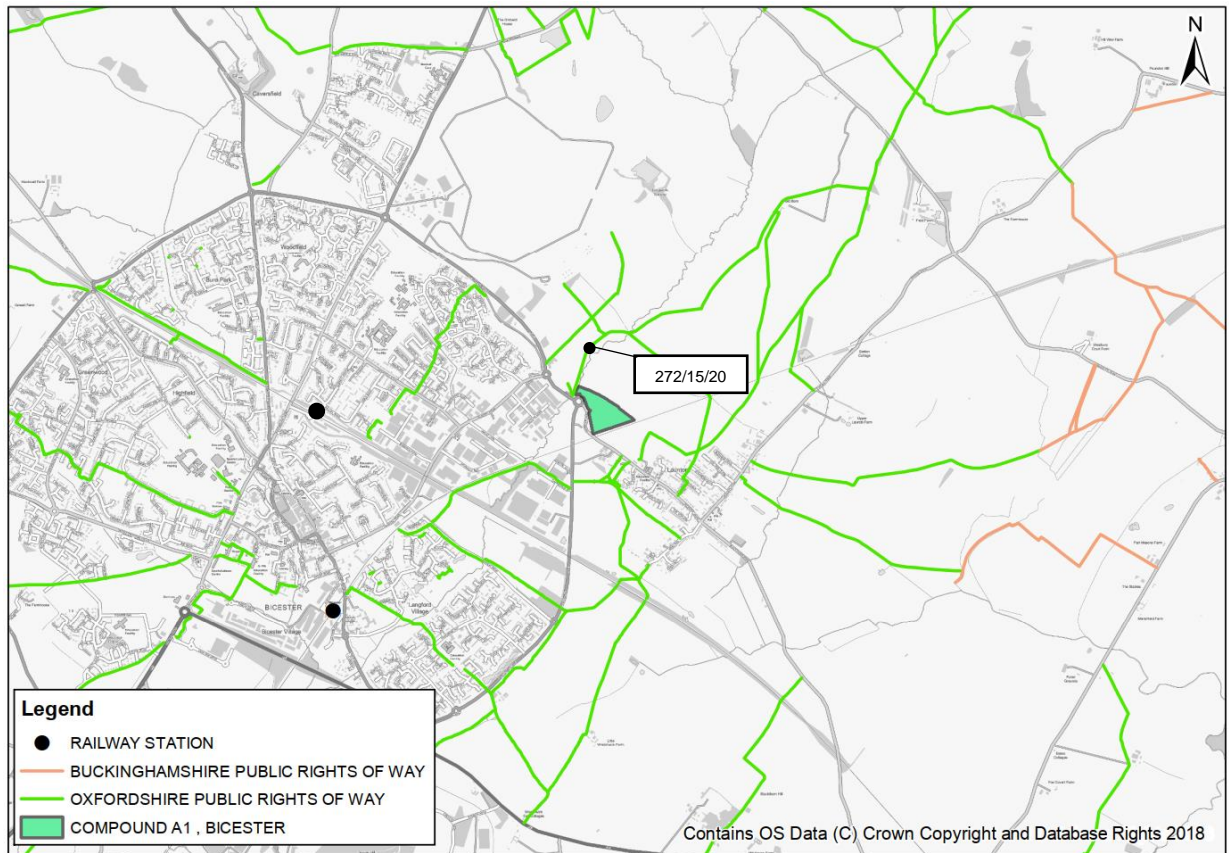
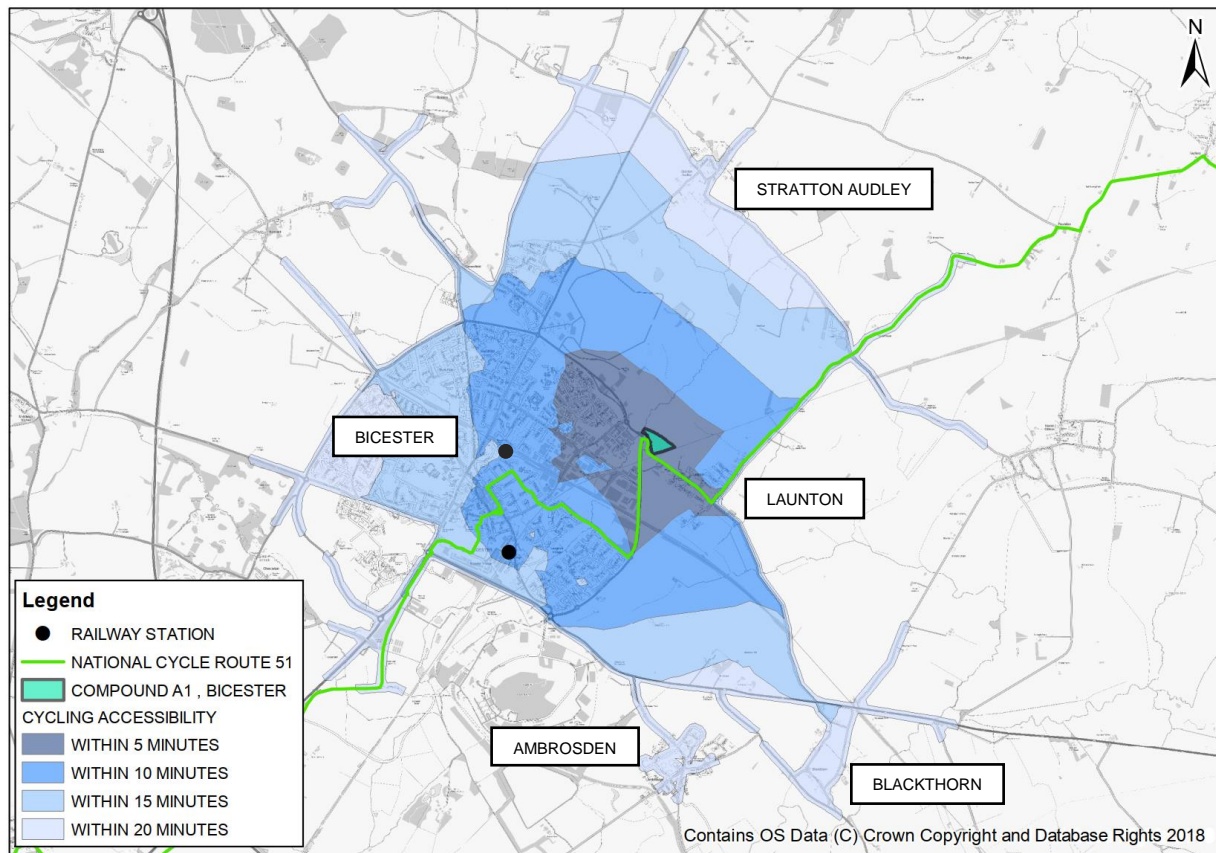


Insert 3.2 PRow provision



- 3.3.9 A cycling isochrone has been created to show the 20-minute cycling catchment from the compound based on a cycling speed of 4.4m/s, as shown in Insert 3.3. This assumes that the following distances can be reached in 5-minute increments: 1,320m, 2,640m, 3,960m and 5,280m. Insert 3.3 shows that Launton village and north eastern parts of Bicester are within a 5-minute cycle ride of the compound. The rest of Bicester, Stratton Audley and Ambrosden are within a 20-minute cycle ride of the compound.
- 3.3.10 The A4421, the B4100 and Howes Lane are not considered suitable for on road cycling due to high traffic speeds/volumes. There is a network of segregated and shared footways and cycleways in the vicinity of these routes that provide safe access for cyclists, except on the A4421 to the north of Caversfield where the footway/cycleway ceases.
- 3.3.11 There is a shared footway/cycleway which provides access to Ambrosden along the A41, although this narrow in places. Other sections of the A41 are not considered suitable for cycling. Cyclists accessing Blackthorn would be required to cross the A41 from Blackthorn Road onto Lower Road, or travel over 20 minutes via other local routes, therefore this is not considered a viable transport option for the workforce.
- 3.3.12 National Cycle Route 51 runs alongside the compound via Bicester Road, as shown in Insert 3.3. This provides access to Launton and Bicester. This includes some off-road sections, however cyclists would need to use the carriageway to the east of the compound towards Launton.

Insert 3.3 Cycling accessibility



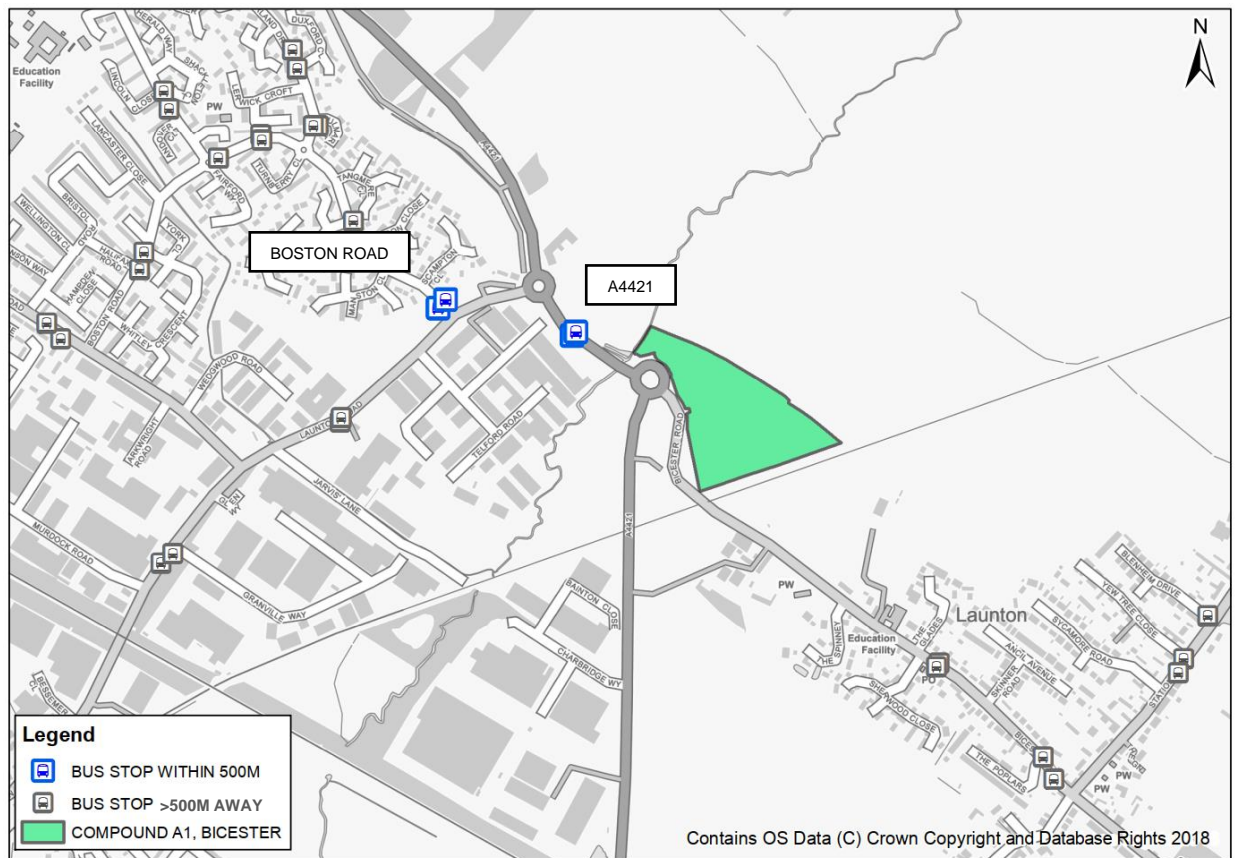
Public transport

- 3.3.13 Local public transport interchange points are shown in Insert 3.4 **Error! Reference source not found.** Compound A1 is located within 500m walking distance of bus stops on the A4421, served by the S5 bus service. Bus stops are also located on Boston Road (near Scampton Close) approximately 550m from the compound, which are used by the S5 and 18 bus services. These services provide connections to/from Oxford, Langford, Bicester, Bicester Park and Ride, Bicester North railway station and Steeple Claydon. Details are provided in Table 3.2.
- 3.3.14 There are footways provided on Bicester Road and the A4421, although workforce would need to cross Bicester Road from the site access to use.

Table 3.2 Bus service provision

Bus Service ⁴	Direction of travel	Monday-Friday	Saturday
S5 (Stagecoach) Oxford – Bicester – Langford	Towards Langford ⁵	Services approximately every 30 minutes (first service: 07:40; last service: 00:10)	Services approximately every 30 minutes (first service: 07:05; last service: 03:10)
	Towards Oxford ⁵	Services approximately every 30 minutes (first service: 05:43; last service 23:03)	Services approximately every 30 minutes (first service: 07:05; last service: 03:10)
18 (Langston & Tasker) Buckingham – Steeple Claydon – Bicester	Towards Bicester ⁶	4 services per day (first service: 07:52; last service: 16:50)	No services
	Towards Buckingham ⁷	4 services per day (first service: 08:35; last service: 18:00)	

Insert 3.4 Bus stop provision



⁴ Sources: <http://www.travelinesoutheast.org.uk>

⁵ Some services depart/terminate at Launton or St George Barracks (Upper Arcott)

⁶ First service departs from Steeple Claydon, not Buckingham

⁷ Last service terminates in Steeple Claydon, not Buckingham

3.3.15 Bicester North and Bicester Village railway stations are within a reasonable driving and cycling distance (20-minute journey), providing connections to Oxford, London and Birmingham. Rail services are included in Table 3.3.

3.3.16 Bus service S5 provides access to/from Bicester North railway station approximately every half an hour, with more frequent services in the morning. Services from Boston Road do not provide access to Bicester Village railway station, however both stations are within a 20-minute drive and cycle ride of the compound.

Table 3.3 Bicester rail service provision

Bletchley railway station route options ⁸		
Bicester station	Origin/destination	Service provider
Bicester Village	London Marylebone	Chiltern Railways
	Oxford	
Bicester North	London Marylebone	
	Birmingham Snow Hill/Moor Street	

⁸ Sources: National Rail

4. Advance works programme and compound facilities

4.1.1 This section provides a summary of the advance works, including the likely trip generation, travel profiles of staff and operatives, and parking and welfare facilities proposed to be provided at Compound A1.

4.2 Summary of advance works

4.2.1 It is proposed for work at this compound to start in April 2019, and for the construction of the compound to take approximately 16 weeks.

4.2.2 There are two key stages to the advance works at each compound as set out in Insert 4.1. Initially, access will be set up at the compound before work is undertaken to construct the compound, install utilities and provide a base for equipment and workforce. Preliminary works will be completed once the compound has been set up. Further details of the work are included in the accompanying TS.

Insert 4.1 Stages of advance works



4.2.3 Each compound will not be utilised for the main works until the TWAO has been made. If the TWAO is not made, then the EWR Alliance will ensure removal of the advance works compounds and reinstatement (where needed) of the affected sites to equivalent of their original condition.

4.2.4 It is proposed the compound will base 10 staff and 80 operatives during the temporary compound set up and 10 staff and 50 operatives during the preliminary works.

4.2.5 Details of the workforce daily and peak hour trip generation is provided in the accompanying TS.

4.3 Trip generation

4.3.1 Details of the daily and peak hour trip generation is provided in the accompanying TS.

4.3.2 The distribution of workforce points of origin is shown in Table 4.1⁹. It is assumed that the majority of the workforce will limit their daily commute to less than 1 hour, and where their home is further they will lodge in the local area.

⁹ Source: Appendix 14.11, Volume 3 of the ES

Table 4.1 Distribution of workforce

Location	Distribution Percentage
Cambridge	1%
London	10%
South of London	2%
Luton	5%
Bedford	5%
North of Leicester	2%
Leicester	1%
Milton Keynes & Northampton	25%
Aylesbury & Nearby	20%
Reading	1%
Oxford	2%
Bicester	15%
Banbury	5%
Birmingham & Coventry	5%
Bristol & Bath	1%

- 4.3.3 All work will be carried out during the working hours of 7am to 6pm on Mondays to Fridays and 8am to 4pm on Saturdays. Work undertaken outside of these hours will require approval from OCC.
- 4.3.4 Staff and operative working patterns are anticipated to follow those for the main construction works, included in the TA (Appendix 14.1, Volume 3 of the ES) and CTPs.
- 4.3.5 On the appointment of subcontractors, the following information will inform the CTPS:
- On-site phasing of subcontractors
 - Information on working arrangements of current and future subcontractors e.g. number of staff, shift patterns
 - Travel arrangements for subcontractors
 - Likely origins of subcontractors staff and site deliveries.
- 4.3.6 It is recognised that staff and operatives travel choices will be influenced by the following factors:
- The need to carry equipment/clothing
 - The origin of journey and availability of local accommodation
 - The availability of sustainable transport options and timetables which match the shift times.

4.4 Compound facilities

- 4.4.1 Car parking spaces will be provided on site in the vicinity of the office and welfare premises. It is proposed that cycle storage spaces are provided for workforce residing within the 20-minute cycle catchment area. The number of spaces provided is in anticipation of the main construction works.
- 4.4.2 There will be enough on-site parking to meet demand with no overspill onto the surrounding highway network. There will be a Gateman/Vehicle Marshall who will control vehicle movements to and from the compound.

- 4.4.3 The Gateman/Vehicle Marshall will also be responsible for sighting oncoming traffic where visibility is obstructed to/from the site entrance, ensuring that oncoming traffic has slowed and is aware of any egressing vehicles.
- 4.4.4 The offices and welfare facilities will consist of segregated showers, changing rooms and bench and locker provision. A canteen will also be provided.

5. CTPS objectives and targets

5.1.1 This section outlines the CTPS objectives and targets for Compound A1.

5.1.2 The primary aim of this CTPS is to reduce traffic generation by workforce during the advance works proposed at the compound. This will be achieved by encouraging car sharing and sustainable forms of travel by those managing the site to contractors, whilst ensuring the continual efficient operation of the construction process.

Objectives

5.1.3 The objectives are high-level aims of the CTPS, which provide direction and focus. The following objectives have been set for this CTPS:

- To reduce the impact of the construction traffic on the highway network, particularly in relation to peak periods when the majority of staff and operatives will be arriving/departing from the compound
- To ensure that the construction traffic has minimal environmental impact on the surrounding area by providing routing options and reducing the overall number of single occupancy private vehicles
- To effectively manage use of the car for commuter trips through promotion of car sharing and reasonable alternative modes of transport, thereby reducing parking demand
- To maximise opportunities for the workforce to travel to compounds by means other than single occupancy vehicles.

Targets

5.1.4 Targets have been set to achieve the objectives set out above. Targets are often interrelated and will help in meeting several of the objectives.

5.1.5 Targets will include:

- Reduction in single occupancy private car use over the advance works period
- Achieve an average car occupancy rate of at least 1.5 for staff and operative trips
- Efficient management of on-site contractor car parking to accommodate journeys which cannot be made by alternative modes
- Increase the proportion of workforce car sharing and cycling for short journeys, where feasible
- A commitment to the delivery of the CTPS in all construction tenders.

5.1.6 Due to the short timescales of the advance works, action-based targets have been identified which cover the works' duration. These are outlined in the following section.

6. CTPS initiatives

6.1.1 This section identifies a range of effective measures will be delivered to achieve the CTPS objectives and targets. These will include a mix of physical measures, co-ordination roles and promotion of sustainable transport modes. Proposed measures, described below, will be finalised by an appropriate member of staff prior to advance works commencing on site. Whilst these initiatives are proposed for the duration of the advance works, these measures could be continued for the main construction works.

Travel Plan Co-ordinator

6.1.2 The appointment of a Travel Plan Co-ordinator (TPC) will provide the workforce with a single point of contact for enquiries relating to the CTPS. The TPC will be responsible for implementing and monitoring the CTPS on a day to day basis, providing drive and focus. It is likely this responsibility will be taken by the site manager or logistics manager. This will be confirmed in due course and updated accordingly.

6.1.3 The TPC will liaise and communicate with the workforce on a regular basis as well as establishing partnerships with relevant stakeholders.

6.1.4 There will be a commitment to the CTPS in the contractors' tendering agreements. The TPC will finalise the measures proposed in the CTPS, attend quarterly meetings with contractor companies and make sure the document is communicated to employees e.g. as part of the starter induction process.

Information collection strategy

6.1.5 To ensure that the CTPS strategies and initiatives are appropriate and effective, a good understanding of the travel and transport issues in relation to the effective operation of the compound sites is required. This requires the following information, which will be incorporated into the CTPS:

- Number of staff and operatives on site employed by each contractor
- Number of vehicles required on site by each contractor
- Details relating to the use of sub-contractors and the schedule of works.

6.1.6 A travel survey will be conducted in addition to the measures outlined above. This will be conducted once personnel have been appointed, within one week of the commencement of each stage of the advance works, as shown in Insert 4.1. A workforce travel survey will provide the following information:

- Journey origins of the workforce
- How they travel to/from their place of origin
- Willingness to travel by sustainable forms of transport
- Willingness to take part in car sharing initiatives
- How their journeys can be improved.

6.1.7 Due to the short timescales of the advance works, an annual or biannual repeat of the travel survey will not be feasible. However, the survey will provide baseline travel data for the main construction works and indicate the effectiveness of the CTPS measures, i.e. whether a 1.5 vehicle occupancy rate is being achieved. Travel surveys should be carried out within one week of each stage of the advance works commencing.

Car sharing and vehicle pooling strategy

6.1.8 Car sharing is deemed an appropriate strategy for staff and operatives whose journeys and shift times coincide. This will also be appropriate for workforce lodging in the compound's locality.

6.1.9 There are a number of formal car sharing schemes, such as Lift Share (<https://liftshare.com/uk>), however it is recommended car sharing is encouraged on an informal basis, given the size of the workforce, the

compound's rural location, working hours and limited duration of the advance works. Any informal car sharing schemes should be organised and promoted by the TPC. Workforce interested in the scheme will need to share contact details to the TPC and then exchanged with personnel with similar journeys to/from work.

- 6.1.10 This strategy will aim to achieve the 1.5 car occupancy rate target and reduce the total number of vehicles travelling to and from the site.

Cycling strategy

- 6.1.11 This is aimed at workforce who are residing within the 20-minute cycling catchment area of the compound, where cycling is deemed to be a viable travel option. Cycling maps should be displayed in an appropriate location within the compound, e.g. the canteen and communal changing areas. Workforce should be made aware of the welfare facilities provided to further encourage uptake of cycling.

Public transport strategy

- 6.1.12 The CTPS acknowledges the lack of local public transport provision. However, the provision of a minibus service is being investigated to transfer workforce to and from public transport hubs within a reasonable driving distance of the compound. This could include Bicester North and Bicester Village railway station and Bicester Park and Ride and central bus interchange, although the frequency and route of a minibus service will be agreed with the Local Highway Authority prior to the advance works commencing.

Car parking strategy

- 6.1.13 The parking of workforce vehicles will be managed by the contractors. It is proposed that the site manager or logistics manager will keep surveillance on parking to ensure no inappropriate overspill onto the public highway.
- 6.1.14 It is proposed that all the essential car parking information will be included in starter packs, promotional material and starter inductions.
- 6.1.15 Interim car parking spaces will be provided during completion of the car park, part of the temporary compound set up stage of the advance works. This will be managed by establishing a clearly identified temporary car parking area at the very beginning of the compound construction.
- 6.1.16 The site manager or logistics manager will ensure that parking does not overspill onto the public highway at all times.

Local recruitment strategy

- 6.1.17 A local recruitment policy will be implemented to reduce the distance which sub-contracted staff have to travel to site. This would also increase the viability of travel by sustainable modes. It is noted that this may not be practical on occasions where specialist contractors are required.
- 6.1.18 Where specialists are recruited from further afield, opportunities for lodging nearby will be pursued which may allow van pooling and car sharing measures to be taken.
- 6.1.19 As part of the recruitment process, the credentials of the company will be examined to understand their policies on using energy efficient vehicles for the transport of personnel to the construction compounds.
- 6.1.20 Sub-contractors will be expected to endorse the CTPS and regularly liaise with the TPC to raise any travel related issues.

Workforce vehicle routing strategy

- 6.1.21 Staff and operatives will be encouraged to use the Construction Access Routes identified, where possible. This will control any potential adverse impacts on rural communities and other sensitive locations from workforce related traffic.
- 6.1.22 Measures can be put in place to promote the use of these routes, such as leaflets, maps and infographics on site. Information will also be included in any welcome packs or starter inductions to ensure the staff and operatives are informed of the desired routes to/from site.
- 6.1.23 The TPC should liaise with the Local Highway Authority to ascertain if any issues relating to workforce traffic have been raised throughout the duration of the works.

Travel Information Pack

- 6.1.24 Promotional material will be provided to the workforce in the form of a Travel Information Pack. This will provide workforce with a one-stop resource for all relevant travel information pertaining to the site. This will include information on the initiatives outlines above, including:
 - Name and contact details of the TPC
 - Car sharing and vehicle pooling information, including any informal car sharing forums
 - Walking and cycling information, accompanied by maps (can be provided separately)
 - Details of the S5 and 18 bus services, including bus stop locations and timetables
 - Details of any minibus service provision, including pick up points from nearby public transport hubs
 - Details of railway services operating to/from Bicester North and Bicester Village railway stations
 - Car parking protocol, including car sharing/vehicle pooling incentives
 - Details of recommended routes to get to and from the compound.
- 6.1.25 Travel Information Packs should be communal and displayed in the canteen with easy access to workforce.

7. Action plan and monitoring

7.1.1 This section outlines the proposed management and monitoring procedures to make sure the objectives and targets of the CTPS are met.

7.2 Action plan

7.2.1 Table 7.1 outlines the required actions to implement the CTPS. The action plan identifies deadlines for completion to make sure proposed measures are realised and met. The TPC will have the overall responsibility for ensuring that the action plan is implemented adequately, with support from other parties.

7.2.2 The tender requirements will stipulate that contractors take responsibility for taking forward and implementing the CTPS, meaning that initiatives can be implemented promptly before the advance works commence.

Table 7.1 CTPS action plan

Measure	Programme for implementation	Responsibility
Appoint a TPC	Prior to the commencement of advance works on site	Alliance
Information collection	Within 1 week of commencement of each stage of the advance works on site	TPC
Car sharing and vehicle pooling strategy	From the commencement of advance works on site	TPC
Cycling strategy	From the commencement of advance works on site	TPC
Public transport strategy	From the commencement of advance works on site	TPC
Car parking strategy	From the commencement of advance works on site	TPC
Local recruitment strategy	Prior to the commencement of advance works on site	Site Manager/Logistics Manager
Workforce vehicle routing strategy	From the commencement of advance works on site	TPC

7.3 Monitoring strategy

7.3.1 Monitoring and reviewing the implementation of the CTPS will commence once advance works start on site. Day to day monitoring of the CTPS will be the responsibility of the TPC, although this does not require formalised activities on a daily basis. Rather, the TPC will serve as a point of contact whom staff and operatives can report any travel problems to. The TPC should be aware of the Travel Planning strategies in place and have a general awareness of the travel issues pertaining to the site.

Facilities management

7.3.2 The usage and demand for facilities should be monitored on a regular basis. This will ensure workforce are only parking in designated areas without overspill and that demand for cycling should not exceed supply. Monitoring is the TPC's responsibility, with support from site managers and logistic managers (unless they undertake the role of the TPC).

7.3.3 A CTPS monitoring record will be kept by the TPC. This will allow the TPC to monitor the effectiveness of the CTPS and check where improvements could be made.

Travel surveys

- 7.3.4 Travel surveys should be carried out as soon as possible following commencement of advance works on site, at least within one week of each stage of the advance works commencing.
- 7.3.5 These results should be made available to the relevant stakeholders (such as the EWR Alliance and the Local Highway Authority). This may inform future Travel Planning measures and targets related to the main construction works or other committed developments.

8. Conclusion

- 8.1.1 This CTPS has been produced to outline the proposed measures to reduce traffic generated by the workforce based at this site during the advance works, in line with national and local policy. A coordinated travel planning strategy will facilitate the effective management of workforce daily movements to and from the compound, whilst maintaining an efficient and safe operation of the site.
- 8.1.2 Travel planning initiatives and monitoring procedures are in place to measure the performance of the CTPS and to make sure targets are met. This includes the appointment of a TPC who will be responsible for the implementation and monitoring of the CTPS.
- 8.1.3 The strategies proposed are considered appropriate for the size of the compound and the travel behaviour of the workforce, although it is acknowledged the CTPS is a dynamic process that can adapt to the needs of the workforce as work is progressed at this compound.

Appendix B. Road safety assessment methodology note

Road Safety Assessment Methodology

Collision data for the most recent five-year period (1st January 2012 to 31st December 2016) has been provided by the following local highway authorities for links and junctions within the transport construction study area:

- Oxfordshire County Council (OCC)
- Buckinghamshire County Council (BCC)
- Milton Keynes Council (MKC)
- Central Bedfordshire Council (CBC)
- Bedford Borough Council (BBC)
- South Northamptonshire Council (SNC)

This collision data, obtained from local highway authorities, identifies traffic collisions on the public highway which have been reported to the police and involve human injury or death. The data is based on the STATS19 records collected by the police when attending a traffic collision. The collision data includes stationary vehicles and non-motorised users.

The data does not include:

- confirmed suicides
- death from natural causes
- injuries to pedestrians with no vehicle involvement (e.g. a fall on the pavement)
- collisions in which no one is injured but a vehicle is damaged (damage only collisions)

The severity of a collision is determined by the most severely injured casualty involved in a collision, which is either categorised as slight, serious or fatal.

The severity of a collision is defined as:

- **Slight** - injury resulting from a collision which is not deemed to be severe, for example neck whiplash injury, can also include shock requiring roadside assistance
- **Serious** - injury resulting from a collision for which a person is detained in hospital as an "in-patient" as well as a list of other more serious injuries including crushing's, burns, severe cuts and general shock
- **Fatal** - death resulting from a collision within 30 days of the event, due to injuries received in the collision

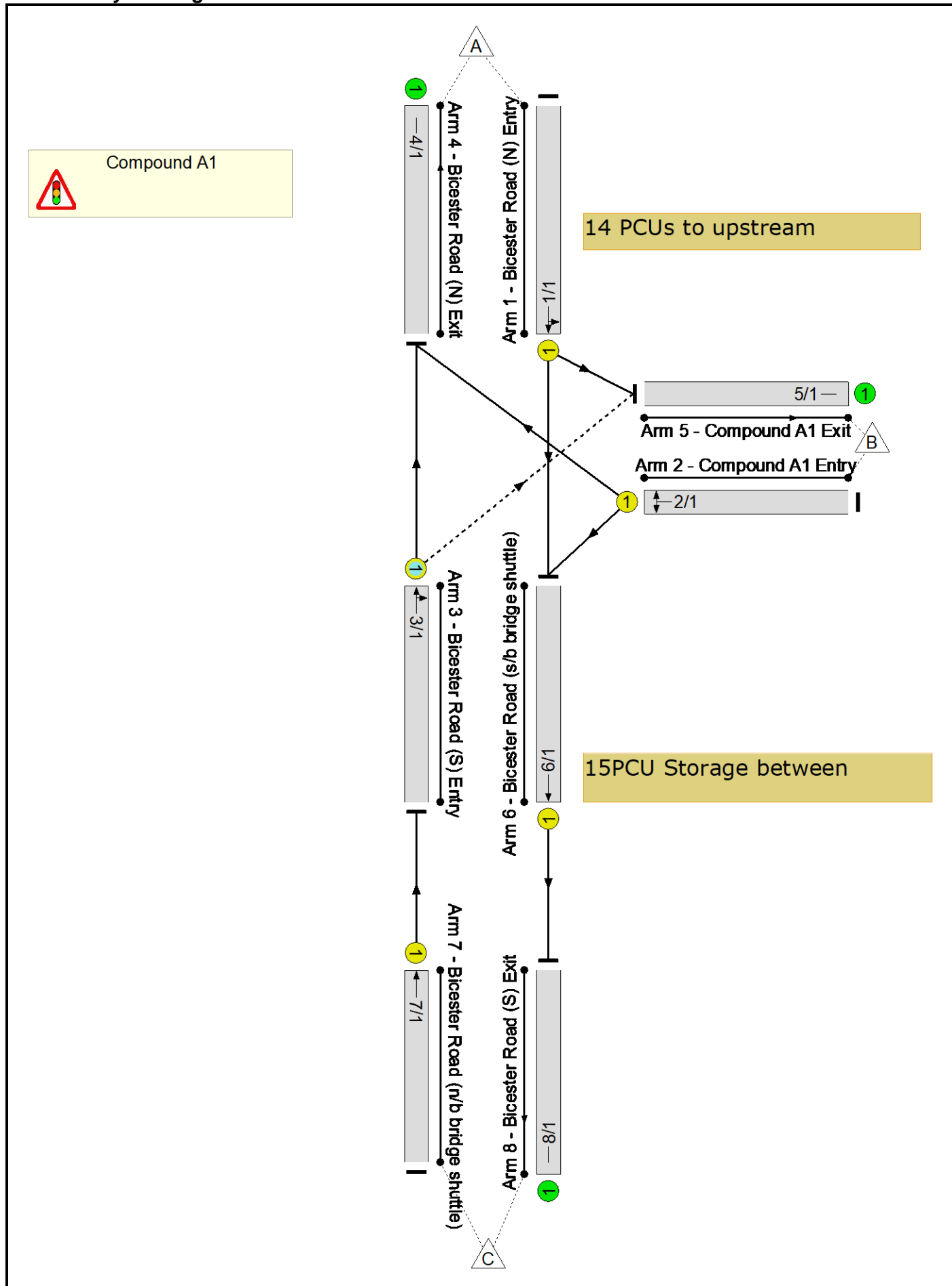
Appendix C. Junction Capacity Modelling Outputs

Full Input Data And Results

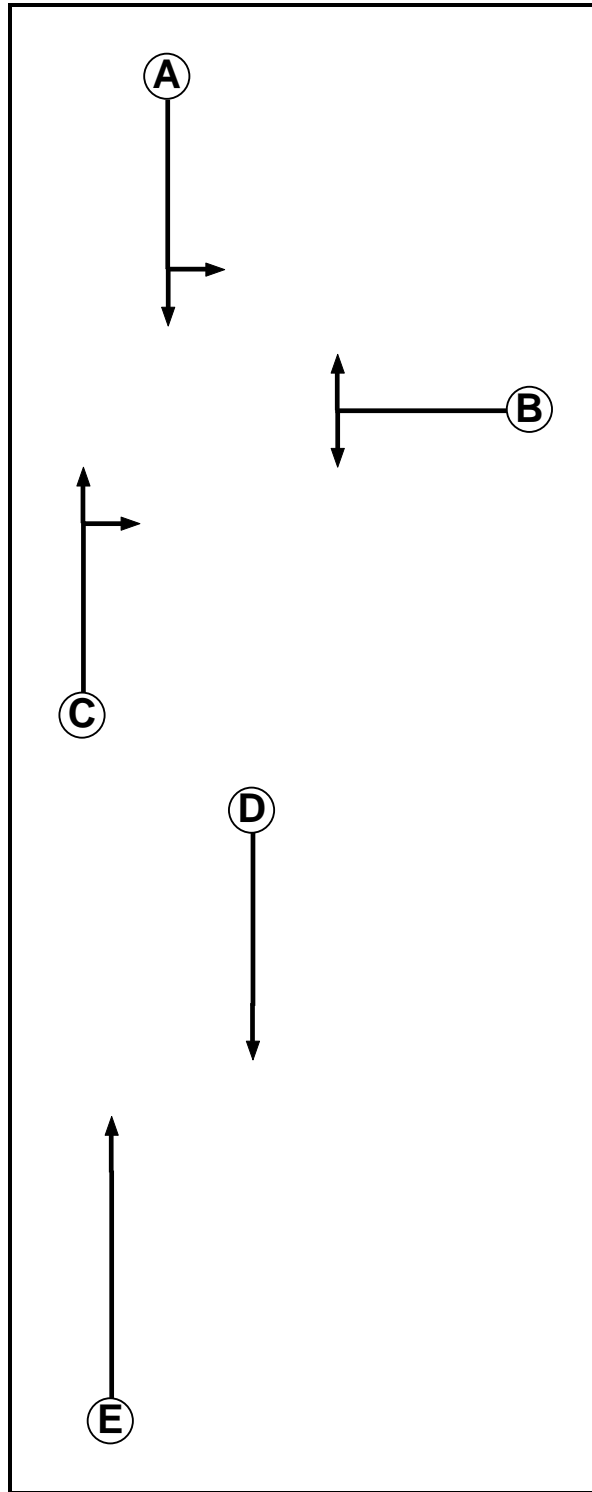
User and Project Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	190314_Compound A1 Access.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Traffic	1		7	7
D	Traffic	2		7	7
E	Traffic	2		7	7

Full Input Data And Results

Phase Intergrens Matrix

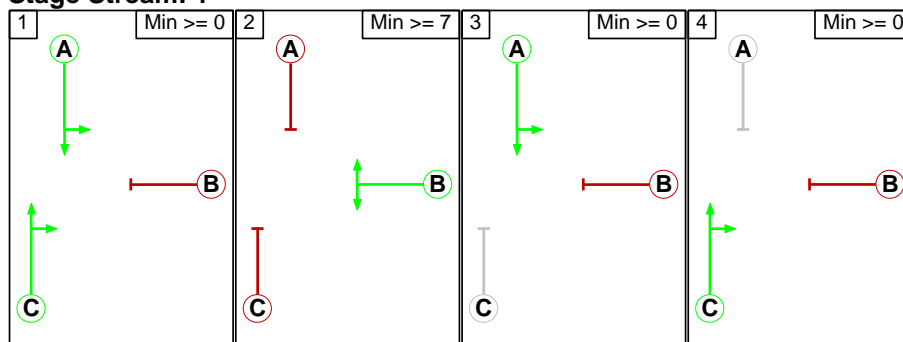
Terminating Phase	Starting Phase				
	A	B	C	D	E
	A	5	-	-	-
	B	5	5	-	-
	C	-	5	-	-
	D	-	-	-	14
E	-	-	-	14	

Phases in Stage

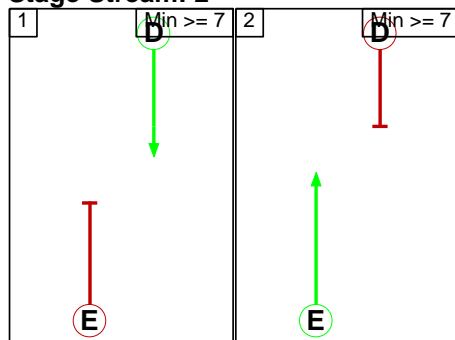
Stream	Stage No.	Phases in Stage
1	1	A C
1	2	B
1	3	A
1	4	C
2	1	D
2	2	E

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					

Full Input Data And Results

Stage Stream: 2

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

Prohibited Stage Change

Stage Stream: 1

		To Stage			
		1	2	3	4
From Stage	1		5	0	0
	2	5		5	5
	3	2	5		2
	4	2	5	2	

Stage Stream: 2

		To Stage	
		1	2
From Stage	1		14
	2	14	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Compound A1											
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 (Bicester Road (S) Entry)	5/1 (Right)	1439	0	1/1	1.09	All	-	-	-	-	-

Full Input Data And Results

Lane Input Data

Junction: Compound A1												
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 (Bicester Road (N) Entry)	U	A	2	3	13.9	Geom	-	3.65	0.00	Y	Arm 5 Left	15.00
											Arm 6 Ahead	Inf
2/1 (Compound A1 Entry)	U	B	2	3	60.0	Geom	-	3.65	0.00	Y	Arm 4 Right	15.00
											Arm 6 Left	15.00
3/1 (Bicester Road (S) Entry)	O	C	2	3	15.0	Geom	-	4.20	0.00	Y	Arm 4 Ahead	Inf
											Arm 5 Right	15.00
4/1 (Bicester Road (N) Exit)	U		2	3	13.9	Inf	-	-	-	-	-	-
5/1 (Compound A1 Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (Bicester Road (s/b bridge shuttle))	U	D	2	3	15.0	Geom	-	3.00	0.00	Y	Arm 8 Ahead	Inf
7/1 (Bicester Road (n/b bridge shuttle))	U	E	2	3	60.0	Geom	-	3.65	0.00	Y	Arm 3 Ahead	Inf
8/1 (Bicester Road (S) Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'Construction Future Baseline + EWR2 AM Peak'	08:00	09:00	01:00	
2: 'Construction Future Baseline + EWR2 PM Peak'	17:00	18:00	01:00	
3: 'Cumulative AM Peak'	08:00	09:00	01:00	
4: 'Cumulative PM Peak'	17:00	18:00	01:00	
5: 'Copy of Construction Future Baseline + EWR2 PM Peak'	17:00	18:00	01:00	

Full Input Data And Results

Scenario 5: 'Separate Stages Cumulative AM Peak' (FG3: 'Cumulative AM Peak', Plan 2: 'Separate Stages')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	44	350	394
	B	34	0	4	38
	C	424	3	0	427
	Tot.	458	47	354	859

Traffic Lane Flows

Lane	Scenario 5: Separate Stages Cumulative AM Peak
Junction: Compound A1	
1/1	394
2/1	38
3/1	427
4/1	458
5/1	47
6/1	354
7/1	427
8/1	354

Full Input Data And Results

Lane Saturation Flows

Junction: Compound A1								
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 (Bicester Road (N) Entry)	3.65	0.00	Y	Arm 5 Left	15.00	11.2 %	1958	1958
				Arm 6 Ahead	Inf	88.8 %		
2/1 (Compound A1 Entry)	3.65	0.00	Y	Arm 4 Right	15.00	89.5 %	1800	1800
				Arm 6 Left	15.00	10.5 %		
3/1 (Bicester Road (S) Entry)	4.20	0.00	Y	Arm 4 Ahead	Inf	99.3 %	2034	2034
				Arm 5 Right	15.00	0.7 %		
4/1 (Bicester Road (N) Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Compound A1 Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Bicester Road (s/b bridge shuttle))	3.00	0.00	Y	Arm 8 Ahead	Inf	100.0 %	1915	1915
7/1 (Bicester Road (n/b bridge shuttle))	3.65	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1980	1980
8/1 (Bicester Road (S) Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 6: 'Separate Stages Cumulative PM Peak' (FG4: 'Cumulative PM Peak', Plan 2: 'Separate Stages')

Traffic Flows, Desired

Desired Flow :

	Destination				
	A	B	C	Tot.	
Origin	A	0	33	428	461
	B	90	0	18	108
	C	326	18	0	344
	Tot.	416	51	446	913

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: Separate Stages Cumulative PM Peak
Junction: Compound A1	
1/1	461
2/1	108
3/1	344
4/1	416
5/1	51
6/1	446
7/1	344
8/1	446

Lane Saturation Flows

Junction: Compound A1								
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 (Bicester Road (N) Entry)	3.65	0.00	Y	Arm 5 Left Arm 6 Ahead	15.00 Inf	7.2 % 92.8 %	1966	1966
2/1 (Compound A1 Entry)	3.65	0.00	Y	Arm 4 Right Arm 6 Left	15.00 15.00	83.3 % 16.7 %	1800	1800
3/1 (Bicester Road (S) Entry)	4.20	0.00	Y	Arm 4 Ahead Arm 5 Right	Inf 15.00	94.8 % 5.2 %	2024	2024
4/1 (Bicester Road (N) Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Compound A1 Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Bicester Road (s/b bridge shuttle))	3.00	0.00	Y	Arm 8 Ahead	Inf	100.0 %	1915	1915
7/1 (Bicester Road (n/b bridge shuttle))	3.65	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1980	1980
8/1 (Bicester Road (S) Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 7: 'Separate Stages Construction Future Baseline + EWR2 AM Peak' (FG1: 'Construction Future Baseline + EWR2 AM Peak', Plan 2: 'Separate Stages')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	44	350	394
	B	34	0	3	37
	C	421	3	0	424
	Tot.	455	47	353	855

Traffic Lane Flows

Lane	Scenario 7: Separate Stages Construction Future Baseline + EWR2 AM Peak
Junction: Compound A1	
1/1	394
2/1	37
3/1	424
4/1	455
5/1	47
6/1	353
7/1	424
8/1	353

Full Input Data And Results

Lane Saturation Flows

Junction: Compound A1								
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 (Bicester Road (N) Entry)	3.65	0.00	Y	Arm 5 Left	15.00	11.2 %	1958	1958
				Arm 6 Ahead	Inf	88.8 %		
2/1 (Compound A1 Entry)	3.65	0.00	Y	Arm 4 Right	15.00	91.9 %	1800	1800
				Arm 6 Left	15.00	8.1 %		
3/1 (Bicester Road (S) Entry)	4.20	0.00	Y	Arm 4 Ahead	Inf	99.3 %	2034	2034
				Arm 5 Right	15.00	0.7 %		
4/1 (Bicester Road (N) Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Compound A1 Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Bicester Road (s/b bridge shuttle))	3.00	0.00	Y	Arm 8 Ahead	Inf	100.0 %	1915	1915
7/1 (Bicester Road (n/b bridge shuttle))	3.65	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1980	1980
8/1 (Bicester Road (S) Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 8: 'Separate Stage Construction Future Baseline + EWR2 PM Peak' (FG2: 'Construction Future Baseline + EWR2 PM Peak', Plan 2: 'Separate Stages')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	33	425	458
	B	90	0	18	108
	C	326	18	0	344
	Tot.	416	51	443	910

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 8: Separate Stage Construction Future Baseline + EWR2 PM Peak
Junction: Compound A1	
1/1	458
2/1	108
3/1	344
4/1	416
5/1	51
6/1	443
7/1	344
8/1	443

Lane Saturation Flows

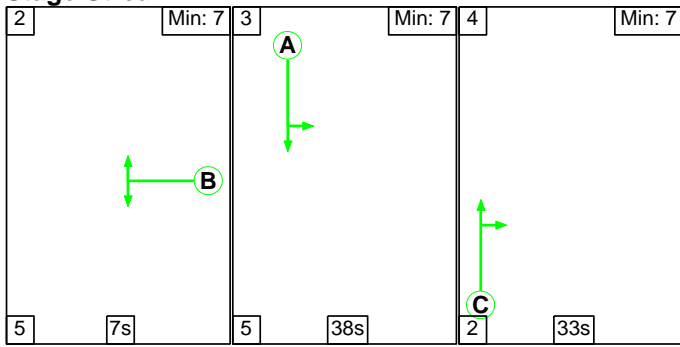
Junction: Compound A1								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Bicester Road (N) Entry)	3.65	0.00	Y	Arm 5 Left	15.00	7.2 %	1966	1966
				Arm 6 Ahead	Inf	92.8 %		
2/1 (Compound A1 Entry)	3.65	0.00	Y	Arm 4 Right	15.00	83.3 %	1800	1800
				Arm 6 Left	15.00	16.7 %		
3/1 (Bicester Road (S) Entry)	4.20	0.00	Y	Arm 4 Ahead	Inf	94.8 %	2024	2024
				Arm 5 Right	15.00	5.2 %		
4/1 (Bicester Road (N) Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Compound A1 Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Bicester Road (s/b bridge shuttle))	3.00	0.00	Y	Arm 8 Ahead	Inf	100.0 %	1915	1915
7/1 (Bicester Road (n/b bridge shuttle))	3.65	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1980	1980
8/1 (Bicester Road (S) Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

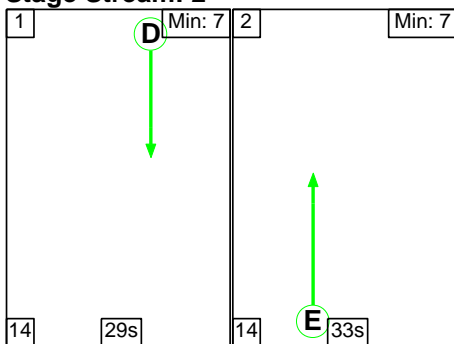
Scenario 5: 'Separate Stages Cumulative AM Peak' (FG3: 'Cumulative AM Peak', Plan 2: 'Separate Stages')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

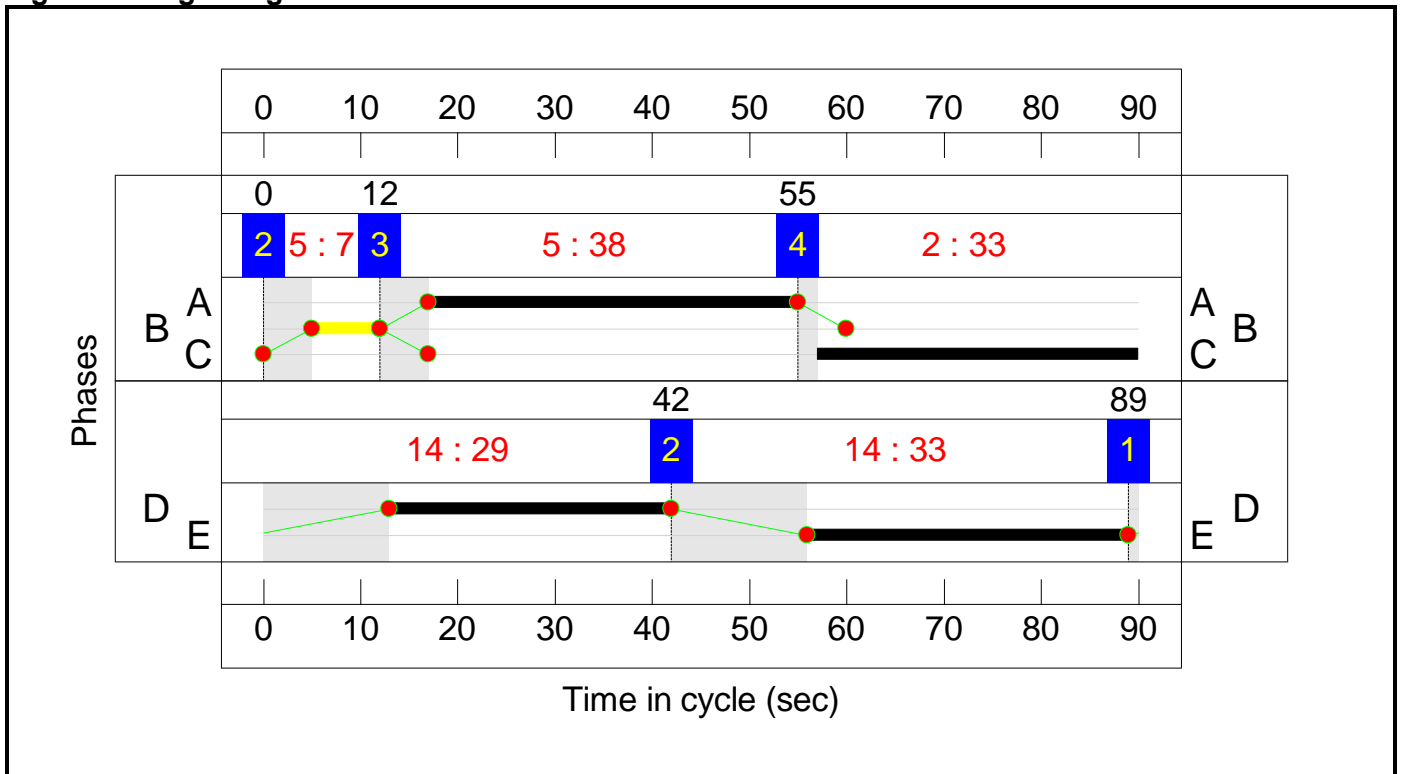
Stage Stream: 1

Stage	2	3	4
Duration	7	38	33
Change Point	0	12	55

Stage Stream: 2

Stage	1	2
Duration	29	33
Change Point	89	42

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	57.1%
Compound A1	-	-	N/A	-	-		-	-	-	-	-	-	57.1%
1/1	Bicester Road (N) Entry Left Ahead	U	1	N/A	A		1	38	-	394	1958	848	46.4%
2/1	Compound A1 Entry Right Left	U	1	N/A	B		1	7	-	38	1800	160	23.8%
3/1	Bicester Road (S) Entry Ahead Right	O	1	N/A	C		1	33	-	427	2034	768	55.6%
4/1	Bicester Road (N) Exit	U	N/A	N/A	-		-	-	-	458	Inf	Inf	0.0%
5/1	Compound A1 Exit	U	N/A	N/A	-		-	-	-	47	Inf	Inf	0.0%
6/1	Bicester Road (s/b bridge shuttle) Ahead	U	2	N/A	D		1	29	-	354	1915	638	55.5%
7/1	Bicester Road (n/b bridge shuttle) Ahead	U	2	N/A	E		1	33	-	427	1980	748	57.1%
8/1	Bicester Road (S) Exit	U	N/A	N/A	-		-	-	-	354	Inf	Inf	0.0%

Full Input Data And Results

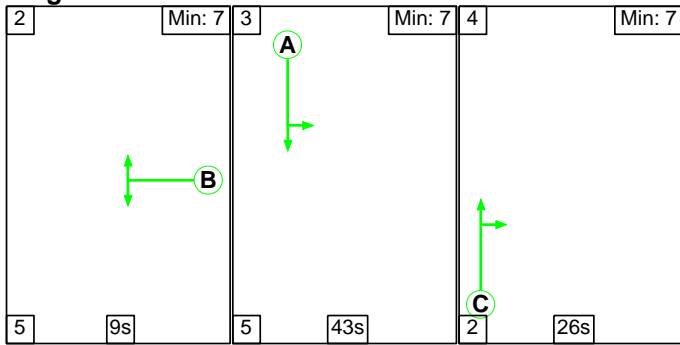
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	3	0	8.4	2.5	0.0	10.9	-	-	-	-
Compound A1	-	-	0	3	0	8.4	2.5	0.0	10.9	-	-	-	-
1/1	394	394	-	-	-	2.0	0.4	-	2.4	22.0	6.9	0.4	7.3
2/1	38	38	-	-	-	0.4	0.2	-	0.6	52.9	0.9	0.2	1.0
3/1	427	427	0	3	0	1.6	0.6	-	2.2	18.4	2.8	0.6	3.4
4/1	458	458	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	47	47	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	354	354	-	-	-	1.8	0.6	-	2.4	24.6	3.2	0.6	3.8
7/1	427	427	-	-	-	2.6	0.7	-	3.3	27.8	8.4	0.7	9.1
8/1	354	354	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
			C1	Stream: 1 PRC for Signalled Lanes (%):	61.9	Total Delay for Signalled Lanes (pcuHr):		5.15	Cycle Time (s):		90		
			C1	Stream: 2 PRC for Signalled Lanes (%):	57.7	Total Delay for Signalled Lanes (pcuHr):		5.72	Cycle Time (s):		90		
				PRC Over All Lanes (%):	57.7	Total Delay Over All Lanes(pcuHr):		10.87					

Full Input Data And Results

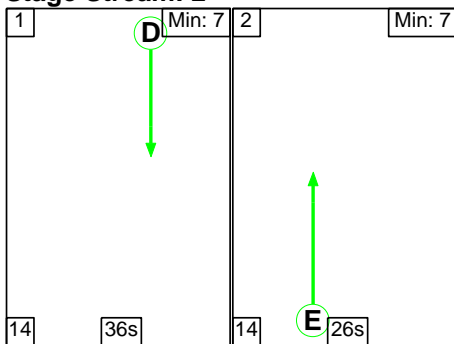
Scenario 6: 'Separate Stages Cumulative PM Peak' (FG4: 'Cumulative PM Peak', Plan 2: 'Separate Stages')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

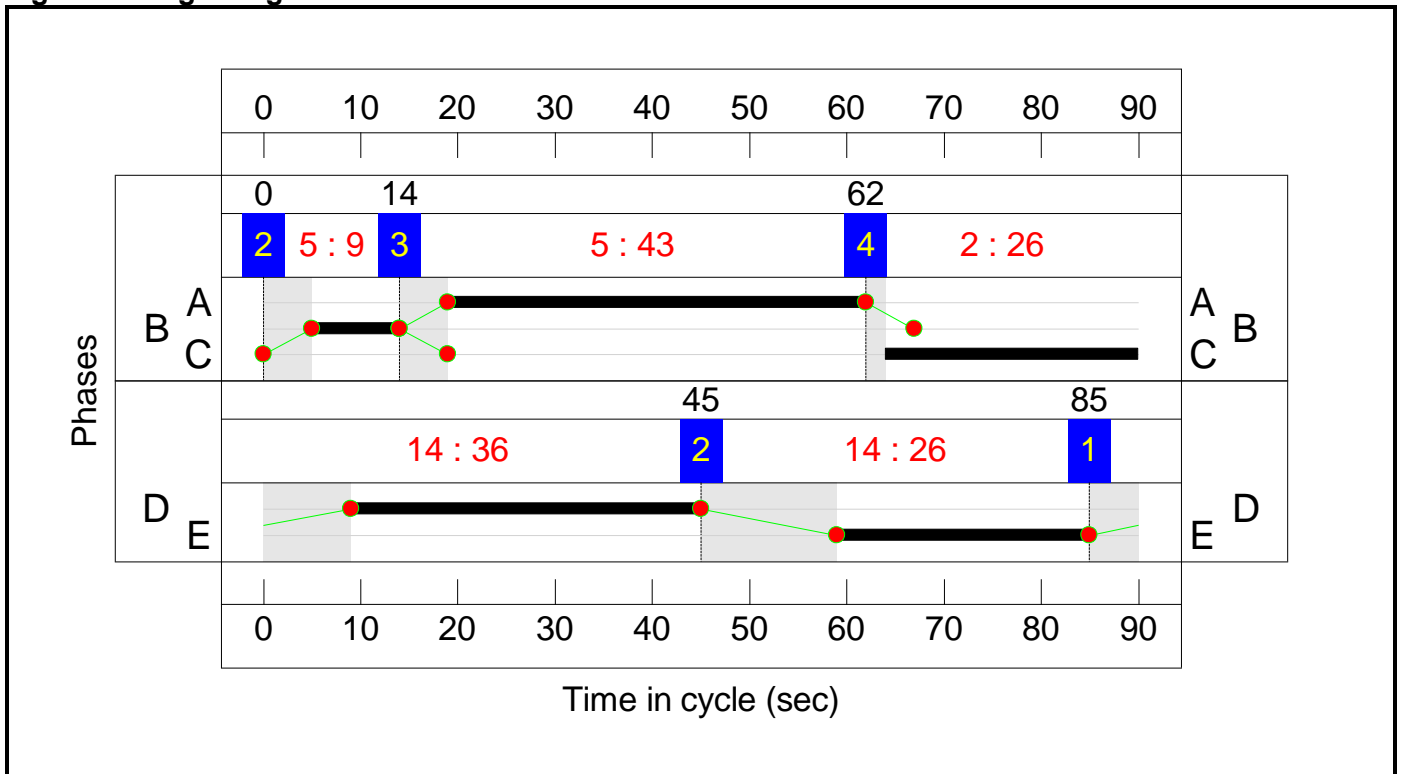
Stage Stream: 1

Stage	2	3	4
Duration	9	43	26
Change Point	0	14	62

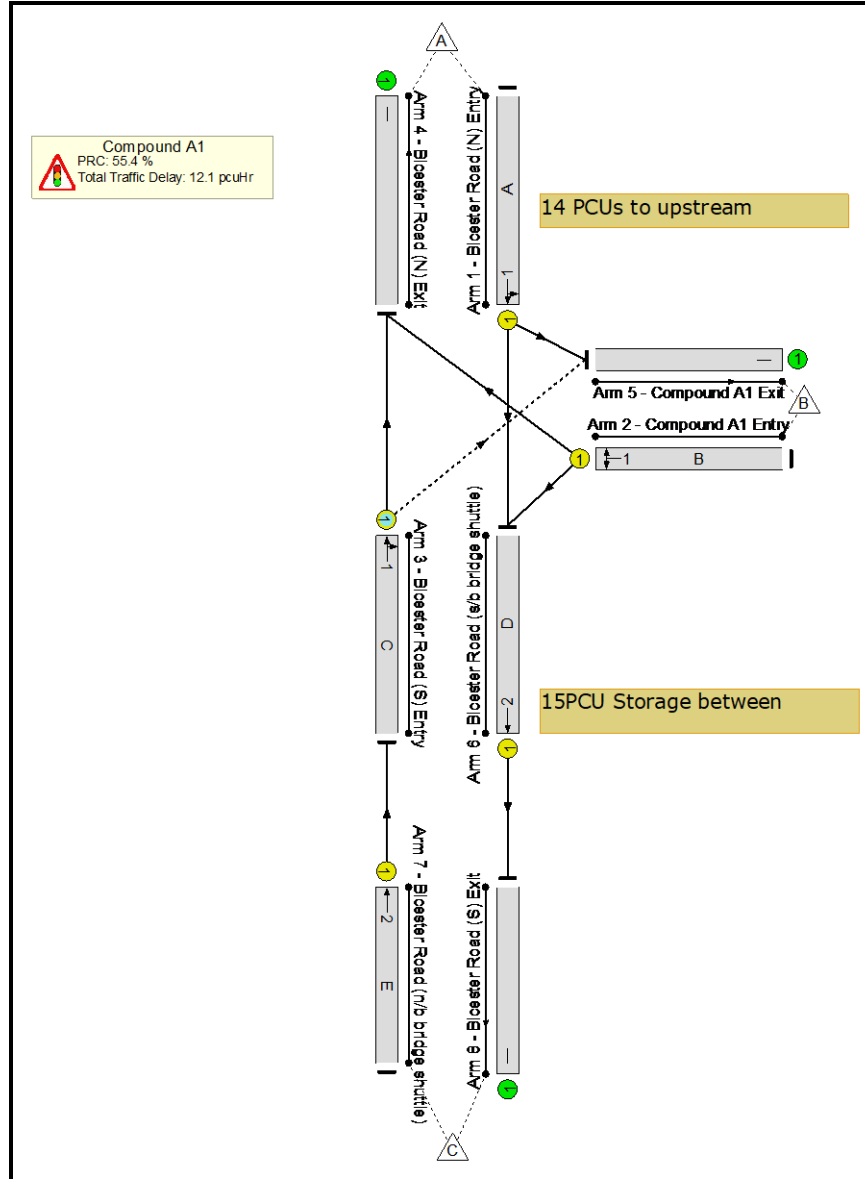
Stage Stream: 2

Stage	1	2
Duration	36	26
Change Point	85	45

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	57.9%
Compound A1	-	-	N/A	-	-		-	-	-	-	-	-	57.9%
1/1	Bicester Road (N) Entry Left Ahead	U	1	N/A	A		1	43	-	461	1966	961	48.0%
2/1	Compound A1 Entry Right Left	U	1	N/A	B		1	9	-	108	1800	200	54.0%
3/1	Bicester Road (S) Entry Ahead Right	O	1	N/A	C		1	26	-	344	2024	606	56.8%
4/1	Bicester Road (N) Exit	U	N/A	N/A	-		-	-	-	416	Inf	Inf	0.0%
5/1	Compound A1 Exit	U	N/A	N/A	-		-	-	-	51	Inf	Inf	0.0%
6/1	Bicester Road (s/b bridge shuttle) Ahead	U	2	N/A	D		1	36	-	446	1915	787	56.7%
7/1	Bicester Road (n/b bridge shuttle) Ahead	U	2	N/A	E		1	26	-	344	1980	594	57.9%
8/1	Bicester Road (S) Exit	U	N/A	N/A	-		-	-	-	446	Inf	Inf	0.0%

Full Input Data And Results

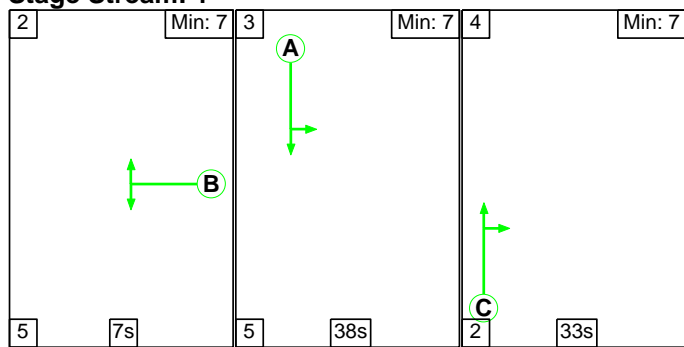
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)																					
Network	-	-	1	17	0	9.1	3.0	0.0	12.1	-	-	-	-																					
Compound A1	-	-	1	17	0	9.1	3.0	0.0	12.1	-	-	-	-																					
1/1	461	461	-	-	-	2.0	0.5	-	2.4	19.0	7.7	0.5	8.1																					
2/1	108	108	-	-	-	1.1	0.6	-	1.7	57.2	2.5	0.6	3.1																					
3/1	344	344	1	17	0	1.4	0.7	-	2.0	21.4	2.2	0.7	2.8																					
4/1	416	416	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
5/1	51	51	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
6/1	446	446	-	-	-	2.0	0.7	-	2.7	21.8	4.4	0.7	5.0																					
7/1	344	344	-	-	-	2.6	0.7	-	3.2	33.9	7.3	0.7	7.9																					
8/1	446	446	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;"></td> <td style="width: 15%;">C1 Stream: 1 PRC for Signalled Lanes (%):</td> <td style="width: 15%;">58.5</td> <td style="width: 15%;">Total Delay for Signalled Lanes (pcuHr):</td> <td style="width: 15%;">6.18</td> <td style="width: 15%;">Cycle Time (s):</td> <td style="width: 15%;">90</td> </tr> <tr> <td></td> <td>C1 Stream: 2 PRC for Signalled Lanes (%):</td> <td>55.4</td> <td>Total Delay for Signalled Lanes (pcuHr):</td> <td>5.93</td> <td>Cycle Time (s):</td> <td>90</td> </tr> <tr> <td></td> <td>PRC Over All Lanes (%):</td> <td>55.4</td> <td>Total Delay Over All Lanes(pcuHr):</td> <td>12.12</td> <td></td> <td></td> </tr> </table>															C1 Stream: 1 PRC for Signalled Lanes (%):	58.5	Total Delay for Signalled Lanes (pcuHr):	6.18	Cycle Time (s):	90		C1 Stream: 2 PRC for Signalled Lanes (%):	55.4	Total Delay for Signalled Lanes (pcuHr):	5.93	Cycle Time (s):	90		PRC Over All Lanes (%):	55.4	Total Delay Over All Lanes(pcuHr):	12.12		
	C1 Stream: 1 PRC for Signalled Lanes (%):	58.5	Total Delay for Signalled Lanes (pcuHr):	6.18	Cycle Time (s):	90																												
	C1 Stream: 2 PRC for Signalled Lanes (%):	55.4	Total Delay for Signalled Lanes (pcuHr):	5.93	Cycle Time (s):	90																												
	PRC Over All Lanes (%):	55.4	Total Delay Over All Lanes(pcuHr):	12.12																														

Full Input Data And Results

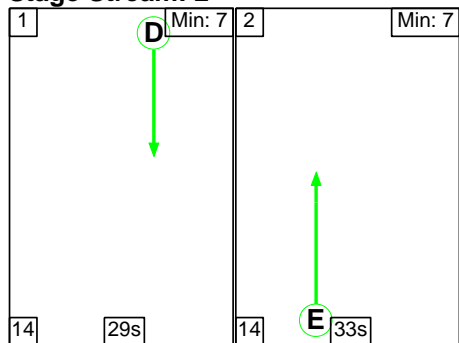
Scenario 7: 'Separate Stages Construction Future Baseline + EWR2 AM Peak' (FG1: 'Construction Future Baseline + EWR2 AM Peak', Plan 2: 'Separate Stages')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

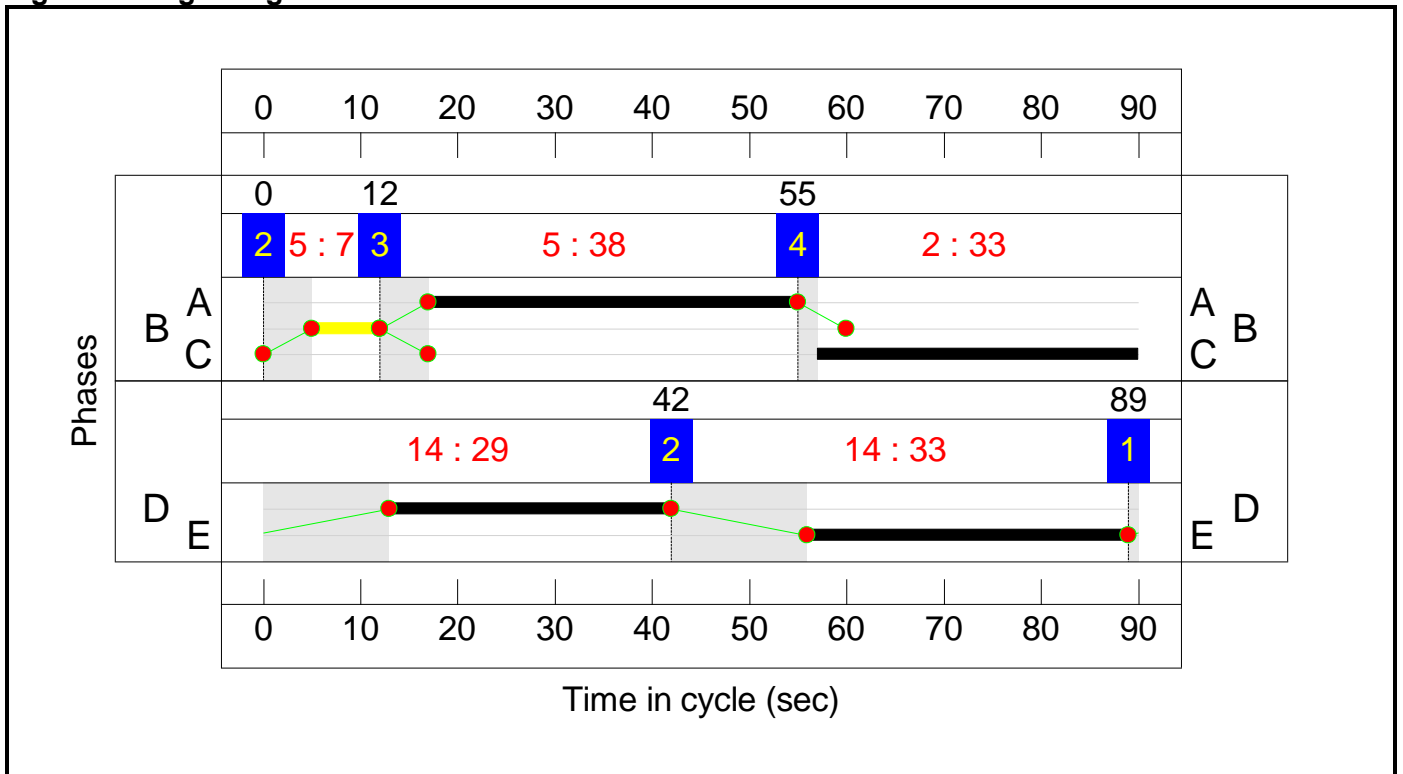
Stage Stream: 1

Stage	2	3	4
Duration	7	38	33
Change Point	0	12	55

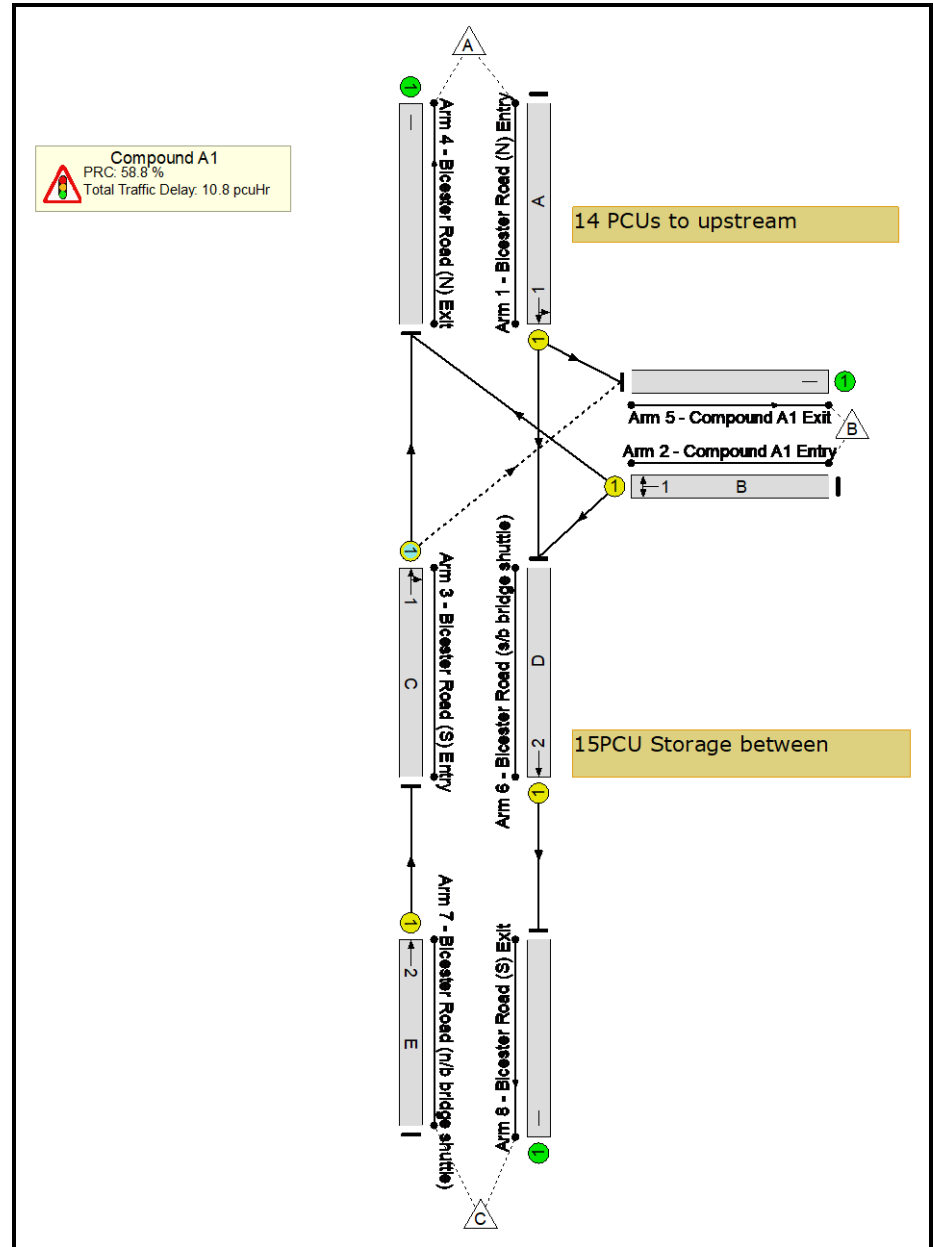
Stage Stream: 2

Stage	1	2
Duration	29	33
Change Point	89	42

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	56.7%
Compound A1	-	-	N/A	-	-		-	-	-	-	-	-	56.7%
1/1	Bicester Road (N) Entry Left Ahead	U	1	N/A	A		1	38	-	394	1958	848	46.4%
2/1	Compound A1 Entry Right Left	U	1	N/A	B		1	7	-	37	1800	160	23.1%
3/1	Bicester Road (S) Entry Ahead Right	O	1	N/A	C		1	33	-	424	2034	768	55.2%
4/1	Bicester Road (N) Exit	U	N/A	N/A	-		-	-	-	455	Inf	Inf	0.0%
5/1	Compound A1 Exit	U	N/A	N/A	-		-	-	-	47	Inf	Inf	0.0%
6/1	Bicester Road (s/b bridge shuttle) Ahead	U	2	N/A	D		1	29	-	353	1915	638	55.3%
7/1	Bicester Road (n/b bridge shuttle) Ahead	U	2	N/A	E		1	33	-	424	1980	748	56.7%
8/1	Bicester Road (S) Exit	U	N/A	N/A	-		-	-	-	353	Inf	Inf	0.0%

Full Input Data And Results

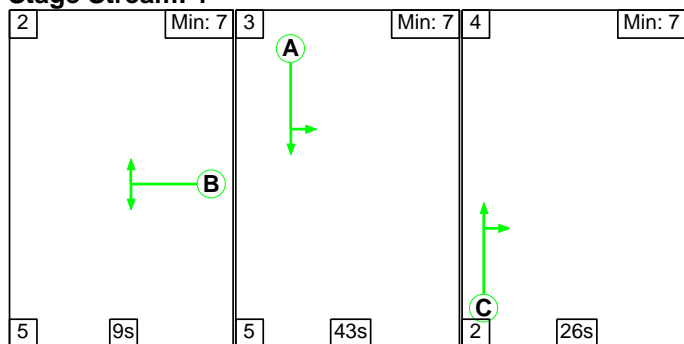
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	3	0	8.3	2.5	0.0	10.8	-	-	-	-
Compound A1	-	-	0	3	0	8.3	2.5	0.0	10.8	-	-	-	-
1/1	394	394	-	-	-	2.0	0.4	-	2.4	22.0	6.9	0.4	7.3
2/1	37	37	-	-	-	0.4	0.2	-	0.5	52.8	0.9	0.2	1.0
3/1	424	424	0	3	0	1.5	0.6	-	2.2	18.3	2.8	0.6	3.4
4/1	455	455	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	47	47	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	353	353	-	-	-	1.8	0.6	-	2.4	24.6	3.2	0.6	3.8
7/1	424	424	-	-	-	2.6	0.7	-	3.3	27.7	8.4	0.7	9.0
8/1	353	353	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
			C1 Stream: 1 PRC for Signalled Lanes (%):		63.1	Total Delay for Signalled Lanes (pcuHr):		5.11	Cycle Time (s):		90		
			C1 Stream: 2 PRC for Signalled Lanes (%):		58.8	Total Delay for Signalled Lanes (pcuHr):		5.68	Cycle Time (s):		90		
			PRC Over All Lanes (%):		58.8	Total Delay Over All Lanes(pcuHr):		10.79					

Full Input Data And Results

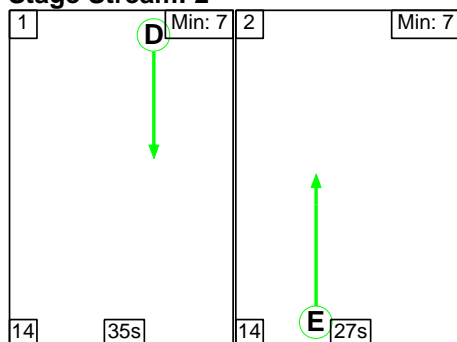
Scenario 8: 'Separate Stage Construction Future Baseline + EWR2 PM Peak' (FG2: 'Construction Future Baseline + EWR2 PM Peak', Plan 2: 'Separate Stages')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

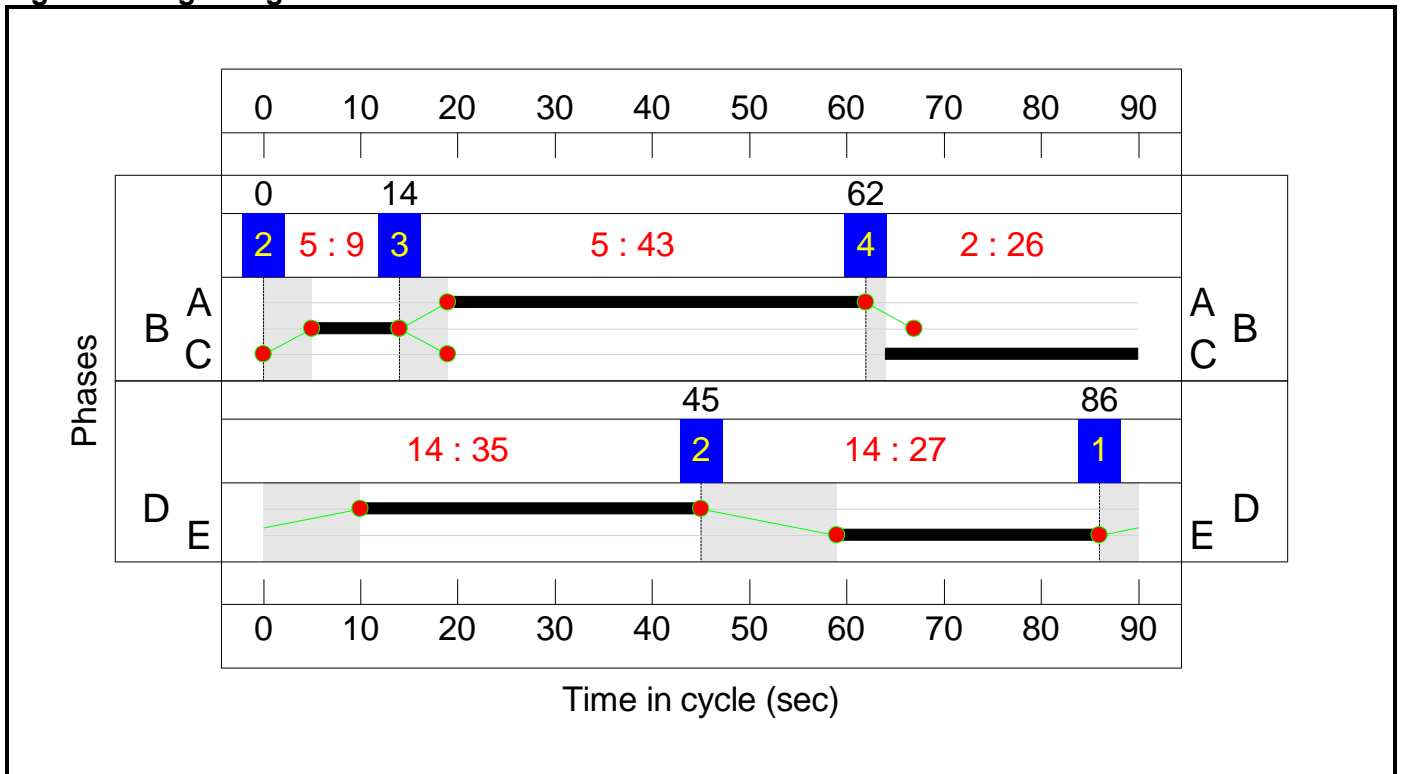
Stage Stream: 1

Stage	2	3	4
Duration	9	43	26
Change Point	0	14	62

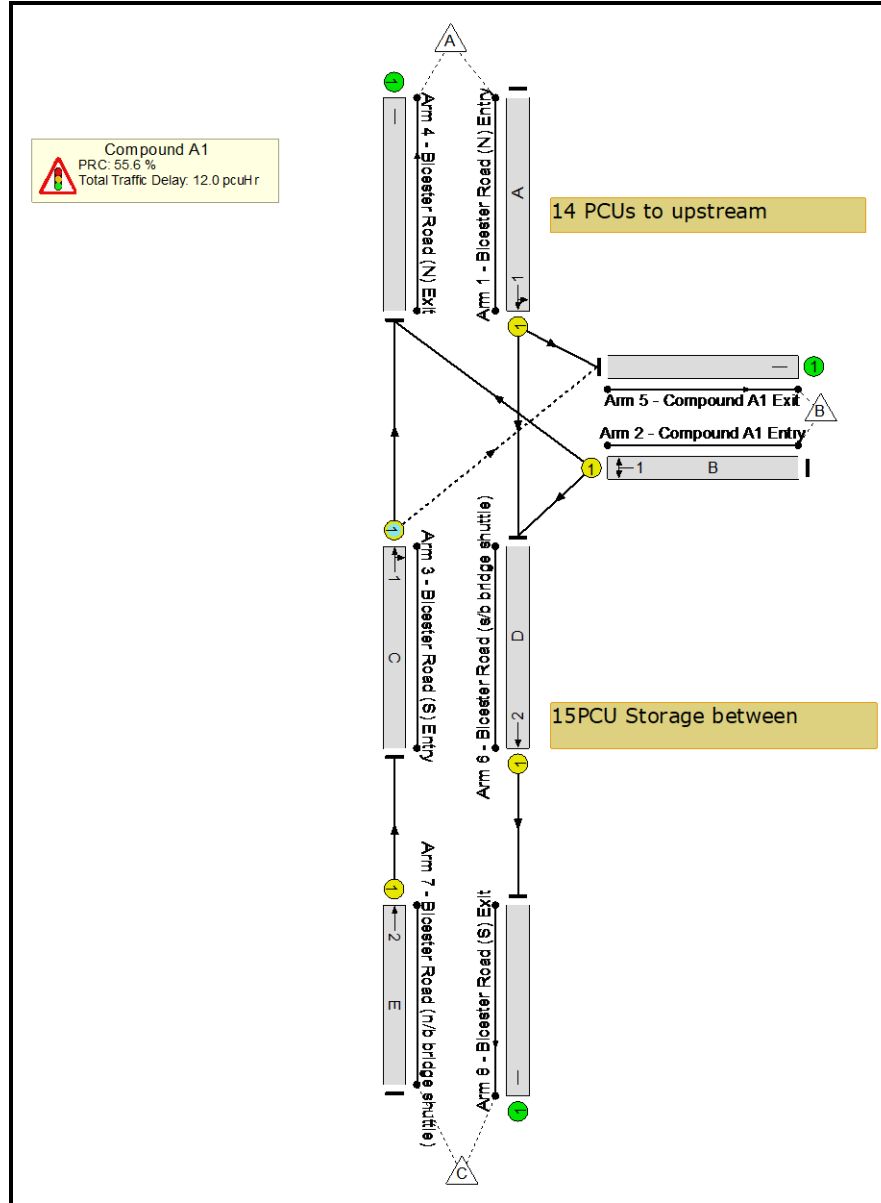
Stage Stream: 2

Stage	1	2
Duration	35	27
Change Point	86	45

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	57.8%
Compound A1	-	-	N/A	-	-		-	-	-	-	-	-	57.8%
1/1	Bicester Road (N) Entry Left Ahead	U	1	N/A	A		1	43	-	458	1966	961	47.7%
2/1	Compound A1 Entry Right Left	U	1	N/A	B		1	9	-	108	1800	200	54.0%
3/1	Bicester Road (S) Entry Ahead Right	O	1	N/A	C		1	26	-	344	2024	606	56.8%
4/1	Bicester Road (N) Exit	U	N/A	N/A	-		-	-	-	416	Inf	Inf	0.0%
5/1	Compound A1 Exit	U	N/A	N/A	-		-	-	-	51	Inf	Inf	0.0%
6/1	Bicester Road (s/b bridge shuttle) Ahead	U	2	N/A	D		1	35	-	443	1915	766	57.8%
7/1	Bicester Road (n/b bridge shuttle) Ahead	U	2	N/A	E		1	27	-	344	1980	616	55.8%
8/1	Bicester Road (S) Exit	U	N/A	N/A	-		-	-	-	443	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	-	-	1	17	0	9.0	3.0	0.0	12.0	-	-	-	-
Compound A1	-	-	1	17	0	9.0	3.0	0.0	12.0	-	-	-	-
1/1	458	458	-	-	-	1.9	0.5	-	2.4	18.9	7.5	0.5	8.0
2/1	108	108	-	-	-	1.1	0.6	-	1.7	57.2	2.5	0.6	3.1
3/1	344	344	1	17	0	1.4	0.7	-	2.1	21.7	2.2	0.7	2.9
4/1	416	416	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	51	51	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	443	443	-	-	-	2.1	0.7	-	2.8	22.4	4.4	0.7	5.1
7/1	344	344	-	-	-	2.5	0.6	-	3.1	32.4	7.2	0.6	7.8
8/1	443	443	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
		C1 Stream: 1 PRC for Signalled Lanes (%):		58.5	Total Delay for Signalled Lanes (pcuHr):		6.19	Cycle Time (s):		90			
		C1 Stream: 2 PRC for Signalled Lanes (%):		55.6	Total Delay for Signalled Lanes (pcuHr):		5.85	Cycle Time (s):		90			
		PRC Over All Lanes (%):		55.6	Total Delay Over All Lanes(pcuHr):		12.04						

Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk
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Filename: J005 Compound A1 Revised Access.j9
Path: P:\GBBMA\HandTCS\Projects\XXXXX EWR TEMP (JJ)
Report generation date: 13/03/2019 12:44:47

- »2020 B, AM
- »2020 B, PM
- »2020 B+CTR, AM
- »2020 B+CTR, PM
- »2020 Cumulative, AM
- »2020 Cumulative, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2020 B								
1 - Compound A1 Access	0.0	0.00	0.00	A	0.0	0.00	0.00	A
2 - Bicester Road	0.6	5.03	0.37	A	0.4	4.23	0.28	A
3 - A4421 - Neunkirchen Way	0.7	3.37	0.40	A	0.9	3.55	0.45	A
4 - A4421	2.7	8.91	0.72	A	2.6	8.65	0.70	A
2020 B+CTR								
1 - Compound A1 Access	0.0	0.00	0.00	A	0.0	0.00	0.00	A
2 - Bicester Road	0.7	5.28	0.40	A	0.6	4.73	0.35	A
3 - A4421 - Neunkirchen Way	0.8	3.47	0.42	A	1.0	3.73	0.47	A
4 - A4421	3.1	9.77	0.74	A	2.8	9.24	0.72	A
2020 Cumulative								
1 - Compound A1 Access	0.0	0.00	0.00	A	0.0	0.00	0.00	A
2 - Bicester Road	0.8	5.46	0.41	A	0.6	4.73	0.35	A
3 - A4421 - Neunkirchen Way	0.8	3.47	0.42	A	1.1	3.90	0.49	A
4 - A4421	3.4	10.72	0.76	B	2.8	9.28	0.72	A

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

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	26/03/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	WSATKINS\cart5172
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2020 B	AM	ONE HOUR	07:45	09:15	15	✓
D2	2020 B	PM	ONE HOUR	16:45	18:15	15	✓
D3	2020 B+CTR	AM	ONE HOUR	07:45	09:15	15	✓
D4	2020 B+CTR	PM	ONE HOUR	16:45	18:15	15	✓
D5	2020 Cumulative	AM	ONE HOUR	07:45	09:15	15	✓
D6	2020 Cumulative	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

2020 B, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	6.30	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Compound A1 Access	
2	Bicester Road	
3	A4421 - Neunkirchen Way	
4	A4421	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Compound A1 Access	3.50	4.80	5.0	20.0	60.0	9.0	
2 - Bicester Road	4.20	6.10	13.0	18.0	60.0	25.0	
3 - A4421 - Neunkirchen Way	5.00	7.80	15.0	33.0	60.0	9.0	
4 - A4421	3.50	6.00	9.0	20.0	60.0	5.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Compound A1 Access	0.519	1368
2 - Bicester Road	0.558	1685
3 - A4421 - Neunkirchen Way	0.674	2235
4 - A4421	0.560	1588

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	2020 B	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Compound A1 Access		ONE HOUR	✓	0	100.000
2 - Bicester Road		ONE HOUR	✓	421	100.000
3 - A4421 - Neunkirchen Way		ONE HOUR	✓	725	100.000
4 - A4421		ONE HOUR	✓	1016	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Compound A1 Access	2 - Bicester Road	3 - A4421 - Neunkirchen Way	4 - A4421
From	1 - Compound A1 Access	0	0	0	0
	2 - Bicester Road	0	0	68	353
	3 - A4421 - Neunkirchen Way	0	42	0	683
	4 - A4421	0	308	708	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Compound A1 Access	2 - Bicester Road	3 - A4421 - Neunkirchen Way	4 - A4421
From	1 - Compound A1 Access	10	10	10	10
	2 - Bicester Road	10	10	10	10
	3 - A4421 - Neunkirchen Way	10	10	10	10
	4 - A4421	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Compound A1 Access	0.00	0.00	0.0	A	0	0
2 - Bicester Road	0.37	5.03	0.6	A	386	579
3 - A4421 - Neunkirchen Way	0.40	3.37	0.7	A	665	998
4 - A4421	0.72	8.91	2.7	A	932	1398

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)
1 - Compound A1 Access	0	0	792	957	0.000	0	0	0.0	0.0	0.000
2 - Bicester Road	317	79	530	1389	0.228	316	262	0.0	0.3	3.683
3 - A4421 - Neunkirchen Way	546	136	265	2056	0.265	544	581	0.0	0.4	2.617
4 - A4421	765	191	32	1571	0.487	761	777	0.0	1.0	4.866

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)
1 - Compound A1 Access	0	0	949	876	0.000	0	0	0.0	0.0	0.000
2 - Bicester Road	378	95	635	1331	0.284	378	314	0.3	0.4	4.155
3 - A4421 - Neunkirchen Way	652	163	317	2021	0.322	651	696	0.4	0.5	2.891
4 - A4421	913	228	38	1567	0.583	911	930	1.0	1.5	6.020

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)
1 - Compound A1 Access	0	0	1160	767	0.000	0	0	0.0	0.0	0.000
2 - Bicester Road	464	116	776	1252	0.370	463	384	0.4	0.6	5.012
3 - A4421 - Neunkirchen Way	798	200	388	1973	0.405	797	851	0.5	0.7	3.366
4 - A4421	1119	280	46	1562	0.716	1114	1139	1.5	2.7	8.738

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)
1 - Compound A1 Access	0	0	1165	764	0.000	0	0	0.0	0.0	0.000
2 - Bicester Road	464	116	779	1250	0.371	464	385	0.6	0.6	5.033
3 - A4421 - Neunkirchen Way	798	200	389	1973	0.405	798	854	0.7	0.7	3.370
4 - A4421	1119	280	46	1562	0.716	1118	1141	2.7	2.7	8.911

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)
1 - Compound A1 Access	0	0	956	873	0.000	0	0	0.0	0.0	0.000
2 - Bicester Road	378	95	640	1328	0.285	379	316	0.6	0.4	4.177
3 - A4421 - Neunkirchen Way	652	163	318	2020	0.323	653	701	0.7	0.5	2.898
4 - A4421	913	228	38	1567	0.583	918	933	2.7	1.6	6.143

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)
1 - Compound A1 Access	0	0	799	954	0.000	0	0	0.0	0.0	0.000
2 - Bicester Road	317	79	534	1387	0.229	317	264	0.4	0.3	3.706
3 - A4421 - Neunkirchen Way	546	136	266	2055	0.266	546	586	0.5	0.4	2.626
4 - A4421	765	191	32	1571	0.487	767	781	1.6	1.1	4.939

2020 B, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	6.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2020 B	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Compound A1 Access		ONE HOUR	✓	0	100.000
2 - Bicester Road		ONE HOUR	✓	326	100.000
3 - A4421 - Neunkirchen Way		ONE HOUR	✓	829	100.000
4 - A4421		ONE HOUR	✓	987	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Compound A1 Access	2 - Bicester Road	3 - A4421 - Neunkirchen Way	4 - A4421
From	1 - Compound A1 Access	0	0	0	0
	2 - Bicester Road	0	0	46	280
	3 - A4421 - Neunkirchen Way	0	72	0	757
	4 - A4421	0	353	634	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Compound A1 Access	2 - Bicester Road	3 - A4421 - Neunkirchen Way	4 - A4421
From	1 - Compound A1 Access	10	10	10	10
	2 - Bicester Road	10	10	10	10
	3 - A4421 - Neunkirchen Way	10	10	10	10
	4 - A4421	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Compound A1 Access	0.00	0.00	0.0	A	0	0
2 - Bicester Road	0.28	4.23	0.4	A	299	449
3 - A4421 - Neunkirchen Way	0.45	3.55	0.9	A	761	1141
4 - A4421	0.70	8.65	2.6	A	906	1359

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)
1 - Compound A1 Access	0	0	793	957	0.000	0	0	0.0	0.0	0.000
2 - Bicester Road	245	61	475	1420	0.173	245	318	0.0	0.2	3.369
3 - A4421 - Neunkirchen Way	624	156	210	2093	0.298	622	509	0.0	0.5	2.688
4 - A4421	743	186	54	1558	0.477	739	778	0.0	1.0	4.813

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)
1 - Compound A1 Access	0	0	950	876	0.000	0	0	0.0	0.0	0.000
2 - Bicester Road	293	73	569	1368	0.214	293	381	0.2	0.3	3.684
3 - A4421 - Neunkirchen Way	745	186	251	2065	0.361	745	610	0.5	0.6	2.997
4 - A4421	887	222	65	1552	0.572	885	931	1.0	1.4	5.923

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)
1 - Compound A1 Access	0	0	1162	766	0.000	0	0	0.0	0.0	0.000
2 - Bicester Road	359	90	695	1297	0.277	358	466	0.3	0.4	4.217
3 - A4421 - Neunkirchen Way	913	228	308	2027	0.450	912	746	0.6	0.9	3.546
4 - A4421	1087	272	79	1544	0.704	1082	1140	1.4	2.5	8.498

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)
1 - Compound A1 Access	0	0	1166	764	0.000	0	0	0.0	0.0	0.000
2 - Bicester Road	359	90	698	1296	0.277	359	468	0.4	0.4	4.227
3 - A4421 - Neunkirchen Way	913	228	308	2027	0.450	913	749	0.9	0.9	3.553
4 - A4421	1087	272	79	1544	0.704	1087	1142	2.5	2.6	8.651

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)
1 - Compound A1 Access	0	0	956	872	0.000	0	0	0.0	0.0	0.000
2 - Bicester Road	293	73	573	1365	0.215	294	384	0.4	0.3	3.698
3 - A4421 - Neunkirchen Way	745	186	252	2065	0.361	746	614	0.9	0.6	3.005
4 - A4421	887	222	65	1552	0.572	892	934	2.6	1.5	6.034

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)
1 - Compound A1 Access	0	0	799	954	0.000	0	0	0.0	0.0	0.000
2 - Bicester Road	245	61	479	1418	0.173	246	321	0.3	0.2	3.378
3 - A4421 - Neunkirchen Way	624	156	211	2092	0.298	625	513	0.6	0.5	2.700
4 - A4421	743	186	54	1558	0.477	745	782	1.5	1.0	4.882

2020 B+CTR, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	6.77	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2020 B+CTR	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Compound A1 Access		ONE HOUR	✓	0	100.000
2 - Bicester Road		ONE HOUR	✓	455	100.000
3 - A4421 - Neunkirchen Way		ONE HOUR	✓	744	100.000
4 - A4421		ONE HOUR	✓	1041	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Compound A1 Access	2 - Bicester Road	3 - A4421 - Neunkirchen Way	4 - A4421
From	1 - Compound A1 Access	0	0	0	0
	2 - Bicester Road	0	0	85	370
	3 - A4421 - Neunkirchen Way	0	61	0	683
	4 - A4421	0	333	708	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Compound A1 Access	2 - Bicester Road	3 - A4421 - Neunkirchen Way	4 - A4421
From	1 - Compound A1 Access	10	10	10	10
	2 - Bicester Road	10	10	10	10
	3 - A4421 - Neunkirchen Way	10	10	10	10
	4 - A4421	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Compound A1 Access	0.00	0.00	0.0	A	0	0
2 - Bicester Road	0.40	5.28	0.7	A	418	626
3 - A4421 - Neunkirchen Way	0.42	3.47	0.8	A	683	1024
4 - A4421	0.74	9.77	3.1	A	955	1433

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)
1 - Compound A1 Access	0	0	825	940	0.000	0	0	0.0	0.0	0.000
2 - Bicester Road	343	86	530	1389	0.247	341	295	0.0	0.4	3.773
3 - A4421 - Neunkirchen Way	560	140	277	2048	0.274	558	594	0.0	0.4	2.657
4 - A4421	784	196	46	1563	0.502	779	790	0.0	1.1	5.027

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)
1 - Compound A1 Access	0	0	988	856	0.000	0	0	0.0	0.0	0.000
2 - Bicester Road	409	102	635	1331	0.307	409	353	0.4	0.5	4.293
3 - A4421 - Neunkirchen Way	669	167	332	2011	0.333	668	711	0.4	0.5	2.947
4 - A4421	936	234	55	1558	0.601	934	946	1.1	1.6	6.325

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)
1 - Compound A1 Access	0	0	1208	742	0.000	0	0	0.0	0.0	0.000
2 - Bicester Road	501	125	776	1252	0.400	500	432	0.5	0.7	5.258
3 - A4421 - Neunkirchen Way	819	205	407	1961	0.418	818	869	0.5	0.8	3.462
4 - A4421	1146	287	67	1551	0.739	1141	1158	1.6	3.0	9.529

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)
1 - Compound A1 Access	0	0	1213	739	0.000	0	0	0.0	0.0	0.000
2 - Bicester Road	501	125	779	1250	0.401	501	434	0.7	0.7	5.285
3 - A4421 - Neunkirchen Way	819	205	407	1960	0.418	819	873	0.8	0.8	3.469
4 - A4421	1146	287	67	1551	0.739	1146	1159	3.0	3.1	9.768

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)
1 - Compound A1 Access	0	0	996	852	0.000	0	0	0.0	0.0	0.000
2 - Bicester Road	409	102	640	1328	0.308	410	356	0.7	0.5	4.320
3 - A4421 - Neunkirchen Way	669	167	333	2010	0.333	670	717	0.8	0.6	2.958
4 - A4421	936	234	55	1558	0.601	941	948	3.1	1.7	6.481

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)
1 - Compound A1 Access	0	0	832	937	0.000	0	0	0.0	0.0	0.000
2 - Bicester Road	343	86	535	1387	0.247	343	297	0.5	0.4	3.798
3 - A4421 - Neunkirchen Way	560	140	279	2047	0.274	561	599	0.6	0.4	2.665
4 - A4421	784	196	46	1563	0.502	786	794	1.7	1.1	5.113

2020 B+CTR, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	6.35	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2020 B+CTR	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Compound A1 Access		ONE HOUR	✓	0	100.000
2 - Bicester Road		ONE HOUR	✓	416	100.000
3 - A4421 - Neunkirchen Way		ONE HOUR	✓	848	100.000
4 - A4421		ONE HOUR	✓	1003	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Compound A1 Access	2 - Bicester Road	3 - A4421 - Neunkirchen Way	4 - A4421
From	1 - Compound A1 Access	0	0	0	0
	2 - Bicester Road	0	0	91	325
	3 - A4421 - Neunkirchen Way	0	91	0	757
	4 - A4421	0	369	634	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Compound A1 Access	2 - Bicester Road	3 - A4421 - Neunkirchen Way	4 - A4421
From	1 - Compound A1 Access	10	10	10	10
	2 - Bicester Road	10	10	10	10
	3 - A4421 - Neunkirchen Way	10	10	10	10
	4 - A4421	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Compound A1 Access	0.00	0.00	0.0	A	0	0
2 - Bicester Road	0.35	4.73	0.6	A	382	573
3 - A4421 - Neunkirchen Way	0.47	3.73	1.0	A	778	1167
4 - A4421	0.72	9.24	2.8	A	920	1381

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)
1 - Compound A1 Access	0	0	819	943	0.000	0	0	0.0	0.0	0.000
2 - Bicester Road	313	78	475	1420	0.221	312	345	0.0	0.3	3.571
3 - A4421 - Neunkirchen Way	638	160	244	2070	0.308	636	543	0.0	0.5	2.758
4 - A4421	755	189	68	1550	0.487	751	812	0.0	1.0	4.930

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)
1 - Compound A1 Access	0	0	981	859	0.000	0	0	0.0	0.0	0.000
2 - Bicester Road	374	93	569	1368	0.273	374	413	0.3	0.4	3.981
3 - A4421 - Neunkirchen Way	762	191	292	2038	0.374	762	650	0.5	0.7	3.101
4 - A4421	902	225	82	1543	0.585	900	972	1.0	1.5	6.142

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)
1 - Compound A1 Access	0	0	1200	746	0.000	0	0	0.0	0.0	0.000
2 - Bicester Road	458	115	695	1297	0.353	457	505	0.4	0.6	4.710
3 - A4421 - Neunkirchen Way	934	233	357	1994	0.468	932	795	0.7	1.0	3.728
4 - A4421	1104	276	100	1532	0.721	1099	1190	1.5	2.7	9.047

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)
1 - Compound A1 Access	0	0	1204	744	0.000	0	0	0.0	0.0	0.000
2 - Bicester Road	458	115	698	1296	0.354	458	506	0.6	0.6	4.727
3 - A4421 - Neunkirchen Way	934	233	358	1994	0.468	934	798	1.0	1.0	3.735
4 - A4421	1104	276	100	1532	0.721	1104	1191	2.7	2.8	9.240

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)
1 - Compound A1 Access	0	0	988	856	0.000	0	0	0.0	0.0	0.000
2 - Bicester Road	374	93	573	1365	0.274	375	415	0.6	0.4	4.002
3 - A4421 - Neunkirchen Way	762	191	293	2037	0.374	764	655	1.0	0.7	3.110
4 - A4421	902	225	82	1542	0.585	907	974	2.8	1.6	6.276

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)
1 - Compound A1 Access	0	0	826	940	0.000	0	0	0.0	0.0	0.000
2 - Bicester Road	313	78	479	1418	0.221	314	347	0.4	0.3	3.586
3 - A4421 - Neunkirchen Way	638	160	245	2070	0.308	639	547	0.7	0.5	2.771
4 - A4421	755	189	69	1550	0.487	757	816	1.6	1.1	5.008

2020 Cumulative, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	7.29	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2020 Cumulative	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Compound A1 Access		ONE HOUR	✓	0	100.000
2 - Bicester Road		ONE HOUR	✓	458	100.000
3 - A4421 - Neunkirchen Way		ONE HOUR	✓	744	100.000
4 - A4421		ONE HOUR	✓	1074	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Compound A1 Access	2 - Bicester Road	3 - A4421 - Neunkirchen Way	4 - A4421
From	1 - Compound A1 Access	0	0	0	0
	2 - Bicester Road	0	0	88	370
	3 - A4421 - Neunkirchen Way	0	61	0	683
	4 - A4421	0	333	741	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Compound A1 Access	2 - Bicester Road	3 - A4421 - Neunkirchen Way	4 - A4421
From	1 - Compound A1 Access	10	10	10	10
	2 - Bicester Road	10	10	10	10
	3 - A4421 - Neunkirchen Way	10	10	10	10
	4 - A4421	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Compound A1 Access	0.00	0.00	0.0	A	0	0
2 - Bicester Road	0.41	5.46	0.8	A	420	630
3 - A4421 - Neunkirchen Way	0.42	3.47	0.8	A	683	1024
4 - A4421	0.76	10.72	3.4	B	986	1478

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)
1 - Compound A1 Access	0	0	850	928	0.000	0	0	0.0	0.0	0.000
2 - Bicester Road	345	86	555	1375	0.251	343	295	0.0	0.4	3.831
3 - A4421 - Neunkirchen Way	560	140	277	2048	0.274	558	621	0.0	0.4	2.657
4 - A4421	809	202	46	1563	0.517	804	790	0.0	1.2	5.189

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)
1 - Compound A1 Access	0	0	1018	840	0.000	0	0	0.0	0.0	0.000
2 - Bicester Road	412	103	665	1314	0.313	411	353	0.4	0.5	4.382
3 - A4421 - Neunkirchen Way	669	167	332	2011	0.333	668	744	0.4	0.5	2.947
4 - A4421	966	241	55	1558	0.620	963	946	1.2	1.8	6.634

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)
1 - Compound A1 Access	0	0	1243	724	0.000	0	0	0.0	0.0	0.000
2 - Bicester Road	504	126	811	1232	0.409	503	432	0.5	0.8	5.423
3 - A4421 - Neunkirchen Way	819	205	407	1961	0.418	818	908	0.5	0.8	3.462
4 - A4421	1182	296	67	1551	0.763	1176	1158	1.8	3.4	10.390

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)
1 - Compound A1 Access	0	0	1249	720	0.000	0	0	0.0	0.0	0.000
2 - Bicester Road	504	126	816	1230	0.410	504	434	0.8	0.8	5.456
3 - A4421 - Neunkirchen Way	819	205	407	1960	0.418	819	913	0.8	0.8	3.469
4 - A4421	1182	296	67	1551	0.763	1182	1159	3.4	3.4	10.721

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)
1 - Compound A1 Access	0	0	1027	836	0.000	0	0	0.0	0.0	0.000
2 - Bicester Road	412	103	671	1311	0.314	413	356	0.8	0.5	4.415
3 - A4421 - Neunkirchen Way	669	167	333	2010	0.333	670	750	0.8	0.6	2.956
4 - A4421	966	241	55	1558	0.620	972	948	3.4	1.8	6.837

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)
1 - Compound A1 Access	0	0	857	924	0.000	0	0	0.0	0.0	0.000
2 - Bicester Road	345	86	560	1373	0.251	345	297	0.5	0.4	3.857
3 - A4421 - Neunkirchen Way	560	140	279	2047	0.274	561	626	0.6	0.4	2.667
4 - A4421	809	202	46	1563	0.517	811	794	1.8	1.2	5.287

2020 Cumulative, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	6.39	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2020 Cumulative	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Compound A1 Access		ONE HOUR	✓	0	100.000
2 - Bicester Road		ONE HOUR	✓	417	100.000
3 - A4421 - Neunkirchen Way		ONE HOUR	✓	888	100.000
4 - A4421		ONE HOUR	✓	1003	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Compound A1 Access	2 - Bicester Road	3 - A4421 - Neunkirchen Way	4 - A4421
From	1 - Compound A1 Access	0	0	0	0
	2 - Bicester Road	0	0	91	326
	3 - A4421 - Neunkirchen Way	0	94	0	794
	4 - A4421	0	369	634	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Compound A1 Access	2 - Bicester Road	3 - A4421 - Neunkirchen Way	4 - A4421
From	1 - Compound A1 Access	10	10	10	10
	2 - Bicester Road	10	10	10	10
	3 - A4421 - Neunkirchen Way	10	10	10	10
	4 - A4421	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Compound A1 Access	0.00	0.00	0.0	A	0	0
2 - Bicester Road	0.35	4.73	0.6	A	383	574
3 - A4421 - Neunkirchen Way	0.49	3.90	1.1	A	815	1222
4 - A4421	0.72	9.28	2.8	A	920	1381

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)
1 - Compound A1 Access	0	0	822	942	0.000	0	0	0.0	0.0	0.000
2 - Bicester Road	314	78	475	1420	0.221	313	347	0.0	0.3	3.573
3 - A4421 - Neunkirchen Way	669	167	244	2070	0.323	666	543	0.0	0.5	2.818
4 - A4421	755	189	71	1549	0.488	751	840	0.0	1.0	4.938

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)
1 - Compound A1 Access	0	0	984	858	0.000	0	0	0.0	0.0	0.000
2 - Bicester Road	375	94	569	1368	0.274	374	415	0.3	0.4	3.985
3 - A4421 - Neunkirchen Way	798	200	293	2037	0.392	798	650	0.5	0.7	3.192
4 - A4421	902	225	84	1541	0.585	900	1006	1.0	1.5	6.157

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)
1 - Compound A1 Access	0	0	1203	745	0.000	0	0	0.0	0.0	0.000
2 - Bicester Road	459	115	695	1297	0.354	458	508	0.4	0.6	4.717
3 - A4421 - Neunkirchen Way	978	244	358	1993	0.491	976	795	0.7	1.1	3.888
4 - A4421	1104	276	103	1530	0.722	1099	1231	1.5	2.8	9.087

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)
1 - Compound A1 Access	0	0	1208	742	0.000	0	0	0.0	0.0	0.000
2 - Bicester Road	459	115	698	1296	0.354	459	510	0.6	0.6	4.733
3 - A4421 - Neunkirchen Way	978	244	359	1993	0.491	978	798	1.1	1.1	3.900
4 - A4421	1104	276	103	1530	0.722	1104	1233	2.8	2.8	9.281

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)
1 - Compound A1 Access	0	0	991	854	0.000	0	0	0.0	0.0	0.000
2 - Bicester Road	375	94	573	1365	0.275	376	418	0.6	0.4	4.005
3 - A4421 - Neunkirchen Way	798	200	294	2037	0.392	800	655	1.1	0.7	3.203
4 - A4421	902	225	85	1541	0.585	907	1009	2.8	1.6	6.289

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)
1 - Compound A1 Access	0	0	828	939	0.000	0	0	0.0	0.0	0.000
2 - Bicester Road	314	78	479	1418	0.221	314	349	0.4	0.3	3.589
3 - A4421 - Neunkirchen Way	669	167	246	2069	0.323	669	547	0.7	0.5	2.832
4 - A4421	755	189	71	1549	0.488	757	844	1.6	1.1	5.018

