	0.00	0.00	0.83	0.17
	C	0.98	0.00	0.00	0.02
	D	0.41	0.03	0.56	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	1	0
	B	0	0	0	0
	C	1	0	0	0
	D	0	0	0	0

Average PCU Per Veh

		To			
		A	B	C	D
From	A	1.000	1.000	1.010	1.000
	B	1.000	1.000	1.000	1.000
	C	1.010	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A	696	696
	B	9	9
	C	972	972
	D	24	24
17:00-17:15	A	832	832
	B	11	11
	C	1161	1161
	D	29	29
17:15-17:30	A	1018	1018
	B	13	13
	C	1421	1421
	D	35	35
17:30-17:45	A	1018	1018
	B	13	13
	C	1421	1421
	D	35	35
17:45-18:00	A	832	832
	B	11	11
	C	1161	1161
	D	29	29
18:00-18:15	A	696	696
	B	9	9
	C	972	972
	D	24	24

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)	Total Queueing Delay (PCU-hr)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-hr/min)	Inclusive Total Queueing Delay (PCU-hr)	Inclusive Average Queueing Delay (s)
B-ACD	0.04	12.47	0.0	B	11	17	0.05	10.44	0.00	0.05	10.44
A-BCD	0.03	3.88	0.0	A	17	26	0.03	4.03	0.00	0.03	4.03
A-B					4	5					
A-C					828	1242					
D-ABC	0.21	26.81	0.3	D	29	44	0.22	17.73	0.00	0.22	17.73
C-ABD	0.02	9.24	0.0	A	6	8	0.02	8.49	0.00	0.02	8.49
C-D					18	28					
C-A					1161	1741					

Main Results for each time segment

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-ACD	9	2	422	0.021	9	0.0	0.0	8.703	A
A-BCD	9	2	944	0.009	8	0.0	0.0	3.875	A
A-B	3	0.75			3				
A-C	685	171			685				
D-ABC	24	6	354	0.068	24	0.0	0.1	10.878	B
C-ABD	5	1	471	0.010	4	0.0	0.0	7.720	A
C-D	15	4			15				
C-A	952	238			952				

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-ACD	11	3	377	0.029	11	0.0	0.0	9.840	A
A-BCD	14	4	1025	0.014	14	0.0	0.0	3.588	A
A-B	4	0.89			4				
A-C	814	203			814				
D-ABC	29	7	280	0.103	29	0.1	0.1	14.292	B
C-ABD	5	1	440	0.012	5	0.0	0.0	8.292	A
C-D	18	4			18				
C-A	1137	284			1137				

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-ACD	13	3	302	0.044	13	0.0	0.0	12.460	B
A-BCD	29	7	1147	0.025	29	0.0	0.0	3.245	A
A-B	4	1			4				
A-C	985	246			985				
D-ABC	35	9	169	0.208	35	0.1	0.3	26.591	D
C-ABD	7	2	396	0.017	7	0.0	0.0	9.237	A
C-D	22	6			22				
C-A	1393	348			1393				

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-ACD	13	3	302	0.044	13	0.0	0.0	12.466	B
A-BCD	29	7	1147	0.025	29	0.0	0.0	3.246	A
A-B	4	1			4				
A-C	985	246			985				
D-ABC	35	9	169	0.208	35	0.3	0.3	26.805	D
C-ABD	7	2	396	0.017	7	0.0	0.0	9.238	A
C-D	22	6			22				
C-A	1393	348			1393				

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-ACD	11	3	377	0.029	11	0.0	0.0	9.846	A
A-BCD	14	4	1025	0.014	14	0.0	0.0	3.594	A
A-B	4	0.89			4				
A-C	814	203			814				
D-ABC	29	7	280	0.103	29	0.3	0.1	14.378	B
C-ABD	5	1	440	0.012	5	0.0	0.0	8.293	A
C-D	18	4			18				
C-A	1137	284			1137				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	9	2	422	0.021	9	0.0	0.0	8.710	A
A-BCD	9	2	944	0.009	9	0.0	0.0	3.879	A
A-B	3	0.75			3				
A-C	685	171			685				
D-ABC	24	6	354	0.068	24	0.1	0.1	10.908	B
C-ABD	5	1	471	0.010	5	0.0	0.0	7.720	A
C-D	15	4			15				
C-A	952	238			952				

Queueing Delay Results for each time segment
16:45 - 17:00

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.01	0.00	8.703	A
A-BCD	0.00	0.00	3.875	A
D-ABC	0.02	0.00	10.878	B
C-ABD	0.00	0.00	7.720	A

17:00 - 17:15

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.01	0.00	9.840	A
A-BCD	0.00	0.00	3.588	A
D-ABC	0.03	0.00	14.292	B
C-ABD	0.00	0.00	8.292	A

17:15 - 17:30

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.01	0.00	12.460	B
A-BCD	0.01	0.00	3.245	A
D-ABC	0.06	0.00	26.591	D
C-ABD	0.00	0.00	9.237	A

17:30 - 17:45

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.01	0.00	12.466	B
A-BCD	0.01	0.00	3.246	A
D-ABC	0.06	0.00	26.805	D
C-ABD	0.00	0.00	9.238	A

17:45 - 18:00

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.01	0.00	9.846	A
A-BCD	0.00	0.00	3.594	A
D-ABC	0.03	0.00	14.378	B
C-ABD	0.00	0.00	8.293	A

18:00 - 18:15

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.01	0.00	8.710	A
A-BCD	0.00	0.00	3.879	A
D-ABC	0.02	0.00	10.908	B
C-ABD	0.00	0.00	7.720	A

(Default Analysis Set) - 2027 + Development Traffic, AM 0700-0800

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	(untitled)	Crossroads	Two-way	Two-way	Two-way	Two-way		1983451.51	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1983451.51	F

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 + Development Traffic	AM 0700-0800	ONE HOUR	06:45	08:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1043	100.000
B		ONE HOUR	✓	82	100.000
C		ONE HOUR	✓	1503	100.000
D		ONE HOUR	✓	5	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	72	971	0
	B	13	0	0	69
	C	990	503	0	10
	D	1	0	4	0

Proportions

		To			
		A	B	C	D
From	A	0.00	0.07	0.93	0.00
	B	0.16	0.00	0.00	0.84
	C	0.66	0.33	0.00	0.01
	D	0.20	0.00	0.80	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To				
	A	B	C	D	
From	A	0	0	3	33
	B	0	0	0	0
	C	6	20	0	0
	D	25	0	0	0

Average PCU Per Veh

	To				
	A	B	C	D	
From	A	1.000	1.000	1.030	1.330
	B	1.000	1.000	1.000	1.000
	C	1.060	1.200	1.000	1.000
	D	1.250	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
06:45-07:00	A	785	785
	B	62	62
	C	1132	1132
	D	4	4
07:00-07:15	A	938	938
	B	74	74
	C	1351	1351
	D	4	4
07:15-07:30	A	1148	1148
	B	90	90
	C	1655	1655
	D	6	6
07:30-07:45	A	1148	1148
	B	90	90
	C	1655	1655
	D	6	6
07:45-08:00	A	938	938
	B	74	74
	C	1351	1351
	D	4	4
08:00-08:15	A	785	785
	B	62	62
	C	1132	1132
	D	4	4

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)	Total Queueing Delay (PCU-hr)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-hr/min)	Inclusive Total Queueing Delay (PCU-hr)	Inclusive Average Queueing Delay (s)
B-ACD	999999999.00	59999940.00	81.8	F	75	113	46.14	1471.76	0.51	2777777.78	999999999.00
A-BCD	0.00	0.00	0.0	A	0	0	0.00	0.00	0.00	0.00	0.00
A-B					66	99					
A-C					891	1337					
D-ABC	999999999.00	59999940.00	4.8	F	5	7	2.64	1381.87	0.03	2777777.78	999999999.00
C-ABD	1.51	1876.33	346.6	F	1190	1785	261.64	527.73	2.91	331.02	667.68
C-D					2	3					
C-A					187	281					

Main Results for each time segment

06:45 - 07:00

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-ACD	62	15	166	0.373	59	0.0	0.6	59999940.000	F
ABCD	0	0	333	0.000	0	0.0	0.0	0.000	A
A-B	54	14			54				
A-C	731	183			731				
D-ABC	4	0.94	264	0.014	4	0.0	0.0	59999940.000	F
C-ABD	564	141	671	0.841	541	0.0	5.7	29.289	D
C-D	6	1			6				
C-A	562	141			562				

07:00 - 07:15

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-ACD	74	18	85	0.864	65	0.6	2.8	59999940.000	F
ABCD	0	0	268	0.000	0	0.0	0.0	0.000	A
A-B	65	16			65				
A-C	873	218			873				
D-ABC	4	1	167	0.027	4	0.0	0.0	59999940.000	F
C-ABD	1351	338	1256	1.076	1220	5.7	38.4	78.489	F
C-D	0	0			0				
C-A	0	0			0				

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-ACD	90	23	0	999999999.000	0	2.8	25.4	59999940.000	F
ABCD	0	0	154	0.000	0	0.0	0.0	0.000	A
A-B	79	20			79				
A-C	1069	267			1069				
D-ABC	6	1	0	999999999.000	0	0.0	1.4	59999940.000	F
C-ABD	1655	414	1096	1.511	1094	38.4	178.7	363.951	F
C-D	0	0			0				
C-A	0	0			0				

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-ACD	90	23	0	999999999.000	0	25.4	48.0	59999940.000	F
ABCD	0	0	6	0.000	0	0.0	0.0	0.000	A
A-B	79	20			79				
A-C	1069	267			1069				
D-ABC	6	1	0	999999999.000	0	1.4	2.8	59999940.000	F
C-ABD	1655	414	1096	1.511	1095	178.7	318.7	775.297	F
C-D	0	0			0				
C-A	0	0			0				

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-ACD	74	18	0	999999999.000	0	48.0	66.4	59999940.000	F
A-BCD	0	0	0	0.000	0	0.0	0.0	0.000	A
A-B	65	16			65				
A-C	873	218			873				
D-ABC	4	1	0	999999999.000	0	2.8	3.9	59999940.000	F
C-ABD	1351	338	1241	1.089	1240	318.7	346.6	1033.241	F
C-D	0	0			0				
C-A	0	0			0				

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-ACD	62	15	0	999999999.000	0	66.4	81.8	59999940.000	F
A-BCD	0	0	0	0.000	0	0.0	0.0	0.000	A
A-B	54	14			54				
A-C	731	183			731				
D-ABC	4	0.94	0	999999999.000	0	3.9	4.8	59999940.000	F
C-ABD	564	141	643	0.877	755	346.6	298.7	1876.333	F
C-D	6	1			6				
C-A	562	141			562				

Queueing Delay Results for each time segment

06:45 - 07:00

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.12	0.01	59999940.000	F
A-BCD	0.00	0.00	0.000	A
D-ABC	0.00	0.00	59999940.000	F
C-ABD	1.12	0.07	29.289	D

07:00 - 07:15

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.50	0.03	59999940.000	F
A-BCD	0.00	0.00	0.000	A
D-ABC	0.01	0.00	59999940.000	F
C-ABD	5.82	0.39	78.489	F

07:15 - 07:30

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	3.53	0.24	59999940.000	F
A-BCD	0.00	0.00	0.000	A
D-ABC	0.18	0.01	59999940.000	F
C-ABD	27.24	1.82	363.951	F

07:30 - 07:45

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	9.17	0.61	59999940.000	F
A-BCD	0.00	0.00	0.000	A
D-ABC	0.52	0.03	59999940.000	F
C-ABD	62.23	4.15	775.297	F

07:45 - 08:00

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	14.29	0.95	59999940.000	F
A-BCD	0.00	0.00	0.000	A
D-ABC	0.84	0.06	59999940.000	F
C-ABD	83.71	5.58	1033.241	F

08:00 - 08:15

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	18.53	1.24	59999940.000	F
A-BCD	0.00	0.00	0.000	A
D-ABC	1.09	0.07	59999940.000	F
C-ABD	81.51	5.43	1876.333	F

(Default Analysis Set) - 2027 + Development Traffic, AM 0800-0900

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	(untitled)	Crossroads	Two-way	Two-way	Two-way	Two-way		108994.29	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	108994.29	F

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 + Development Traffic	AM 0800-0900	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1205	100.000
B		ONE HOUR	✓	147	100.000
C		ONE HOUR	✓	1407	100.000
D		ONE HOUR	✓	5	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	54	1151	0
	B	19	0	128	0
	C	1017	373	0	17
	D	1	0	4	0

Proportions

		To			
		A	B	C	D
From	A	0.00	0.04	0.96	0.00
	B	0.13	0.00	0.87	0.00
	C	0.72	0.27	0.00	0.01
	D	0.20	0.00	0.80	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To				
	A	B	C	D	
From	A	0	0	4	0
	B	0	0	0	0
	C	4	0	0	7
	D	0	0	0	0

Average PCU Per Veh

	To				
	A	B	C	D	
From	A	1.000	1.000	1.040	1.000
	B	1.000	1.000	1.000	1.000
	C	1.040	1.000	1.000	1.070
	D	1.000	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	A	907	907
	B	111	111
	C	1059	1059
	D	4	4
08:00-08:15	A	1083	1083
	B	132	132
	C	1265	1265
	D	4	4
08:15-08:30	A	1327	1327
	B	162	162
	C	1549	1549
	D	6	6
08:30-08:45	A	1327	1327
	B	162	162
	C	1549	1549
	D	6	6
08:45-09:00	A	1083	1083
	B	132	132
	C	1265	1265
	D	4	4
09:00-09:15	A	907	907
	B	111	111
	C	1059	1059
	D	4	4

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)	Total Queueing Delay (PCU-hr)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-hr/min)	Inclusive Total Queueing Delay (PCU-hr)	Inclusive Average Queueing Delay (s)
B-ACD	999999999.00	2604.11	114.9	F	135	202	70.77	1259.22	0.79	87.51	1557.05
A-BCD	0.00	0.00	0.0	A	0	0	0.00	0.00	0.00	0.00	0.00
A-B					50	74					
A-C					1056	1584					
D-ABC	999999999.00	59999940.00	4.3	F	5	7	2.20	1149.00	0.02	2777777.78	999999999.00
C-ABD	1.27	984.96	164.6	F	818	1227	104.30	306.12	1.16	111.77	328.04
C-D					8	12					
C-A					466	698					

Main Results for each time segment

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-ACD	111	28	359	0.308	109	0.0	0.4	14.289	B
ABCD	0	0	359	0.000	0	0.0	0.0	0.000	A
A-B	41	10			41				
A-C	867	217			867				
D-ABC	4	0.94	249	0.015	4	0.0	0.0	59999940.000	F
C-ABD	297	74	447	0.665	289	0.0	1.9	22.063	C
C-D	13	3			13				
C-A	750	187			750				

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-ACD	132	33	273	0.485	130	0.4	0.9	24.964	C
ABCD	0	0	304	0.000	0	0.0	0.0	0.000	A
A-B	49	12			49				
A-C	1035	259			1035				
D-ABC	4	1	152	0.030	4	0.0	0.0	59999940.000	F
C-ABD	607	152	687	0.883	589	1.9	6.4	33.028	D
C-D	11	3			11				
C-A	647	162			647				

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-ACD	162	40	0	9999999999.000	0	0.9	41.4	2604.110	F
ABCD	0	0	226	0.000	0	0.0	0.0	0.000	A
A-B	59	15			59				
A-C	1267	317			1267				
D-ABC	6	1	4	1.256	2	0.0	0.9	59999940.000	F
C-ABD	1549	387	1224	1.266	1241	6.4	83.5	148.955	F
C-D	0	0			0				
C-A	0	0			0				

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-ACD	162	40	0	9999999999.000	0	41.4	81.8	2351.717	F
ABCD	0	0	147	0.000	0	0.0	0.0	0.000	A
A-B	59	15			59				
A-C	1267	317			1267				
D-ABC	6	1	0	9999999999.000	0	0.9	2.3	59999940.000	F
C-ABD	1549	387	1228	1.262	1225	83.5	164.6	448.252	F
C-D	0	0			0				
C-A	0	0			0				

08:45 - 09:00

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-ACD	132	33	0	999999999.000	0	81.8	114.9	2039.904	F
A-BCD	0	0	137	0.000	0	0.0	0.0	0.000	A
A-B	49	12			49				
A-C	1035	259			1035				
D-ABC	4	1	0	999999999.000	0	2.3	3.4	59999940.000	F
C-ABD	607	152	697	0.871	787	164.6	119.5	984.962	F
C-D	11	3			11				
C-A	647	162			647				

09:00 - 09:15

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-ACD	111	28	225	0.492	223	114.9	86.8	1630.116	F
A-BCD	0	0	223	0.000	0	0.0	0.0	0.000	A
A-B	41	10			41				
A-C	867	217			867				
D-ABC	4	0.94	0	999999999.000	0	3.4	4.3	59999940.000	F
C-ABD	297	74	454	0.655	446	119.5	82.3	810.065	F
C-D	13	3			13				
C-A	750	187			750				

Queueing Delay Results for each time segment
07:45 - 08:00

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.10	0.01	14.289	B
A-BCD	0.00	0.00	0.000	A
D-ABC	0.00	0.00	59999940.000	F
C-ABD	0.44	0.03	22.063	C

08:00 - 08:15

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.20	0.01	24.964	C
A-BCD	0.00	0.00	0.000	A
D-ABC	0.01	0.00	59999940.000	F
C-ABD	1.29	0.09	33.028	D

08:15 - 08:30

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	5.28	0.35	2604.110	F
A-BCD	0.00	0.00	0.000	A
D-ABC	0.13	0.01	59999940.000	F
C-ABD	11.05	0.74	148.955	F

08:30 - 08:45

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	15.40	1.03	2351.717	F
A-BCD	0.00	0.00	0.000	A
D-ABC	0.39	0.03	59999940.000	F
C-ABD	31.23	2.08	448.252	F

08:45 - 09:00

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	24.58	1.64	2039.904	F
A-BCD	0.00	0.00	0.000	A
D-ABC	0.70	0.05	59999940.000	F
C-ABD	35.27	2.35	984.962	F

09:00 - 09:15

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	25.20	1.68	1630.116	F
A-BCD	0.00	0.00	0.000	A
D-ABC	0.96	0.06	59999940.000	F
C-ABD	25.01	1.67	810.065	F

(Default Analysis Set) - 2027 + Development Traffic, 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	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	(untitled)	Crossroads	Two-way	Two-way	Two-way	Two-way		648449.52	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	648449.52	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2027 + Development Traffic	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	943	100.000
B		ONE HOUR	✓	566	100.000
C		ONE HOUR	✓	1422	100.000
D		ONE HOUR	✓	32	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	A	B	C	D	
From	A	0	22	918	3
	B	67	0	497	2
	C	1265	137	0	20
	D	13	1	18	0

Proportions

	To				
	A	B	C	D	
From	A	0.00	0.02	0.97	0.00
	B	0.12	0.00	0.88	0.00
	C	0.89	0.10	0.00	0.01
	D	0.41	0.03	0.56	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To				
	A	B	C	D	
From	A	0	0	1	0
	B	0	0	0	0
	C	1	0	0	0
	D	0	0	0	0

Average PCU Per Veh

	To				
	A	B	C	D	
From	A	1.000	1.000	1.010	1.000
	B	1.000	1.000	1.000	1.000
	C	1.010	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A	710	710
	B	426	426
	C	1071	1071
	D	24	24
17:00-17:15	A	848	848
	B	509	509
	C	1278	1278
	D	29	29
17:15-17:30	A	1038	1038
	B	623	623
	C	1566	1566
	D	35	35
17:30-17:45	A	1038	1038
	B	623	623
	C	1566	1566
	D	35	35
17:45-18:00	A	848	848
	B	509	509
	C	1278	1278
	D	29	29
18:00-18:15	A	710	710
	B	426	426
	C	1071	1071
	D	24	24

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)	Total Queueing Delay (PCU-hr)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-hr/min)	Inclusive Total Queueing Delay (PCU-hr)	Inclusive Average Queueing Delay (s)
B-ACD	2.33	2395.24	259.4	F	519	779	199.07	919.89	2.21	279.88	1293.31
A-BCD	0.03	3.92	0.0	A	20	30	0.04	4.18	0.00	0.04	4.18
A-B					20	30					
A-C					825	1238					
D-ABC	999999999.00	59999940.00	31.2	F	29	44	17.19	1405.19	0.19	2777777.78	999999999.00
C-ABD	0.39	14.92	0.6	B	126	189	0.65	12.35	0.01	0.65	12.35
C-D					18	28					
C-A					1161	1741					

Main Results for each time segment

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-ACD	426	107	423	1.007	385	0.0	10.2	68.521	F
ABCD	9	2	935	0.010	9	0.0	0.0	3.917	A
A-B	16	4			16				
A-C	684	171			684				
D-ABC	24	6	231	0.104	24	0.0	0.1	59999940.000	F
C-ABD	103	26	468	0.221	102	0.0	0.3	9.817	A
C-D	15	4			15				
C-A	952	238			952				

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-ACD	509	127	372	1.367	370	10.2	44.9	317.672	F
ABCD	16	4	1017	0.016	16	0.0	0.0	3.623	A
A-B	19	5			19				
A-C	812	203			812				
D-ABC	29	7	93	0.310	28	0.1	0.4	59999940.000	F
C-ABD	123	31	436	0.283	123	0.3	0.4	11.482	B
C-D	18	4			18				
C-A	1137	284			1137				

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-ACD	623	156	275	2.268	275	44.9	132.0	1146.260	F
ABCD	35	9	1143	0.031	35	0.0	0.0	3.275	A
A-B	23	6			23				
A-C	980	245			980				
D-ABC	35	9	0	999999999.000	0	0.4	9.2	59999940.000	F
C-ABD	151	38	392	0.385	150	0.4	0.6	14.817	B
C-D	22	6			22				
C-A	1393	348			1393				

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-ACD	623	156	267	2.334	267	132.0	221.0	2395.243	F
ABCD	35	9	1143	0.031	35	0.0	0.0	3.276	A
A-B	23	6			23				
A-C	980	245			980				
D-ABC	35	9	0	999999999.000	0	9.2	18.0	59999940.000	F
C-ABD	151	38	392	0.385	151	0.6	0.6	14.923	B
C-D	22	6			22				
C-A	1393	348			1393				

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-ACD	509	127	365	1.393	365	221.0	256.9	2187.264	F
A-BCD	16	4	1017	0.016	16	0.0	0.0	3.627	A
A-B	19	5			19				
A-C	812	203			812				
D-ABC	29	7	0	999999999.000	0	18.0	25.2	59999940.000	F
C-ABD	123	31	436	0.283	124	0.6	0.4	11.579	B
C-D	18	4			18				
C-A	1137	284			1137				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	426	107	416	1.023	416	256.9	259.4	2242.296	F
A-BCD	9	2	935	0.010	9	0.0	0.0	3.922	A
A-B	16	4			16				
A-C	684	171			684				
D-ABC	24	6	0	999999999.000	0	25.2	31.2	59999940.000	F
C-ABD	103	26	468	0.221	104	0.4	0.3	9.900	A
C-D	15	4			15				
C-A	952	238			952				

Queueing Delay Results for each time segment

16:45 - 17:00

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	1.64	0.11	68.521	F
A-BCD	0.00	0.00	3.917	A
D-ABC	0.03	0.00	59999940.000	F
C-ABD	0.07	0.00	9.817	A

17:00 - 17:15

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	6.91	0.46	317.672	F
A-BCD	0.00	0.00	3.623	A
D-ABC	0.09	0.01	59999940.000	F
C-ABD	0.10	0.01	11.482	B

17:15 - 17:30

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	22.11	1.47	1146.260	F
A-BCD	0.01	0.00	3.275	A
D-ABC	1.20	0.08	59999940.000	F
C-ABD	0.15	0.01	14.817	B

17:30 - 17:45

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	44.12	2.94	2395.243	F
A-BCD	0.01	0.00	3.276	A
D-ABC	3.41	0.23	59999940.000	F
C-ABD	0.16	0.01	14.923	B

17:45 - 18:00

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	59.74	3.98	2187.264	F
A-BCD	0.00	0.00	3.627	A
D-ABC	5.41	0.36	59999940.000	F
C-ABD	0.10	0.01	11.579	B

18:00 - 18:15

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	64.54	4.30	2242.296	F
A-BCD	0.00	0.00	3.922	A
D-ABC	7.06	0.47	59999940.000	F
C-ABD	0.07	0.00	9.900	A

(Default Analysis Set) - 2027 + STS Development Traffic, AM 0700-0800

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	(untitled)	Crossroads	Two-way	Two-way	Two-way	Two-way		123.39	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	123.39	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2027 + STS Development Traffic	AM 0700-0800	ONE HOUR	06:45	08:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1023	100.000
B		ONE HOUR	✓	62	100.000
C		ONE HOUR	✓	1361	100.000
D		ONE HOUR	✓	5	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		A	B	C	D	
From	A	0	52	971	0	
	B	10	0	52	0	
	C	990	361	0	10	
	D	1	0	4	0	

Proportions

		To				
		A	B	C	D	
From	A	0.00	0.05	0.95	0.00	
	B	0.16	0.00	0.84	0.00	
	C	0.73	0.27	0.00	0.01	
	D	0.20	0.00	0.80	0.00	

Vehicle Mix

Heavy Vehicle Percentages

	To				
	A	B	C	D	
From	A	0	0	3	33
	B	0	0	0	0
	C	6	20	0	0
	D	25	0	0	0

Average PCU Per Veh

	To				
	A	B	C	D	
From	A	1.000	1.000	1.030	1.330
	B	1.000	1.000	1.000	1.000
	C	1.060	1.200	1.000	1.000
	D	1.250	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
06:45-07:00	A	770	770
	B	47	47
	C	1025	1025
	D	4	4
07:00-07:15	A	920	920
	B	56	56
	C	1224	1224
	D	4	4
07:15-07:30	A	1126	1126
	B	68	68
	C	1498	1498
	D	6	6
07:30-07:45	A	1126	1126
	B	68	68
	C	1498	1498
	D	6	6
07:45-08:00	A	920	920
	B	56	56
	C	1224	1224
	D	4	4
08:00-08:15	A	770	770
	B	47	47
	C	1025	1025
	D	4	4

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)	Total Queueing Delay (PCU-hr)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-hr/min)	Inclusive Total Queueing Delay (PCU-hr)	Inclusive Average Queueing Delay (s)
B-ACD	0.92	161.45	3.2	F	57	85	0.97	40.81	0.01	0.97	40.82
A-BCD	0.00	0.00	0.0	A	0	0	0.00	0.00	0.00	0.00	0.00
AB					48	72					
AC					891	1337					
D-ABC	0.11	79.69	0.1	F	5	7	0.06	32.55	0.00	0.06	32.55
C-ABD	1.07	362.15	64.7	F	740	1110	27.03	87.69	0.30	27.04	87.71
C-D					5	8					
C-A					504	756					

Main Results for each time segment

06:45 - 07:00

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-ACD	47	12	384	0.121	46	0.0	0.1	10.623	B
ABCD	0	0	368	0.000	0	0.0	0.0	0.000	A
A-B	39	10			39				
A-C	731	183			731				
D-ABC	4	0.94	296	0.013	4	0.0	0.0	12.809	B
C-ABD	284	71	474	0.599	277	0.0	1.7	21.170	C
C-D	7	2			7				
C-A	734	183			734				

07:00 - 07:15

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-ACD	56	14	315	0.177	55	0.1	0.2	13.840	B
ABCD	0	0	315	0.000	0	0.0	0.0	0.000	A
A-B	47	12			47				
A-C	873	218			873				
D-ABC	4	1	213	0.021	4	0.0	0.0	18.011	C
C-ABD	438	109	572	0.765	428	1.7	4.1	29.391	D
C-D	8	2			8				
C-A	778	195			778				

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-ACD	68	17	147	0.465	66	0.2	0.8	43.381	E
ABCD	0	0	241	0.000	0	0.0	0.0	0.000	A
A-B	57	14			57				
A-C	1069	267			1069				
D-ABC	6	1	90	0.061	5	0.0	0.1	44.179	E
C-ABD	1498	375	1420	1.055	1378	4.1	34.2	63.741	F
C-D	0	0			0				
C-A	0	0			0				

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-ACD	68	17	74	0.923	59	0.8	3.2	161.448	F
ABCD	0	0	211	0.000	0	0.0	0.0	0.000	A
A-B	57	14			57				
A-C	1069	267			1069				
D-ABC	6	1	52	0.106	5	0.1	0.1	79.695	F
C-ABD	1498	375	1401	1.069	1377	34.2	64.7	154.004	F
C-D	0	0			0				
C-A	0	0			0				

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-ACD	56	14	262	0.213	68	3.2	0.3	19.598	C
A-BCD	0	0	251	0.000	0	0.0	0.0	0.000	A
A-B	47	12			47				
A-C	873	218			873				
D-ABC	4	1	137	0.033	5	0.1	0.0	28.479	D
C-ABD	438	109	540	0.810	664	64.7	8.0	362.150	F
C-D	8	2			8				
C-A	778	195			778				

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-ACD	47	12	379	0.123	47	0.3	0.1	10.859	B
A-BCD	0	0	359	0.000	0	0.0	0.0	0.000	A
A-B	39	10			39				
A-C	731	183			731				
D-ABC	4	0.94	288	0.013	4	0.0	0.0	13.217	B
C-ABD	284	71	466	0.609	307	8.0	2.0	29.406	D
C-D	7	2			7				
C-A	734	183			734				

Queueing Delay Results for each time segment
06:45 - 07:00

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.03	0.00	10.623	B
A-BCD	0.00	0.00	0.000	A
D-ABC	0.00	0.00	12.809	B
C-ABD	0.41	0.03	21.170	C

07:00 - 07:15

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.05	0.00	13.840	B
A-BCD	0.00	0.00	0.000	A
D-ABC	0.01	0.00	18.011	C
C-ABD	0.91	0.06	29.391	D

07:15 - 07:30

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.17	0.01	43.381	E
A-BCD	0.00	0.00	0.000	A
D-ABC	0.01	0.00	44.179	E
C-ABD	5.01	0.33	63.741	F

07:30 - 07:45

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.57	0.04	161.448	F
A-BCD	0.00	0.00	0.000	A
D-ABC	0.03	0.00	79.695	F
C-ABD	13.19	0.88	154.004	F

07:45 - 08:00

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.10	0.01	19.598	C
A-BCD	0.00	0.00	0.000	A
D-ABC	0.01	0.00	28.479	D
C-ABD	6.89	0.46	362.150	F

08:00 - 08:15

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.04	0.00	10.859	B
A-BCD	0.00	0.00	0.000	A
D-ABC	0.00	0.00	13.217	B
C-ABD	0.63	0.04	29.406	D

(Default Analysis Set) - 2027 + STS Development Traffic, AM 0800-0900

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	(untitled)	Crossroads	Two-way	Two-way	Two-way	Two-way		20.67	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	20.67	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
D11	2027 + STS Development Traffic	AM 0800-0900	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1190	100.000
B		ONE HOUR	✓	112	100.000
C		ONE HOUR	✓	1304	100.000
D		ONE HOUR	✓	5	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	39	1151	0
	B	15	0	97	0
	C	1017	270	0	17
	D	1	0	4	0

Proportions

		To			
		A	B	C	D
From	A	0.00	0.03	0.97	0.00
	B	0.13	0.00	0.87	0.00
	C	0.78	0.21	0.00	0.01
	D	0.20	0.00	0.80	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To				
	A	B	C	D	
From	A	0	0	4	0
	B	0	0	0	0
	C	4	0	0	7
	D	0	0	0	0

Average PCU Per Veh

	To				
	A	B	C	D	
From	A	1.000	1.000	1.040	1.000
	B	1.000	1.000	1.000	1.000
	C	1.040	1.000	1.000	1.070
	D	1.000	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	A	896	896
	B	84	84
	C	982	982
	D	4	4
08:00-08:15	A	1070	1070
	B	101	101
	C	1172	1172
	D	4	4
08:15-08:30	A	1310	1310
	B	123	123
	C	1436	1436
	D	6	6
08:30-08:45	A	1310	1310
	B	123	123
	C	1436	1436
	D	6	6
08:45-09:00	A	1070	1070
	B	101	101
	C	1172	1172
	D	4	4
09:00-09:15	A	896	896
	B	84	84
	C	982	982
	D	4	4

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)	Total Queueing Delay (PCU-hr)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-hr/min)	Inclusive Total Queueing Delay (PCU-hr)	Inclusive Average Queueing Delay (s)
B-ACD	1.22	315.02	12.3	F	103	154	4.03	94.13	0.04	4.03	94.13
A-BCD	0.00	0.00	0.0	A	0	0	0.00	0.00	0.00	0.00	0.00
A-B					36	54					
A-C					1056	1584					
D-ABC	0.12	89.73	0.1	F	5	7	0.07	37.10	0.00	0.07	37.10
C-ABD	0.91	42.29	10.5	E	396	594	5.87	35.62	0.07	5.87	35.63
C-D					13	20					
C-A					788	1182					

Main Results for each time segment

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-ACD	84	21	372	0.227	83	0.0	0.3	12.419	B
ABCD	0	0	385	0.000	0	0.0	0.0	0.000	A
A-B	29	7			29				
A-C	867	217			867				
D-ABC	4	0.94	276	0.014	4	0.0	0.0	13.206	B
C-ABD	204	51	426	0.478	200	0.0	0.9	15.700	C
C-D	13	3			13				
C-A	765	191			765				

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-ACD	101	25	302	0.333	100	0.3	0.5	17.710	C
ABCD	0	0	336	0.000	0	0.0	0.0	0.000	A
A-B	35	9			35				
A-C	1035	259			1035				
D-ABC	4	1	188	0.024	4	0.0	0.0	19.598	C
C-ABD	254	64	403	0.631	251	0.9	1.7	23.320	C
C-D	15	4			15				
C-A	903	226			903				

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-ACD	123	31	117	1.054	102	0.5	5.9	160.889	F
ABCD	0	0	269	0.000	0	0.0	0.0	0.000	A
A-B	43	11			43				
A-C	1267	317			1267				
D-ABC	6	1	59	0.094	5	0.0	0.1	66.777	F
C-ABD	729	182	803	0.908	706	1.7	7.4	32.208	D
C-D	12	3			12				
C-A	695	174			695				

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-ACD	123	31	101	1.221	98	5.9	12.3	315.019	F
ABCD	0	0	263	0.000	0	0.0	0.0	0.000	A
A-B	43	11			43				
A-C	1267	317			1267				
D-ABC	6	1	45	0.121	5	0.1	0.1	89.731	F
C-ABD	729	182	807	0.903	716	7.4	10.5	42.294	E
C-D	12	3			12				
C-A	695	174			695				

08:45 - 09:00

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-ACD	101	25	296	0.341	148	12.3	0.5	32.698	D
A-BCD	0	0	326	0.000	0	0.0	0.0	0.000	A
A-B	35	9			35				
A-C	1035	259			1035				
D-ABC	4	1	164	0.027	5	0.1	0.0	22.636	C
C-ABD	254	64	410	0.621	288	10.5	2.0	38.579	E
C-D	15	4			15				
C-A	903	226			903				

09:00 - 09:15

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-ACD	84	21	370	0.228	85	0.5	0.3	12.665	B
A-BCD	0	0	382	0.000	0	0.0	0.0	0.000	A
A-B	29	7			29				
A-C	867	217			867				
D-ABC	4	0.94	274	0.014	4	0.0	0.0	13.350	B
C-ABD	204	51	427	0.478	208	2.0	1.0	16.773	C
C-D	13	3			13				
C-A	765	191			765				

Queueing Delay Results for each time segment
07:45 - 08:00

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.07	0.00	12.419	B
A-BCD	0.00	0.00	0.000	A
D-ABC	0.00	0.00	13.206	B
C-ABD	0.22	0.01	15.700	C

08:00 - 08:15

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.11	0.01	17.710	C
A-BCD	0.00	0.00	0.000	A
D-ABC	0.01	0.00	19.598	C
C-ABD	0.40	0.03	23.320	C

08:15 - 08:30

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.94	0.06	160.889	F
A-BCD	0.00	0.00	0.000	A
D-ABC	0.02	0.00	66.777	F
C-ABD	1.43	0.10	32.208	D

08:30 - 08:45

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	2.29	0.15	315.019	F
A-BCD	0.00	0.00	0.000	A
D-ABC	0.03	0.00	89.731	F
C-ABD	2.84	0.19	42.294	E

08:45 - 09:00

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.54	0.04	32.698	D
A-BCD	0.00	0.00	0.000	A
D-ABC	0.01	0.00	22.636	C
C-ABD	0.75	0.05	38.579	E

09:00 - 09:15

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.08	0.01	12.665	B
A-BCD	0.00	0.00	0.000	A
D-ABC	0.00	0.00	13.350	B
C-ABD	0.25	0.02	16.773	C

(Default Analysis Set) - 2027 + STS Development Traffic, 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	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	(untitled)	Crossroads	Two-way	Two-way	Two-way	Two-way		141.88	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	141.88	F

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
D12	2027 + STS Development Traffic	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	938	100.000
B		ONE HOUR	✓	407	100.000
C		ONE HOUR	✓	1384	100.000
D		ONE HOUR	✓	32	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	17	918	3
	B	48	0	357	2
	C	1265	99	0	20
	D	13	1	18	0

Proportions

		To			
		A	B	C	D
From	A	0.00	0.02	0.98	0.00
	B	0.12	0.00	0.88	0.00
	C	0.91	0.07	0.00	0.01
	D	0.41	0.03	0.56	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To				
	A	B	C	D	
From	A	0	0	1	0
	B	0	0	0	0
	C	1	0	0	0
	D	0	0	0	0

Average PCU Per Veh

	To				
	A	B	C	D	
From	A	1.000	1.000	1.010	1.000
	B	1.000	1.000	1.000	1.000
	C	1.010	1.000	1.000	1.000
	D	1.000	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A	706	706
	B	306	306
	C	1042	1042
	D	24	24
17:00-17:15	A	843	843
	B	366	366
	C	1244	1244
	D	29	29
17:15-17:30	A	1033	1033
	B	448	448
	C	1524	1524
	D	35	35
17:30-17:45	A	1033	1033
	B	448	448
	C	1524	1524
	D	35	35
17:45-18:00	A	843	843
	B	366	366
	C	1244	1244
	D	29	29
18:00-18:15	A	706	706
	B	306	306
	C	1042	1042
	D	24	24

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)	Total Queueing Delay (PCU-hr)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-hr/min)	Inclusive Total Queueing Delay (PCU-hr)	Inclusive Average Queueing Delay (s)
B-ACD	1.57	814.85	88.6	F	373	560	66.60	427.97	0.74	70.88	455.47
A-BCD	0.03	3.91	0.0	A	19	29	0.03	4.13	0.00	0.03	4.13
A-B					15	23					
A-C					826	1239					
D-ABC	999999999.00	1836.12	17.8	F	29	44	9.57	782.11	0.11	9.57	782.11
C-ABD	0.28	12.68	0.4	B	91	136	0.41	10.89	0.00	0.41	10.89
C-D					18	28					
C-A					1161	1741					

Main Results for each time segment

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-ACD	306	77	427	0.718	297	0.0	2.3	26.236	D
ABCD	9	2	938	0.010	9	0.0	0.0	3.905	A
A-B	13	3			13				
A-C	684	171			684				
D-ABC	24	6	271	0.089	24	0.0	0.1	14.556	B
C-ABD	75	19	469	0.159	74	0.0	0.2	9.102	A
C-D	15	4			15				
C-A	952	238			952				

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-ACD	366	91	378	0.967	343	2.3	8.0	75.440	F
ABCD	15	4	1019	0.015	15	0.0	0.0	3.612	A
A-B	15	4			15				
A-C	813	203			813				
D-ABC	29	7	162	0.177	28	0.1	0.2	26.759	D
C-ABD	89	22	437	0.204	89	0.2	0.3	10.335	B
C-D	18	4			18				
C-A	1137	284			1137				

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-ACD	448	112	291	1.540	289	8.0	47.7	372.889	F
ABCD	33	8	1145	0.029	33	0.0	0.0	3.265	A
A-B	18	5			18				
A-C	982	245			982				
D-ABC	35	9	0	999999999.000	0	0.2	9.0	1836.119	F
C-ABD	109	27	393	0.277	109	0.3	0.4	12.630	B
C-D	22	6			22				
C-A	1393	348			1393				

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-ACD	448	112	285	1.574	285	47.7	88.6	773.609	F
ABCD	33	8	1145	0.029	33	0.0	0.0	3.269	A
A-B	18	5			18				
A-C	982	245			982				
D-ABC	35	9	0	999999999.000	0	9.0	17.8	-566.782	?
C-ABD	109	27	393	0.277	109	0.4	0.4	12.675	B
C-D	22	6			22				
C-A	1393	348			1393				

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-ACD	366	91	372	0.983	368	88.6	88.1	814.845	F
A-BCD	15	4	1019	0.015	16	0.0	0.0	3.619	A
A-B	15	4			15				
A-C	813	203			813				
D-ABC	29	7	42	0.692	39	17.8	15.2	1051.875	F
C-ABD	89	22	437	0.204	89	0.4	0.3	10.380	B
C-D	18	4			18				
C-A	1137	284			1137				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	306	77	423	0.724	418	88.1	60.2	640.457	F
A-BCD	9	2	937	0.010	9	0.0	0.0	3.908	A
A-B	13	3			13				
A-C	684	171			684				
D-ABC	24	6	172	0.140	84	15.2	0.2	75.654	F
C-ABD	75	19	469	0.159	75	0.3	0.2	9.149	A
C-D	15	4			15				
C-A	952	238			952				

Queueing Delay Results for each time segment
16:45 - 17:00

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	0.49	0.03	26.236	D
A-BCD	0.00	0.00	3.905	A
D-ABC	0.02	0.00	14.556	B
C-ABD	0.05	0.00	9.102	A

17:00 - 17:15

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	1.45	0.10	75.440	F
A-BCD	0.00	0.00	3.612	A
D-ABC	0.05	0.00	26.759	D
C-ABD	0.06	0.00	10.335	B

17:15 - 17:30

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	6.99	0.47	372.889	F
A-BCD	0.01	0.00	3.265	A
D-ABC	1.15	0.08	1836.119	F
C-ABD	0.09	0.01	12.630	B

17:30 - 17:45

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	17.04	1.14	773.609	F
A-BCD	0.01	0.00	3.269	A
D-ABC	3.36	0.22	-566.782	?
C-ABD	0.10	0.01	12.675	B

17:45 - 18:00

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	22.09	1.47	814.845	F
A-BCD	0.00	0.00	3.619	A
D-ABC	4.13	0.28	1051.875	F
C-ABD	0.07	0.00	10.380	B

18:00 - 18:15

Stream	Queueing total delay (PCU-hr)	Queueing rate of delay (PCU-hr/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-ACD	18.53	1.24	640.457	F
A-BCD	0.00	0.00	3.908	A
D-ABC	0.86	0.06	75.654	F
C-ABD	0.05	0.00	9.149	A



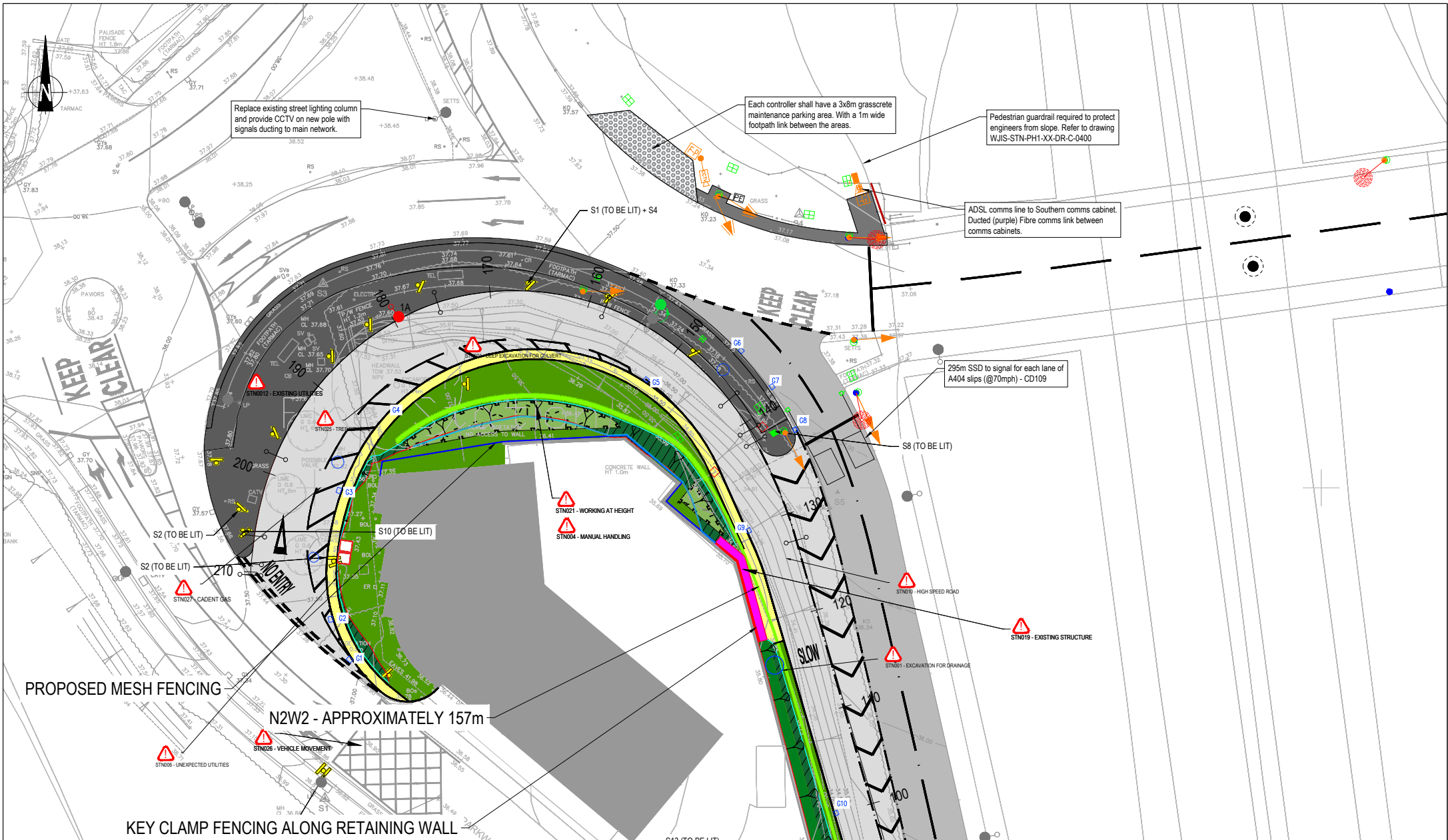
J. Westhorpe Interchange Improvement Scheme

Appendices

Document 9, Transport Assessment

Project Number: WIE18037

Document Reference: WIE18037.110.R.2.1.3 TA



CDM HAZARDS (REFER TO WJIS-STN-PH1-XX-HS-C-0001 FOR RESIDUAL RISK REGISTER):

DENOTES THE LOCATION OF HAZARD OR RISK. FOR MORE INFORMATION REFER TO RISK REFERENCE AND DESCRIPTION BELOW IN ADDITION TO THE HAZARDS AND RISKS NORMALLY ASSOCIATED WITH THE FORM OF CONSTRUCTION DESCRIBED ON THIS DRAWING, THE FOLLOWING RESIDUAL RISKS SHOULD BE CONSIDERED C - CONSTRUCTION, S - IN SERVICE / MAINTENANCE, D - DECOMMISSIONING / DEMOLITION			
RISK PREFIX	RISK REF.	RISK DESCRIPTION	RISK PHASE
STN	001	EXCAVATION	C
STN	004	MANUAL HANDLING	C
STN	006	UNEXPECTED OR UNKNOWN UTILITIES	C
STN	010	WORKING ON HIGH SPEED NETWORK	C
STN	012	EXISTING UTILITIES	C
STN	015	HE AREA 3 INDUCTION AND QUALIFICATION REQUIRED	C
STN	019	WORKING IN PROXIMITY TO EXISTING STRUCTURES	C
STN	020	SLIPS, TRIPS AND FALLS	C
STN	021	WORKING AT HEIGHT	C
STN	022	SITE SECURITY	C
STN	023	CONSTRUCTION WASTE	C
STN	025	TREE REMOVAL AND SITE CLEARANCE	C
STN	026	CONSTRUCTION TRAFFIC/ PLANT MOVEMENT AND PUBLIC INTERFACE	C
STN	027	FIRE HAZARD / EXPLOSION	C

KEY	
	PROPOSED SEGREGATED LEFT TURN CARRIAGEWAY
	SUBSIDIARY DEFLECTION ISLAND (FOR PEDESTRIAN USE)
	EXISTING CARRIAGEWAY
	SERVICE STRIP
	EARTHWORKS (EMBANKMENT VARIES)
	VERGE
	FOOTWAY FOR MAINTENANCE. REFER TO DRAWING WJIS-STN-PH1-XX-DR-C-0103
	PROPOSED GRASS BLOCK PAVING
	EXISTING LIGHTING COLUMNS
	PROPOSED LIGHTING COLUMNS
	PROPOSED ILLUMINATED BOLLARD
	PROPOSED TRAFFIC SIGNALS DRAWPIT
	PROPOSED VIRGIN MEDIA CHAMBER
	BAGWORK RETAINING WALL
	SPECIES RICH HEDGE
	SEMI-NATIVE SHRUB MIX
	SPECIES RICH GRASS MIX
	KEY (not to scale)- ELV RAG signal (LED) - refer to Pole Schedule
	114 dia passively safe pole with low level terminations - refer to Pole Schedule
	NAL Retention Socket - refer to Pole Schedule
	PE cell
	ELV Junction Controller (on NAL cabinet base), a 600x600mm drawpit, an electric feeder pillar and a comms cabinet - all located on a level hard standing area
	NAL STAKAbox drawpit - 450x450mm
	Clearview M110 Access Point
	Clearview M100 Magnetometer
	NAL IN-CARRIAGEWAY LOOP BOX WITH 50mmØ ORANGE DUCT TO DRAWPIT
	VEHICLE DETECTOR LOOP AND SLOT CUTTING
	CCTV Camera
	215m SSD (as per CD109)
	EXISTING A404 CARRIAGEWAY KERBLINE
	EXISTING RETAINING WALL
	PROPOSED KERB LINE
	PROPOSED ROAD MARKINGS
	PROPOSED RETAINING WALL
	HIGH CONTAINMENT KERB LINE
	PROPOSED TRAFFIC SIGNS
	VERGE EXTENTS
	PROPOSED GUARDRAIL
	BACK OF EMBANKMENT
	PROPOSED VEHICLE RESTRAINT BARRIER
	PROPOSED SAFETY FENCE
	GULLIES
	MANHOLES
	FILTER DRAIN

NOTES:

- ALL MEASUREMENTS ARE IN METRES UNLESS NOTED OTHERWISE.
- THIS DRAWING IS TO BE READ WITH ALL OTHER RELEVANT SCHEME DRAWING SPECIFICATIONS.
- DO NOT SCALE. IF IN DOUBT CONTACT STANTEC.
- THE PROPOSED RETAINING WALL WILL HAVE AN AVERAGE HEIGHT OF APPROXIMATELY 1.2m. THE LENGTH IS BASED ON INFORMATION AVAILABLE AT THIS TIME SO WILL BE SUBJECT TO CHANGE. SEE DRAWING NO. WJIS-STN-PH1-XX-DR-C-1600.
- FIRE STATION BOUNDARY BASED ON INFORMATION RECEIVED FROM BUCKINGHAMSHIRE COUNCIL, LAND REGISTRY TITLE NO. BM287059.
- EXISTING HIGHWAY BOUNDARY BASED ON INFORMATION RECEIVED FROM BUCKINGHAMSHIRE COUNCIL ON 13.09.2019.
- FOR PAVEMENT CONSTRUCTION AND HIGHWAY DETAILS, REFER TO DRAWING NO. WJIS-STN-PH1-XX-DR-C-0103.
- FOR VEHICLE RESTRAINT SYSTEM, REFER TO DRAWING NO. WJIS-STN-PH1-XX-DR-C-0400.
- MINIMUM VERGE WIDTH 1.0m.
- MINIMUM SERVICE MARGIN WIDTH 1.0m.
- FOR PROPOSED ROAD MARKINGS AND SIGNS LOCATION PLAN AND SCHEDULE, REFER TO DRAWING NO. WJIS-STN-PH1-XX-DR-C-1200 AND WJIS-STN-PH1-XX-DR-C-1202.
- FOR TRAFFIC SIGNALS DRAWING, REFER TO WJIS-STN-PH1-XX-DR-C-1210 AND WJIS-STN-PH1-XX-DR-C-1211.
- FOR BAGWORK RETAINING WALL DRAWING, REFER TO WJIS-STN-PH1-XX-DR-C-0115
- FOR STREET LIGHTING DRAWING, REFER TO WJIS-STN-PH1-XX-DR-C-1300

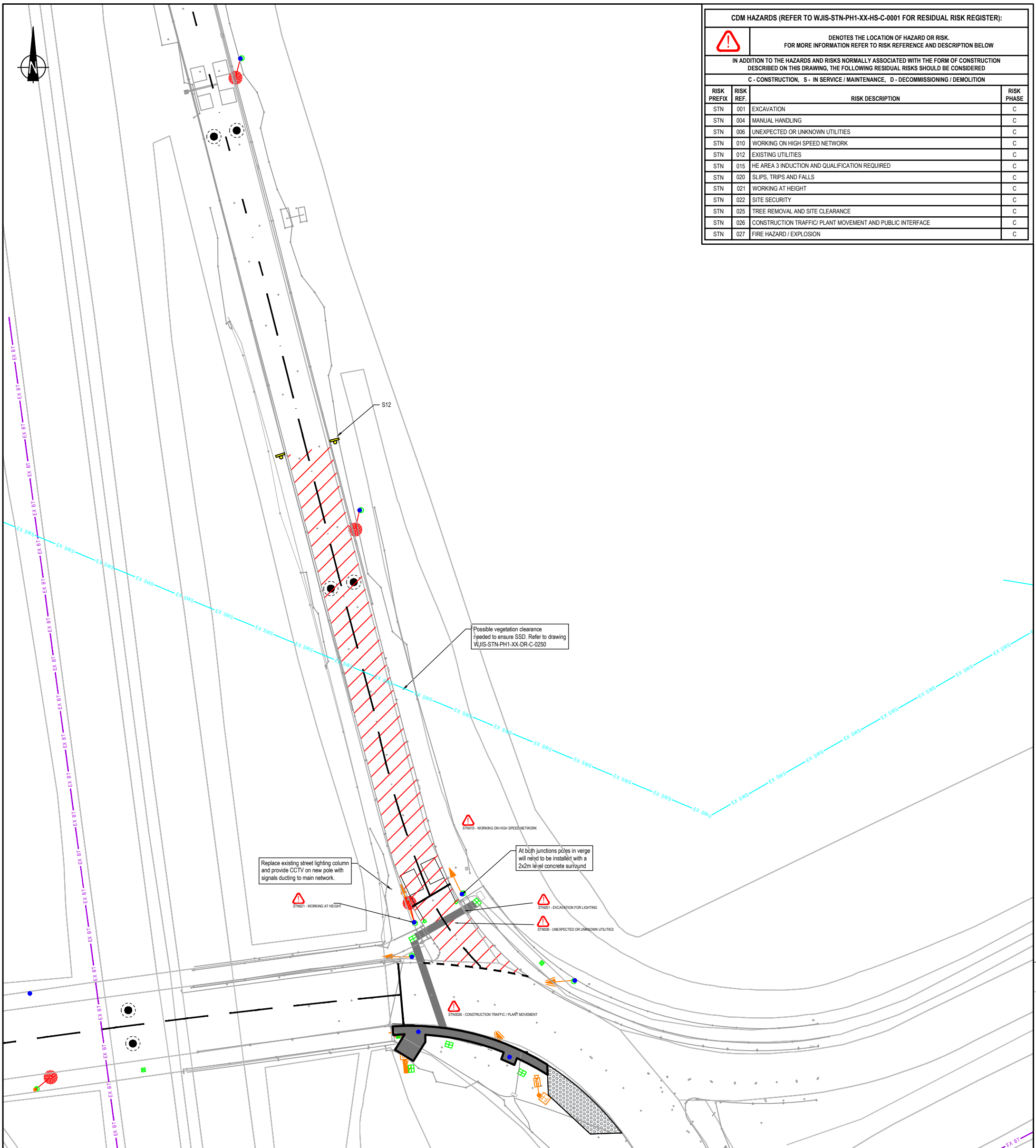
Mark	Revision	Date	Drawn	Chkd	Appd
P03	SCHEME TITLE CHANGE	-	RMLM	TG	SE
P02	AMENDED TO BB/BC COMMENTS DATED 17.12.20	14.01.21	RMLM	TG	SE

SCALING NOTE: Do not scale from this drawing. If in doubt, ask.
 UTILITIES NOTE: The position of any existing public or private sewers, utility services, plant or apparatus shown on this drawing is believed to be correct, but no warranty to this is expressed or implied. Other such plant or apparatus may also be present but not shown. The Contractor is therefore advised to undertake their own investigation where the presence of any existing sewers, services, plant or apparatus may affect their operations.

Drawing Issue Status
S4 - TECHNICAL APPROVAL

A404 / A4155 WESTHORPE JUNCTION IMPROVEMENTS GENERAL ARRANGEMENT

Client		
Date of 1st Issue	Designed	Drawn
26.11.2020	VL	JM
PK	Checked	Approved
1:250	TG	TG
Drawing Number	Revision	
WJIS-STN-PH1-XX-DR-C-0100	P03	
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CDM HAZARDS (REFER TO WJIS-STN-PH1-XX-HS-C-0001 FOR RESIDUAL RISK REGISTER):

DENOTES THE LOCATION OF HAZARD OR RISK.
FOR MORE INFORMATION REFER TO RISK REFERENCE AND DESCRIPTION BELOW

IN ADDITION TO THE HAZARDS AND RISKS NORMALLY ASSOCIATED WITH THE FORM OF CONSTRUCTION DESCRIBED ON THIS DRAWING, THE FOLLOWING RESIDUAL RISKS SHOULD BE CONSIDERED

C - CONSTRUCTION, S - IN SERVICE / MAINTENANCE, D - DECOMMISSIONING / DEMOLITION

RISK PREFIX	RISK REF.	RISK DESCRIPTION	RISK PHASE
STN	001	EXCAVATION	C
STN	004	MANUAL HANDLING	C
STN	006	UNEXPECTED OR UNKNOWN UTILITIES	C
STN	010	WORKING ON HIGH SPEED NETWORK	C
STN	012	EXISTING UTILITIES	C
STN	015	HE AREA 3 INDUCTION AND QUALIFICATION REQUIRED	C
STN	020	SLIPS, TRIPS AND FALLS	C
STN	021	WORKING AT HEIGHT	C
STN	022	SITE SECURITY	C
STN	025	TREE REMOVAL AND SITE CLEARANCE	C
STN	026	CONSTRUCTION TRAFFIC/ PLANT MOVEMENT AND PUBLIC INTERFACE	C
STN	027	FIRE HAZARD / EXPLOSION	C

KEY

	HIGH PSV SURFACING		PROPOSED GRASSCRETE
	EXISTING HIGHWAY BOUNDARY - BCC		FOOTWAY FOR MAINTENANCE, REFER TO DRAWING WJIS-STN-PH1-XX-DR-C-0103
	EXISTING BT CABLE		
	EXISTING VIRGIN MEDIA CABLE		
	EXISTING 4" THAMES WATER SEWER		

KEY (not to scale):-

- ELV RAG signal (LED) - refer to Pole Schedule
- 114 dia passively safe pole with low level terminations - refer to Pole Schedule
- NAL Retention Socket - refer to Pole Schedule
- PE cell
- ELV Junction Controller (on NAL cabinet base), a 600x600mm drawpit, an electric feeder pillar and a comms cabinet - all located on a level hard standing area
- NAL STAKKAbox drawpit - 450x450mm
- Clearview M110 Access Point
- Clearview M100 Magnetometer
- NAL IN-CARRIAGEWAY LOOP BOX WITH 50mmØ ORANGE DUCT TO DRAWPIT
- VEHICLE DETECTOR LOOP AND SLOT CUTTING
- CCTV Camera
- 215m SSD (as per CD109)

- NOTES:**
- ALL MEASUREMENTS ARE IN METRES UNLESS NOTED OTHERWISE.
 - THIS DRAWING IS TO BE READ WITH ALL OTHER RELEVANT SCHEME DRAWING SPECIFICATIONS.
 - DO NOT SCALE. IF IN DOUBT CONTACT STANTEC.
 - FOR TRAFFIC SIGNALS DRAWING, REFER TO WJIS-STN-PH1-XX-DR-C-1211.

P03	SCHEME TITLE CHANGE	10.02.21	RMLM	TG	SE
P02	AMENDED TO BB/BC COMMENTS DATED 17.12.20	14.01.21	RMLM	TG	TG
Mark	Revision	Date	Drawn	Chkd	Appd

SCALING NOTE: Do not scale from this drawing. If in doubt, ask.
UTILITIES NOTE: The position of any existing public or private sewers, utility services, plant or apparatus shown on this drawing is believed to be correct, but no warranty to this is expressed or implied. Other such plant or apparatus may also be present but not shown. The Contractor is therefore advised to undertake their own investigation where the presence of any existing sewers, services, plant or apparatus may affect their operations.

Drawing Issue Status
S4 - TECHNICAL APPROVAL

A404 / A4155 WESTHORPE JUNCTION IMPROVEMENTS SOUTHBOUND OFFSLIP GENERAL ARRANGEMENT

Client

Balfour Beatty

Stantec

stantec.com/uk

Date of 1st Issue: 19.11.20
Designed: VL
Drawn: JM

A1 Scale: 1:250
Checked: TG
Approved: TG

Drawing Number: WJIS-STN-PH1-XX-DR-C-0150
Revision: P03

READING
Tel: 01189 500 761

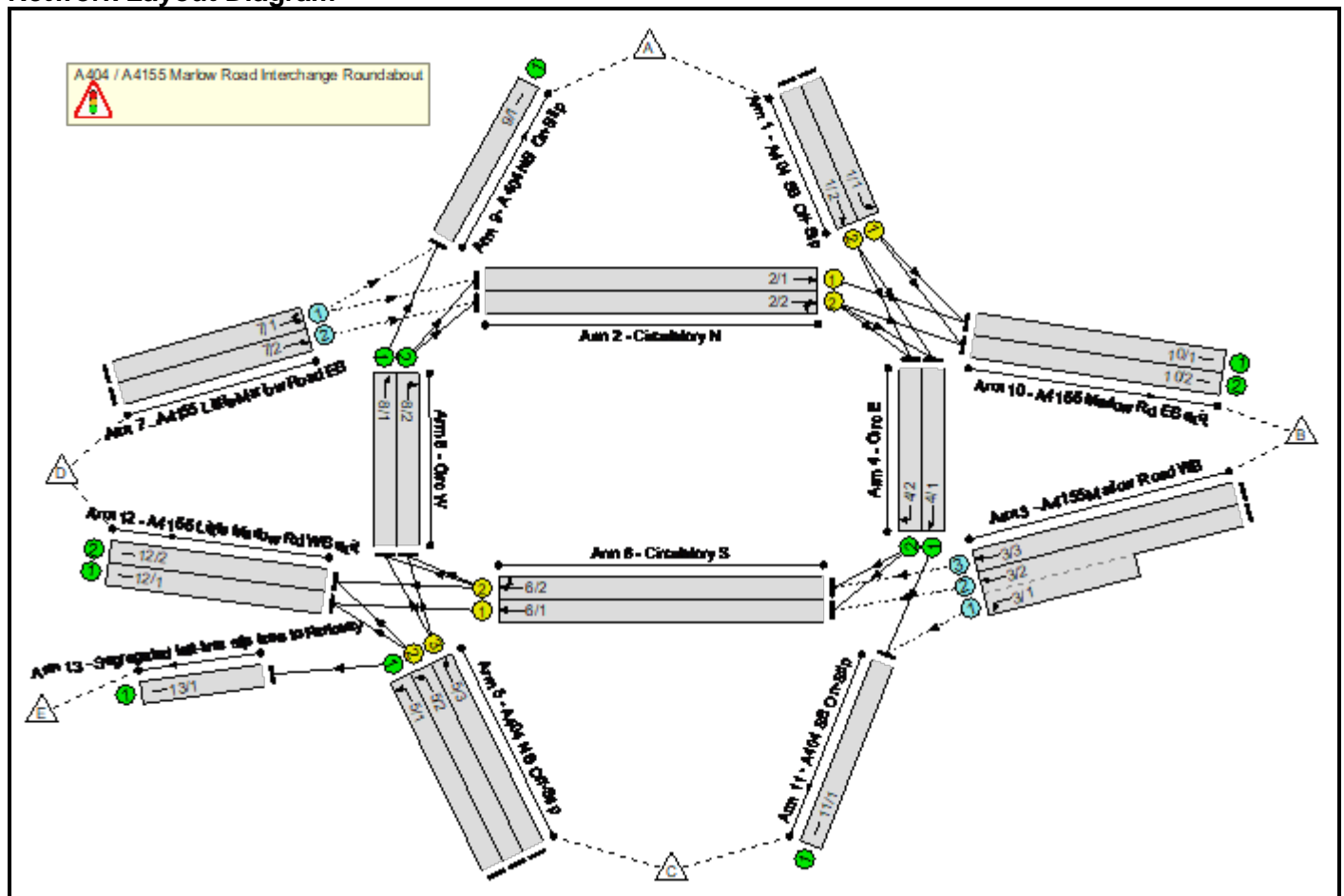
K. LinSig Modelling Output

Full Input Data And Results
Full Input Data And Results

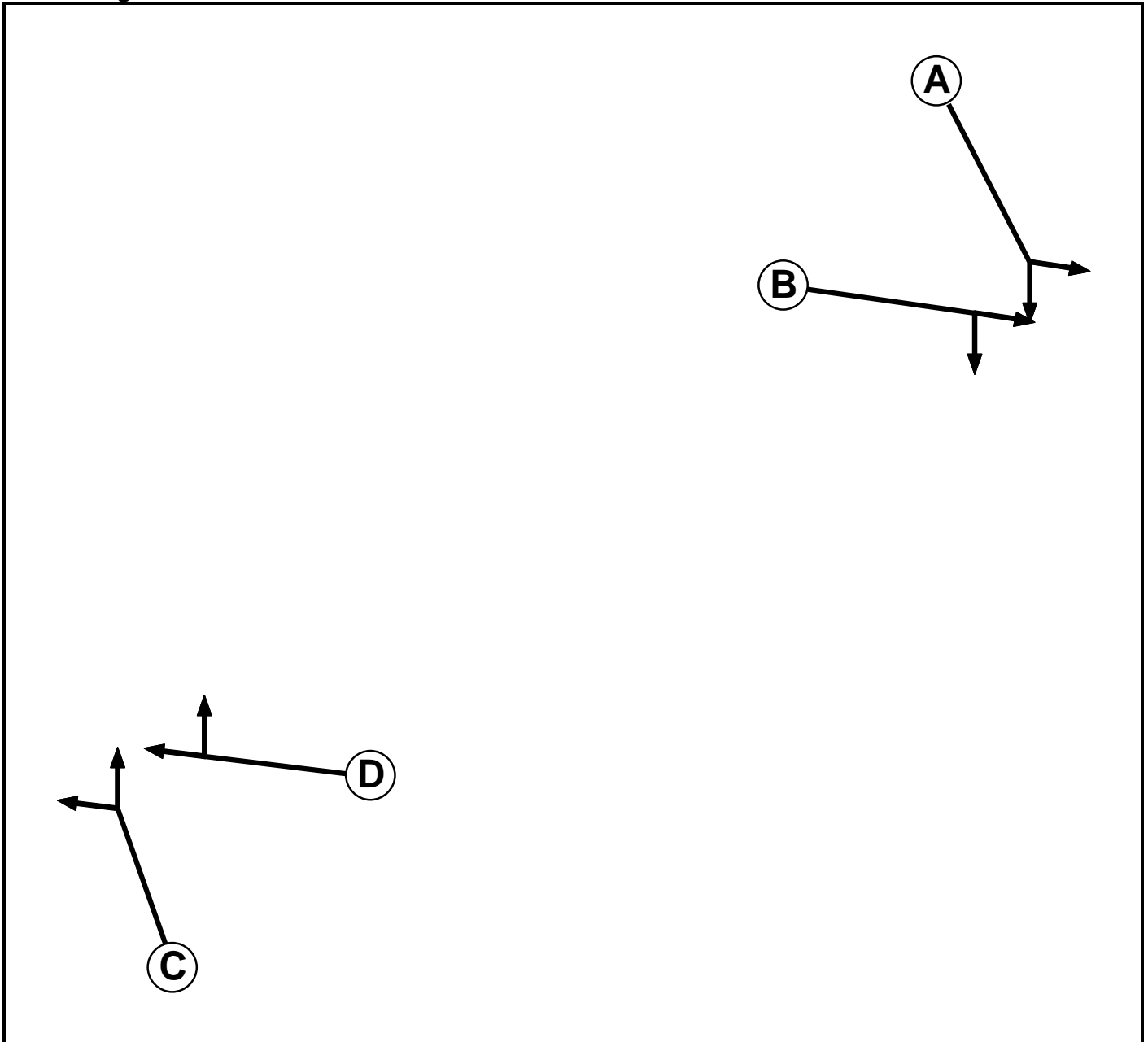
User and Project Details

Project:	WIE18037 Marlow Studio Project
Title:	A404 / A4155 Westthorpe Interchange - With Planned Improvements
Location:	A404 / A4155 Westthorpe Interchange
Client:	Dido Property Ltd
Design Layout Ref:	Based on Stantec Dwg Nos. WJIS-STN-PH1-XX-DR-C-0150 P03 & WJIS-STN-PH1-XX-DR-C-0100
Additional detail:	
File name:	A404_A4155 Westthorpe RBT_Planned Layout (With LT slip).lsg3x
Author:	CSMS4
Company:	Waterman
Address:	Pickfords Wharf, Clink St, London SE1 9DG

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Traffic	2		7	7
D	Traffic	2		7	7

Full Input Data And Results

Phase Intergrens Matrix

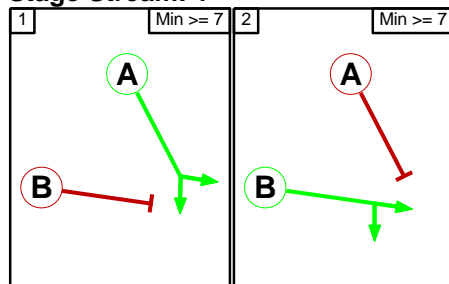
		Starting Phase			
		A	B	C	D
Terminating Phase	A	7	-	-	
	B	5		-	-
	C	-	-		7
	D	-	-	5	

Phases in Stage

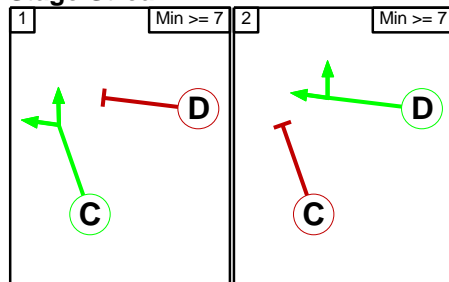
Stream	Stage No.	Phases in Stage
1	1	A
1	2	B
2	1	C
2	2	D

Stage Diagram

Stage Stream: 1



Stage Stream: 2



Phase Delays

Stage Stream: 1

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

Stage Stream: 2

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

Full Input Data And Results

Prohibited Stage Change

Stage Stream: 1

		To Stage	
		1	2
From Stage	1	7	
	2	5	

Stage Stream: 2

		To Stage	
		1	2
From Stage	1	7	
	2	5	

Full Input Data And Results

Give-Way Lane Input Data

Junction: A404 / A4155 Marlow Road Interchange Roundabout											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
3/1 (A4155 Marlow Road WB)	11/1 (Left)	1000	0	4/1	0.33	All	-	-	-	-	-
				4/2	0.33	All					
3/2 (A4155 Marlow Road WB)	6/1 (Ahead)	1000	0	4/1	0.33	All	-	-	-	-	-
				4/2	0.33	All					
3/3 (A4155 Marlow Road WB)	6/2 (Ahead)	1000	0	4/1	0.33	All	-	-	-	-	-
				4/2	0.33	All					
7/1 (A4155 Little Marlow Road EB)	2/1 (Ahead)	1000	0	8/1	0.33	All	-	-	-	-	-
				8/2	0.33	All					
7/1 (A4155 Little Marlow Road EB)	9/1 (Ahead)	1000	0	8/1	0.33	All	-	-	-	-	-
				8/2	0.33	All					
7/2 (A4155 Little Marlow Road EB)	2/2 (Ahead)	1000	0	8/1	0.33	All	-	-	-	-	-
				8/2	0.33	All					

Full Input Data And Results

Lane Input Data

Junction: A404 / A4155 Marlow Road Interchange Roundabout												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (A404 SB Off-Slip)	U	A	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 10 Left	40.00
1/2 (A404 SB Off-Slip)	U	A	2	3	60.0	Geom	-	3.00	0.00	N	Arm 4 Ahead	40.00
2/1 (Circulatory N)	U	B	2	3	60.0	Geom	-	4.25	0.00	Y	Arm 10 Ahead	Inf
2/2 (Circulatory N)	U	B	2	3	60.0	Geom	-	4.25	0.00	N	Arm 4 Right	40.00
											Arm 10 Ahead	Inf
3/1 (A4155 Marlow Road WB)	O		2	3	10.4	Inf	-	-	-	-	-	-
3/2 (A4155 Marlow Road WB)	O		2	3	20.9	Inf	-	-	-	-	-	-
3/3 (A4155 Marlow Road WB)	O		2	3	20.9	Inf	-	-	-	-	-	-
4/1 (Circ E)	U		2	3	60.0	Inf	-	-	-	-	-	-
4/2 (Circ E)	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1 (A404 NB Off-Slip)	U		2	3	60.0	Inf	-	-	-	-	-	-
5/2 (A404 NB Off-Slip)	U	C	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 12 Left	40.00
5/3 (A404 NB Off-Slip)	U	C	2	3	60.0	Geom	-	3.00	0.00	N	Arm 8 Ahead	40.00
6/1 (Circulatory S)	U	D	2	3	60.0	Geom	-	4.00	0.00	Y	Arm 12 Ahead	40.00
6/2 (Circulatory S)	U	D	2	3	60.0	Geom	-	4.00	0.00	N	Arm 8 Right	40.00
											Arm 12 Ahead	40.00
7/1 (A4155 Little Marlow Road EB)	O		2	3	6.1	Inf	-	-	-	-	-	-
7/2 (A4155 Little Marlow Road EB)	O		2	3	6.1	Inf	-	-	-	-	-	-

Full Input Data And Results

8/1 (Circ W)	U		2	3	60.0	Inf	-	-	-	-	-	-
8/2 (Circ W)	U		2	3	60.0	Inf	-	-	-	-	-	-
9/1 (A404 NB On-Slip)	U		2	3	60.0	Inf	-	-	-	-	-	-
10/1 (A4155 Marlow Rd EB exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
10/2 (A4155 Marlow Rd EB exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
11/1 (A404 SB On-Slip)	U		2	3	60.0	Inf	-	-	-	-	-	-
12/1 (A4155 Little Marlow Rd WB exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
12/2 (A4155 Little Marlow Rd WB exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
13/1 (Segregated left-turn slip lane to Parkway)	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2027 Base 07:00-08:00 AM'	07:00	08:00	01:00	
2: '2027 Base 08:00-09:00 AM'	08:00	09:00	01:00	
3: '2027 Base 17:00-18:00 PM'	17:00	18:00	01:00	
4: '2027 Base + Dev 07:00-08:00 AM'	07:00	08:00	01:00	
5: '2027 Base + Dev 08:00-09:00 AM'	08:00	09:00	01:00	
6: '2027 Base + Dev 17:00-18:00 PM'	17:00	18:00	01:00	
7: '2027 Base + Dev STS 07:00-08:00 AM'	07:00	08:00	01:00	
8: '2027 Base + Dev STS 08:00-09:00 AM'	08:00	09:00	01:00	
9: '2027 Base + Dev STS 17:00-18:00 PM'	17:00	18:00	01:00	

Full Input Data And Results

Scenario 1: '2027 Base 07:00-08:00 AM' (FG1: '2027 Base 07:00-08:00 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
	A	B	C	D	E	Tot.	
Origin	A	0	202	4	326	0	532
B	86	0	308	588	0	982	
C	0	337	0	297	98	732	
D	203	470	317	0	0	990	
E	0	0	0	0	0	0	
Tot.	289	1009	629	1211	98	3236	

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: 2027 Base 07:00-08:00 AM
Junction: A404 / A4155 Marlow Road Interchange Roundabout	
1/1	202
1/2	330
2/1	460
2/2	664
3/1 (short)	308
3/2 (with short)	645(In) 337(Out)
3/3	337
4/1	321
4/2	326
5/1	98
5/2	297
5/3	337
6/1	500
6/2	500
7/1	495
7/2	495
8/1	86
8/2	337
9/1	289
10/1	561
10/2	448
11/1	629
12/1	797
12/2	414
13/1	98

Full Input Data And Results

Lane Saturation Flows

Junction: A404 / A4155 Marlow Road Interchange Roundabout								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A404 SB Off-Slip)	3.00	0.00	Y	Arm 10 Left	40.00	100.0 %	1846	1846
1/2 (A404 SB Off-Slip)	3.00	0.00	N	Arm 4 Ahead	40.00	100.0 %	1981	1981
2/1 (Circulatory N)	4.25	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2040	2040
2/2 (Circulatory N)	4.25	0.00	N	Arm 4 Right Arm 10 Ahead	40.00 Inf	47.7 % 52.3 %	2142	2142
3/1 (A4155 Marlow Road WB Lane 1)	Infinite Saturation Flow						Inf	Inf
3/2 (A4155 Marlow Road WB Lane 2)	Infinite Saturation Flow						Inf	Inf
3/3 (A4155 Marlow Road WB Lane 3)	Infinite Saturation Flow						Inf	Inf
4/1 (Circ E Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (Circ E Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (A404 NB Off-Slip Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A404 NB Off-Slip)	3.00	0.00	Y	Arm 12 Left	40.00	100.0 %	1846	1846
5/3 (A404 NB Off-Slip)	3.00	0.00	N	Arm 8 Ahead	40.00	100.0 %	1981	1981
6/1 (Circulatory S)	4.00	0.00	Y	Arm 12 Ahead	40.00	100.0 %	1942	1942
6/2 (Circulatory S)	4.00	0.00	N	Arm 8 Right Arm 12 Ahead	40.00 40.00	17.2 % 82.8 %	2077	2077
7/1 (A4155 Little Marlow Road EB Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A4155 Little Marlow Road EB Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (Circ W Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (Circ W Lane 2)	Infinite Saturation Flow						Inf	Inf
9/1 (A404 NB On-Slip Lane 1)	Infinite Saturation Flow						Inf	Inf
10/1 (A4155 Marlow Rd EB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
10/2 (A4155 Marlow Rd EB exit Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

11/1 (A404 SB On-Slip Lane 1)	Infinite Saturation Flow	Inf	Inf
12/1 (A4155 Little Marlow Rd WB exit Lane 1)	Infinite Saturation Flow	Inf	Inf
12/2 (A4155 Little Marlow Rd WB exit Lane 2)	Infinite Saturation Flow	Inf	Inf
13/1 (Segregated left-turn slip lane to Parkway Lane 1)	Infinite Saturation Flow	Inf	Inf

Scenario 2: '2027 Base 08:00-09:00 AM' (FG2: '2027 Base 08:00-09:00 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
		A	B	C	D	E	Tot.
Origin	A	0	264	5	563	0	832
	B	133	0	288	753	0	1174
	C	4	335	0	298	131	768
	D	135	449	442	0	0	1026
	E	0	0	0	0	0	0
	Tot.	272	1048	735	1614	131	3800

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: 2027 Base 08:00-09:00 AM
Junction: A404 / A4155 Marlow Road Interchange Roundabout	
1/1	264
1/2	568
2/1	545
2/2	681
3/1 (short)	288
3/2 (with short)	731(In) 443(Out)
3/3	443
4/1	447
4/2	563
5/1	131
5/2	298
5/3	339
6/1	724
6/2	725
7/1	513
7/2	513
8/1	137
8/2	335
9/1	272
10/1	677
10/2	371
11/1	735
12/1	1022
12/2	592
13/1	131

Full Input Data And Results

Lane Saturation Flows

Junction: A404 / A4155 Marlow Road Interchange Roundabout								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A404 SB Off-Slip)	3.00	0.00	Y	Arm 10 Left	40.00	100.0 %	1846	1846
1/2 (A404 SB Off-Slip)	3.00	0.00	N	Arm 4 Ahead	40.00	100.0 %	1981	1981
2/1 (Circulatory N)	4.25	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2040	2040
2/2 (Circulatory N)	4.25	0.00	N	Arm 4 Right Arm 10 Ahead	40.00 Inf	64.9 % 35.1 %	2128	2128
3/1 (A4155 Marlow Road WB Lane 1)	Infinite Saturation Flow						Inf	Inf
3/2 (A4155 Marlow Road WB Lane 2)	Infinite Saturation Flow						Inf	Inf
3/3 (A4155 Marlow Road WB Lane 3)	Infinite Saturation Flow						Inf	Inf
4/1 (Circ E Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (Circ E Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (A404 NB Off-Slip Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A404 NB Off-Slip)	3.00	0.00	Y	Arm 12 Left	40.00	100.0 %	1846	1846
5/3 (A404 NB Off-Slip)	3.00	0.00	N	Arm 8 Ahead	40.00	100.0 %	1981	1981
6/1 (Circulatory S)	4.00	0.00	Y	Arm 12 Ahead	40.00	100.0 %	1942	1942
6/2 (Circulatory S)	4.00	0.00	N	Arm 8 Right Arm 12 Ahead	40.00 40.00	18.3 % 81.7 %	2077	2077
7/1 (A4155 Little Marlow Road EB Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A4155 Little Marlow Road EB Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (Circ W Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (Circ W Lane 2)	Infinite Saturation Flow						Inf	Inf
9/1 (A404 NB On-Slip Lane 1)	Infinite Saturation Flow						Inf	Inf
10/1 (A4155 Marlow Rd EB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
10/2 (A4155 Marlow Rd EB exit Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

11/1 (A404 SB On-Slip Lane 1)	Infinite Saturation Flow	Inf	Inf
12/1 (A4155 Little Marlow Rd WB exit Lane 1)	Infinite Saturation Flow	Inf	Inf
12/2 (A4155 Little Marlow Rd WB exit Lane 2)	Infinite Saturation Flow	Inf	Inf
13/1 (Segregated left-turn slip lane to Parkway Lane 1)	Infinite Saturation Flow	Inf	Inf

Scenario 3: '2027 Base 17:00-18:00 PM' (FG3: '2027 Base 17:00-18:00 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
	A	B	C	D	E	Tot.	
Origin	A	0	403	5	373	0	781
	B	147	0	264	534	0	945
	C	5	447	0	363	29	844
	D	237	442	520	0	0	1199
	E	0	0	0	0	0	0
	Tot.	389	1292	789	1270	29	3769

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: 2027 Base 17:00-18:00 PM
Junction: A404 / A4155 Marlow Road Interchange Roundabout	
1/1	403
1/2	378
2/1	585
2/2	824
3/1 (short)	264
3/2 (with short)	605(In) 341(Out)
3/3	340
4/1	525
4/2	373
5/1	29
5/2	363
5/3	452
6/1	527
6/2	527
7/1	599
7/2	600
8/1	152
8/2	447
9/1	389
10/1	786
10/2	506
11/1	789
12/1	890
12/2	380
13/1	29

Lane Saturation Flows

Junction: A404 / A4155 Marlow Road Interchange Roundabout								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A404 SB Off-Slip)	3.00	0.00	Y	Arm 10 Left	40.00	100.0 %	1846	1846
1/2 (A404 SB Off-Slip)	3.00	0.00	N	Arm 4 Ahead	40.00	100.0 %	1981	1981
2/1 (Circulatory N)	4.25	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2040	2040
2/2 (Circulatory N)	4.25	0.00	N	Arm 4 Right Arm 10 Ahead	40.00 Inf	63.1 % 36.9 %	2130	2130
3/1 (A4155 Marlow Road WB Lane 1)	Infinite Saturation Flow						Inf	Inf
3/2 (A4155 Marlow Road WB Lane 2)	Infinite Saturation Flow						Inf	Inf
3/3 (A4155 Marlow Road WB Lane 3)	Infinite Saturation Flow						Inf	Inf
4/1 (Circ E Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (Circ E Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (A404 NB Off-Slip Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A404 NB Off-Slip)	3.00	0.00	Y	Arm 12 Left	40.00	100.0 %	1846	1846
5/3 (A404 NB Off-Slip)	3.00	0.00	N	Arm 8 Ahead	40.00	100.0 %	1981	1981
6/1 (Circulatory S)	4.00	0.00	Y	Arm 12 Ahead	40.00	100.0 %	1942	1942
6/2 (Circulatory S)	4.00	0.00	N	Arm 8 Right Arm 12 Ahead	40.00 40.00	27.9 % 72.1 %	2077	2077
7/1 (A4155 Little Marlow Road EB Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A4155 Little Marlow Road EB Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (Circ W Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (Circ W Lane 2)	Infinite Saturation Flow						Inf	Inf
9/1 (A404 NB On-Slip Lane 1)	Infinite Saturation Flow						Inf	Inf
10/1 (A4155 Marlow Rd EB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
10/2 (A4155 Marlow Rd EB exit Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

11/1 (A404 SB On-Slip Lane 1)	Infinite Saturation Flow	Inf	Inf
12/1 (A4155 Little Marlow Rd WB exit Lane 1)	Infinite Saturation Flow	Inf	Inf
12/2 (A4155 Little Marlow Rd WB exit Lane 2)	Infinite Saturation Flow	Inf	Inf
13/1 (Segregated left-turn slip lane to Parkway Lane 1)	Infinite Saturation Flow	Inf	Inf

Scenario 4: '2027 Base + Dev 07:00-08:00 AM' (FG4: '2027 Base + Dev 07:00-08:00 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
	A	B	C	D	E	Tot.	
Origin	A	0	442	4	326	0	772
	B	117	0	325	603	0	1045
	C	0	470	0	297	98	865
	D	203	590	317	0	0	1110
	E	0	0	0	0	0	0
	Tot.	320	1502	646	1226	98	3792

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: 2027 Base + Dev 07:00-08:00 AM
Junction: A404 / A4155 Marlow Road Interchange Roundabout	
1/1	442
1/2	330
2/1	587
2/2	790
3/1 (short)	325
3/2 (with short)	685(In) 360(Out)
3/3	360
4/1	321
4/2	326
5/1	98
5/2	297
5/3	470
6/1	523
6/2	523
7/1	555
7/2	555
8/1	117
8/2	470
9/1	320
10/1	808
10/2	694
11/1	646
12/1	820
12/2	406
13/1	98

Full Input Data And Results

Lane Saturation Flows

Junction: A404 / A4155 Marlow Road Interchange Roundabout								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A404 SB Off-Slip)	3.00	0.00	Y	Arm 10 Left	40.00	100.0 %	1846	1846
1/2 (A404 SB Off-Slip)	3.00	0.00	N	Arm 4 Ahead	40.00	100.0 %	1981	1981
2/1 (Circulatory N)	4.25	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2040	2040
2/2 (Circulatory N)	4.25	0.00	N	Arm 4 Right Arm 10 Ahead	40.00 Inf	40.1 % 59.9 %	2148	2148
3/1 (A4155 Marlow Road WB Lane 1)	Infinite Saturation Flow						Inf	Inf
3/2 (A4155 Marlow Road WB Lane 2)	Infinite Saturation Flow						Inf	Inf
3/3 (A4155 Marlow Road WB Lane 3)	Infinite Saturation Flow						Inf	Inf
4/1 (Circ E Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (Circ E Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (A404 NB Off-Slip Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A404 NB Off-Slip)	3.00	0.00	Y	Arm 12 Left	40.00	100.0 %	1846	1846
5/3 (A404 NB Off-Slip)	3.00	0.00	N	Arm 8 Ahead	40.00	100.0 %	1981	1981
6/1 (Circulatory S)	4.00	0.00	Y	Arm 12 Ahead	40.00	100.0 %	1942	1942
6/2 (Circulatory S)	4.00	0.00	N	Arm 8 Right Arm 12 Ahead	40.00 40.00	22.4 % 77.6 %	2077	2077
7/1 (A4155 Little Marlow Road EB Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A4155 Little Marlow Road EB Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (Circ W Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (Circ W Lane 2)	Infinite Saturation Flow						Inf	Inf
9/1 (A404 NB On-Slip Lane 1)	Infinite Saturation Flow						Inf	Inf
10/1 (A4155 Marlow Rd EB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
10/2 (A4155 Marlow Rd EB exit Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

11/1 (A404 SB On-Slip Lane 1)	Infinite Saturation Flow	Inf	Inf
12/1 (A4155 Little Marlow Rd WB exit Lane 1)	Infinite Saturation Flow	Inf	Inf
12/2 (A4155 Little Marlow Rd WB exit Lane 2)	Infinite Saturation Flow	Inf	Inf
13/1 (Segregated left-turn slip lane to Parkway Lane 1)	Infinite Saturation Flow	Inf	Inf

Scenario 5: '2027 Base + Dev 08:00-09:00 AM' (FG5: '2027 Base + Dev 08:00-09:00 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
	A	B	C	D	E	Tot.	
Origin	A	0	439	5	563	0	1007
	B	186	0	317	780	0	1283
	C	4	432	0	298	131	865
	D	135	537	442	0	0	1114
	E	0	0	0	0	0	0
	Tot.	325	1408	764	1641	131	4269

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 5: 2027 Base + Dev 08:00-09:00 AM
Junction: A404 / A4155 Marlow Road Interchange Roundabout	
1/1	439
1/2	568
2/1	638
2/2	773
3/1 (short)	317
3/2 (with short)	800(In) 483(Out)
3/3	483
4/1	447
4/2	563
5/1	131
5/2	298
5/3	436
6/1	764
6/2	765
7/1	557
7/2	557
8/1	190
8/2	432
9/1	325
10/1	857
10/2	551
11/1	764
12/1	1062
12/2	579
13/1	131

Lane Saturation Flows

Junction: A404 / A4155 Marlow Road Interchange Roundabout								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A404 SB Off-Slip)	3.00	0.00	Y	Arm 10 Left	40.00	100.0 %	1846	1846
1/2 (A404 SB Off-Slip)	3.00	0.00	N	Arm 4 Ahead	40.00	100.0 %	1981	1981
2/1 (Circulatory N)	4.25	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2040	2040
2/2 (Circulatory N)	4.25	0.00	N	Arm 4 Right Arm 10 Ahead	40.00 Inf	57.2 % 42.8 %	2134	2134
3/1 (A4155 Marlow Road WB Lane 1)	Infinite Saturation Flow						Inf	Inf
3/2 (A4155 Marlow Road WB Lane 2)	Infinite Saturation Flow						Inf	Inf
3/3 (A4155 Marlow Road WB Lane 3)	Infinite Saturation Flow						Inf	Inf
4/1 (Circ E Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (Circ E Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (A404 NB Off-Slip Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A404 NB Off-Slip)	3.00	0.00	Y	Arm 12 Left	40.00	100.0 %	1846	1846
5/3 (A404 NB Off-Slip)	3.00	0.00	N	Arm 8 Ahead	40.00	100.0 %	1981	1981
6/1 (Circulatory S)	4.00	0.00	Y	Arm 12 Ahead	40.00	100.0 %	1942	1942
6/2 (Circulatory S)	4.00	0.00	N	Arm 8 Right Arm 12 Ahead	40.00 40.00	24.3 % 75.7 %	2077	2077
7/1 (A4155 Little Marlow Road EB Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A4155 Little Marlow Road EB Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (Circ W Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (Circ W Lane 2)	Infinite Saturation Flow						Inf	Inf
9/1 (A404 NB On-Slip Lane 1)	Infinite Saturation Flow						Inf	Inf
10/1 (A4155 Marlow Rd EB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
10/2 (A4155 Marlow Rd EB exit Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

11/1 (A404 SB On-Slip Lane 1)	Infinite Saturation Flow	Inf	Inf
12/1 (A4155 Little Marlow Rd WB exit Lane 1)	Infinite Saturation Flow	Inf	Inf
12/2 (A4155 Little Marlow Rd WB exit Lane 2)	Infinite Saturation Flow	Inf	Inf
13/1 (Segregated left-turn slip lane to Parkway Lane 1)	Infinite Saturation Flow	Inf	Inf

Scenario 6: '2027 Base + Dev 17:00-18:00 PM' (FG6: '2027 Base + Dev 17:00-18:00 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
	A	B	C	D	E	Tot.	
Origin	A	0	466	5	373	0	844
	B	384	0	396	653	0	1433
	C	5	482	0	363	29	879
	D	237	474	520	0	0	1231
	E	0	0	0	0	0	0
	Tot.	626	1422	921	1389	29	4387

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: 2027 Base + Dev 17:00-18:00 PM
Junction: A404 / A4155 Marlow Road Interchange Roundabout	
1/1	466
1/2	378
2/1	619
2/2	857
3/1 (short)	396
3/2 (with short)	914(In) 518(Out)
3/3	519
4/1	525
4/2	373
5/1	29
5/2	363
5/3	487
6/1	704
6/2	706
7/1	615
7/2	616
8/1	389
8/2	482
9/1	626
10/1	852
10/2	570
11/1	921
12/1	1067
12/2	322
13/1	29

Full Input Data And Results

Lane Saturation Flows

Junction: A404 / A4155 Marlow Road Interchange Roundabout								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A404 SB Off-Slip)	3.00	0.00	Y	Arm 10 Left	40.00	100.0 %	1846	1846
1/2 (A404 SB Off-Slip)	3.00	0.00	N	Arm 4 Ahead	40.00	100.0 %	1981	1981
2/1 (Circulatory N)	4.25	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2040	2040
2/2 (Circulatory N)	4.25	0.00	N	Arm 4 Right Arm 10 Ahead	40.00 Inf	60.7 % 39.3 %	2132	2132
3/1 (A4155 Marlow Road WB Lane 1)	Infinite Saturation Flow						Inf	Inf
3/2 (A4155 Marlow Road WB Lane 2)	Infinite Saturation Flow						Inf	Inf
3/3 (A4155 Marlow Road WB Lane 3)	Infinite Saturation Flow						Inf	Inf
4/1 (Circ E Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (Circ E Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (A404 NB Off-Slip Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A404 NB Off-Slip)	3.00	0.00	Y	Arm 12 Left	40.00	100.0 %	1846	1846
5/3 (A404 NB Off-Slip)	3.00	0.00	N	Arm 8 Ahead	40.00	100.0 %	1981	1981
6/1 (Circulatory S)	4.00	0.00	Y	Arm 12 Ahead	40.00	100.0 %	1942	1942
6/2 (Circulatory S)	4.00	0.00	N	Arm 8 Right Arm 12 Ahead	40.00 40.00	54.4 % 45.6 %	2077	2077
7/1 (A4155 Little Marlow Road EB Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A4155 Little Marlow Road EB Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (Circ W Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (Circ W Lane 2)	Infinite Saturation Flow						Inf	Inf
9/1 (A404 NB On-Slip Lane 1)	Infinite Saturation Flow						Inf	Inf
10/1 (A4155 Marlow Rd EB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
10/2 (A4155 Marlow Rd EB exit Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

11/1 (A404 SB On-Slip Lane 1)	Infinite Saturation Flow	Inf	Inf
12/1 (A4155 Little Marlow Rd WB exit Lane 1)	Infinite Saturation Flow	Inf	Inf
12/2 (A4155 Little Marlow Rd WB exit Lane 2)	Infinite Saturation Flow	Inf	Inf
13/1 (Segregated left-turn slip lane to Parkway Lane 1)	Infinite Saturation Flow	Inf	Inf

Scenario 7: '2027 Base + Dev STS 07:00-08:00 AM' (FG7: '2027 Base + Dev STS 07:00-08:00 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
	A	B	C	D	E	Tot.	
Origin	A	0	373	4	326	0	703
	B	108	0	320	599	0	1027
	C	0	432	0	297	98	827
	D	203	556	317	0	0	1076
	E	0	0	0	0	0	0
	Tot.	311	1361	641	1222	98	3633

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 7: 2027 Base + Dev STS 07:00-08:00 AM
Junction: A404 / A4155 Marlow Road Interchange Roundabout	
1/1	373
1/2	330
2/1	551
2/2	754
3/1 (short)	320
3/2 (with short)	673(In) 353(Out)
3/3	354
4/1	321
4/2	326
5/1	98
5/2	297
5/3	432
6/1	516
6/2	517
7/1	538
7/2	538
8/1	108
8/2	432
9/1	311
10/1	737
10/2	624
11/1	641
12/1	813
12/2	409
13/1	98

Full Input Data And Results

Lane Saturation Flows

Junction: A404 / A4155 Marlow Road Interchange Roundabout								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A404 SB Off-Slip)	3.00	0.00	Y	Arm 10 Left	40.00	100.0 %	1846	1846
1/2 (A404 SB Off-Slip)	3.00	0.00	N	Arm 4 Ahead	40.00	100.0 %	1981	1981
2/1 (Circulatory N)	4.25	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2040	2040
2/2 (Circulatory N)	4.25	0.00	N	Arm 4 Right Arm 10 Ahead	40.00 Inf	42.0 % 58.0 %	2146	2146
3/1 (A4155 Marlow Road WB Lane 1)	Infinite Saturation Flow						Inf	Inf
3/2 (A4155 Marlow Road WB Lane 2)	Infinite Saturation Flow						Inf	Inf
3/3 (A4155 Marlow Road WB Lane 3)	Infinite Saturation Flow						Inf	Inf
4/1 (Circ E Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (Circ E Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (A404 NB Off-Slip Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A404 NB Off-Slip)	3.00	0.00	Y	Arm 12 Left	40.00	100.0 %	1846	1846
5/3 (A404 NB Off-Slip)	3.00	0.00	N	Arm 8 Ahead	40.00	100.0 %	1981	1981
6/1 (Circulatory S)	4.00	0.00	Y	Arm 12 Ahead	40.00	100.0 %	1942	1942
6/2 (Circulatory S)	4.00	0.00	N	Arm 8 Right Arm 12 Ahead	40.00 40.00	20.9 % 79.1 %	2077	2077
7/1 (A4155 Little Marlow Road EB Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A4155 Little Marlow Road EB Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (Circ W Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (Circ W Lane 2)	Infinite Saturation Flow						Inf	Inf
9/1 (A404 NB On-Slip Lane 1)	Infinite Saturation Flow						Inf	Inf
10/1 (A4155 Marlow Rd EB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
10/2 (A4155 Marlow Rd EB exit Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

11/1 (A404 SB On-Slip Lane 1)	Infinite Saturation Flow	Inf	Inf
12/1 (A4155 Little Marlow Rd WB exit Lane 1)	Infinite Saturation Flow	Inf	Inf
12/2 (A4155 Little Marlow Rd WB exit Lane 2)	Infinite Saturation Flow	Inf	Inf
13/1 (Segregated left-turn slip lane to Parkway Lane 1)	Infinite Saturation Flow	Inf	Inf

Scenario 8: '2027 Base + Dev STS 08:00-09:00 AM' (FG8: '2027 Base + Dev STS 08:00-09:00 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
	A	B	C	D	E	Tot.	
Origin	A	0	389	5	563	0	957
	B	171	0	309	772	0	1252
	C	4	404	0	298	131	837
	D	135	511	442	0	0	1088
	E	0	0	0	0	0	0
	Tot.	310	1304	756	1633	131	4134

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 8: 2027 Base + Dev STS 08:00-09:00 AM
Junction: A404 / A4155 Marlow Road Interchange Roundabout	
1/1	389
1/2	568
2/1	611
2/2	746
3/1 (short)	309
3/2 (with short)	780(In) 471(Out)
3/3	472
4/1	447
4/2	563
5/1	131
5/2	298
5/3	408
6/1	752
6/2	754
7/1	544
7/2	544
8/1	175
8/2	404
9/1	310
10/1	805
10/2	499
11/1	756
12/1	1050
12/2	583
13/1	131

Full Input Data And Results

Lane Saturation Flows

Junction: A404 / A4155 Marlow Road Interchange Roundabout								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A404 SB Off-Slip)	3.00	0.00	Y	Arm 10 Left	40.00	100.0 %	1846	1846
1/2 (A404 SB Off-Slip)	3.00	0.00	N	Arm 4 Ahead	40.00	100.0 %	1981	1981
2/1 (Circulatory N)	4.25	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2040	2040
2/2 (Circulatory N)	4.25	0.00	N	Arm 4 Right Arm 10 Ahead	40.00 Inf	59.2 % 40.8 %	2133	2133
3/1 (A4155 Marlow Road WB Lane 1)	Infinite Saturation Flow						Inf	Inf
3/2 (A4155 Marlow Road WB Lane 2)	Infinite Saturation Flow						Inf	Inf
3/3 (A4155 Marlow Road WB Lane 3)	Infinite Saturation Flow						Inf	Inf
4/1 (Circ E Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (Circ E Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (A404 NB Off-Slip Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A404 NB Off-Slip)	3.00	0.00	Y	Arm 12 Left	40.00	100.0 %	1846	1846
5/3 (A404 NB Off-Slip)	3.00	0.00	N	Arm 8 Ahead	40.00	100.0 %	1981	1981
6/1 (Circulatory S)	4.00	0.00	Y	Arm 12 Ahead	40.00	100.0 %	1942	1942
6/2 (Circulatory S)	4.00	0.00	N	Arm 8 Right Arm 12 Ahead	40.00 40.00	22.7 % 77.3 %	2077	2077
7/1 (A4155 Little Marlow Road EB Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A4155 Little Marlow Road EB Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (Circ W Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (Circ W Lane 2)	Infinite Saturation Flow						Inf	Inf
9/1 (A404 NB On-Slip Lane 1)	Infinite Saturation Flow						Inf	Inf
10/1 (A4155 Marlow Rd EB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
10/2 (A4155 Marlow Rd EB exit Lane 2)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

11/1 (A404 SB On-Slip Lane 1)	Infinite Saturation Flow	Inf	Inf
12/1 (A4155 Little Marlow Rd WB exit Lane 1)	Infinite Saturation Flow	Inf	Inf
12/2 (A4155 Little Marlow Rd WB exit Lane 2)	Infinite Saturation Flow	Inf	Inf
13/1 (Segregated left-turn slip lane to Parkway Lane 1)	Infinite Saturation Flow	Inf	Inf

Scenario 9: '2027 Base + Dev STS 17:00-18:00 PM' (FG9: '2027 Base + Dev STS 17:00-18:00 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination						
	A	B	C	D	E	Tot.	
Origin	A	0	448	5	373	0	826
	B	316	0	358	619	0	1293
	C	5	472	0	363	29	869
	D	237	465	520	0	0	1222
	E	0	0	0	0	0	0
	Tot.	558	1385	883	1355	29	4210

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 9: 2027 Base + Dev STS 17:00-18:00 PM
Junction: A404 / A4155 Marlow Road Interchange Roundabout	
1/1	448
1/2	378
2/1	610
2/2	847
3/1 (short)	358
3/2 (with short)	825(In) 467(Out)
3/3	468
4/1	525
4/2	373
5/1	29
5/2	363
5/3	477
6/1	653
6/2	655
7/1	611
7/2	611
8/1	321
8/2	472
9/1	558
10/1	834
10/2	551
11/1	883
12/1	1016
12/2	339
13/1	29

Full Input Data And Results

Lane Saturation Flows

Junction: A404 / A4155 Marlow Road Interchange Roundabout								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A404 SB Off-Slip)	3.00	0.00	Y	Arm 10 Left	40.00	100.0 %	1846	1846
1/2 (A404 SB Off-Slip)	3.00	0.00	N	Arm 4 Ahead	40.00	100.0 %	1981	1981
2/1 (Circulatory N)	4.25	0.00	Y	Arm 10 Ahead	Inf	100.0 %	2040	2040
2/2 (Circulatory N)	4.25	0.00	N	Arm 4 Right Arm 10 Ahead	40.00 Inf	61.4 % 38.6 %	2131	2131
3/1 (A4155 Marlow Road WB Lane 1)	Infinite Saturation Flow						Inf	Inf
3/2 (A4155 Marlow Road WB Lane 2)	Infinite Saturation Flow						Inf	Inf
3/3 (A4155 Marlow Road WB Lane 3)	Infinite Saturation Flow						Inf	Inf
4/1 (Circ E Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (Circ E Lane 2)	Infinite Saturation Flow						Inf	Inf
5/1 (A404 NB Off-Slip Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A404 NB Off-Slip)	3.00	0.00	Y	Arm 12 Left	40.00	100.0 %	1846	1846
5/3 (A404 NB Off-Slip)	3.00	0.00	N	Arm 8 Ahead	40.00	100.0 %	1981	1981
6/1 (Circulatory S)	4.00	0.00	Y	Arm 12 Ahead	40.00	100.0 %	1942	1942
6/2 (Circulatory S)	4.00	0.00	N	Arm 8 Right Arm 12 Ahead	40.00 40.00	48.2 % 51.8 %	2077	2077
7/1 (A4155 Little Marlow Road EB Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A4155 Little Marlow Road EB Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (Circ W Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (Circ W Lane 2)	Infinite Saturation Flow						Inf	Inf
9/1 (A404 NB On-Slip Lane 1)	Infinite Saturation Flow						Inf	Inf
10/1 (A4155 Marlow Rd EB exit Lane 1)	Infinite Saturation Flow						Inf	Inf
10/2 (A4155 Marlow Rd EB exit Lane 2)	Infinite Saturation Flow						Inf	Inf

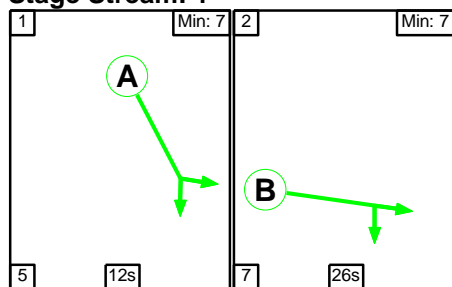
Full Input Data And Results

11/1 (A404 SB On-Slip Lane 1)	Infinite Saturation Flow	Inf	Inf
12/1 (A4155 Little Marlow Rd WB exit Lane 1)	Infinite Saturation Flow	Inf	Inf
12/2 (A4155 Little Marlow Rd WB exit Lane 2)	Infinite Saturation Flow	Inf	Inf
13/1 (Segregated left-turn slip lane to Parkway Lane 1)	Infinite Saturation Flow	Inf	Inf

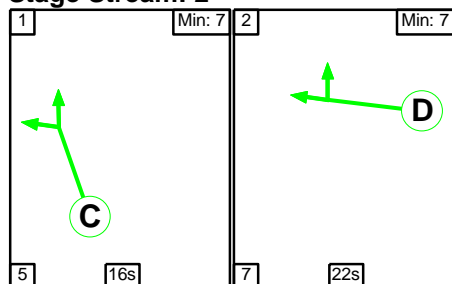
Scenario 1: '2027 Base 07:00-08:00 AM' (FG1: '2027 Base 07:00-08:00 AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

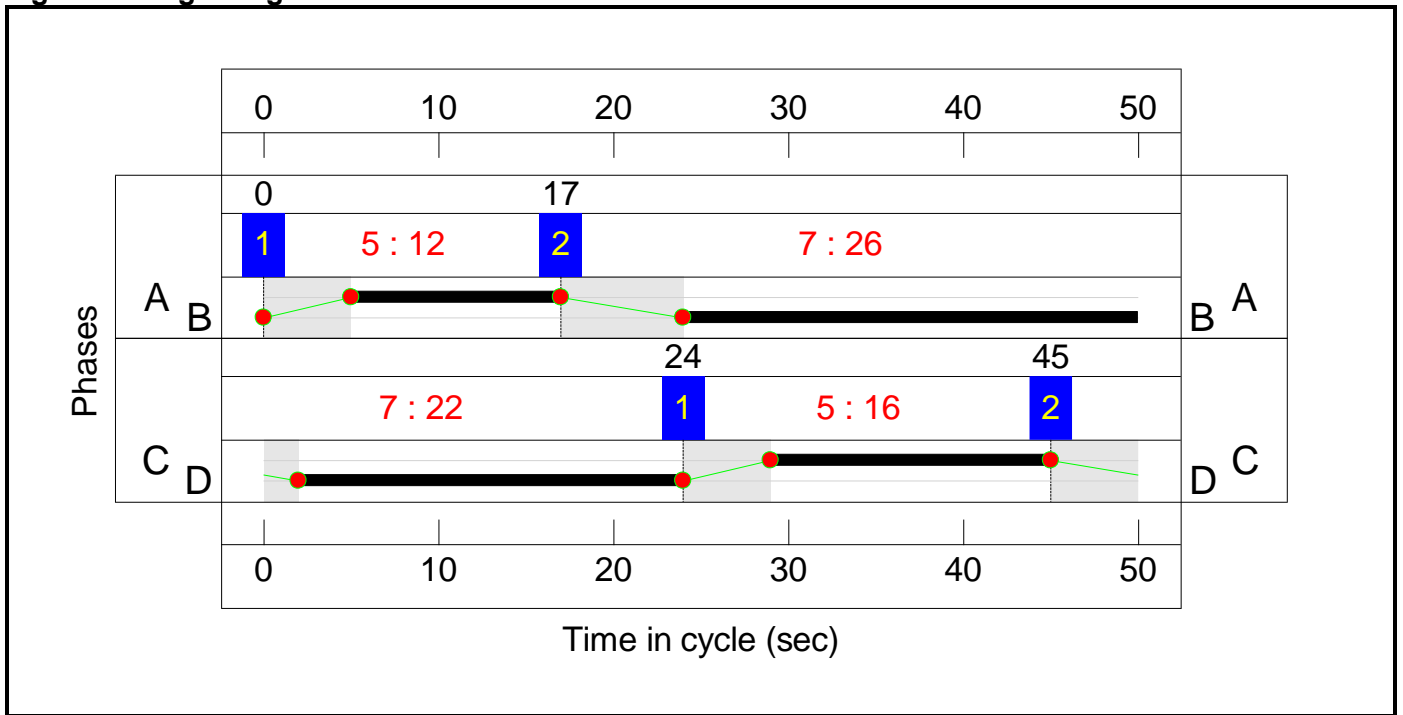
Stage Stream: 1

Stage	1	2
Duration	12	26
Change Point	0	17

Stage Stream: 2

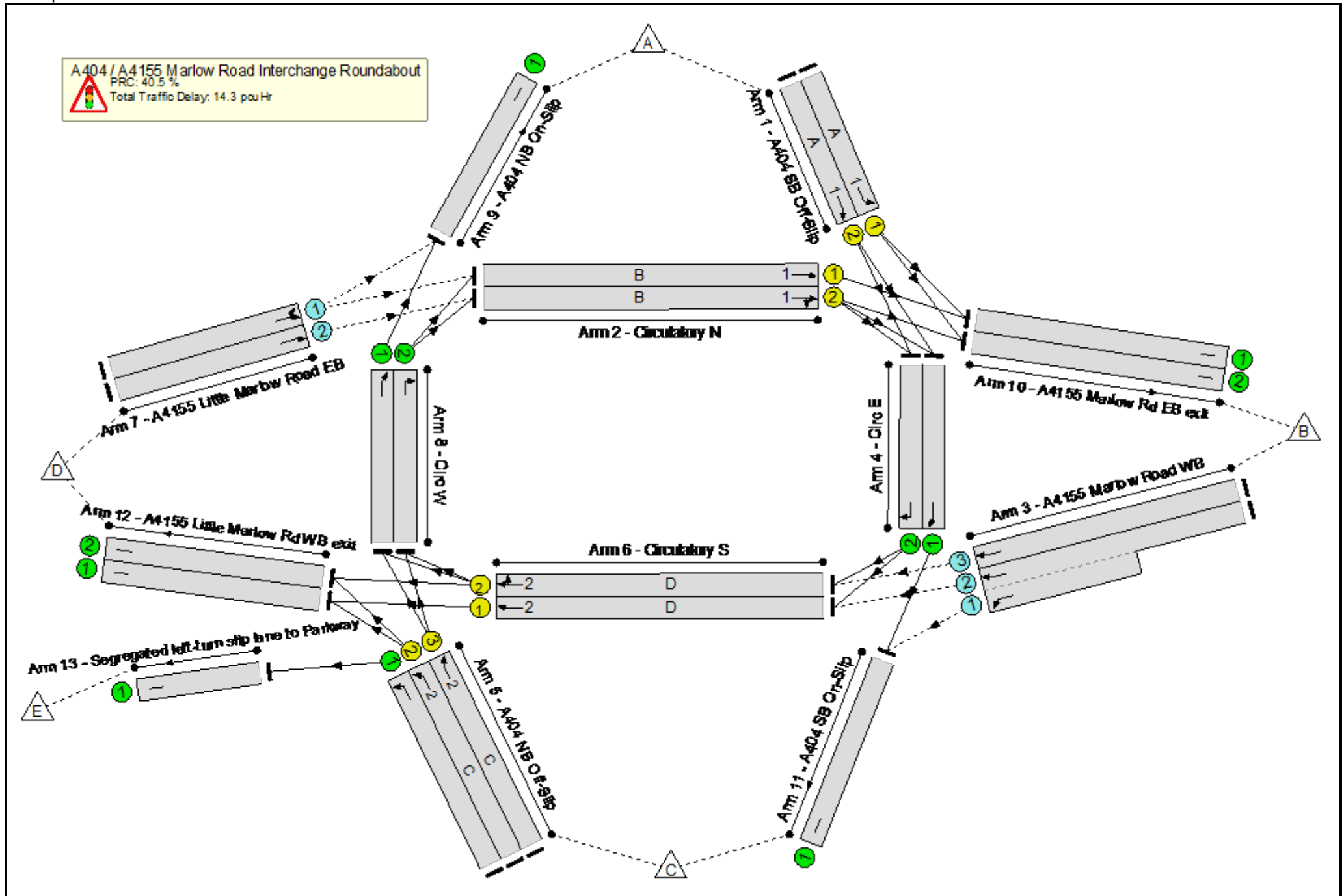
Stage	1	2
Duration	16	22
Change Point	24	45

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A404 / A4155 Westhorpe Interchange - With Planned Improvements	-	-	N/A	-	-		-	-	-	-	-	-	64.1%
A404 / A4155 Marlow Road Interchange Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	64.1%
1/1	A404 SB Off-Slip Left	U	1	N/A	A		1	12	-	202	1846	480	42.1%
1/2	A404 SB Off-Slip Ahead	U	1	N/A	A		1	12	-	330	1981	515	64.1%
2/1	Circulatory N Ahead	U	1	N/A	B		1	26	-	460	2040	1102	41.8%
2/2	Circulatory N Right Ahead	U	1	N/A	B		1	26	-	664	2142	1157	57.4%
3/2+3/1	A4155 Marlow Road WB Ahead Left	O	N/A	N/A	-		-	-	-	645	Inf : Inf	786+786	42.9 : 39.2%
3/3	A4155 Marlow Road WB Ahead	O	N/A	N/A	-		-	-	-	337	Inf	786	42.9%
4/1	Circ E Ahead	U	N/A	N/A	-		-	-	-	321	Inf	Inf	0.0%
4/2	Circ E Right	U	N/A	N/A	-		-	-	-	326	Inf	Inf	0.0%
5/1	A404 NB Off-Slip Left	U	N/A	N/A	-		-	-	-	98	Inf	Inf	0.0%
5/2	A404 NB Off-Slip Left	U	2	N/A	C		1	16	-	297	1846	628	47.3%
5/3	A404 NB Off-Slip Ahead	U	2	N/A	C		1	16	-	337	1981	674	50.0%
6/1	Circulatory S Ahead	U	2	N/A	D		1	22	-	500	1942	893	56.0%
6/2	Circulatory S Right Ahead	U	2	N/A	D		1	22	-	500	2077	955	52.3%

Full Input Data And Results

7/1	A4155 Little Marlow Road EB Ahead Ahead2	O	N/A	N/A	-	-	-	-	495	Inf	860	57.5%
7/2	A4155 Little Marlow Road EB Ahead	O	N/A	N/A	-	-	-	-	495	Inf	860	57.5%
8/1	Circ W Ahead	U	N/A	N/A	-	-	-	-	86	Inf	Inf	0.0%
8/2	Circ W Right	U	N/A	N/A	-	-	-	-	337	Inf	Inf	0.0%
9/1	A404 NB On-Slip	U	N/A	N/A	-	-	-	-	289	Inf	Inf	0.0%
10/1	A4155 Marlow Rd EB exit	U	N/A	N/A	-	-	-	-	561	Inf	Inf	0.0%
10/2	A4155 Marlow Rd EB exit	U	N/A	N/A	-	-	-	-	448	Inf	Inf	0.0%
11/1	A404 SB On-Slip	U	N/A	N/A	-	-	-	-	629	Inf	Inf	0.0%
12/1	A4155 Little Marlow Rd WB exit	U	N/A	N/A	-	-	-	-	797	Inf	Inf	0.0%
12/2	A4155 Little Marlow Rd WB exit	U	N/A	N/A	-	-	-	-	414	Inf	Inf	0.0%
13/1	Segregated left-turn slip lane to Parkway	U	N/A	N/A	-	-	-	-	98	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: A404 / A4155 Westhorpe Interchange - With Planned Improvements	-	-	2617	0	0	7.8	6.5	0.0	14.3	-	-	-	-
A404 / A4155 Marlow Road Interchange Roundabout	-	-	2617	0	0	7.8	6.5	0.0	14.3	-	-	-	-
1/1	202	202	-	-	-	0.9	0.4	-	1.2	21.9	2.3	0.4	2.7
1/2	330	330	-	-	-	1.5	0.9	-	2.4	26.1	4.0	0.9	4.9
2/1	460	460	-	-	-	0.5	0.4	-	0.9	6.7	2.1	0.4	2.5
2/2	664	664	-	-	-	0.9	0.7	-	1.6	8.8	4.0	0.7	4.7
3/2+3/1	645	645	1290	0	0	0.0	0.3	-	0.3	1.9	0.0	0.3	0.3
3/3	337	337	337	0	0	0.0	0.4	-	0.4	4.0	0.0	0.4	0.4
4/1	321	321	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	326	326	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	98	98	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	297	297	-	-	-	1.1	0.4	-	1.5	18.4	3.2	0.4	3.7
5/3	337	337	-	-	-	1.2	0.5	-	1.7	18.5	3.7	0.5	4.2
6/1	500	500	-	-	-	0.8	0.6	-	1.5	10.5	3.2	0.6	3.9
6/2	500	500	-	-	-	0.8	0.5	-	1.4	9.8	3.0	0.5	3.5
7/1	495	495	495	0	0	0.0	0.7	-	0.7	5.0	1.1	0.7	1.8
7/2	495	495	495	0	0	0.0	0.7	-	0.7	5.0	1.1	0.7	1.8
8/1	86	86	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	337	337	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	289	289	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	561	561	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	448	448	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

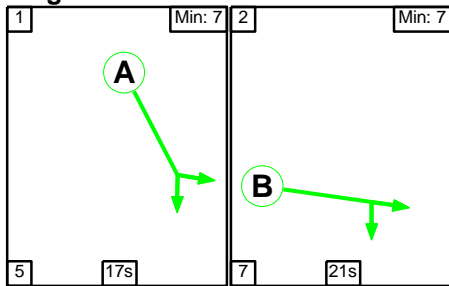
11/1	629	629	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
12/1	797	797	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
12/2	414	414	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
13/1	98	98	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
		C1	Stream: 1 PRC for Signalled Lanes (%):	40.5	Total Delay for Signalled Lanes (pcuHr):			6.10	Cycle Time (s):		50			
		C1	Stream: 2 PRC for Signalled Lanes (%):	60.8	Total Delay for Signalled Lanes (pcuHr):			6.07	Cycle Time (s):		50			
			PRC Over All Lanes (%):	40.5	Total Delay Over All Lanes(pcuHr):			14.28						

Full Input Data And Results

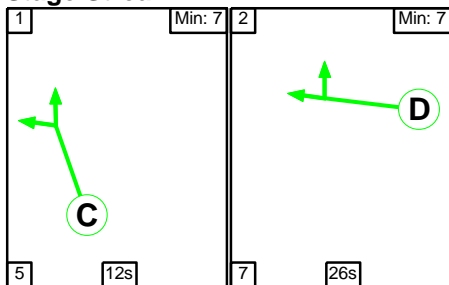
Scenario 2: '2027 Base 08:00-09:00 AM' (FG2: '2027 Base 08:00-09:00 AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

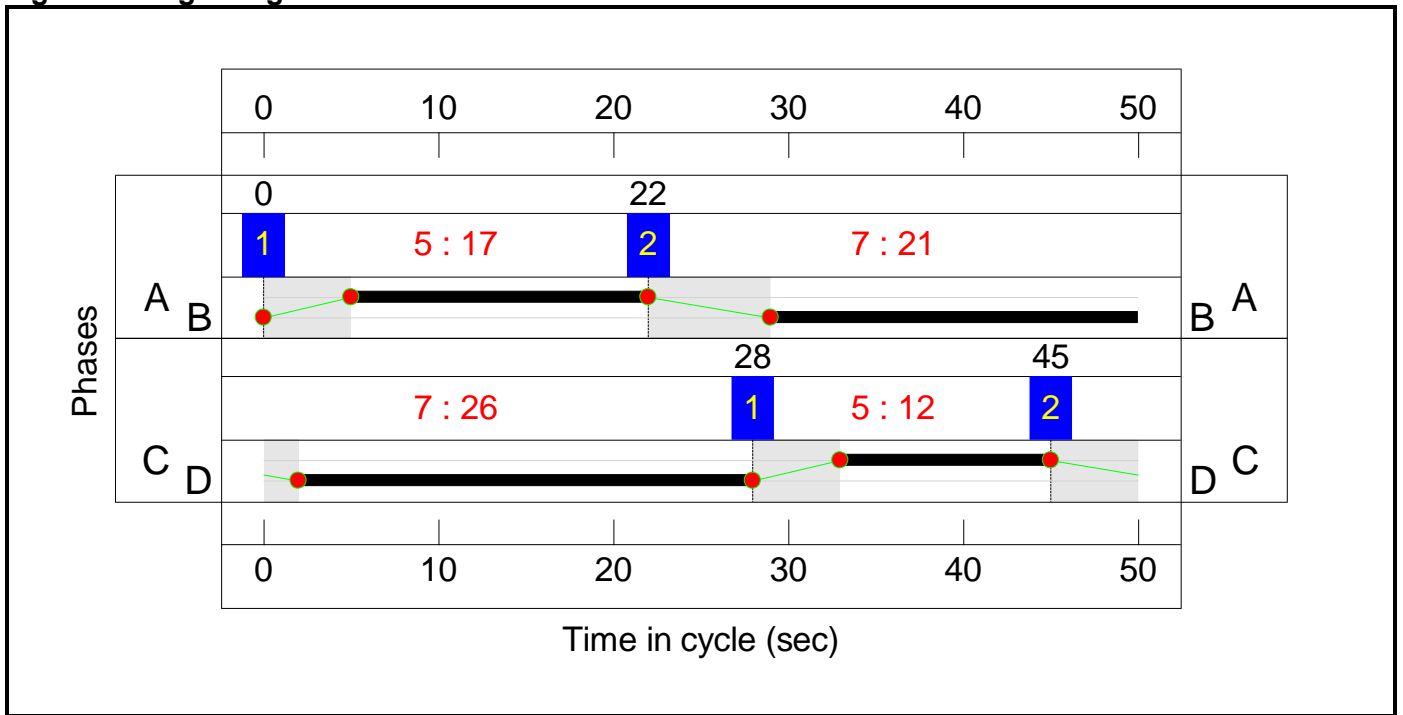
Stage Stream: 1

Stage	1	2
Duration	17	21
Change Point	0	22

Stage Stream: 2

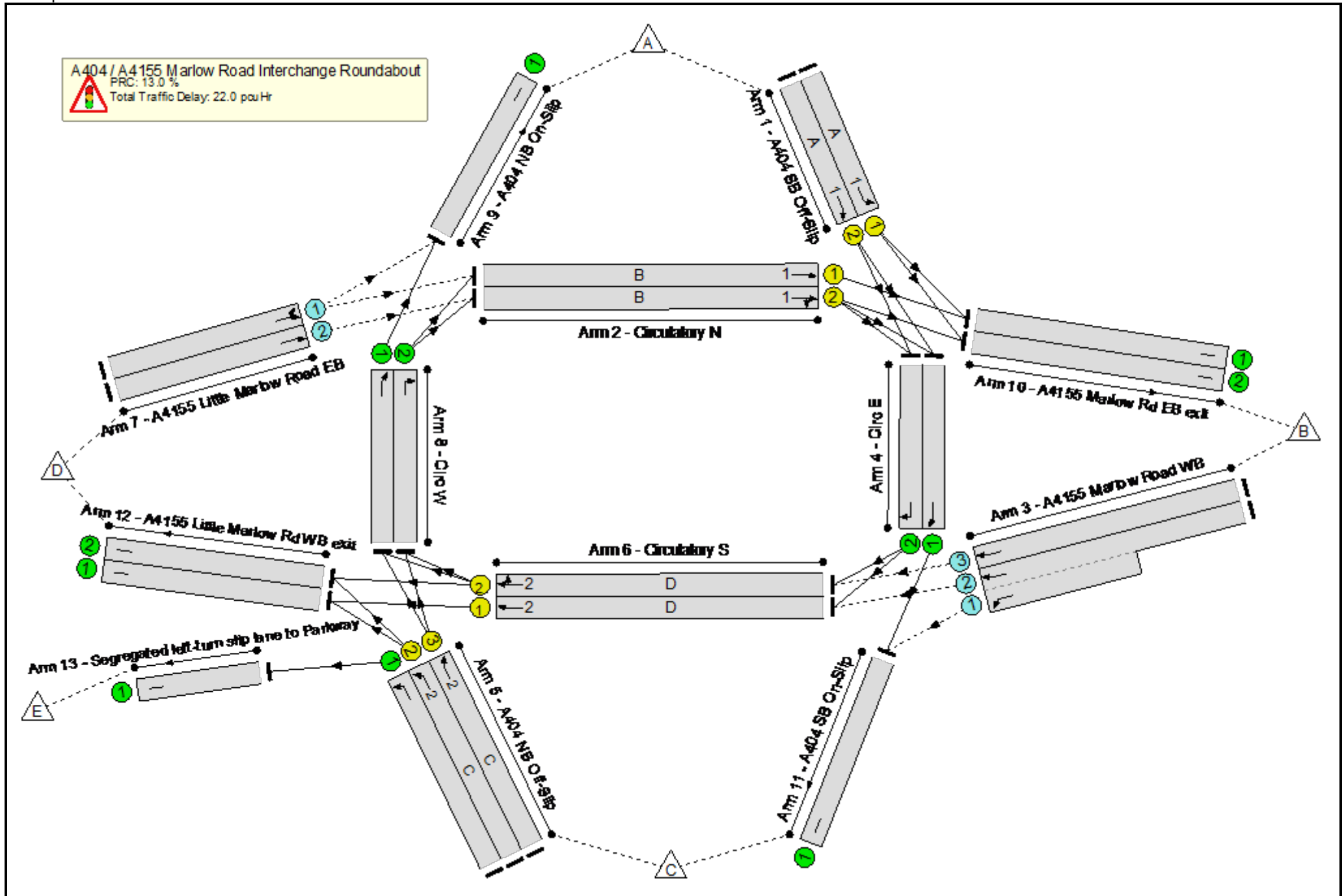
Stage	1	2
Duration	12	26
Change Point	28	45

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A404 / A4155 Westhorpe Interchange - With Planned Improvements	-	-	N/A	-	-		-	-	-	-	-	-	79.6%
A404 / A4155 Marlow Road Interchange Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	79.6%
1/1	A404 SB Off-Slip Left	U	1	N/A	A		1	17	-	264	1846	665	39.7%
1/2	A404 SB Off-Slip Ahead	U	1	N/A	A		1	17	-	568	1981	713	79.6%
2/1	Circulatory N Ahead	U	1	N/A	B		1	21	-	545	2040	898	60.7%
2/2	Circulatory N Right Ahead	U	1	N/A	B		1	21	-	681	2128	936	72.7%
3/2+3/1	A4155 Marlow Road WB Ahead Left	O	N/A	N/A	-		-	-	-	731	Inf : Inf	666+454	66.5 : 63.5%
3/3	A4155 Marlow Road WB Ahead	O	N/A	N/A	-		-	-	-	443	Inf	666	66.5%
4/1	Circ E Ahead	U	N/A	N/A	-		-	-	-	447	Inf	Inf	0.0%
4/2	Circ E Right	U	N/A	N/A	-		-	-	-	563	Inf	Inf	0.0%
5/1	A404 NB Off-Slip Left	U	N/A	N/A	-		-	-	-	131	Inf	Inf	0.0%
5/2	A404 NB Off-Slip Left	U	2	N/A	C		1	12	-	298	1846	480	62.1%
5/3	A404 NB Off-Slip Ahead	U	2	N/A	C		1	12	-	339	1981	515	65.8%
6/1	Circulatory S Ahead	U	2	N/A	D		1	26	-	724	1942	1049	69.0%
6/2	Circulatory S Right Ahead	U	2	N/A	D		1	26	-	725	2077	1122	64.6%

Full Input Data And Results

7/1	A4155 Little Marlow Road EB Ahead Ahead2	O	N/A	N/A	-	-	-	-	513	Inf	844	60.8%
7/2	A4155 Little Marlow Road EB Ahead	O	N/A	N/A	-	-	-	-	513	Inf	844	60.8%
8/1	Circ W Ahead	U	N/A	N/A	-	-	-	-	137	Inf	Inf	0.0%
8/2	Circ W Right	U	N/A	N/A	-	-	-	-	335	Inf	Inf	0.0%
9/1	A404 NB On-Slip	U	N/A	N/A	-	-	-	-	272	Inf	Inf	0.0%
10/1	A4155 Marlow Rd EB exit	U	N/A	N/A	-	-	-	-	677	Inf	Inf	0.0%
10/2	A4155 Marlow Rd EB exit	U	N/A	N/A	-	-	-	-	371	Inf	Inf	0.0%
11/1	A404 SB On-Slip	U	N/A	N/A	-	-	-	-	735	Inf	Inf	0.0%
12/1	A4155 Little Marlow Rd WB exit	U	N/A	N/A	-	-	-	-	1022	Inf	Inf	0.0%
12/2	A4155 Little Marlow Rd WB exit	U	N/A	N/A	-	-	-	-	592	Inf	Inf	0.0%
13/1	Segregated left-turn slip lane to Parkway	U	N/A	N/A	-	-	-	-	131	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: A404 / A4155 Westhorpe Interchange - With Planned Improvements	-	-	2931	0	0	10.4	11.6	0.0	22.0	-	-	-	-
A404 / A4155 Marlow Road Interchange Roundabout	-	-	2931	0	0	10.4	11.6	0.0	22.0	-	-	-	-
1/1	264	264	-	-	-	0.9	0.3	-	1.2	16.4	2.7	0.3	3.0
1/2	568	568	-	-	-	2.3	1.9	-	4.2	26.4	6.9	1.9	8.8
2/1	545	545	-	-	-	1.0	0.8	-	1.8	11.8	3.6	0.8	4.3
2/2	681	681	-	-	-	1.5	1.3	-	2.8	14.9	6.7	1.3	8.0
3/2+3/1	731	731	1462	0	0	0.1	0.9	-	1.0	4.9	1.8	0.9	2.8
3/3	443	443	443	0	0	0.1	1.0	-	1.0	8.4	1.8	1.0	2.8
4/1	447	447	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	563	563	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	131	131	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	298	298	-	-	-	1.4	0.8	-	2.2	26.1	3.6	0.8	4.5
5/3	339	339	-	-	-	1.6	1.0	-	2.5	26.6	4.1	1.0	5.1
6/1	724	724	-	-	-	0.8	1.1	-	2.0	9.7	4.4	1.1	5.6
6/2	725	725	-	-	-	0.8	0.9	-	1.7	8.6	4.1	0.9	5.0
7/1	513	513	513	0	0	0.0	0.8	-	0.8	5.6	1.3	0.8	2.1
7/2	513	513	513	0	0	0.0	0.8	-	0.8	5.6	1.3	0.8	2.1
8/1	137	137	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	335	335	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	272	272	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	677	677	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	371	371	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

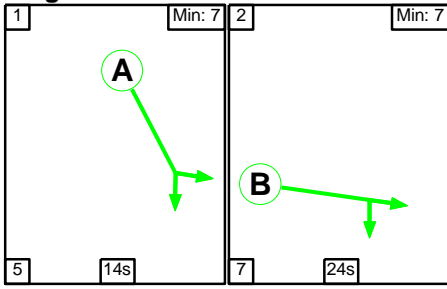
11/1	735	735	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	1022	1022	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	592	592	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	131	131	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
		C1	Stream: 1 PRC for Signalled Lanes (%)		13.0	Total Delay for Signalled Lanes (pcuHr)		9.99	Cycle Time (s)		50		
		C1	Stream: 2 PRC for Signalled Lanes (%)		30.4	Total Delay for Signalled Lanes (pcuHr)		8.37	Cycle Time (s)		50		
			PRC Over All Lanes (%)		13.0	Total Delay Over All Lanes(pcuHr)		21.97					

Full Input Data And Results

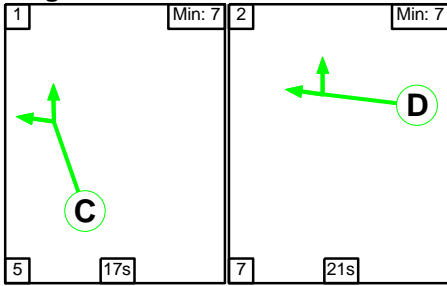
Scenario 3: '2027 Base 17:00-18:00 PM' (FG3: '2027 Base 17:00-18:00 PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

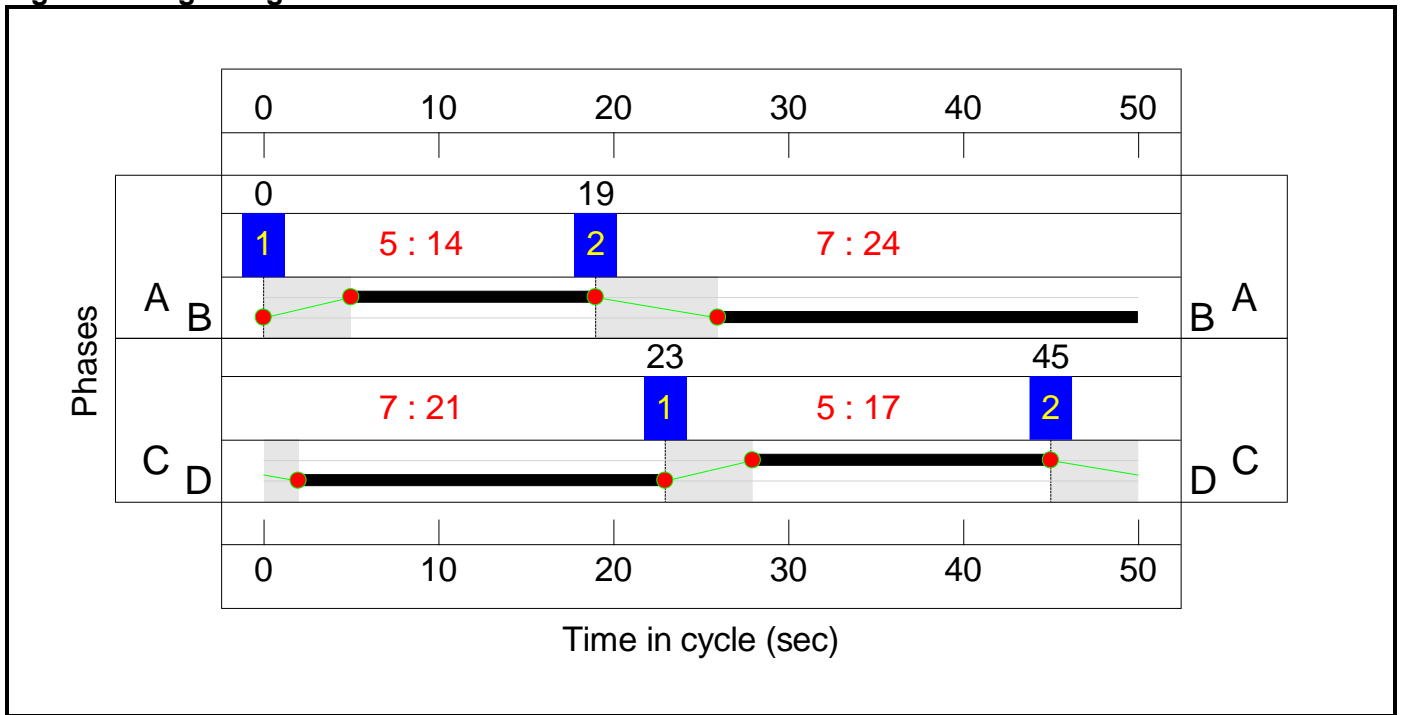
Stage Stream: 1

Stage	1	2
Duration	14	24
Change Point	0	19

Stage Stream: 2

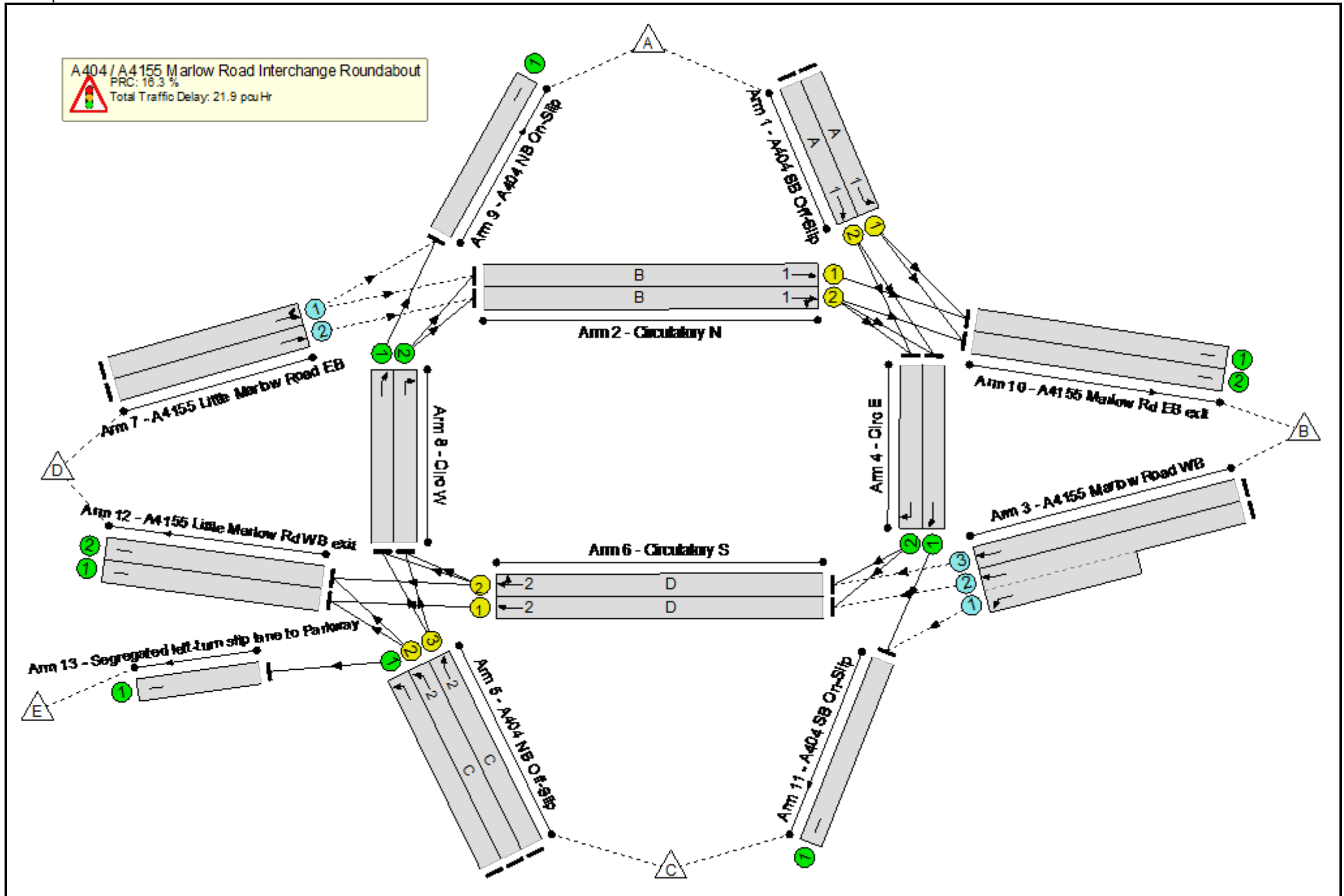
Stage	1	2
Duration	17	21
Change Point	23	45

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A404 / A4155 Westhorpe Interchange - With Planned Improvements	-	-	N/A	-	-		-	-	-	-	-	-	77.4%
A404 / A4155 Marlow Road Interchange Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	77.4%
1/1	A404 SB Off-Slip Left	U	1	N/A	A		1	14	-	403	1846	554	72.8%
1/2	A404 SB Off-Slip Ahead	U	1	N/A	A		1	14	-	378	1981	594	63.6%
2/1	Circulatory N Ahead	U	1	N/A	B		1	24	-	585	2040	1020	57.4%
2/2	Circulatory N Right Ahead	U	1	N/A	B		1	24	-	824	2130	1065	77.4%
3/2+3/1	A4155 Marlow Road WB Ahead Left	O	N/A	N/A	-		-	-	-	605	Inf : Inf	703+703	48.5 : 37.5%
3/3	A4155 Marlow Road WB Ahead	O	N/A	N/A	-		-	-	-	340	Inf	703	48.3%
4/1	Circ E Ahead	U	N/A	N/A	-		-	-	-	525	Inf	Inf	0.0%
4/2	Circ E Right	U	N/A	N/A	-		-	-	-	373	Inf	Inf	0.0%
5/1	A404 NB Off-Slip Left	U	N/A	N/A	-		-	-	-	29	Inf	Inf	0.0%
5/2	A404 NB Off-Slip Left	U	2	N/A	C		1	17	-	363	1846	665	54.6%
5/3	A404 NB Off-Slip Ahead	U	2	N/A	C		1	17	-	452	1981	713	63.4%
6/1	Circulatory S Ahead	U	2	N/A	D		1	21	-	527	1942	854	61.7%
6/2	Circulatory S Right Ahead	U	2	N/A	D		1	21	-	527	2077	914	57.7%

Full Input Data And Results

7/1	A4155 Little Marlow Road EB Ahead Ahead2	O	N/A	N/A	-	-	-	-	599	Inf	802	74.7%
7/2	A4155 Little Marlow Road EB Ahead	O	N/A	N/A	-	-	-	-	600	Inf	802	74.8%
8/1	Circ W Ahead	U	N/A	N/A	-	-	-	-	152	Inf	Inf	0.0%
8/2	Circ W Right	U	N/A	N/A	-	-	-	-	447	Inf	Inf	0.0%
9/1	A404 NB On-Slip	U	N/A	N/A	-	-	-	-	389	Inf	Inf	0.0%
10/1	A4155 Marlow Rd EB exit	U	N/A	N/A	-	-	-	-	786	Inf	Inf	0.0%
10/2	A4155 Marlow Rd EB exit	U	N/A	N/A	-	-	-	-	506	Inf	Inf	0.0%
11/1	A404 SB On-Slip	U	N/A	N/A	-	-	-	-	789	Inf	Inf	0.0%
12/1	A4155 Little Marlow Rd WB exit	U	N/A	N/A	-	-	-	-	890	Inf	Inf	0.0%
12/2	A4155 Little Marlow Rd WB exit	U	N/A	N/A	-	-	-	-	380	Inf	Inf	0.0%
13/1	Segregated left-turn slip lane to Parkway	U	N/A	N/A	-	-	-	-	29	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: A404 / A4155 Westhorpe Interchange - With Planned Improvements	-	-	2749	0	0	10.7	11.2	0.0	21.9	-	-	-	-
A404 / A4155 Marlow Road Interchange Roundabout	-	-	2749	0	0	10.7	11.2	0.0	21.9	-	-	-	-
1/1	403	403	-	-	-	1.8	1.3	-	3.1	27.4	4.9	1.3	6.2
1/2	378	378	-	-	-	1.6	0.9	-	2.5	23.4	4.5	0.9	5.4
2/1	585	585	-	-	-	0.8	0.7	-	1.4	8.9	3.5	0.7	4.2
2/2	824	824	-	-	-	1.6	1.7	-	3.3	14.4	8.5	1.7	10.2
3/2+3/1	605	605	1210	0	0	0.0	0.4	-	0.4	2.2	0.0	0.4	0.4
3/3	340	340	340	0	0	0.0	0.5	-	0.5	4.9	0.0	0.5	0.5
4/1	525	525	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	373	373	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	29	29	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	363	363	-	-	-	1.3	0.6	-	1.9	18.7	3.9	0.6	4.5
5/3	452	452	-	-	-	1.7	0.9	-	2.5	20.1	5.1	0.9	6.0
6/1	527	527	-	-	-	0.9	0.8	-	1.7	11.7	3.4	0.8	4.2
6/2	527	527	-	-	-	0.9	0.7	-	1.6	10.7	3.1	0.7	3.8
7/1	599	599	599	0	0	0.1	1.5	-	1.6	9.4	3.0	1.5	4.4
7/2	600	600	600	0	0	0.1	1.5	-	1.6	9.5	3.0	1.5	4.5
8/1	152	152	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	447	447	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	389	389	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	786	786	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	506	506	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

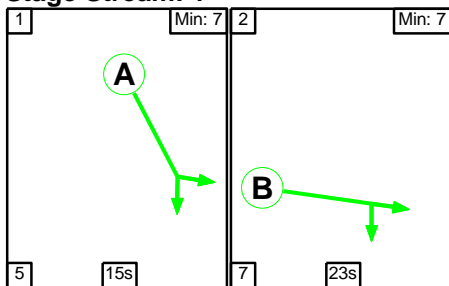
11/1	789	789	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	890	890	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	380	380	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	29	29	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
		C1	Stream: 1 PRC for Signalled Lanes (%):		16.3	Total Delay for Signalled Lanes (pcuHr):		10.26	Cycle Time (s):		50		
		C1	Stream: 2 PRC for Signalled Lanes (%):		42.0	Total Delay for Signalled Lanes (pcuHr):		7.69	Cycle Time (s):		50		
			PRC Over All Lanes (%):		16.3	Total Delay Over All Lanes(pcuHr):		21.93					

Full Input Data And Results

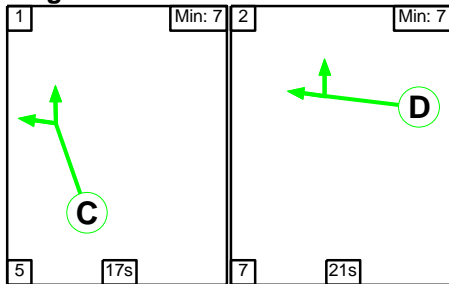
Scenario 4: '2027 Base + Dev 07:00-08:00 AM' (FG4: '2027 Base + Dev 07:00-08:00 AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

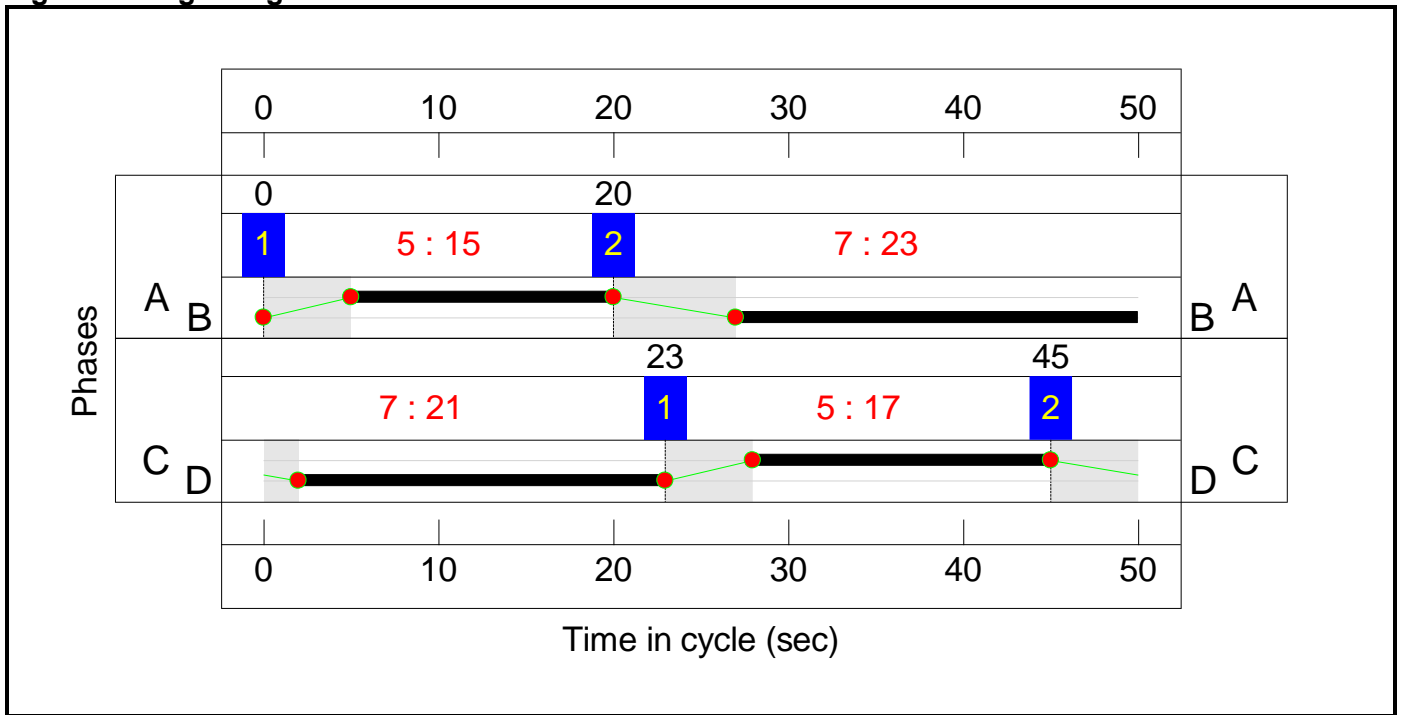
Stage Stream: 1

Stage	1	2
Duration	15	23
Change Point	0	20

Stage Stream: 2

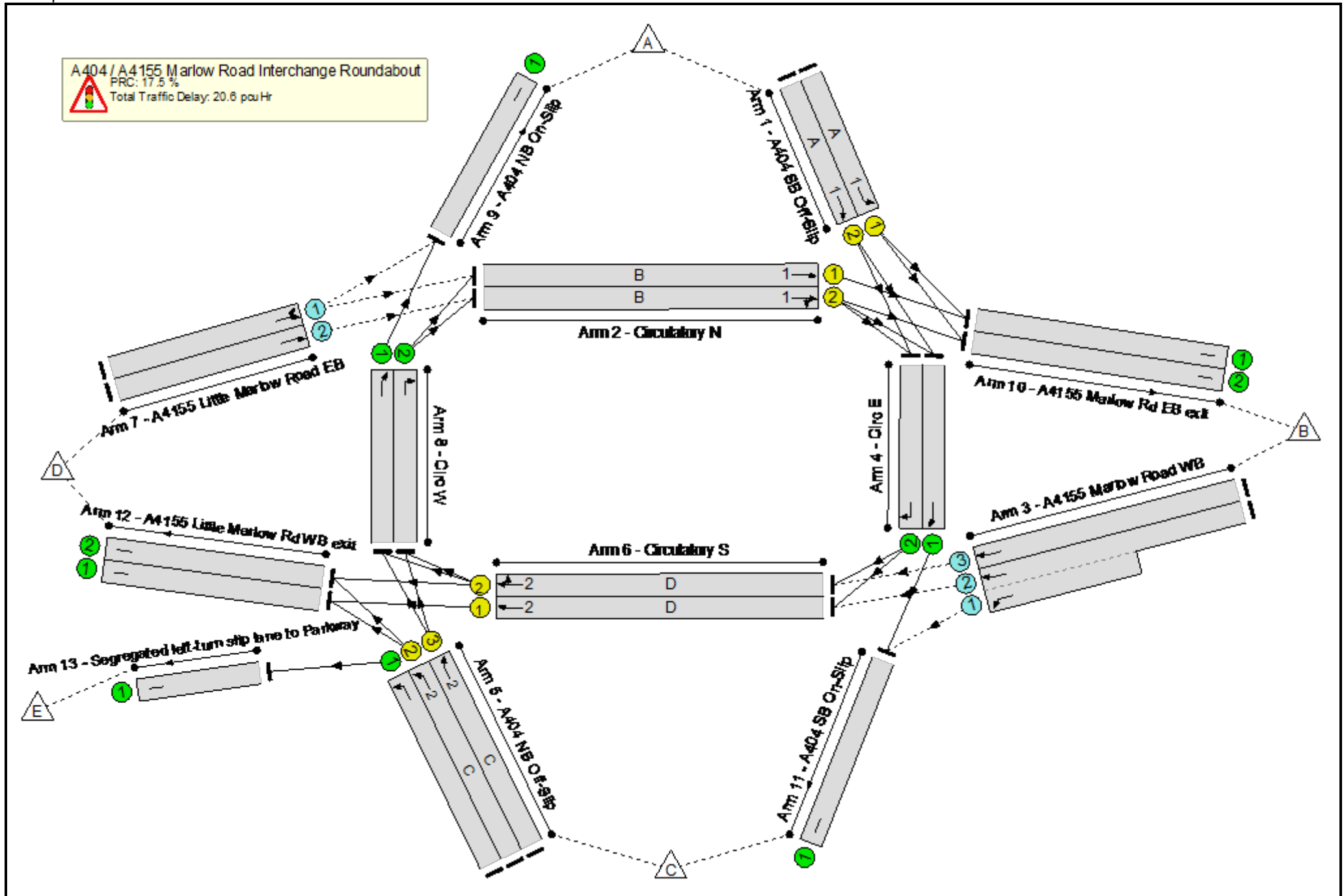
Stage	1	2
Duration	17	21
Change Point	23	45

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A404 / A4155 Westhorpe Interchange - With Planned Improvements	-	-	N/A	-	-		-	-	-	-	-	-	76.6%
A404 / A4155 Marlow Road Interchange Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	76.6%
1/1	A404 SB Off-Slip Left	U	1	N/A	A		1	15	-	442	1846	591	74.8%
1/2	A404 SB Off-Slip Ahead	U	1	N/A	A		1	15	-	330	1981	634	52.1%
2/1	Circulatory N Ahead	U	1	N/A	B		1	23	-	587	2040	979	59.9%
2/2	Circulatory N Right Ahead	U	1	N/A	B		1	23	-	790	2148	1031	76.6%
3/2+3/1	A4155 Marlow Road WB Ahead Left	O	N/A	N/A	-		-	-	-	685	Inf : Inf	786+786	45.8 : 41.3%
3/3	A4155 Marlow Road WB Ahead	O	N/A	N/A	-		-	-	-	360	Inf	786	45.8%
4/1	Circ E Ahead	U	N/A	N/A	-		-	-	-	321	Inf	Inf	0.0%
4/2	Circ E Right	U	N/A	N/A	-		-	-	-	326	Inf	Inf	0.0%
5/1	A404 NB Off-Slip Left	U	N/A	N/A	-		-	-	-	98	Inf	Inf	0.0%
5/2	A404 NB Off-Slip Left	U	2	N/A	C		1	17	-	297	1846	665	44.7%
5/3	A404 NB Off-Slip Ahead	U	2	N/A	C		1	17	-	470	1981	713	65.9%
6/1	Circulatory S Ahead	U	2	N/A	D		1	21	-	523	1942	854	61.2%
6/2	Circulatory S Right Ahead	U	2	N/A	D		1	21	-	523	2077	914	57.2%

Full Input Data And Results

7/1	A4155 Little Marlow Road EB Ahead Ahead2	O	N/A	N/A	-	-	-	-	555	Inf	806	68.9%
7/2	A4155 Little Marlow Road EB Ahead	O	N/A	N/A	-	-	-	-	555	Inf	806	68.9%
8/1	Circ W Ahead	U	N/A	N/A	-	-	-	-	117	Inf	Inf	0.0%
8/2	Circ W Right	U	N/A	N/A	-	-	-	-	470	Inf	Inf	0.0%
9/1	A404 NB On-Slip	U	N/A	N/A	-	-	-	-	320	Inf	Inf	0.0%
10/1	A4155 Marlow Rd EB exit	U	N/A	N/A	-	-	-	-	808	Inf	Inf	0.0%
10/2	A4155 Marlow Rd EB exit	U	N/A	N/A	-	-	-	-	694	Inf	Inf	0.0%
11/1	A404 SB On-Slip	U	N/A	N/A	-	-	-	-	646	Inf	Inf	0.0%
12/1	A4155 Little Marlow Rd WB exit	U	N/A	N/A	-	-	-	-	820	Inf	Inf	0.0%
12/2	A4155 Little Marlow Rd WB exit	U	N/A	N/A	-	-	-	-	406	Inf	Inf	0.0%
13/1	Segregated left-turn slip lane to Parkway	U	N/A	N/A	-	-	-	-	98	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: A404 / A4155 Westhorpe Interchange - With Planned Improvements	-	-	2840	0	0	10.4	10.2	0.0	20.6	-	-	-	-
A404 / A4155 Marlow Road Interchange Roundabout	-	-	2840	0	0	10.4	10.2	0.0	20.6	-	-	-	-
1/1	442	442	-	-	-	1.9	1.5	-	3.3	27.1	5.4	1.5	6.9
1/2	330	330	-	-	-	1.3	0.5	-	1.8	19.8	3.7	0.5	4.2
2/1	587	587	-	-	-	0.8	0.7	-	1.6	9.6	4.1	0.7	4.9
2/2	790	790	-	-	-	1.6	1.6	-	3.2	14.5	8.4	1.6	10.1
3/2+3/1	685	685	1370	0	0	0.0	0.4	-	0.4	2.0	0.4	0.4	0.8
3/3	360	360	360	0	0	0.0	0.4	-	0.4	4.2	0.4	0.4	0.8
4/1	321	321	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	326	326	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	98	98	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	297	297	-	-	-	1.0	0.4	-	1.4	17.1	3.1	0.4	3.5
5/3	470	470	-	-	-	1.8	1.0	-	2.7	20.8	5.4	1.0	6.3
6/1	523	523	-	-	-	1.0	0.8	-	1.8	12.1	3.9	0.8	4.7
6/2	523	523	-	-	-	1.0	0.7	-	1.6	11.2	3.6	0.7	4.2
7/1	555	555	555	0	0	0.1	1.1	-	1.2	7.7	2.5	1.1	3.6
7/2	555	555	555	0	0	0.1	1.1	-	1.2	7.7	2.5	1.1	3.6
8/1	117	117	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	470	470	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	320	320	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	808	808	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	694	694	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

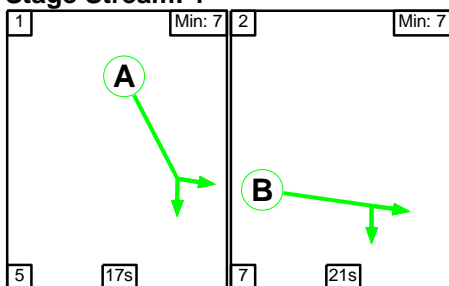
11/1	646	646	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	820	820	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	406	406	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	98	98	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
		C1	Stream: 1 PRC for Signalled Lanes (%)		17.5	Total Delay for Signalled Lanes (pcuHr)		9.88	Cycle Time (s)		50		
		C1	Stream: 2 PRC for Signalled Lanes (%)		36.6	Total Delay for Signalled Lanes (pcuHr)		7.51	Cycle Time (s)		50		
			PRC Over All Lanes (%)		17.5	Total Delay Over All Lanes(pcuHr)		20.56					

Full Input Data And Results

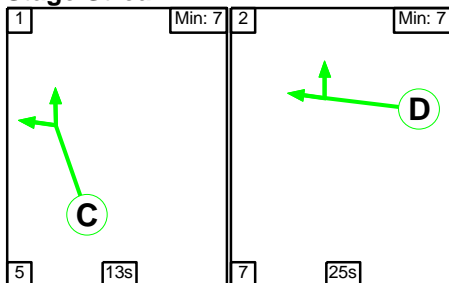
Scenario 5: '2027 Base + Dev 08:00-09:00 AM' (FG5: '2027 Base + Dev 08:00-09:00 AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

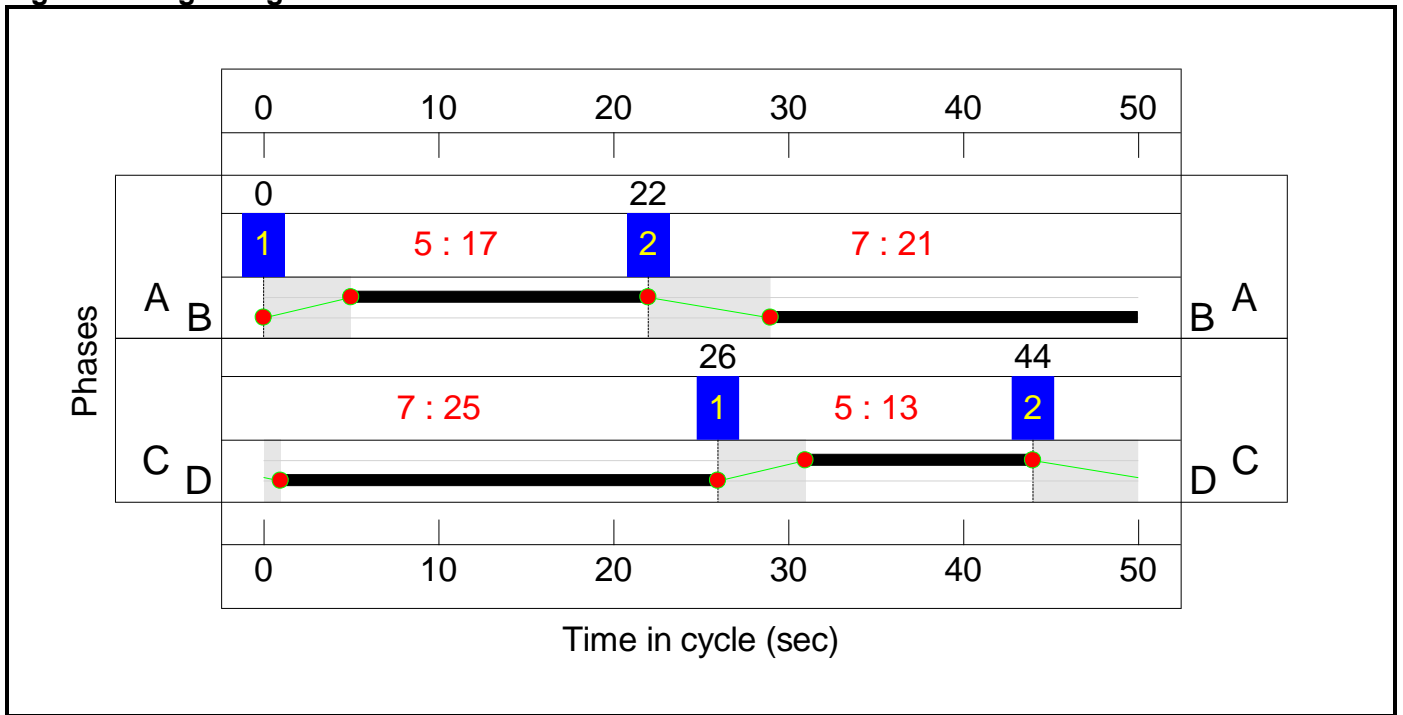
Stage Stream: 1

Stage	1	2
Duration	17	21
Change Point	0	22

Stage Stream: 2

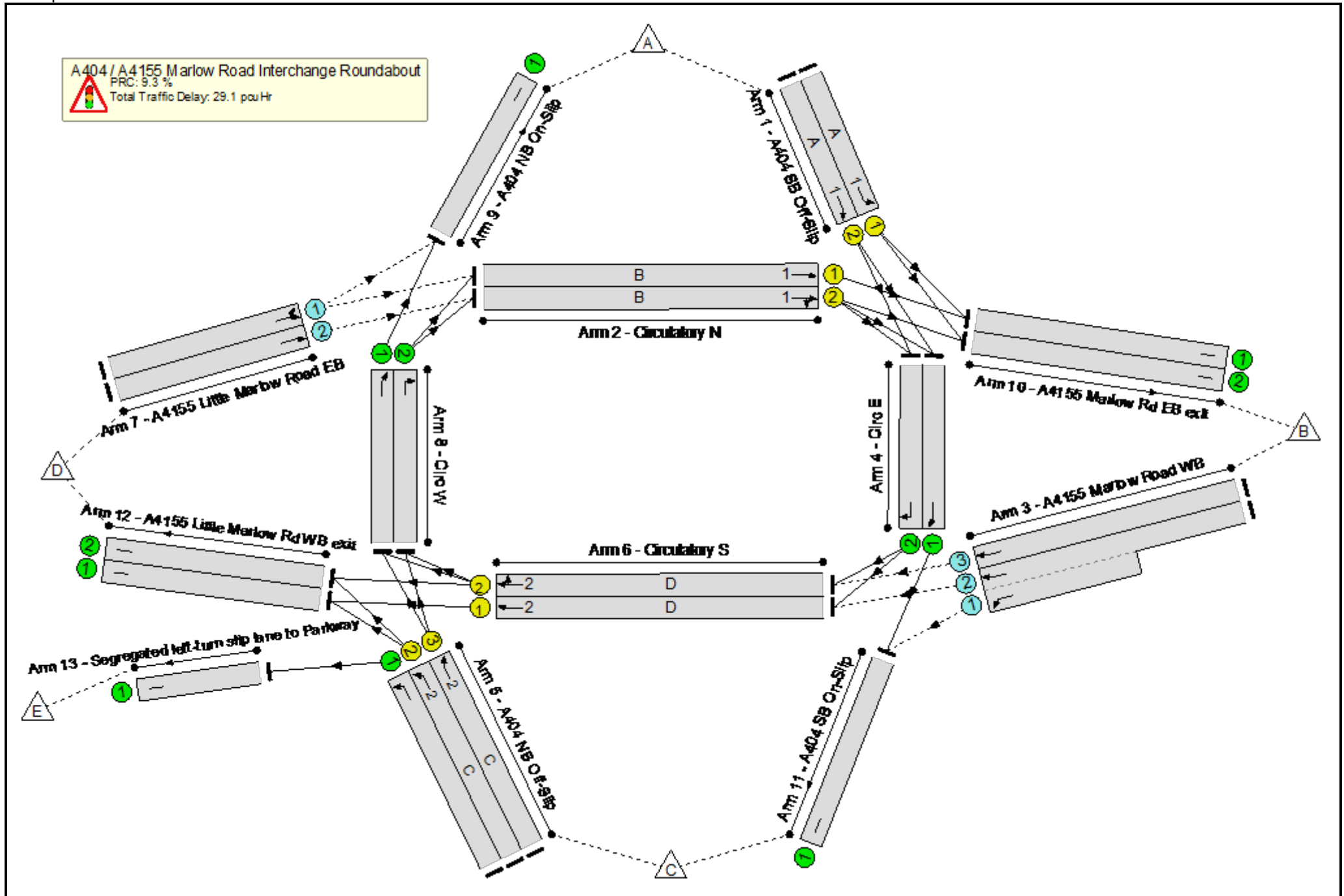
Stage	1	2
Duration	13	25
Change Point	26	44

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A404 / A4155 Westhorpe Interchange - With Planned Improvements	-	-	N/A	-	-		-	-	-	-	-	-	82.3%
A404 / A4155 Marlow Road Interchange Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	82.3%
1/1	A404 SB Off-Slip Left	U	1	N/A	A		1	17	-	439	1846	665	66.1%
1/2	A404 SB Off-Slip Ahead	U	1	N/A	A		1	17	-	568	1981	713	79.6%
2/1	Circulatory N Ahead	U	1	N/A	B		1	21	-	638	2040	898	71.1%
2/2	Circulatory N Right Ahead	U	1	N/A	B		1	21	-	773	2134	939	82.3%
3/2+3/1	A4155 Marlow Road WB Ahead Left	O	N/A	N/A	-		-	-	-	800	Inf : Inf	666+471	72.5 : 67.4%
3/3	A4155 Marlow Road WB Ahead	O	N/A	N/A	-		-	-	-	483	Inf	666	72.5%
4/1	Circ E Ahead	U	N/A	N/A	-		-	-	-	447	Inf	Inf	0.0%
4/2	Circ E Right	U	N/A	N/A	-		-	-	-	563	Inf	Inf	0.0%
5/1	A404 NB Off-Slip Left	U	N/A	N/A	-		-	-	-	131	Inf	Inf	0.0%
5/2	A404 NB Off-Slip Left	U	2	N/A	C		1	13	-	298	1846	517	57.7%
5/3	A404 NB Off-Slip Ahead	U	2	N/A	C		1	13	-	436	1981	555	78.6%
6/1	Circulatory S Ahead	U	2	N/A	D		1	25	-	764	1942	1010	75.7%
6/2	Circulatory S Right Ahead	U	2	N/A	D		1	25	-	765	2077	1080	70.8%

Full Input Data And Results

7/1	A4155 Little Marlow Road EB Ahead Ahead2	O	N/A	N/A	-	-	-	-	557	Inf	794	70.1%
7/2	A4155 Little Marlow Road EB Ahead	O	N/A	N/A	-	-	-	-	557	Inf	794	70.1%
8/1	Circ W Ahead	U	N/A	N/A	-	-	-	-	190	Inf	Inf	0.0%
8/2	Circ W Right	U	N/A	N/A	-	-	-	-	432	Inf	Inf	0.0%
9/1	A404 NB On-Slip	U	N/A	N/A	-	-	-	-	325	Inf	Inf	0.0%
10/1	A4155 Marlow Rd EB exit	U	N/A	N/A	-	-	-	-	857	Inf	Inf	0.0%
10/2	A4155 Marlow Rd EB exit	U	N/A	N/A	-	-	-	-	551	Inf	Inf	0.0%
11/1	A404 SB On-Slip	U	N/A	N/A	-	-	-	-	764	Inf	Inf	0.0%
12/1	A4155 Little Marlow Rd WB exit	U	N/A	N/A	-	-	-	-	1062	Inf	Inf	0.0%
12/2	A4155 Little Marlow Rd WB exit	U	N/A	N/A	-	-	-	-	579	Inf	Inf	0.0%
13/1	Segregated left-turn slip lane to Parkway	U	N/A	N/A	-	-	-	-	131	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: A404 / A4155 Westhorpe Interchange - With Planned Improvements	-	-	3197	0	0	12.7	16.4	0.0	29.1	-	-	-	-
A404 / A4155 Marlow Road Interchange Roundabout	-	-	3197	0	0	12.7	16.4	0.0	29.1	-	-	-	-
1/1	439	439	-	-	-	1.6	1.0	-	2.6	21.3	5.0	1.0	6.0
1/2	568	568	-	-	-	2.3	1.9	-	4.2	26.4	6.9	1.9	8.8
2/1	638	638	-	-	-	1.2	1.2	-	2.5	13.9	5.8	1.2	7.1
2/2	773	773	-	-	-	1.8	2.3	-	4.1	19.1	9.0	2.3	11.3
3/2+3/1	800	800	1600	0	0	0.1	1.2	-	1.3	5.7	2.3	1.2	3.5
3/3	483	483	483	0	0	0.1	1.3	-	1.4	10.3	2.3	1.3	3.6
4/1	447	447	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	563	563	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	131	131	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	298	298	-	-	-	1.3	0.7	-	2.0	23.6	3.5	0.7	4.2
5/3	436	436	-	-	-	2.0	1.8	-	3.8	31.3	5.6	1.8	7.4
6/1	764	764	-	-	-	1.1	1.5	-	2.6	12.3	5.5	1.5	7.0
6/2	765	765	-	-	-	1.0	1.2	-	2.2	10.6	4.7	1.2	5.9
7/1	557	557	557	0	0	0.1	1.2	-	1.2	8.1	2.5	1.2	3.6
7/2	557	557	557	0	0	0.1	1.2	-	1.2	8.1	2.5	1.2	3.6
8/1	190	190	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	432	432	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	325	325	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	857	857	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	551	551	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

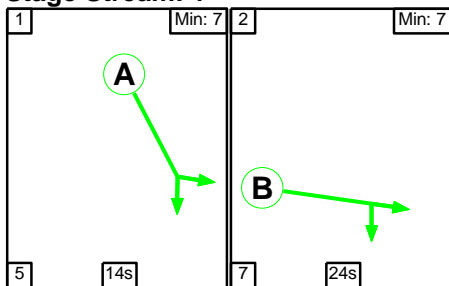
11/1	764	764	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	1062	1062	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	579	579	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	131	131	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
		C1	Stream: 1 PRC for Signalled Lanes (%)		9.3	Total Delay for Signalled Lanes (pcuHr)		13.35	Cycle Time (s)		50		
		C1	Stream: 2 PRC for Signalled Lanes (%)		14.5	Total Delay for Signalled Lanes (pcuHr)		10.60	Cycle Time (s)		50		
			PRC Over All Lanes (%)		9.3	Total Delay Over All Lanes(pcuHr)		29.08					

Full Input Data And Results

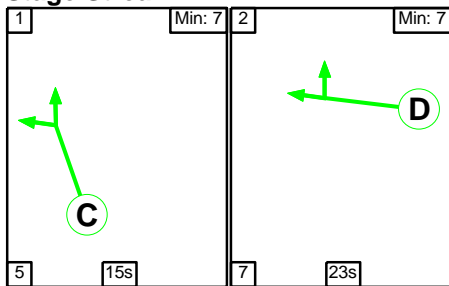
Scenario 6: '2027 Base + Dev 17:00-18:00 PM' (FG6: '2027 Base + Dev 17:00-18:00 PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

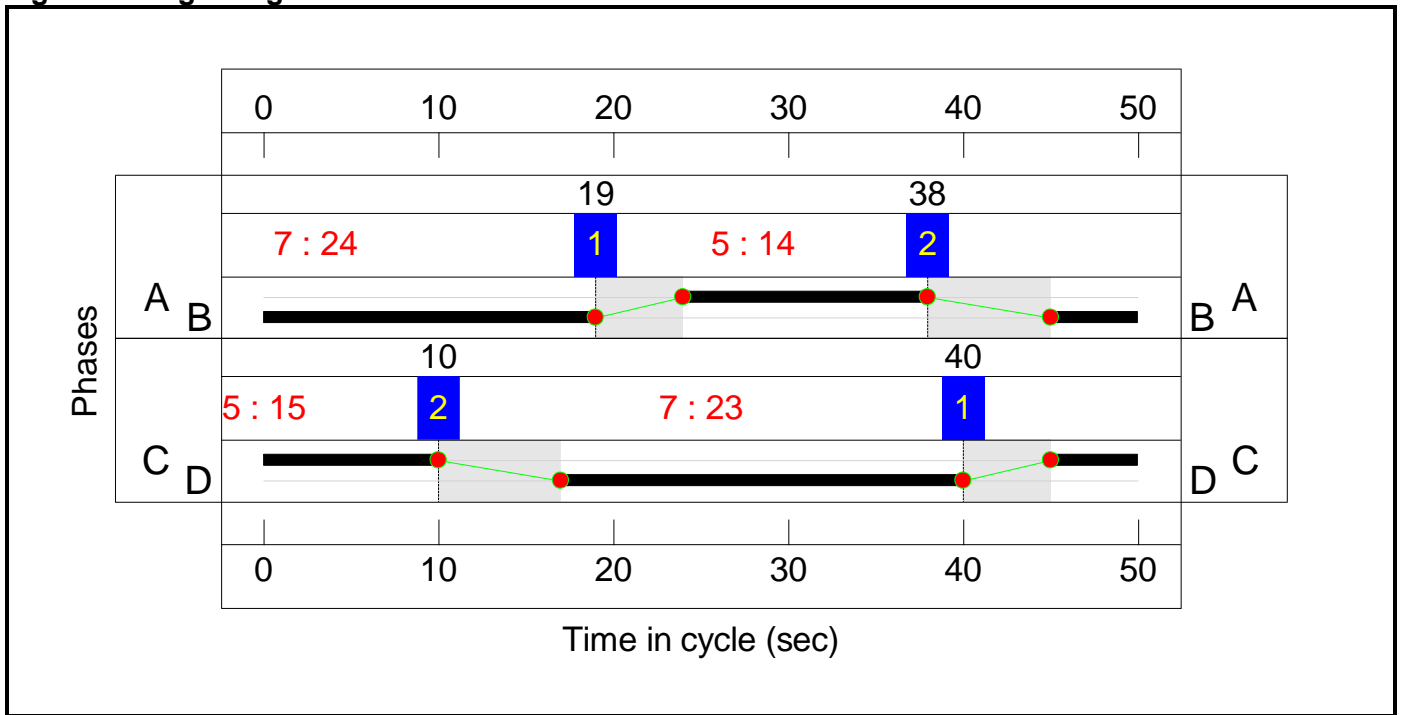
Stage Stream: 1

Stage	1	2
Duration	14	24
Change Point	19	38

Stage Stream: 2

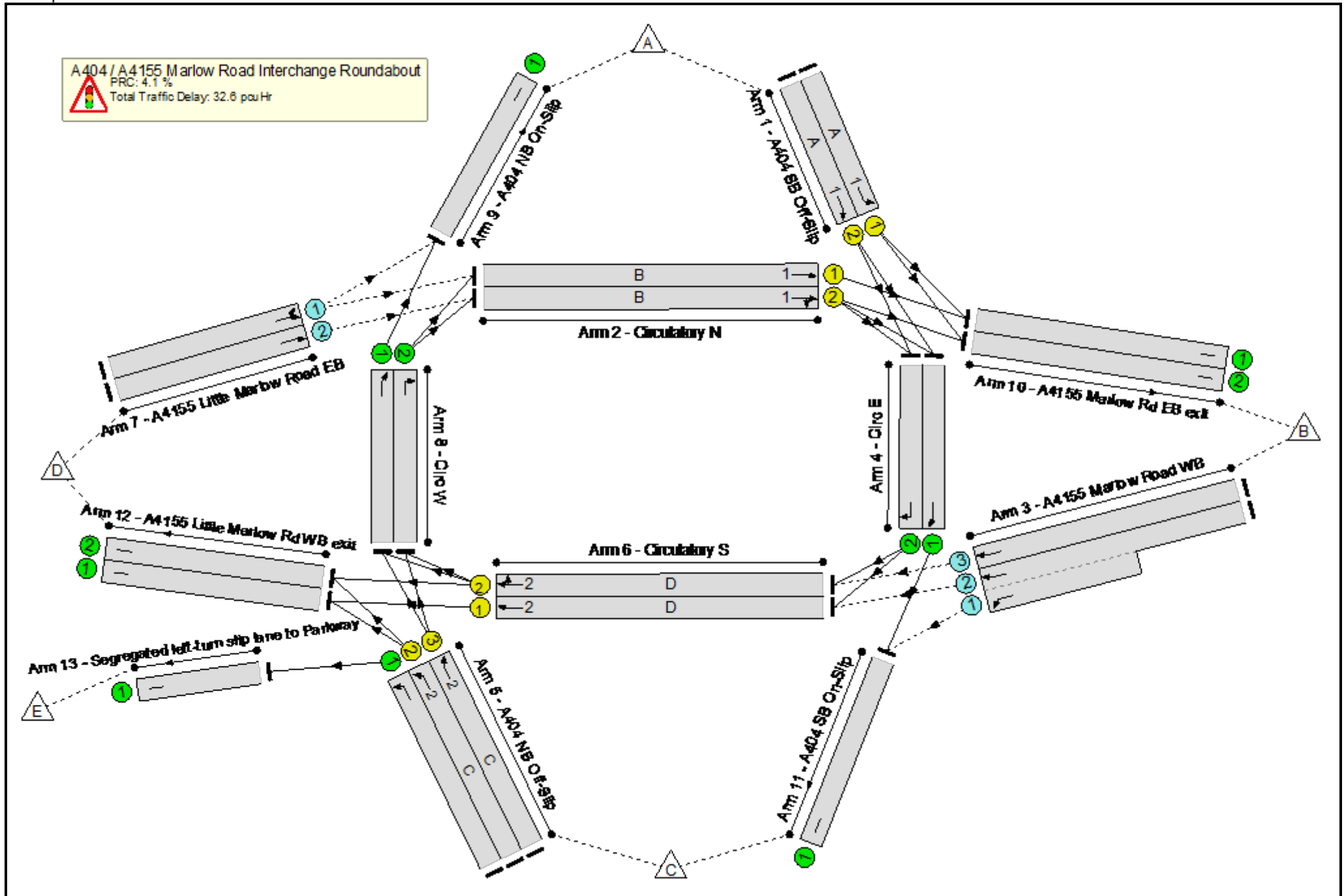
Stage	1	2
Duration	15	23
Change Point	40	10

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A404 / A4155 Westhorpe Interchange - With Planned Improvements	-	-	N/A	-	-		-	-	-	-	-	-	86.5%
A404 / A4155 Marlow Road Interchange Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	86.5%
1/1	A404 SB Off-Slip Left	U	1	N/A	A		1	14	-	466	1846	554	84.1%
1/2	A404 SB Off-Slip Ahead	U	1	N/A	A		1	14	-	378	1981	594	63.6%
2/1	Circulatory N Ahead	U	1	N/A	B		1	24	-	619	2040	1020	60.7%
2/2	Circulatory N Right Ahead	U	1	N/A	B		1	24	-	857	2132	1066	80.4%
3/2+3/1	A4155 Marlow Road WB Ahead Left	O	N/A	N/A	-		-	-	-	914	Inf : Inf	703+703	73.6 : 56.3%
3/3	A4155 Marlow Road WB Ahead	O	N/A	N/A	-		-	-	-	519	Inf	703	73.8%
4/1	Circ E Ahead	U	N/A	N/A	-		-	-	-	525	Inf	Inf	0.0%
4/2	Circ E Right	U	N/A	N/A	-		-	-	-	373	Inf	Inf	0.0%
5/1	A404 NB Off-Slip Left	U	N/A	N/A	-		-	-	-	29	Inf	Inf	0.0%
5/2	A404 NB Off-Slip Left	U	2	N/A	C		1	15	-	363	1846	591	61.5%
5/3	A404 NB Off-Slip Ahead	U	2	N/A	C		1	15	-	487	1981	634	76.8%
6/1	Circulatory S Ahead	U	2	N/A	D		1	23	-	704	1942	932	75.5%
6/2	Circulatory S Right Ahead	U	2	N/A	D		1	23	-	706	2077	997	70.8%

Full Input Data And Results

7/1	A4155 Little Marlow Road EB Ahead Ahead2	O	N/A	N/A	-	-	-	-	615	Inf	712	86.3%
7/2	A4155 Little Marlow Road EB Ahead	O	N/A	N/A	-	-	-	-	616	Inf	712	86.5%
8/1	Circ W Ahead	U	N/A	N/A	-	-	-	-	389	Inf	Inf	0.0%
8/2	Circ W Right	U	N/A	N/A	-	-	-	-	482	Inf	Inf	0.0%
9/1	A404 NB On-Slip	U	N/A	N/A	-	-	-	-	626	Inf	Inf	0.0%
10/1	A4155 Marlow Rd EB exit	U	N/A	N/A	-	-	-	-	852	Inf	Inf	0.0%
10/2	A4155 Marlow Rd EB exit	U	N/A	N/A	-	-	-	-	570	Inf	Inf	0.0%
11/1	A404 SB On-Slip	U	N/A	N/A	-	-	-	-	921	Inf	Inf	0.0%
12/1	A4155 Little Marlow Rd WB exit	U	N/A	N/A	-	-	-	-	1067	Inf	Inf	0.0%
12/2	A4155 Little Marlow Rd WB exit	U	N/A	N/A	-	-	-	-	322	Inf	Inf	0.0%
13/1	Segregated left-turn slip lane to Parkway	U	N/A	N/A	-	-	-	-	29	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: A404 / A4155 Westhorpe Interchange - With Planned Improvements	-	-	3578	0	0	13.0	19.6	0.0	32.6	-	-	-	-
A404 / A4155 Marlow Road Interchange Roundabout	-	-	3578	0	0	13.0	19.6	0.0	32.6	-	-	-	-
1/1	466	466	-	-	-	2.1	2.5	-	4.6	35.8	6.0	2.5	8.5
1/2	378	378	-	-	-	1.6	0.9	-	2.5	23.4	4.5	0.9	5.4
2/1	619	619	-	-	-	0.9	0.8	-	1.6	9.4	5.1	0.8	5.9
2/2	857	857	-	-	-	1.7	2.0	-	3.8	15.8	9.2	2.0	11.2
3/2+3/1	914	914	1828	0	0	0.1	0.9	-	1.0	3.9	1.7	0.9	2.7
3/3	519	519	519	0	0	0.1	1.4	-	1.4	10.0	1.7	1.4	3.1
4/1	525	525	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	373	373	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	29	29	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	363	363	-	-	-	1.5	0.8	-	2.2	22.2	4.2	0.8	5.0
5/3	487	487	-	-	-	2.1	1.6	-	3.7	27.3	6.1	1.6	7.7
6/1	704	704	-	-	-	1.3	1.5	-	2.9	14.6	5.1	1.5	6.6
6/2	706	706	-	-	-	1.3	1.2	-	2.5	12.8	5.0	1.2	6.2
7/1	615	615	615	0	0	0.2	3.0	-	3.2	18.6	3.4	3.0	6.4
7/2	616	616	616	0	0	0.2	3.0	-	3.2	18.8	3.4	3.0	6.4
8/1	389	389	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	482	482	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	626	626	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	852	852	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	570	570	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

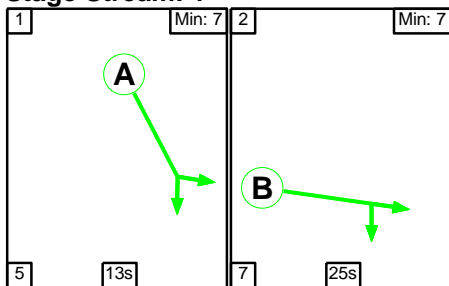
11/1	921	921	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	1067	1067	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	322	322	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	29	29	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
		C1	Stream: 1 PRC for Signalled Lanes (%)		7.0	Total Delay for Signalled Lanes (pcuHr)		12.47	Cycle Time (s)		50		
		C1	Stream: 2 PRC for Signalled Lanes (%)		17.2	Total Delay for Signalled Lanes (pcuHr)		11.32	Cycle Time (s)		50		
			PRC Over All Lanes (%)		4.1	Total Delay Over All Lanes(pcuHr)		32.60					

Full Input Data And Results

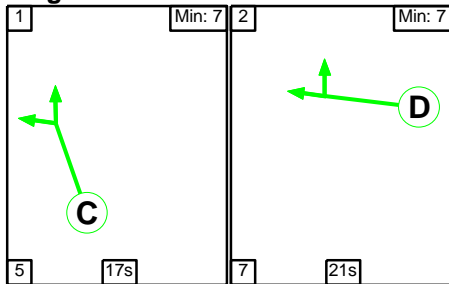
Scenario 7: '2027 Base + Dev STS 07:00-08:00 AM' (FG7: '2027 Base + Dev STS 07:00-08:00 AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

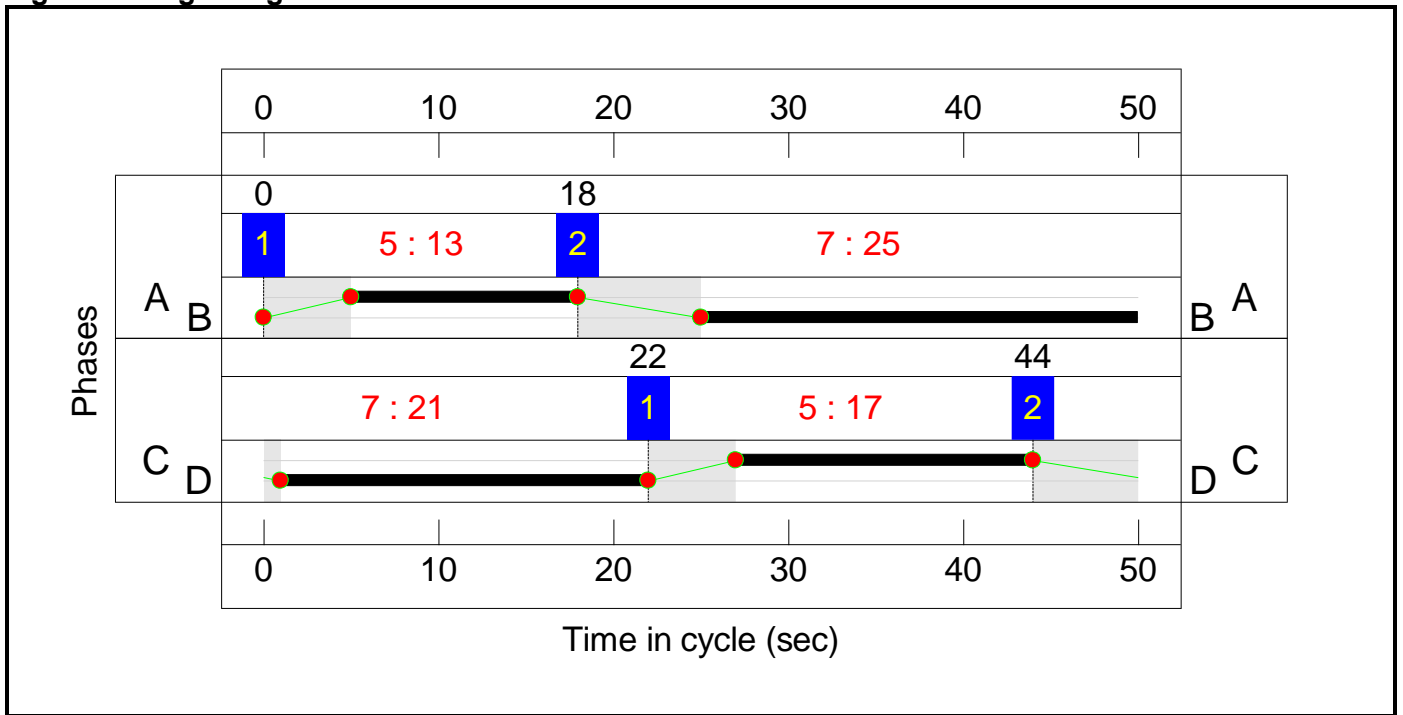
Stage Stream: 1

Stage	1	2
Duration	13	25
Change Point	0	18

Stage Stream: 2

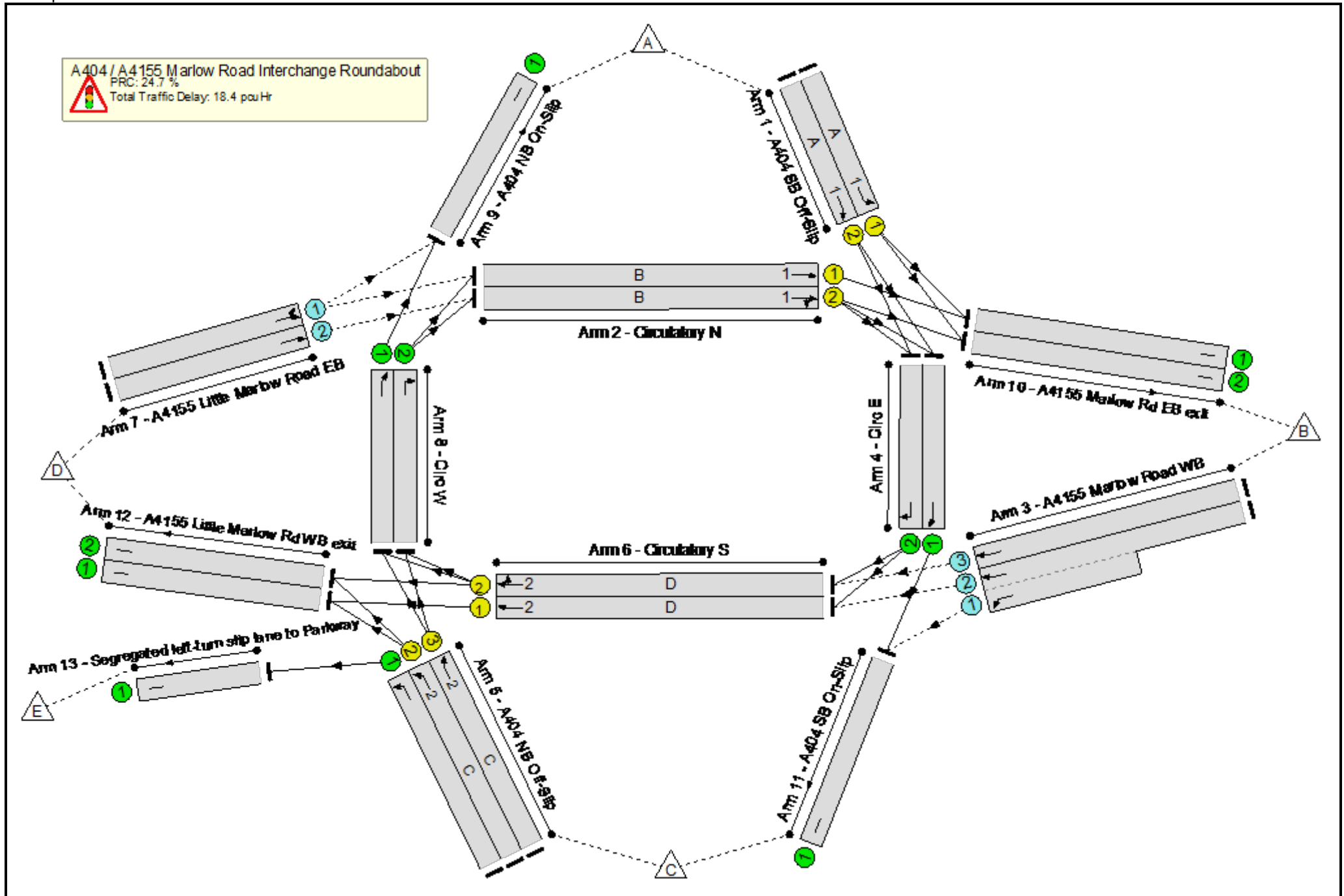
Stage	1	2
Duration	17	21
Change Point	22	44

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A404 / A4155 Westhorpe Interchange - With Planned Improvements	-	-	N/A	-	-		-	-	-	-	-	-	72.2%
A404 / A4155 Marlow Road Interchange Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	72.2%
1/1	A404 SB Off-Slip Left	U	1	N/A	A		1	13	-	373	1846	517	72.2%
1/2	A404 SB Off-Slip Ahead	U	1	N/A	A		1	13	-	330	1981	555	59.5%
2/1	Circulatory N Ahead	U	1	N/A	B		1	25	-	551	2040	1061	51.9%
2/2	Circulatory N Right Ahead	U	1	N/A	B		1	25	-	754	2146	1116	67.6%
3/2+3/1	A4155 Marlow Road WB Ahead Left	O	N/A	N/A	-		-	-	-	673	Inf : Inf	786+786	44.9 : 40.7%
3/3	A4155 Marlow Road WB Ahead	O	N/A	N/A	-		-	-	-	354	Inf	786	45.0%
4/1	Circ E Ahead	U	N/A	N/A	-		-	-	-	321	Inf	Inf	0.0%
4/2	Circ E Right	U	N/A	N/A	-		-	-	-	326	Inf	Inf	0.0%
5/1	A404 NB Off-Slip Left	U	N/A	N/A	-		-	-	-	98	Inf	Inf	0.0%
5/2	A404 NB Off-Slip Left	U	2	N/A	C		1	17	-	297	1846	665	44.7%
5/3	A404 NB Off-Slip Ahead	U	2	N/A	C		1	17	-	432	1981	713	60.6%
6/1	Circulatory S Ahead	U	2	N/A	D		1	21	-	516	1942	854	60.4%
6/2	Circulatory S Right Ahead	U	2	N/A	D		1	21	-	517	2077	914	56.6%

Full Input Data And Results

7/1	A4155 Little Marlow Road EB Ahead Ahead2	O	N/A	N/A	-	-	-	-	538	Inf	822	65.5%
7/2	A4155 Little Marlow Road EB Ahead	O	N/A	N/A	-	-	-	-	538	Inf	822	65.5%
8/1	Circ W Ahead	U	N/A	N/A	-	-	-	-	108	Inf	Inf	0.0%
8/2	Circ W Right	U	N/A	N/A	-	-	-	-	432	Inf	Inf	0.0%
9/1	A404 NB On-Slip	U	N/A	N/A	-	-	-	-	311	Inf	Inf	0.0%
10/1	A4155 Marlow Rd EB exit	U	N/A	N/A	-	-	-	-	737	Inf	Inf	0.0%
10/2	A4155 Marlow Rd EB exit	U	N/A	N/A	-	-	-	-	624	Inf	Inf	0.0%
11/1	A404 SB On-Slip	U	N/A	N/A	-	-	-	-	641	Inf	Inf	0.0%
12/1	A4155 Little Marlow Rd WB exit	U	N/A	N/A	-	-	-	-	813	Inf	Inf	0.0%
12/2	A4155 Little Marlow Rd WB exit	U	N/A	N/A	-	-	-	-	409	Inf	Inf	0.0%
13/1	Segregated left-turn slip lane to Parkway	U	N/A	N/A	-	-	-	-	98	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: A404 / A4155 Westhorpe Interchange - With Planned Improvements	-	-	2776	0	0	9.5	8.8	0.0	18.4	-	-	-	-
A404 / A4155 Marlow Road Interchange Roundabout	-	-	2776	0	0	9.5	8.8	0.0	18.4	-	-	-	-
1/1	373	373	-	-	-	1.7	1.3	-	3.0	28.5	4.7	1.3	5.9
1/2	330	330	-	-	-	1.4	0.7	-	2.2	23.5	3.9	0.7	4.7
2/1	551	551	-	-	-	0.6	0.5	-	1.2	7.7	2.9	0.5	3.4
2/2	754	754	-	-	-	1.2	1.0	-	2.3	10.8	6.8	1.0	7.8
3/2+3/1	673	673	1346	0	0	0.0	0.4	-	0.4	2.0	0.4	0.4	0.8
3/3	354	354	354	0	0	0.0	0.4	-	0.4	4.2	0.4	0.4	0.8
4/1	321	321	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	326	326	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	98	98	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	297	297	-	-	-	1.0	0.4	-	1.4	17.1	3.1	0.4	3.5
5/3	432	432	-	-	-	1.6	0.8	-	2.3	19.5	4.8	0.8	5.6
6/1	516	516	-	-	-	0.9	0.8	-	1.7	11.9	3.3	0.8	4.1
6/2	517	517	-	-	-	0.9	0.6	-	1.6	11.0	3.2	0.6	3.9
7/1	538	538	538	0	0	0.1	0.9	-	1.0	6.7	2.1	0.9	3.0
7/2	538	538	538	0	0	0.1	0.9	-	1.0	6.7	2.1	0.9	3.0
8/1	108	108	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	432	432	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	311	311	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	737	737	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	624	624	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

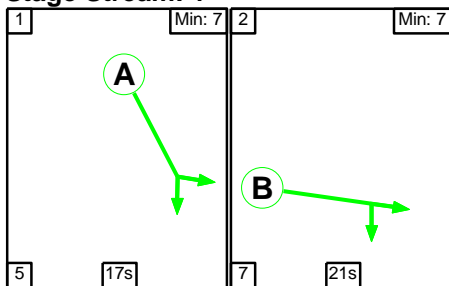
11/1	641	641	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
12/1	813	813	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
12/2	409	409	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
13/1	98	98	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
		C1	Stream: 1 PRC for Signalled Lanes (%)	24.7	Total Delay for Signalled Lanes (pcuHr)			8.55	Cycle Time (s)		50			
		C1	Stream: 2 PRC for Signalled Lanes (%)	48.6	Total Delay for Signalled Lanes (pcuHr)			7.03	Cycle Time (s)		50			
			PRC Over All Lanes (%)	24.7	Total Delay Over All Lanes(pcuHr)			18.36						

Full Input Data And Results

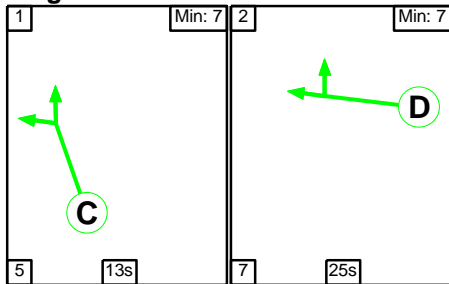
Scenario 8: '2027 Base + Dev STS 08:00-09:00 AM' (FG8: '2027 Base + Dev STS 08:00-09:00 AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

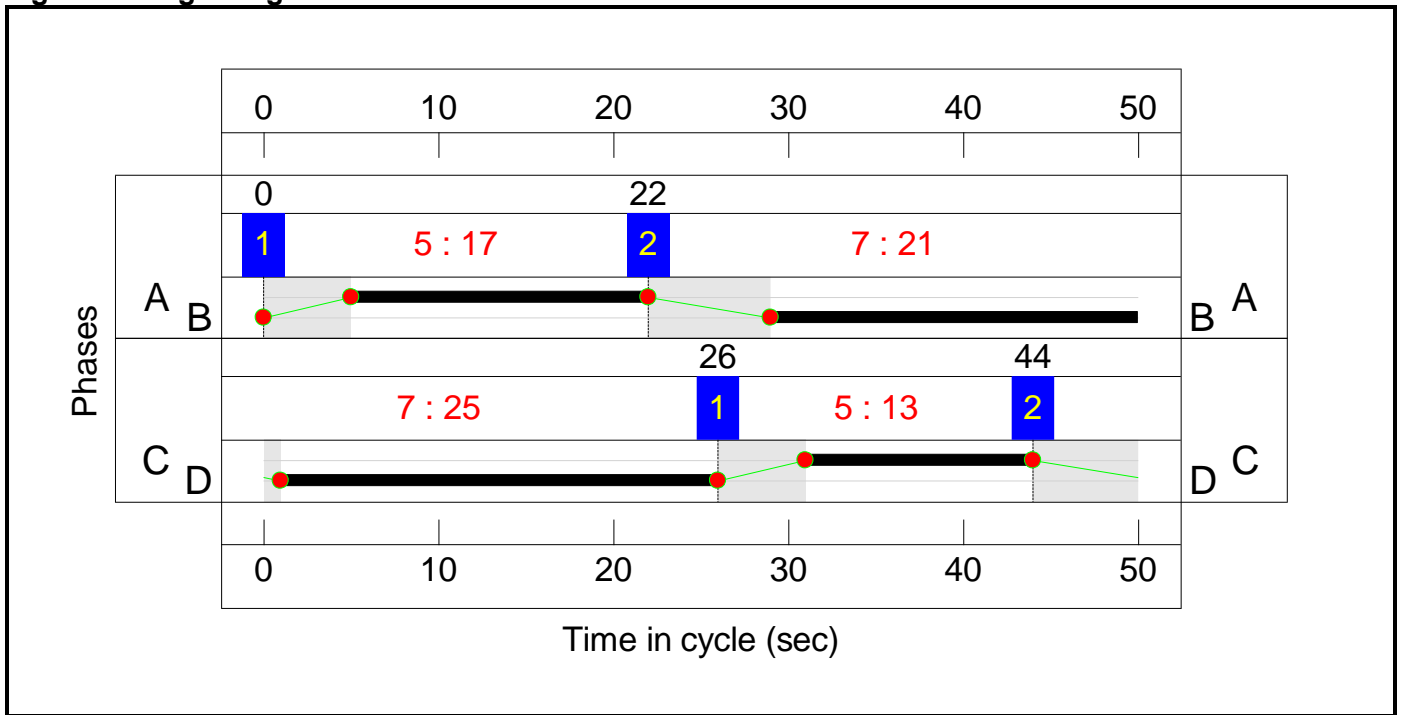
Stage Stream: 1

Stage	1	2
Duration	17	21
Change Point	0	22

Stage Stream: 2

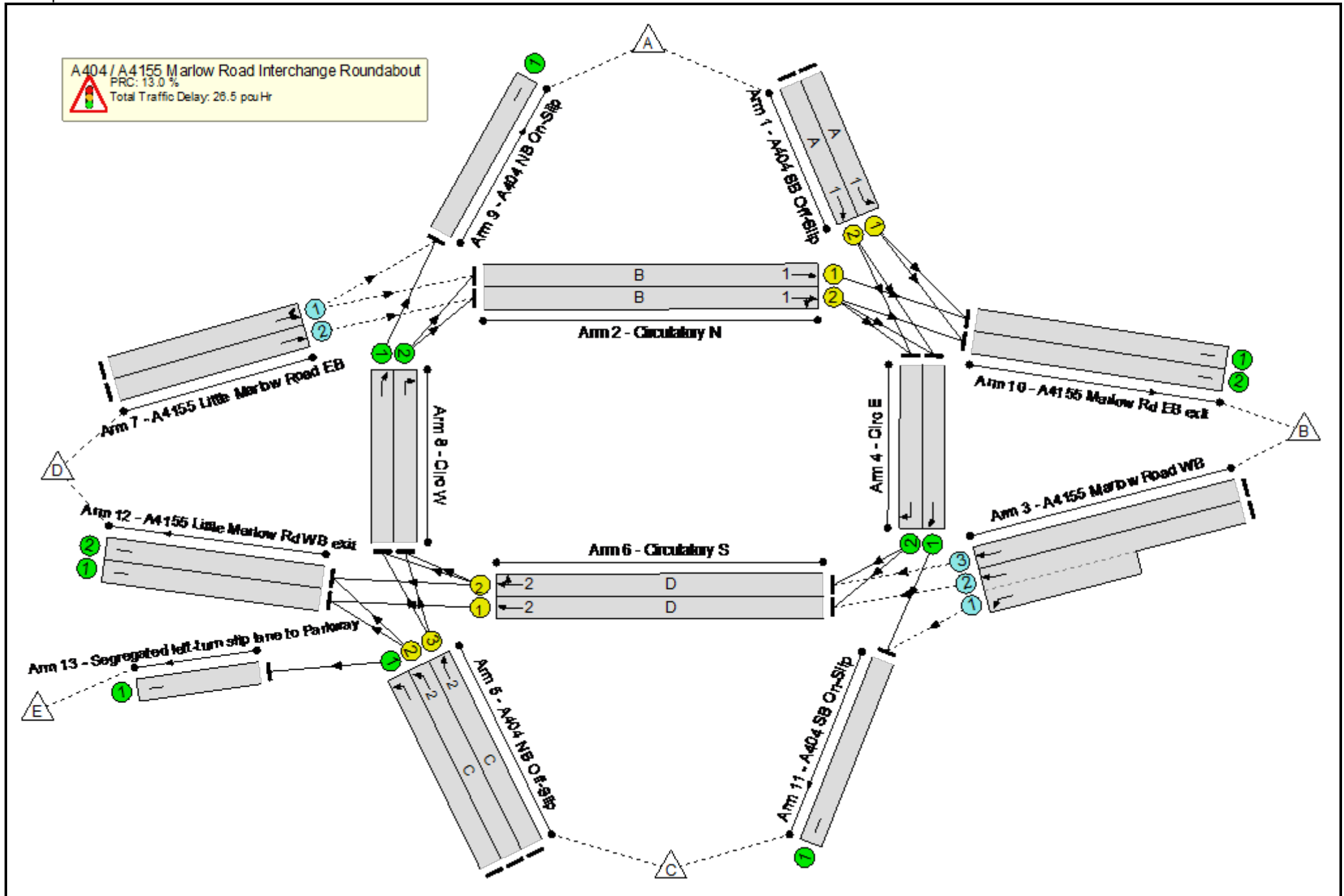
Stage	1	2
Duration	13	25
Change Point	26	44

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A404 / A4155 Westhorpe Interchange - With Planned Improvements	-	-	N/A	-	-		-	-	-	-	-	-	79.6%
A404 / A4155 Marlow Road Interchange Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	79.6%
1/1	A404 SB Off-Slip Left	U	1	N/A	A		1	17	-	389	1846	665	58.5%
1/2	A404 SB Off-Slip Ahead	U	1	N/A	A		1	17	-	568	1981	713	79.6%
2/1	Circulatory N Ahead	U	1	N/A	B		1	21	-	611	2040	898	68.1%
2/2	Circulatory N Right Ahead	U	1	N/A	B		1	21	-	746	2133	939	79.5%
3/2+3/1	A4155 Marlow Road WB Ahead Left	O	N/A	N/A	-		-	-	-	780	Inf : Inf	666+470	70.7 : 65.8%
3/3	A4155 Marlow Road WB Ahead	O	N/A	N/A	-		-	-	-	472	Inf	666	70.8%
4/1	Circ E Ahead	U	N/A	N/A	-		-	-	-	447	Inf	Inf	0.0%
4/2	Circ E Right	U	N/A	N/A	-		-	-	-	563	Inf	Inf	0.0%
5/1	A404 NB Off-Slip Left	U	N/A	N/A	-		-	-	-	131	Inf	Inf	0.0%
5/2	A404 NB Off-Slip Left	U	2	N/A	C		1	13	-	298	1846	517	57.7%
5/3	A404 NB Off-Slip Ahead	U	2	N/A	C		1	13	-	408	1981	555	73.6%
6/1	Circulatory S Ahead	U	2	N/A	D		1	25	-	752	1942	1010	74.5%
6/2	Circulatory S Right Ahead	U	2	N/A	D		1	25	-	754	2077	1080	69.8%

Full Input Data And Results

7/1	A4155 Little Marlow Road EB Ahead Ahead2	O	N/A	N/A	-	-	-	-	544	Inf	809	67.3%
7/2	A4155 Little Marlow Road EB Ahead	O	N/A	N/A	-	-	-	-	544	Inf	809	67.3%
8/1	Circ W Ahead	U	N/A	N/A	-	-	-	-	175	Inf	Inf	0.0%
8/2	Circ W Right	U	N/A	N/A	-	-	-	-	404	Inf	Inf	0.0%
9/1	A404 NB On-Slip	U	N/A	N/A	-	-	-	-	310	Inf	Inf	0.0%
10/1	A4155 Marlow Rd EB exit	U	N/A	N/A	-	-	-	-	805	Inf	Inf	0.0%
10/2	A4155 Marlow Rd EB exit	U	N/A	N/A	-	-	-	-	499	Inf	Inf	0.0%
11/1	A404 SB On-Slip	U	N/A	N/A	-	-	-	-	756	Inf	Inf	0.0%
12/1	A4155 Little Marlow Rd WB exit	U	N/A	N/A	-	-	-	-	1050	Inf	Inf	0.0%
12/2	A4155 Little Marlow Rd WB exit	U	N/A	N/A	-	-	-	-	583	Inf	Inf	0.0%
13/1	Segregated left-turn slip lane to Parkway	U	N/A	N/A	-	-	-	-	131	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: A404 / A4155 Westhorpe Interchange - With Planned Improvements	-	-	3120	0	0	12.0	14.5	0.0	26.5	-	-	-	-
A404 / A4155 Marlow Road Interchange Roundabout	-	-	3120	0	0	12.0	14.5	0.0	26.5	-	-	-	-
1/1	389	389	-	-	-	1.4	0.7	-	2.1	19.5	4.3	0.7	5.0
1/2	568	568	-	-	-	2.3	1.9	-	4.2	26.4	6.9	1.9	8.8
2/1	611	611	-	-	-	1.2	1.1	-	2.2	13.0	5.3	1.1	6.4
2/2	746	746	-	-	-	1.7	1.9	-	3.6	17.5	8.5	1.9	10.4
3/2+3/1	780	780	1560	0	0	0.1	1.1	-	1.2	5.3	2.1	1.1	3.2
3/3	472	472	472	0	0	0.1	1.2	-	1.3	9.7	2.1	1.2	3.3
4/1	447	447	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	563	563	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	131	131	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	298	298	-	-	-	1.3	0.7	-	2.0	23.6	3.5	0.7	4.2
5/3	408	408	-	-	-	1.9	1.4	-	3.2	28.4	5.1	1.4	6.5
6/1	752	752	-	-	-	1.0	1.4	-	2.5	11.8	5.0	1.4	6.4
6/2	754	754	-	-	-	1.0	1.1	-	2.1	10.2	4.2	1.1	5.4
7/1	544	544	544	0	0	0.1	1.0	-	1.1	7.2	2.1	1.0	3.1
7/2	544	544	544	0	0	0.1	1.0	-	1.1	7.2	2.1	1.0	3.1
8/1	175	175	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	404	404	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	310	310	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	805	805	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	499	499	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

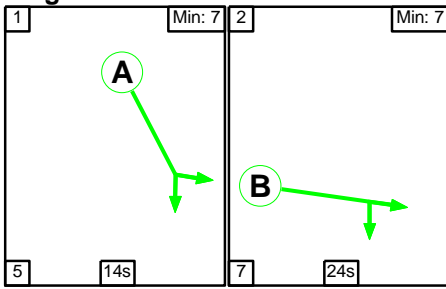
11/1	756	756	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	1050	1050	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	583	583	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	131	131	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
		C1	Stream: 1 PRC for Signalled Lanes (%)		13.0	Total Delay for Signalled Lanes (pcuHr)		12.12	Cycle Time (s)		50		
		C1	Stream: 2 PRC for Signalled Lanes (%)		20.9	Total Delay for Signalled Lanes (pcuHr)		9.77	Cycle Time (s)		50		
			PRC Over All Lanes (%)		13.0	Total Delay Over All Lanes(pcuHr)		26.49					

Full Input Data And Results

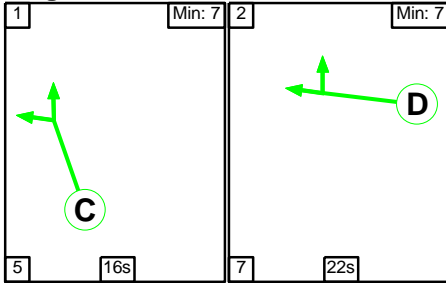
Scenario 9: '2027 Base + Dev STS 17:00-18:00 PM' (FG9: '2027 Base + Dev STS 17:00-18:00 PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

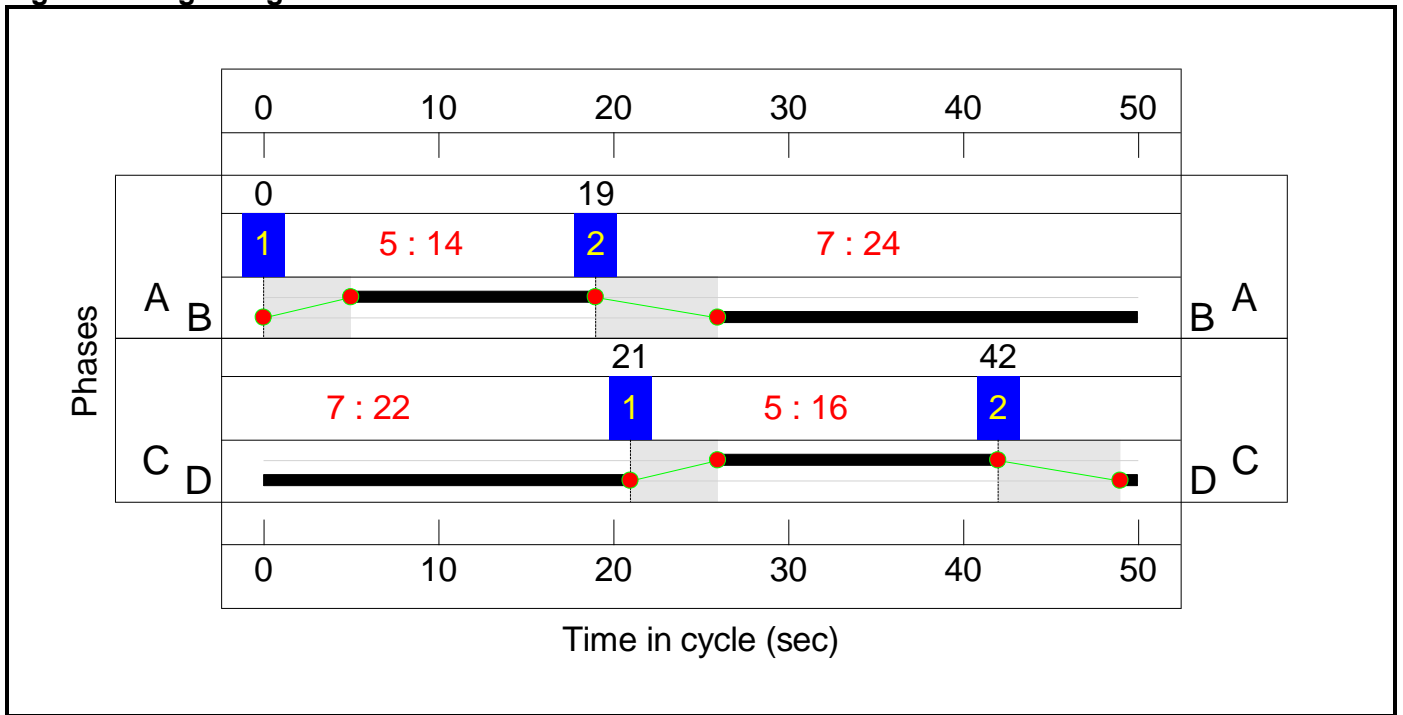
Stage Stream: 1

Stage	1	2
Duration	14	24
Change Point	0	19

Stage Stream: 2

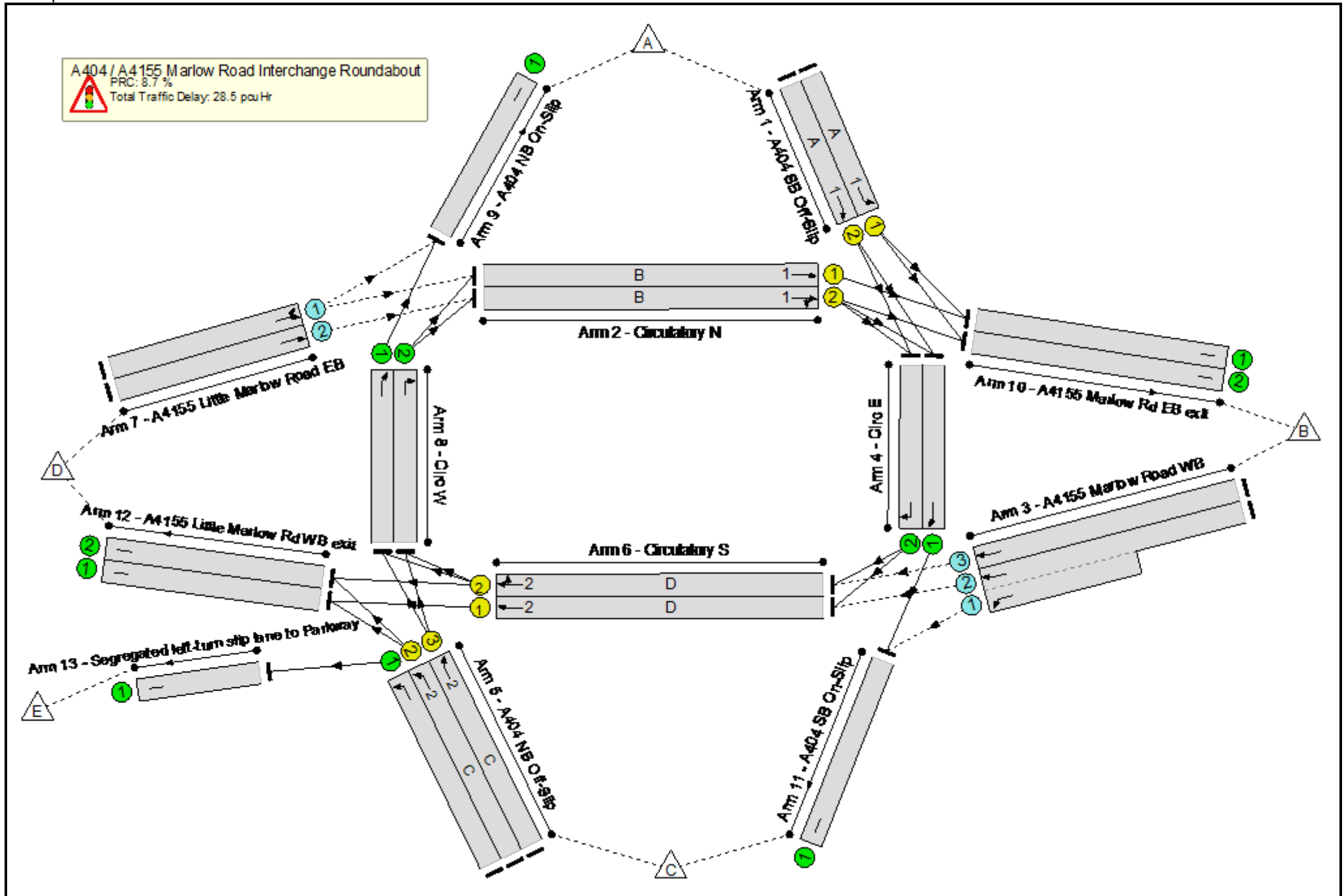
Stage	1	2
Duration	16	22
Change Point	21	42

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A404 / A4155 Westhorpe Interchange - With Planned Improvements	-	-	N/A	-	-		-	-	-	-	-	-	82.8%
A404 / A4155 Marlow Road Interchange Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	82.8%
1/1	A404 SB Off-Slip Left	U	1	N/A	A		1	14	-	448	1846	554	80.9%
1/2	A404 SB Off-Slip Ahead	U	1	N/A	A		1	14	-	378	1981	594	63.6%
2/1	Circulatory N Ahead	U	1	N/A	B		1	24	-	610	2040	1020	59.8%
2/2	Circulatory N Right Ahead	U	1	N/A	B		1	24	-	847	2131	1065	79.5%
3/2+3/1	A4155 Marlow Road WB Ahead Left	O	N/A	N/A	-		-	-	-	825	Inf : Inf	703+703	66.4 : 50.9%
3/3	A4155 Marlow Road WB Ahead	O	N/A	N/A	-		-	-	-	468	Inf	703	66.5%
4/1	Circ E Ahead	U	N/A	N/A	-		-	-	-	525	Inf	Inf	0.0%
4/2	Circ E Right	U	N/A	N/A	-		-	-	-	373	Inf	Inf	0.0%
5/1	A404 NB Off-Slip Left	U	N/A	N/A	-		-	-	-	29	Inf	Inf	0.0%
5/2	A404 NB Off-Slip Left	U	2	N/A	C		1	16	-	363	1846	628	57.8%
5/3	A404 NB Off-Slip Ahead	U	2	N/A	C		1	16	-	477	1981	674	70.8%
6/1	Circulatory S Ahead	U	2	N/A	D		1	22	-	653	1942	893	73.1%
6/2	Circulatory S Right Ahead	U	2	N/A	D		1	22	-	655	2077	955	68.6%

Full Input Data And Results

7/1	A4155 Little Marlow Road EB Ahead Ahead2	O	N/A	N/A	-	-	-	-	611	Inf	738	82.8%
7/2	A4155 Little Marlow Road EB Ahead	O	N/A	N/A	-	-	-	-	611	Inf	738	82.8%
8/1	Circ W Ahead	U	N/A	N/A	-	-	-	-	321	Inf	Inf	0.0%
8/2	Circ W Right	U	N/A	N/A	-	-	-	-	472	Inf	Inf	0.0%
9/1	A404 NB On-Slip	U	N/A	N/A	-	-	-	-	558	Inf	Inf	0.0%
10/1	A4155 Marlow Rd EB exit	U	N/A	N/A	-	-	-	-	834	Inf	Inf	0.0%
10/2	A4155 Marlow Rd EB exit	U	N/A	N/A	-	-	-	-	551	Inf	Inf	0.0%
11/1	A404 SB On-Slip	U	N/A	N/A	-	-	-	-	883	Inf	Inf	0.0%
12/1	A4155 Little Marlow Rd WB exit	U	N/A	N/A	-	-	-	-	1016	Inf	Inf	0.0%
12/2	A4155 Little Marlow Rd WB exit	U	N/A	N/A	-	-	-	-	339	Inf	Inf	0.0%
13/1	Segregated left-turn slip lane to Parkway	U	N/A	N/A	-	-	-	-	29	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: A404 / A4155 Westhorpe Interchange - With Planned Improvements	-	-	3340	0	0	12.3	16.2	0.0	28.5	-	-	-	-
A404 / A4155 Marlow Road Interchange Roundabout	-	-	3340	0	0	12.3	16.2	0.0	28.5	-	-	-	-
1/1	448	448	-	-	-	2.0	2.0	-	4.1	32.6	5.7	2.0	7.8
1/2	378	378	-	-	-	1.6	0.9	-	2.5	23.4	4.5	0.9	5.4
2/1	610	610	-	-	-	0.8	0.7	-	1.6	9.4	4.8	0.7	5.5
2/2	847	847	-	-	-	1.7	1.9	-	3.6	15.4	9.1	1.9	11.0
3/2+3/1	825	825	1650	0	0	0.0	0.7	-	0.7	3.2	1.2	0.7	1.9
3/3	468	468	468	0	0	0.0	1.0	-	1.0	7.8	1.2	1.0	2.2
4/1	525	525	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	373	373	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	29	29	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	363	363	-	-	-	1.4	0.7	-	2.0	20.3	4.1	0.7	4.8
5/3	477	477	-	-	-	1.9	1.2	-	3.1	23.4	5.7	1.2	6.9
6/1	653	653	-	-	-	1.3	1.3	-	2.6	14.4	4.9	1.3	6.2
6/2	655	655	-	-	-	1.2	1.1	-	2.3	12.8	4.5	1.1	5.5
7/1	611	611	611	0	0	0.2	2.3	-	2.5	14.6	3.4	2.3	5.7
7/2	611	611	611	0	0	0.2	2.3	-	2.5	14.6	3.4	2.3	5.7
8/1	321	321	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	472	472	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	558	558	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	834	834	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	551	551	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

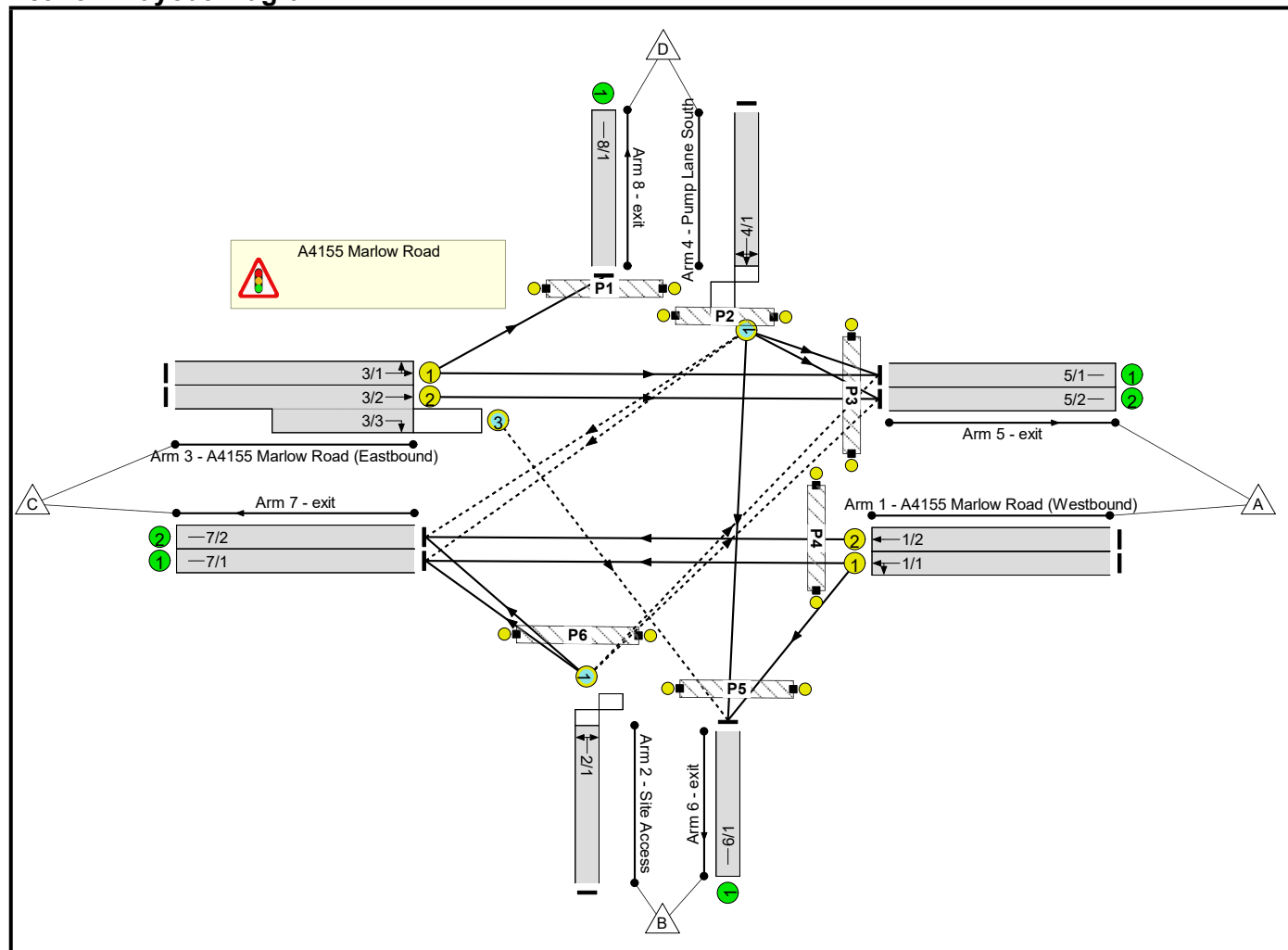
11/1	883	883	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	1016	1016	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	339	339	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	29	29	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
		C1	Stream: 1 PRC for Signalled Lanes (%)		11.3	Total Delay for Signalled Lanes (pcuHr)		11.72	Cycle Time (s)		50		
		C1	Stream: 2 PRC for Signalled Lanes (%)		23.1	Total Delay for Signalled Lanes (pcuHr)		10.08	Cycle Time (s)		50		
			PRC Over All Lanes (%)		8.7	Total Delay Over All Lanes(pcuHr)		28.52					

Full Input Data And Results
Full Input Data And Results

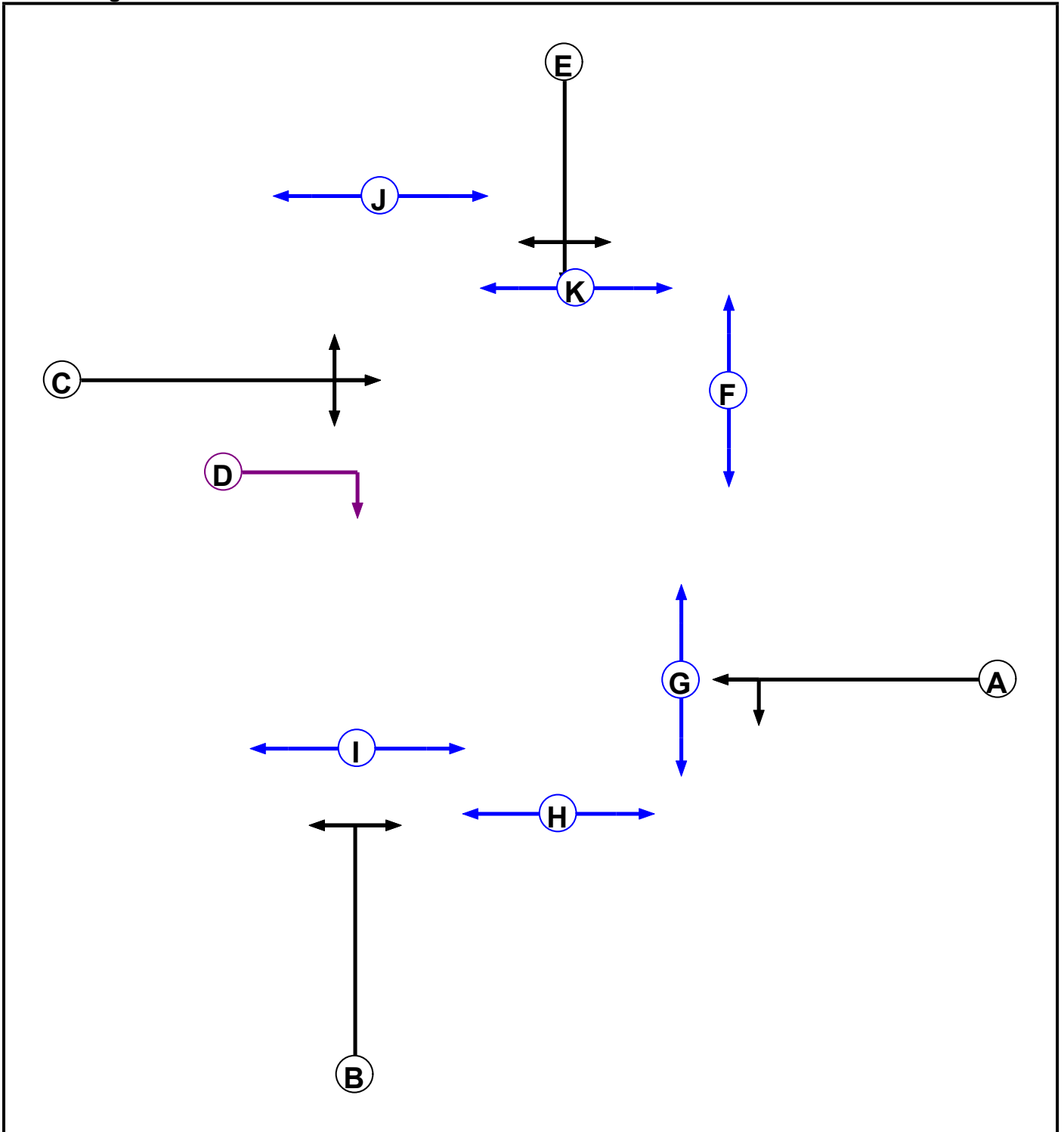
User and Project Details

Project:	Marlow Studio Project
Title:	A4155 Marlow Road / Site Access Proposed Traffic Signals - No right-turn into PLS
Location:	A4155 Marlow Road / Pump Lane South / Westhorpe House Access
Client:	Dido Property Ltd
Design Layout Ref:	Based on AECOM Dwg No. 60654980-ACM-XX-XX-M2-HW-000006 (Draft v3.5)
Additional detail:	
File name:	A4155_Site Access Prop Sigs (No R-Tn to PLS)_Based on AECOM Draft v3.5 (1in2 Peds) 240s.lsg3x
Author:	CSMS4
Company:	Waterman
Address:	Pickfords Wharf, Clink St, London SE1 9DG

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	Traffic		7	7
D	Ind. Arrow	C	4	4
E	Traffic		7	7
F	Pedestrian		5	5
G	Pedestrian		5	5
H	Pedestrian		5	5
I	Pedestrian		5	5
J	Pedestrian		5	5
K	Pedestrian		5	5

Phase Intergreens Matrix

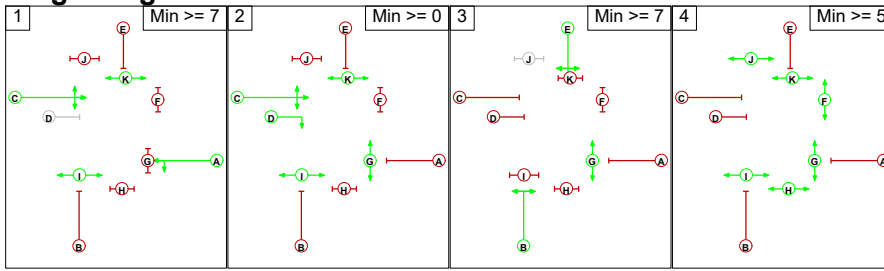
		Starting Phase										
		A	B	C	D	E	F	G	H	I	J	K
Terminating Phase	A		9	-	-	7	-	5	7	-	-	-
	B	6		5	6	-	9	-	-	5	-	-
	C	-	5		-	6	8	-	10	-	7	-
	D	-	5	-		5	-	-	10	-	-	-
	E	5	-	5	5		7	-	8	-	-	5
	F	-	9	9	-	9		-	-	-	-	-
	G	9	-	-	-	-	-		-	-	-	-
	H	10	-	10	10	10	-	-		-	-	-
	I	-	10	-	-	-	-	-	-		-	-
	J	-	-	9	-	-	-	-	-	-		-
	K	-	-	-	-	10	-	-	-	-	-	

Phases in Stage

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

Full Input Data And Results

Stage Diagram



Phase Delays

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

Prohibited Stage Change

		To Stage			
		1	2	3	4
From Stage	1		5	10	10
	2	9		10	10
	3	9	6		9
	4	10	10	10	

Full Input Data And Results

Give-Way Lane Input Data

Junction: A4155 Marlow Road											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
2/1 (Site Access)	5/1 (Right)	1439	0	4/1	1.09	To 5/1 (Left) To 5/2 (Left) To 6/1 (Ahead)	2.00	1.00	0.50	2	2.00
	5/2 (Right)	1439	0	4/1	1.09	To 5/1 (Left) To 5/2 (Left) To 6/1 (Ahead)					
3/3 (A4155 Marlow Road (Eastbound))	6/1 (Right)	1439	0	1/1	1.09	All	4.30	-	0.50	4	2.00
				1/2	1.09	All					
4/1 (Pump Lane South)	7/1 (Right)	1439	0	2/1	1.09	To 7/1 (Left) To 7/2 (Left)	3.00	2.00	0.50	3	2.00
	7/2 (Right)	1439	0	2/1	1.09	To 7/1 (Left) To 7/2 (Left)					

Full Input Data And Results

Lane Input Data

Junction: A4155 Marlow Road												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (A4155 Marlow Road (Westbound))	U	A	2	3	60.0	Geom	-	3.69	0.00	Y	Arm 6 Left	18.00
											Arm 7 Ahead	Inf
1/2 (A4155 Marlow Road (Westbound))	U	A	2	3	60.0	Geom	-	3.64	0.00	N	Arm 7 Ahead	Inf
2/1 (Site Access)	O	B	2	3	60.0	Geom	-	4.93	0.00	Y	Arm 5 Right	20.00
											Arm 7 Left	10.00
3/1 (A4155 Marlow Road (Eastbound))	U	C	2	3	60.0	Geom	-	3.26	0.00	Y	Arm 5 Ahead	Inf
											Arm 8 Left	15.00
3/2 (A4155 Marlow Road (Eastbound))	U	C	2	3	60.0	Geom	-	3.00	0.00	N	Arm 5 Ahead	Inf
3/3 (A4155 Marlow Road (Eastbound))	O	C D	2	3	8.9	Geom	-	3.25	0.00	N	Arm 6 Right	20.00
4/1 (Pump Lane South)	O	E	2	3	60.0	Geom	-	3.86	0.00	Y	Arm 5 Left	15.00
											Arm 6 Ahead	Inf
											Arm 7 Right	20.00
5/1 (exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
5/2 (exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1 (exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
7/2 (exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1 (exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2027 Base 07:00 to 08:00 AM'	07:00	08:00	01:00	
2: '2027 Base 08:00 to 09:00 AM'	08:00	09:00	01:00	
3: '2027 Base 17:00 to 18:00 PM'	17:00	18:00	01:00	
4: '2027 Base + Dev 07:00 to 08:00 AM'	07:00	08:00	01:00	
5: '2027 Base + Dev 08:00 to 09:00 AM'	08:00	09:00	01:00	
6: '2027 Base + Dev 17:00 to 18:00 PM'	17:00	18:00	01:00	
7: '2027 Base + Dev STS 07:00 to 08:00 AM'	07:00	08:00	01:00	
8: '2027 Base + Dev STS 08:00 to 09:00 AM'	08:00	09:00	01:00	
9: '2027 Base + Dev STS 17:00 to 18:00 PM'	17:00	18:00	01:00	

Scenario 1: '2027 Base 07:00 to 08:00 AM' (FG1: '2027 Base 07:00 to 08:00 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	4	971	0	975
	B	4	0	7	0	11
	C	990	9	0	10	1009
	D	1	0	4	0	5
	Tot.	995	13	982	10	2000

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: 2027 Base 07:00 to 08:00 AM
Junction: A4155 Marlow Road	
1/1	488
1/2	487
2/1	11
3/1	500
3/2 (with short)	509(In) 500(Out)
3/3 (short)	9
4/1	5
5/1	492
5/2	503
6/1	13
7/1	489
7/2	493
8/1	10

Full Input Data And Results

Lane Saturation Flows

Junction: A4155 Marlow Road								
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 (A4155 Marlow Road (Westbound))	3.69	0.00	Y	Arm 6 Left	18.00	0.8 %	1983	1983
				Arm 7 Ahead	Inf	99.2 %		
1/2 (A4155 Marlow Road (Westbound))	3.64	0.00	N	Arm 7 Ahead	Inf	100.0 %	2119	2119
2/1 (Site Access)	4.93	0.00	Y	Arm 5 Right	20.00	36.4 %	1878	1878
				Arm 7 Left	10.00	63.6 %		
3/1 (A4155 Marlow Road (Eastbound))	3.26	0.00	Y	Arm 5 Ahead	Inf	98.0 %	1937	1937
				Arm 8 Left	15.00	2.0 %		
3/2 (A4155 Marlow Road (Eastbound))	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055	2055
3/3 (A4155 Marlow Road (Eastbound))	3.25	0.00	N	Arm 6 Right	20.00	100.0 %	1935	1935
4/1 (Pump Lane South)	3.86	0.00	Y	Arm 5 Left	15.00	20.0 %	1853	1853
				Arm 6 Ahead	Inf	0.0 %		
				Arm 7 Right	20.00	80.0 %		
5/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (exit Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 2: '2027 Base 08:00 to 09:00 AM' (FG2: '2027 Base 08:00 to 09:00 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	4	1151	0	1155
	B	4	0	20	0	24
	C	1017	12	0	17	1046
	D	1	0	4	0	5
	Tot.	1022	16	1175	17	2230

Traffic Lane Flows

Lane	Scenario 2: 2027 Base 08:00 to 09:00 AM
Junction: A4155 Marlow Road	
1/1	578
1/2	577
2/1	24
3/1	517
3/2 (with short)	529(In) 517(Out)
3/3 (short)	12
4/1	5
5/1	502
5/2	520
6/1	16
7/1	586
7/2	589
8/1	17

Full Input Data And Results

Lane Saturation Flows

Junction: A4155 Marlow Road								
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 (A4155 Marlow Road (Westbound))	3.69	0.00	Y	Arm 6 Left	18.00	0.7 %	1983	1983
				Arm 7 Ahead	Inf	99.3 %		
1/2 (A4155 Marlow Road (Westbound))	3.64	0.00	N	Arm 7 Ahead	Inf	100.0 %	2119	2119
2/1 (Site Access)	4.93	0.00	Y	Arm 5 Right	20.00	16.7 %	1853	1853
				Arm 7 Left	10.00	83.3 %		
3/1 (A4155 Marlow Road (Eastbound))	3.26	0.00	Y	Arm 5 Ahead	Inf	96.7 %	1935	1935
				Arm 8 Left	15.00	3.3 %		
3/2 (A4155 Marlow Road (Eastbound))	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055	2055
3/3 (A4155 Marlow Road (Eastbound))	3.25	0.00	N	Arm 6 Right	20.00	100.0 %	1935	1935
4/1 (Pump Lane South)	3.86	0.00	Y	Arm 5 Left	15.00	20.0 %	1853	1853
				Arm 6 Ahead	Inf	0.0 %		
				Arm 7 Right	20.00	80.0 %		
5/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (exit Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 3: '2027 Base 17:00 to 18:00 PM' (FG3: '2027 Base 17:00 to 18:00 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	4	921	0	925
	B	0	0	10	0	10
	C	1265	6	0	26	1297
	D	13	1	18	0	32
	Tot.	1278	11	949	26	2264

Traffic Lane Flows

Lane	Scenario 3: 2027 Base 17:00 to 18:00 PM
Junction: A4155 Marlow Road	
1/1	463
1/2	462
2/1	10
3/1	646
3/2 (with short)	651(In) 645(Out)
3/3 (short)	6
4/1	32
5/1	626
5/2	652
6/1	11
7/1	473
7/2	476
8/1	26

Full Input Data And Results

Lane Saturation Flows

Junction: A4155 Marlow Road								
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 (A4155 Marlow Road (Westbound))	3.69	0.00	Y	Arm 6 Left	18.00	0.9 %	1983	1983
				Arm 7 Ahead	Inf	99.1 %		
1/2 (A4155 Marlow Road (Westbound))	3.64	0.00	N	Arm 7 Ahead	Inf	100.0 %	2119	2119
2/1 (Site Access)	4.93	0.00	Y	Arm 5 Right	20.00	0.0 %	1833	1833
				Arm 7 Left	10.00	100.0 %		
3/1 (A4155 Marlow Road (Eastbound))	3.26	0.00	Y	Arm 5 Ahead	Inf	96.0 %	1933	1933
				Arm 8 Left	15.00	4.0 %		
3/2 (A4155 Marlow Road (Eastbound))	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055	2055
3/3 (A4155 Marlow Road (Eastbound))	3.25	0.00	N	Arm 6 Right	20.00	100.0 %	1935	1935
4/1 (Pump Lane South)	3.86	0.00	Y	Arm 5 Left	15.00	40.6 %	1848	1848
				Arm 6 Ahead	Inf	3.1 %		
				Arm 7 Right	20.00	56.3 %		
5/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (exit Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 4: '2027 Base + Dev 07:00 to 08:00 AM' (FG4: '2027 Base + Dev 07:00 to 08:00 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	72	971	0	1043
	B	13	0	69	0	82
	C	990	503	0	10	1503
	D	1	0	4	0	5
	Tot.	1004	575	1044	10	2633

Traffic Lane Flows

Lane	Scenario 4: 2027 Base + Dev 07:00 to 08:00 AM
Junction: A4155 Marlow Road	
1/1	522
1/2	521
2/1	82
3/1	500
3/2 (with short)	1003(In) 500(Out)
3/3 (short)	503
4/1	5
5/1	496
5/2	508
6/1	575
7/1	486
7/2	558
8/1	10

Full Input Data And Results

Lane Saturation Flows

Junction: A4155 Marlow Road								
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 (A4155 Marlow Road (Westbound))	3.69	0.00	Y	Arm 6 Left	18.00	13.8 %	1961	1961
				Arm 7 Ahead	Inf	86.2 %		
1/2 (A4155 Marlow Road (Westbound))	3.64	0.00	N	Arm 7 Ahead	Inf	100.0 %	2119	2119
2/1 (Site Access)	4.93	0.00	Y	Arm 5 Right	20.00	15.9 %	1852	1852
				Arm 7 Left	10.00	84.1 %		
3/1 (A4155 Marlow Road (Eastbound))	3.26	0.00	Y	Arm 5 Ahead	Inf	98.0 %	1937	1937
				Arm 8 Left	15.00	2.0 %		
3/2 (A4155 Marlow Road (Eastbound))	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055	2055
3/3 (A4155 Marlow Road (Eastbound))	3.25	0.00	N	Arm 6 Right	20.00	100.0 %	1935	1935
4/1 (Pump Lane South)	3.86	0.00	Y	Arm 5 Left	15.00	20.0 %	1853	1853
				Arm 6 Ahead	Inf	0.0 %		
				Arm 7 Right	20.00	80.0 %		
5/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (exit Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 5: '2027 Base + Dev 08:00 to 09:00 AM' (FG5: '2027 Base + Dev 08:00 to 09:00 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	54	1151	0	1205
	B	19	0	128	0	147
	C	1017	373	0	17	1407
	D	1	0	4	0	5
	Tot.	1037	427	1283	17	2764

Traffic Lane Flows

Lane	Scenario 5: 2027 Base + Dev 08:00 to 09:00 AM
Junction: A4155 Marlow Road	
1/1	603
1/2	602
2/1	147
3/1	517
3/2 (with short)	890(In) 517(Out)
3/3 (short)	373
4/1	5
5/1	509
5/2	528
6/1	427
7/1	615
7/2	668
8/1	17

Full Input Data And Results

Lane Saturation Flows

Junction: A4155 Marlow Road								
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 (A4155 Marlow Road (Westbound))	3.69	0.00	Y	Arm 6 Left	18.00	9.0 %	1969	1969
				Arm 7 Ahead	Inf	91.0 %		
1/2 (A4155 Marlow Road (Westbound))	3.64	0.00	N	Arm 7 Ahead	Inf	100.0 %	2119	2119
2/1 (Site Access)	4.93	0.00	Y	Arm 5 Right	20.00	12.9 %	1849	1849
				Arm 7 Left	10.00	87.1 %		
3/1 (A4155 Marlow Road (Eastbound))	3.26	0.00	Y	Arm 5 Ahead	Inf	96.7 %	1935	1935
				Arm 8 Left	15.00	3.3 %		
3/2 (A4155 Marlow Road (Eastbound))	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055	2055
3/3 (A4155 Marlow Road (Eastbound))	3.25	0.00	N	Arm 6 Right	20.00	100.0 %	1935	1935
4/1 (Pump Lane South)	3.86	0.00	Y	Arm 5 Left	15.00	20.0 %	1853	1853
				Arm 6 Ahead	Inf	0.0 %		
				Arm 7 Right	20.00	80.0 %		
5/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (exit Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 6: '2027 Base + Dev 17:00 to 18:00 PM' (FG6: '2027 Base + Dev 17:00 to 18:00 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	22	921	0	943
	B	67	0	497	0	564
	C	1265	137	0	26	1428
	D	13	1	18	0	32
	Tot.	1345	160	1436	26	2967

Traffic Lane Flows

Lane	Scenario 6: 2027 Base + Dev 17:00 to 18:00 PM
Junction: A4155 Marlow Road	
1/1	472
1/2	471
2/1	564
3/1	646
3/2 (with short)	782(In) 645(Out)
3/3 (short)	137
4/1	32
5/1	659
5/2	686
6/1	160
7/1	707
7/2	729
8/1	26

Full Input Data And Results

Lane Saturation Flows

Junction: A4155 Marlow Road								
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 (A4155 Marlow Road (Westbound))	3.69	0.00	Y	Arm 6 Left	18.00	4.7 %	1976	1976
				Arm 7 Ahead	Inf	95.3 %		
1/2 (A4155 Marlow Road (Westbound))	3.64	0.00	N	Arm 7 Ahead	Inf	100.0 %	2119	2119
2/1 (Site Access)	4.93	0.00	Y	Arm 5 Right	20.00	11.9 %	1847	1847
				Arm 7 Left	10.00	88.1 %		
3/1 (A4155 Marlow Road (Eastbound))	3.26	0.00	Y	Arm 5 Ahead	Inf	96.0 %	1933	1933
				Arm 8 Left	15.00	4.0 %		
3/2 (A4155 Marlow Road (Eastbound))	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055	2055
3/3 (A4155 Marlow Road (Eastbound))	3.25	0.00	N	Arm 6 Right	20.00	100.0 %	1935	1935
4/1 (Pump Lane South)	3.86	0.00	Y	Arm 5 Left	15.00	40.6 %	1848	1848
				Arm 6 Ahead	Inf	3.1 %		
				Arm 7 Right	20.00	56.3 %		
5/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (exit Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 7: '2027 Base + Dev 07:00 to 08:00 STS AM' (FG7: '2027 Base + Dev STS 07:00 to 08:00 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	52	971	0	1023
	B	10	0	52	0	62
	C	990	361	0	10	1361
	D	1	0	4	0	5
	Tot.	1001	413	1027	10	2451

Traffic Lane Flows

Lane	Scenario 7: 2027 Base + Dev 07:00 to 08:00 STS AM
Junction: A4155 Marlow Road	
1/1	512
1/2	511
2/1	62
3/1	500
3/2 (with short)	861(In) 500(Out)
3/3 (short)	361
4/1	5
5/1	495
5/2	506
6/1	413
7/1	488
7/2	539
8/1	10

Full Input Data And Results

Lane Saturation Flows

Junction: A4155 Marlow Road								
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 (A4155 Marlow Road (Westbound))	3.69	0.00	Y	Arm 6 Left	18.00	10.2 %	1967	1967
				Arm 7 Ahead	Inf	89.8 %		
1/2 (A4155 Marlow Road (Westbound))	3.64	0.00	N	Arm 7 Ahead	Inf	100.0 %	2119	2119
2/1 (Site Access)	4.93	0.00	Y	Arm 5 Right	20.00	16.1 %	1853	1853
				Arm 7 Left	10.00	83.9 %		
3/1 (A4155 Marlow Road (Eastbound))	3.26	0.00	Y	Arm 5 Ahead	Inf	98.0 %	1937	1937
				Arm 8 Left	15.00	2.0 %		
3/2 (A4155 Marlow Road (Eastbound))	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055	2055
3/3 (A4155 Marlow Road (Eastbound))	3.25	0.00	N	Arm 6 Right	20.00	100.0 %	1935	1935
4/1 (Pump Lane South)	3.86	0.00	Y	Arm 5 Left	15.00	20.0 %	1853	1853
				Arm 6 Ahead	Inf	0.0 %		
				Arm 7 Right	20.00	80.0 %		
5/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (exit Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 8: '2027 Base + Dev 08:00 to 09:00 STS AM' (FG8: '2027 Base + Dev STS 08:00 to 09:00 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	39	1151	0	1190
	B	15	0	97	0	112
	C	1017	270	0	17	1304
	D	1	0	4	0	5
	Tot.	1033	309	1252	17	2611

Traffic Lane Flows

Lane	Scenario 8: 2027 Base + Dev 08:00 to 09:00 STS AM
Junction: A4155 Marlow Road	
1/1	595
1/2	595
2/1	112
3/1	517
3/2 (with short)	787(In) 517(Out)
3/3 (short)	270
4/1	5
5/1	507
5/2	526
6/1	309
7/1	606
7/2	646
8/1	17

Full Input Data And Results

Lane Saturation Flows

Junction: A4155 Marlow Road								
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 (A4155 Marlow Road (Westbound))	3.69	0.00	Y	Arm 6 Left	18.00	6.6 %	1973	1973
				Arm 7 Ahead	Inf	93.4 %		
1/2 (A4155 Marlow Road (Westbound))	3.64	0.00	N	Arm 7 Ahead	Inf	100.0 %	2119	2119
2/1 (Site Access)	4.93	0.00	Y	Arm 5 Right	20.00	13.4 %	1849	1849
				Arm 7 Left	10.00	86.6 %		
3/1 (A4155 Marlow Road (Eastbound))	3.26	0.00	Y	Arm 5 Ahead	Inf	96.7 %	1935	1935
				Arm 8 Left	15.00	3.3 %		
3/2 (A4155 Marlow Road (Eastbound))	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055	2055
3/3 (A4155 Marlow Road (Eastbound))	3.25	0.00	N	Arm 6 Right	20.00	100.0 %	1935	1935
4/1 (Pump Lane South)	3.86	0.00	Y	Arm 5 Left	15.00	20.0 %	1853	1853
				Arm 6 Ahead	Inf	0.0 %		
				Arm 7 Right	20.00	80.0 %		
5/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (exit Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 9: '2027 Base + Dev 17:00 to 18:00 STS PM' (FG9: '2027 Base + Dev STS 17:00 to 18:00 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	17	921	0	938
	B	48	0	357	0	405
	C	1265	99	0	26	1390
	D	13	1	18	0	32
	Tot.	1326	117	1296	26	2765

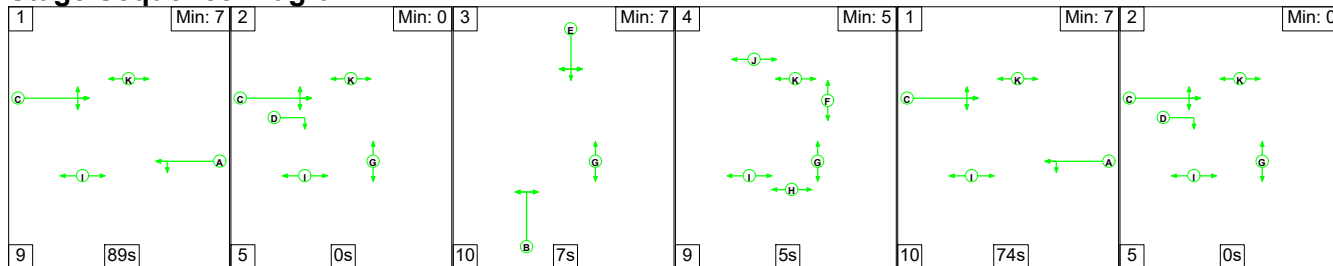
Traffic Lane Flows

Lane	Scenario 9: 2027 Base + Dev 17:00 to 18:00 STS PM
Junction: A4155 Marlow Road	
1/1	469
1/2	469
2/1	405
3/1	646
3/2 (with short)	744(In) 645(Out)
3/3 (short)	99
4/1	32
5/1	650
5/2	676
6/1	117
7/1	639
7/2	657
8/1	26

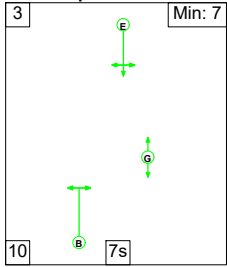
Lane Saturation Flows

Junction: A4155 Marlow Road								
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 (A4155 Marlow Road Westbound))	3.69	0.00	Y	Arm 6 Left	18.00	3.6 %	1978	1978
				Arm 7 Ahead	Inf	96.4 %		
1/2 (A4155 Marlow Road Westbound))	3.64	0.00	N	Arm 7 Ahead	Inf	100.0 %	2119	2119
2/1 (Site Access)	4.93	0.00	Y	Arm 5 Right	20.00	11.9 %	1847	1847
				Arm 7 Left	10.00	88.1 %		
3/1 (A4155 Marlow Road Eastbound))	3.26	0.00	Y	Arm 5 Ahead	Inf	96.0 %	1933	1933
				Arm 8 Left	15.00	4.0 %		
3/2 (A4155 Marlow Road Eastbound))	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055	2055
3/3 (A4155 Marlow Road Eastbound))	3.25	0.00	N	Arm 6 Right	20.00	100.0 %	1935	1935
4/1 (Pump Lane South)	3.86	0.00	Y	Arm 5 Left	15.00	40.6 %	1848	1848
				Arm 6 Ahead	Inf	3.1 %		
				Arm 7 Right	20.00	56.3 %		
5/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (exit Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 1: '2027 Base 07:00 to 08:00 AM' (FG1: '2027 Base 07:00 to 08:00 AM', Plan 1: 'Network Control Plan 1')



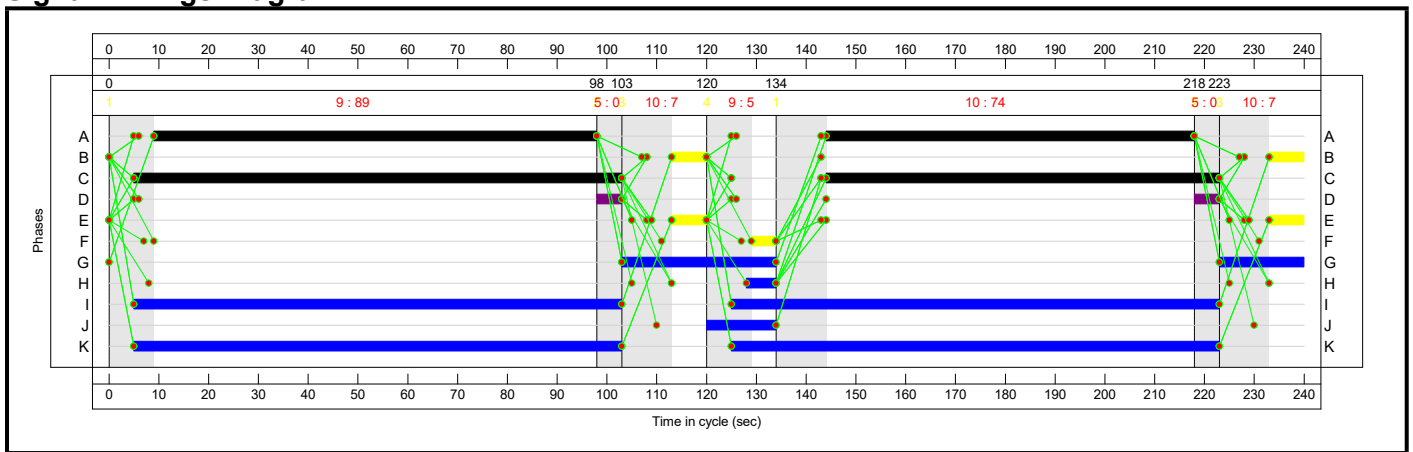
Full Input Data And Results



Stage Timings

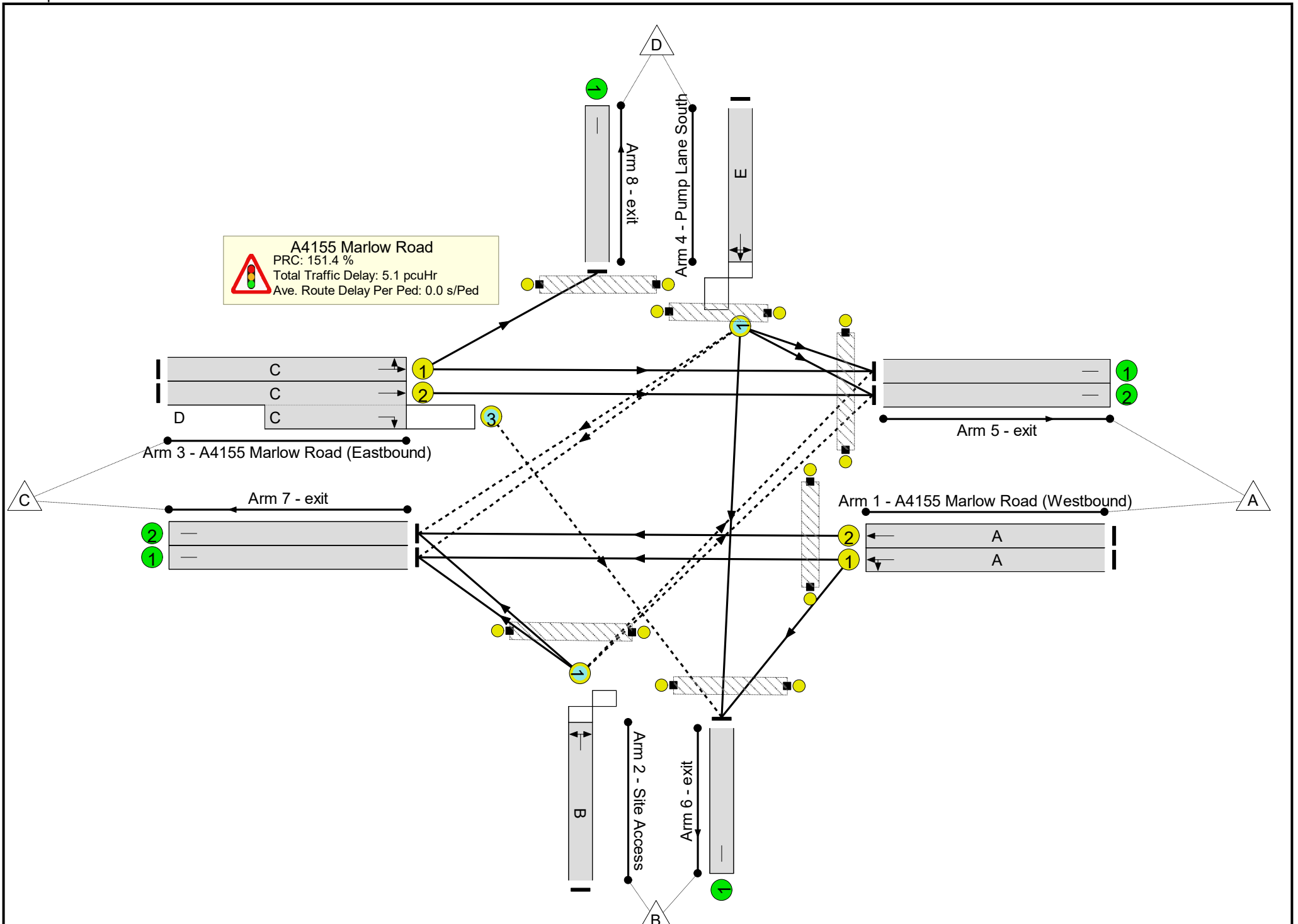
Stage	1	2	3	4	1	2	3
Duration	89	0	7	5	74	0	7
Change Point	0	98	103	120	134	218	223

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A4155 Marlow Road / Site Access Proposed Traffic Signals - No right-turn into PLS	-	-	N/A	-	-		-	-	-	-	-	-	35.8%
A4155 Marlow Road	-	-	N/A	-	-		-	-	-	-	-	-	35.8%
1/1	A4155 Marlow Road (Westbound) Left Ahead	U	N/A	N/A	A		2	163	-	488	1983	1363	35.8%
1/2	A4155 Marlow Road (Westbound) Ahead	U	N/A	N/A	A		2	163	-	487	2119	1457	33.4%
2/1	Site Access Right Left	O	N/A	N/A	B		2	14	-	11	1878	125	8.8%
3/1	A4155 Marlow Road (Eastbound) Ahead Left	U	N/A	N/A	C		2	177	-	500	1937	1445	34.6%
3/2+3/3	A4155 Marlow Road (Eastbound) Ahead Right	U+O	N/A	N/A	C	D	2	177	10	509	2055:1935	1521+27	32.9 : 32.9%
4/1	Pump Lane South Left Ahead Right	O	N/A	N/A	E		2	14	-	5	1853	124	4.0%
5/1	exit	U	N/A	N/A	-		-	-	-	492	Inf	Inf	0.0%
5/2	exit	U	N/A	N/A	-		-	-	-	503	Inf	Inf	0.0%
6/1	exit	U	N/A	N/A	-		-	-	-	13	Inf	Inf	0.0%
7/1	exit	U	N/A	N/A	-		-	-	-	489	Inf	Inf	0.0%
7/2	exit	U	N/A	N/A	-		-	-	-	493	Inf	Inf	0.0%
8/1	exit	U	N/A	N/A	-		-	-	-	10	Inf	Inf	0.0%

Full Input Data And Results

Ped Link: P1	Unnamed Ped Link	-	N/A	-	J		1	14	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	K		2	196	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		2	48	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	H		1	6	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	I		2	196	-	0	-	0	0.0%

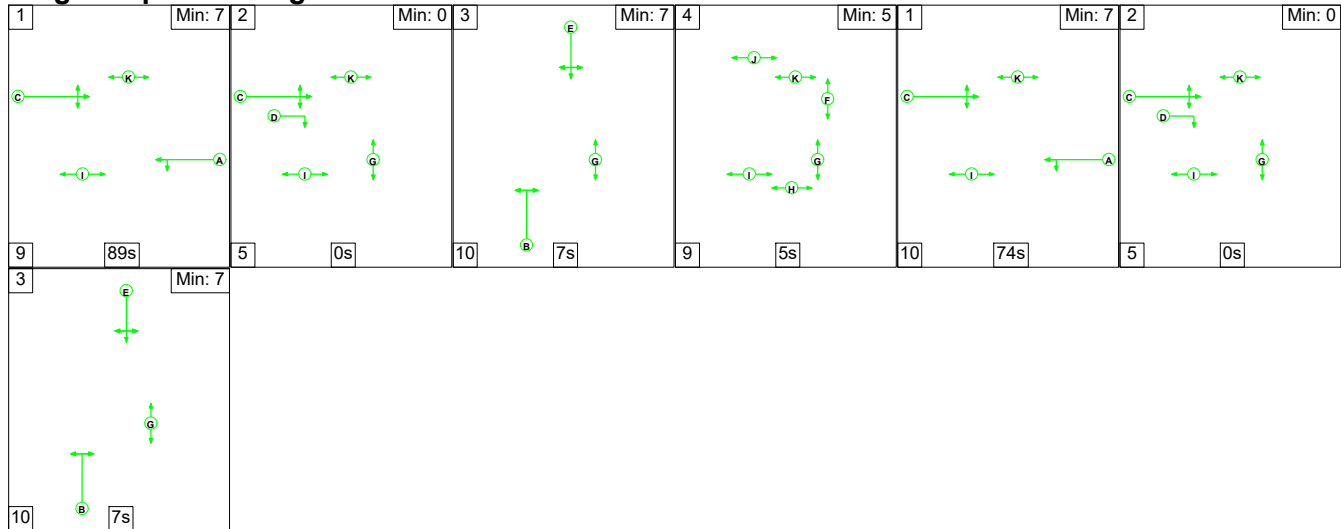
Full Input Data And Results

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: A4155 Marlow Road / Site Access Proposed Traffic Signals - No right-turn into PLS	-	-	16	0	0	4.0	1.1	0.0	5.1	-	-	-	-
A4155 Marlow Road	-	-	16	0	0	4.0	1.1	0.0	5.1	-	-	-	-
1/1	488	488	-	-	-	1.1	0.3	-	1.4	10.1	8.0	0.3	8.3
1/2	487	487	-	-	-	1.1	0.3	-	1.3	9.8	7.8	0.3	8.1
2/1	11	11	4	0	0	0.2	0.0	0.0	0.2	68.5	0.3	0.0	0.4
3/1	500	500	-	-	-	0.8	0.3	-	1.1	7.6	7.4	0.3	7.6
3/2+3/3	509	509	8	0	0	0.8	0.2	0.0	1.0	7.4	7.2	0.2	7.5
4/1	5	5	4	0	0	0.1	0.0	0.0	0.1	67.9	0.2	0.0	0.2
5/1	492	492	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	503	503	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	13	13	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	489	489	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	493	493	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	10	10	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
C1				PRC for Signalled Lanes (%):	151.4	Total Delay for Signalled Lanes (pcuHr):		5.11	Cycle Time (s): 240				
				PRC Over All Lanes (%):	151.4	Total Delay Over All Lanes (pcuHr):		5.11					

Full Input Data And Results

Scenario 2: '2027 Base 08:00 to 09:00 AM' (FG2: '2027 Base 08:00 to 09:00 AM', Plan 1: 'Network Control Plan 1')

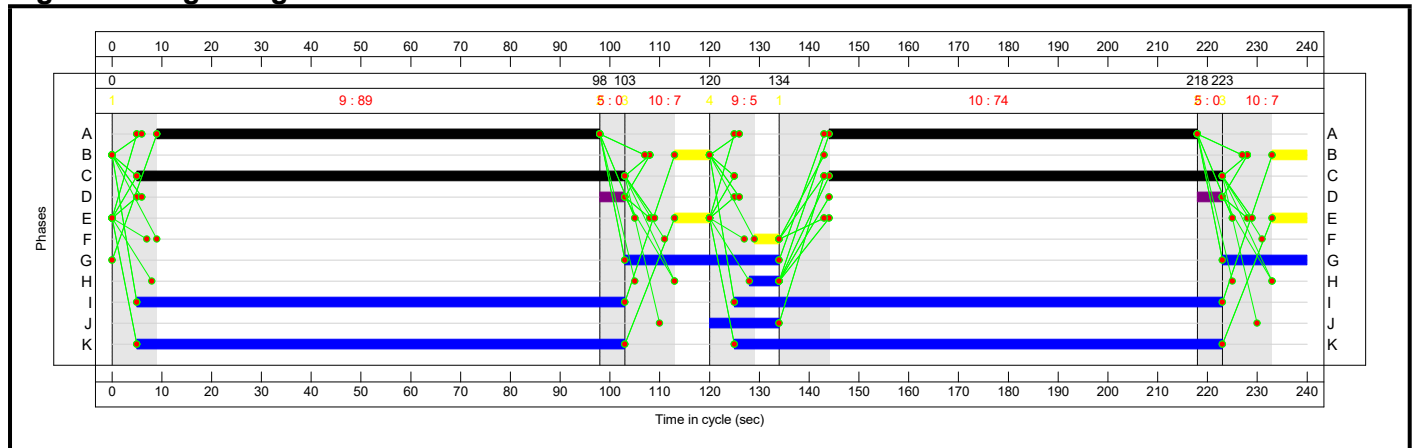
Stage Sequence Diagram



Stage Timings

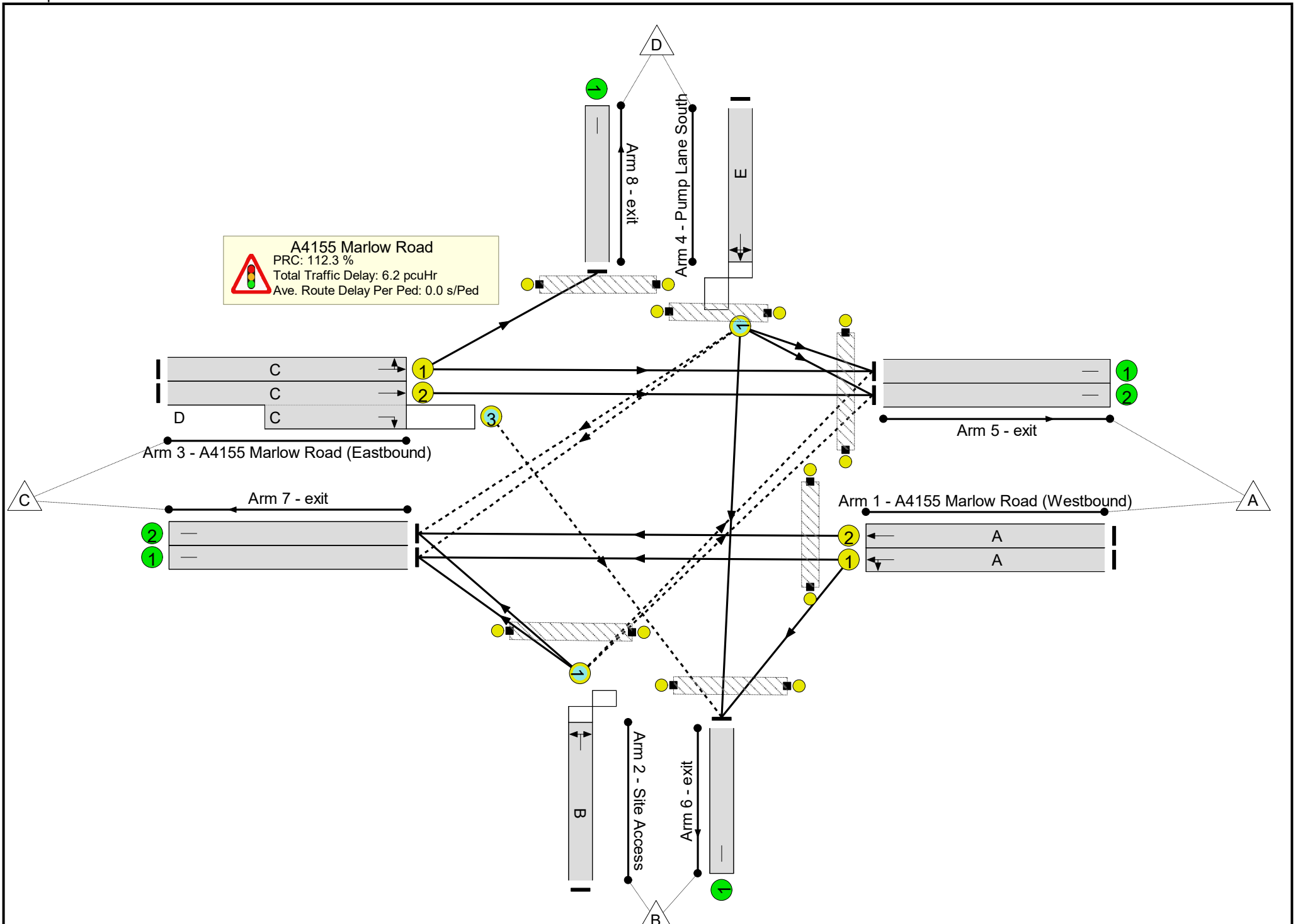
Stage	1	2	3	4	1	2	3
Duration	89	0	7	5	74	0	7
Change Point	0	98	103	120	134	218	223

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A4155 Marlow Road / Site Access Proposed Traffic Signals - No right-turn into PLS	-	-	N/A	-	-		-	-	-	-	-	-	42.4%
A4155 Marlow Road	-	-	N/A	-	-		-	-	-	-	-	-	42.4%
1/1	A4155 Marlow Road (Westbound) Left Ahead	U	N/A	N/A	A		2	163	-	578	1983	1363	42.4%
1/2	A4155 Marlow Road (Westbound) Ahead	U	N/A	N/A	A		2	163	-	577	2119	1457	39.6%
2/1	Site Access Right Left	O	N/A	N/A	B		2	14	-	24	1853	124	19.4%
3/1	A4155 Marlow Road (Eastbound) Ahead Left	U	N/A	N/A	C		2	177	-	517	1935	1443	35.8%
3/2+3/3	A4155 Marlow Road (Eastbound) Ahead Right	U+O	N/A	N/A	C	D	2	177	10	529	2055:1935	1514+35	34.2 : 34.2%
4/1	Pump Lane South Left Ahead Right	O	N/A	N/A	E		2	14	-	5	1853	124	4.0%
5/1	exit	U	N/A	N/A	-		-	-	-	502	Inf	Inf	0.0%
5/2	exit	U	N/A	N/A	-		-	-	-	520	Inf	Inf	0.0%
6/1	exit	U	N/A	N/A	-		-	-	-	16	Inf	Inf	0.0%
7/1	exit	U	N/A	N/A	-		-	-	-	586	Inf	Inf	0.0%
7/2	exit	U	N/A	N/A	-		-	-	-	589	Inf	Inf	0.0%
8/1	exit	U	N/A	N/A	-		-	-	-	17	Inf	Inf	0.0%

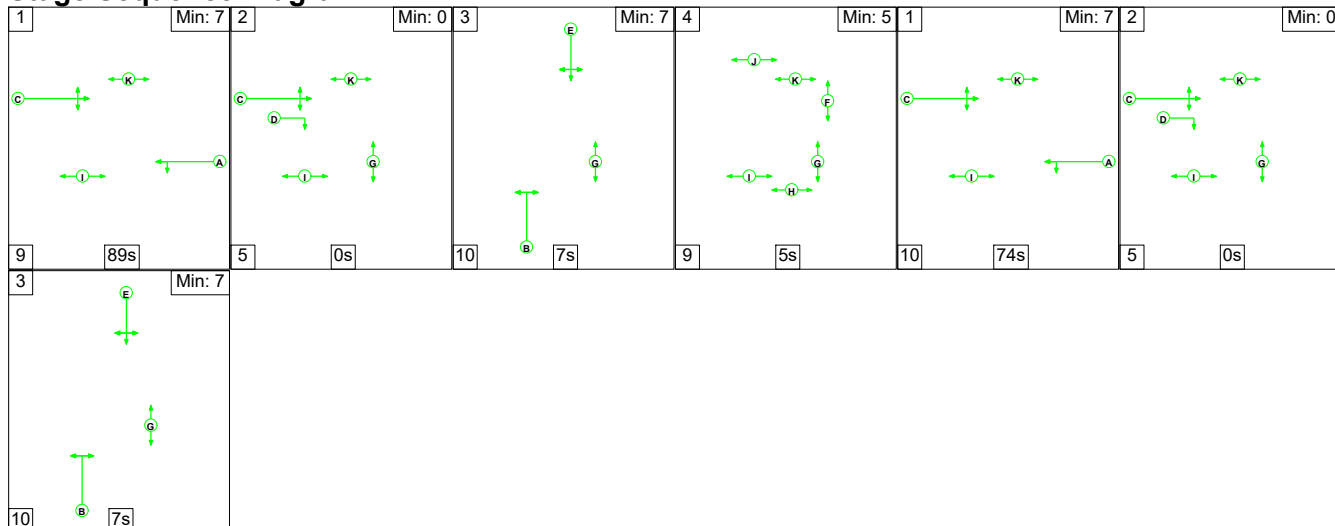
Full Input Data And Results

Ped Link: P1	Unnamed Ped Link	-	N/A	-	J		1	14	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	K		2	196	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		2	48	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	H		1	6	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	I		2	196	-	0	-	0	0.0%

Full Input Data And Results

Scenario 3: '2027 Base 17:00 to 18:00 PM' (FG3: '2027 Base 17:00 to 18:00 PM', Plan 1: 'Network Control Plan 1')

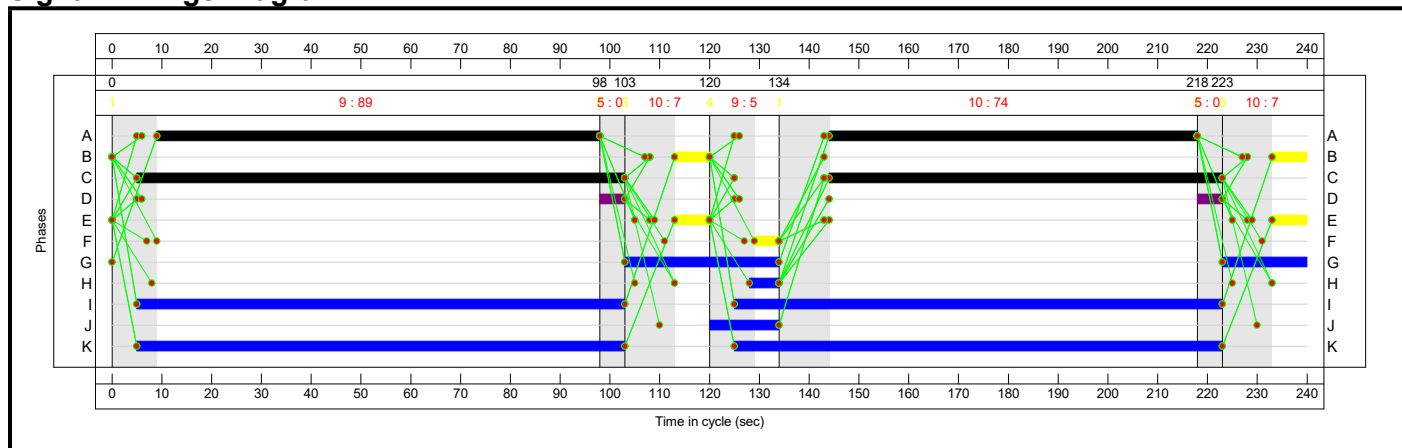
Stage Sequence Diagram



Stage Timings

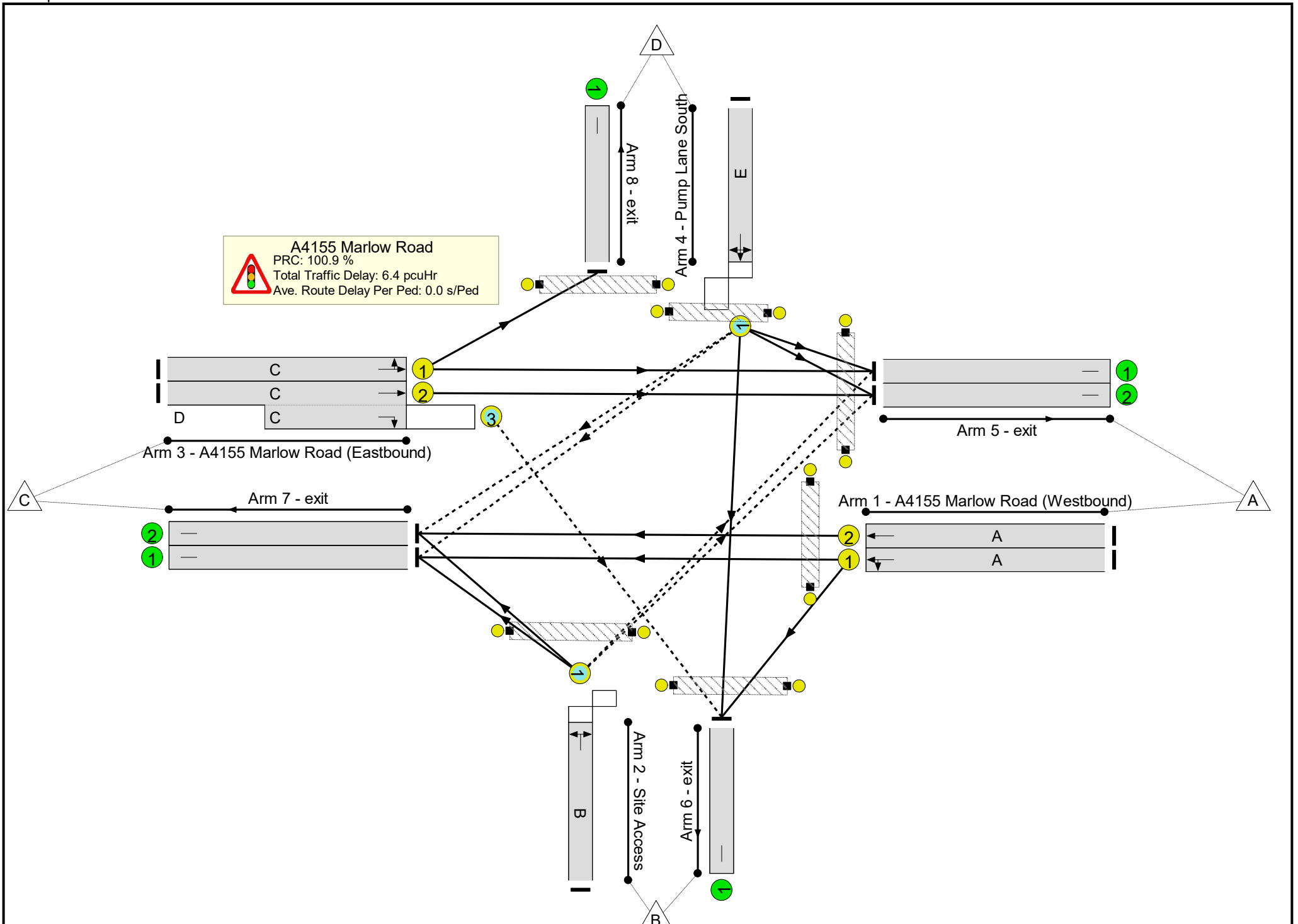
Stage	1	2	3	4	1	2	3
Duration	89	0	7	5	74	0	7
Change Point	0	98	103	120	134	218	223

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A4155 Marlow Road / Site Access Proposed Traffic Signals - No right-turn into PLS	-	-	N/A	-	-		-	-	-	-	-	-	44.8%
A4155 Marlow Road	-	-	N/A	-	-		-	-	-	-	-	-	44.8%
1/1	A4155 Marlow Road (Westbound) Left Ahead	U	N/A	N/A	A		2	163	-	463	1983	1363	34.0%
1/2	A4155 Marlow Road (Westbound) Ahead	U	N/A	N/A	A		2	163	-	462	2119	1457	31.7%
2/1	Site Access Right Left	O	N/A	N/A	B		2	14	-	10	1833	122	8.2%
3/1	A4155 Marlow Road (Eastbound) Ahead Left	U	N/A	N/A	C		2	177	-	646	1933	1442	44.8%
3/2+3/3	A4155 Marlow Road (Eastbound) Ahead Right	U+O	N/A	N/A	C	D	2	177	10	651	2055:1935	1532+14	42.1 : 42.1%
4/1	Pump Lane South Left Ahead Right	O	N/A	N/A	E		2	14	-	32	1848	123	26.0%
5/1	exit	U	N/A	N/A	-		-	-	-	626	Inf	Inf	0.0%
5/2	exit	U	N/A	N/A	-		-	-	-	652	Inf	Inf	0.0%
6/1	exit	U	N/A	N/A	-		-	-	-	11	Inf	Inf	0.0%
7/1	exit	U	N/A	N/A	-		-	-	-	473	Inf	Inf	0.0%
7/2	exit	U	N/A	N/A	-		-	-	-	476	Inf	Inf	0.0%
8/1	exit	U	N/A	N/A	-		-	-	-	26	Inf	Inf	0.0%

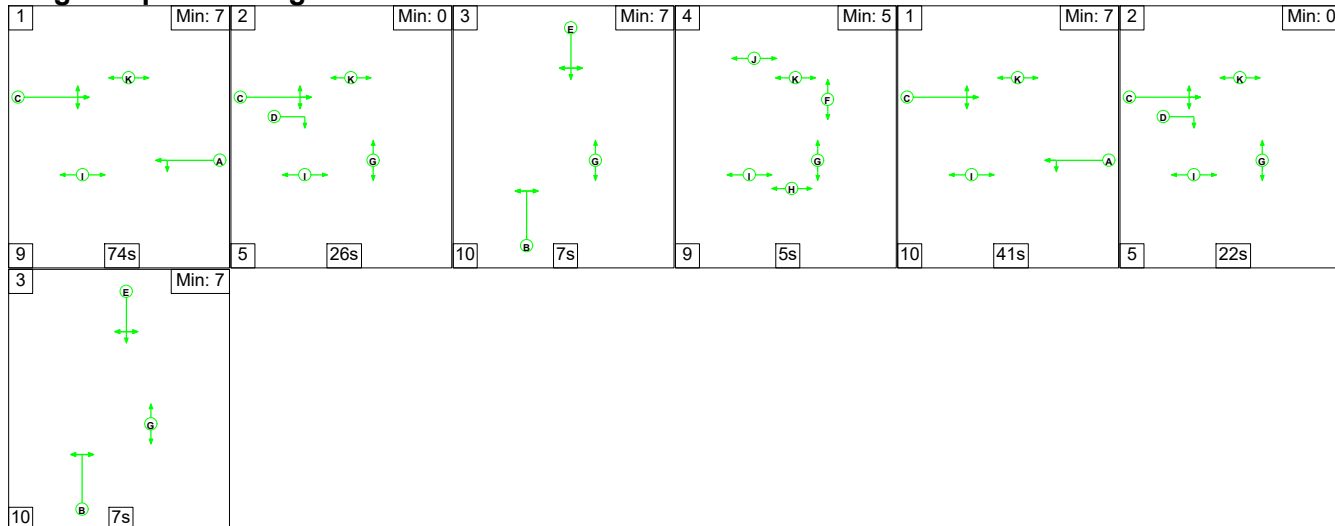
Full Input Data And Results

Ped Link: P1	Unnamed Ped Link	-	N/A	-	J		1	14	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	K		2	196	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		2	48	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	H		1	6	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	I		2	196	-	0	-	0	0.0%

Full Input Data And Results

Scenario 4: '2027 Base + Dev 07:00 to 08:00 AM' (FG4: '2027 Base + Dev 07:00 to 08:00 AM', Plan 1: 'Network Control Plan 1')

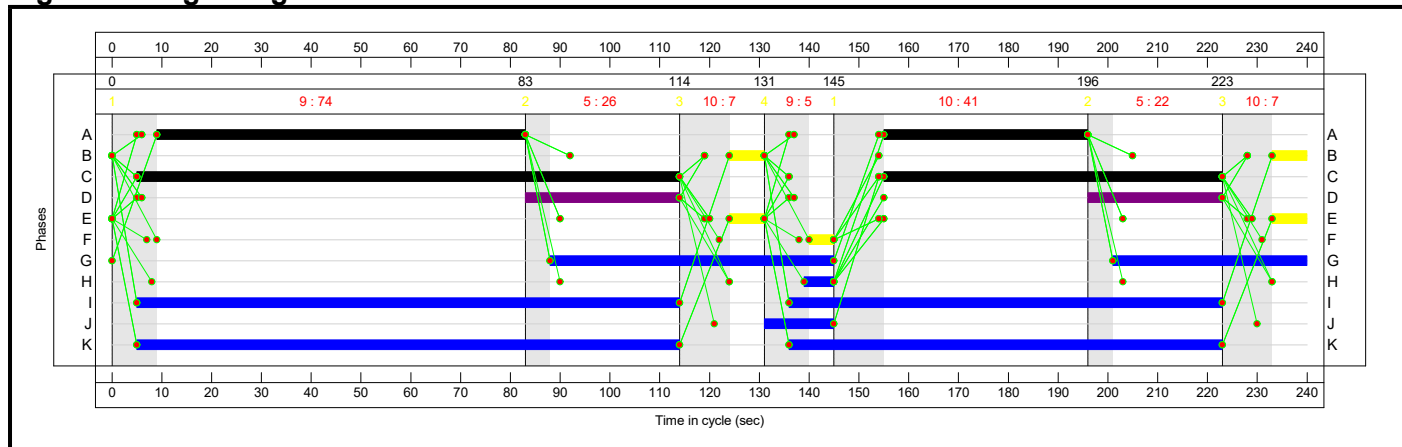
Stage Sequence Diagram



Stage Timings

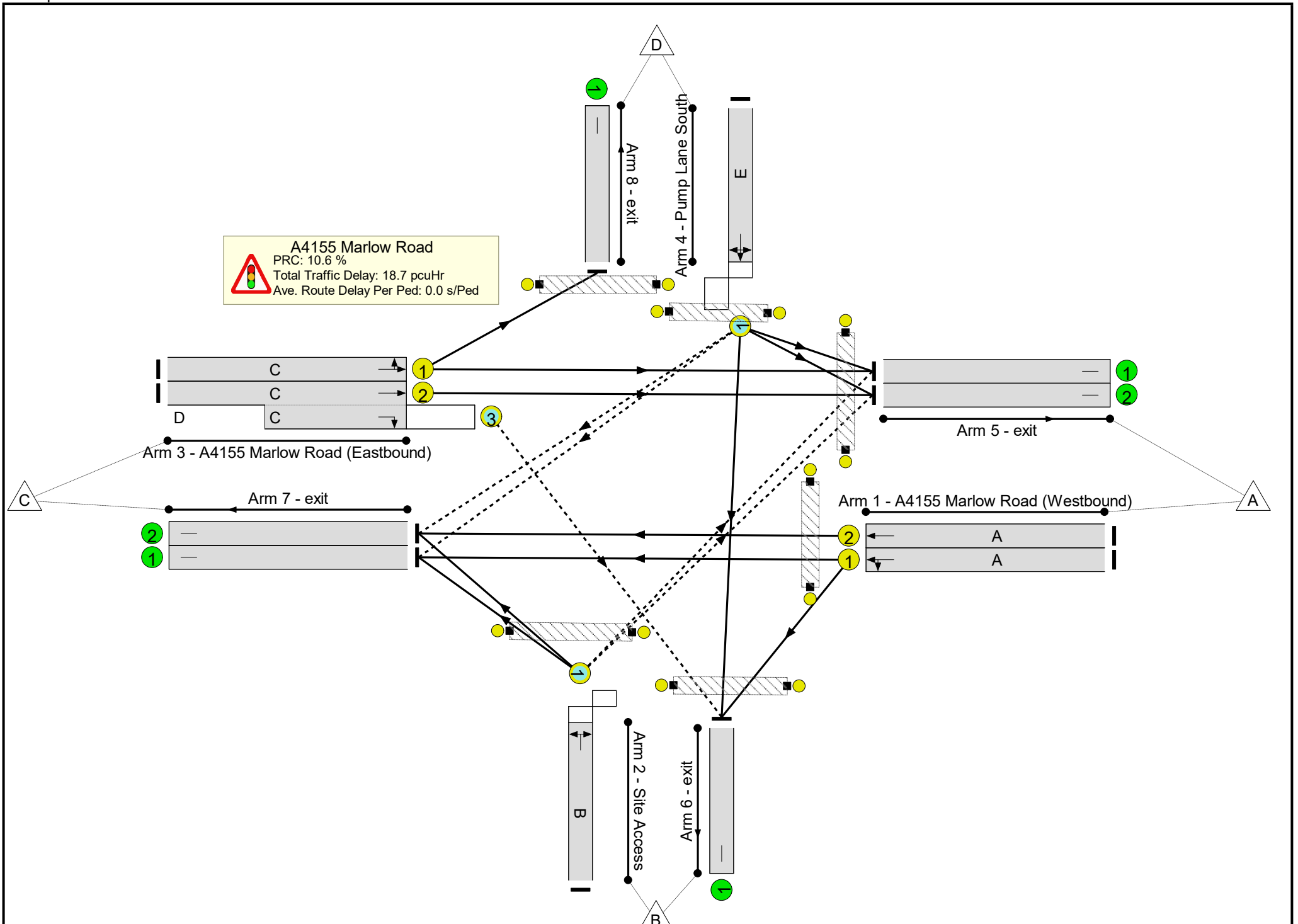
Stage	1	2	3	4	1	2	3
Duration	74	26	7	5	41	22	7
Change Point	0	83	114	131	145	196	223

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A4155 Marlow Road / Site Access Proposed Traffic Signals - No right-turn into PLS	-	-	N/A	-	-		-	-	-	-	-	-	81.4%
A4155 Marlow Road	-	-	N/A	-	-		-	-	-	-	-	-	81.4%
1/1	A4155 Marlow Road (Westbound) Left Ahead	U	N/A	N/A	A		2	115	-	522	1961	956	54.6%
1/2	A4155 Marlow Road (Westbound) Ahead	U	N/A	N/A	A		2	115	-	521	2119	1033	50.4%
2/1	Site Access Right Left	O	N/A	N/A	B		2	14	-	82	1852	123	66.4%
3/1	A4155 Marlow Road (Eastbound) Ahead Left	U	N/A	N/A	C		2	177	-	500	1937	1445	34.6%
3/2+3/3	A4155 Marlow Road (Eastbound) Ahead Right	U+O	N/A	N/A	C	D	2	177	58	1003	2055:1935	615+618	81.4 : 81.4%
4/1	Pump Lane South Left Ahead Right	O	N/A	N/A	E		2	14	-	5	1853	105	4.8%
5/1	exit	U	N/A	N/A	-		-	-	-	496	Inf	Inf	0.0%
5/2	exit	U	N/A	N/A	-		-	-	-	508	Inf	Inf	0.0%
6/1	exit	U	N/A	N/A	-		-	-	-	575	Inf	Inf	0.0%
7/1	exit	U	N/A	N/A	-		-	-	-	486	Inf	Inf	0.0%
7/2	exit	U	N/A	N/A	-		-	-	-	558	Inf	Inf	0.0%
8/1	exit	U	N/A	N/A	-		-	-	-	10	Inf	Inf	0.0%

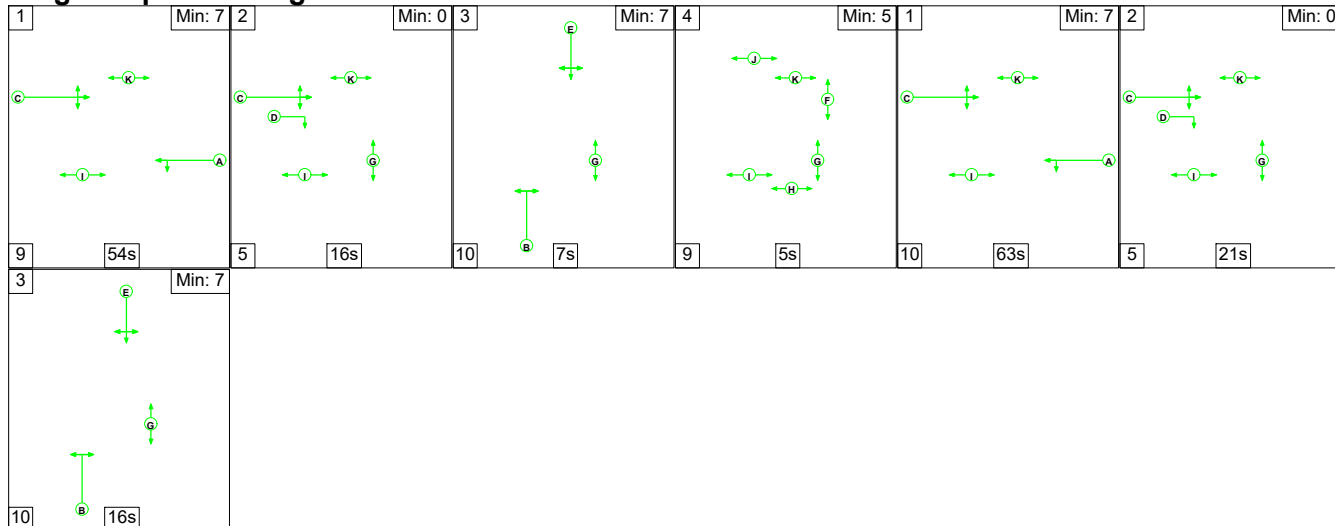
Full Input Data And Results

Ped Link: P1	Unnamed Ped Link	-	N/A	-	J		1	14	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	K		2	196	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		2	96	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	H		1	6	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	I		2	196	-	0	-	0	0.0%

Full Input Data And Results

Scenario 5: '2027 Base + Dev 08:00 to 09:00 AM' (FG5: '2027 Base + Dev 08:00 to 09:00 AM', Plan 1: 'Network Control Plan 1')

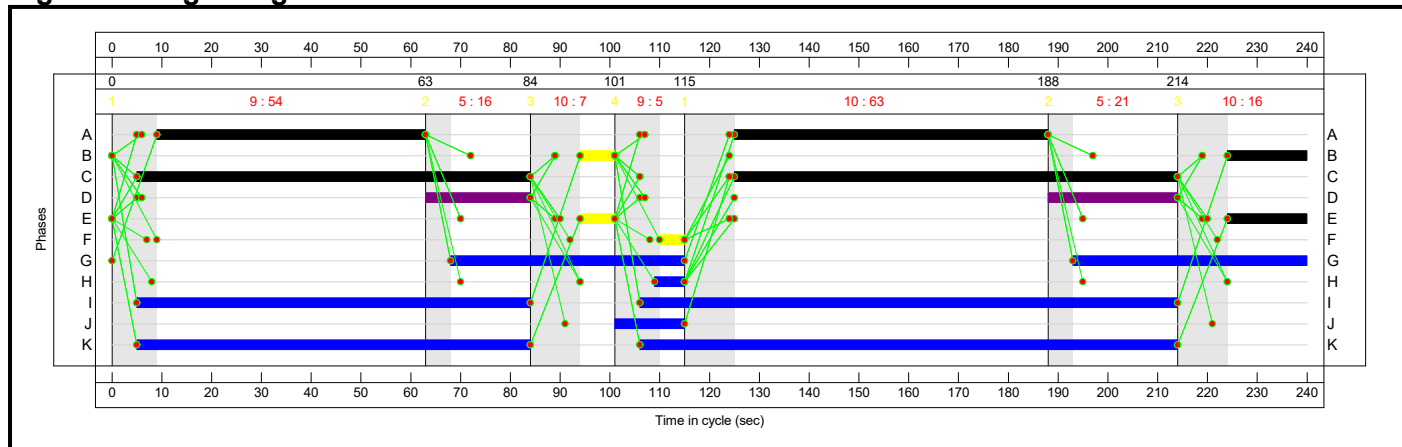
Stage Sequence Diagram



Stage Timings

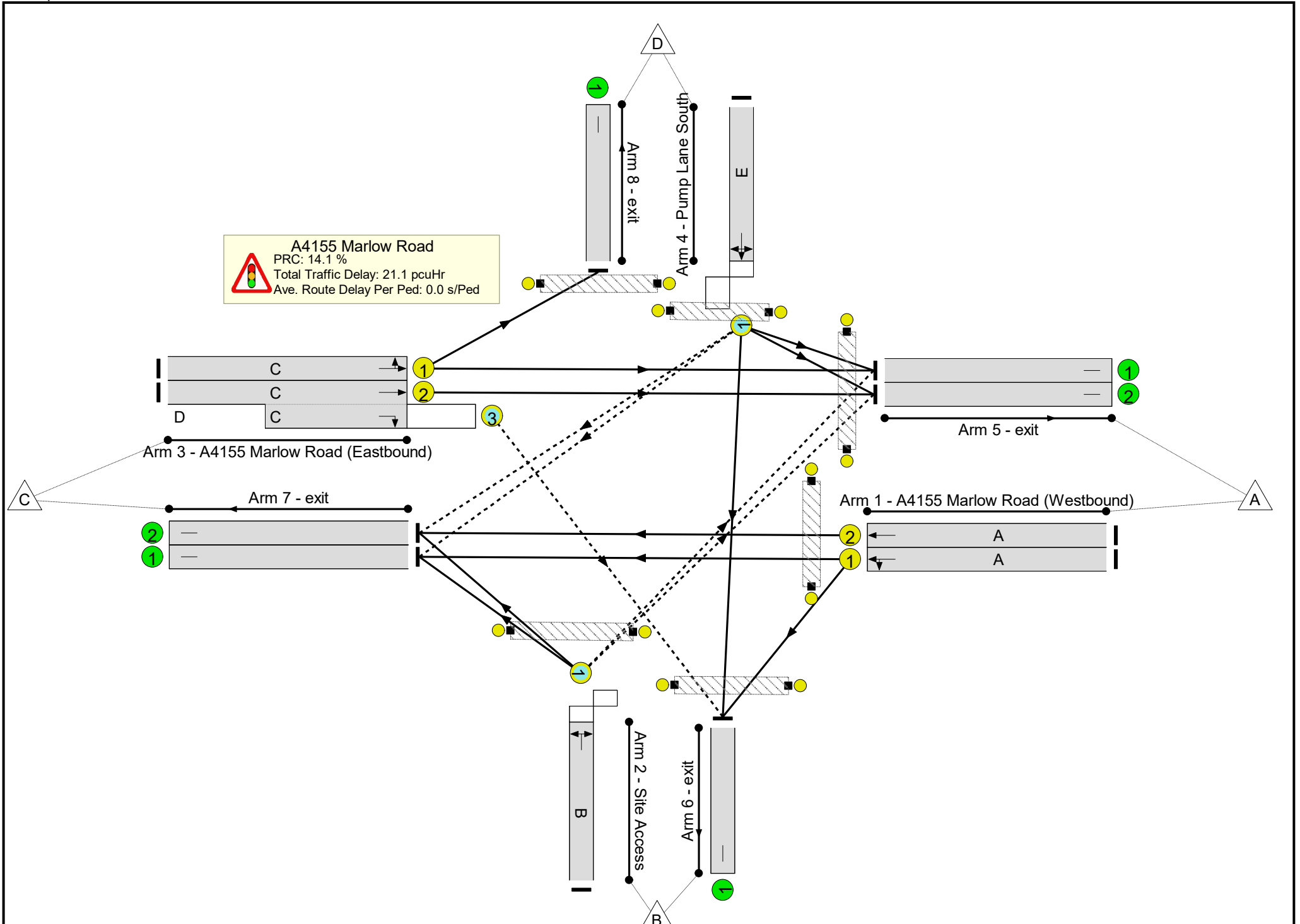
Stage	1	2	3	4	1	2	3
Duration	54	16	7	5	63	21	16
Change Point	0	63	84	101	115	188	214

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A4155 Marlow Road / Site Access Proposed Traffic Signals - No right-turn into PLS	-	-	N/A	-	-		-	-	-	-	-	-	78.9%
A4155 Marlow Road	-	-	N/A	-	-		-	-	-	-	-	-	78.9%
1/1	A4155 Marlow Road (Westbound) Left Ahead	U	N/A	N/A	A		2	117	-	603	1969	976	61.8%
1/2	A4155 Marlow Road (Westbound) Ahead	U	N/A	N/A	A		2	117	-	602	2119	1051	57.3%
2/1	Site Access Right Left	O	N/A	N/A	B		2	23	-	147	1849	193	76.3%
3/1	A4155 Marlow Road (Eastbound) Ahead Left	U	N/A	N/A	C		2	168	-	517	1935	1371	37.7%
3/2+3/3	A4155 Marlow Road (Eastbound) Ahead Right	U+O	N/A	N/A	C	D	2	168	47	890	2055:1935	655+473	78.9 : 78.9%
4/1	Pump Lane South Left Ahead Right	O	N/A	N/A	E		2	23	-	5	1853	98	5.1%
5/1	exit	U	N/A	N/A	-		-	-	-	509	Inf	Inf	0.0%
5/2	exit	U	N/A	N/A	-		-	-	-	528	Inf	Inf	0.0%
6/1	exit	U	N/A	N/A	-		-	-	-	427	Inf	Inf	0.0%
7/1	exit	U	N/A	N/A	-		-	-	-	615	Inf	Inf	0.0%
7/2	exit	U	N/A	N/A	-		-	-	-	668	Inf	Inf	0.0%
8/1	exit	U	N/A	N/A	-		-	-	-	17	Inf	Inf	0.0%

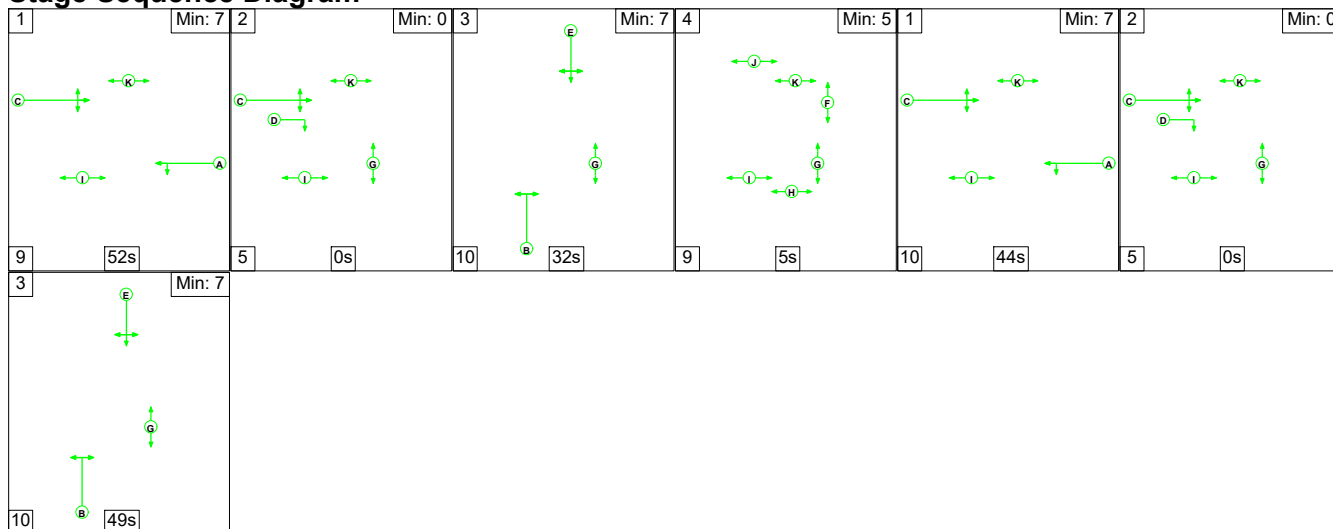
Full Input Data And Results

Ped Link: P1	Unnamed Ped Link	-	N/A	-	J		1	14	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	K		2	187	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		2	94	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	H		1	6	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	I		2	187	-	0	-	0	0.0%

Full Input Data And Results

Scenario 6: '2027 Base + Dev 17:00 to 18:00 PM' (FG6: '2027 Base + Dev 17:00 to 18:00 PM', Plan 1: 'Network Control Plan 1')

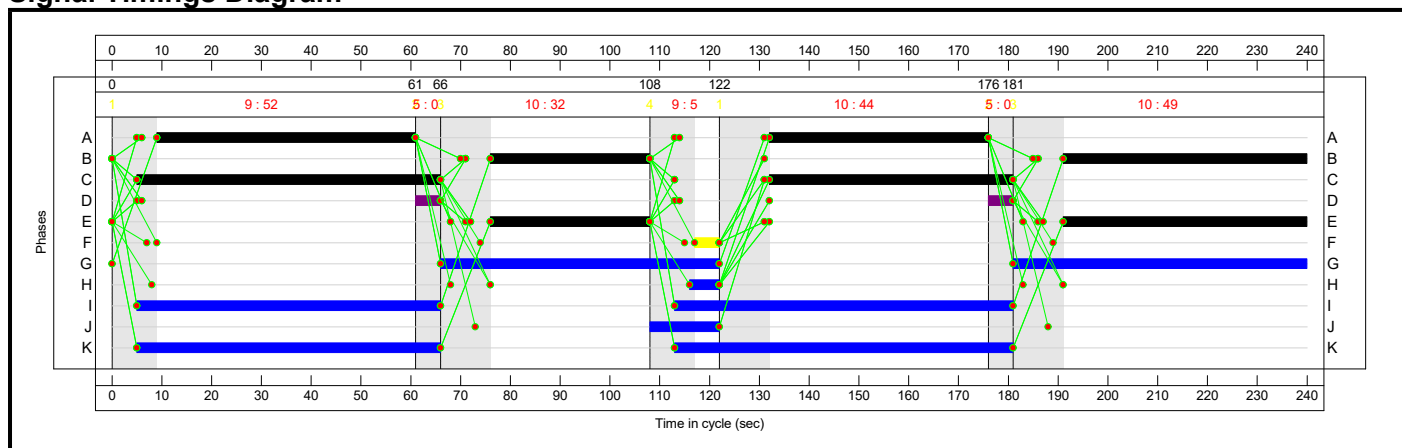
Stage Sequence Diagram



Stage Timings

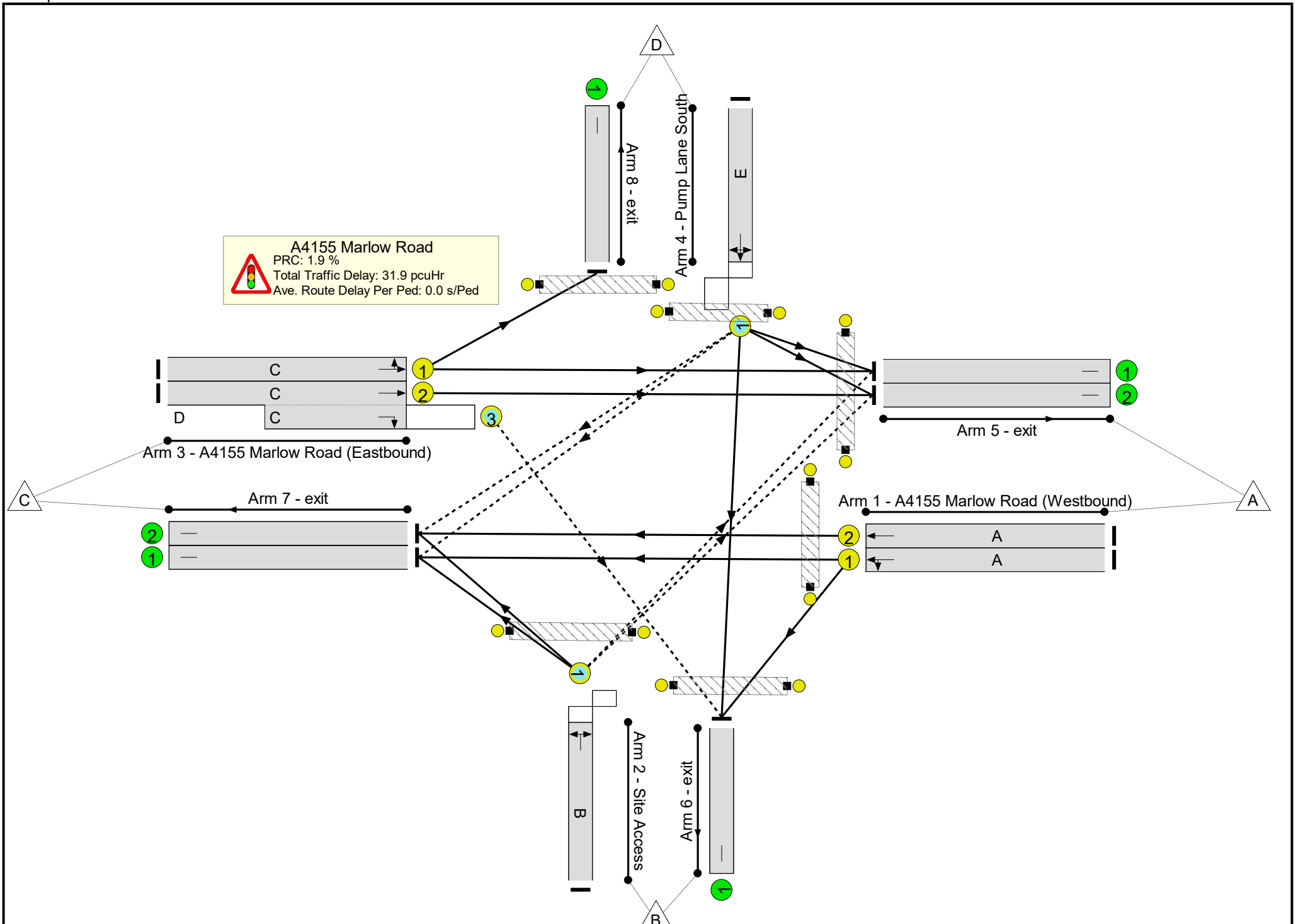
Stage	1	2	3	4	1	2	3
Duration	52	0	32	5	44	0	49
Change Point	0	61	66	108	122	176	181

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A4155 Marlow Road / Site Access Proposed Traffic Signals - No right-turn into PLS	-	-	N/A	-	-		-	-	-	-	-	-	88.3%
A4155 Marlow Road	-	-	N/A	-	-		-	-	-	-	-	-	88.3%
1/1	A4155 Marlow Road (Westbound) Left Ahead	U	N/A	N/A	A		2	96	-	472	1976	807	58.5%
1/2	A4155 Marlow Road (Westbound) Ahead	U	N/A	N/A	A		2	96	-	471	2119	865	54.4%
2/1	Site Access Right Left	O	N/A	N/A	B		2	81	-	564	1847	639	88.3%
3/1	A4155 Marlow Road (Eastbound) Ahead Left	U	N/A	N/A	C		2	110	-	646	1933	902	71.6%
3/2+3/3	A4155 Marlow Road (Eastbound) Ahead Right	U+O	N/A	N/A	C	D	2	110	10	782	2055:1935	842+179	76.6 : 76.6%
4/1	Pump Lane South Left Ahead Right	O	N/A	N/A	E		2	81	-	32	1848	197	16.3%
5/1	exit	U	N/A	N/A	-		-	-	-	659	Inf	Inf	0.0%
5/2	exit	U	N/A	N/A	-		-	-	-	686	Inf	Inf	0.0%
6/1	exit	U	N/A	N/A	-		-	-	-	160	Inf	Inf	0.0%
7/1	exit	U	N/A	N/A	-		-	-	-	707	Inf	Inf	0.0%
7/2	exit	U	N/A	N/A	-		-	-	-	729	Inf	Inf	0.0%
8/1	exit	U	N/A	N/A	-		-	-	-	26	Inf	Inf	0.0%

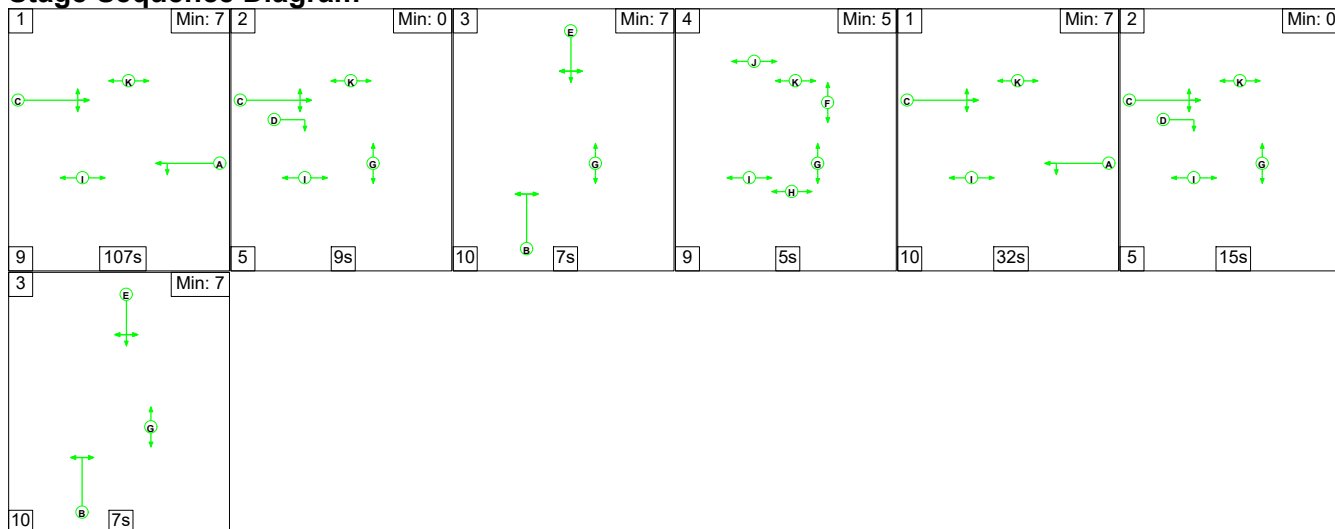
Full Input Data And Results

Ped Link: P1	Unnamed Ped Link	-	N/A	-	J		1	14	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	K		2	129	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		2	115	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	H		1	6	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	I		2	129	-	0	-	0	0.0%

Full Input Data And Results

Scenario 7: '2027 Base + Dev 07:00 to 08:00 STS AM' (FG7: '2027 Base + Dev STS 07:00 to 08:00 AM', Plan 1: 'Network Control Plan 1')

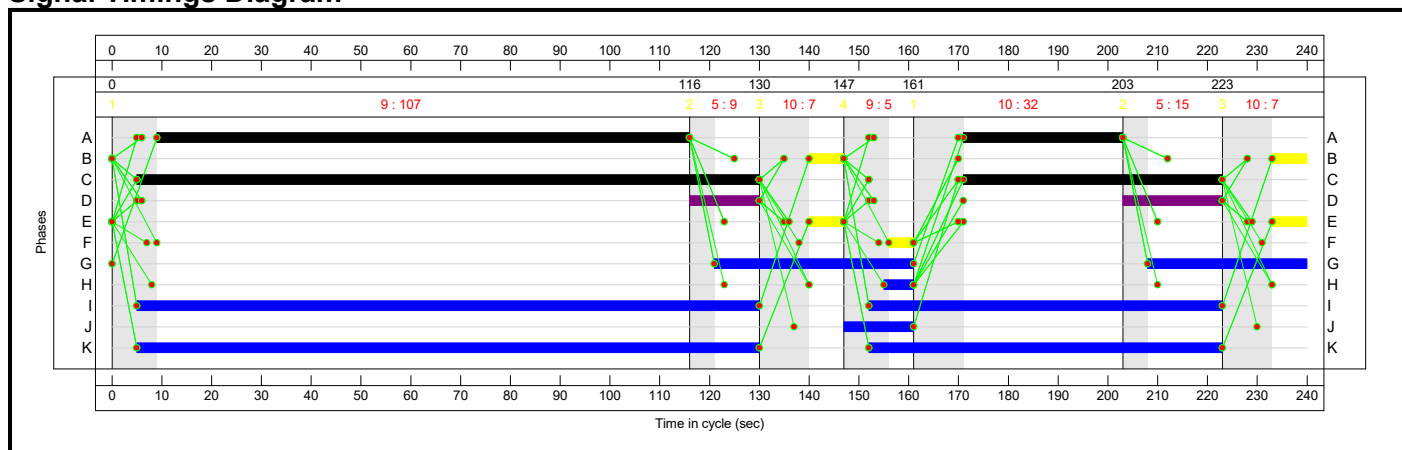
Stage Sequence Diagram



Stage Timings

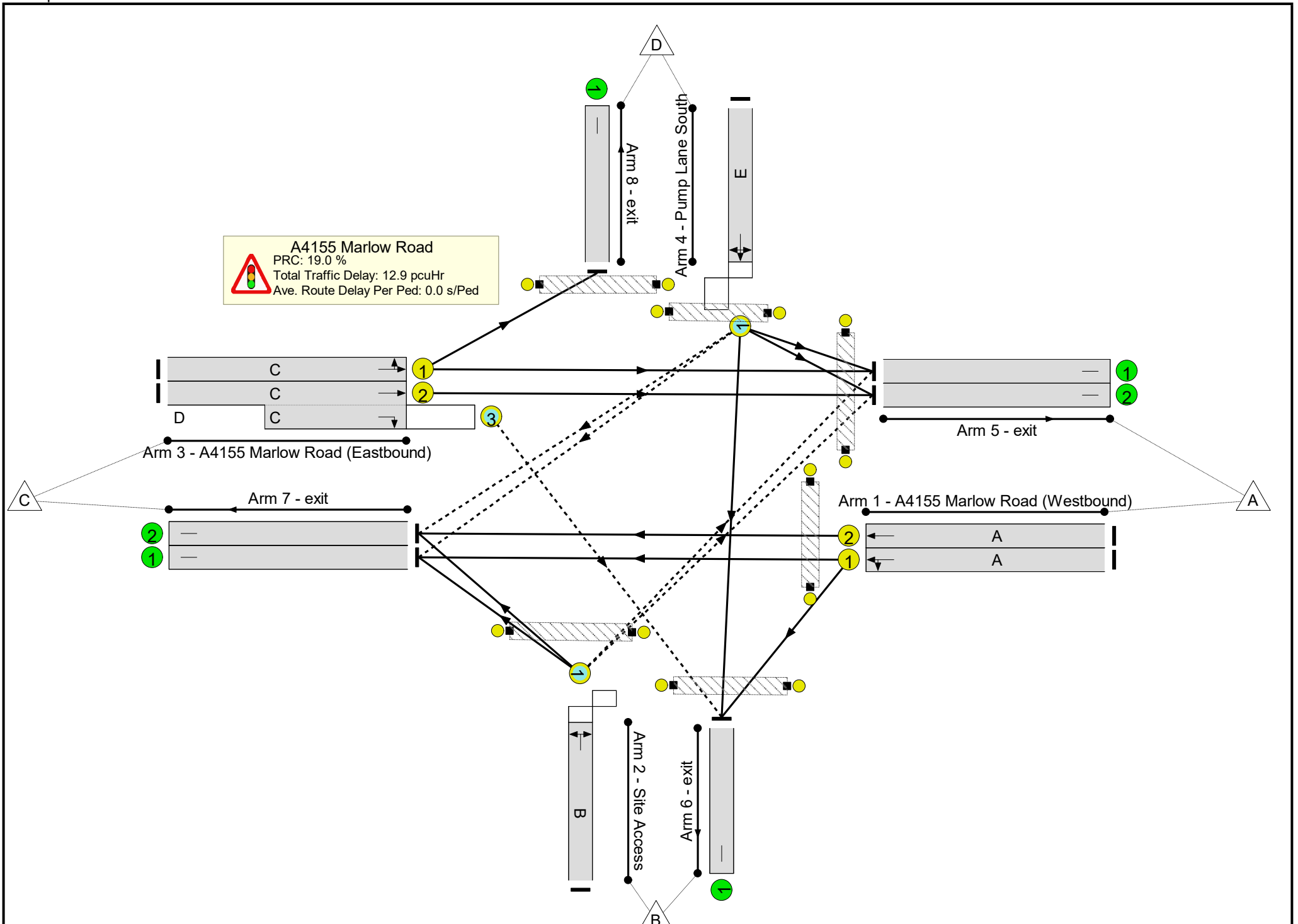
Stage	1	2	3	4	1	2	3
Duration	107	9	7	5	32	15	7
Change Point	0	116	130	147	161	203	223

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A4155 Marlow Road / Site Access Proposed Traffic Signals - No right-turn into PLS	-	-	N/A	-	-		-	-	-	-	-	-	75.7%
A4155 Marlow Road	-	-	N/A	-	-		-	-	-	-	-	-	75.7%
1/1	A4155 Marlow Road (Westbound) Left Ahead	U	N/A	N/A	A		2	139	-	512	1967	1156	44.3%
1/2	A4155 Marlow Road (Westbound) Ahead	U	N/A	N/A	A		2	139	-	511	2119	1245	41.0%
2/1	Site Access Right Left	O	N/A	N/A	B		2	14	-	62	1853	124	50.2%
3/1	A4155 Marlow Road (Eastbound) Ahead Left	U	N/A	N/A	C		2	177	-	500	1937	1445	34.6%
3/2+3/3	A4155 Marlow Road (Eastbound) Ahead Right	U+O	N/A	N/A	C	D	2	177	34	861	2055:1935	661+477	75.7 : 75.7%
4/1	Pump Lane South Left Ahead Right	O	N/A	N/A	E		2	14	-	5	1853	105	4.8%
5/1	exit	U	N/A	N/A	-		-	-	-	495	Inf	Inf	0.0%
5/2	exit	U	N/A	N/A	-		-	-	-	506	Inf	Inf	0.0%
6/1	exit	U	N/A	N/A	-		-	-	-	413	Inf	Inf	0.0%
7/1	exit	U	N/A	N/A	-		-	-	-	488	Inf	Inf	0.0%
7/2	exit	U	N/A	N/A	-		-	-	-	539	Inf	Inf	0.0%
8/1	exit	U	N/A	N/A	-		-	-	-	10	Inf	Inf	0.0%

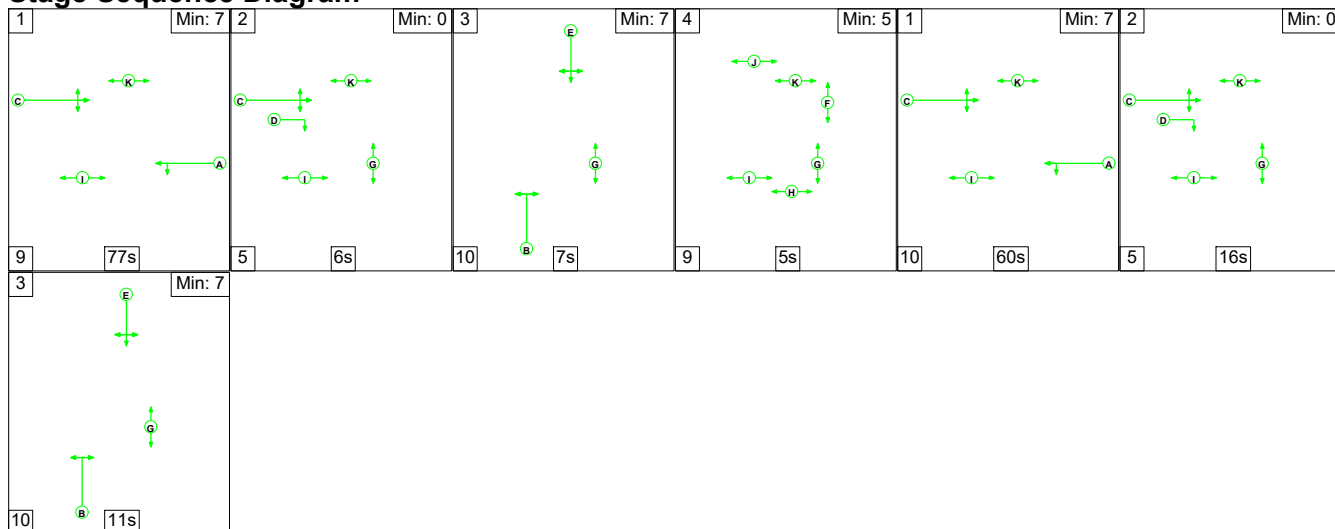
Full Input Data And Results

Ped Link: P1	Unnamed Ped Link	-	N/A	-	J		1	14	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	K		2	196	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		2	72	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	H		1	6	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	I		2	196	-	0	-	0	0.0%

Full Input Data And Results

Scenario 8: '2027 Base + Dev 08:00 to 09:00 STS AM' (FG8: '2027 Base + Dev STS 08:00 to 09:00 AM', Plan 1: 'Network Control Plan 1')

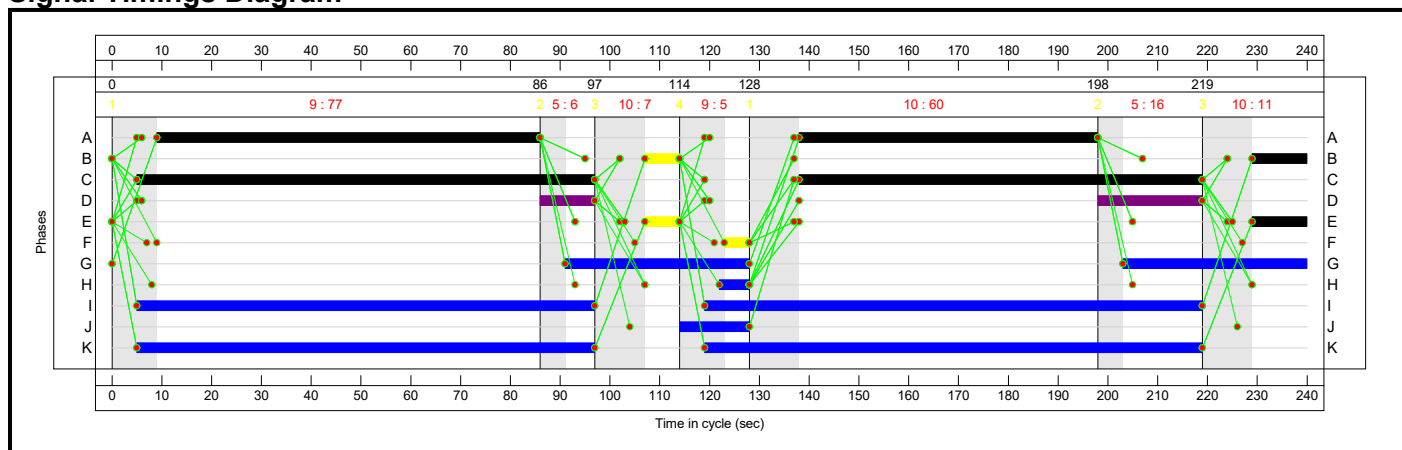
Stage Sequence Diagram



Stage Timings

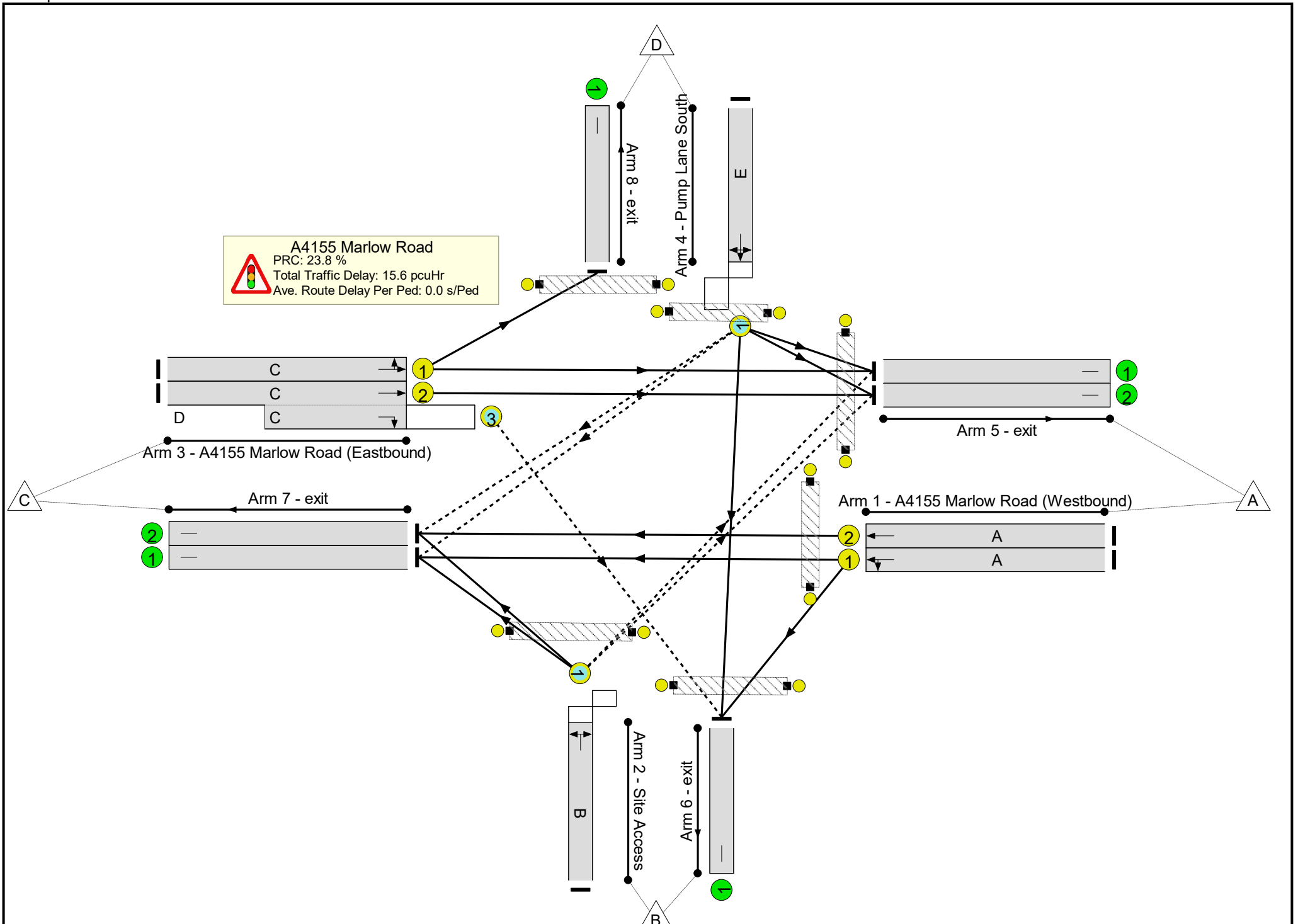
Stage	1	2	3	4	1	2	3
Duration	77	6	7	5	60	16	11
Change Point	0	86	97	114	128	198	219

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A4155 Marlow Road / Site Access Proposed Traffic Signals - No right-turn into PLS	-	-	N/A	-	-		-	-	-	-	-	-	72.7%
A4155 Marlow Road	-	-	N/A	-	-		-	-	-	-	-	-	72.7%
1/1	A4155 Marlow Road (Westbound) Left Ahead	U	N/A	N/A	A		2	137	-	595	1973	1143	52.1%
1/2	A4155 Marlow Road (Westbound) Ahead	U	N/A	N/A	A		2	137	-	595	2119	1227	48.5%
2/1	Site Access Right Left	O	N/A	N/A	B		2	18	-	112	1849	154	72.7%
3/1	A4155 Marlow Road (Eastbound) Ahead Left	U	N/A	N/A	C		2	173	-	517	1935	1411	36.6%
3/2+3/3	A4155 Marlow Road (Eastbound) Ahead Right	U+O	N/A	N/A	C	D	2	173	32	787	2055:1935	716+374	72.2 : 72.2%
4/1	Pump Lane South Left Ahead Right	O	N/A	N/A	E		2	18	-	5	1853	97	5.1%
5/1	exit	U	N/A	N/A	-		-	-	-	507	Inf	Inf	0.0%
5/2	exit	U	N/A	N/A	-		-	-	-	526	Inf	Inf	0.0%
6/1	exit	U	N/A	N/A	-		-	-	-	309	Inf	Inf	0.0%
7/1	exit	U	N/A	N/A	-		-	-	-	606	Inf	Inf	0.0%
7/2	exit	U	N/A	N/A	-		-	-	-	646	Inf	Inf	0.0%
8/1	exit	U	N/A	N/A	-		-	-	-	17	Inf	Inf	0.0%

Full Input Data And Results

Ped Link: P1	Unnamed Ped Link	-	N/A	-	J		1	14	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	K		2	192	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		2	74	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	H		1	6	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	I		2	192	-	0	-	0	0.0%

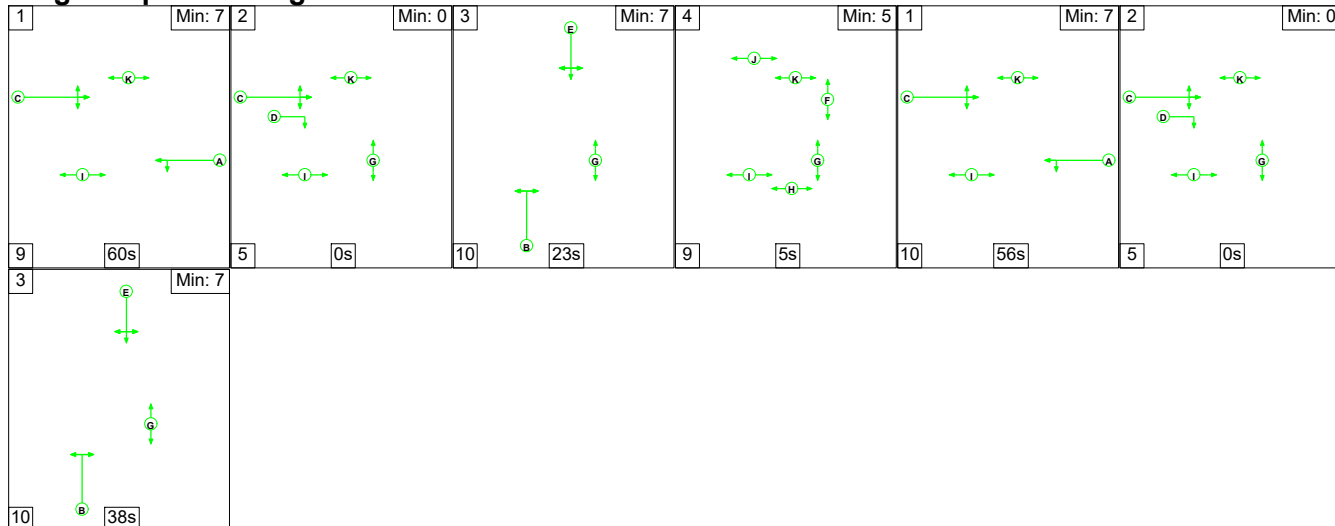
Full Input Data And Results

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: A4155 Marlow Road / Site Access Proposed Traffic Signals - No right-turn into PLS	-	-	73	182	34	9.3	3.9	2.4	15.6	-	-	-	-
A4155 Marlow Road	-	-	73	182	34	9.3	3.9	2.4	15.6	-	-	-	-
1/1	595	595	-	-	-	2.5	0.5	-	3.1	18.5	12.1	0.5	12.6
1/2	595	595	-	-	-	2.4	0.5	-	2.9	17.6	11.6	0.5	12.0
2/1	112	112	15	0	0	1.7	1.3	0.0	2.9	94.1	3.8	1.3	5.0
3/1	517	517	-	-	-	0.9	0.3	-	1.2	8.3	7.8	0.3	8.0
3/2+3/3	787	787	56	182	32	1.7	1.3	2.4	5.4	24.5	7.6	1.3	8.9
4/1	5	5	2	0	2	0.1	0.0	0.0	0.1	75.7	0.2	0.0	0.2
5/1	507	507	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	526	526	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	309	309	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	606	606	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	646	646	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	17	17	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
C1			PRC for Signalled Lanes (%):	23.8	Total Delay for Signalled Lanes (pcuHr):			15.55	Cycle Time (s): 240				
			PRC Over All Lanes (%):	23.8	Total Delay Over All Lanes (pcuHr):			15.55					

Full Input Data And Results

Scenario 9: '2027 Base + Dev 17:00 to 18:00 STS PM' (FG9: '2027 Base + Dev STS 17:00 to 18:00 PM', Plan 1: 'Network Control Plan 1')

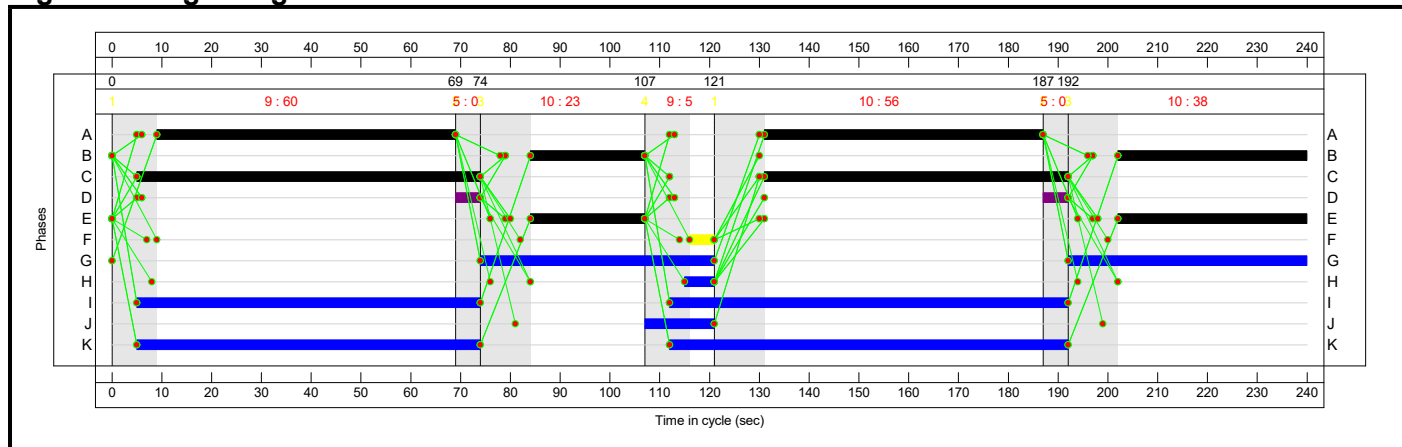
Stage Sequence Diagram



Stage Timings

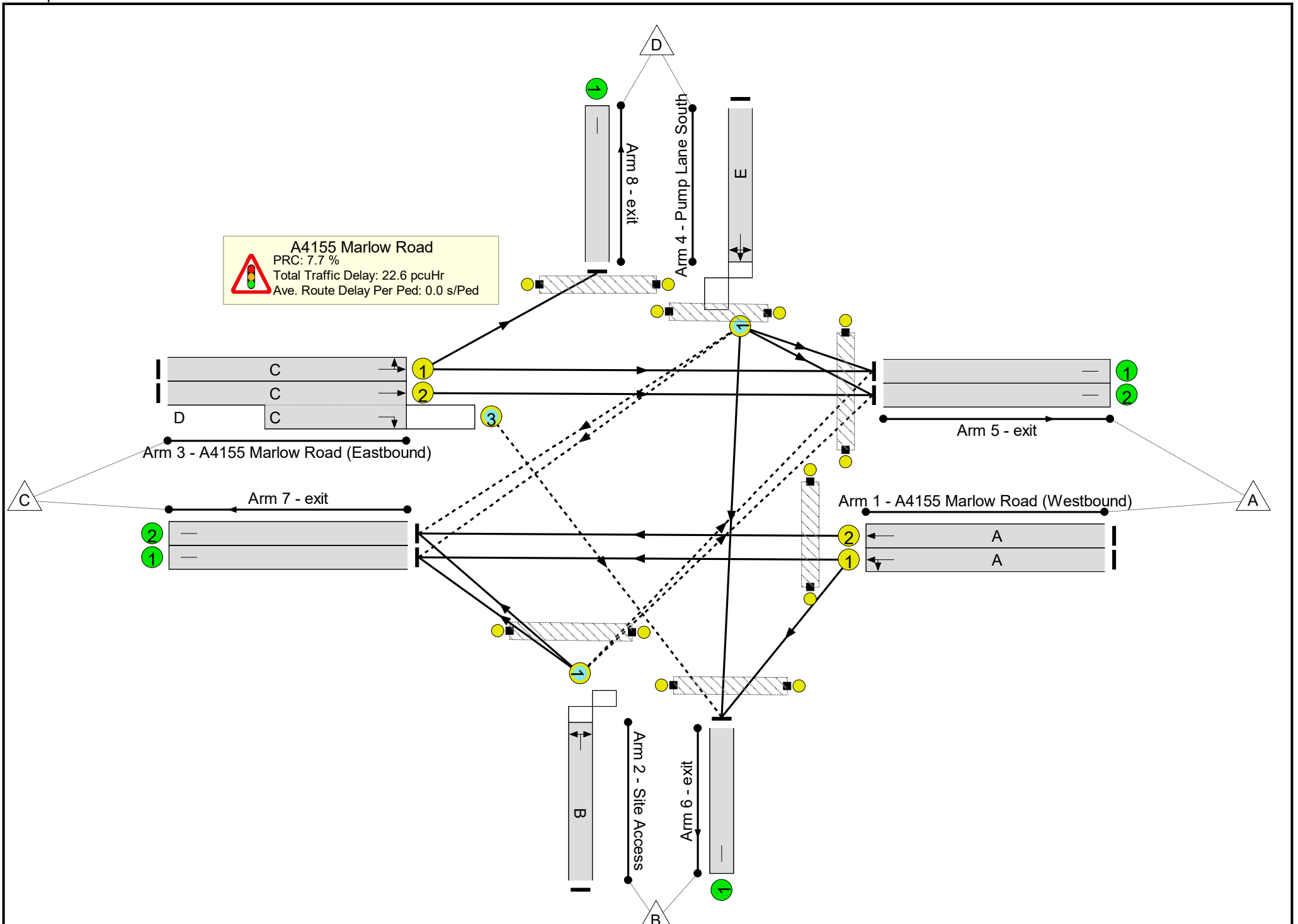
Stage	1	2	3	4	1	2	3
Duration	60	0	23	5	56	0	38
Change Point	0	69	74	107	121	187	192

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A4155 Marlow Road / Site Access Proposed Traffic Signals - No right-turn into PLS	-	-	N/A	-	-		-	-	-	-	-	-	83.5%
A4155 Marlow Road	-	-	N/A	-	-		-	-	-	-	-	-	83.5%
1/1	A4155 Marlow Road (Westbound) Left Ahead	U	N/A	N/A	A		2	116	-	469	1978	973	48.2%
1/2	A4155 Marlow Road (Westbound) Ahead	U	N/A	N/A	A		2	116	-	469	2119	1042	45.0%
2/1	Site Access Right Left	O	N/A	N/A	B		2	61	-	405	1847	485	83.5%
3/1	A4155 Marlow Road (Eastbound) Ahead Left	U	N/A	N/A	C		2	130	-	646	1933	1063	60.8%
3/2+3/3	A4155 Marlow Road (Eastbound) Ahead Right	U+O	N/A	N/A	C	D	2	130	10	744	2055:1935	1020+157	63.3 : 63.3%
4/1	Pump Lane South Left Ahead Right	O	N/A	N/A	E		2	61	-	32	1848	186	17.2%
5/1	exit	U	N/A	N/A	-		-	-	-	650	Inf	Inf	0.0%
5/2	exit	U	N/A	N/A	-		-	-	-	676	Inf	Inf	0.0%
6/1	exit	U	N/A	N/A	-		-	-	-	117	Inf	Inf	0.0%
7/1	exit	U	N/A	N/A	-		-	-	-	639	Inf	Inf	0.0%
7/2	exit	U	N/A	N/A	-		-	-	-	657	Inf	Inf	0.0%
8/1	exit	U	N/A	N/A	-		-	-	-	26	Inf	Inf	0.0%

Full Input Data And Results

Ped Link: P1	Unnamed Ped Link	-	N/A	-	J		1	14	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	K		2	149	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		2	95	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	H		1	6	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	I		2	149	-	0	-	0	0.0%

Full Input Data And Results

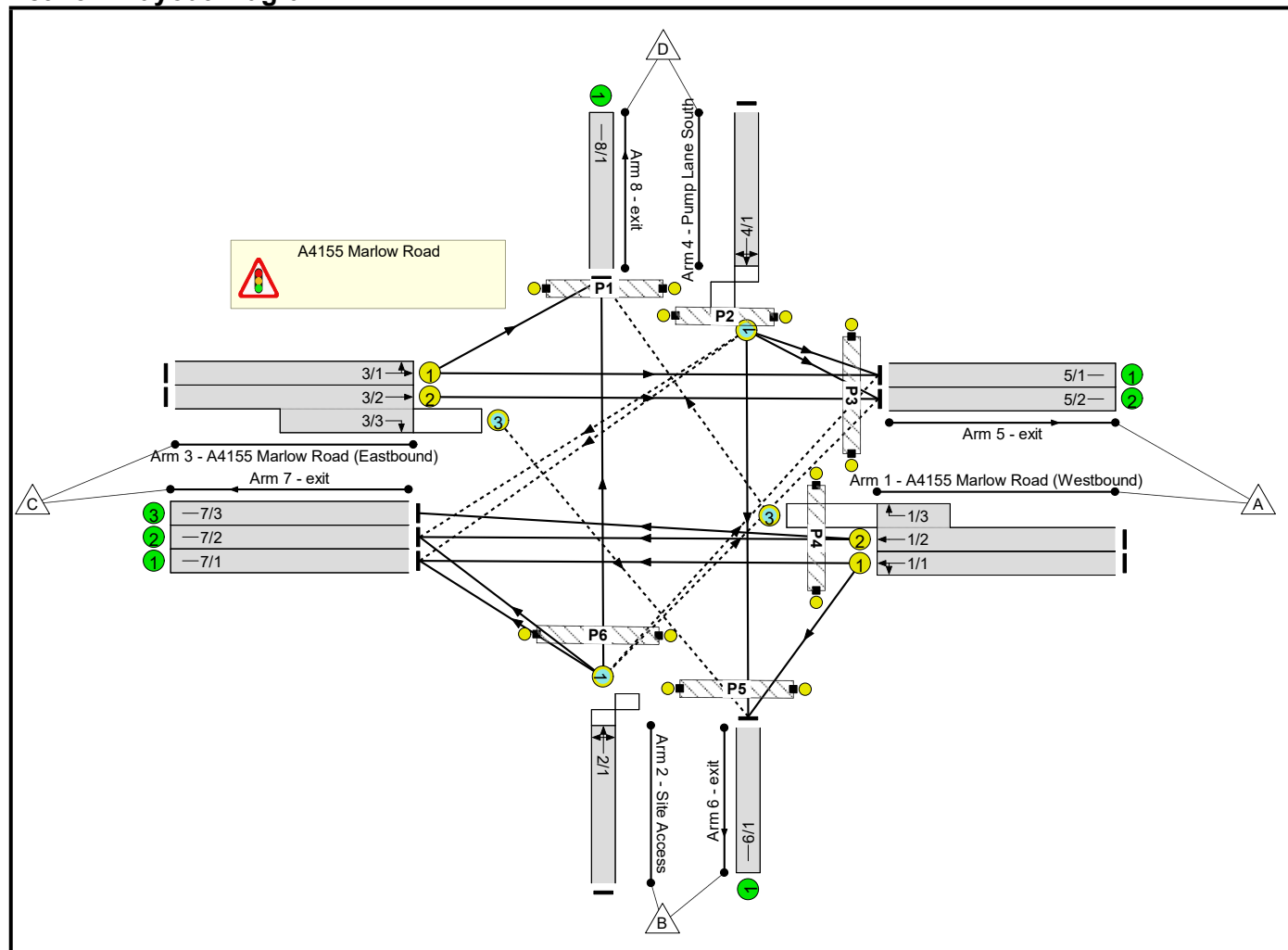
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A4155 Marlow Road / Site Access Proposed Traffic Signals - No right-turn into PLS	-	-	151	2	12	17.1	5.0	0.5	22.6	-	-	-	-
A4155 Marlow Road	-	-	151	2	12	17.1	5.0	0.5	22.6	-	-	-	-
1/1	469	469	-	-	-	2.6	0.5	-	3.1	23.9	10.3	0.5	10.8
1/2	469	469	-	-	-	2.6	0.4	-	3.0	23.1	10.2	0.4	10.6
2/1	405	405	47	0	1	4.7	2.4	0.0	7.1	63.3	13.5	2.4	15.9
3/1	646	646	-	-	-	3.3	0.8	-	4.1	22.6	15.1	0.8	15.8
3/2+3/3	744	744	93	2	3	3.6	0.9	0.4	4.8	23.4	15.8	0.9	16.6
4/1	32	32	11	0	7	0.3	0.1	0.1	0.5	52.9	0.8	0.1	0.9
5/1	650	650	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	676	676	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	117	117	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	639	639	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	657	657	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	26	26	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P5	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P6	0	0	-	-	-	-	-	-	-	-	-	-	-
<p>C1 PRC for Signalled Lanes (%): 7.7 Total Delay for Signalled Lanes (pcuHr): 22.60 Cycle Time (s): 240</p> <p> PRC Over All Lanes (%): 7.7 Total Delay Over All Lanes(pcuHr): 22.60</p>													

Full Input Data And Results
Full Input Data And Results

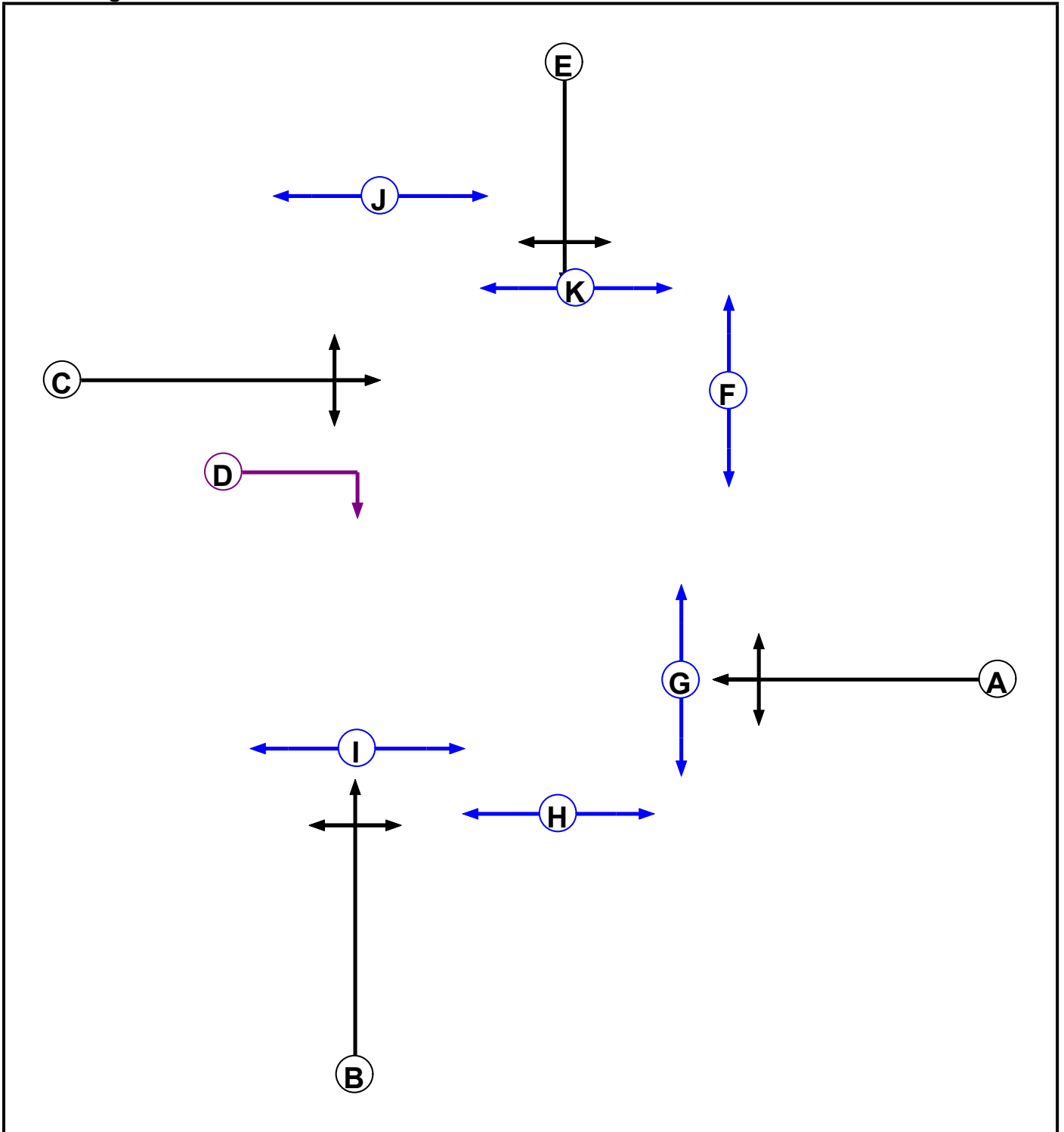
User and Project Details

Project:	Marlow Studio Project
Title:	A4155 Marlow Road / Site Access Proposed Traffic Signals - With Right-turn into PLS
Location:	A4155 Marlow Road / Pump Lane South / Westhorpe House Access
Client:	Dido Property Ltd
Design Layout Ref:	Based on AECOM Dwg No. 60654980-ACM-XX-XX-M2-HW-000007 (Draft v1.1)
Additional detail:	
File name:	A4155_Site Access Prop Sigs (With R-Tn to PLS)_Based on AECOM Draft v1.1 (1in2 Peds) 240s.lsg3x
Author:	CSMS4
Company:	Waterman
Address:	Pickfords Wharf, Clink St, London SE1 9DG

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	Traffic		7	7
D	Ind. Arrow	C	4	4
E	Traffic		7	7
F	Pedestrian		5	5
G	Pedestrian		5	5
H	Pedestrian		5	5
I	Pedestrian		5	5
J	Pedestrian		5	5
K	Pedestrian		5	5

Phase Intergreens Matrix

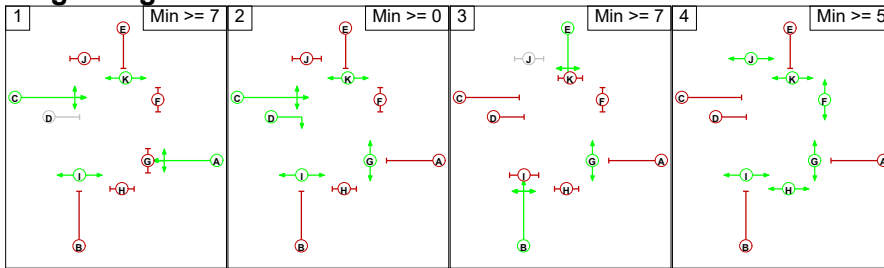
		Starting Phase										
		A	B	C	D	E	F	G	H	I	J	K
Terminating Phase	A		9	-	-	7	-	5	7	-	-	-
	B	6		5	6	-	9	-	-	5	-	-
	C	-	5		-	6	8	-	10	-	7	-
	D	-	5	-		5	-	-	10	-	-	-
	E	5	-	5	5		7	-	8	-	-	5
	F	-	9	9	-	9		-	-	-	-	-
	G	9	-	-	-	-	-		-	-	-	-
	H	10	-	10	10	10	-	-		-	-	-
	I	-	10	-	-	-	-	-	-		-	-
	J	-	-	9	-	-	-	-	-	-		-
	K	-	-	-	-	10	-	-	-	-	-	

Phases in Stage

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

Full Input Data And Results

Stage Diagram



Phase Delays

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

Prohibited Stage Change

		To Stage			
		1	2	3	4
From Stage	1		5	10	10
	2	9		10	10
	3	9	6		9
	4	10	10	10	

Full Input Data And Results

Give-Way Lane Input Data

Junction: A4155 Marlow Road											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
1/3 (A4155 Marlow Road Westbound))	8/1 (Right)	1439	0	3/1	1.09	All	5.70	-	0.50	6	2.00
2/1 (Site Access)	5/1 (Right)	1439	0	4/1	1.09	To 5/1 (Left) To 5/2 (Left) To 6/1 (Ahead)	2.00	1.00	0.50	2	2.00
	5/2 (Right)	1439	0	4/1	1.09	To 5/1 (Left) To 5/2 (Left) To 6/1 (Ahead)					
3/3 (A4155 Marlow Road Eastbound))	6/1 (Right)	1439	0	1/1	1.09	All	4.30	-	0.50	4	2.00
				1/2	1.09	All					
4/1 (Pump Lane South)	7/1 (Right)	1439	0	2/1	1.09	To 7/1 (Left) To 7/2 (Left)	3.00	2.00	0.50	3	2.00
	7/2 (Right)	1439	0	2/1	1.09	To 7/1 (Left) To 7/2 (Left)					

Full Input Data And Results

Lane Input Data

Junction: A4155 Marlow Road												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (A4155 Marlow Road (Westbound))	U	A	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 6 Left	15.00
											Arm 7 Ahead	Inf
1/2 (A4155 Marlow Road (Westbound))	U	A	2	3	60.0	Geom	-	3.00	0.00	N	Arm 7 Ahead	Inf
1/3 (A4155 Marlow Road (Westbound))	O	A	2	3	4.6	Geom	-	3.25	0.00	N	Arm 8 Right	12.00
2/1 (Site Access)	O	B	2	3	60.0	Geom	-	5.00	0.00	Y	Arm 5 Right	20.00
											Arm 7 Left	10.00
											Arm 8 Ahead	Inf
3/1 (A4155 Marlow Road (Eastbound))	U	C	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 5 Ahead	Inf
											Arm 8 Left	15.00
3/2 (A4155 Marlow Road (Eastbound))	U	C	2	3	60.0	Geom	-	3.00	0.00	N	Arm 5 Ahead	Inf
3/3 (A4155 Marlow Road (Eastbound))	O	C D	2	3	8.4	Geom	-	3.25	0.00	N	Arm 6 Right	12.00
4/1 (Pump Lane South)	O	E	2	3	60.0	Geom	-	3.86	0.00	Y	Arm 5 Left	15.00
											Arm 6 Ahead	Inf
											Arm 7 Right	20.00
5/1 (exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
5/2 (exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1 (exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
7/2 (exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
7/3 (exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

8/1 (exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
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Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2027 Base 07:00 to 08:00 AM'	07:00	08:00	01:00	
2: '2027 Base 08:00 to 09:00 AM'	08:00	09:00	01:00	
3: '2027 Base 17:00 to 18:00 PM'	17:00	18:00	01:00	
4: '2027 Base + Dev 07:00 to 08:00 AM'	07:00	08:00	01:00	
5: '2027 Base + Dev 08:00 to 09:00 AM'	08:00	09:00	01:00	
6: '2027 Base + Dev 17:00 to 18:00 PM'	17:00	18:00	01:00	
7: '2027 Base + Dev STS 07:00 to 08:00 AM'	07:00	08:00	01:00	
8: '2027 Base + Dev STS 08:00 to 09:00 AM'	08:00	09:00	01:00	
9: '2027 Base + Dev STS 17:00 to 18:00 PM'	17:00	18:00	01:00	

Scenario 1: '2027 Base 07:00 to 08:00 AM' (FG1: '2027 Base 07:00 to 08:00 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	4	971	0	975
	B	4	0	7	0	11
	C	990	9	0	10	1009
	D	1	0	4	0	5
	Tot.	995	13	982	10	2000

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: 2027 Base 07:00 to 08:00 AM
Junction: A4155 Marlow Road	
1/1	487
1/2 (with short)	488(In) 488(Out)
1/3 (short)	0
2/1	11
3/1	500
3/2 (with short)	509(In) 500(Out)
3/3 (short)	9
4/1	5
5/1	492
5/2	503
6/1	13
7/1	488
7/2	250
7/3	244
8/1	10

Full Input Data And Results

Lane Saturation Flows

Junction: A4155 Marlow Road								
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 (A4155 Marlow Road (Westbound))	3.00	0.00	Y	Arm 6 Left	15.00	0.8 %	1913	1913
				Arm 7 Ahead	Inf	99.2 %		
1/2 (A4155 Marlow Road (Westbound))	3.00	0.00	N	Arm 7 Ahead	Inf	100.0 %	2055	2055
1/3 (A4155 Marlow Road (Westbound))	3.25	0.00	N	Arm 8 Right	12.00	0.0 %	2080	2080
2/1 (Site Access)	5.00	0.00	Y	Arm 5 Right	20.00	36.4 %	1884	1884
				Arm 7 Left	10.00	63.6 %		
				Arm 8 Ahead	Inf	0.0 %		
3/1 (A4155 Marlow Road (Eastbound))	3.00	0.00	Y	Arm 5 Ahead	Inf	98.0 %	1911	1911
				Arm 8 Left	15.00	2.0 %		
3/2 (A4155 Marlow Road (Eastbound))	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055	2055
3/3 (A4155 Marlow Road (Eastbound))	3.25	0.00	N	Arm 6 Right	12.00	100.0 %	1849	1849
4/1 (Pump Lane South)	3.86	0.00	Y	Arm 5 Left	15.00	20.0 %	1853	1853
				Arm 6 Ahead	Inf	0.0 %		
				Arm 7 Right	20.00	80.0 %		
5/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (exit Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 2: '2027 Base 08:00 to 09:00 AM' (FG2: '2027 Base 08:00 to 09:00 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	4	1151	0	1155
	B	4	0	20	0	24
	C	1017	12	0	17	1046
	D	1	0	4	0	5
	Tot.	1022	16	1175	17	2230

Traffic Lane Flows

Lane	Scenario 2: 2027 Base 08:00 to 09:00 AM
Junction: A4155 Marlow Road	
1/1	577
1/2 (with short)	578(In) 578(Out)
1/3 (short)	0
2/1	24
3/1	517
3/2 (with short)	529(In) 517(Out)
3/3 (short)	12
4/1	5
5/1	502
5/2	520
6/1	16
7/1	585
7/2	301
7/3	289
8/1	17

Full Input Data And Results

Lane Saturation Flows

Junction: A4155 Marlow Road								
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 (A4155 Marlow Road (Westbound))	3.00	0.00	Y	Arm 6 Left	15.00	0.7 %	1914	1914
				Arm 7 Ahead	Inf	99.3 %		
1/2 (A4155 Marlow Road (Westbound))	3.00	0.00	N	Arm 7 Ahead	Inf	100.0 %	2055	2055
1/3 (A4155 Marlow Road (Westbound))	3.25	0.00	N	Arm 8 Right	12.00	0.0 %	2080	2080
2/1 (Site Access)	5.00	0.00	Y	Arm 5 Right	20.00	16.7 %	1859	1859
				Arm 7 Left	10.00	83.3 %		
				Arm 8 Ahead	Inf	0.0 %		
3/1 (A4155 Marlow Road (Eastbound))	3.00	0.00	Y	Arm 5 Ahead	Inf	96.7 %	1909	1909
				Arm 8 Left	15.00	3.3 %		
3/2 (A4155 Marlow Road (Eastbound))	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055	2055
3/3 (A4155 Marlow Road (Eastbound))	3.25	0.00	N	Arm 6 Right	12.00	100.0 %	1849	1849
4/1 (Pump Lane South)	3.86	0.00	Y	Arm 5 Left	15.00	20.0 %	1853	1853
				Arm 6 Ahead	Inf	0.0 %		
				Arm 7 Right	20.00	80.0 %		
5/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (exit Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 3: '2027 Base 17:00 to 18:00 PM' (FG3: '2027 Base 17:00 to 18:00 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	4	918	3	925
	B	0	0	10	2	12
	C	1265	6	0	20	1291
	D	13	1	18	0	32
	Tot.	1278	11	946	25	2260

Traffic Lane Flows

Lane	Scenario 3: 2027 Base 17:00 to 18:00 PM
Junction: A4155 Marlow Road	
1/1	460
1/2 (with short)	465(In) 462(Out)
1/3 (short)	3
2/1	12
3/1	643
3/2 (with short)	648(In) 642(Out)
3/3 (short)	6
4/1	32
5/1	629
5/2	649
6/1	11
7/1	470
7/2	245
7/3	231
8/1	25

Full Input Data And Results

Lane Saturation Flows

Junction: A4155 Marlow Road								
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 (A4155 Marlow Road (Westbound))	3.00	0.00	Y	Arm 6 Left	15.00	0.9 %	1913	1913
				Arm 7 Ahead	Inf	99.1 %		
1/2 (A4155 Marlow Road (Westbound))	3.00	0.00	N	Arm 7 Ahead	Inf	100.0 %	2055	2055
1/3 (A4155 Marlow Road (Westbound))	3.25	0.00	N	Arm 8 Right	12.00	100.0 %	1849	1849
2/1 (Site Access)	5.00	0.00	Y	Arm 5 Right	20.00	0.0 %	1880	1880
				Arm 7 Left	10.00	83.3 %		
				Arm 8 Ahead	Inf	16.7 %		
3/1 (A4155 Marlow Road (Eastbound))	3.00	0.00	Y	Arm 5 Ahead	Inf	96.9 %	1909	1909
				Arm 8 Left	15.00	3.1 %		
3/2 (A4155 Marlow Road (Eastbound))	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055	2055
3/3 (A4155 Marlow Road (Eastbound))	3.25	0.00	N	Arm 6 Right	12.00	100.0 %	1849	1849
4/1 (Pump Lane South)	3.86	0.00	Y	Arm 5 Left	15.00	40.6 %	1848	1848
				Arm 6 Ahead	Inf	3.1 %		
				Arm 7 Right	20.00	56.3 %		
5/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (exit Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 4: '2027 Base + Dev 07:00 to 08:00 AM' (FG4: '2027 Base + Dev 07:00 to 08:00 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	72	971	0	1043
	B	13	0	69	0	82
	C	990	503	0	10	1503
	D	1	0	4	0	5
	Tot.	1004	575	1044	10	2633

Traffic Lane Flows

Lane	Scenario 4: 2027 Base + Dev 07:00 to 08:00 AM
Junction: A4155 Marlow Road	
1/1	521
1/2 (with short)	522(In) 522(Out)
1/3 (short)	0
2/1	82
3/1	500
3/2 (with short)	1003(In) 500(Out)
3/3 (short)	503
4/1	5
5/1	496
5/2	508
6/1	575
7/1	485
7/2	298
7/3	261
8/1	10

Full Input Data And Results

Lane Saturation Flows

Junction: A4155 Marlow Road								
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 (A4155 Marlow Road (Westbound))	3.00	0.00	Y	Arm 6 Left	15.00	13.8 %	1889	1889
				Arm 7 Ahead	Inf	86.2 %		
1/2 (A4155 Marlow Road (Westbound))	3.00	0.00	N	Arm 7 Ahead	Inf	100.0 %	2055	2055
1/3 (A4155 Marlow Road (Westbound))	3.25	0.00	N	Arm 8 Right	12.00	0.0 %	2080	2080
2/1 (Site Access)	5.00	0.00	Y	Arm 5 Right	20.00	15.9 %	1858	1858
				Arm 7 Left	10.00	84.1 %		
				Arm 8 Ahead	Inf	0.0 %		
3/1 (A4155 Marlow Road (Eastbound))	3.00	0.00	Y	Arm 5 Ahead	Inf	98.0 %	1911	1911
				Arm 8 Left	15.00	2.0 %		
3/2 (A4155 Marlow Road (Eastbound))	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055	2055
3/3 (A4155 Marlow Road (Eastbound))	3.25	0.00	N	Arm 6 Right	12.00	100.0 %	1849	1849
4/1 (Pump Lane South)	3.86	0.00	Y	Arm 5 Left	15.00	20.0 %	1853	1853
				Arm 6 Ahead	Inf	0.0 %		
				Arm 7 Right	20.00	80.0 %		
5/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (exit Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 5: '2027 Base + Dev 08:00 to 09:00 AM' (FG5: '2027 Base + Dev 08:00 to 09:00 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	54	1151	0	1205
	B	19	0	128	0	147
	C	1017	373	0	17	1407
	D	1	0	4	0	5
	Tot.	1037	427	1283	17	2764

Traffic Lane Flows

Lane	Scenario 5: 2027 Base + Dev 08:00 to 09:00 AM
Junction: A4155 Marlow Road	
1/1	603
1/2 (with short)	602(In) 602(Out)
1/3 (short)	0
2/1	147
3/1	517
3/2 (with short)	890(In) 517(Out)
3/3 (short)	373
4/1	5
5/1	509
5/2	528
6/1	427
7/1	615
7/2	367
7/3	301
8/1	17

Full Input Data And Results

Lane Saturation Flows

Junction: A4155 Marlow Road								
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 (A4155 Marlow Road (Westbound))	3.00	0.00	Y	Arm 6 Left	15.00	9.0 %	1898	1898
				Arm 7 Ahead	Inf	91.0 %		
1/2 (A4155 Marlow Road (Westbound))	3.00	0.00	N	Arm 7 Ahead	Inf	100.0 %	2055	2055
1/3 (A4155 Marlow Road (Westbound))	3.25	0.00	N	Arm 8 Right	12.00	0.0 %	2080	2080
2/1 (Site Access)	5.00	0.00	Y	Arm 5 Right	20.00	12.9 %	1855	1855
				Arm 7 Left	10.00	87.1 %		
				Arm 8 Ahead	Inf	0.0 %		
3/1 (A4155 Marlow Road (Eastbound))	3.00	0.00	Y	Arm 5 Ahead	Inf	96.7 %	1909	1909
				Arm 8 Left	15.00	3.3 %		
3/2 (A4155 Marlow Road (Eastbound))	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055	2055
3/3 (A4155 Marlow Road (Eastbound))	3.25	0.00	N	Arm 6 Right	12.00	100.0 %	1849	1849
4/1 (Pump Lane South)	3.86	0.00	Y	Arm 5 Left	15.00	20.0 %	1853	1853
				Arm 6 Ahead	Inf	0.0 %		
				Arm 7 Right	20.00	80.0 %		
5/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (exit Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 6: '2027 Base + Dev 17:00 to 18:00 PM' (FG6: '2027 Base + Dev 17:00 to 18:00 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	22	918	3	943
	B	67	0	497	2	566
	C	1265	137	0	20	1422
	D	13	1	18	0	32
	Tot.	1345	160	1433	25	2963

Traffic Lane Flows

Lane	Scenario 6: 2027 Base + Dev 17:00 to 18:00 PM
Junction: A4155 Marlow Road	
1/1	470
1/2 (with short)	473(In) 470(Out)
1/3 (short)	3
2/1	566
3/1	643
3/2 (with short)	779(In) 642(Out)
3/3 (short)	137
4/1	32
5/1	662
5/2	683
6/1	160
7/1	705
7/2	493
7/3	235
8/1	25

Full Input Data And Results

Lane Saturation Flows

Junction: A4155 Marlow Road								
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 (A4155 Marlow Road (Westbound))	3.00	0.00	Y	Arm 6 Left	15.00	4.7 %	1906	1906
				Arm 7 Ahead	Inf	95.3 %		
1/2 (A4155 Marlow Road (Westbound))	3.00	0.00	N	Arm 7 Ahead	Inf	100.0 %	2055	2055
1/3 (A4155 Marlow Road (Westbound))	3.25	0.00	N	Arm 8 Right	12.00	100.0 %	1849	1849
2/1 (Site Access)	5.00	0.00	Y	Arm 5 Right	20.00	11.8 %	1854	1854
				Arm 7 Left	10.00	87.8 %		
				Arm 8 Ahead	Inf	0.4 %		
3/1 (A4155 Marlow Road (Eastbound))	3.00	0.00	Y	Arm 5 Ahead	Inf	96.9 %	1909	1909
				Arm 8 Left	15.00	3.1 %		
3/2 (A4155 Marlow Road (Eastbound))	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055	2055
3/3 (A4155 Marlow Road (Eastbound))	3.25	0.00	N	Arm 6 Right	12.00	100.0 %	1849	1849
4/1 (Pump Lane South)	3.86	0.00	Y	Arm 5 Left	15.00	40.6 %	1848	1848
				Arm 6 Ahead	Inf	3.1 %		
				Arm 7 Right	20.00	56.3 %		
5/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (exit Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 7: '2027 Base + Dev 07:00 to 08:00 STS AM' (FG7: '2027 Base + Dev STS 07:00 to 08:00 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	52	971	0	1023
	B	10	0	52	0	62
	C	990	361	0	10	1361
	D	1	0	4	0	5
	Tot.	1001	413	1027	10	2451

Traffic Lane Flows

Lane	Scenario 7: 2027 Base + Dev 07:00 to 08:00 STS AM
Junction: A4155 Marlow Road	
1/1	511
1/2 (with short)	512(In) 512(Out)
1/3 (short)	0
2/1	62
3/1	500
3/2 (with short)	861(In) 500(Out)
3/3 (short)	361
4/1	5
5/1	495
5/2	506
6/1	413
7/1	487
7/2	284
7/3	256
8/1	10

Full Input Data And Results

Lane Saturation Flows

Junction: A4155 Marlow Road								
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 (A4155 Marlow Road (Westbound))	3.00	0.00	Y	Arm 6 Left	15.00	10.2 %	1896	1896
				Arm 7 Ahead	Inf	89.8 %		
1/2 (A4155 Marlow Road (Westbound))	3.00	0.00	N	Arm 7 Ahead	Inf	100.0 %	2055	2055
1/3 (A4155 Marlow Road (Westbound))	3.25	0.00	N	Arm 8 Right	12.00	0.0 %	2080	2080
2/1 (Site Access)	5.00	0.00	Y	Arm 5 Right	20.00	16.1 %	1859	1859
				Arm 7 Left	10.00	83.9 %		
				Arm 8 Ahead	Inf	0.0 %		
3/1 (A4155 Marlow Road (Eastbound))	3.00	0.00	Y	Arm 5 Ahead	Inf	98.0 %	1911	1911
				Arm 8 Left	15.00	2.0 %		
3/2 (A4155 Marlow Road (Eastbound))	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055	2055
3/3 (A4155 Marlow Road (Eastbound))	3.25	0.00	N	Arm 6 Right	12.00	100.0 %	1849	1849
4/1 (Pump Lane South)	3.86	0.00	Y	Arm 5 Left	15.00	20.0 %	1853	1853
				Arm 6 Ahead	Inf	0.0 %		
				Arm 7 Right	20.00	80.0 %		
5/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (exit Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 8: '2027 Base + Dev 08:00 to 09:00 STS AM' (FG8: '2027 Base + Dev STS 08:00 to 09:00 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	39	1151	0	1190
	B	15	0	97	0	112
	C	1017	270	0	17	1304
	D	1	0	4	0	5
	Tot.	1033	309	1252	17	2611

Traffic Lane Flows

Lane	Scenario 8: 2027 Base + Dev 08:00 to 09:00 STS AM
Junction: A4155 Marlow Road	
1/1	594
1/2 (with short)	596(In) 596(Out)
1/3 (short)	0
2/1	112
3/1	517
3/2 (with short)	787(In) 517(Out)
3/3 (short)	270
4/1	5
5/1	507
5/2	526
6/1	309
7/1	605
7/2	349
7/3	298
8/1	17

Full Input Data And Results

Lane Saturation Flows

Junction: A4155 Marlow Road								
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 (A4155 Marlow Road (Westbound))	3.00	0.00	Y	Arm 6 Left	15.00	6.6 %	1903	1903
				Arm 7 Ahead	Inf	93.4 %		
1/2 (A4155 Marlow Road (Westbound))	3.00	0.00	N	Arm 7 Ahead	Inf	100.0 %	2055	2055
1/3 (A4155 Marlow Road (Westbound))	3.25	0.00	N	Arm 8 Right	12.00	0.0 %	2080	2080
2/1 (Site Access)	5.00	0.00	Y	Arm 5 Right	20.00	13.4 %	1855	1855
				Arm 7 Left	10.00	86.6 %		
				Arm 8 Ahead	Inf	0.0 %		
3/1 (A4155 Marlow Road (Eastbound))	3.00	0.00	Y	Arm 5 Ahead	Inf	96.7 %	1909	1909
				Arm 8 Left	15.00	3.3 %		
3/2 (A4155 Marlow Road (Eastbound))	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055	2055
3/3 (A4155 Marlow Road (Eastbound))	3.25	0.00	N	Arm 6 Right	12.00	100.0 %	1849	1849
4/1 (Pump Lane South)	3.86	0.00	Y	Arm 5 Left	15.00	20.0 %	1853	1853
				Arm 6 Ahead	Inf	0.0 %		
				Arm 7 Right	20.00	80.0 %		
5/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (exit Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 9: '2027 Base + Dev 17:00 to 18:00 STS PM' (FG9: '2027 Base + Dev STS 17:00 to 18:00 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	17	918	3	938
	B	48	0	357	2	407
	C	1265	99	0	20	1384
	D	13	1	18	0	32
	Tot.	1326	117	1293	25	2761

Traffic Lane Flows

Lane	Scenario 9: 2027 Base + Dev 17:00 to 18:00 STS PM
Junction: A4155 Marlow Road	
1/1	467
1/2 (with short)	471(In) 468(Out)
1/3 (short)	3
2/1	407
3/1	643
3/2 (with short)	741(In) 642(Out)
3/3 (short)	99
4/1	32
5/1	653
5/2	673
6/1	117
7/1	637
7/2	422
7/3	234
8/1	25

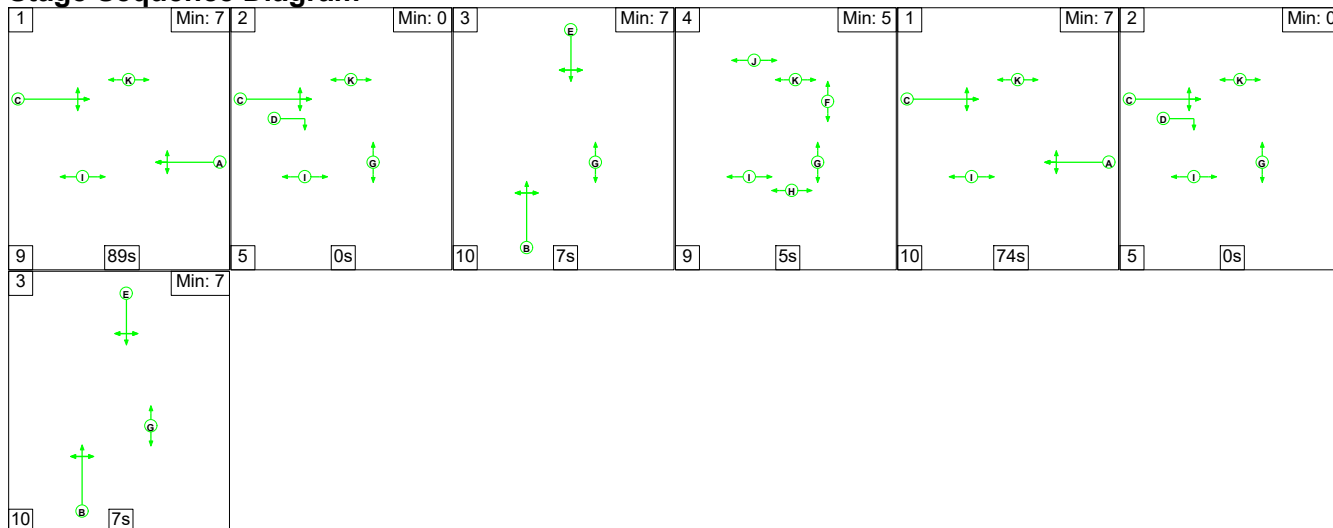
Lane Saturation Flows

Junction: A4155 Marlow Road								
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 (A4155 Marlow Road (Westbound))	3.00	0.00	Y	Arm 6 Left	15.00	3.6 %	1908	1908
				Arm 7 Ahead	Inf	96.4 %		
1/2 (A4155 Marlow Road (Westbound))	3.00	0.00	N	Arm 7 Ahead	Inf	100.0 %	2055	2055
1/3 (A4155 Marlow Road (Westbound))	3.25	0.00	N	Arm 8 Right	12.00	100.0 %	1849	1849
2/1 (Site Access)	5.00	0.00	Y	Arm 5 Right	20.00	11.8 %	1855	1855
				Arm 7 Left	10.00	87.7 %		
				Arm 8 Ahead	Inf	0.5 %		
3/1 (A4155 Marlow Road (Eastbound))	3.00	0.00	Y	Arm 5 Ahead	Inf	96.9 %	1909	1909
				Arm 8 Left	15.00	3.1 %		
3/2 (A4155 Marlow Road (Eastbound))	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055	2055
3/3 (A4155 Marlow Road (Eastbound))	3.25	0.00	N	Arm 6 Right	12.00	100.0 %	1849	1849
4/1 (Pump Lane South)	3.86	0.00	Y	Arm 5 Left	15.00	40.6 %	1848	1848
				Arm 6 Ahead	Inf	3.1 %		
				Arm 7 Right	20.00	56.3 %		
5/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/3 (exit Lane 3)	Infinite Saturation Flow						Inf	Inf
8/1 (exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 1: '2027 Base 07:00 to 08:00 AM' (FG1: '2027 Base 07:00 to 08:00 AM', Plan 1: 'Network Control Plan 1')

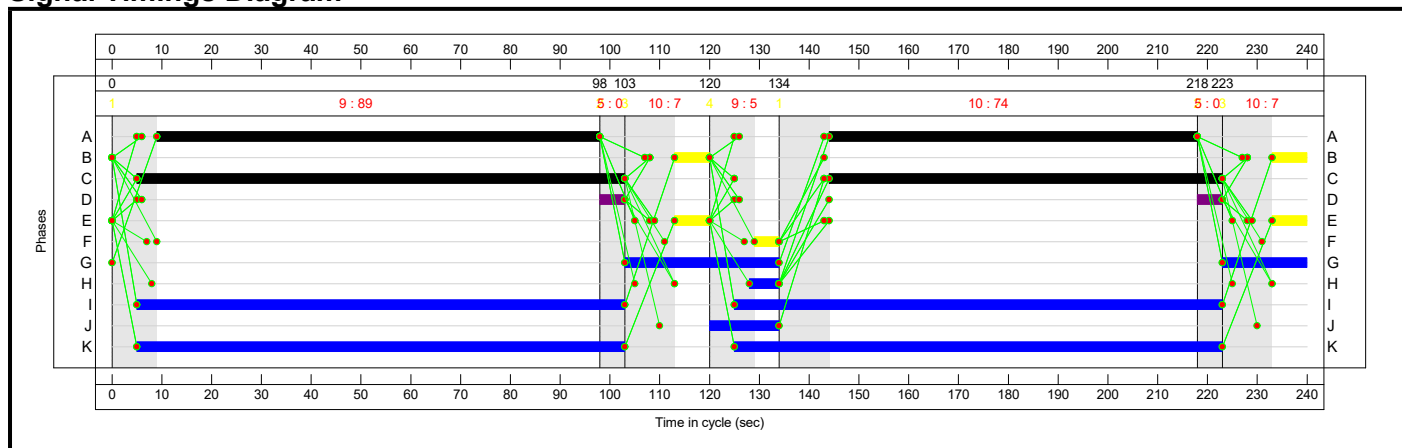
Stage Sequence Diagram



Stage Timings

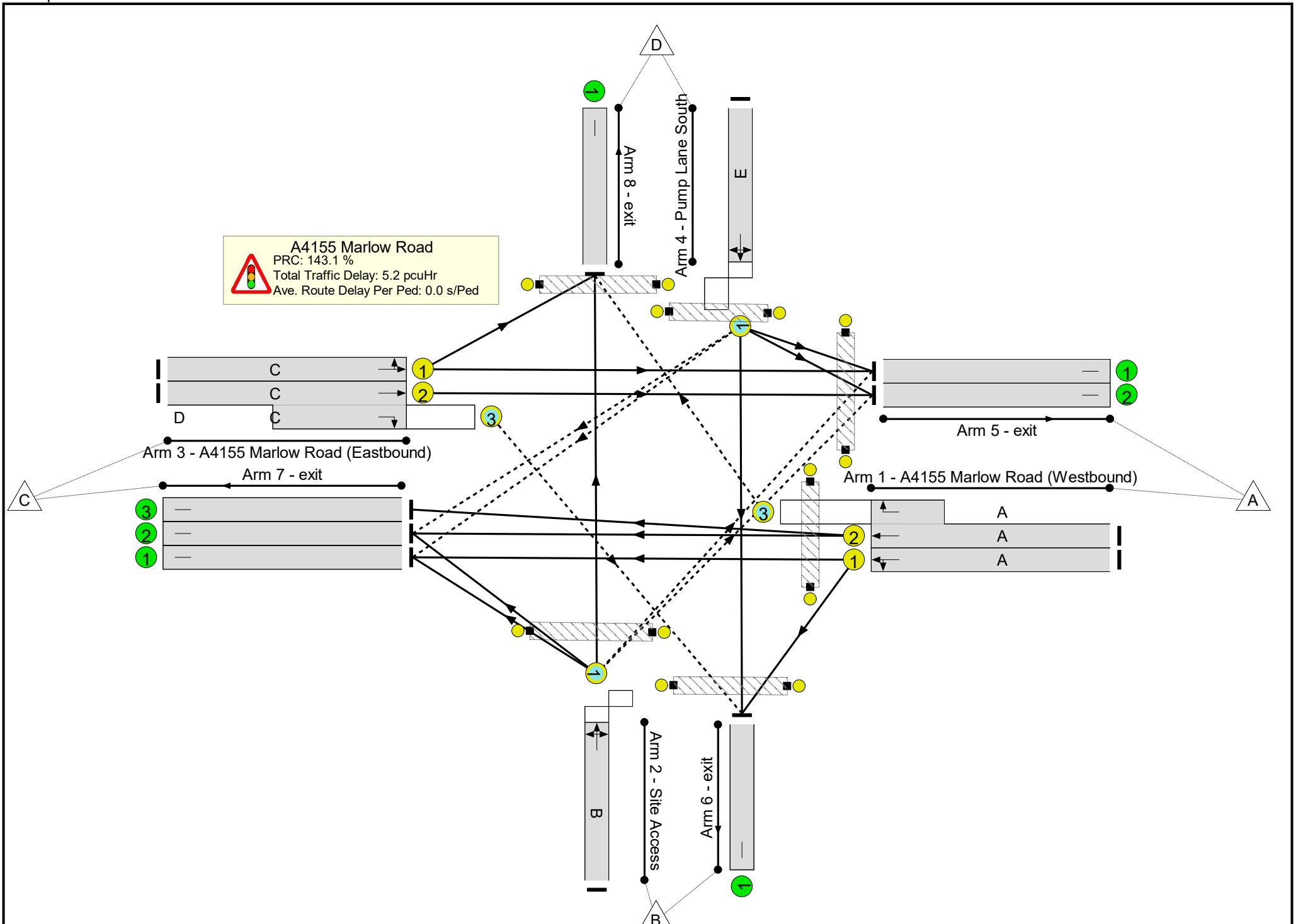
Stage	1	2	3	4	1	2	3
Duration	89	0	7	5	74	0	7
Change Point	0	98	103	120	134	218	223

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A4155 Marlow Road / Site Access Proposed Traffic Signals - With Right-turn into PLS	-	-	N/A	-	-		-	-	-	-	-	-	37.0%
A4155 Marlow Road	-	-	N/A	-	-		-	-	-	-	-	-	37.0%
1/1	A4155 Marlow Road (Westbound) Left Ahead	U	N/A	N/A	A		2	163	-	487	1913	1315	37.0%
1/2+1/3	A4155 Marlow Road (Westbound) Ahead Right	U+O	N/A	N/A	A		2	163	-	488	2055:2080	1413+0	34.5 : 0.0%
2/1	Site Access Right Left Ahead	O	N/A	N/A	B		2	14	-	11	1884	126	8.8%
3/1	A4155 Marlow Road (Eastbound) Ahead Left	U	N/A	N/A	C		2	177	-	500	1911	1425	35.1%
3/2+3/3	A4155 Marlow Road (Eastbound) Ahead Right	U+O	N/A	N/A	C	D	2	177	10	509	2055:1849	1513+27	33.0 : 33.0%
4/1	Pump Lane South Left Ahead Right	O	N/A	N/A	E		2	14	-	5	1853	124	4.0%
5/1	exit	U	N/A	N/A	-		-	-	-	492	Inf	Inf	0.0%
5/2	exit	U	N/A	N/A	-		-	-	-	503	Inf	Inf	0.0%
6/1	exit	U	N/A	N/A	-		-	-	-	13	Inf	Inf	0.0%
7/1	exit	U	N/A	N/A	-		-	-	-	488	Inf	Inf	0.0%
7/2	exit	U	N/A	N/A	-		-	-	-	250	Inf	Inf	0.0%
7/3	exit	U	N/A	N/A	-		-	-	-	244	Inf	Inf	0.0%
8/1	exit	U	N/A	N/A	-		-	-	-	10	Inf	Inf	0.0%

Full Input Data And Results

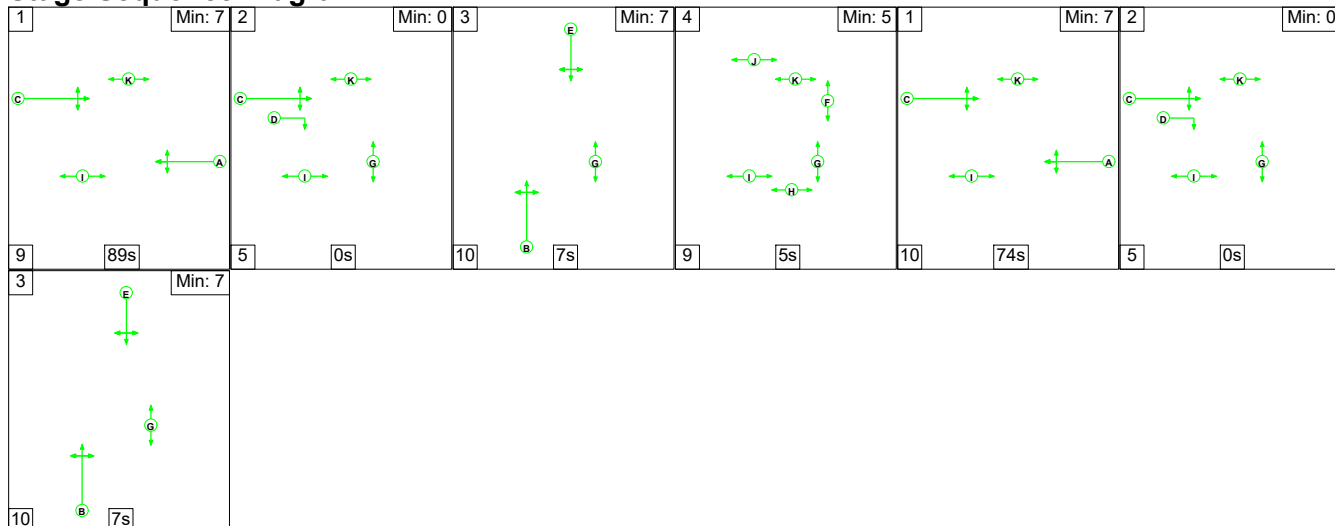
Ped Link: P1	Unnamed Ped Link	-	N/A	-	J		1	14	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	K		2	196	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		2	48	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	H		1	6	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	I		2	196	-	0	-	0	0.0%

Full Input Data And Results

Full Input Data And Results

Scenario 2: '2027 Base 08:00 to 09:00 AM' (FG2: '2027 Base 08:00 to 09:00 AM', Plan 1: 'Network Control Plan 1')

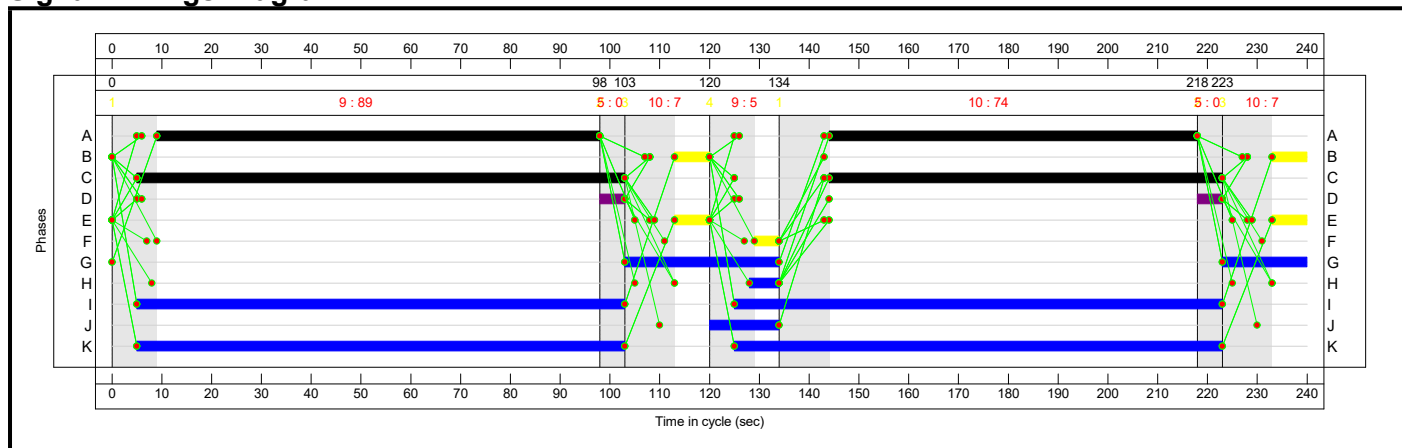
Stage Sequence Diagram



Stage Timings

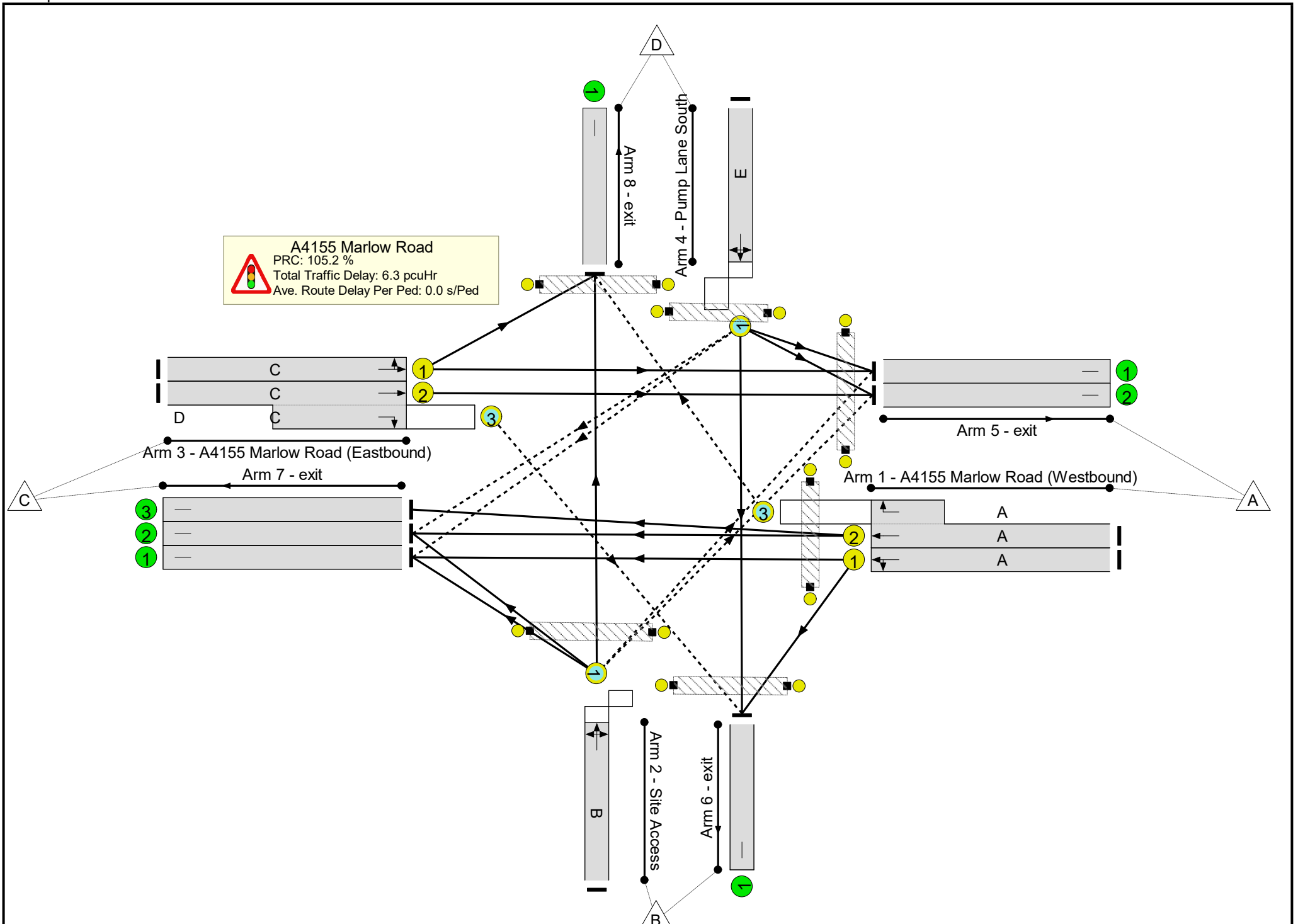
Stage	1	2	3	4	1	2	3
Duration	89	0	7	5	74	0	7
Change Point	0	98	103	120	134	218	223

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A4155 Marlow Road / Site Access Proposed Traffic Signals - With Right-turn into PLS	-	-	N/A	-	-		-	-	-	-	-	-	43.8%
A4155 Marlow Road	-	-	N/A	-	-		-	-	-	-	-	-	43.8%
1/1	A4155 Marlow Road (Westbound) Left Ahead	U	N/A	N/A	A		2	163	-	577	1914	1316	43.8%
1/2+1/3	A4155 Marlow Road (Westbound) Ahead Right	U+O	N/A	N/A	A		2	163	-	578	2055:2080	1413+0	40.9 : 0.0%
2/1	Site Access Right Left Ahead	O	N/A	N/A	B		2	14	-	24	1859	124	19.4%
3/1	A4155 Marlow Road (Eastbound) Ahead Left	U	N/A	N/A	C		2	177	-	517	1909	1424	36.3%
3/2+3/3	A4155 Marlow Road (Eastbound) Ahead Right	U+O	N/A	N/A	C	D	2	177	10	529	2055:1849	1506+35	34.3 : 34.3%
4/1	Pump Lane South Left Ahead Right	O	N/A	N/A	E		2	14	-	5	1853	124	4.0%
5/1	exit	U	N/A	N/A	-		-	-	-	502	Inf	Inf	0.0%
5/2	exit	U	N/A	N/A	-		-	-	-	520	Inf	Inf	0.0%
6/1	exit	U	N/A	N/A	-		-	-	-	16	Inf	Inf	0.0%
7/1	exit	U	N/A	N/A	-		-	-	-	585	Inf	Inf	0.0%
7/2	exit	U	N/A	N/A	-		-	-	-	301	Inf	Inf	0.0%
7/3	exit	U	N/A	N/A	-		-	-	-	289	Inf	Inf	0.0%
8/1	exit	U	N/A	N/A	-		-	-	-	17	Inf	Inf	0.0%

Full Input Data And Results

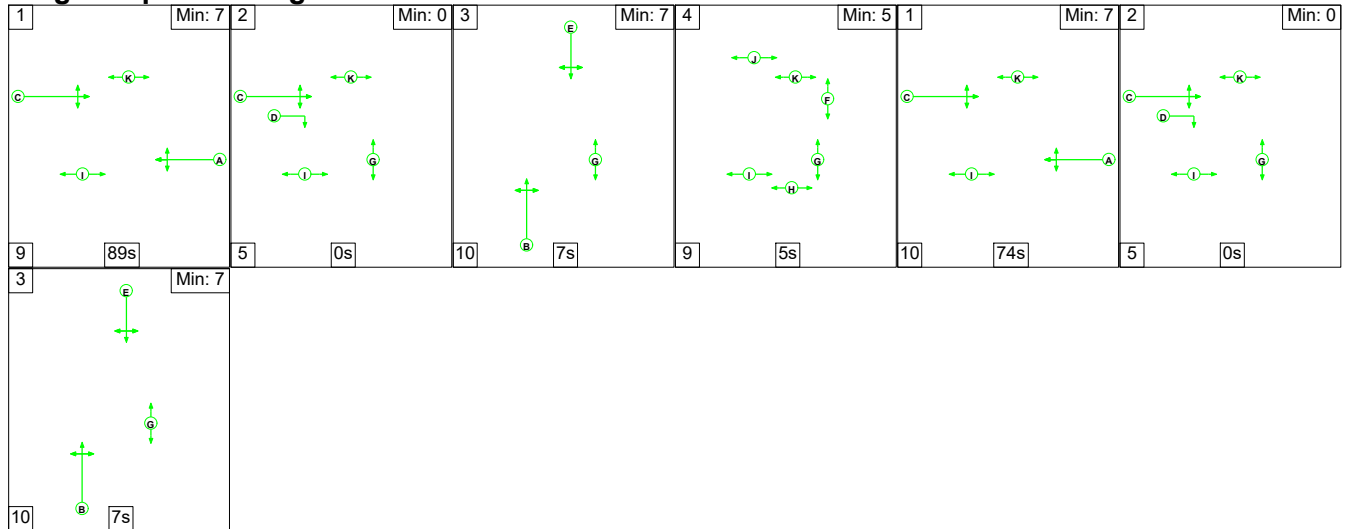
Ped Link: P1	Unnamed Ped Link	-	N/A	-	J		1	14	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	K		2	196	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		2	48	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	H		1	6	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	I		2	196	-	0	-	0	0.0%

Full Input Data And Results

Full Input Data And Results

Scenario 3: '2027 Base 17:00 to 18:00 PM' (FG3: '2027 Base 17:00 to 18:00 PM', Plan 1: 'Network Control Plan 1')

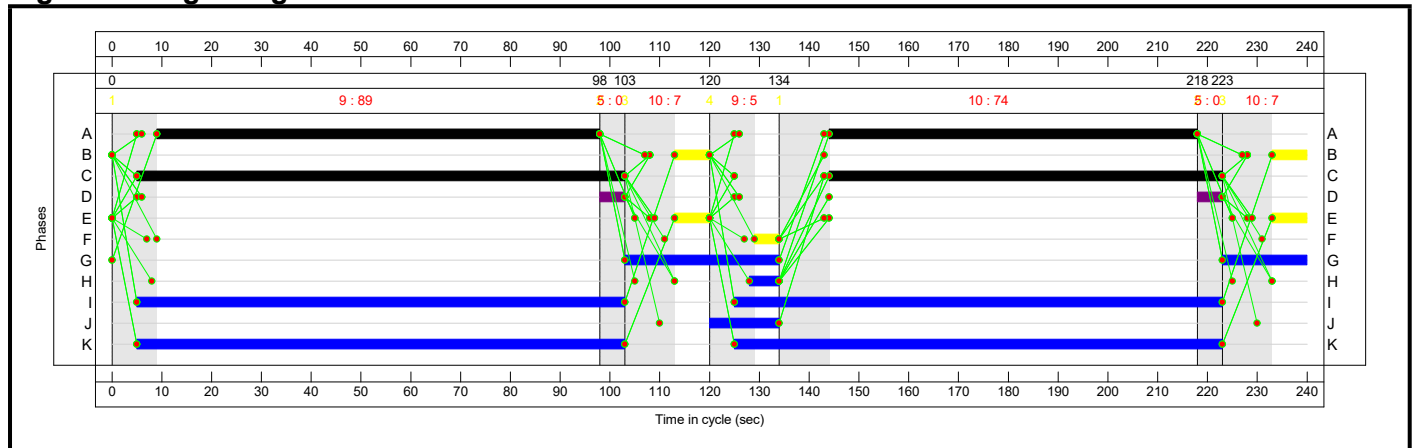
Stage Sequence Diagram



Stage Timings

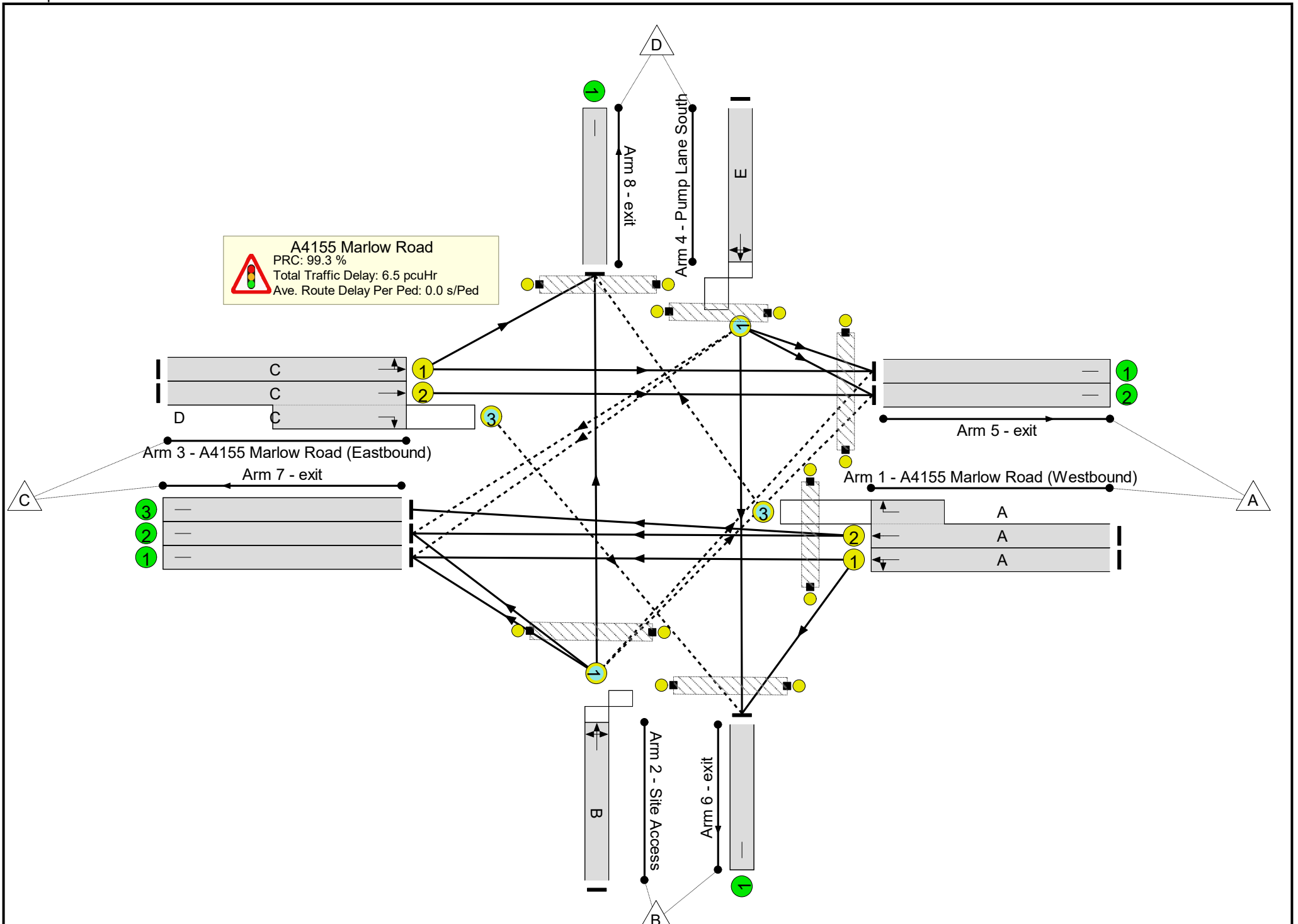
Stage	1	2	3	4	1	2	3
Duration	89	0	7	5	74	0	7
Change Point	0	98	103	120	134	218	223

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A4155 Marlow Road / Site Access Proposed Traffic Signals - With Right-turn into PLS	-	-	N/A	-	-		-	-	-	-	-	-	45.2%
A4155 Marlow Road	-	-	N/A	-	-		-	-	-	-	-	-	45.2%
1/1	A4155 Marlow Road (Westbound) Left Ahead	U	N/A	N/A	A		2	163	-	460	1913	1315	35.0%
1/2+1/3	A4155 Marlow Road (Westbound) Ahead Right	U+O	N/A	N/A	A		2	163	-	465	2055:1849	1412+9	32.7 : 32.7%
2/1	Site Access Right Left Ahead	O	N/A	N/A	B		2	14	-	12	1880	123	9.8%
3/1	A4155 Marlow Road (Eastbound) Ahead Left	U	N/A	N/A	C		2	177	-	643	1909	1424	45.2%
3/2+3/3	A4155 Marlow Road (Eastbound) Ahead Right	U+O	N/A	N/A	C	D	2	177	10	648	2055:1849	1525+14	42.1 : 42.1%
4/1	Pump Lane South Left Ahead Right	O	N/A	N/A	E		2	14	-	32	1848	123	26.0%
5/1	exit	U	N/A	N/A	-		-	-	-	629	Inf	Inf	0.0%
5/2	exit	U	N/A	N/A	-		-	-	-	649	Inf	Inf	0.0%
6/1	exit	U	N/A	N/A	-		-	-	-	11	Inf	Inf	0.0%
7/1	exit	U	N/A	N/A	-		-	-	-	470	Inf	Inf	0.0%
7/2	exit	U	N/A	N/A	-		-	-	-	245	Inf	Inf	0.0%
7/3	exit	U	N/A	N/A	-		-	-	-	231	Inf	Inf	0.0%
8/1	exit	U	N/A	N/A	-		-	-	-	25	Inf	Inf	0.0%

Full Input Data And Results

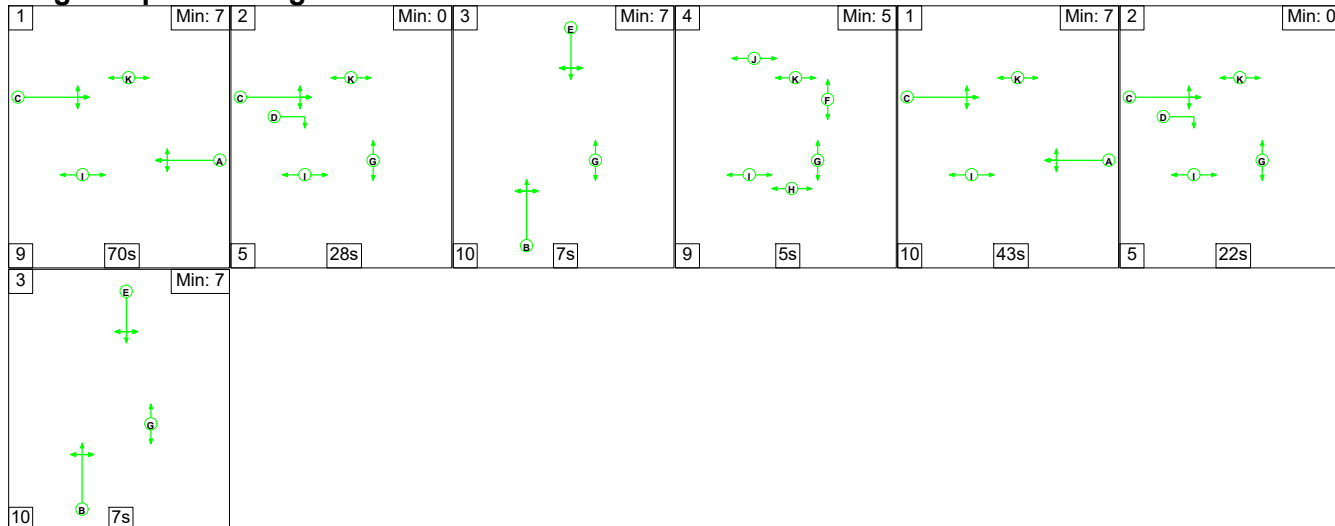
Ped Link: P1	Unnamed Ped Link	-	N/A	-	J		1	14	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	K		2	196	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		2	48	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	H		1	6	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	I		2	196	-	0	-	0	0.0%

Full Input Data And Results

Full Input Data And Results

Scenario 4: '2027 Base + Dev 07:00 to 08:00 AM' (FG4: '2027 Base + Dev 07:00 to 08:00 AM', Plan 1: 'Network Control Plan 1')

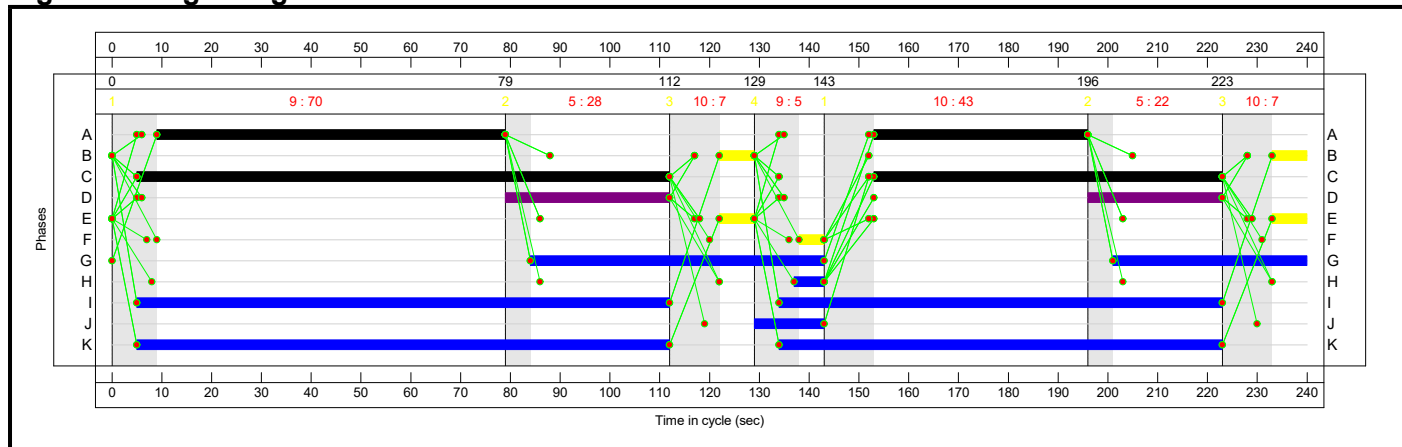
Stage Sequence Diagram



Stage Timings

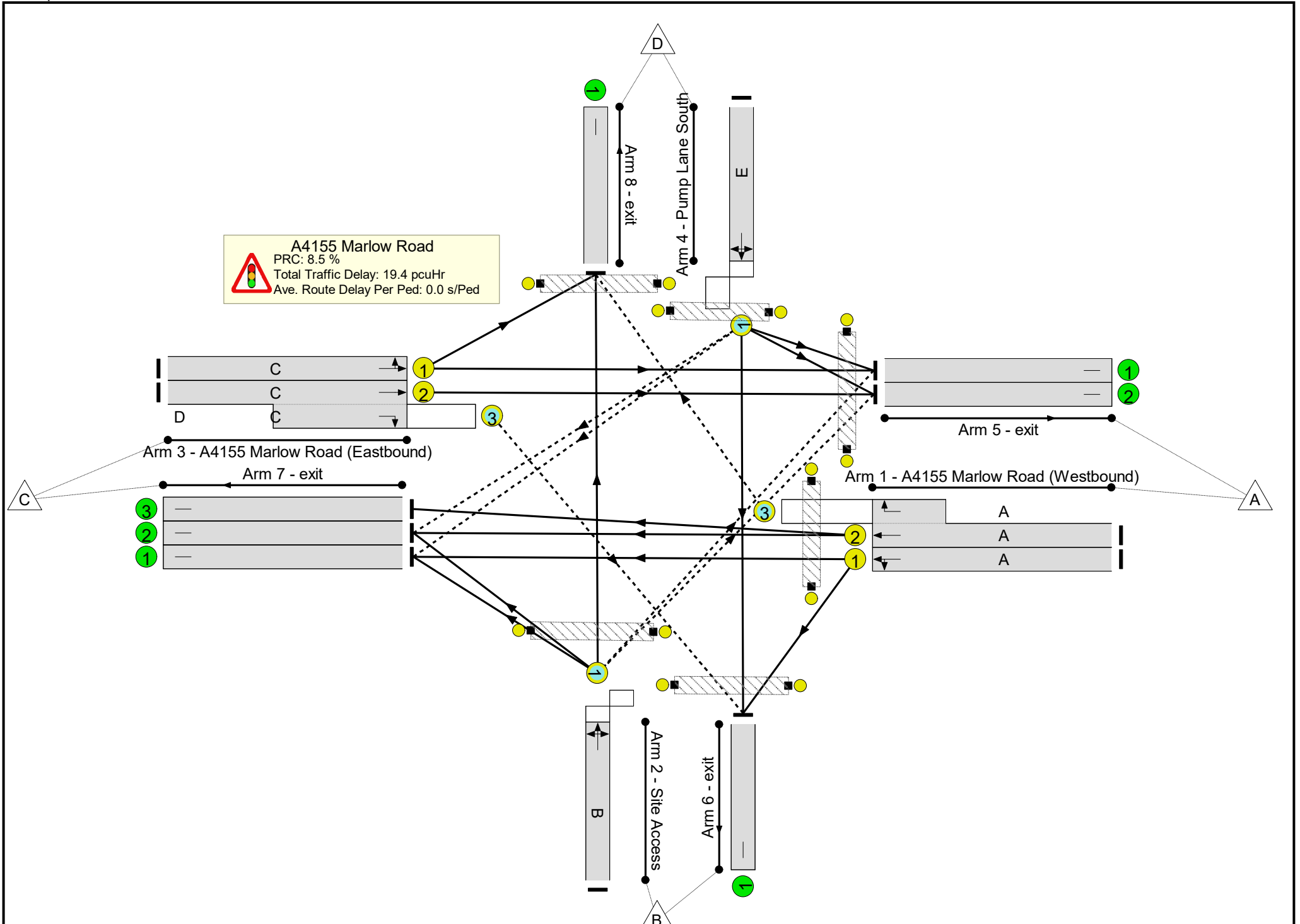
Stage	1	2	3	4	1	2	3
Duration	70	28	7	5	43	22	7
Change Point	0	79	112	129	143	196	223

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A4155 Marlow Road / Site Access Proposed Traffic Signals - With Right-turn into PLS	-	-	N/A	-	-		-	-	-	-	-	-	82.9%
A4155 Marlow Road	-	-	N/A	-	-		-	-	-	-	-	-	82.9%
1/1	A4155 Marlow Road (Westbound) Left Ahead	U	N/A	N/A	A		2	113	-	521	1889	905	57.6%
1/2+1/3	A4155 Marlow Road (Westbound) Ahead Right	U+O	N/A	N/A	A		2	113	-	522	2055:2080	985+0	53.0 : 0.0%
2/1	Site Access Right Left Ahead	O	N/A	N/A	B		2	14	-	82	1858	124	66.2%
3/1	A4155 Marlow Road (Eastbound) Ahead Left	U	N/A	N/A	C		2	177	-	500	1911	1425	35.1%
3/2+3/3	A4155 Marlow Road (Eastbound) Ahead Right	U+O	N/A	N/A	C	D	2	177	60	1003	2055:1849	603+607	82.9 : 82.9%
4/1	Pump Lane South Left Ahead Right	O	N/A	N/A	E		2	14	-	5	1853	105	4.8%
5/1	exit	U	N/A	N/A	-		-	-	-	496	Inf	Inf	0.0%
5/2	exit	U	N/A	N/A	-		-	-	-	508	Inf	Inf	0.0%
6/1	exit	U	N/A	N/A	-		-	-	-	575	Inf	Inf	0.0%
7/1	exit	U	N/A	N/A	-		-	-	-	485	Inf	Inf	0.0%
7/2	exit	U	N/A	N/A	-		-	-	-	298	Inf	Inf	0.0%
7/3	exit	U	N/A	N/A	-		-	-	-	261	Inf	Inf	0.0%
8/1	exit	U	N/A	N/A	-		-	-	-	10	Inf	Inf	0.0%

Full Input Data And Results

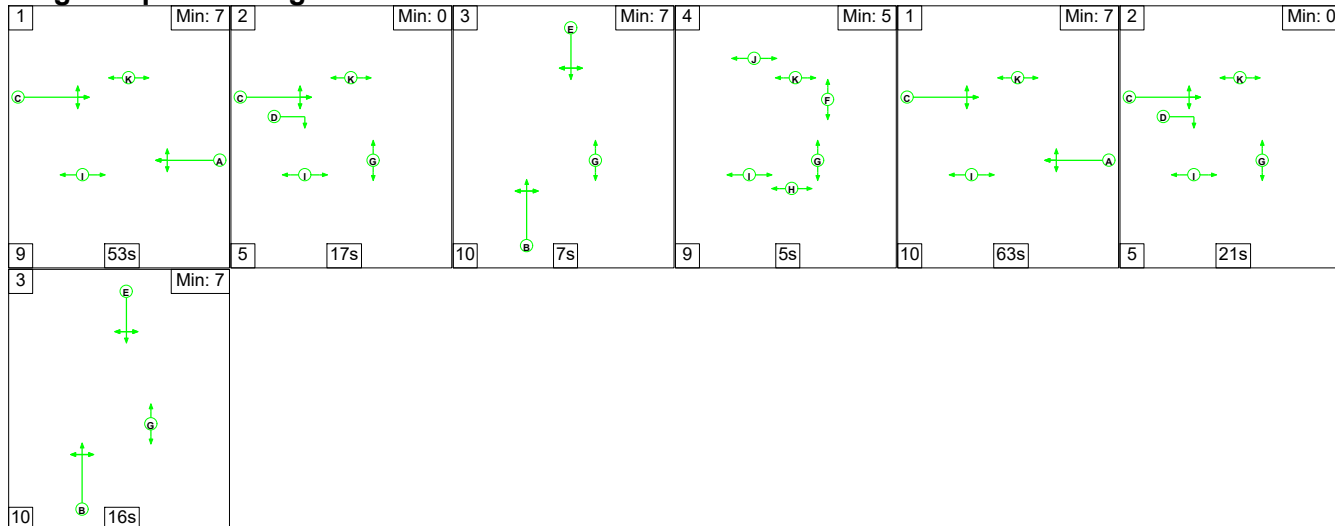
Ped Link: P1	Unnamed Ped Link	-	N/A	-	J		1	14	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	K		2	196	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		2	98	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	H		1	6	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	I		2	196	-	0	-	0	0.0%

Full Input Data And Results

Full Input Data And Results

Scenario 5: '2027 Base + Dev 08:00 to 09:00 AM' (FG5: '2027 Base + Dev 08:00 to 09:00 AM', Plan 1: 'Network Control Plan 1')

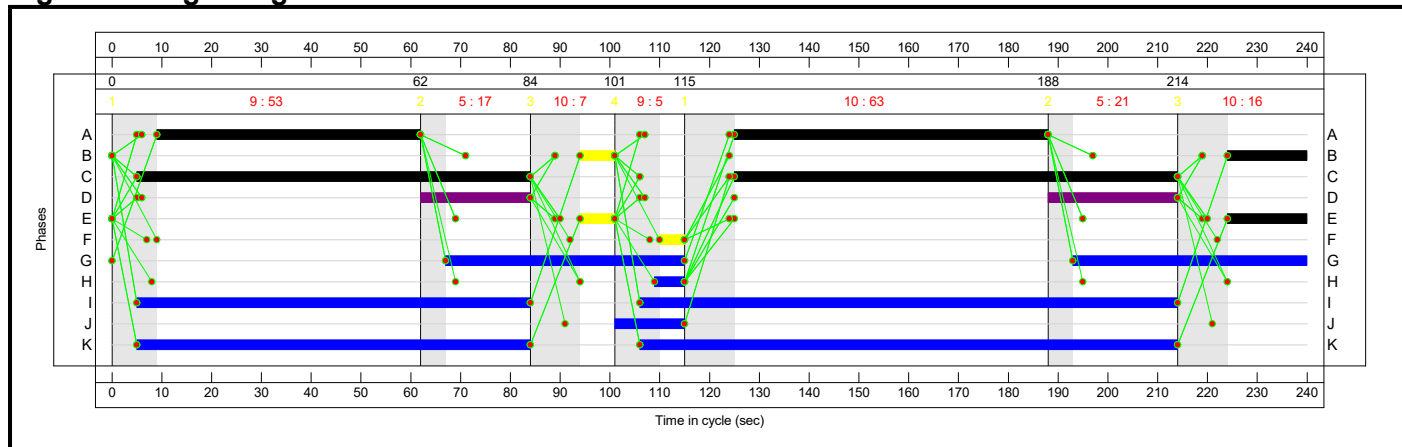
Stage Sequence Diagram



Stage Timings

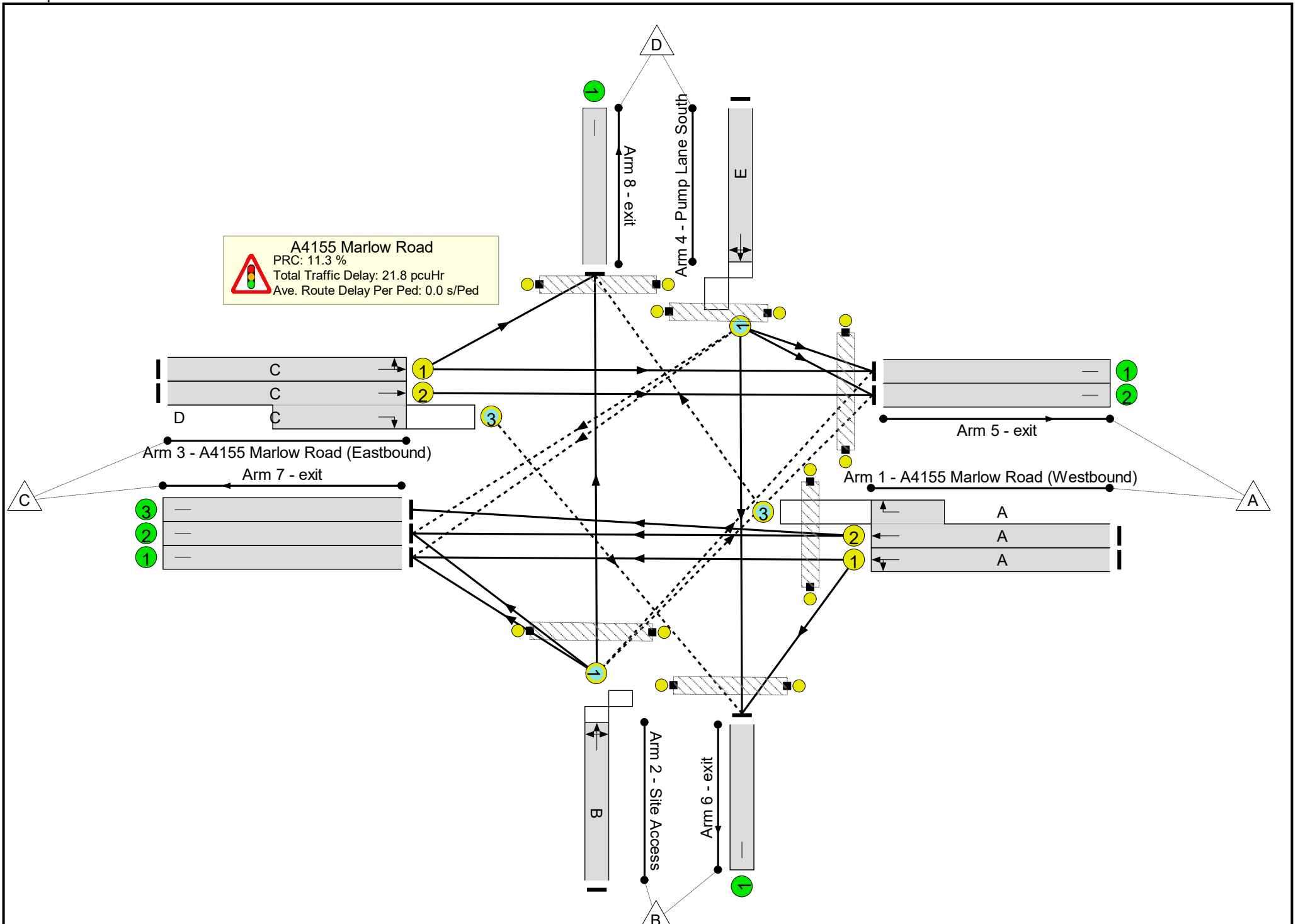
Stage	1	2	3	4	1	2	3
Duration	53	17	7	5	63	21	16
Change Point	0	62	84	101	115	188	214

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A4155 Marlow Road / Site Access Proposed Traffic Signals - With Right-turn into PLS	-	-	N/A	-	-		-	-	-	-	-	-	80.9%
A4155 Marlow Road	-	-	N/A	-	-		-	-	-	-	-	-	80.9%
1/1	A4155 Marlow Road (Westbound) Left Ahead	U	N/A	N/A	A		2	116	-	603	1898	933	64.6%
1/2+1/3	A4155 Marlow Road (Westbound) Ahead Right	U+O	N/A	N/A	A		2	116	-	602	2055:2080	1010+0	59.6 : 0.0%
2/1	Site Access Right Left Ahead	O	N/A	N/A	B		2	23	-	147	1855	193	76.1%
3/1	A4155 Marlow Road (Eastbound) Ahead Left	U	N/A	N/A	C		2	168	-	517	1909	1352	38.2%
3/2+3/3	A4155 Marlow Road (Eastbound) Ahead Right	U+O	N/A	N/A	C	D	2	168	48	890	2055:1849	639+461	80.9 : 80.9%
4/1	Pump Lane South Left Ahead Right	O	N/A	N/A	E		2	23	-	5	1853	106	4.7%
5/1	exit	U	N/A	N/A	-		-	-	-	509	Inf	Inf	0.0%
5/2	exit	U	N/A	N/A	-		-	-	-	528	Inf	Inf	0.0%
6/1	exit	U	N/A	N/A	-		-	-	-	427	Inf	Inf	0.0%
7/1	exit	U	N/A	N/A	-		-	-	-	615	Inf	Inf	0.0%
7/2	exit	U	N/A	N/A	-		-	-	-	367	Inf	Inf	0.0%
7/3	exit	U	N/A	N/A	-		-	-	-	301	Inf	Inf	0.0%
8/1	exit	U	N/A	N/A	-		-	-	-	17	Inf	Inf	0.0%

Full Input Data And Results

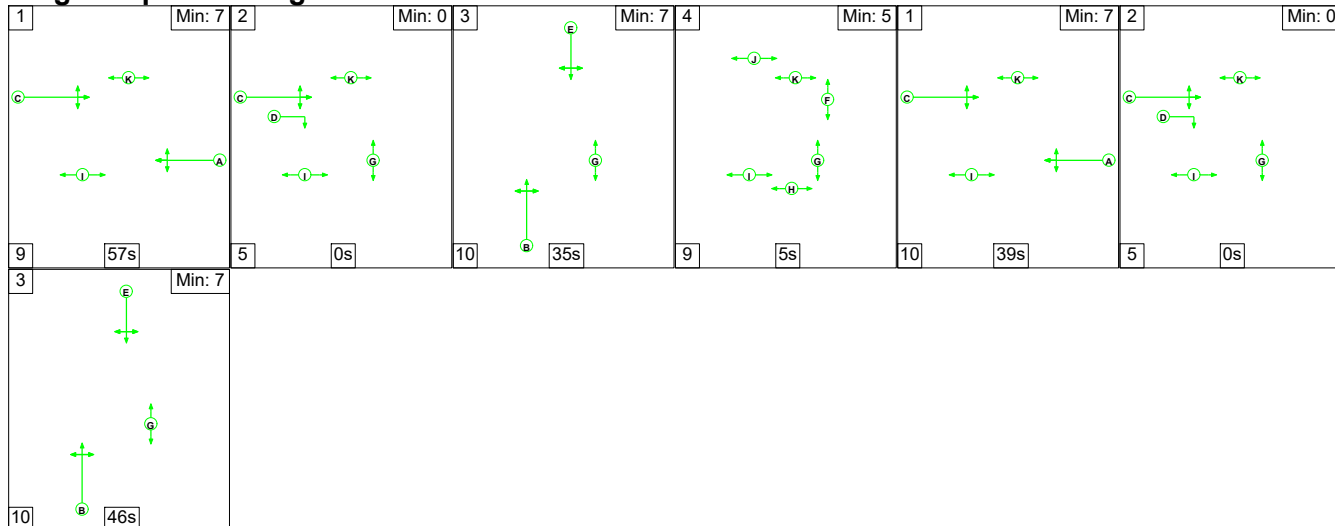
Ped Link: P1	Unnamed Ped Link	-	N/A	-	J		1	14	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	K		2	187	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		2	95	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	H		1	6	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	I		2	187	-	0	-	0	0.0%

Full Input Data And Results

Full Input Data And Results

Scenario 6: '2027 Base + Dev 17:00 to 18:00 PM' (FG6: '2027 Base + Dev 17:00 to 18:00 PM', Plan 1: 'Network Control Plan 1')

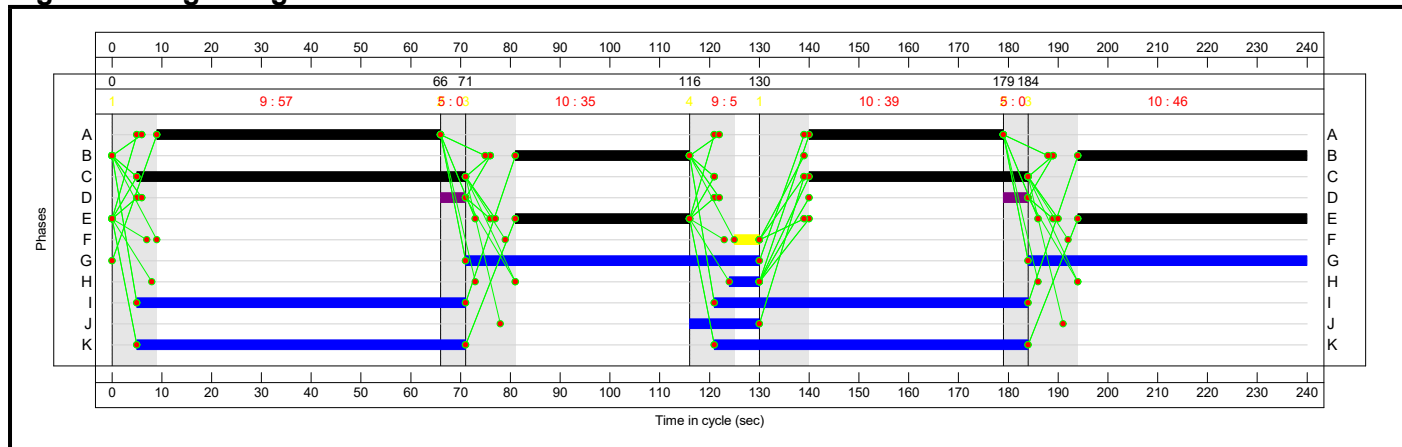
Stage Sequence Diagram



Stage Timings

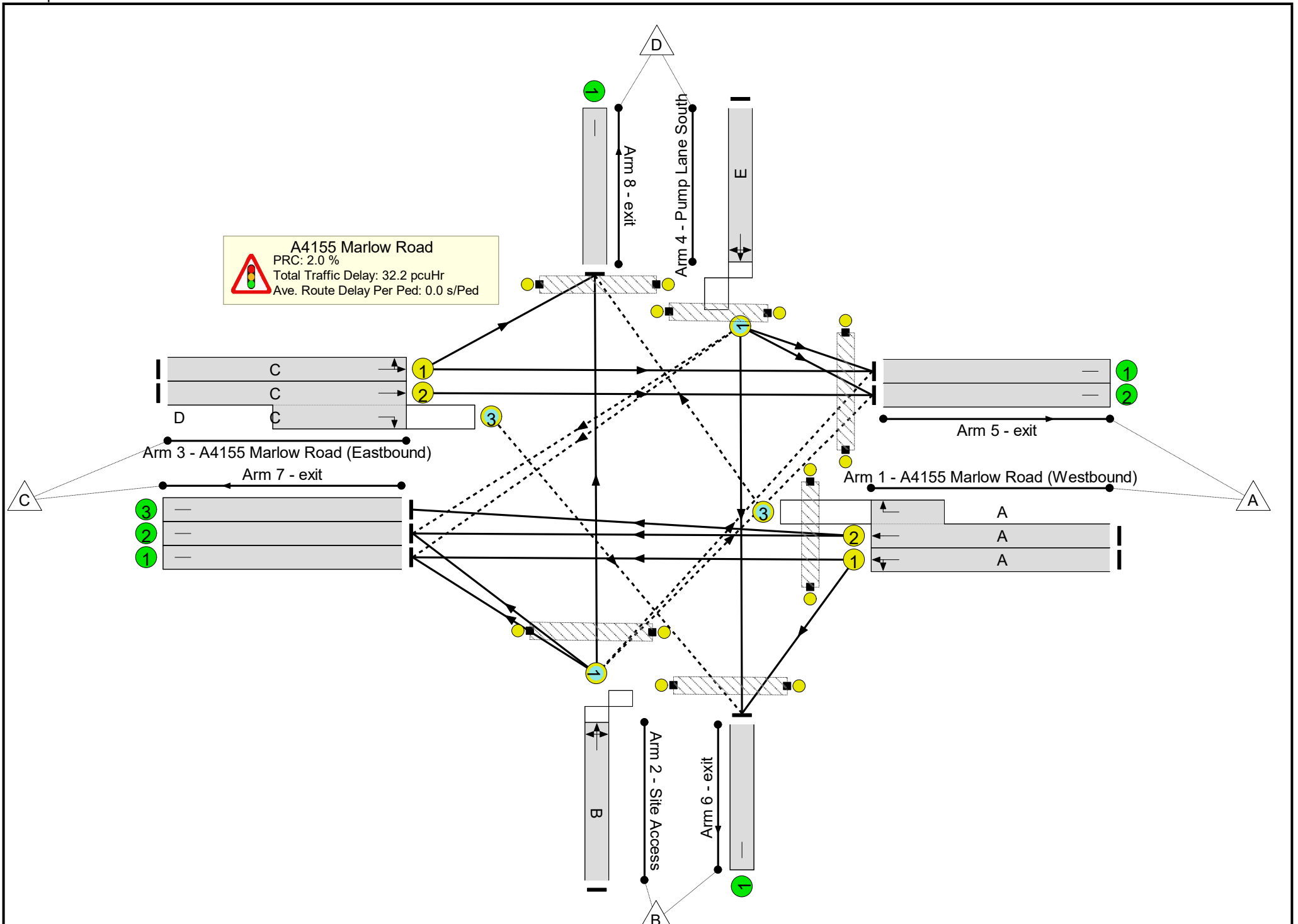
Stage	1	2	3	4	1	2	3
Duration	57	0	35	5	39	0	46
Change Point	0	66	71	116	130	179	184

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A4155 Marlow Road / Site Access Proposed Traffic Signals - With Right-turn into PLS	-	-	N/A	-	-		-	-	-	-	-	-	88.3%
A4155 Marlow Road	-	-	N/A	-	-		-	-	-	-	-	-	88.3%
1/1	A4155 Marlow Road (Westbound) Left Ahead	U	N/A	N/A	A		2	96	-	470	1906	778	60.4%
1/2+1/3	A4155 Marlow Road (Westbound) Ahead Right	U+O	N/A	N/A	A		2	96	-	473	2055:1849	839+5	56.0 : 56.0%
2/1	Site Access Right Left Ahead	O	N/A	N/A	B		2	81	-	566	1854	641	88.3%
3/1	A4155 Marlow Road (Eastbound) Ahead Left	U	N/A	N/A	C		2	110	-	643	1909	891	72.2%
3/2+3/3	A4155 Marlow Road (Eastbound) Ahead Right	U+O	N/A	N/A	C	D	2	110	10	779	2055:1849	829+177	77.5 : 77.5%
4/1	Pump Lane South Left Ahead Right	O	N/A	N/A	E		2	81	-	32	1848	188	17.0%
5/1	exit	U	N/A	N/A	-		-	-	-	662	Inf	Inf	0.0%
5/2	exit	U	N/A	N/A	-		-	-	-	683	Inf	Inf	0.0%
6/1	exit	U	N/A	N/A	-		-	-	-	160	Inf	Inf	0.0%
7/1	exit	U	N/A	N/A	-		-	-	-	705	Inf	Inf	0.0%
7/2	exit	U	N/A	N/A	-		-	-	-	493	Inf	Inf	0.0%
7/3	exit	U	N/A	N/A	-		-	-	-	235	Inf	Inf	0.0%
8/1	exit	U	N/A	N/A	-		-	-	-	25	Inf	Inf	0.0%

Full Input Data And Results

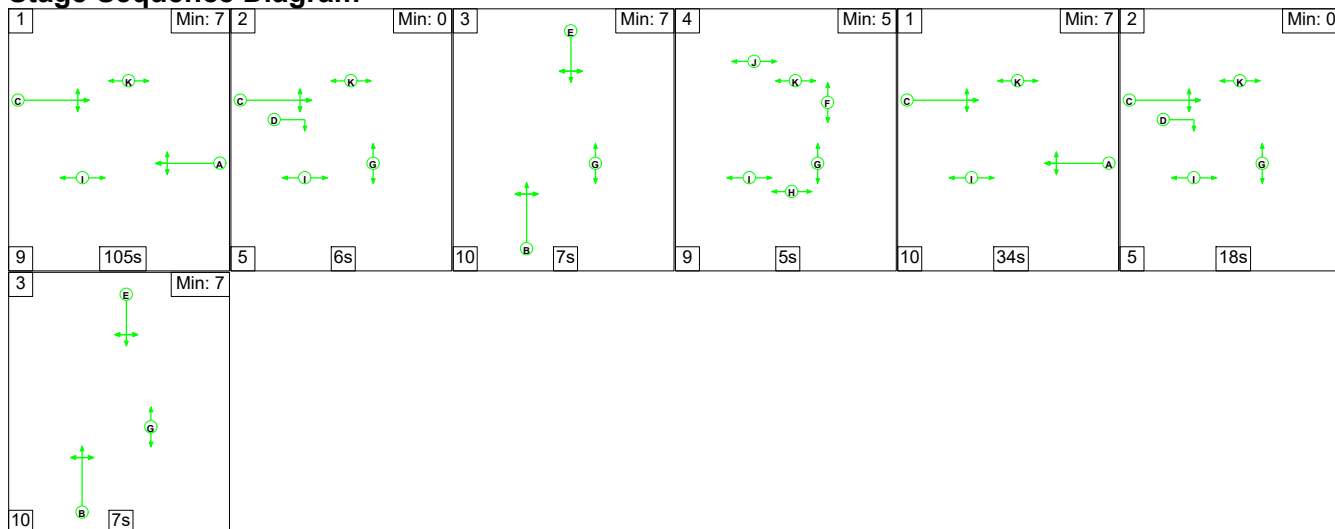
Ped Link: P1	Unnamed Ped Link	-	N/A	-	J		1	14	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	K		2	129	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		2	115	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	H		1	6	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	I		2	129	-	0	-	0	0.0%

Full Input Data And Results

Full Input Data And Results

Scenario 7: '2027 Base + Dev 07:00 to 08:00 STS AM' (FG7: '2027 Base + Dev STS 07:00 to 08:00 AM', Plan 1: 'Network Control Plan 1')

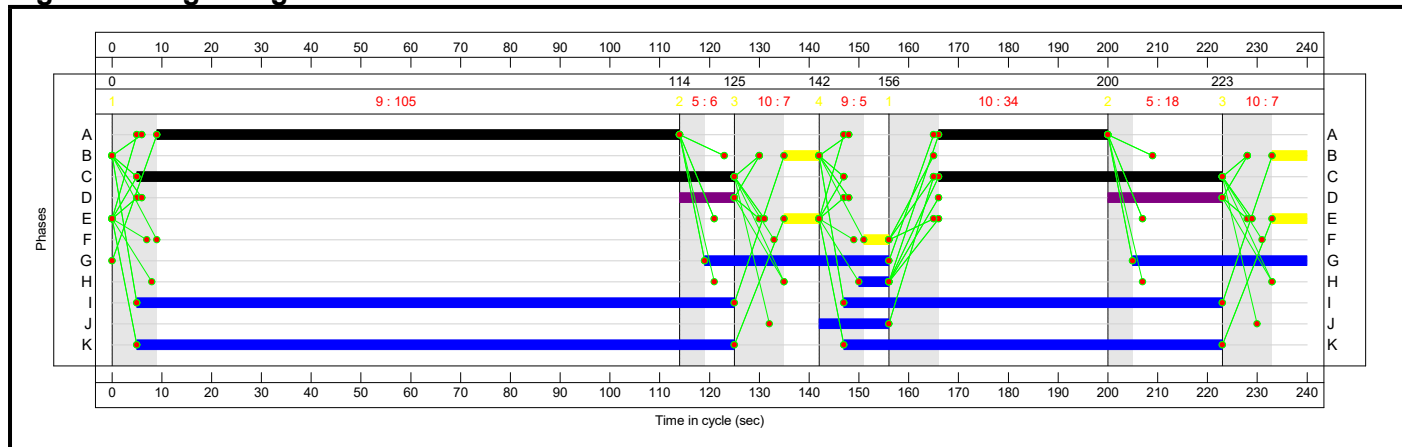
Stage Sequence Diagram



Stage Timings

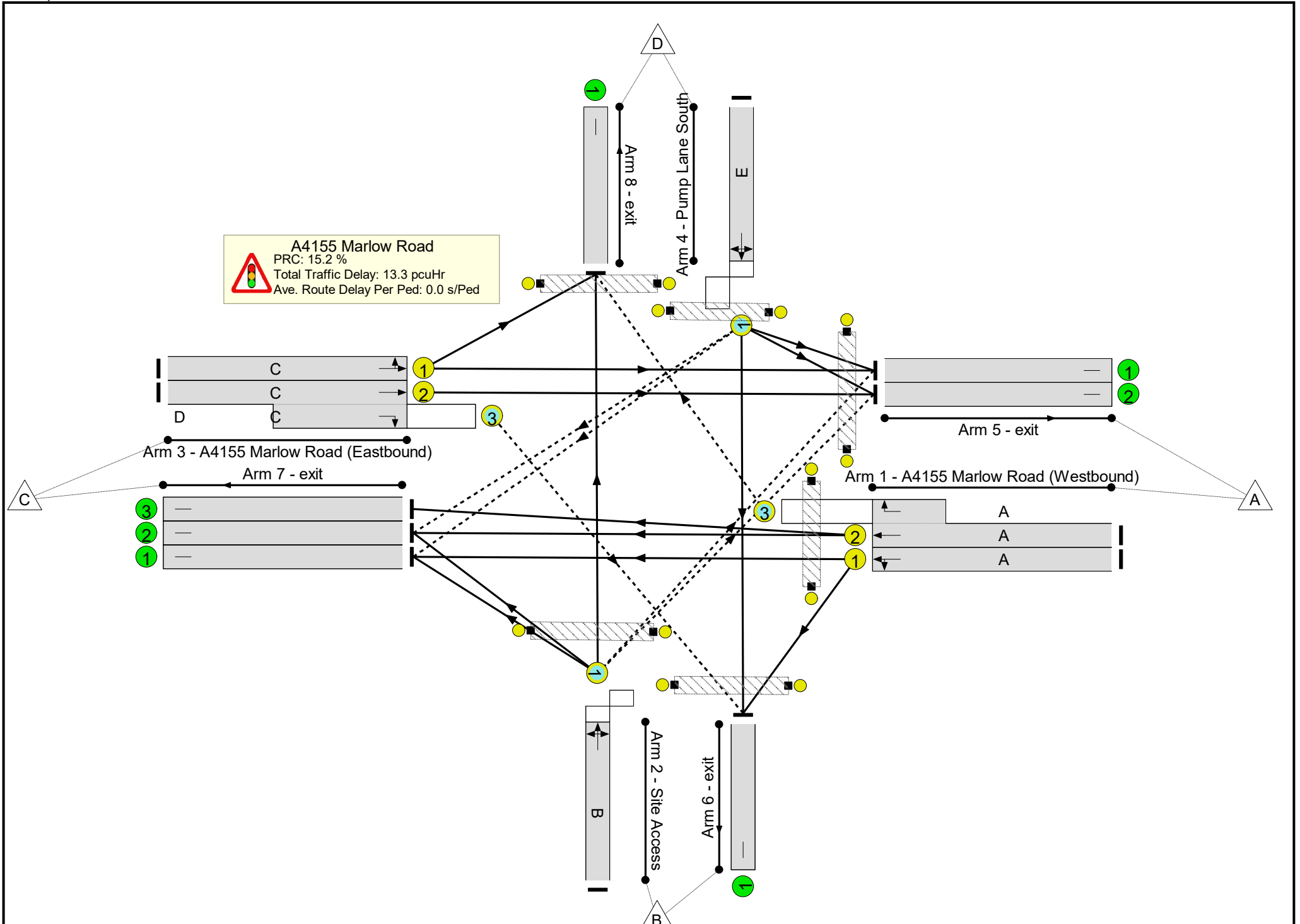
Stage	1	2	3	4	1	2	3
Duration	105	6	7	5	34	18	7
Change Point	0	114	125	142	156	200	223

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A4155 Marlow Road / Site Access Proposed Traffic Signals - With Right-turn into PLS	-	-	N/A	-	-		-	-	-	-	-	-	78.1%
A4155 Marlow Road	-	-	N/A	-	-		-	-	-	-	-	-	78.1%
1/1	A4155 Marlow Road (Westbound) Left Ahead	U	N/A	N/A	A		2	139	-	511	1896	1114	45.9%
1/2+1/3	A4155 Marlow Road (Westbound) Ahead Right	U+O	N/A	N/A	A		2	139	-	512	2055:2080	1207+0	42.4 : 0.0%
2/1	Site Access Right Left Ahead	O	N/A	N/A	B		2	14	-	62	1859	124	50.0%
3/1	A4155 Marlow Road (Eastbound) Ahead Left	U	N/A	N/A	C		2	177	-	500	1911	1425	35.1%
3/2+3/3	A4155 Marlow Road (Eastbound) Ahead Right	U+O	N/A	N/A	C	D	2	177	34	861	2055:1849	640+462	78.1 : 78.1%
4/1	Pump Lane South Left Ahead Right	O	N/A	N/A	E		2	14	-	5	1853	105	4.8%
5/1	exit	U	N/A	N/A	-		-	-	-	495	Inf	Inf	0.0%
5/2	exit	U	N/A	N/A	-		-	-	-	506	Inf	Inf	0.0%
6/1	exit	U	N/A	N/A	-		-	-	-	413	Inf	Inf	0.0%
7/1	exit	U	N/A	N/A	-		-	-	-	487	Inf	Inf	0.0%
7/2	exit	U	N/A	N/A	-		-	-	-	284	Inf	Inf	0.0%
7/3	exit	U	N/A	N/A	-		-	-	-	256	Inf	Inf	0.0%
8/1	exit	U	N/A	N/A	-		-	-	-	10	Inf	Inf	0.0%

Full Input Data And Results

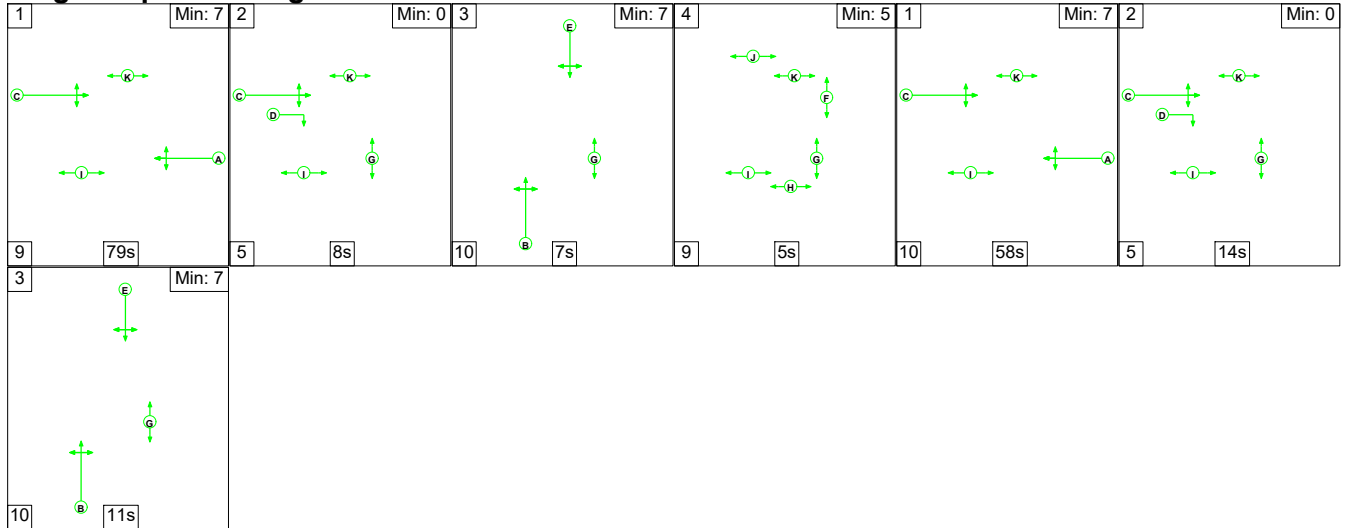
Ped Link: P1	Unnamed Ped Link	-	N/A	-	J		1	14	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	K		2	196	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		2	72	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	H		1	6	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	I		2	196	-	0	-	0	0.0%

Full Input Data And Results

Full Input Data And Results

Scenario 8: '2027 Base + Dev 08:00 to 09:00 STS AM' (FG8: '2027 Base + Dev STS 08:00 to 09:00 AM', Plan 1: 'Network Control Plan 1')

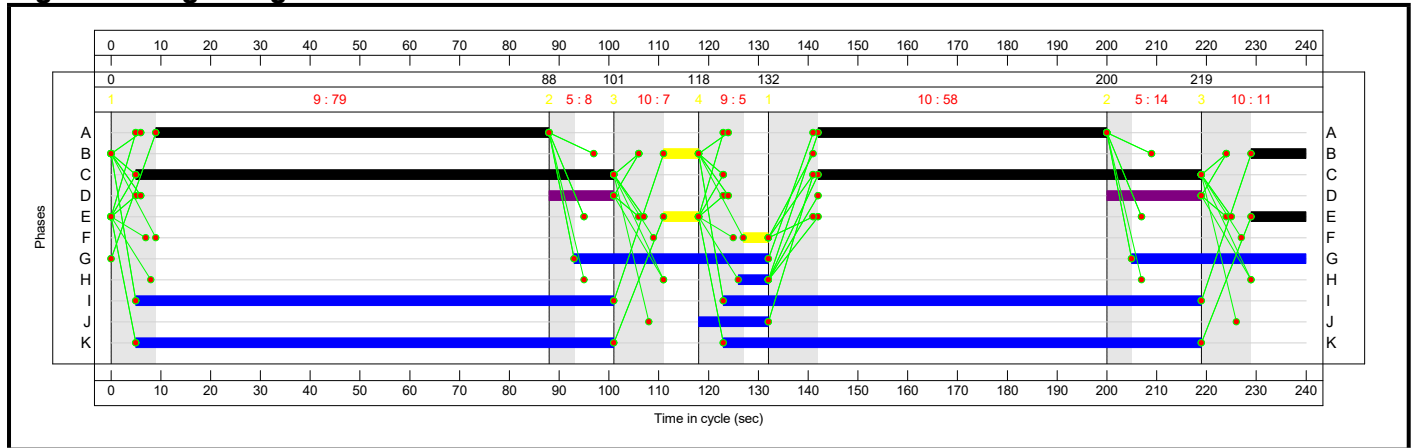
Stage Sequence Diagram



Stage Timings

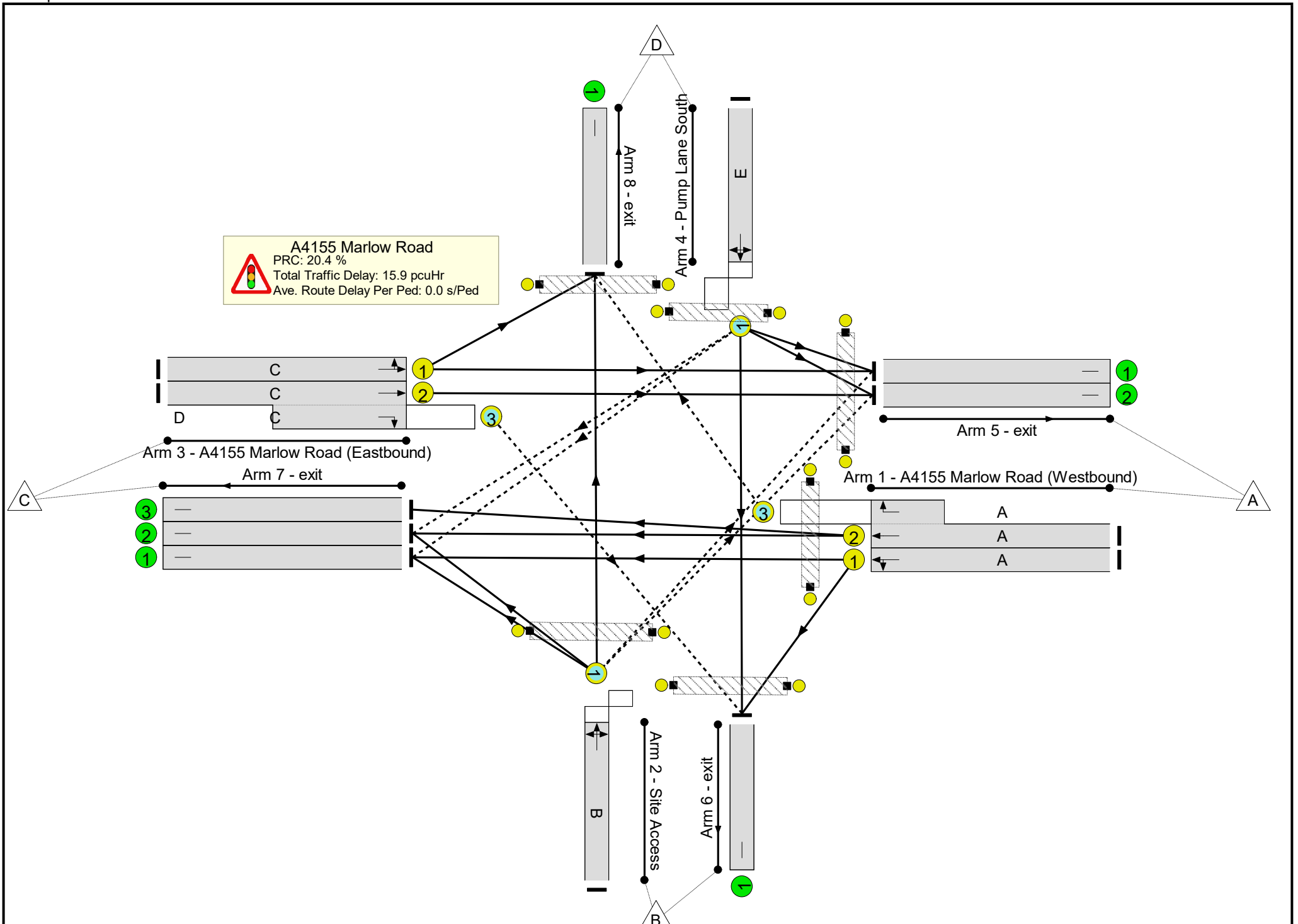
Stage	1	2	3	4	1	2	3
Duration	79	8	7	5	58	14	11
Change Point	0	88	101	118	132	200	219

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A4155 Marlow Road / Site Access Proposed Traffic Signals - With Right-turn into PLS	-	-	N/A	-	-		-	-	-	-	-	-	74.8%
A4155 Marlow Road	-	-	N/A	-	-		-	-	-	-	-	-	74.8%
1/1	A4155 Marlow Road (Westbound) Left Ahead	U	N/A	N/A	A		2	137	-	594	1903	1102	53.9%
1/2+1/3	A4155 Marlow Road (Westbound) Ahead Right	U+O	N/A	N/A	A		2	137	-	596	2055:2080	1190+0	50.1 : 0.0%
2/1	Site Access Right Left Ahead	O	N/A	N/A	B		2	18	-	112	1855	155	72.5%
3/1	A4155 Marlow Road (Eastbound) Ahead Left	U	N/A	N/A	C		2	173	-	517	1909	1392	37.1%
3/2+3/3	A4155 Marlow Road (Eastbound) Ahead Right	U+O	N/A	N/A	C	D	2	173	32	787	2055:1849	692+361	74.8 : 74.8%
4/1	Pump Lane South Left Ahead Right	O	N/A	N/A	E		2	18	-	5	1853	99	5.0%
5/1	exit	U	N/A	N/A	-		-	-	-	507	Inf	Inf	0.0%
5/2	exit	U	N/A	N/A	-		-	-	-	526	Inf	Inf	0.0%
6/1	exit	U	N/A	N/A	-		-	-	-	309	Inf	Inf	0.0%
7/1	exit	U	N/A	N/A	-		-	-	-	605	Inf	Inf	0.0%
7/2	exit	U	N/A	N/A	-		-	-	-	349	Inf	Inf	0.0%
7/3	exit	U	N/A	N/A	-		-	-	-	298	Inf	Inf	0.0%
8/1	exit	U	N/A	N/A	-		-	-	-	17	Inf	Inf	0.0%

Full Input Data And Results

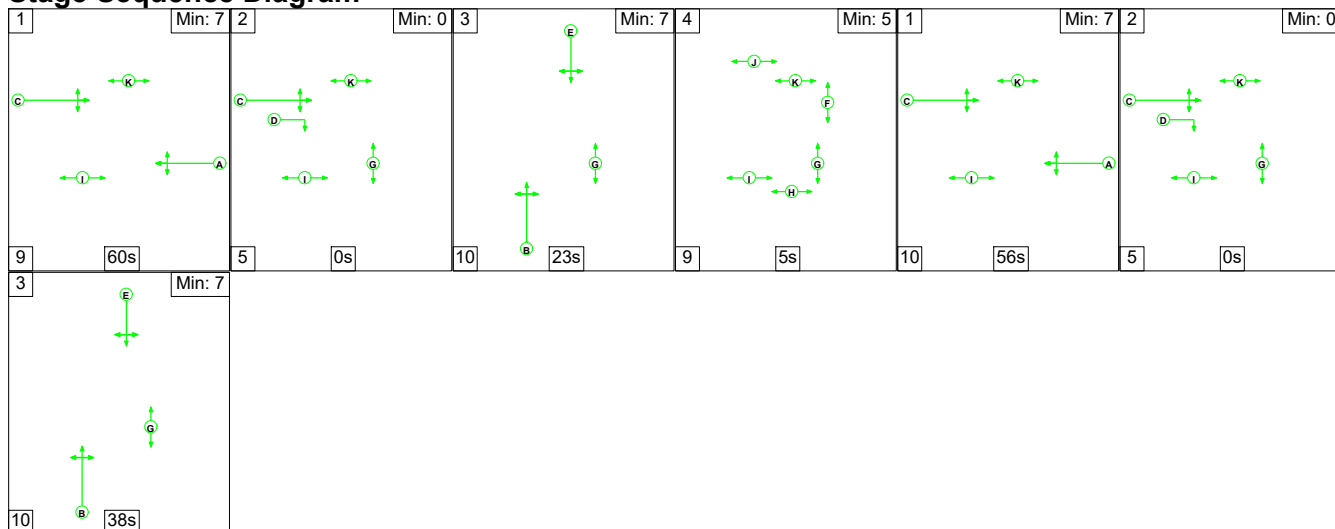
Ped Link: P1	Unnamed Ped Link	-	N/A	-	J		1	14	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	K		2	192	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		2	74	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	H		1	6	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	I		2	192	-	0	-	0	0.0%

Full Input Data And Results

Full Input Data And Results

Scenario 9: '2027 Base + Dev 17:00 to 18:00 STS PM' (FG9: '2027 Base + Dev STS 17:00 to 18:00 PM', Plan 1: 'Network Control Plan 1')

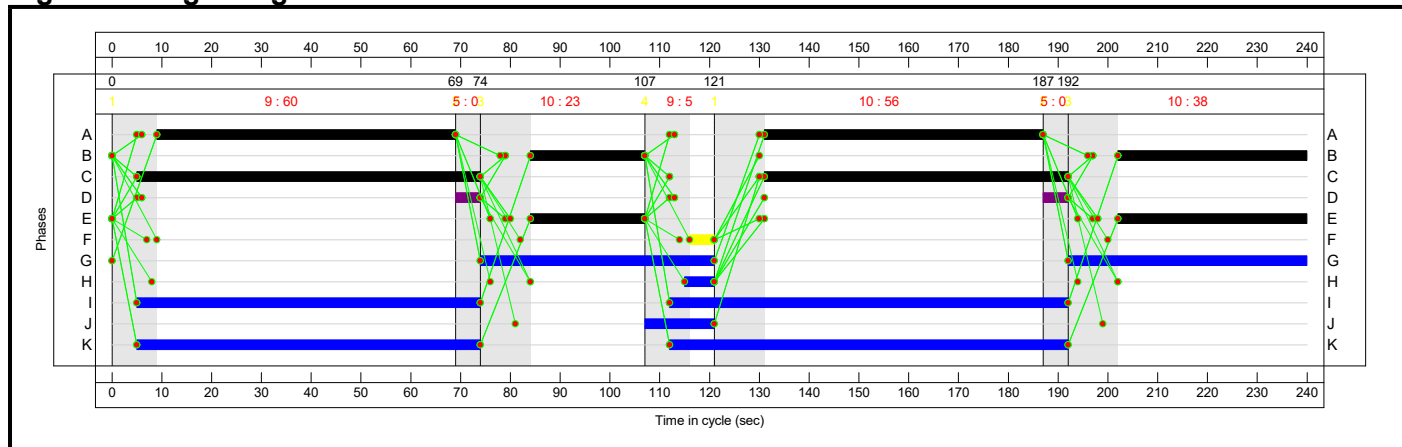
Stage Sequence Diagram



Stage Timings

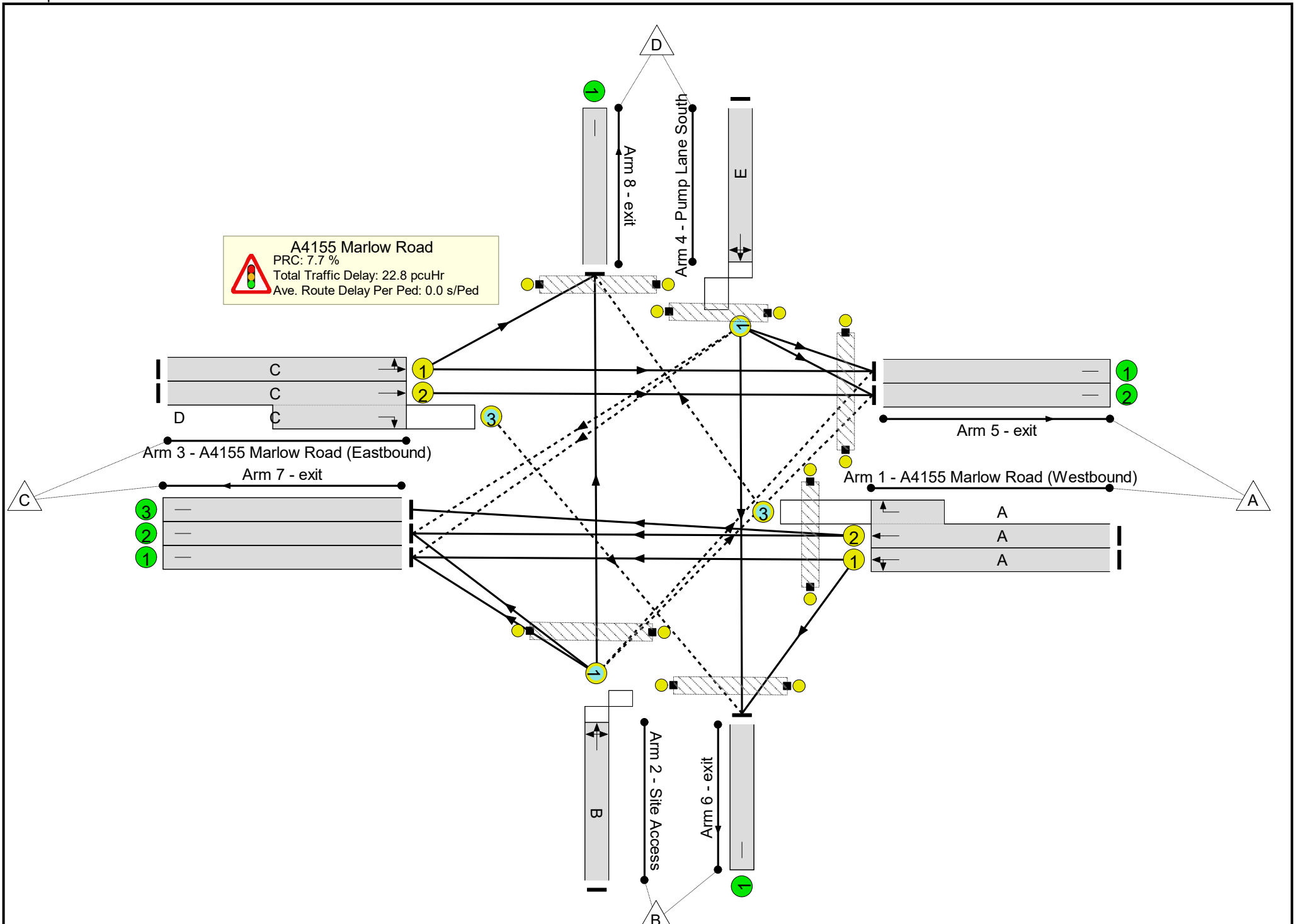
Stage	1	2	3	4	1	2	3
Duration	60	0	23	5	56	0	38
Change Point	0	69	74	107	121	187	192

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A4155 Marlow Road / Site Access Proposed Traffic Signals - With Right-turn into PLS	-	-	N/A	-	-		-	-	-	-	-	-	83.6%
A4155 Marlow Road	-	-	N/A	-	-		-	-	-	-	-	-	83.6%
1/1	A4155 Marlow Road (Westbound) Left Ahead	U	N/A	N/A	A		2	116	-	467	1908	938	49.8%
1/2+1/3	A4155 Marlow Road (Westbound) Ahead Right	U+O	N/A	N/A	A		2	116	-	471	2055:1849	1010+6	46.3 : 46.3%
2/1	Site Access Right Left Ahead	O	N/A	N/A	B		2	61	-	407	1855	487	83.6%
3/1	A4155 Marlow Road (Eastbound) Ahead Left	U	N/A	N/A	C		2	130	-	643	1909	1050	61.2%
3/2+3/3	A4155 Marlow Road (Eastbound) Ahead Right	U+O	N/A	N/A	C	D	2	130	10	741	2055:1849	1007+155	63.8 : 63.8%
4/1	Pump Lane South Left Ahead Right	O	N/A	N/A	E		2	61	-	32	1848	186	17.2%
5/1	exit	U	N/A	N/A	-		-	-	-	653	Inf	Inf	0.0%
5/2	exit	U	N/A	N/A	-		-	-	-	673	Inf	Inf	0.0%
6/1	exit	U	N/A	N/A	-		-	-	-	117	Inf	Inf	0.0%
7/1	exit	U	N/A	N/A	-		-	-	-	637	Inf	Inf	0.0%
7/2	exit	U	N/A	N/A	-		-	-	-	422	Inf	Inf	0.0%
7/3	exit	U	N/A	N/A	-		-	-	-	234	Inf	Inf	0.0%

Full Input Data And Results

8/1	exit	U	N/A	N/A	-		-	-	-	25	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	J		1	14	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	K		2	149	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	F		1	5	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		2	95	-	0	-	0	0.0%
Ped Link: P5	Unnamed Ped Link	-	N/A	-	H		1	6	-	0	-	0	0.0%
Ped Link: P6	Unnamed Ped Link	-	N/A	-	I		2	149	-	0	-	0	0.0%

UK and Ireland Office Locations

