

# **AXIS J9**

Phase 3 Technical Note Addendum

*(Application No. 21/03177/F)*



---

## **Introduction**

1. In addition to application Transport Statement (14042-39a), DTA prepared and submitted a Technical Note (14042-44) in support of the above application for flexible employment development across two parcels (western and eastern). OCC have since responded to these submissions, most recently dated 2/3/22. A copy of this Response is provided at **Appendix A** for ease of reference.
2. In response to layout design feedback provided by the planning authority, since the submission of Technical Note 14042-44, the application is now amended to remove the eastern parcel from the application. This reduces the application floor area from 16,942sqm to 14,188sqm.
3. The Technical Note (14042-44) set out an appraisal of the Howes Lane/Bucknell Road junction based on a traffic count commissioned in December 2021, in advance of a formally commissioned run of the Bicester Traffic Model (BTM). The model inputs in terms of base traffic and development traffic are agreed with OCC. The model run has now been received. This comprised the removal of the Strategic Link Road (SLR) and only included committed development across NWB. This model data has now been received and is relied upon within this Addendum.
4. Further, the Technical Note presented an option whereby the western parcel was promoted as B8 only, prior to the implementation of the SLR. In light of the content of the BTM data, this restriction is no longer being proposed, and the western parcel is proposed for flexible employment land use (Use Classes E(g)(iii) and/or B2 and/or B8 plus ancillary uses) from first occupation.
5. The removal of the development proposals on the eastern parcel from the application and the focus on fully flexible use (Use Classes E(g)(iii) and/or B2 and/or B8 plus ancillary uses) from first occupation of the western parcel is the subject of this Addendum.
6. For the reasons given above, the relevance of some of the OCC observations dated 2<sup>nd</sup> March 2022 are therefore partially superseded. This Addendum draws on the various



documents referred and concludes that flexible development on the western parcel is appropriate and justified in transport terms with the worst-case traffic generation outcome of full occupation by E(g)(iii)/B2 operators having been tested. The proposals are deliverable by the applicant and prompt occupation is anticipated following consent.

### **Revised Proposal – Access Arrangements**

7. The revised proposal is shown on the site masterplan in **Appendix B**. The access arrangements are also shown on **DTA Drawing 14042-60L**. The future intention remains to develop the eastern parcel, and indeed this land already benefits from a residential consent, but this application now only seeks approval for vehicular access to the western parcel. The associated geometrical design of this part of the SLR link is retained such as not to prejudice future access aspirations, whether they be residential or employment, with only white line alterations as shown on **DTA Drawing 14042-60L**.
8. The 2/3/22 OCC response sought justification regarding the 2.5m width of the SLR cycleways. In each case, for the western and eastern side, the intention of the applicant has always been to align with the approved SLR plans, hence the 2.5m width was shown. If OCC aspirations have changed and they now favour 3m width on this section, the applicant is content to deliver it and this is shown on **DTA Drawing 14042-60L**.
9. The same query has been raised regarding the cycleway facility on the east-west link. Here, the land constraint to the north precludes further widening. There is no need for anything above the minimum width of 2.5m, since the link will be very lightly trafficked only due to serve buses and the Phase 1/2 small employment links and is liable to be characterised by on carriageway cycling.
10. OCC seek the connection to the east to serve cyclists as well as pedestrians. The alignment of this has been straightened given the removal of the eastern parcel development from the application. The OCC response now seeks cycle facilities associated to the proposed crossing on Howes Lane. The purpose of the internal link



and crossing is an “interim” solution to the delay incurred in the delivery of the SLR and the consequent revised pedestrian/cycle only use of Howes Lane. Further its purpose was envisaged as focussing on its connection via the public right of way into Wansbeck Drive for local residents and to access the nearby bus stops. That link is one where cyclists should dismount.

11. To respond positively to OCC’s request, additional hard standing allowing cyclists to safely leave the carriageway, to dismount to avoid the risk of colliding with pedestrians, and then to re-mount on the link into the site has been designed as shown on **DTA Drawing 14042-60L**. The proposals represent a radically improved situation compared with the scheme consented at Appeal where cyclists and pedestrians routed via a temporary vehicular access some way to the south along Howes Lane. Should there be the need for further refinement, these will be very minor in the context of the wider scheme and such changes could readily take place in parallel to s106 negotiations/drafting and without the need to be reconsidered by the Planning Committee.
12. Finally, OCC advise that the cycle/pedestrian link between the bus link and the Howes Lane roundabout should be annotated on the Proposed Site Plan. The corridor width agreed as part of the licence agreement allows sufficient width for OCC to incorporate a wider cycleway as they see fit. The Phase 3 application has no bearing on this corridor width.

### **Public Transport**

13. For the avoidance of doubt, the applicant is content with the principle of a bus contribution. The difference between the parties on public transport is solely confirmation of what contribution OCC are seeking, how the scale is justified and the anticipated triggers for payment. It would not seem appropriate to require a contribution pre-SLR or materially before bus services come forward on NWB. DTA have exchanged correspondence with OCC who are in the process of providing clarification on these details.



---

### **Cycle Parking**

14. In response to OCC querying the suitability of some of the cycle parking locations, the removal of the eastern parcel from the application removes any relevance to those units. To the west, cycle parking is located close to all of the Units front doors. For Units 1, 2 and 3 the cycle storage is found on the edges of service yards. This is not an unusual arrangement. To re-enforce the safe access arrangements, white lining demarking the cyclist routes (outside of the HGV swept paths) within the service yards are proposed and are shown on **DTA Drawing 14042-60L**.

### **Car Parking**

15. The 2/3/22 OCC response sought reduced parking levels on the grounds of B8 only content. The proposals at the time were to revert to flexible land use post SLR and so the removal of car parking would not have been appropriate. Notwithstanding, the proposals have since been revised to provide flexible land use and so the point is no longer pertinent in any event and parking provision on the western parcel has therefore been maintained at the levels previously shown.

### **Traffic Impact**

16. The appraisal of the pre-SLR proposals has moved forward in a number of ways. Firstly, the site proposals have been revised in response to CDC design feedback. The proposals now comprise 14,188sqm of flexible E(g)(iii)/B2/B8 and only comprising the western parcel.
17. Secondly, the traffic data source has been amended at the request of OCC to reflect the commissioned running of the Bicester Traffic Model for an updated Reference Case (Base) and Reference Case + proposed development as defined within this Note. The Reference Case does not include the SLR, and only committed development on NWB is included.
18. The updated site traffic generation is a pro-rata version of the original application and is set out in **Table 1**.



**Table 1** – Trip Generation – Proposed Axis J9 Phase 3 – western parcel only E(g)(iii) land use class (14,188sqm)

	In			Out			Total		
	Lights	OGV1&2	Total	Lights	OGV1&2	Total	Lights	OGV1&2	Total
AM Peak (0800-0900)	52	3	55	9	3	12	61	7	68
PM Peak (1700-1800)	5	1	6	43	1	44	48	2	50

19. This data reflects the worst-case traffic generation outcome (in the event of comprehensive E(g)(iii)/B2 land use). It has been provided to the consultant responsible for the Bicester Traffic Model (BTM) and outputs provided for the Base and Base + Development scenarios in 2026 as agreed with OCC for the pre-SLR situation. The site trip distribution and assignment function is performed by the BTM. The output is provided at **Appendix C**.
20. The traffic flows at the key Bucknell Road/Howes Lane junction have been extracted from the BTM output. This demonstrates that the proposals give rise to an increase of only 4 trips in the AM peak and 4 trips in the PM peak through the Bucknell Road/Howes Lane junction.
21. Whilst OCC queried the junction modelling presented in Technical Note 14042-44, the Bucknell Road/Howes Lane model was subject to very careful validation. The modelled queues presented within the Technical Note were based on December 2021 counts and modelled queues of 27 vehicles on the right turn into Bucknell Road in the AM peak and 34 vehicles on the Howes Lane exit in the evening peak and aligned closely to the observed queues.
22. The observed AM peak queue comprised the right turn queue (peaking at 6-7) plus the A4095 queue at the adjacent mini-roundabout junction (peaking at 18-22), so giving a total of c.25-30 vehicles (compared with 27 vehicles modelled). The observed PM peak queue comprised Howes Lane right turn and left turn varying considerably across the peak but peaking at c.29-42 compared with a modelled queue of 34 vehicles.



23. With the net change of only an additional vehicle movement every 15 minutes routing through the Bucknell Road/Howes Lane junction it is clear that the impact is negligible and must be deemed acceptable. Notwithstanding this, for completeness, the assessment of the junction has been undertaken using JUNCTIONS. The results before and after the addition of development traffic are included in **Table 2**. The output data is provided at **Appendix D**.

**Table 2** – Howes Lane/Bucknell Road T-junction Assessment Results (BTM Flows)

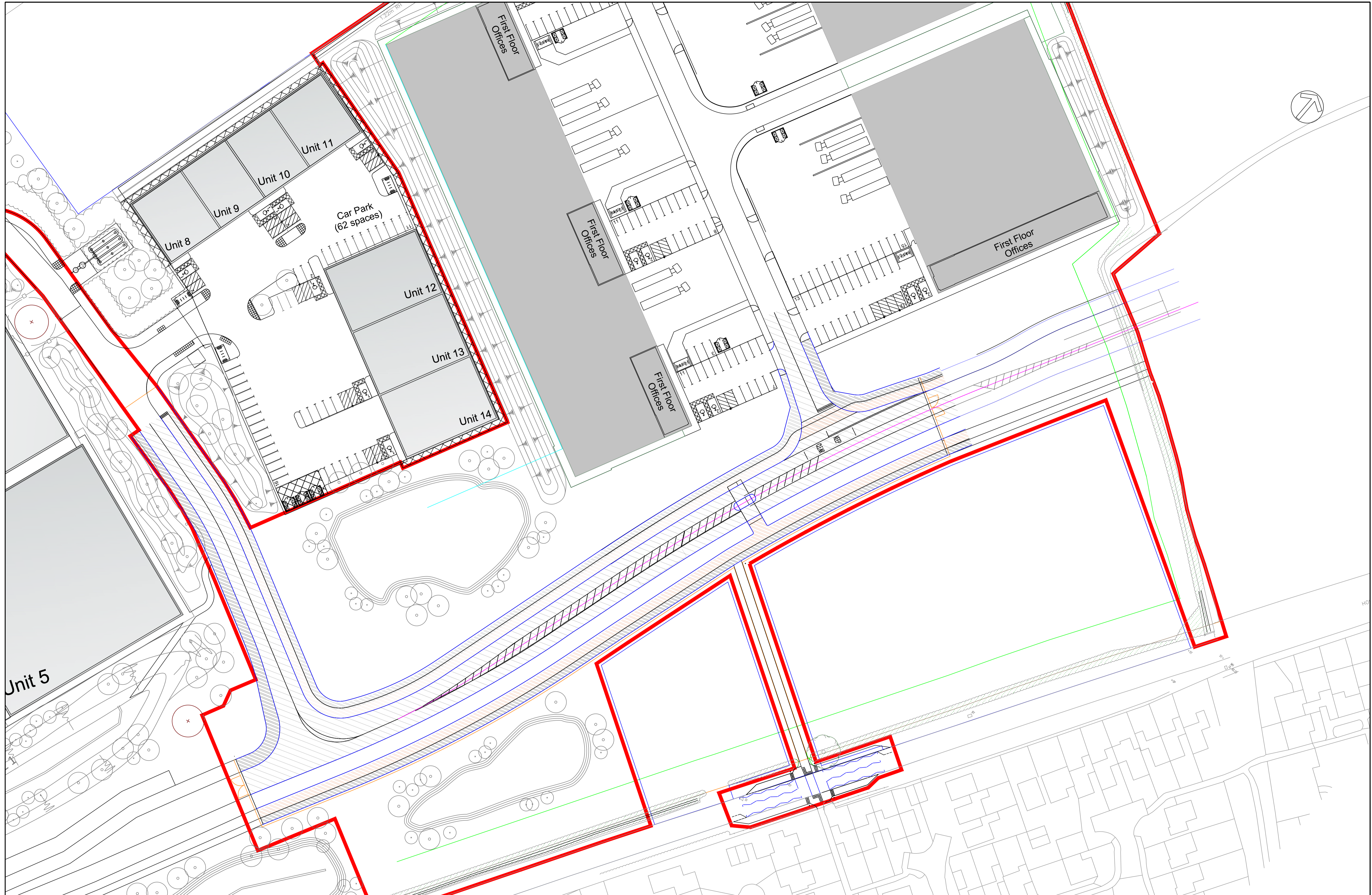
	AM Peak		PM Peak	
	Max RFC	Queue	Max RFC	Queue
<b>2026 Base</b>				
Howes Lane	0.74	3	1.22	104
Bucknell Road (North) Right Turn	0.96	17	1.08	55
<b>2026 Base + Development</b>				
Howes Lane	0.74	3	1.23	107
Bucknell Road (North) Right Turn	0.95	16	1.08	55

24. It is clear from the assessments that the revised site proposals give rise to negligible impact pre-SLR. It has already been established that more extensive site proposals had negligible impact post-SLR.
25. It is concluded that the proposals as presented meet the transport requirements of the NPPF and should be allowed on transport grounds.



## Drawings

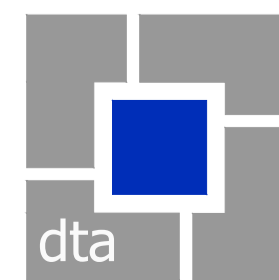




Based upon the ORDNANCE SURVEY MAPS with the permission of THE CONTROLLER OF HER MAJESTY'S STATIONERY OFFICE,  
 © Crown Copyright AL 100030412

© David Tucker Associates

REV	DESCRIPTION	DRAWN	INITIALS	DATE	DRAWING STATUS	CHECKED BY	DATE



**david tucker associates**  
 transport planning consultants  
 Forester House, Doctors Lane  
 Henley-in-Arden  
 Warwickshire B95 5AW  
 Tel: +44(0)1564 793598  
 Fax: +44(0)1564 793983  
 www.dtatransportation.co.uk

JOB TITLE		AXIS J9		CLIENT		ALBION LAND	
DRAWING TITLE							
ACCESS ROAD GENERAL ARRANGEMENT							
SCALE	DRAWN BY	DATE	DRAWING No	REVISION			
1:500@A1	RM	08/03/22	14042-60	L			



---

## Appendix A

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

**District:** Cherwell

**Application no:** 21/03177/F

**Proposal:** Full planning application for employment development (Use Classes E(g)(iii), B2 and/or B8) and associated parking and servicing, landscaping and associated works

**Location:** Axis J9 Phase 3 Howes Lane Bicester

**Response date:** 3rd March 2022

---

This report sets out the officer views of Oxfordshire County Council (OCC) on the above proposal. These are set out by individual service area/technical discipline and include details of any planning conditions or Informatives that should be attached in the event that permission is granted and any obligations to be secured by way of a S106 agreement. Where considered appropriate, an overarching strategic commentary is also included. If the local County Council member has provided comments on the application these are provided as a separate attachment.

---

**Application no: 21/03177/F**

**Location:** Axis J9 Phase 3 Howes Lane Bicester

---

## **General Information and Advice**

### **Recommendations for approval contrary to OCC objection:**

If within this response an OCC officer has raised an objection but the Local Planning Authority are still minded to recommend approval, OCC would be grateful for notification (via [planningconsultations@oxfordshire.gov.uk](mailto:planningconsultations@oxfordshire.gov.uk)) as to why material consideration outweighs OCC's objections, and to be given an opportunity to make further representations.

### **Outline applications and contributions**

The anticipated number and type of dwellings and/or the floor space may be set by the developer at the time of application which is used to assess necessary mitigation. If not stated in the application, a policy compliant mix will be used. The number and type of dwellings used when assessing S106 planning obligations is set out on the first page of this response.

In the case of outline applications, once the unit mix/floor space is confirmed by reserved matters approval/discharge of condition a matrix (if appropriate) will be applied to establish any increase in contributions payable. A further increase in contributions may result if there is a reserved matters approval changing the unit mix/floor space.

### **Where a S106/Planning Obligation is required:**

- **Index Linked** – in order to maintain the real value of S106 contributions, contributions will be index linked. Base values and the index to be applied are set out in the Schedules to this response.
- **Administration and Monitoring Fee - TBC**  
This is an estimate of the amount required to cover the monitoring and administration associated with the S106 agreement. The final amount will be based on the OCC's scale of fees and will be adjusted to take account of the number of obligations and the complexity of the S106 agreement.
- **OCC Legal Fees** The applicant will be required to pay OCC's legal fees in relation to legal agreements. Please note the fees apply whether a S106 agreement is completed or not.

**Security of payment for deferred contributions** - Applicants should be aware that an approved bond will be required to secure a payment where a S106 contribution is to be paid post implementation and

- the contribution amounts to 25% or more (including anticipated indexation) of the cost of the project it is towards and that project cost £7.5m or more
- the developer is direct delivering an item of infrastructure costing £7.5m or more
- where aggregate contributions towards bus services exceeds £1m (including anticipated indexation).

A bond will also be required where a developer is direct delivering an item of infrastructure.

The County Infrastructure Funding Team can provide the full policy and advice, on request.

**Application no: 21/03177/F**

**Location:** Axis J9 Phase 3 Howes Lane Bicester

---

### **Strategic Comments**

Previous OCC comments have been shared relating to the removal of housing and growth deal funding for the Strategic Link Road/A4095 scheme. Also, Local Member Views were raised by Cllrs Sibley, Cllr Waine and Cllr Ford.

The County Council is raising Transport objections and Local Lead Flood Authority objections to the scheme.

**Officer's Name: Jonathan Wellstead**

**Officer's Title:** Principal Planner

**Date:** 04/03/2022

**Application no: 21/03177/F**

**Location: Axis J9 Phase 3 Howes Lane Bicester**

---

## **Transport Schedule**

### **Recommendation:**

#### **Objection for the following reasons:**

- There are some apparent anomalies in the assessment of traffic impact.
- Improvements are required to cycle connectivity and cycle parking, in the interests of promoting sustainable travel.
- Car parking provision for the warehousing units is too generous and should be reduced in the interests of promoting sustainable travel.

If despite OCC's objection permission is proposed to be granted then OCC requires prior to the issuing of planning permission a S106 agreement and conditions as set out in our original response.

### **Key points**

- The applicant is proposing that development on the western parcel is restricted to B8 (warehousing) prior to the A4095 realignment being open - this has a much lower trip generation than flexible employment uses.
- An interim (2026) assessment has been carried out to test the impact of the development coming forward prior to the A4095 realignment, but there are some issues with it.
- A pedestrian connection to, and a signalised crossing over Howes Lane has been included in the proposals.
- The proposals have been updated to provide segregated cycle facilities on the future A4095 realignment as it passes the site, but these are not wide enough.
- Improvements to the location of cycle parking, and a reduction in car parking for the warehousing units are required.
- A further submission from the applicant is expected.

### **Comments:**

**Traffic impact:** The amended application proposes a restriction on use of the western parcel, which is by far the largest of the two parcels, to B8 use only. B8 typically has a much lower rate of trip generation per 100 sqm than industrial uses. This change makes a big difference to the trip generation. The report forecasts that only 10 two-way trips would be added to the Bucknell Rd/Howes Lane junction (the critical junction) in

the am peak, with 9 in the pm peak. This takes into account a routing agreement preventing HGVs from the site from using Howes Lane. I have queried the arithmetic, but if this were the case, the proportionate impact of the development traffic at nearby junctions would be very small.

The applicant has provided an assessment of the amended proposals (B8 only on the western parcel, with flexible use on the eastern parcel), being occupied before the opening of the A4095 realignment (SLR). This was based on observed traffic flow from a survey on Wednesday 8 December 2021, which included turning movements and queue lengths. Development traffic was added using the trip generation mentioned above and trip distribution previously agreed, assuming all HGVs are routed south via Vendee Drive (in accordance with the existing routing agreement at the site). The observed traffic was growthed up to 2026 using TEMPRO, and Great Wolf and the development traffic were added. (It's noted that Great Wolf would only add a very small number of trips to Howes Lane).

Although the report says the surveys of queue lengths validate the junction models, I am concerned that the Junctions 10 model results for 2021 base show minimal max queues compared with the survey data – I have asked for an explanation. They also show the junctions operating within capacity and with small delays per vehicle, which does not match with the surveys or general experience of traffic conditions.

With regard to the 2026 scenario, OCC is of the opinion that TEMPRO growth factors would be an underestimate of growth in Bicester, as they are an average over a wider area, whereas Bicester is a major centre of growth, with consequentially a high concentration of vehicle movements. Our recommendation would be to use an updated Bicester Transport Model 2026 reference case (currently in preparation) for testing the impact of the development, and the report indicates that this is being carried out.

Since writing this response it has been agreed that the complete SLR is assumed to be in place for 2031 model scenarios.

### **Pedestrian/cycle connectivity**

The footway/cycleway on the western side of the future SLR has been amended to provide a segregated 2.5m cycleway and 2m footway, instead of a shared facility. As stated in my previous response, 2.5m for a 2-way cycle track is set out in LTN 1/20 as the 'absolute minimum at constraints' (Table 5.2). There is no explanation of what the constraints are here, and the additional width would fall within the protected corridor for the SLR. Further clarification should be provided.

With regard to the refuge in the western access, I have reviewed the vehicle tracking submitted with the application and can see that a refuge could not be accommodated given the swept path of HGVs, without widening the bellmouth significantly, which would not be desirable since it could lead to increased speed of vehicle turning movements.



Again, the proposed segregated footway cycleway in the east-west connecting road is proposed to provide only 2.5m for cyclists. An explanation of the constraints is requested.

A pedestrian connection from the eastern parcel to Howes Lane, and a signalised crossing of Howes Lane, are now shown on the updated site plan and in the drawing attached to the 'Response to OCC Highways Consultation Response' document, ref 14042-65. It's noted that the red line has been extended to include the works. However, the design only caters for pedestrians. Whilst it is noted that there are no cycle facilities on Howes Lane currently, the design should be adjusted to make it safe for any cyclists using Howes Lane to turn in and out of the access without endangering pedestrians using the access or crossing. This could, for example, mean widening the access and providing some additional hard standing and dropped kerb either side of the crossing. OCC would require these works to be delivered prior to first occupation at the site, and they would require a S278 agreement. Howes Lane is sensitive to flooding so further details will be required if it is necessary to culvert a ditch.

With regard to the requested connection through from the access road to Howes Lane further south (opposite the road leading to Empire Way), the 'Response to OCC Highways' document states that it would be inappropriate to fix a design as part of the current application. I accept that this link would not be desirable until the SLR is open, when it would access onto the part of Howes lane that will become a quiet cycle route. However, this is a key link in the NW Bicester Masterplan Access and Travel Strategy, described as a 'commuter cycle/pedestrian route off road'. It should be marked on the Proposed Site Plan and a corridor sufficiently wide for an LTN 1/20 compliant segregated route should be protected/safeguarded in the planning permission.

### **Public transport**

The applicant has not agreed to make provision for bus stops within the site. Having reviewed the NW Bicester Access and Travel Strategy, it appears the intended bus stop position was further west, and could probably be accommodated within the bus only link between the site and future Himley Village.

The applicant is also querying the requested public transport contribution, on the basis of uncertainty of delivery of the SLR. However, it would always have been the case that the eventual loop bus service would need to be delivered in phases, and in early phases the route could use Howes Lane and Lords Lane. It remains the case that the development forms part of the Policy Bicester 1 site and therefore needs to make a proportionate contribution to the transport strategy needed to support it, and the required targets of low car trip generation.

### **Cycle parking**

I can now see there are seven shelters which appear to accommodate 5 stands (10 cycles) each, which would be an acceptable level of cycle parking. However, some of

these shelters are still distant from the main entrances of the buildings and should be nearer than most car parking spaces, to prioritise cycling over car travel to the site, and in the interest of security. Some are still shown within the goods vehicle manoeuvring areas, which is unacceptable from the point of view of safety and convenience.

**Car parking**

On the basis that the western parcels would be restricted to B8, the amount of car parking associated with those units is well above the recommended levels (one per 200sqm). In the interests of promoting sustainable travel, I recommend that car parking is reduced. The space created could accommodate additional landscaping.

**Officer's Name: Joy White**

**Officer's Title:** Principal Transport Planner

**Date:** 2 March 2022

**Application no: 21/03177/F**

**Location: Axis J9 Phase 3 Howes Lane Bicester**

---

## **Lead Local Flood Authority**

### **Recommendation:**

Objection

### **Key issues:**

- Surface water catchment plan not clear.
- Basin cover levels and storage volumes not provided on plan.
- No drainage strategy provided for the future SL road.
- final outfall location not shown on phase 1&2 drawings.
- Further details required in regard to the existing culvert.
- Surface water treatment not provided for all parking areas.
- Drainage strategy drawing does not demonstrate permeable paving clearly.
- Microdrainage calculations required for all SuDS features.
- Microdrainage calculations does not show the impermeable areas going in the drainage infrastructures.
- Ground investigation report not provided.
- Permeable paving not identified in the maintenance regime.
- Phasing plan not provided.

### **Detailed comments:**

Surface water catchment plan does not show the extent of the areas clearly. Please make use of different colours and hatch the areas solid, clearly stating the area and also the area with urban creep.

Basin cover levels are not provided on the plan drawings, please provide cover levels of storage structures and the volumes.

The future SL area is not covered in the phase 3 drainage strategy however its shown within the phase 3 development. Clarification on the drainage strategy is required.

Plan drawing shows headwall discharging to an green hatched area. This has not been denoted on the key. The outfall location should be clearly shown on the drawing and where it leads to exactly.

Ownership of culvert and permission to connect to be provided. Capacity of the culvert to be confirmed and the surface water that its currently taking. Also its mentioned the culvert will be upgraded, provide clarification of what the upgrade will include and when this will be done. Ideally it should be upgraded before phase 3 is developed to reduce the risk of flooding in neighbouring sites.

Parking spaces opposite units 6-8,9-10 and 11 does not have permeable paving. Clarification required on how the surface water in this area will be treated.

Permeable paving is proposed however this has not been keyed up on the drainage strategy drawing. Also provide storage volumes and invert level of the sub base on the drainage plans. All SuDs features and drainage infrastructure should be keyed up correctly on drainage plans.

Microdrainage calculations required for the permeable paving to include all storm events up to and including the 1:100 year storm event plus 40% climate change.

Microdrainage calculations to show the impermeable areas draining to the relevant drainage infrastructure.

Ground investigation report to be provided to confirm infiltration is not feasible on site. Infiltration testing to be conducted according to BRE 365.

Update the maintenance regime to include permeable paving.

Phasing plan to be provided to demonstrate the extent of each phase clearly. Each phase should have its own drainage strategy in place and be able to stand alone.

**Officer's Name: Kabier Salam**

**Officer's Title: LLFA Engineer**

**Date: 24 February 2022**



## Appendix B

NOTES

Reproduced from the Ordnance Survey map with the permission of the Controller of Her Majesty's Stationery Office, © Crown Copyright.

C A Cornish & Associates Ltd Licence no LIG0908.

Subject to Statutory Approvals.

Subject to Highways Development.

- Parameters Boundary
- Planning Site Boundary
- Ownership Boundary
- Notional Boundary
- Hedgerow Protection
- SLR License
- - - 2.5m high acoustic fence
- - - 1.5m high timber post and rail fence

P	Revision to Howes lane crossing	CS	09/03/2022
N	Unit 1 - 3 refuse stores relocated. Red line adjusted to allow for four drain cycle paths increased to 3m wide. Provisions for cycles at Howes Lane crossing	CS	08/03/2022
M	Units 6 - 11 omitted	CS	04/03/2022
L	Unit 1 Cycle parking relocated closer to the building	SM	08/02/2022
K	Planning boundary updated to include howes lane crossing	SM	04/02/2022
J	Minor adjustments to radii.	SM	01/02/2022
H	Enhanced pathway to include cycle path & crossing point to Howes Lane.	SM	25/01/2022
G	Area Schedule Corrected	SK	02/11/2021
F	Site Boundary Updated	CS	02/09/2021
E	Site Boundary updated	CS	31/08/2021
D	Acoustic fences added	SK	20/08/2021
C	Sheet number amended. Road layout updated. Areas updated.	SK	16/08/2021
B	Paving around units 1-3 yards adjusted. Acoustic fence added and landscaping adjusted between units 10 and 11.	SK	29/07/2021
A	Units 6-11 moved further into the site to achieve 10m buffer to eastern site ownership boundary	SK	16/07/2021
Rev	Description	Chk	Date

Peer House  
8 -14 Verulam Street  
London WC1X 8LZ

tel +44(0)20 7400 2120

enquiries@cornisharchitects.com  
www.cornisharchitects.com

RIBA Chartered Practice

cornisharchitects

Project Title:  
**PHASE 3 AXIS J9 BICESTER**

Drawing Title:  
**PROPOSED SITE PLAN**

Drawing Status:  
**TOWN PLANNING**

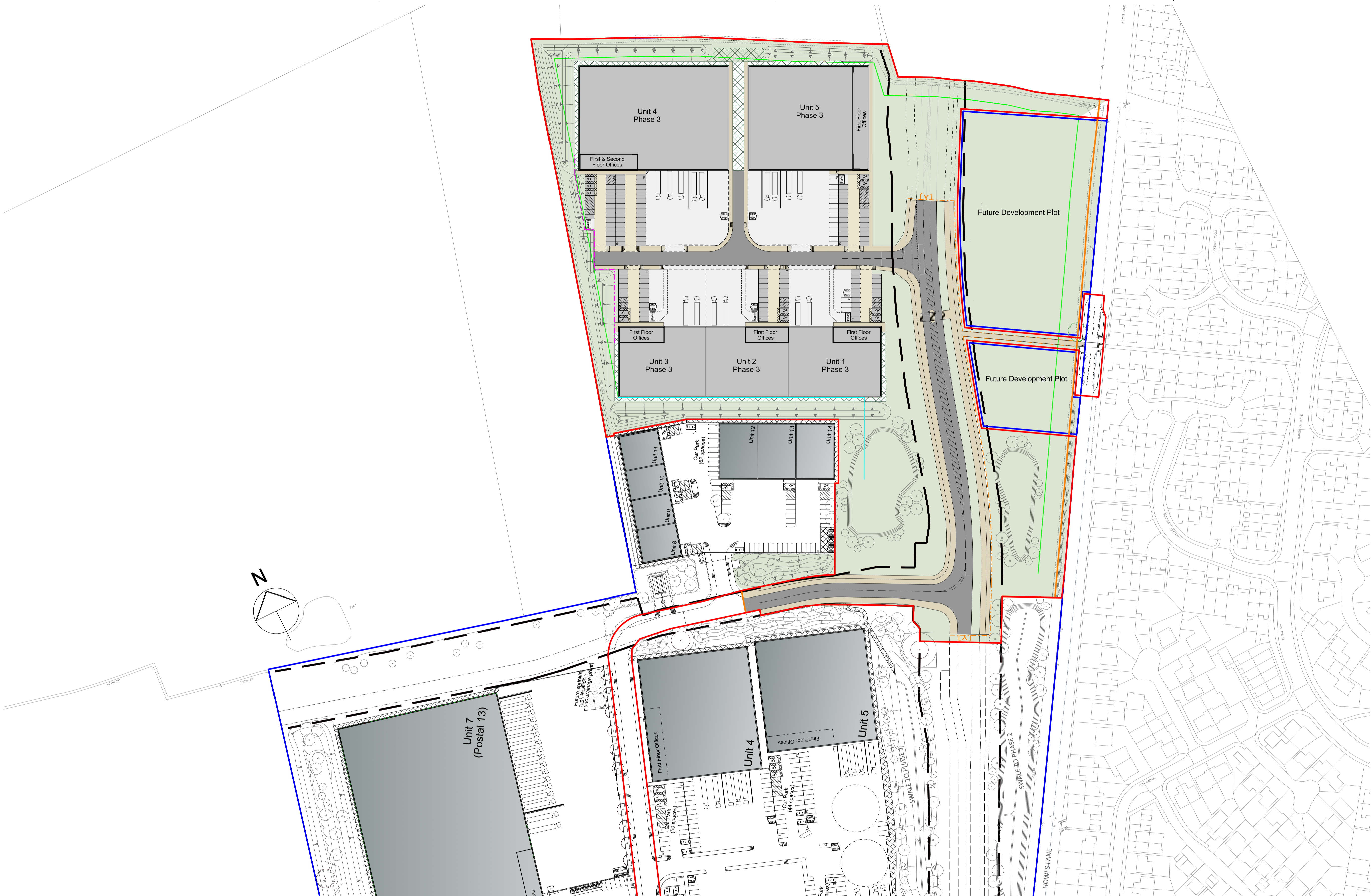
Scale:  
0 10 metres 80

Drawn By: Scale: Date: Chk'd By:  
S K 1:1000 @ A1 08/07/2021 C S

ALBION LAND

Drawing No. 20019 - TP - 002 Rev. P

Copyright of Cornish Architects ©



UNIT	Ground Floor GEA sm	Ground Floor GEA sf	First Floor GEA sm	First Floor GEA sf	Second Floor GEA sm	Second Floor GEA sf	Total Unit GEA sm	Total Unit GEA sf	Ground Floor GIA sm	Ground Floor GIA sf	First Floor GIA sm	First Floor GIA sf	Second Floor GIA sm	Second Floor GIA sf	Total Unit GIA sm	Total Unit GIA sf	Car Parking
1	1830	19698	224	2411	0	0	2054	22109	1759	18934	195	2104	0	0	1954	21038	23
2	1665	17922	202	2174	0	0	1867	20096	1613	17362	179	1929	0	0	1792	19291	21
3	1717	18482	211	2271	0	0	1928	20753	1650	17761	183	1973	0	0	1833	19734	21
4	4412	47491	272	2928	272	2928	4956	53346	4278	46048	238	2558	238	2558	4753	51165	53
5	3552	38234	478	5145	0	0	4030	43379	3433	36953	423	4553	0	0	3856	41506	42
TOTAL	13176	141826	1387	14930	272	2928	14835	159684	12733	137058	1219	13118	238	2558	14189	152734	160



## Appendix C









## Appendix D

<b>Junctions 10</b>
<b>PICADY 10 - Priority Intersection Module</b>
Version: 10.0.2.1574 © Copyright TRL Software Limited, 2021
For sales and distribution information, program advice and maintenance, contact TRL Software: +44 (0)1344 379777 software@trl.co.uk trlsoftware.com
<b>The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution</b>

Filename: Howes Lane\_Bucknell Road (2022)\_Western Parcel.j10  
 Path: P:\14000's\14042  
 Report generation date: 08/03/2022 15:02:59

- »2026 Base, AM
- »2026 Base, PM
- »2026 Base + Western Parcel, AM
- »2026 Base + Western Parcel, PM

**Summary of junction performance**

	AM			PM		
	Q (PCU)	Delay (s)	RFC	Q (PCU)	Delay (s)	RFC
<b>2026 Base</b>						
Stream B-C	3.0	21.56	0.74	99.3	490.41	1.22
Stream B-A	0.4	49.35	0.30	4.7	997.84	1.09
Stream C-AB	16.7	66.02	0.96	55.3	192.07	1.08
<b>2026 Base + Western Parcel</b>						
Stream B-C	3.0	21.95	0.74	102.3	506.10	1.23
Stream B-A	0.4	49.35	0.30	4.8	1014.19	1.09
Stream C-AB	15.7	62.80	0.95	55.3	192.11	1.08

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

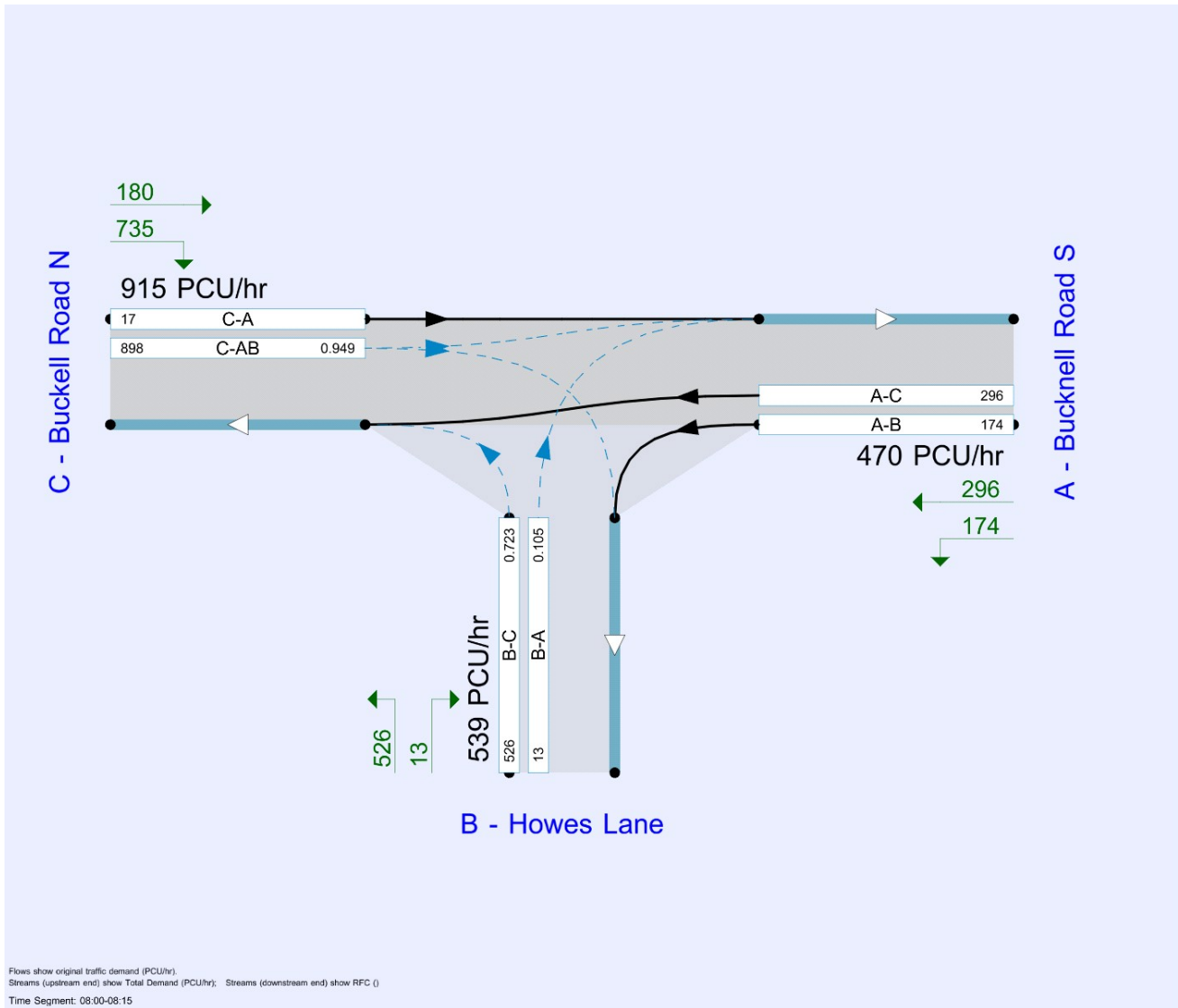
**File summary**

**File Description**

Title	Howes Lane/ Bucknell Road
Location	Bicester
Site number	
Date	08/03/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DTA\arcady
Description	

**Units**

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



The junction diagram reflects the last run of Junctions.

### Analysis Options

Vehicle length (m)	Calculate Q Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q 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 period length (min)	Time segment length (min)	Run automatically
D7	2026 Base	AM	FLAT	08:00	09:00	60	15	✓
D8	2026 Base	PM	FLAT	17:00	18:00	60	15	✓
D13	2026 Base + Western Parcel	AM	FLAT	08:00	09:00	60	15	✓
D14	2026 Base + Western Parcel	PM	FLAT	17:00	18:00	60	15	✓

### Analysis Set Details

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

# 2026 Base, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		36.99	E

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	36.99	E

## Arms

### Arms

Arm	Name	Description	Arm type
A	Bucknell Road S		Major
B	Howes Lane		Minor
C	Bucknell Road N		Major

### Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Bucknell Road N	6.50	✓	1.75	✓	2.20	140.0	✓	1.00

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

### Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Howes Lane	One lane plus flare	10.00	7.50	5.50	5.50	5.50		3.00	20	22

## Slope / Intercept / Capacity

### Custom Intercept Adjustments

Custom stream intercept adjustment	Stream	Use adjustment	Reason	Direct intercept adjustment (PCU/hr)
1	B-C	✓		84
2	C-B	✓		236

### Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	452	0.078	0.196	0.123	0.280
B-C	849	0.115	0.290	-	-
C-B	891	0.248	0.248	-	-

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 period length (min)	Time segment length (min)	Run automatically
D7	2026 Base	AM	FLAT	08:00	09:00	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Bucknell Road S		FLAT	✓	470	100.000
B - Howes Lane		FLAT	✓	539	100.000
C - Buckell Road N		FLAT	✓	915	100.000

## Origin-Destination Data

### Demand (PCU/hr)

08:00 - 08:15

		To		
		A - Bucknell Road S	B - Howes Lane	C - Buckell Road N
From	A - Bucknell Road S	0	174	296
	B - Howes Lane	13	0	526
	C - Buckell Road N	180	735	0

### Proportions

		To		
		A - Bucknell Road S	B - Howes Lane	C - Buckell Road N
From	A - Bucknell Road S	0.00	0.37	0.63
	B - Howes Lane	0.02	0.00	0.98
	C - Buckell Road N	0.20	0.80	0.00

### Demand (PCU/hr)

08:15 - 08:30

		To		
		A - Bucknell Road S	B - Howes Lane	C - Buckell Road N
From	A - Bucknell Road S	0	88	192
	B - Howes Lane	36	0	580
	C - Buckell Road N	256	804	0

### Proportions

		To		
		A - Bucknell Road S	B - Howes Lane	C - Buckell Road N
From	A - Bucknell Road S	0.00	0.31	0.69
	B - Howes Lane	0.06	0.00	0.94
	C - Buckell Road N	0.24	0.76	0.00

### Demand (PCU/hr)

08:30 - 08:45

		To		
		A - Bucknell Road S	B - Howes Lane	C - Buckell Road N
From	A - Bucknell Road S	0	104	152
	B - Howes Lane	48	0	660
	C - Buckell Road N	228	856	0

### Proportions

		To		
		A - Bucknell Road S	B - Howes Lane	C - Buckell Road N
From	A - Bucknell Road S	0.00	0.41	0.59
	B - Howes Lane	0.07	0.00	0.93
	C - Buckell Road N	0.21	0.79	0.00

### Demand (PCU/hr)

08:45 - 09:00

		To		
		A - Bucknell Road S	B - Howes Lane	C - Buckell Road N
From	A - Bucknell Road S	0	72	212
	B - Howes Lane	28	0	596
	C - Buckell Road N	204	876	0

### Proportions

		To		
		A - Bucknell Road S	B - Howes Lane	C - Buckell Road N
From	A - Bucknell Road S	0.00	0.25	0.75
	B - Howes Lane	0.04	0.00	0.96
	C - Buckell Road N	0.19	0.81	0.00

## Vehicle Mix

**HV %s**

		To		
		A - Bucknell Road S	B - Howes Lane	C - Bucknell Road N
From	A - Bucknell Road S	0	10	10
	B - Howes Lane	10	0	10
	C - Bucknell Road N	10	10	0

**Av. PCU Per Veh**

		To		
		A - Bucknell Road S	B - Howes Lane	C - Bucknell Road N
From	A - Bucknell Road S	1.000	1.100	1.100
	B - Howes Lane	1.100	1.000	1.100
	C - Bucknell Road N	1.100	1.100	1.000

## Detailed Demand Data

**Demand for each time segment**

Arm	Time Segment	Demand (PCU/hr)	Demand in PCU (PCU/hr)
A - Bucknell Road S	08:00-08:15	470	470
	08:15-08:30	470	470
	08:30-08:45	470	470
	08:45-09:00	470	470
B - Howes Lane	08:00-08:15	539	539
	08:15-08:30	539	539
	08:30-08:45	539	539
	08:45-09:00	539	539
C - Bucknell Road N	08:00-08:15	915	915
	08:15-08:30	915	915
	08:30-08:45	915	915
	08:45-09:00	915	915

## Results

**Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.74	21.56	3.0	C	513	513
B-A	0.30	49.35	0.4	E	26	26
C-AB	0.96	66.02	16.7	F	891	891
C-A					24	24
A-B					158	158
A-C					312	312

**Main Results for each time segment**
**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-C	526	132	727	0.723	515	0.0	2.7	17.875	C
B-A	13	3	124	0.105	13	0.0	0.1	35.503	E
C-AB	898	224	946	0.949	851	0.0	11.8	35.055	E
C-A	17	4			17				
A-B	174	44			174				
A-C	296	74			296				

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-C	508	127	696	0.729	507	2.7	2.8	20.756	C
B-A	32	8	118	0.266	30	0.1	0.4	44.587	E
C-AB	873	218	974	0.896	873	11.8	11.8	43.227	E
C-A	42	10			42				
A-B	148	37			148				
A-C	322	81			322				

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-C	502	126	695	0.723	502	2.8	2.8	20.540	C
B-A	37	9	121	0.301	36	0.4	0.4	46.345	E
C-AB	891	223	955	0.933	884	11.8	13.5	53.412	F
C-A	24	6			24				
A-B	191	48			191				
A-C	279	70			279				

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-C	515	129	697	0.739	514	2.8	3.0	21.563	C
B-A	24	6	105	0.230	25	0.4	0.3	49.351	E
C-AB	902	225	941	0.958	889	13.5	16.7	66.016	F
C-A	13	3			13				
A-B	119	30			119				
A-C	351	88			351				



# 2026 Base, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		252.11	F

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	252.11	F

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D8	2026 Base	PM	FLAT	17:00	18:00	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Bucknell Road S		FLAT	✓	504	100.000
B - Howes Lane		FLAT	✓	764	100.000
C - Buckell Road N		FLAT	✓	1036	100.000

## Origin-Destination Data

### Demand (PCU/hr)

17:00 - 17:15

		To		
		A - Bucknell Road S	B - Howes Lane	C - Buckell Road N
From	A - Bucknell Road S	0	178	326
	B - Howes Lane	13	0	751
	C - Buckell Road N	390	646	0

### Proportions

		To		
		A - Bucknell Road S	B - Howes Lane	C - Buckell Road N
From	A - Bucknell Road S	0.00	0.35	0.65
	B - Howes Lane	0.02	0.00	0.98
	C - Buckell Road N	0.38	0.62	0.00

### Demand (PCU/hr)

17:15 - 17:30

		To		
		A - Bucknell Road S	B - Howes Lane	C - Buckell Road N
From	A - Bucknell Road S	0	36	104
	B - Howes Lane	48	0	868
	C - Buckell Road N	188	656	0

### Proportions

		To		
		A - Bucknell Road S	B - Howes Lane	C - Buckell Road N
From	A - Bucknell Road S	0.00	0.26	0.74
	B - Howes Lane	0.05	0.00	0.95
	C - Buckell Road N	0.22	0.78	0.00

**Demand (PCU/hr)**

 17:30 -  
17:45

		To		
		A - Bucknell Road S	B - Howes Lane	C - Buckell Road N
From	A - Bucknell Road S	0	32	144
	B - Howes Lane	28	0	644
	C - Buckell Road N	172	696	0

**Proportions**

		To		
		A - Bucknell Road S	B - Howes Lane	C - Buckell Road N
From	A - Bucknell Road S	0.00	0.18	0.82
	B - Howes Lane	0.04	0.00	0.96
	C - Buckell Road N	0.20	0.80	0.00

**Demand (PCU/hr)**

 17:45 -  
18:00

		To		
		A - Bucknell Road S	B - Howes Lane	C - Buckell Road N
From	A - Bucknell Road S	0	64	132
	B - Howes Lane	12	0	704
	C - Buckell Road N	204	600	0

**Proportions**

		To		
		A - Bucknell Road S	B - Howes Lane	C - Buckell Road N
From	A - Bucknell Road S	0.00	0.33	0.67
	B - Howes Lane	0.02	0.00	0.98
	C - Buckell Road N	0.25	0.75	0.00

## Vehicle Mix

**HV %s**

		To		
		A - Bucknell Road S	B - Howes Lane	C - Buckell Road N
From	A - Bucknell Road S	0	10	10
	B - Howes Lane	10	0	10
	C - Buckell Road N	10	10	0

**Av. PCU Per Veh**

		To		
		A - Bucknell Road S	B - Howes Lane	C - Buckell Road N
From	A - Bucknell Road S	1.000	1.100	1.100
	B - Howes Lane	1.100	1.000	1.100
	C - Buckell Road N	1.100	1.100	1.000

## Detailed Demand Data

**Demand for each time segment**

Arm	Time Segment	Demand (PCU/hr)	Demand in PCU (PCU/hr)
A - Bucknell Road S	17:00-17:15	504	504
	17:15-17:30	504	504
	17:30-17:45	504	504
	17:45-18:00	504	504
B - Howes Lane	17:00-17:15	764	764
	17:15-17:30	764	764
	17:30-17:45	764	764
	17:45-18:00	764	764
C - Buckell Road N	17:00-17:15	1036	1036
	17:15-17:30	1036	1036
	17:30-17:45	1036	1036
	17:45-18:00	1036	1036

## Results

**Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	1.22	490.41	99.3	F	740	740
B-A	1.09	997.84	4.7	F	24	24
C-AB	1.08	192.07	55.3	F	1009	1009
C-A					27	27
A-B					141	141
A-C					363	363

### Main Results for each time segment

#### 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-C	751	188	718	1.046	677	0.0	18.4	65.313	F
B-A	13	3	12	1.046	7	0.0	1.5	449.411	F
C-AB	928	232	1100	0.843	900	0.0	7.0	18.894	C
C-A	108	27			108				
A-B	178	45			178				
A-C	326	82			326				

#### 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-C	724	181	641	1.130	636	18.4	40.5	185.365	F
B-A	40	10	37	1.085	31	1.5	3.8	425.147	F
C-AB	1036	259	985	1.051	954	7.0	27.6	76.590	F
C-A	0	0			0				
A-B	130	32			130				
A-C	374	94			374				

#### 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-C	732	183	600	1.220	599	40.5	73.8	349.855	F
B-A	32	8	31	1.012	28	3.8	4.7	777.723	F
C-AB	1036	259	955	1.085	947	27.6	49.9	156.626	F
C-A	0	0			0				
A-B	92	23			92				
A-C	412	103			412				

#### 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-C	751	188	650	1.155	650	73.8	99.3	490.413	F
B-A	13	3	20	0.649	17	4.7	3.7	997.836	F
C-AB	1036	259	1026	1.009	1014	49.9	55.3	192.073	F
C-A	0	0			0				
A-B	165	41			165				
A-C	339	85			339				

# 2026 Base + Western Parcel, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		35.22	E

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	35.22	E

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D13	2026 Base + Western Parcel	AM	FLAT	08:00	09:00	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Bucknell Road S		FLAT	✓	481	100.000
B - Howes Lane		FLAT	✓	540	100.000
C - Buckell Road N		FLAT	✓	906	100.000

## Origin-Destination Data

### Demand (PCU/hr)

08:00 - 08:15

		To		
		A - Bucknell Road S	B - Howes Lane	C - Buckell Road N
From	A - Bucknell Road S	0	185	296
	B - Howes Lane	13	0	527
	C - Buckell Road N	176	730	0

### Proportions

		To		
		A - Bucknell Road S	B - Howes Lane	C - Buckell Road N
From	A - Bucknell Road S	0.00	0.38	0.62
	B - Howes Lane	0.02	0.00	0.98
	C - Buckell Road N	0.19	0.81	0.00

### Demand (PCU/hr)

08:15 - 08:30

		To		
		A - Bucknell Road S	B - Howes Lane	C - Buckell Road N
From	A - Bucknell Road S	0	88	192
	B - Howes Lane	36	0	580
	C - Buckell Road N	256	804	0

### Proportions

		To		
		A - Bucknell Road S	B - Howes Lane	C - Buckell Road N
From	A - Bucknell Road S	0.00	0.31	0.69
	B - Howes Lane	0.06	0.00	0.94
	C - Buckell Road N	0.24	0.76	0.00

**Demand (PCU/hr)**

08:30 - 08:45

		To		
		A - Bucknell Road S	B - Howes Lane	C - Buckell Road N
From	A - Bucknell Road S	0	104	152
	B - Howes Lane	48	0	660
	C - Buckell Road N	228	856	0

**Proportions**

		To		
		A - Bucknell Road S	B - Howes Lane	C - Buckell Road N
From	A - Bucknell Road S	0.00	0.41	0.59
	B - Howes Lane	0.07	0.00	0.93
	C - Buckell Road N	0.21	0.79	0.00

**Demand (PCU/hr)**

08:45 - 09:00

		To		
		A - Bucknell Road S	B - Howes Lane	C - Buckell Road N
From	A - Bucknell Road S	0	72	212
	B - Howes Lane	28	0	596
	C - Buckell Road N	204	876	0

**Proportions**

		To		
		A - Bucknell Road S	B - Howes Lane	C - Buckell Road N
From	A - Bucknell Road S	0.00	0.25	0.75
	B - Howes Lane	0.04	0.00	0.96
	C - Buckell Road N	0.19	0.81	0.00

**Vehicle Mix**

**HV %s**

		To		
		A - Bucknell Road S	B - Howes Lane	C - Buckell Road N
From	A - Bucknell Road S	0	10	10
	B - Howes Lane	10	0	10
	C - Buckell Road N	10	10	0

**Av. PCU Per Veh**

		To		
		A - Bucknell Road S	B - Howes Lane	C - Buckell Road N
From	A - Bucknell Road S	1.000	1.100	1.100
	B - Howes Lane	1.100	1.000	1.100
	C - Buckell Road N	1.100	1.100	1.000

**Detailed Demand Data**

**Demand for each time segment**

Arm	Time Segment	Demand (PCU/hr)	Demand in PCU (PCU/hr)
A - Bucknell Road S	08:00-08:15	481	481
	08:15-08:30	481	481
	08:30-08:45	481	481
	08:45-09:00	481	481
B - Howes Lane	08:00-08:15	540	540
	08:15-08:30	540	540
	08:30-08:45	540	540
	08:45-09:00	540	540
C - Buckell Road N	08:00-08:15	906	906
	08:15-08:30	906	906
	08:30-08:45	906	906
	08:45-09:00	906	906

**Results**

**Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.74	21.95	3.0	C	514	514
B-A	0.30	49.35	0.4	E	26	26
C-AB	0.95	62.80	15.7	F	881	881
C-A					25	25
A-B					163	163
A-C					318	318

## Main Results for each time segment

### 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-C	527	132	726	0.726	516	0.0	2.7	18.031	C
B-A	13	3	124	0.105	13	0.0	0.1	35.402	E
C-AB	888	222	939	0.946	842	0.0	11.5	34.676	D
C-A	18	4			18				
A-B	185	46			185				
A-C	296	74			296				

### 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-C	508	127	694	0.733	508	2.7	2.9	21.096	C
B-A	32	8	118	0.267	31	0.1	0.4	44.680	E
C-AB	863	216	969	0.891	863	11.5	11.5	41.660	E
C-A	43	11			43				
A-B	151	38			151				
A-C	330	82			330				

### 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-C	503	126	693	0.727	503	2.9	2.9	20.857	C
B-A	37	9	121	0.302	36	0.4	0.4	46.327	E
C-AB	880	220	950	0.927	875	11.5	12.9	51.389	F
C-A	26	6			26				
A-B	195	49			195				
A-C	286	71			286				

### 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-C	516	129	694	0.743	515	2.9	3.0	21.945	C
B-A	24	6	105	0.230	25	0.4	0.3	49.351	E
C-AB	891	223	935	0.952	880	12.9	15.7	62.804	F
C-A	15	4			15				
A-B	122	30			122				
A-C	359	90			359				

# 2026 Base + Western Parcel, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		257.30	F

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	257.30	F

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D14	2026 Base + Western Parcel	PM	FLAT	17:00	18:00	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

### Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Bucknell Road S		FLAT	✓	507	100.000
B - Howes Lane		FLAT	✓	766	100.000
C - Buckell Road N		FLAT	✓	1035	100.000

## Origin-Destination Data

### Demand (PCU/hr)

17:00 - 17:15

		To		
		A - Bucknell Road S	B - Howes Lane	C - Buckell Road N
From	A - Bucknell Road S	0	178	329
	B - Howes Lane	14	0	752
	C - Buckell Road N	390	645	0

### Proportions

		To		
		A - Bucknell Road S	B - Howes Lane	C - Buckell Road N
From	A - Bucknell Road S	0.00	0.35	0.65
	B - Howes Lane	0.02	0.00	0.98
	C - Buckell Road N	0.38	0.62	0.00

### Demand (PCU/hr)

17:15 - 17:30

		To		
		A - Bucknell Road S	B - Howes Lane	C - Buckell Road N
From	A - Bucknell Road S	0	36	104
	B - Howes Lane	48	0	868
	C - Buckell Road N	188	656	0

### Proportions

		To		
		A - Bucknell Road S	B - Howes Lane	C - Buckell Road N
From	A - Bucknell Road S	0.00	0.26	0.74
	B - Howes Lane	0.05	0.00	0.95
	C - Buckell Road N	0.22	0.78	0.00

**Demand (PCU/hr)**

 17:30 -  
17:45

		To		
		A - Bucknell Road S	B - Howes Lane	C - Buckell Road N
From	A - Bucknell Road S	0	32	144
	B - Howes Lane	28	0	644
	C - Buckell Road N	172	696	0

**Proportions**

		To		
		A - Bucknell Road S	B - Howes Lane	C - Buckell Road N
From	A - Bucknell Road S	0.00	0.18	0.82
	B - Howes Lane	0.04	0.00	0.96
	C - Buckell Road N	0.20	0.80	0.00

**Demand (PCU/hr)**

 17:45 -  
18:00

		To		
		A - Bucknell Road S	B - Howes Lane	C - Buckell Road N
From	A - Bucknell Road S	0	64	132
	B - Howes Lane	12	0	704
	C - Buckell Road N	204	600	0

**Proportions**

		To		
		A - Bucknell Road S	B - Howes Lane	C - Buckell Road N
From	A - Bucknell Road S	0.00	0.33	0.67
	B - Howes Lane	0.02	0.00	0.98
	C - Buckell Road N	0.25	0.75	0.00

## Vehicle Mix

**HV %s**

		To		
		A - Bucknell Road S	B - Howes Lane	C - Buckell Road N
From	A - Bucknell Road S	0	10	10
	B - Howes Lane	10	0	10
	C - Buckell Road N	10	10	0

**Av. PCU Per Veh**

		To		
		A - Bucknell Road S	B - Howes Lane	C - Buckell Road N
From	A - Bucknell Road S	1.000	1.100	1.100
	B - Howes Lane	1.100	1.000	1.100
	C - Buckell Road N	1.100	1.100	1.000

## Detailed Demand Data

**Demand for each time segment**

Arm	Time Segment	Demand (PCU/hr)	Demand in PCU (PCU/hr)
A - Bucknell Road S	17:00-17:15	507	507
	17:15-17:30	507	507
	17:30-17:45	507	507
	17:45-18:00	507	507
B - Howes Lane	17:00-17:15	766	766
	17:15-17:30	766	766
	17:30-17:45	766	766
	17:45-18:00	766	766
C - Buckell Road N	17:00-17:15	1035	1035
	17:15-17:30	1035	1035
	17:30-17:45	1035	1035
	17:45-18:00	1035	1035

## Results

**Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	1.23	506.10	102.3	F	741	741
B-A	1.09	1014.19	4.8	F	25	25
C-AB	1.08	192.11	55.3	F	1008	1008
C-A					27	27
A-B					142	142
A-C					365	365



**Main Results for each time segment**

**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-C	752	188	716	1.051	676	0.0	18.9	66.727	F
B-A	14	4	13	1.051	8	0.0	1.6	438.644	F
C-AB	926	232	1099	0.843	898	0.0	7.0	18.869	C
C-A	109	27			109				
A-B	178	45			178				
A-C	329	82			329				

**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-C	726	181	639	1.136	634	18.9	41.8	190.845	F
B-A	40	10	37	1.086	31	1.6	3.8	432.123	F
C-AB	1035	259	984	1.051	953	7.0	27.6	76.578	F
C-A	0	0			0				
A-B	130	33			130				
A-C	377	94			377				

**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-C	734	184	598	1.227	597	41.8	76.0	360.606	F
B-A	32	8	31	1.019	28	3.8	4.8	791.969	F
C-AB	1035	259	954	1.085	946	27.6	49.8	156.650	F
C-A	0	0			0				
A-B	92	23			92				
A-C	415	104			415				

**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-C	753	188	648	1.161	648	76.0	102.3	506.097	F
B-A	13	3	20	0.651	17	4.8	3.9	1014.195	F
C-AB	1035	259	1025	1.009	1013	49.8	55.3	192.106	F
C-A	0	0			0				
A-B	166	41			166				
A-C	341	85			341				



---

Forester House  
Doctor's Lane  
Henley-in-Arden  
Warwickshire  
B95 5AW

Tel: +44(0)1564 793598  
[inmail@dtatransportation.co.uk](mailto:inmail@dtatransportation.co.uk)  
[www.dtatransportation.co.uk](http://www.dtatransportation.co.uk)