Anca Seaton

From: Lucy Bartley <[redacted]>
Sent: 16 October 2023 17:17
To: Planning Policy
Cc: David Fovargue
Subject: Regulation 19 Consultation - Representations by Marrons on behalf of Bellway Homes Ltd [SHMA-ACTIVE.FID3539065]
Attachments: Form A - Personal Details - Marrons for Bellway Homes Ltd.pdf; DS2 - Settlement hierarchy and roles.pdf; DS3 Overall Development Needs.pdf; DS4 Residential allocations.pdf; Policies Map.pdf; Housing Trajectory in Appendix B of draft plan.pdf

Follow Up Flag: Follow up
Flag Status: Completed

Categories: WIP

Good afternoon,

Please find attached representations submitted by Marrons on behalf of Bellway Homes Ltd in response to Nuneaton and Bedworth Borough Council (NBBC)'s consultation on the Borough Plan Review Publication Draft Plan 2021-2039 (the Publication Draft). The representations relate to Bellway Homes land interests east of Plough Hill Road, site ref: GAL-4.

Attachments are as follows:

- Form A – Personal Details – Marrons for Bellway Homes Ltd
- DS2 – Settlement hierarchy and roles (Representation Form B by Marrons on behalf of Bellway Homes Ltd)
- DS3 – Overall Development Needs (Representation Form B by Marrons on behalf of Bellway Homes Ltd)
- DS4 – Residential Allocations (Representation Form B by Marrons on behalf of Bellway Homes Ltd)
- Polices Map (Representation Form B by Marrons on behalf of Bellway Homes Ltd)
- Housing Trajectory in Appendix B of draft plan (Representation Form B by Marrons on behalf of Bellway Homes Ltd)

I would appreciate it if you could please confirm receipt of this email and the attached representations.

Many Thanks

Lucy Bartley
Senior Planner

[redacted]

Marrons
Bridgeway House, Bridgeway, Stratford upon Avon CV37 6YX
DX16202 Stratford Upon Avon

I'm empowered to work in ways that best suit the needs of our clients, colleagues and life – be that email, phone, video or in-person - which means I may work outside of traditional business hours. I do not expect that you will read, respond to, or action this email outside of your usual working pattern.

As a sustainable business, we try to minimise paper use so please use email where possible - although signed original documents should be returned as instructed.

FRAUD PREVENTION
Please do not reply to or act upon any email you might receive purporting to advise you that our bank account details have changed. Please always speak to the lawyer acting for you to check any changes to payment arrangements. We will also require independent verification of changes to any bank account to which we are asked to send money.

Part B – Please use a separate sheet for each representation

Name or Organisation:

3. To which part of the Borough Plan does this representation relate?

Paragraph	
Policy Policies Map	Policies Map

4. Do you consider the Borough Plan is:

4.(1) Legally compliant?

Yes	
No	

4.(2) Sound?

Yes	
No	**X**

4.(3) Complies with the Duty to Cooperate?

Yes	
No	**X**

Please mark with an 'X' as appropriate.

5. Please give details of why you consider the Borough Plan is not legally compliant, is unsound or fails to comply with the Duty to Cooperate. Please be as precise as possible.

If you wish to support the legal compliance or soundness of the Borough Plan, or its compliance with the Duty to Cooperate, please also use this box to set out your comments.

A. <u>Introduction</u>

1. This representation is submitted by Marrons on behalf of Bellway Homes Ltd in response to Nuneaton and Bedworth Borough Council (NBBC)'s consultation on the Borough Plan Review Publication Draft Plan 2021-2039 (the Publication Draft). The representations relate to Bellway Homes land interests east of Plough Hill Road, site ref, GAL-4.

B. Summary

2. Bellway Homes **objects** to the Policies Map which underpins the Publication Draft because is out-of-date, not justified and not effective in therefore in conflict with the tests of soundness in NPPF35 ((b) and (c) respectively). This is a fundamental matter of soundness relating to the settlement boundary east of Plough Hill Road, concerning site ref. GAL-4. A new boundary needs to be establish ng along Plough H ll Road, which delineates clear separation between the built-up area of Nuneaton and the countryside to the west beyond.

C. Further justification

3. The settlement boundary proposed in the Publication Draft is clearly illogical ir planning terms, having been rendered out-of-date by recent consenting and development east of Plough Hill Road. GAL-4 is essentially land left over between the Countryside and Taylor Wimpey schemes, bounded and enclosed by Plough Hill Road, adjoining the main urban area of Nuneaton.

4. The 2023 HELAA Appendix 2 clear y identifies GAL-4 as:

   "Fields bounded to the west by Plough Hill Road and to the south, east and north by residential development that is either built or is under construction".

5. The HELAA scores the GAL-4 'green' in terms of integration with the settlement of Nuneaton (*"Site / development integrates well"*) with a landscape of *"low sensitivity"* (also green in the HELAA Appendix 2).

6. In addition to the above, the boundary conflicts with the Council's settlement boundary review methodology (Settlement Boundaries 2023) – it does not use an identifiable feature (i.e. Plough Hill Road in this case) and it has not been defined utilising existing built form (land to the north, east and south being developed).

7. Redrawing the boundary would not compromise the purpose of settlement boundaries identified on page 3 of the Settlement Boundary Review 2023: GAL-4 is land suitable for development, does not need to be protected, plays no role hindering urban sprawl and would in fact facilitate the overarching strategy to deliver development in sustainable locations (i.e. Nuneaton, at the top of the settlement hierarchy in Policy DS2).

8. A new logical and defensible bouncary should be drawr along Plough Hill Road, which provides a clear delineation and distinction between the built up area and the countryside beyond (refer to **Figure** 1).

(Continue on a separate sheet / expand box if necessary)

6. Please set out what modification(s) you consider necessary to make the Borough Plan legally compliant or sound, having regard to the matter you have identified in part 5 above, where this relates to soundness (Please note that any non-compliance with the Duty to Cooperate is incapable of modification at examination). You will need to say why this modification will make the Borough Plan legally compliant or sound. It will be helpful if you are able to put forward your suggested revised wording of any policy or text. Please be as precise as possible.

9. A new logical and defensible boundary should be drawr along Plough Hill Road, which provides a clear delineation and distinction between the built up area and the countryside beyond (refer to **Figure** 1).

Figure 1 Proposed Change to Settlement Boundary West of Nuneaton

(Continue on a separate sheet / expand box if necessary

Please note your representation should cover succinctly all the information, evidence and supporting information necessary to support/justify the representation and the suggested modification, as there will not normally be a subsequent opportunity to make further representations based on the original representation at the publication stage.

After this stage, further submissions will be only at the request of the Inspector, based on the matters and issues he/she identifies for examination.

7. If your representation is seeking a modification, do you consider it necessary to participate at the oral part of the examination?

No, I do not wish to participate at the oral examination	
Yes, I wish to participate at the oral examination	**X**

8. If you wish to participate at the oral part of the examination, please outline why you consider this to be necessary:

Bellway Homes' representations raise fundamental matters of soundness which need to be addressed through the proposed changes being sought.

Please note the Inspector will determine the most appropriate procedure to adopt, to hear those who have indicated that they wish to participate at the oral part of the examination.

9.

Signature: (Please sign the box if you are filling in a paper copy. If you are filling in an electronic copy, the box can be left blank)	David Hovargue, Planning Director, Marrons
Date:	16.10.23

Nuneaton & Bedworth United to Achieve	**Borough Plan Review** Publication Stage Representation Form	**Ref:** **(For official use only)**

Name of the Local Plan to which this representation relates:

Borough Plan Review Publication Stage

Please return to Nuneaton and Bedworth Borough Council by 16th October 2023 via:

Email: planning.policy@nuneatonandbedworth.gov.uk

Post: Planning Policy, Nuneaton and Bedworth Borough Council, Town Hall, Coton Road, NUNEATON, CV11 5AA

This form has two parts –

Part A – Personal details.

Part B – Your representation(s). Please fill in a separate sheet for each representation you wish to make.

Part A

	1. Personal details* * If an agent is appointed, please complete only the Title, Name and Organisation boxes below but complete the full contact details of the agent in 2.	**2. Agent's details (if applicable)**
Title		**Mr**
First name		**David**
Last name		**Fovargue**
Job title (where relevant)		**Planning Director**
Organisation (where relevant)	**Bellway Homes Ltd**	**Marrons**
House no. and street	**Binley Business Park** **Eastwood Business** **Oak House** **Harry Weston Road**	**Bridgeway House**
Town	**Coventry**	**Stratford-upon-Avon**
Postcode	**CV3 2UB**	**CV37 6YX**
Telephone number	[redacted]	

Email address (where relevant)		

Part B – Please use a separate sheet for each representation

Name or Organisation:

3. To which part of the Borough Plan does this representation relate?

Paragraph	
Policy Policies Map	Policy DS2 – Settlement hierarchy and roles

4. Do you consider the Borough Plan is:

4.(1) Legally compliant?

Yes	
No	

4.(2) Sound?

Yes	
No	**X**

4.(3) Complies with the Duty to Cooperate?

Yes	
No	**X**

Please mark with an 'X' as appropriate.

5. Please give details of why you consider the Borough Plan is not legally compliant, is unsound or fails to comply with the Duty to Cooperate. Please be as precise as possible.

If you wish to support the legal compliance or soundness of the Borough Plan, or its compliance with the Duty to Cooperate, please also use this box to set out your comments.

A. <u>Introduction</u>

1. This representation is submitted by Marrons on behalf of Bellway Homes Ltd in response to Nuneaton and Bedworth Borough Council (NBBC)'s consultation on the Borough Plan Review Publication Draft Plan 2021-2039 (the Publication Draft). The representations relate to Bellway Homes land interests east of Plough Hill Road, site ref, GAL-4.

B. Summary

2. Bellway Homes **objects** to Policy DS2 – Settlement hierarchy and roles because the settlement boundary upon which it is based, as shown on the proposals map, is out-of-date, not justified and not effective in therefore in conflict with the tests of soundness in NPPF35 ((b) and (c) respectively).

3. This is a fundamental matter of soundness relating to the settlement boundary east of Plough Hill Road, concerning site ref. GAL-4. A new logical and defensible boundary needs to be establishing along Plough Hill Road, which delineates clear separation between the built-up area of Nuneaton and the countryside to the west, where there is a clear distinction in landscape and visual character.

C. Further justification

4. The settlement boundary proposed in the Publication Draft is illogical in planning terms, having been rendered out-of-date by the grant of planning permission and subsequent development of two major schemes east of Plough Hill Road. GAL-4 is essentially land left over between the Countryside and Taylor Wimpey schemes, bounded and enclosed by Plough Hill Road, adjoining the main urban area of Nuneaton.

5. The 2023 HELAA Appendix 2 recognises this in its description of GAL-4:

   "Fields bounded to the west by Plough Hill Road and to the south, east and north by residential development that is either built or is under construction".

6. The HELAA scores the GAL-4 'green' in terms of integration with the settlement of Nuneaton (*"Site / development integrates well"*) with a landscape of *"low sensitivity"* (also green in the HELAA Appendix 2).

7. In addition to the above, the boundary conflicts with the Council's settlement boundary review methodology (Settlement Boundaries 2023) because it does not use an identifiable feature (Plough Hill Road in this case) and has not been defined utilising existing built form (the presence of development to the north, south and east).

8. Redrawing the settlement boundary along Plough Hill Road would not compromise the purpose of settlement boundaries identified on page 3 of the Settlement Boundary

Review 2023. The land contained within and to the east of Plough Hill Road (including GAL-4) is clearly suitable for development (with previous decision-making establishing the principle of development in this location), the land does not need to be protected, it plays no role hindering urban sprawl and would in fact facilitate the overarching strategy to deliver development in sustainable locations (i.e. Nuneaton, at the top of the settlement hierarchy in Policy DS2).

9. A new logical and defensible boundary should be drawn along Plough Hill Road, which provides a clear delineation and distinction between the built up area and the countryside beyond (refer to **Figure** 1, which sets out the proposed changes to the Policies Map).

(Continue on a separate sheet / expand box if necessary)

6. Please set out what modification(s) you consider necessary to make the Borough Plan legally compliant or sound, having regard to the matter you have identified in part 5 above, where this relates to soundness (Please note that any non-compliance with the Duty to Cooperate is incapable of modification at examination). You will need to say why this modification will make the Borough Plan legally compliant or sound. It will be helpful if you are able to put forward your suggested revised wording of any policy or text. Please be as precise as possible.

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10. A new logical and defensible boundary should be drawn along Plough Hill Road, which provides a clear delineation and distinction between the built up area and the countryside beyond (refer to **Figure** 1), consistent with establishing sustainable patterns of development and a boundary which is capable of enduring through to 2039.

Figure 1 Proposed Change to Settlement Boundary West of Nuneaton

(Continue on a separate sheet / expand box if necessary

Please note your representation should cover succinctly all the information, evidence and supporting information necessary to support/justify the representation and the suggested modification, as there will not normally be a subsequent opportunity to make further representations based on the original representation at the publication stage.

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7. If your representation is seeking a modification, do you consider it necessary to participate at the oral part of the examination?

No, I do not wish to participate at the oral examination	

Yes, I wish to participate at the oral examination	**X**

8. If you wish to participate at the oral part of the examination, please outline why you consider this to be necessary:

Bellway Homes' representations raise fundamental matters of soundness which need to be addressed through the proposed changes being sought.

Please note the Inspector will determine the most appropriate procedure to adopt, to hear those who have indicated that they wish to participate at the oral part of the examination.

9.

Signature: (Please sign the box if you are filling in a paper copy. If you are filling in an electronic copy, the box can be left blank)	David Fovargue, Planning Director, Marrons
Date:	16.10.23

Part B – Please use a separate sheet for each representation

Name or Organisation:

3. To which part of the Borough Plan does this representation relate?

Paragraph	
Policy Policies Map	Policy DS3 – Overall development needs

4. Do you consider the Borough Plan is:

4.(1) Legally compliant?

Yes	
No	

4.(2) Sound?

Yes	
No	**X**

4.(3) Complies with the Duty to Cooperate?

Yes	
No	**X**

Please mark with an 'X' as appropriate.

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If you wish to support the legal compliance or soundness of the Borough Plan, or its compliance with the Duty to Cooperate, please also use this box to set out your comments.

A. <u>Introduction</u>

1. This representation is submitted by Marrons on behalf of Bellway Homes Ltd in response to Nuneaton and Bedworth Borough Council (NBBC)'s consultation on the Borough Plan Review Publication Draft Plan 2021-2039 (the Publication Draft). The

representations relate to Bellway Homes land interests east of Plough Hill Road. site ref, GAL-1.

B. Summary

2. Bellway Homes' notes to the Council's approach to plan for 9,810 homes 2021-2039 based on 545 dwellings per annum (dpa) - a housing requirement beyond the Standard Method - given the extent of the Borough's affordable needs the need to support future economic growth. The principle of going beyond the Standard Method is supported and aligns with the National Planning Practice Guidance on Housing Needs Assessments (Paragraph: 010 Reference ID: 2a-010-20201216).

3. However, the proposed requirement of 545dpa does not go far enough - it does not reflect the critical housing and affordability crisis facing the Borough and does not address unmet needs from Coventry (relating to Duty to Cooperate and Section 33A of the 2004 Act). The higher levels of growth tested in the Sustainability Appraisal (SA) – notably Options 4 (712dpa) – is clearly the best performing option in sustainability terms, particularly against economic and social factors.

4. The level of housing growth being planned for links with a wider fundamental issue regarding the soundness of the plan and its ability to positively plan for the communities' housing needs, given concerns over the strategy's deliverability and viability.

C. Further justification

Addressing the extent of Nuneaton and Bedworth's Housing Crisis

5. The Publication Draft proposes a considerable reduction in what was proposed in the Preferred Options consultation, which identified a need of 646dpa. This sits within the context of a significant affordable housing crisis facing the Borough, with 3,005 households in need on the Council's housing register.

6. As noted in *Towards a Housing Requirement for Nuneaton and Bedworth 2022* (pages 34-36 in particular), there has been a *"dramatic increase in levels*

of homelessness presentations to the Council…the Borough's private rental sector is experiencing unprecedented pressure [with 70 applicants per property], *"the Council is currently regularly having to accommodate 120-125 households per week in emergency temporary accommodation at considerable cost to the Council".*

7. The 2022 report identifies a need of 407 affordable homes per annum (para. 5.4), which to meet in full would require an overall housing requirement of 1,600dpa (para. 5.17).

8. There can be no doubt that the scale of the housing crisis facing the Borough is significant, with the new Borough Local Plan presenting a significant opportunity to respond.

Persistent Under Delivery

9. One reason for the worsening housing crisis in Nuneaton and Bedworth is persistent under delivery against the Borough's housing requirements over the last twelve years, and corresponding shortfall in the provision of new affordable homes. The 2019 BLP has not been successful in help to address these critical local needs.

10. Prior to and following adoption of the 2019 BLP there has been persistent under delivery of homes (in April 2019 the examining Inspector identified a shortfall of 1,132 dwellings amounting to persistent under delivery, but that under delivery now sits at 1,541 dwellings[1]). Only in 2022/23 did the Council exceed its annual requirement, with the preceding eleven years falling behind – a persistent track record of failing to deliver (refer **Table 1**).

Table 1 Housing Completions and Shortfall Against 2019 BLP Requirements

Year	2011 /12	2012 /13	2013 /14	2014 /15	2015 /16	2016 /17	2017 /18	2018 /19	2019 /20	2020 /21	2021 /22	2022/ /23	Total
Net completions	239	279	153	402	412	400	487	641	619	601	809	981	6,033
Requirement	502	502	502	502	502	502	502	812	812	812	812	812	7574
Position	-263	-223	-349	-100	-90	-102	-5	-171	-193	-211	-3	169	-1541

[1] Total completions of 6,033 dwellings 2011-2023 against a requirement for 7,574 dwellings, resulting in a shortfall of 1,541 dwellings.

11. Affordable housing completions have also failed to keep pace with needs. In 2019 the BLP Inspector considered that, based on the evidence at that time, the affordable housing need ranged between 195dpa and 320dpa as identified in the 2015 SHMA (see IR99 of the Inspector's Report). However, affordable needs now stand at 407dpa according to the Council's latest evidence at 2023.

12. **Table 2** demonstrates that affordable needs have not been met since 2011, resulting in a shortfall in affordable homes of 736-2,111 dwellings (applying the 195-320dpa range considered by the 2019 BLP Inspector).

Table 2 Affordable Housing Shortfall 2011-2022

Year	2011 /12	2012 /13	2013 /14	2014 /15	2015 /16	2016 /17	2017 /18	2018 /19	2019 /20	2020 /21	2021/ 22	Total
Net completions	239	279	153	402	412	400	497	641	619	601	809	**5,052**
Affordable completions	128	100	29	257	158	32	81	136	146	120	217	**1,409**
Deficit against affordable need of 195dpa (2015 SHMA)	-67	-95	-166	62	-37	-163	-114	-59	-49	-70	22	-736
Deficit against affordable need of 320dpa (2015 SHMA)	-192	-220	-291	-63	-162	-288	-239	-184	-174	-195	-103	-2,111

13. **Table 2** demonstrates that the extant strategy in the 2019 BLP has not been effective (NPPF test of soundness 35(c)). This is a fundamental consideration for the soundness of the new BLP – which seeks to role forward key elements of the 2019 BLP - and demonstrates that more radical intervention is required.

14. In response, the housing requirement in Policy DS3 needs to be increased, and alternative and additional *deliverable* sites which are able to sustain policy compliant levels of affordable housing in the first five years of the plan period need to be identified. This priority to do so in the first five years of the plan period is in response to the extent of the Borough's housing crisis, consistent with boosting the supply of homes and the requirements of national planning policy.

15. Increasing the housing requirement would align with the findings of the SA, which shows that Option 4, for example, which includes provision for 712dpa, is the best performing option, particularly in terms of social and economic SA objectives.

Duty to Cooperate and Unmet Needs from Coventry

16. There remains considerable uncertainty regarding the extent of unmet needs to be accommodated from adjoining Coventry City, an authority who is required to deliver a 35% uplift as part of their Standard Method / Local Housing Need calculation (equivalent to 3,188dpa, which the Council is unlikely to be able to meet within its City boundaries).

17. This matter will need to be resolved prior to submission of the plan for examination, a legal requirement under Section 33A of the 2004 Act, NPPF 11(b) and NPPF24-27.

(Continue on a separate sheet / expand box if necessary)

6. Please set out what modification(s) you consider necessary to make the Borough Plan legally compliant or sound, having regard to the matter you have identified in part 5 above, where this relates to soundness (Please note that any non-compliance with the Duty to Cooperate is incapable of modification at examination). You will need to say why this modification will make the Borough Plan legally compliant or sound. It will be helpful if you are able to put forward your suggested revised wording of any policy or text. Please be as precise as possible.

18. Policy DS3 Overall Development Needs should be reviewed to ensure that the new Borough Local Plan can more positively address the extent of Nuneaton and Bedworth's significant housing crisis (akin to the 712dpa identified in the SA, which is the best performing option in terms of economic and social SA objectives). This will help the Council to plan for the provision of more homes on deliverable, viable and sustainable sites which are able to realise policy compliant levels of affordable housing provision early in the plan period, particularly the first 5 years post adoption.

19. In addition, the policy needs to reflect the outcome of Duty to Cooperate discussions with Coventry City Council in particular, which needs to be

addressed prior to the plan's submission in accordance with legal requirements under Section 33A of the Act.

(Continue on a separate sheet / expand box if necessary

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No, I do not wish to participate at the oral examination	
Yes, I wish to participate at the oral examination	**X**

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Signature: (Please sign the box if you are filling in a paper copy. If you are filling in an	David Fovargue, Planning Director, Marrons

electronic copy, the box can be left blank)	
Date:	16.10.23

Part B – Please use a separate sheet for each representation

Name or Organisation:

3. To which part of the Borough Plan does this representation relate?

Paragraph	
Policy Policies Map	Policy DS4 – Residential allocations

4. Do you consider the Borough Plan is:

4.(1) Legally compliant?

Yes	
No	

4.(2) Sound?

Yes	
No	**X**

4.(3) Complies with the Duty to Cooperate?

Yes	
No	**X**

Please mark with an 'X' as appropriate.

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A. <u>Introduction</u>

1. This representation is submitted by Marrons on behalf of Bellway Homes Ltd in response to Nuneaton and Bedworth Borough Council (NBBC)'s consultation on the Borough Plan Review Publication Draft Plan 2021-2039 (the Publication Draft). The representations relate to Bellway Homes land interests east of Plough Hill Road, site ref, GAL-4.

B. Summary

2. Bellway Homes **objects** to Policy DS4 – Residential Allocations with respect to the following.

- The policy does not address the full extent of local needs nor address the significant housing crisis facing the Borough (explained further in Bellway Homes' representations to Policy DS3 Overall Development Needs). There is an urgent need to deliver new affordable homes for the Borough's residents. The Policy will therefore not be effective, in conflict with NPPF test of soundness 35(c).

- The site selection process in the HELAA and SA is not justified, rejecting otherwise deliverable and sustainable locations based on out-of-date evidence, in conflict with NPPF test of soundness 35(b). GAL-4, for example, is rejected based on out-of-date transport and landscape evidence. This deliverable and sustainable site is included as part of Spatial Option 4 – Increased Urban Dispersal – the strongest performing option in the SA's assessment of reasonable alternatives, particularly against social and economic SA objectives.

- There is no evidence provided on the provision of a *"sufficient supply and mix of sites, taking into account their availability, suitability and likely economic viability"* within the context of a specific deliverable sites for years one to five of the plan period and specific developable sites for years 6-15, contrary to NPPF68. The lack of a detailed housing trajectory to support the policy means that the policy is not evidenced and unjustified (NPPF test of soundness (b)).

- The lack of a housing trajectory which sets out how and at what point specific site allocations are deliverable and whether there is a reasonable prospect that sites are developable (in terms of funding, start dates, delivery rates and current status) also conflicts with the requirements of NPPF68, NPPF74, NPPF Annex 2, NPPG007 and NPPG020 (Housing Supply and Delivery) also calls into question the deliverability of the strategy.

- To help address these fundamental matters of soundness, additional deliverable, viable and sustainable sites need to be allocated, to help boost the supply of market and affordable homes. This will be particularly important in the first 5 years of the plan period given the critical housing crisis facing the Borough. These representations and supporting appendices include the unique circumstances and benefits of doing so on site GAL-4, east of Plough Hill Road.

Bellway Homes is a 5* housebuilder with a track record of delivery in Nuneaton and Bedworth, having delivered 476 homes on part of BLP site HSG1 and are also involved in the delivery of 575 homes on Gipsy Lane (HSG3).

3. These matters of soundness are now explained in further detail.

C. Further Justification

Extent of the Borough's housing crisis and ability of Policy DS4 to respond

4. The extent of the Borough's significant and worsening housing crisis is identified in the Council's evidence base. *Towards a Housing Requirement for Nuneaton and Bedworth 2022* (pages 34-36 in particular) identifies 3,005 households on the housing register, and explains that there has been a *"dramatic increase in levels of homelessness presentations to the Council…the Borough's private rental sector is experiencing unprecedented pressure* [with 70 applicants per property], *"the Council is currently regularly having to accommodate 120-125 households per week in emergency temporary accommodation at considerable cost to the Council".*

5. The 2019 BLP has not been successful in addressing the Borough's needs, the shortfall in housing provision has increased and the affordability position has got worse.

6. There is no evidence provided on the deliverability of the Strategic Housing Allocations (SHA) on which delivery of the plan depends, particularly SHA2 Arbury (1,525 dwellings, formerly HSG2), SHA3 Tuttle Hill (350 dwellings, formerly HS11), SHA6 Hawkesbury Golf Course (176 dwellings, formerly HSG12). Evidence on lead-in times, start dates and build out rates – all required by NPPF74, NPPF Annex 2, NPPG007 and NPPG020 (Housing Supply and Delivery) – is missing from the draft plan and evidence base.

7. The extent to which several of the Non-strategic Allocations for Housing Land (NSRA) are deliverable or developable is also not evidenced, contrary to NPPF and NPPG requirements. It is clear that some of these NSRAs are heavily constrained and unlikely to deliverable or developable at the present time. Indeed, the constraints are identified in the policy with respect to site specific considerations which:

"…include the loss of playing fields which might require compensation, or biodiversity and heritage considerations, including the setting of the Coventry Canal."

8. Sites which involve the loss of playing fields will require the Council to consult Sport England (a legal requirement), who will object in accordance with the Playing Fields Policy and Guidance, updated December 2021. This in-principle objection to the loss of playing fields means that, at present, the suitability and availability of proposed NSRAs cannot be demonstrated.

9. Other brownfield NSRA's have viability and other constraints identified in the SHLAA.

10. The lack of evidence and constrained nature of the SHAs and NSRAs identified above will severely constrain the ability to deliver market and, crucially, policy compliant levels of affordable homes in the face of the significant crisis facing the Borough, particularly in the early years of the plan. This will likely exacerbate the extent of the shortfall in market and affordable housing provision which has arisen prior to and following adoption of the 2019 BLP.

Lack of justification and out-of-date evidence

Site selection process and transparency

11. The correlation between the sites and allocations identified in the 2019 BLP, the Local Plan Review Preferred Options, the HELAA and SA is confusing, with reference numbers and site names inconsistent and having changed throughout this process. This makes it difficult to understand how sites have been appraised, how alternatives have been assessed and how decisions have been made as part of a transparent process, particularly within the context of a need for accessibility in plan-making and evidence (NPPG035 - Plan-making).

HELAA

12. Bellway Homes raises a significant issue regarding the HELAA and its conclusions regarding the suitability of site GAL-4. The HELAA concludes that:

    "There are concerns over traffic impacts on Plough Hill Road given the new developments in the area and mitigation measures would be required to make this site acceptable in highway terms".

13. Traffic impacts on Plough Hill Road have principally arisen from the lack of a mitigation scheme to address queuing on the Plough Hill Road arm of the Plough Hill Road / Coleshill Road T-junction. However, delivery of a new roundabout at this junction to provide additional capacity has been identified by Warwickshire County

Council and is central to the Infrastructure Delivery Plan (DP) which underpins the Publication Draft, for delivery before 2031. The proposed improvements to this junction are set out in the 2023 Strategic Transport Assessment.

14. The presence of a mitigation scheme for the junction has already been central to the Council's decision-taking on other residential scheme's in this part of Nuneaton, including the resolution to grant for NRSA8 (Land rear of Lilleburne Drive and Willow Close) at committee back in February 2023. In the committee report, Warwickshire County Council, as Highway Authority, and Nuneaton and Bedworth Borough Council identified that:

"...the Highway Authority has been working hard in the background to identify a wider improvement scheme to improve the overall capacity of the junction to accommodate the various allocated sites within the area ***with spare capacity for additional windfall sites.*** *The Highway Authority would therefore prefer a S106 contribution to the wider highway improvement scheme rather than minor changes to the highway." (Emphasis added).*

15. This point was raised with the Council in May 2023 to further explain why GAL-4 was suitable for allocation in the new Borough Plan. This followed a meeting with officers in February 2023 to introduce a package of sustainable transport measures which can achieve a 15% modal shift to walking, cycling and use of public transport (centred on improved surfacing, wayfinding and infrastructure for walking and cycling) alongside traffic calming, speed reductions and safety improvements in the vicinity of Galley Common Infant School (enclosed at **Appendix A, Sustainable Transport Summary**).

16. Bellway Homes then went further, to work with Warwick County Council Highways and their consultants, Vectos, to model the impact of GAL-4's impacts on the network in addition to Local Plan Growth scenario. The findings from this analysis are presented at **Appendix B (Transport Modelling Update)** where it is clear that Bellway's proposed allocation can be accommodated without a detrimental impact on the highway network. Moreover, Bellway's scheme will actually help to deliver the Plough Hill Road / Coleshill Road mitigation scheme through proportionate S106 funding contributions (as explained to senior officers in County Highways) and the wider package of sustainable transport benefits that Bellway has identified (**Appendix A**).

17. The HELAA therefore needs to be updated to acknowledge the material change in circumstances with respect to traffic-related issues on the Plough Hill Road/Coleshill Road junction, and the extent of wider improvements that an allocation at GAL-4 could deliver in sustainable transport terms, with a credible strategy to achieve the 15% modal shift sought by the adopted 2019 BLP.

18. Even if traffic-related issues had not been resolved, the principle of needing to 'mitigate' future traffic impacts related to the allocation of a site for development in Policy DS4 would not necessarily be an overriding factor or reason for rejection. SHA1 Top Farm, for example, requires significant highway works and mitigations, as does SHA3.

19. The issue of the GAL-4's location outside of the settlement boundary is also raised in the HELAA, but for the reasons explained in representations to Policy DS2 and the Policies Map the settlement boundary in this location is out-of-date and in need of review, to align it with Plough Hill Road.

SA

20. The SA is unclear as to what the preferred strategy is, and how this relates to the alternatives that have been tested. For example, Option 4 – Increased Urban Dispersal, appears to be the best performing option, yet how this relates to or has influenced the Publication Draft is uncertain.

21. The SA's approach to 'landscape sensitivity' is also based on out-of-date evidence. For example, it concludes that GAL-4 is in a strongly performing landscape, consistent with conclusions when the site was assessed previously, however matters have materially changed in this location as the HELAA recognises.

22. The HELAA scores the GAL-4 'green' in terms of integration with the settlement of Nuneaton (*"Site / development integrates well"*) with a landscape of *"low sensitivity"* (also green in the HELAA Appendix 2).

23. As explained in representations to Policy DS2 and to the Policies Map, GAL-4 no longer sits within open countryside. As recognised in the HELAA, it is now enclosed by development to the north, south and east, and bounded by Plough Hill Road to the west. It is a well-contained and logical site, experienced in the context of strong

urbanising influences, separate and distinct from the tract of open countryside to the west of Plough Hill Road.

24. It is clear that the latest Landscape Assessment undertaken by FPCR (2023) does not recognise the significance of new development in this location, with the OS plans included within the report failing to identify or include the various schemes which are now nearing completion. The Landscape Assessment does not address the distinctly different character of land east and west of Plough Hill Road. Bellway Homes therefore encloses a Landscape Sensitivity Review for GAL-4, based on the up-to-date context, enclosed at **Appendix C (Landscape Sensitivity Review).**

Unique circumstances and benefits for the allocation of GAL-4

25. A Main Modification should be made to Policy DS4, to allocate GAL-4 for a residential development of up to 160 homes. The unique circumstances and benefits of a new community at Plough Hill Road are summarised as follows, with further detail on how a high quality, well-designed and environmentally-led masterplan can be realised enclosed at: **Appendix D (Vision & Masterplan).**

- It reduces pressure on, and provides a clear alternative to, development on protected Green Belt land should the Council need to do so in the face of housing pressures and unresolved Duty to Cooperate discussions with Coventry. Lying outside of the Green Belt, this site is already bounded by development to the north, east and south, with Plough Hill Road a logical and defensible new settlement boundary to the west.

- S106 contributions can be made towards the delivery of key infrastructure including the new Plough Hill Road/Coleshill Road roundabout, as well as securing wider investment, for example towards public transport.

- The site is in a sustainable and accessible location for development where a 'modal shift' of at least 15% towards walking, cycling and public transport can be truly realised in support of adopted BLP policy objectives. This would be complemented by a package of highway safety improvements and speed reductions in the vicinity of Galley Common Infant School, including traffic calming, and upgraded crossing points, which includes onward routes to Hartshill Academy and via the Back Track.

- As well as upgraded routes for walking and cycling, investment in public transport and personalised travel planning, achieving the 15% modal shift will be further supported by non-residential uses within the scheme, including provision of land for potential community uses.

- New play areas for children and multi-use games area (MUGA) will help address specific needs within Galley Common, provided within a generous green space network, which also provides community growing space/allotments.

- It can provide up to 160 new homes - making an important contribution towards the 1,541 dwelling shortfall in the delivery of new homes that has accrued since the start of the Borough Local Plan period in 2011.

- Under the control of a 5* housebuilder it can be delivered quickly, contributing towards Nuneaton and Bedworth Borough Council's 5-year supply of deliverable housing land, a requirement of national planning policy (NPPF para. 74). This reflects the current shortfall (4.94 years according to the Planning Inspector assessing the Tunnel Road appeal, 11th November 2022[1]). Bellway Homes has already delivered 476 homes on their part of HSG1, and is delivering 575 homes on HSG3 Gipsy Lane, demonstrating a track record of delivery in the Borough.

- The provision of a deliverable site will mitigate the risks associated with the delivery of the SHAs which have not yet delivered, as well as several NRSAs in the Publication Draft which are, at present, highly constrained and unlikely to contribute to the 5-year supply.

- 25% affordable housing provision in the context of critical, and worsening, affordability issues facing the Borough. This includes an accrued shortfall of 736 to 2,111 affordable homes since 2011, a housing waiting list of 3,005 households, and increasing levels of homelessness being reported to the Council.

(Continue on a separate sheet / expand box if necessary)

6. Please set out what modification(s) you consider necessary to make the Borough Plan legally compliant or sound, having regard to the matter you have identified in part 5 above, where this relates to soundness (Please note that any non-compliance with the Duty to Cooperate is incapable of modification at examination). You will need to say why this modification will make the Borough Plan legally compliant or

[1] APP/W3710/W/22/3301839

sound. It will be helpful if you are able to put forward your suggested revised wording of any policy or text. Please be as precise as possible.

Policy DS4 should be subject to a Main Modification to include the allocation of up to 160 homes east of Plough Hill Road (GAL-4).

Corresponding updates are required to the HELAA (explaining that transport issues have now been addressed) and SA (recognising that GAL-4 no long sits within a 'strong' landscape area given the updated baseline and context).

A supporting Housing Trajectory should be prepared which sets out the deliverability (for years 0-5) and developability (for years 6-15) of specific sites for proposed for allocation, in accordance with NPPF68 and supporting NPPG.

(Continue on a separate sheet / expand box if necessary

Please note your representation should cover succinctly all the information, evidence and supporting information necessary to support/justify the representation and the suggested modification, as there will not normally be a subsequent opportunity to make further representations based on the original representation at the publication stage.

After this stage, further submissions will be only at the request of the Inspector, based on the matters and issues he/she identifies for examination.

7. If your representation is seeking a modification, do you consider it necessary to participate at the oral part of the examination?

No, I do not wish to participate at the oral examination	
Yes, I wish to participate at the oral examination	**X**

8. If you wish to participate at the oral part of the examination, please outline why you consider this to be necessary:

Bellway Homes' representations raise fundamental matters of soundness, particularly with regard to the site selection process, SA, HELAA and treatment of site GAL-4.

Please note the Inspector will determine the most appropriate procedure to adopt, to hear those who have indicated that they wish to participate at the oral part of the examination.

9.

Signature: (Please sign the box if you are filling in a paper copy. If you are filling in an electronic copy, the box can be left blank)	David Fovargue, Planning Director, Marrons
Date:	16.10.23

APPENDICES ENCLOSED

APPENDIX A – SUSTAINABLE TRANSPORT SUMMARY

Marrons

Bellway Homes Ltd - Plough Hill Road, Nuneaton
Overview of Sustainable Transport Opportunities & Benefits – October 2023

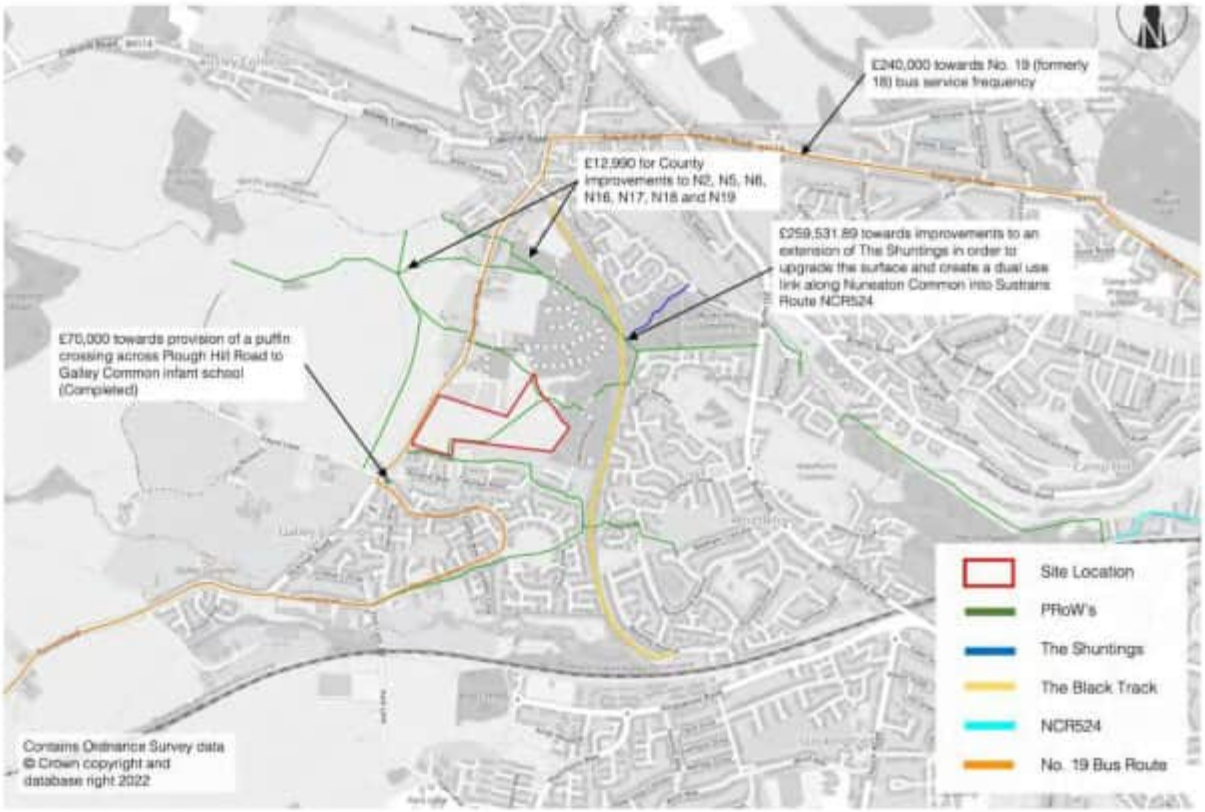
A. Introduction

1. This Statement forms an appendix to Bellway Homes' representations to the Nuneaton and Bedworth Borough Plan Publication Draft. The Statement summarises the opportunities and benefits of allocating land east of Plough Hill Road, site ref. GAL-4, in sustainable transport terms. There are a unique set of circumstances in this location to truly support sustainable transport and achieve a 15% modal shift towards walking, cycling and public transport.

B. The Site's sustainability and accessibility

2. The GAL-4 site is within a highly sustainable and accessible location for development, recognising the Council's granting of previous consents for strategic development in this area. The strategic schemes being progressed by Taylor Wimpey and Countryside, to the south and north of GAL-4 respectively, secure a wide-range of improvements through their consenting, S106 Agreements and planning conditions, which new development will be able to complement (refer Figure 1 for measures relating to walking and cycling in particular).

Figure 1 Committed improvements delivered via adjoining schemes (rights of way, walking and cycling routes)



3. Significantly, the Taylor Wimpey scheme also includes new local retail for residents in this area, alongside its new school drop-off area for Galley Common Infant School.

4. The package of sustainability and transport-related measures associated with the Countryside and Taylor Wimpey schemes, which Bellway's scheme can help to complement, is set out in Tables 1 and 2.

5. Furthermore, there may also be the opportunity to address or resolve gaps in provision that those developments may have been unable to implement (e.g. improvements to Coleshill Road that we expected as part of the Countryside scheme – refer Table 1).

Table 1 Key planning conditions and Section 106 Contributions associated with the Countryside scheme (transport and highways-related)

Infrastructure	Mechanism & provision
Pedestrian improvements to Plough Hill Road	Planning condition 11 requires pedestrian improvements (new tactile paving and crossings) to be secured as part of the scheme's approved access design.
Highway safety improvements to Coleshill Road	Planning condition 12 requires a scheme of traffic calming and signage to be provided on Coleshill Road prior to implementation.
Bus service	Section 106: £450,000 towards improvements to Service 18 and to extend route into development site
Cycle works	Section 106: £444,000 towards cycleway works, specifically "at a 1.7m former railway line east of Plough Hill Golf Centre known as the Shuntings"

Table 2 Key planning conditions and Section 106 Contributions associated with the Taylor Wimpey scheme

Infrastructure	Mechanism & provision
School drop-off and puffin crossing to access Galley Common Infant School	Planning Condition 12 requires this to be delivered as part of the site access works – already provided and in place.
Cycleway contribution & improvements	£259,531.89 towards improvements to an extension of The Shuntings in order to upgrade the surface and create a dual use link along Nuneaton Common into Sustrans Route NCN524
Highway improvements & contribution	£70,000 towards provision of a puffin crossing across Plough Hill Road to Galley Common infant school
PROW contribution	£12,990 for County improvements to N2, N5, B6, N16, N17, N18 and N19
Public transport contribution	£240,000 towards No. 18 bus service frequency
Sustainability welcome pack contribution	£75 per dwelling to provide information on sustainable travel and road safety in the local area (£19,650 for 262 dwellings)
Traffic Regulation Order	£12,000 to deliver improvements to Plough Hill Road in accordance with drawing 1412/02 Rev A

6. In addition to the above measures, Bellway's scheme proposes further sustainability and accessibility enhancements in this location, as follows.

i. On-site provision and facilities

- Provision of new children's play areas, MUGA and public open space. This also responds to a particular need identified by Councillor Tromans (Galley Common Ward Councillor)[1], and we know this is a wider local issue for residents in Galley Common.

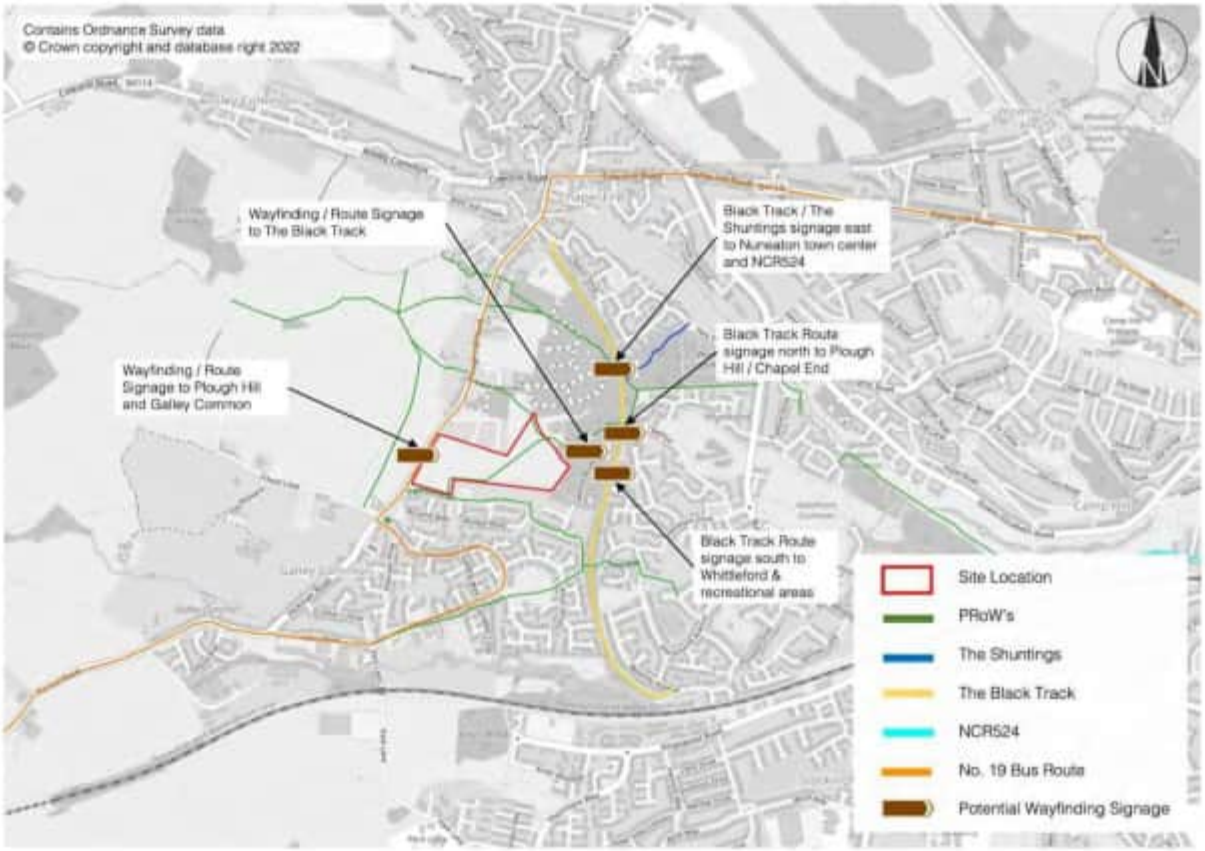
[1] Member Questions to the Portfolio Holder for Health and Environment, Full Council, 13th July 2022.

- Community hub, to provide a focal point for the new community and meeting space.

ii. Improved links via the Black Track & signage

7. The ability to link into the Black Track – an invaluable recreational route and resource to the east of the Site – is a significant advantage, providing an attractive route for walking and cycling towards local facilities to the south of Galley Common as well as Chapel End to the north. The masterplan has been designed to connect with this route, and also offers the opportunity for improved signage and wayfinding to further support and encourage its use, further helping to reduce reliance on the car (see Figure 2).

Figure 2 Improve wayfinding signage to the Black Track



iii. Traffic calming near Galley Common Infant School

8. Bellway Homes has undertaken speed surveys along Plough Hill Road, highlighting traffic speeds of circa 35-40mph in the vicinity of Galley Common Infant School. This is despite the 30mph speed limit in this location. For this reason, the proposed access design and frontage created by the provision of new homes will help to reinforce the context of this area as a residential street. This will be further supported by traffic

calming measures, with an indicative scheme presented in Figure 3 for further discussion with the Highway Authority and local community. This comprises:

- New 30mph driver activated 'slow down' flashing signage, plus road markings, one on the north bound approach to the school and one on the south bound approach.
- Build out and priority arrangement north of the proposed access into Bellway's site, giving north bound traffic priority and requiring south bound traffic towards the school to slow down and give way.

Figure 3 Traffic calming – indicative design in vicinity of Galley Common Infant School

iv. Walking and cycle link improvements, from Plough Hill Road towards Hartshill Academy

9. Bellway Homes has undertaken an audit of local footpaths to identify opportunities for improvements, particularly with respect to providing safe walking routes to schools, which includes Hartshill Academy to the north. These potential measures and safety improvements are identified on Figures 4, 5 and 6 and comprise the following.

- Improved crossings (new tactile paving and dropped kerb improvements) at the junction of Chesterton Drive and Plough Hill Road, St Peters Drive and Hickman Road, Valley Road and Tunnel Road, as well as associated with the site access, and across Plough Hill Road to the existing bus stop.

- Improved crossings (new tactile paving and dropped kerb improvements) at the junction of Alders Lane and Plough Hill Road, Bretts Hall Estate and Coleshill Road, Laurel Drive and Coleshill Road and Chancery Lane and Coleshill Road.

Figure 4 Review of existing connectivity and opportunities for improvement alongside the delivery of GAL-4 – overview

Figure 5 Footpath improvements (northern end of Plough Hill Road, including Coleshill Road)

Figure 6 Footpath improvements (southern end of Plough Hill Road, including Valley Common)

v. Further public transport investment

10. The adjoining schemes being built by Countryside and Taylor Wimpey secured funding of £690,000 towards the local bus service (service 18). Bellway Homes' scheme can help to secure further funding and improvements to this service - e.g. new bus stops and funding to support additional services - where required.

vi. Travel planning & mobility credits

11. The Section 106 Agreement can secure the provision of a sustainable Travel Plan to maximise resident's opportunities to walk, cycle and use public transport. This will include personalised travel planning, where residents can contact a dedicated travel plan coordinator who will be able to address the specific needs of residents, to promote sustainable transport modes as far as possible.

12. Department for Transport (DfT) published report 'Making Personal Travel Planning Work' states that *"Within the UK, PTP has been reported to help reduce car driver trips by 11% (amongst the targeted population) and reduce the distance travelled by car by up to 12%. Follow-on benefits from these impacts can be expected in terms of wider community benefits, including the improved health of participants, a greater propensity to use local services, and improved local air quality".*

13. To support the Travel Plan approach, residents would also be provided with mobility credits, providing discounts/subsidies towards new cycle equipment, bus passes, electric vehicle charging equipment and cycle training.

C. <u>Plough Hill Road / Coleshill Road roundabout</u>

14. As a consequence of the Site's accessibility and sustainability, and the package of sustainable transport measures and improvements set out in this note, the residual traffic impacts associated with Bellway Homes' scheme have been minimised as far as possible.

15. The scheme's residual impacts on the highway network have nevertheless been modelled, using WCC's traffic models, working with their consultants, Vectos.

16. Mode's summary of the outcomes from WCC's modelling accompanies this Statement. In our view the modelling demonstrates that Bellway's 160-homes can be

accommodated alongside local plan growth and the new roundabout proposed for the Plough Hill Road/Coleshill Road junction.

17. Moreover, with S106 funding central to the delivery of the new Plough Hill Road/Coleshill Road roundabout by 2031 - as highlighted in Nuneaton and Bedworth Borough Council (NBBC)'s recent Infrastructure Delivery Plan (IDP) - Bellway's 160-homes could help enable its delivery through proportionate financial contributions in a S106 Agreement.

18. The fact that a new roundabout mitigation scheme is now planned by WCC and identified in the IDP is a material change in circumstances since Nuneaton and Bedworth Borough Council (NBBC)'s 2021 SHLAA was published, and why the conclusions regarding highway impacts in the SHLAA should now be updated.

19. That there is a scheme for the mitigation and improvement of the Plough Hill Road / Coleshill Road junction has already accepted by NBBC in recent decision-making, resulting in the resolution to grant consent for development at Willow Close.

D. Conclusions and next steps

20. This Statement summarises the opportunities and benefits associated with Bellway Homes' scheme east of Plough Hill Road in transport terms, and how the scheme could provide significant improvements towards sustainable transport infrastructure.

21. It is clear that the previous issues regarding traffic on Plough Hill Road identified in the SHLAA have now been addressed, as evidenced through the modelling undertaken by WCC and Vectos in August 2023. Moreover, the site can help to enable the new roundabout planned for the Plough Hill Road / Coleshill Road junction through proportionate S106 funding.

22. The scheme can deliver a range of benefits to knit together transport infrastructure and wider place-making for this part of Nuneaton. The benefits include traffic calming and speed reductions in the vicinity of Galley Common Infant School and investment in walking and cycle routes (including to the Black Track).

23. This Statement is intended to support further engagement with planning officers, councillors and the local highway authority, supported by the Vision document and supporting evidence and assessments undertaken by Bellway.

APPENDIX B – TRAFFIC MODELLING REVIEW

TECHNICAL NOTE

mode
transport planning
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Land at Plough Hill Road, Nuneaton

Updated Modelling Review

Client:	Bellway Homes Ltd	Job No:	J324891
Date:	23 August 2023	File Name:	230823_324891_TN006
Prepared by:	ESP / ALF	Approved by:	ALF

1. Introduction

1.1 Overview

1.1.1 mode transport planning (mode) has prepared this Technical Note (TN) on behalf of Bellway Homes Ltd, to report on the outcome of highways modelling to assess the impact of Bellway Homes' 160-dwelling scheme, east of Plough Hill Road, Nuneaton. The modelling considers the impact of Bellway's scheme alongside growth proposed via the review of the Nuneaton Borough Local Plan and planned improvements to the Plough Hill Road/Coleshill Road junction.

1.1.2 The modelling analysis within this TN reviews the existing Coleshill Road/Plough Hill Road priority junction, alongside a proposed 3-arm roundabout mitigation scheme[1], as put forward by Warwickshire County Council (WCC) as Local Highway Authority (LHA). Model flows have been obtained using outputs from the updated and recently re-run Hartshill & Chapel End S-Paramics model in consultation and agreement with the WCC and their strategic modelling consultants, Vectos/SLR. The results of the modelling therefore utilise the LHA's own traffic models.

1.1.3 The WCC proposed mitigation scheme for the Coleshill Road/Plough Hill Road junction is cited within the draft Infrastructure Delivery Plan (IDP) (referenced improvement scheme – upgraded to a roundabout); which will be taking delivery funding contributions through S106. Bellway Homes' 160-dwelling scheme could therefore make an important and proportionate financial contribution towards the delivery of this junction improvement as part of the S106 Agreement associated with a future planning consent.

[1] ARCADY input files have been provided by WCC for the proposed roundabout improvement scheme; which have been used for the purposes of the sensitivity testing and modelling within this TN.

1.2 Background

1.2.1 Following initial pre-application highways scoping with WCC during 2021 (within which the terms of the assessment for modelling; i.e., trip generation/distribution/modelling was agreed), a recent meeting was held with WCC (July 2023) to further discuss the sensitive junction of Coleshill Road/Plough Hill Road, including subsequent S-PARAMICS modelling output/results that were required and which have been commissioned with, and completed by Vectos / SLR.

1.2.2 WCC highways has been exploring potential solutions for the Plough Hill Road / Coleshill Road junction, in order to accommodate future growth in this part of Nuneaton, linked to the ongoing review of the Borough's Local Plan. Their recent work and analysis have identified that a roundabout solution provides sufficient mitigation to accommodate this future growth. It should be noted that the WCC work has predominantly been strategic modelling and Local Plan led and did not test the option of other development sites in this part of Nuneaton.

1.2.3 WCC has most recently identified a roundabout arrangement that can accommodate future Local Plan growth demand with some residual 'spare' capacity; however, this requires third party land in order to enable its delivery.

1.2.4 For the purposes of the specific assessment of the Bellway development traffic impacts, this TN assesses the existing situation (i.e., priority junction) and the proposed WCC 3-arm roundabout mitigation scheme, in order to understand that the proposed improved junction can accommodate Bellway's 160-dwellings.

1.3 Site Location

1.3.1 The development site includes an agricultural land parcel located off Plough Hill Road, approximately 4km to the west of Nuneaton; the site is c.16.5 acres (c.6.7ha) and is bound by Plough Hill Road to the west and new residential developments to the north, east and south (Countryside and Taylor Wimpey, Respectively).

1.3.2 The site is well-located in proximity to local services and facilities; including, Galley Common Infant School, as well as public transport links.

1.3.3 The location of the development site, including the existing Plough Hill Road / Coleshill Rd junction to the north, are illustrated on **Figure 1.1**, overleaf.

Figure 1.1 Site Location

2. Highway Assessment

2.1 Overview

2.1.1 This section provides a summary of the detailed capacity assessments that have been undertaken, using traffic outputs from the Hartshill & Chapel End Strategic S-Paramics model, to understand the impact of the development proposals on the operation of the local highway network.

2.2 Hartshill / Chapel End Model

2.2.1 In order to inform the highway assessment presented within this section, it was agreed with WCC that the impact of the development proposals should be tested using outputs from the Hartshill & Chapel End S-Paramics model and that the flows would be input into and assessed using the ARCADY model (developed and supplied by WCC) for the Coleshill Road/Plough Hill Road junction.

2.2.2 The modelling runs undertaken by Vectos / SLR and the full model outputs, and demand flow matrices relevant to the pertinent Plough Hill Road / Coleshill Road junction are provided in **Appendix A**, for reference.

2.2.3 The scope of the modelling works was agreed with WCC prior to commencement, and for this assessment, in particular the specific assessment of the Bellway 160 dwelling scheme, it is considered most appropriate and relevant to utilise these flows.

2.2.4 The scenarios identified during discussions with WCC highways have been explored and assessed further at the Plough Hill Road / Coleshill Road junction; the scenarios include:

- 2034 Local Plan (Revised);
- 2034 Local Plan + Development Traffic (Bellway 160);
- 2039 Local Plan; and
- 2039 Local Plan + Development Traffic (Bellway 160).

2.2.5 Demand traffic turning flows have been obtained from Vectos / SLR, covering the strategic model runs already completed. Demand traffic flows from the model includes all traffic that needs to clear the junction in each peak hour – hence, represents the total traffic that is demanding to traverse through the junction and represents the robust and forecast scenario.

2.3 Junction Capacity Assessment

2.3.1 The 2034 and 2039 Local Plan demand flows have been assessed using a detailed Junctions 9 (PICADY) model in order to report the existing operation, with an ARCADY model[2] being used to assess the proposed WCC roundabout mitigation.

2.3.2 A summary of the modelling results is presented in the paragraphs and tables below, and full model output reports are provided in **Appendix B**, for reference.

2.3.3 When assessing junction capacity within Junctions 9, it is generally accepted that, a Ratio of Flow to Capacity (RFC) value of below 0.85 represents a junction that is considered to be operating satisfactorily (within 'practical' capacity). At junctions operating at or close to zero 'theoretical' reserve capacity, which equates to an RFC value of approximately 1.00 or above, small reductions in capacity may result in exponential queuing and/or delay results. Therefore, junctions operating above 1.00 should be carefully reviewed to ensure that queueing and delay is not significantly impacted upon.

[2] ARCADY input files have been provided by WCC for the proposed roundabout improvement scheme; which have been used for the purposes of the sensitivity testing and modelling within this TN.

Coleshill Road/Plough Hill Road Priority Junction – Existing Layout

2.3.4 PICADY assessments have been undertaken for the Coleshill Road/Plough Road priority junction in its current layout, and the results of the relevant traffic modelling 2034 and 2039 Local Plan (Reference Case (RC)) scenarios are summarised in **Table 2.1**.

Table 2.1 Coleshill Road/Plough Hill Road Priority Junction – Existing Layout

ARM	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)		
	RFC	Delay (s)	Q (Veh)	RFC	Delay (s)	Q (Veh)
2034 Local Plan (Revised)						
Plough Hill Road	2.37	3741.57	426.3	1.62	1243.53	140.2
Coleshill Road (W)	0.43	6.78	1.4	0.36	7.04	1.0
2039 Local Plan						
Plough Hill Road	2.45	3779.66	430.8	1.66	1334.89	150.2
Coleshill Road (W)	0.42	6.57	1.3	0.36	7.18	1.0

2.3.5 The model results show the junction to operate well over theoretical capacity, during both the AM and PM peak hours in both the 2034 and 2039 Reference Cases; with maximum RFC values of 2.37 and 2.45, and queuing of 416.6 and 430.8 vehicles, on Plough Hill Road in the AM peak hour. Therefore, this emphasises that mitigation measures are required and necessary at this junction; and importantly, this conclusion is drawn whether the Bellway proposals come forward or not. It should be noted, as per Para 2.3.3, that the RFC results on the Plough Hill Road arm (both AM and PM) are well over 1.00; therefore, the results are providing exponential levels of queueing and delay, that is not realistically occurring at the junction at present.

2.3.6 For reference, the baseline junction has also been modelled with the proposed Bellway development traffic, in order to understand the impacts on the existing junction form, in terms of RFC, queueing and delay. The results are summarised in **Table 2.2**, below.

Table 2.2 Coleshill Road/Plough Hill Road Priority Junction – Existing Junction + Bellway Development

ARM	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)		
	RFC	Delay (s)	Q (Veh)	RFC	Delay (s)	Q (Veh)
2034 Local Plan + Bellway Dev (160 Dwellings)						
Plough Hill Road	2.55	4113.87	470.3	1.80	1675.33	186.4
Coleshill Road (W)	0.42	6.66	1.3	0.39	7.57	1.1

ARM	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)		
	RFC	Delay (s)	Q (Veh)	RFC	Delay (s)	Q (Veh)
2039 Local Plan + Bellway Dev (160 Dwellings)						
Plough Hill Road	2.63	4330.77	490.0	1.80	1669.82	185.0
Coleshill Road (W)	0.45	6.98	1.5	0.39	7.46	1.1

2.3.7 The 'with development' flows demonstrate that the proposals will add to the queuing and delay on the Plough Hill Road arm, more impactfully during the AM peak hour, than the PM peak. It should be noted however, that in localised junction modelling (PICADY), when the RFC value is greater than 1.00 (i.e., 100%) the effects on the queuing and delay can become somewhat skewed and unrepresentative of the actual development growth and impact. Typically, the increases are exponential.

Coleshill Road/Plough Hill Road Junction – WCC 3-Arm Roundabout Option

2.3.8 ARCADY assessments have been undertaken for the Coleshill Road/Plough Road junction, incorporating the WCC proposal for a new roundabout (and utilising WCC's provided ARCADY model files), the results of the relevant traffic modelling scenarios are summarised in **Table 2.3**.

Table 2.3 Coleshill Road/Plough Hill Road WCC Roundabout Junction – Mitigated Layout

ARM	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)		
	RFC	Delay (s)	Q (PCU)	RFC	Delay (s)	Q (PCU)
2034 Local Plan (Revised)						
Coleshill Rd (W)	0.86	28.59	5.7	0.58	8.69	1.4
Coleshill Rd (E)	0.62	8.69	1.6	0.83	18.87	4.7
Plough Hill Road	0.77	15.27	3.2	0.56	8.39	1.2
2034 Local Plan + Bellway Dev (160 Dwellings)						
Coleshill Rd (W)	0.86	29.32	5.7	0.59	8.96	1.4
Coleshill Rd (E)	0.62	8.78	1.6	0.88	26.34	6.8
Plough Hill Road	0.80	17.71	3.7	0.60	9.33	0.60
2039 Local Plan						
Coleshill Rd (W)	0.86	28.61	5.7	0.58	8.65	1.4
Coleshill Rd (E)	0.62	8.74	1.6	0.85	20.66	5.2
Plough Hill Road	0.77	1.73	3.3	0.57	8.66	1.3
2039 Local Plan + Bellway Dev (160 Dwellings)						
Coleshill Rd (W)	0.89	36.14	7.2	0.60	9.17	1.5

ARM	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)		
	RFC	Delay (s)	Q (PCU)	RFC	Delay (s)	Q (PCU)
Coleshill Rd (E)	1.7	8.89	0.63	0.89	26.92	6.9
Plough Hill Road	0.81	18.65	4.1	0.60	9.37	1.5

2.3.9 The mitigated roundabout results show the junction to operate over 'practical' capacity, but within 'theoretical' capacity during all scenarios on the Coleshill Road (W) arm and on Coleshill Road (E) during the 'with development' scenarios. The largest increase in queuing vehicles is seen in the '2039 Local Plan + Bellway Dev' scenario with an increase of only two vehicles on Coleshill Road (W) in the AM and Coleshill Road (E) in the PM, when compared to the '2039 Local Plan' scenario; this level of impact is considered to be negligible and of minimal impact. Therefore, it is considered that the development can be accommodated and consumed within the proposed WCC mitigation. Furthermore, Bellway's 160-dwelling scheme can help to fund the junction improvements as part of proportionate S106 financial contributions towards it delivery.

2.3.10 In addition, when this is compared against the '2034 Local Plan' reference case modelling scenarios for the existing priority junction layout, the proposed WCC roundabout mitigation offers a vast improvement and better than 'nil detriment' scenario, in terms of offsetting the highways impact of the Local Plan allocations and the proposed Bellway 160-dwelling development.

Appendix A – WCC Hartshill S-PARAMICS Model Outputs & mode NFDs

vectos microsim.

Job Title:	Plough Hill Further Testing
Job Number:	160
Model Name:	Hartshill Paramics model
Model Year:	2034, 2039
lodel Location:	Hartshill
Date:	July 2023

Scenarios:

Scenario 1	2034 Local Plan (Revised)
Scenario 2	2034 Local Plan + Development
Scenario 3	2039 Local Plan
Scenario 4	2039 Local Plan + Development

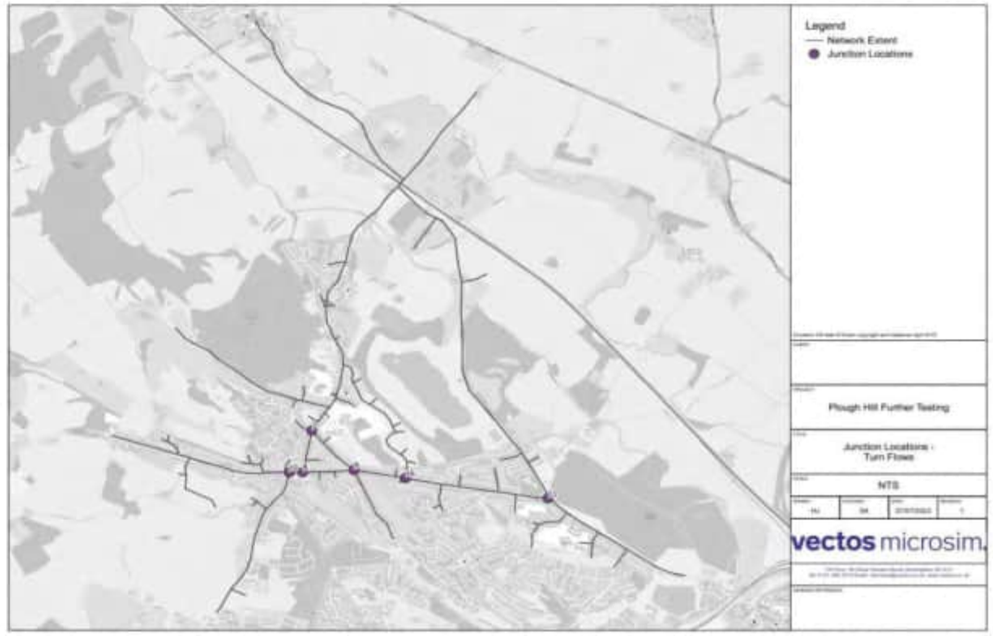
Junctions Assessed:

J7	Church Road/School Hill/Victoria Road
J8	B4114/School Hill
J9	B4114/Victoria Road/Bucks Hill
J10	B4114/Plough Hill Road
J11	B4111 Mancetter Road/B4114 Camp Hill Road
J16	B4114 Camp Hill Road/H19 Link Road

PCU Factor: 2.3

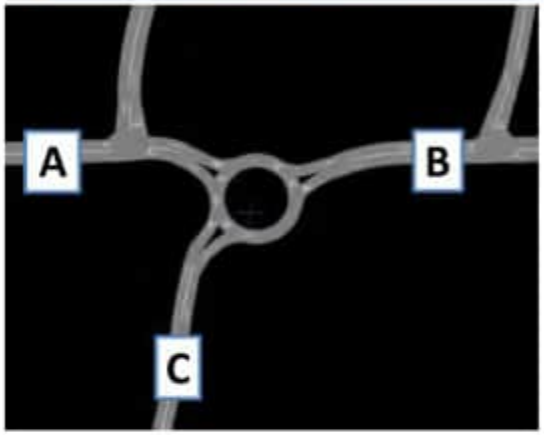
Description:

2034 Hartshill Local Plan Case
2034 Hartshill Local Plan Case + Plough Hill Development - 160 dwellings
2039 Hartshill Local Plan Case
2039 Hartshill Local Plan Case + Plough Hill Development - 160 dwellings



Scenario	2034 Local Plan (Revised)
Time Period	AM (08:00-09:00)
Flow Type	Demand
PCU Factor	2.30

J10 - B4114/Plough Hill Road



	Junction Approaches
A	Coleshill Road EB
B	Coleshill Road WB
C	Plough Hill Road NB

PCUs

	A	B	C
A	0	552	138
B	320	0	300
C	223	480	0

Lights

	A	B	C
A	0	526	136
B	311	0	283
C	221	473	0

HGVs

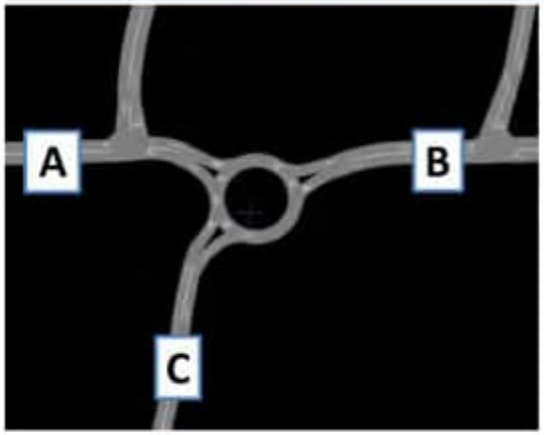
	A	B	C
A	0	11	1
B	4	0	7
C	1	3	0

Total

	A	B	C
A	0	537	137
B	315	0	291
C	222	476	0

Scenario	2034 Local Plan (Revised)
Time Period	PM (17:00-18:00)
Flow Type	Demand
PCU Factor	2.30

J10 - B4114/Plough Hill Road



	Junction Approaches
A	Coleshill Road EB
B	Coleshill Road WB
C	Plough Hill Road NB

	PCUs		
	A	B	C
A	0	416	113
B	389	0	454
C	211	280	0

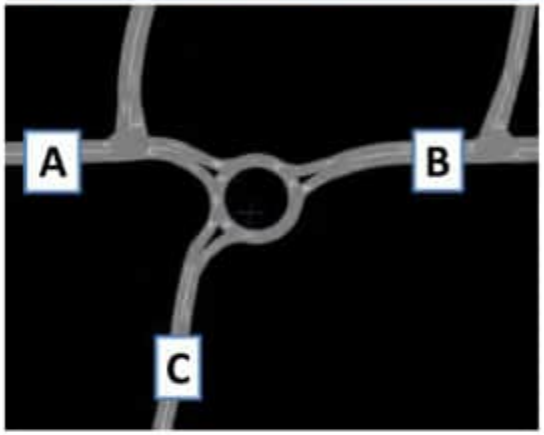
	Lights		
	A	B	C
A	0	415	113
B	386	0	452
C	207	279	0

	Total		
	A	B	C
A	0	415	113
B	387	0	453
C	209	279	0

	HGVs		
	A	B	C
A	0	1	0
B	1	0	1
C	2	1	0

Scenario	2034 Local Plan + Development
Time Period	AM (08:00-09:00)
Flow Type	Demand
PCU Factor	2.30

J10 - B4114/Plough Hill Road



	Junction Approaches
A	Coleshill Road EB
B	Coleshill Road WB
C	Plough Hill Road NB

	PCUs		
	A	B	C
A	0	544	135
B	330	0	295
C	224	512	0

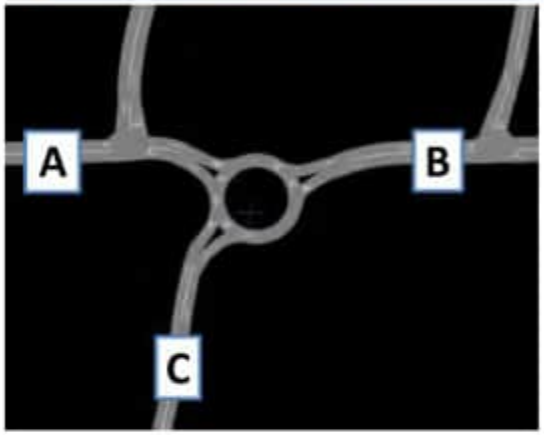
	Lights		
	A	B	C
A	0	517	135
B	313	0	281
C	219	507	0

	HGVs		
	A	B	C
A	0	12	0
B	7	0	6
C	2	2	0

	Total		
	A	B	C
A	0	529	135
B	320	0	287
C	221	509	0

Scenario	2034 Local Plan + Development
Time Period	PM (17:00-18:00)
Flow Type	Demand
PCU Factor	2.30

J10 - B4114/Plough Hill Road



	Junction Approaches
A	Coleshill Road EB
B	Coleshill Road WB
C	Plough Hill Road NB

PCUs

	A	B	C
A	0	404	119
B	395	0	495
C	212	311	0

Lights

	A	B	C
A	0	403	119
B	386	0	495
C	209	307	0

HGVs

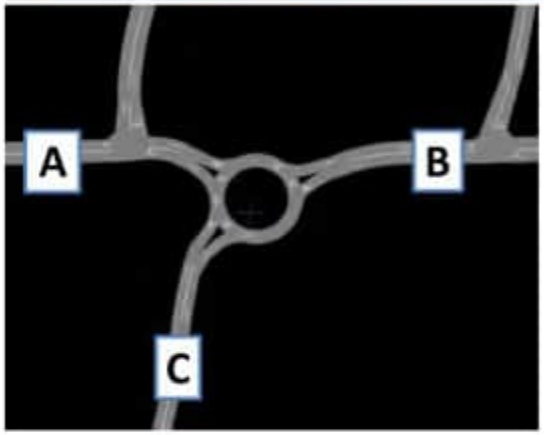
	A	B	C
A	0	1	0
B	4	0	0
C	1	2	0

Total

	A	B	C
A	0	403	119
B	390	0	495
C	210	309	0

Scenario	2039 Local Plan
Time Period	AM (08:00-09:00)
Flow Type	Demand
PCU Factor	2.30

J10 - B4114/Plough Hill Road



	Junction Approaches
A	Coleshill Road EB
B	Coleshill Road WB
C	Plough Hill Road NB

	PCUs		
	A	B	C
A	0	559	133
B	324	0	293
C	225	483	0

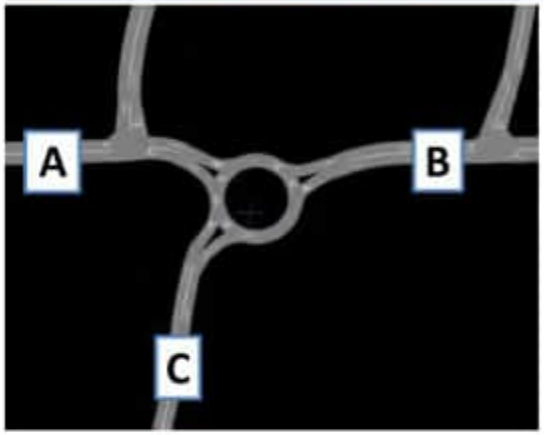
	Lights		
	A	B	C
A	0	528	133
B	313	0	277
C	219	475	0

	HGVs		
	A	B	C
A	0	13	0
B	5	0	7
C	3	3	0

	Total		
	A	B	C
A	0	541	133
B	318	0	284
C	222	479	0

Scenario	2039 Local Plan
Time Period	PM (17:00-18:00)
Flow Type	Demand
PCU Factor	2.30

J10 - B4114/Plough Hill Road



	Junction Approaches
A	Coleshill Road EB
B	Coleshill Road WB
C	Plough Hill Road NB

	PCUs		
	A	B	C
A	0	410	114
B	402	0	455
C	209	289	0

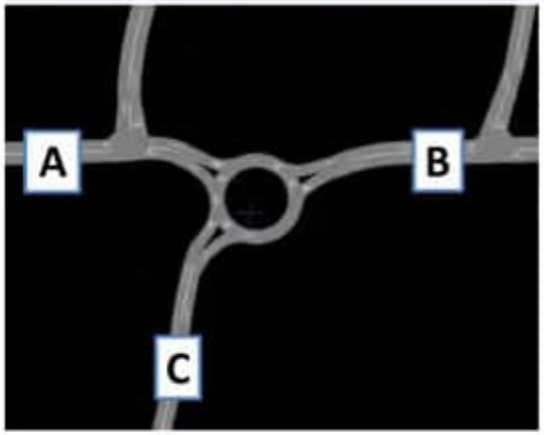
	Lights		
	A	B	C
A	0	407	111
B	394	0	453
C	204	286	0

	HGVs		
	A	B	C
A	0	1	1
B	3	0	1
C	2	1	0

	Total		
	A	B	C
A	0	408	112
B	397	0	454
C	206	287	0

Scenario	2039 Local Plan + Development
Time Period	AM (08:00-09:00)
Flow Type	Demand
PCU Factor	2.30

J10 - B4114/Plough Hill Road



	Junction Approaches
A	Coleshill Road EB
B	Coleshill Road WB
C	Plough Hill Road NB

	PCUs		
	A	B	C
A	0	554	142
B	319	0	307
C	227	518	0

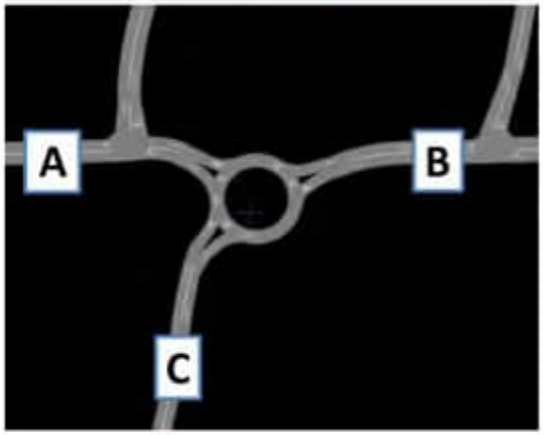
	Lights		
	A	B	C
A	0	521	142
B	309	0	295
C	223	511	0

	HGVs		
	A	B	C
A	0	14	0
B	4	0	5
C	2	3	0

	Total		
	A	B	C
A	0	535	142
B	313	0	300
C	225	514	0

Scenario	2039 Local Plan + Development
Time Period	PM (17:00-18:00)
Flow Type	Demand
PCU Factor	2.30

J10 - B4114/Plough Hill Road



	Junction Approaches
A	Coleshill Road EB
B	Coleshill Road WB
C	Plough Hill Road NB

PCUs

	A	B	C
A	0	416	117
B	405	0	490
C	211	309	0

Lights

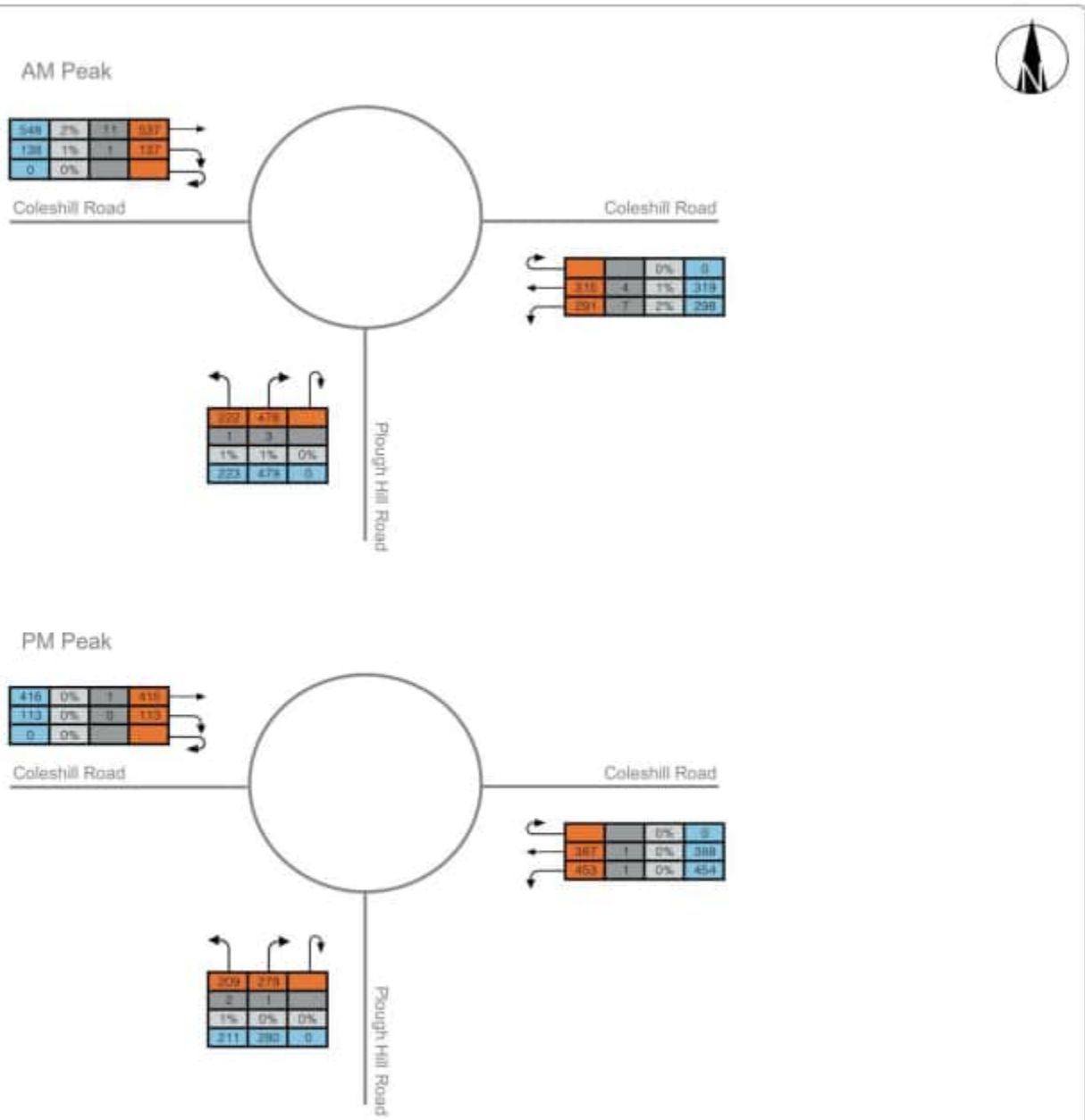
	A	B	C
A	0	414	117
B	396	0	489
C	207	304	0

HGVs

	A	B	C
A	0	1	0
B	4	0	1
C	2	2	0

Total

	A	B	C
A	0	415	117
B	400	0	489
C	209	306	0



NOTES

Flows extracted from WCC's Harfshill S-PARAMICS Model

LEGEND

0	All Vehicles
0	HGV
%	% HGV
0	PCU

Bellway Homes South Midlands

Plough Hill Road, Nuneaton

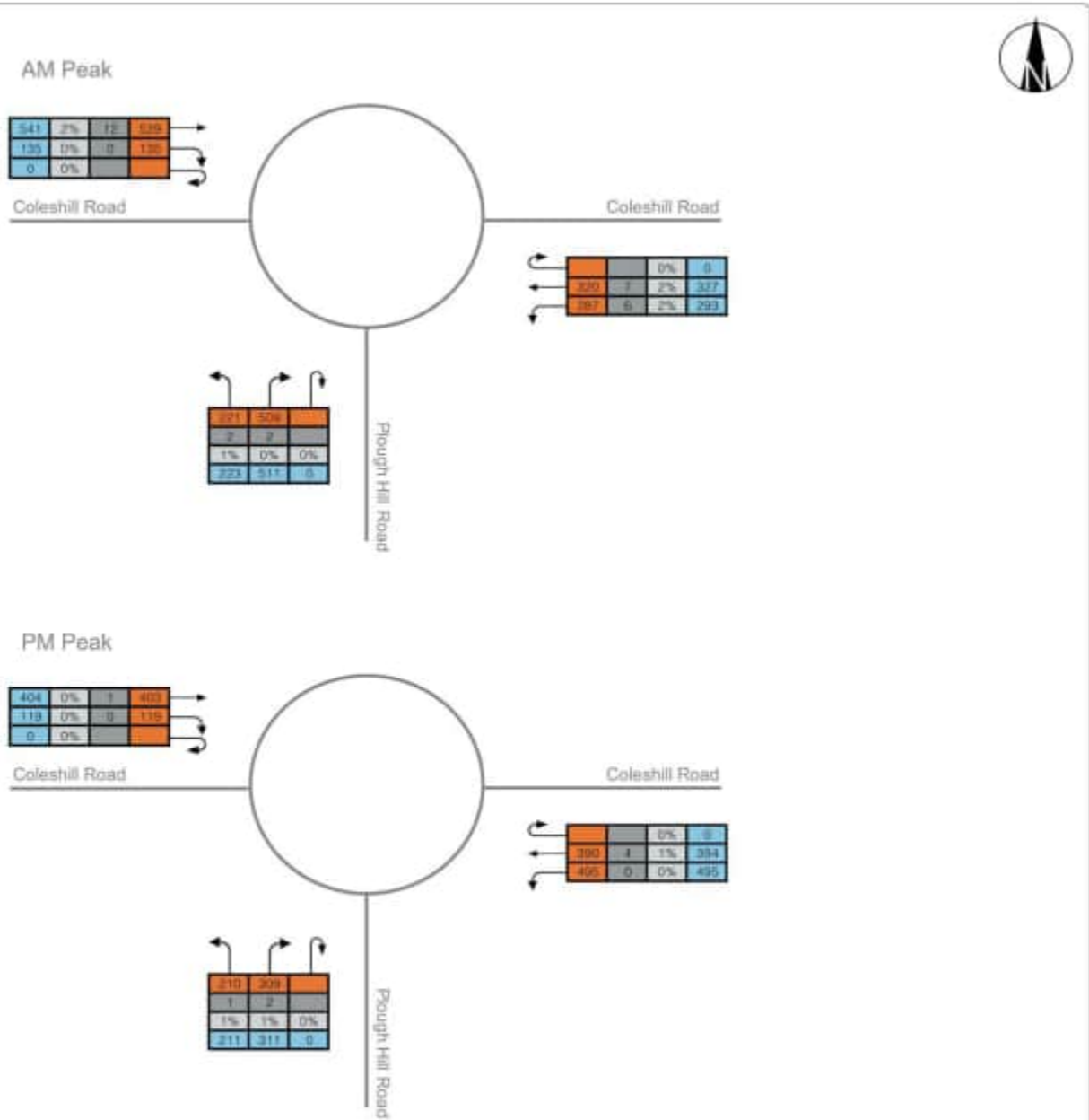
Figure NTD 1

2034 Local Plan (Revised)
AM & PM Peak Hours

Aug 2018

PREPARED	CHECKED
ESF	ALF

mode
transport planning



NOTES

Flows extracted from WCC's Hartshill S-PARAMICS Model

LEGEND

0	All Vehicles
0	HGV
%	% HGV
0	PCU

Bellway Homes South Midlands

Plough Hill Road, Nuneaton

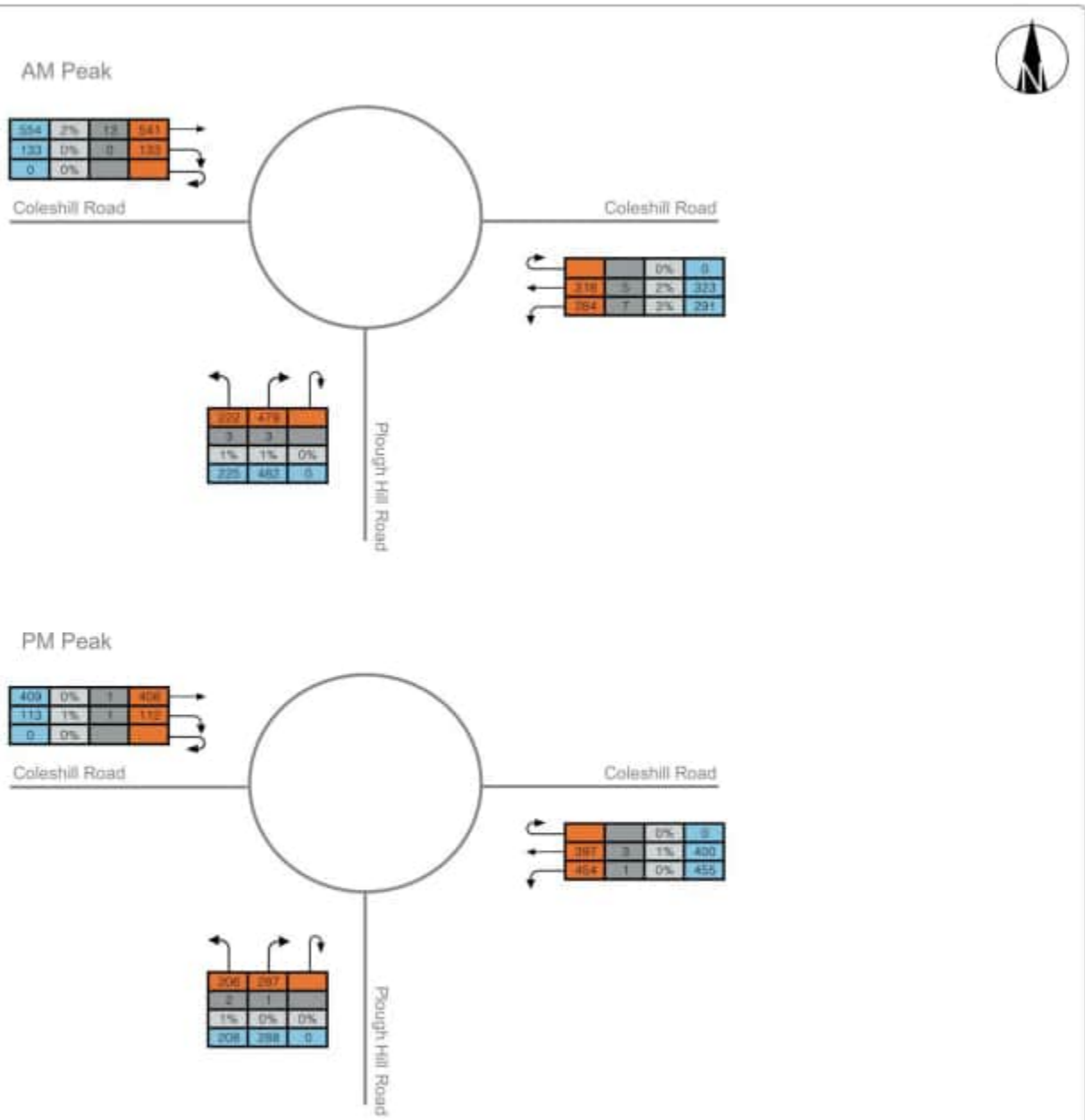
Figure NTD 2

2034 Local Plan + 160-Dwellings AM & PM Peak Hours

Aug 2013

PREPARED	CHECKED
ESF	ALF

mode transport planning



NOTES

Flows extracted from WCC's Hartshill S-PARAMICS Model

LEGEND

0	All Vehicles
0	HGV
%	% HGV
0	PCU

Bellway Homes South Midlands

Plough Hill Road, Nuneaton

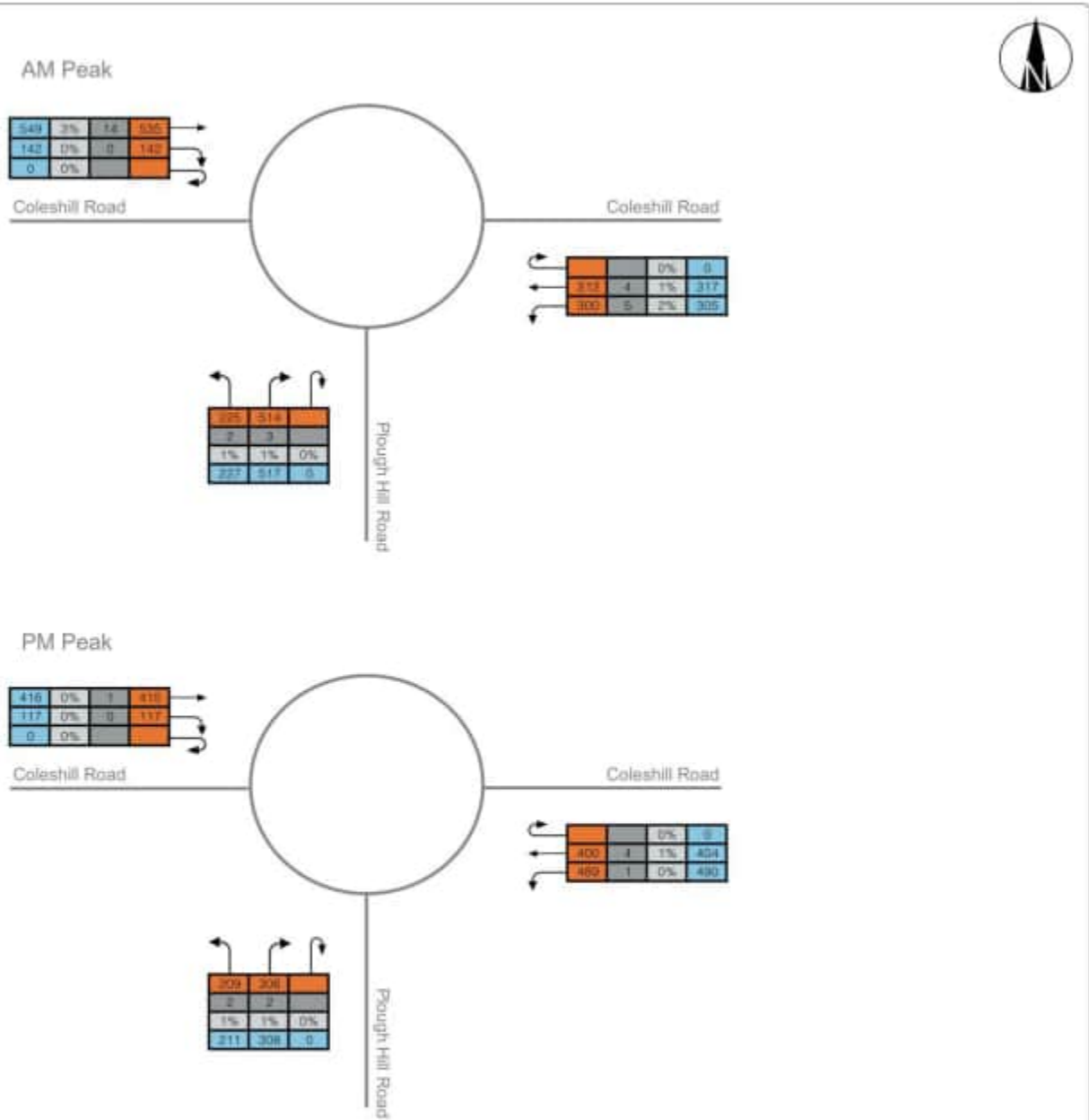
Figure NTD 3

2039 Local Plan
AM & PM Peak Hours

Aug 2019

PREPARED	CHECKED
ESF	ALF

mode
transport planning



NOTES

Flows extracted from WCC's Harbhill S-PARAMICS Model

LEGEND

0	All Vehicles
0	HGV
%	% HGV
0	PCU

Bellway Homes South Midlands

Plough Hill Road, Nuneaton

Figure NTD 4

2039 Local Plan + 160-Dwellings AM & PM Peak Hours

Aug 2019

PREPARED	CHECKED
ESF	ALF

mode transport planning

Legend

Network Extent

Maximum Queue Length

- Increase Between 10 and 25 Vehicles
- Increase Between 25 and 50 Vehicles
- Increase Greater than 50 Vehicles

CLIENT:

PROJECT:

Plough Hill Further Testing

TITLE:

2034 Local Plan vs
2034 Local Plan + Development
Queue Length Comparison
AM Peak Hour

SCALE: NTS

DRAWN:	CHECKED:	DATE:	REVISION:
HJ	SA	26/07/2023	1

vectos microsim.

7th Floor, 36 Great Charles Street, Birmingham, B3 3JY
Tel: 0121 289 5610 Email: microsim@vectos.co.uk www.vectos.co.uk

DRAWING REFERENCE:

Legend

Network Extent

Maximum Queue Length

- Increase Between 10 and 25 Vehicles
- Increase Between 25 and 50 Vehicles
- Increase Greater than 50 Vehicles

CLIENT:

PROJECT:

Plough Hill Further Testing

TITLE:

2034 Local Plan vs
2034 Local Plan + Development
Queue Length Comparison
PM Peak Hour

SCALE: NTS

DRAWN:	CHECKED:	DATE:	REVISION:
HJ	SA	26/07/2023	1

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Tel: 0121 289 5610 Email: microsim@vectos.co.uk www.vectos.co.uk

DRAWING REFERENCE:

Legend

Network Extent

Maximum Queue Length

- Increase Between 10 and 25 Vehicles
- Increase Between 25 and 50 Vehicles
- Increase Greater than 50 Vehicles

CLIENT:

PROJECT:

Plough Hill Further Testing

TITLE:

2039 Local Plan vs
2039 Local Plan + Development
Queue Length Comparison
AM Peak Hour

SCALE: NTS

DRAWN:	CHECKED:	DATE:	REVISION:
HJ	SA	26/07/2023	1

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Tel: 0121 289 5610 Email: microsim@vectos.co.uk www.vectos.co.uk

DRAWING REFERENCE:

Legend

Network Extent

Maximum Queue Length

- Increase Between 10 and 25 Vehicles
- Increase Between 25 and 50 Vehicles
- Increase Greater than 50 Vehicles

CLIENT:

PROJECT:

Plough Hill Further Testing

TITLE:

2039 Local Plan vs
2039 Local Plan + Development
Queue Length Comparison
PM Peak Hour

SCALE: NTS

DRAWN:	CHECKED:	DATE:	REVISION:
HJ	SA	27/07/2023	1

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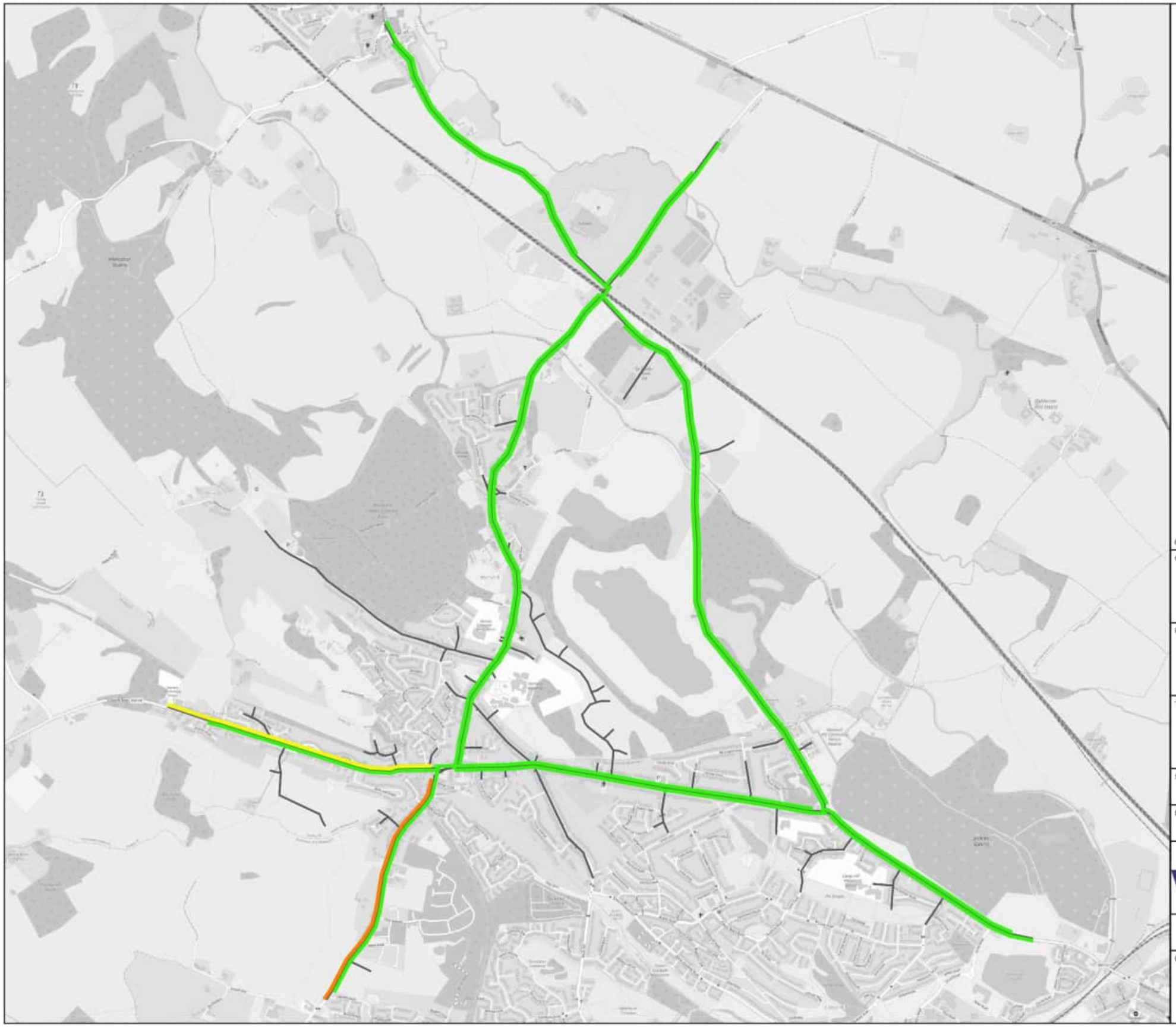
7th Floor, 36 Great Charles Street, Birmingham, B3 3JY
Tel: 0121 289 5610 Email: microsim@vectos.co.uk www.vectos.co.uk

DRAWING REFERENCE:



Legend

Network Extent

Journey Time

- Greater than 15% Reduction
- Between -15 and +15% Change
- Between 15% and 25% Increase
- Between 25% and 50% Increase
- Greater than a 50% Increase

CLIENT:

PROJECT:

Plough Hill Further Testing

TITLE:

2034 Local Plan vs
2034 Local Plan + Development
Journey Time Comparison
AM Peak Hour

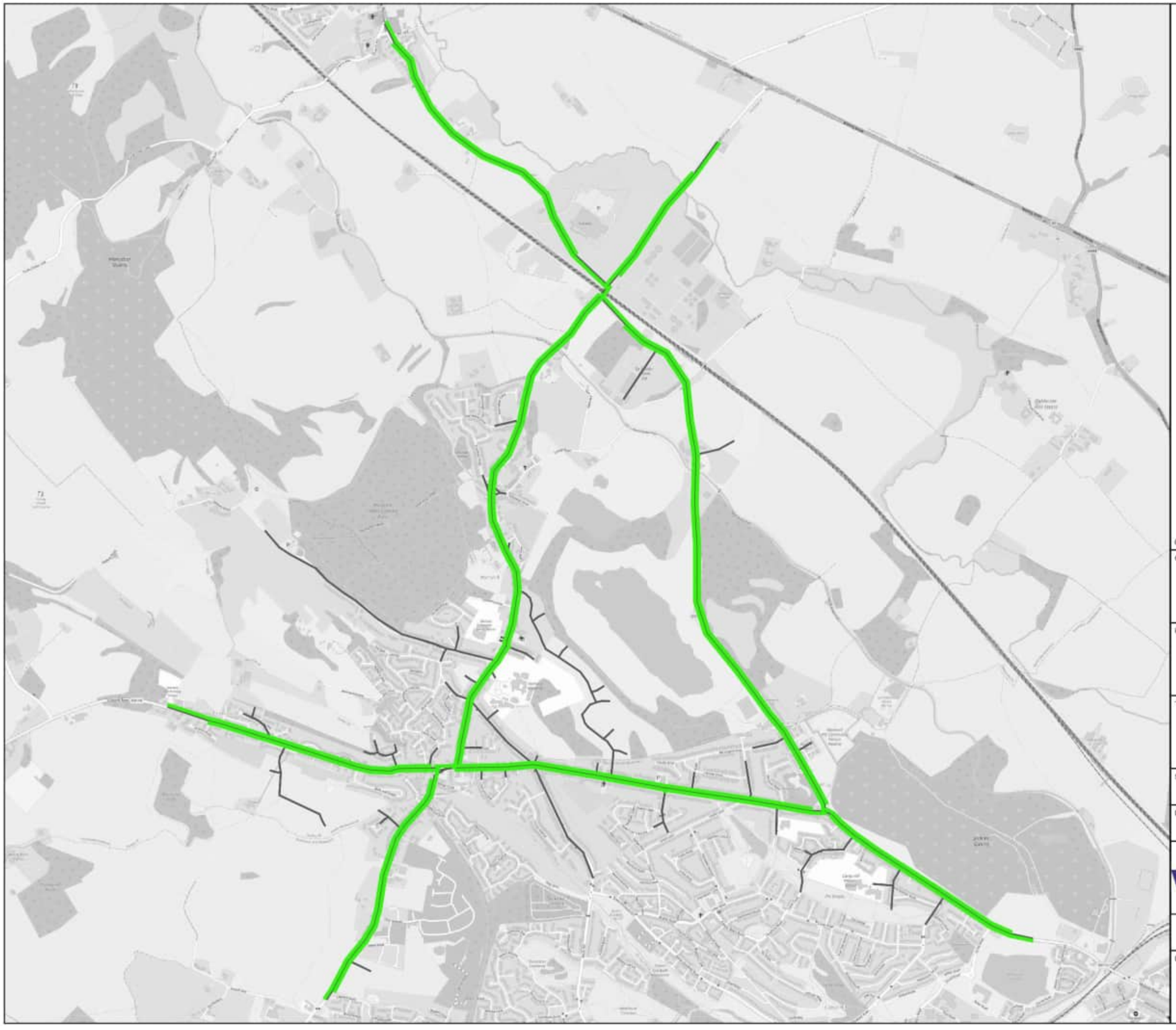
SCALE: NTS

DRAWN:	CHECKED:	DATE:	REVISION:
HJ	SA	26/07/2023	1

vectos microsim.

7th Floor, 36 Great Charles Street, Birmingham, B3 3JY
Tel: 0121 289 5610 Email: microsim@vectos.co.uk www.vectos.co.uk

DRAWING REFERENCE:



Legend

Network Extent

Journey Time

- Greater than 15% Reduction
- Between -15 and +15% Change
- Between 15% and 25% Increase
- Between 25% and 50% Increase
- Greater than a 50% Increase

CLIENT:

PROJECT:

Plough Hill Further Testing

TITLE:

2034 Local Plan vs
2034 Local Plan + Development
Journey Time Comparison
PM Peak Hour

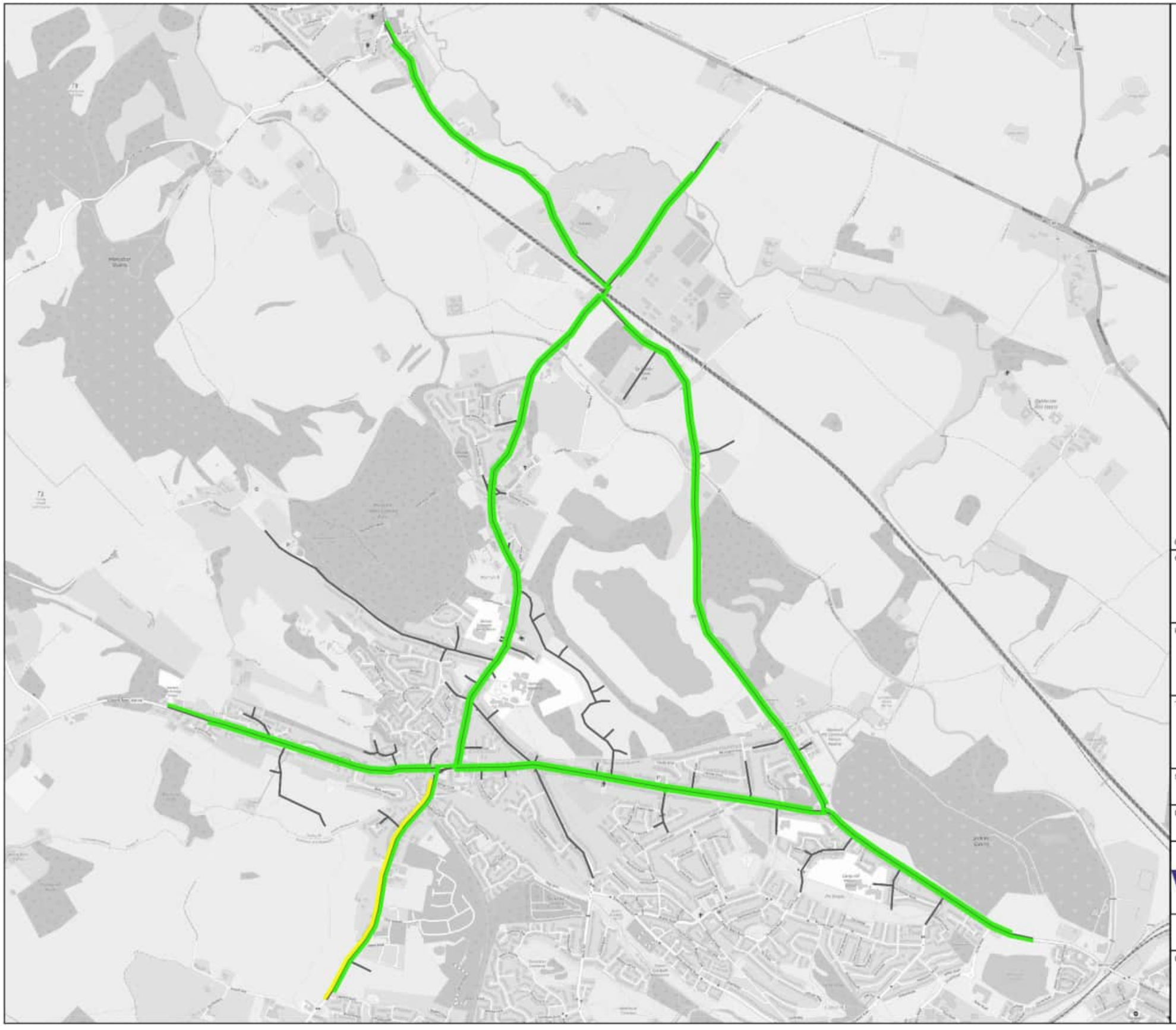
SCALE: NTS

DRAWN:	CHECKED:	DATE:	REVISION:
HJ	SA	27/07/2023	1

vectos microsim.

7th Floor, 36 Great Charles Street, Birmingham, B3 3JY
Tel: 0121 289 5610 Email: microsim@vectos.co.uk www.vectos.co.uk

DRAWING REFERENCE:



Legend

- Network Extent

Journey Time

- Greater than 15% Reduction
- Between -15 and +15% Change
- Between 15% and 25% Increase
- Between 25% and 50% Increase
- Greater than a 50% Increase

CLIENT:

PROJECT:

Plough Hill Further Testing

TITLE:

2039 Local Plan vs
2039 Local Plan + Development
Journey Time Comparison
AM Peak Hour

SCALE: NTS

DRAWN:	CHECKED:	DATE:	REVISION:
HJ	SA	26/07/2023	1

vectos microsim.

7th Floor, 36 Great Charles Street, Birmingham, B3 3JY
Tel: 0121 289 5610 Email: microsim@vectos.co.uk www.vectos.co.uk

DRAWING REFERENCE:

Legend

- Network Extent

Journey Time

- Greater than 15% Reduction
- Between -15 and +15% Change
- Between 15% and 25% Increase
- Between 25% and 50% Increase
- Greater than a 50% Increase

CLIENT:

PROJECT:

Plough Hill Further Testing

TITLE:

2039 Local Plan vs
2039 Local Plan + Development
Journey Time Comparison
PM Peak Hour

SCALE: NTS

DRAWN:	CHECKED:	DATE:	REVISION:
HJ	SA	27/07/2023	1

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Tel: 0121 289 5610 Email: microsim@vectos.co.uk www.vectos.co.uk

DRAWING REFERENCE:

Appendix B – ARCADY Assessment Model Output Results

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.1.7462

For sales and distribution information, program advice and maintenance, contact TRL:
+44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk

Filename: Existing Junction.j9
Path: D:\mode Dropbox\Project\Birmingham\2. Projects\J324891_Plough Hill Road, Nuneaton\4. Data\Junction Modelling\230808_Updated Model Flows\Existing Junction
Report generation date: 10/08/2023 15:35:05

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	2034 Local Plan									
Stream B-AC	D1	426.3	3741.57	2.43	F	D2	140.2	1243.53	1.62	F
Stream C-AB		1.4	6.78	0.43	A		1.0	7.04	0.36	A
	2034 Local Plan + Development									
Stream B-AC	D3	470.3	4113.87	2.55	F	D4	186.4	1675.33	1.80	F
Stream C-AB		1.3	6.66	0.42	A		1.1	7.57	0.39	A
	2039 Local Plan									
Stream B-AC	D5	430.8	3779.66	2.45	F	D6	150.2	1334.89	1.66	F
Stream C-AB		1.3	6.57	0.42	A		1.0	7.18	0.36	A
	2039 Local Plan + Development									
Stream B-AC	D7	490.0	4330.77	2.63	F	D8	185.0	1669.82	1.80	F
Stream C-AB		1.5	6.98	0.45	A		1.1	7.46	0.39	A

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

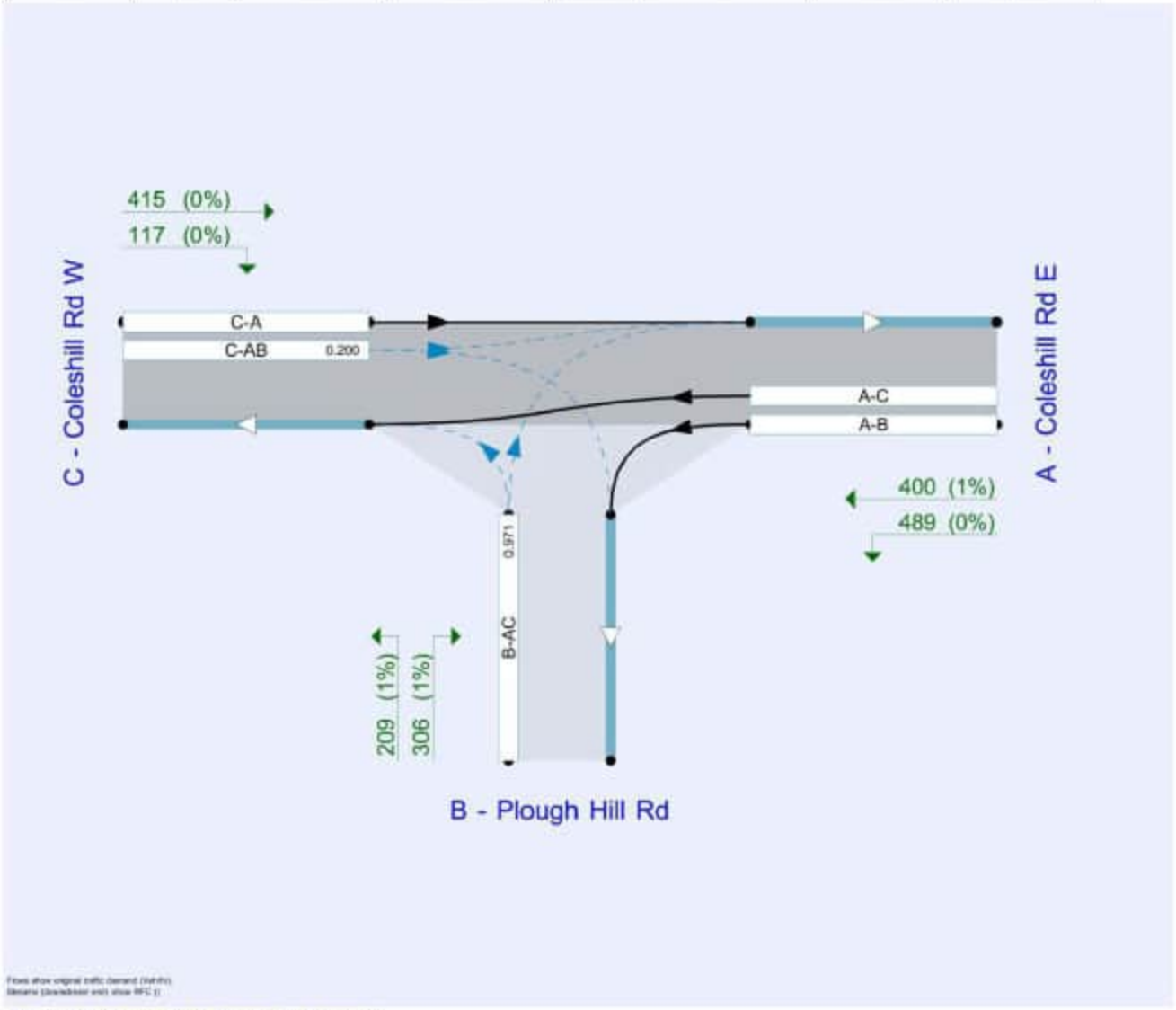
File summary

File Description

Title	
Location	
Site number	
Date	28/02/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	AzureAD\JamesMonk
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	Veh	Veh	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2034 Local Plan	AM	ONE HOUR	07:45	09:15	15
D2	2034 Local Plan	PM	ONE HOUR	16:45	18:15	15
D3	2034 Local Plan + Development	AM	ONE HOUR	07:45	09:15	15
D4	2034 Local Plan + Development	PM	ONE HOUR	16:45	18:15	15
D5	2039 Local Plan	AM	ONE HOUR	07:45	09:15	15
D6	2039 Local Plan	PM	ONE HOUR	16:45	18:15	15
D7	2039 Local Plan + Development	AM	ONE HOUR	07:45	09:15	15
D8	2039 Local Plan + Development	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2034 Local Plan, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1318.04	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Coleshill Rd E		Major
B	Plough Hill Rd		Minor
C	Coleshill Rd W		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Coleshill Rd W	6.30			250.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Plough Hill Rd	One lane	3.59	22	17

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	522	0.094	0.237	0.149	0.339
B-C	672	0.102	0.257	-	-
C-B	719	0.275	0.275	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2034 Local Plan	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Coleshill Rd E		✓	606	100.000
B - Plough Hill Rd		✓	698	100.000
C - Coleshill Rd W		✓	674	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Coleshill Rd E	B - Plough Hill Rd	C - Coleshill Rd W
From	A - Coleshill Rd E	0	291	315
	B - Plough Hill Rd	476	0	222
	C - Coleshill Rd W	537	137	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Coleshill Rd E	B - Plough Hill Rd	C - Coleshill Rd W
From	A - Coleshill Rd E	0	2	0
	B - Plough Hill Rd	1	0	1
	C - Coleshill Rd W	2	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	2.43	3741.57	426.3	F
C-AB	0.43	6.78	1.4	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	525	396	1.326	385	35.0	182.625	F
C-AB	195	856	0.228	193	0.5	5.429	A
C-A	312			312			
A-B	219			219			
A-C	237			237			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	627	363	1.729	363	101.2	741.134	F
C-AB	270	892	0.303	269	0.7	5.792	A
C-A	336			336			
A-B	262			262			
A-C	283			283			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	769	316	2.431	316	214.3	1806.389	F
C-AB	407	944	0.432	405	1.4	6.707	A
C-A	335			335			
A-B	320			320			
A-C	347			347			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	769	316	2.435	316	327.6	2733.803	F
C-AB	409	945	0.433	409	1.4	6.776	A
C-A	333			333			
A-B	320			320			
A-C	347			347			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	627	362	1.732	362	393.9	3368.206	F
C-AB	272	893	0.304	274	0.8	5.866	A
C-A	334			334			
A-B	262			262			
A-C	283			283			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	525	396	1.328	396	426.3	3741.571	F
C-AB	197	857	0.230	198	0.5	5.483	A
C-A	311			311			
A-B	219			219			
A-C	237			237			

2034 Local Plan, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		328.86	F

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)
D2	2034 Local Plan	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Coleshill Rd E		✓	840	100.000
B - Plough Hill Rd		✓	488	100.000
C - Coleshill Rd W		✓	528	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Coleshill Rd E	B - Plough Hill Rd	C - Coleshill Rd W
From	A - Coleshill Rd E	0	453	387
	B - Plough Hill Rd	279	0	209
	C - Coleshill Rd W	415	113	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Coleshill Rd E	B - Plough Hill Rd	C - Coleshill Rd W
From	A - Coleshill Rd E	0	0	0
	B - Plough Hill Rd	0	0	1
	C - Coleshill Rd W	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	1.62	1243.53	140.2	F
C-AB	0.36	7.04	1.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	367	413	0.890	347	5.2	45.461	E
C-AB	144	763	0.189	143	0.4	5.802	A
C-A	253			253			
A-B	341			341			
A-C	291			291			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	439	379	1.157	371	22.2	160.375	F
C-AB	196	779	0.252	195	0.6	6.178	A
C-A	279			279			
A-B	407			407			
A-C	348			348			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	537	332	1.620	331	73.7	540.065	F
C-AB	290	804	0.361	288	1.0	6.998	A
C-A	291			291			
A-B	499			499			
A-C	426			426			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	537	331	1.621	331	125.2	1011.848	F
C-AB	291	805	0.361	291	1.0	7.044	A
C-A	290			290			
A-B	499			499			
A-C	426			426			

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	439	379	1.158	379	140.2	1243.530	F
C-AB	197	780	0.252	199	0.6	6.228	A
C-A	278			278			
A-B	407			407			
A-C	348			348			

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	367	412	0.891	409	129.7	1186.913	F
C-AB	145	764	0.190	146	0.4	5.846	A
C-A	253			253			
A-B	341			341			
A-C	291			291			

2034 Local Plan + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1487.85	F

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)
D3	2034 Local Plan + Development	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Coleshill Rd E		✓	607	100.000
B - Plough Hill Rd		✓	730	100.000
C - Coleshill Rd W		✓	664	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Coleshill Rd E	B - Plough Hill Rd	C - Coleshill Rd W
From	A - Coleshill Rd E	0	287	320
	B - Plough Hill Rd	509	0	221
	C - Coleshill Rd W	529	135	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Coleshill Rd E	B - Plough Hill Rd	C - Coleshill Rd W
From	A - Coleshill Rd E	0	2	2
	B - Plough Hill Rd	0	0	1
	C - Coleshill Rd W	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	2.55	4113.87	470.3	F
C-AB	0.42	6.66	1.3	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	550	396	1.387	387	40.7	208.303	F
C-AB	190	856	0.222	188	0.5	5.392	A
C-A	310			310			
A-B	216			216			
A-C	241			241			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	656	363	1.809	363	114.1	843.729	F
C-AB	262	889	0.295	261	0.7	5.737	A
C-A	335			335			
A-B	258			258			
A-C	288			288			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	804	316	2.547	316	236.2	2002.262	F
C-AB	394	940	0.420	392	1.3	6.594	A
C-A	337			337			
A-B	316			316			
A-C	352			352			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	804	315	2.551	315	358.3	2974.460	F
C-AB	396	941	0.421	396	1.3	6.659	A
C-A	335			335			
A-B	316			316			
A-C	352			352			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	656	362	1.812	362	431.9	3680.961	F
C-AB	264	891	0.296	266	0.7	5.811	A
C-A	333			333			
A-B	258			258			
A-C	288			288			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	550	396	1.389	396	470.3	4113.866	F
C-AB	191	857	0.223	192	0.5	5.448	A
C-A	308			308			
A-B	216			216			
A-C	241			241			

2034 Local Plan + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		454.76	F

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)
D4	2034 Local Plan + Development	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Coleshill Rd E		✓	885	100.000
B - Plough Hill Rd		✓	519	100.000
C - Coleshill Rd W		✓	522	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Coleshill Rd E	B - Plough Hill Rd	C - Coleshill Rd W
From	A - Coleshill Rd E	0	495	390
	B - Plough Hill Rd	309	0	210
	C - Coleshill Rd W	403	119	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Coleshill Rd E	B - Plough Hill Rd	C - Coleshill Rd W
From	A - Coleshill Rd E	0	0	1
	B - Plough Hill Rd	1	0	1
	C - Coleshill Rd W	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	1.80	1675.33	186.4	F
C-AB	0.39	7.57	1.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	391	401	0.974	358	8.3	62.273	F
C-AB	151	748	0.201	149	0.4	6.006	A
C-A	242			242			
A-B	373			373			
A-C	294			294			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	467	367	1.273	363	34.2	241.161	F
C-AB	205	761	0.269	204	0.6	6.471	A
C-A	264			264			
A-B	445			445			
A-C	351			351			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	571	318	1.799	317	97.6	762.781	F
C-AB	304	783	0.388	302	1.1	7.509	A
C-A	270			270			
A-B	545			545			
A-C	429			429			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	571	317	1.801	317	161.2	1483.037	F
C-AB	305	785	0.389	305	1.1	7.572	A
C-A	269			269			
A-B	545			545			
A-C	429			429			

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	467	366	1.275	366	186.4	1650.898	F
C-AB	206	763	0.270	208	0.6	6.537	A
C-A	263			263			
A-B	445			445			
A-C	351			351			

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	391	401	0.976	398	184.4	1675.328	F
C-AB	152	749	0.202	153	0.4	6.058	A
C-A	241			241			
A-B	373			373			
A-C	294			294			

2039 Local Plan, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1329.87	F

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)
D5	2039 Local Plan	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Coleshill Rd E		✓	602	100.000
B - Plough Hill Rd		✓	701	100.000
C - Coleshill Rd W		✓	674	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Coleshill Rd E	B - Plough Hill Rd	C - Coleshill Rd W
From	A - Coleshill Rd E	0	284	318
	B - Plough Hill Rd	479	0	222
	C - Coleshill Rd W	541	133	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Coleshill Rd E	B - Plough Hill Rd	C - Coleshill Rd W
From	A - Coleshill Rd E	0	3	2
	B - Plough Hill Rd	1	0	0
	C - Coleshill Rd W	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	2.45	3779.66	430.8	F
C-AB	0.42	6.57	1.3	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	528	396	1.332	385	35.6	185.075	F
C-AB	190	862	0.220	188	0.5	5.338	A
C-A	318			318			
A-B	214			214			
A-C	239			239			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	630	363	1.737	363	102.5	751.870	F
C-AB	263	897	0.293	262	0.7	5.671	A
C-A	343			343			
A-B	255			255			
A-C	286			286			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	772	316	2.446	316	216.6	1828.802	F
C-AB	396	949	0.418	394	1.3	6.504	A
C-A	346			346			
A-B	313			313			
A-C	350			350			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	772	315	2.449	315	330.7	2759.979	F
C-AB	398	950	0.419	398	1.3	6.568	A
C-A	344			344			
A-B	313			313			
A-C	350			350			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	630	362	1.740	362	397.8	3400.885	F
C-AB	264	899	0.294	266	0.7	5.743	A
C-A	342			342			
A-B	255			255			
A-C	286			286			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	528	396	1.334	396	430.8	3779.664	F
C-AB	191	863	0.221	192	0.5	5.394	A
C-A	316			316			
A-B	214			214			
A-C	239			239			

2039 Local Plan, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		354.05	F

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)
D6	2039 Local Plan	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Coleshill Rd E		✓	851	100.000
B - Plough Hill Rd		✓	493	100.000
C - Coleshill Rd W		✓	520	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Coleshill Rd E	B - Plough Hill Rd	C - Coleshill Rd W
From	A - Coleshill Rd E	0	454	397
	B - Plough Hill Rd	287	0	206
	C - Coleshill Rd W	408	112	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Coleshill Rd E	B - Plough Hill Rd	C - Coleshill Rd W
From	A - Coleshill Rd E	0	0	1
	B - Plough Hill Rd	0	0	1
	C - Coleshill Rd W	0	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	1.66	1334.89	150.2	F
C-AB	0.36	7.18	1.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	371	409	0.908	348	5.7	48.711	E
C-AB	143	752	0.190	141	0.4	5.888	A
C-A	249			249			
A-B	342			342			
A-C	299			299			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	443	375	1.183	368	24.6	176.591	F
C-AB	194	767	0.253	193	0.6	6.281	A
C-A	274			274			
A-B	408			408			
A-C	357			357			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	543	327	1.662	326	78.8	589.127	F
C-AB	287	792	0.362	285	1.0	7.134	A
C-A	286			286			
A-B	500			500			
A-C	437			437			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	543	326	1.664	326	132.9	1084.531	F
C-AB	288	793	0.363	288	1.0	7.177	A
C-A	285			285			
A-B	500			500			
A-C	437			437			

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	443	374	1.184	374	150.2	1334.891	F
C-AB	195	769	0.253	196	0.6	6.326	A
C-A	273			273			
A-B	408			408			
A-C	357			357			

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	371	408	0.909	406	141.6	1295.095	F
C-AB	143	753	0.190	144	0.4	5.928	A
C-A	248			248			
A-B	342			342			
A-C	299			299			

2039 Local Plan + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1569.08	F

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)
D7	2039 Local Plan + Development	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Coleshill Rd E		✓	613	100.000
B - Plough Hill Rd		✓	739	100.000
C - Coleshill Rd W		✓	677	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Coleshill Rd E	B - Plough Hill Rd	C - Coleshill Rd W
From	A - Coleshill Rd E	0	300	313
	B - Plough Hill Rd	514	0	225
	C - Coleshill Rd W	535	142	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Coleshill Rd E	B - Plough Hill Rd	C - Coleshill Rd W
From	A - Coleshill Rd E	0	2	1
	B - Plough Hill Rd	1	0	1
	C - Coleshill Rd W	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	2.63	4330.77	490.0	F
C-AB	0.45	6.98	1.5	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	556	392	1.420	383	43.4	223.295	F
C-AB	202	857	0.235	200	0.5	5.475	A
C-A	308			308			
A-B	226			226			
A-C	236			236			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	664	358	1.856	358	120.0	905.421	F
C-AB	279	891	0.313	278	0.8	5.878	A
C-A	330			330			
A-B	270			270			
A-C	281			281			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	814	310	2.622	310	245.9	2122.702	F
C-AB	421	942	0.447	418	1.4	6.895	A
C-A	324			324			
A-B	330			330			
A-C	345			345			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	814	310	2.627	310	371.8	3119.045	F
C-AB	423	943	0.448	423	1.5	6.983	A
C-A	323			323			
A-B	330			330			
A-C	345			345			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	664	357	1.860	357	448.6	3865.108	F
C-AB	281	893	0.314	283	0.8	5.969	A
C-A	328			328			
A-B	270			270			
A-C	281			281			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	556	391	1.423	391	490.0	4330.770	F
C-AB	203	858	0.237	204	0.5	5.540	A
C-A	306			306			
A-B	226			226			
A-C	236			236			

2039 Local Plan + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		447.45	F

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)
D8	2039 Local Plan + Development	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Coleshill Rd E		✓	889	100.000
B - Plough Hill Rd		✓	515	100.000
C - Coleshill Rd W		✓	532	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Coleshill Rd E	B - Plough Hill Rd	C - Coleshill Rd W
From	A - Coleshill Rd E	0	489	400
	B - Plough Hill Rd	306	0	209
	C - Coleshill Rd W	415	117	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Coleshill Rd E	B - Plough Hill Rd	C - Coleshill Rd W
From	A - Coleshill Rd E	0	0	1
	B - Plough Hill Rd	1	0	1
	C - Coleshill Rd W	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	1.80	1669.82	185.0	F
C-AB	0.39	7.46	1.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	368	399	0.971	355	8.1	61.830	F
C-AB	150	754	0.200	149	0.4	5.948	A
C-A	250			250			
A-B	368			368			
A-C	301			301			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	463	364	1.272	361	33.7	239.990	F
C-AB	205	768	0.267	205	0.6	6.398	A
C-A	273			273			
A-B	440			440			
A-C	360			360			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	567	315	1.802	314	96.9	763.462	F
C-AB	307	792	0.387	304	1.1	7.404	A
C-A	279			279			
A-B	538			538			
A-C	440			440			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	567	314	1.805	314	160.1	1487.189	F
C-AB	308	794	0.388	308	1.1	7.464	A
C-A	278			278			
A-B	538			538			
A-C	440			440			

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	463	364	1.273	364	185.0	1648.886	F
C-AB	207	770	0.268	209	0.6	6.458	A
C-A	272			272			
A-B	440			440			
A-C	360			360			

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	388	399	0.973	396	182.8	1669.822	F
C-AB	151	755	0.201	152	0.4	5.999	A
C-A	249			249			
A-B	368			368			
A-C	301			301			

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462

Filename: Plough Hill Rd Rbt Preferred Option_WCC model.j9
Path: D:\mode Dropbox\Project\Birmingham\2. Projects\J324891_Plough Hill Road, Nuneaton\4. Data\Junction Modelling\230808_Updated Model Flows\Roundabout Option from WCC
Report generation date: 10/08/2023 10:26:44

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2034 Local Plan									
1 - Coleshill Rd (West)	D2	5.7	28.59	0.86	D	D3	1.4	8.69	0.58	A
2 - Coleshill Rd (East)		1.6	8.69	0.62	A		4.7	16.87	0.83	C
3 - Plough Hill Rd		3.2	15.27	0.77	C		1.2	8.39	0.56	A
	2034 Local Plan + Development									
1 - Coleshill Rd (West)	D4	5.7	29.32	0.86	D	D5	1.4	8.96	0.59	A
2 - Coleshill Rd (East)		1.6	8.78	0.62	A		6.8	26.34	0.88	D
3 - Plough Hill Rd		3.8	17.71	0.80	C		1.5	9.33	0.60	A
	2039 Local Plan									
1 - Coleshill Rd (West)	D6	5.7	28.61	0.86	D	D7	1.4	8.65	0.58	A
2 - Coleshill Rd (East)		1.6	8.74	0.62	A		5.2	20.66	0.85	C
3 - Plough Hill Rd		3.3	15.73	0.77	C		1.3	8.66	0.57	A
	2039 Local Plan + Development									
1 - Coleshill Rd (West)	D8	7.2	36.14	0.89	E	D9	1.5	9.17	0.60	A
2 - Coleshill Rd (East)		1.7	8.89	0.63	A		6.9	26.92	0.89	D
3 - Plough Hill Rd		4.1	18.65	0.81	C		1.5	9.37	0.60	A

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

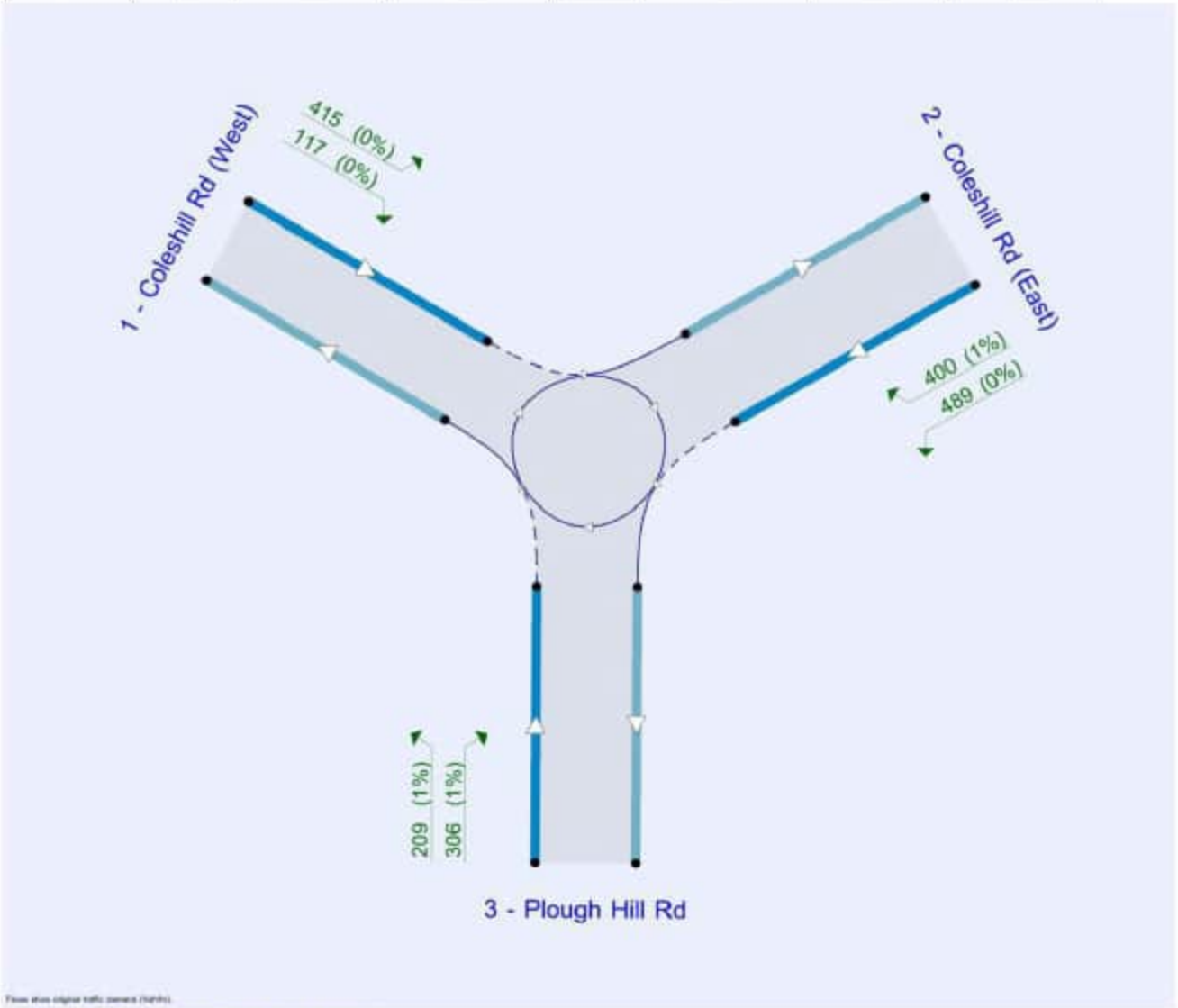
File summary

File Description

Title	Plough Hill Road Junction Study
Location	Coleshill Rd/Plough Hill Rd
Site number	1
Date	02/12/2022
Version	1
Status	(new file)
Identifier	
Client	Warwickshire County Council
Jobnumber	60694895
Enumerator	BC
Description	Roundabout option 3 - AECOM HGV% based on 2022 survey data of the junction

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	Veh	PCU	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2034 Local Plan	AM	ONE HOUR	07:45	09:15	15
D3	2034 Local Plan	PM	ONE HOUR	16:45	18:15	15
D4	2034 Local Plan + Development	AM	ONE HOUR	07:45	09:15	15
D5	2034 Local Plan + Development	PM	ONE HOUR	16:45	18:15	15
D6	2039 Local Plan	AM	ONE HOUR	07:45	09:15	15
D7	2039 Local Plan	PM	ONE HOUR	16:45	18:15	15
D8	2039 Local Plan + Development	AM	ONE HOUR	07:45	09:15	15
D9	2039 Local Plan + Development	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2034 Local Plan, 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	17.80	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Coleshill Rd (West)	
2	Coleshill Rd (East)	
3	Plough Hill Rd	

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 - Coleshill Rd (West)	3.50	4.50	3.6	15.0	30.0	40.0	
2 - Coleshill Rd (East)	3.50	4.50	3.4	15.0	30.0	34.0	
3 - Plough Hill Rd	3.00	4.50	8.2	15.0	30.0	22.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Coleshill Rd (West)	0.531	1159
2 - Coleshill Rd (East)	0.542	1180
3 - Plough Hill Rd	0.561	1209

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)
D2	2034 Local Plan	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Coleshill Rd (West)		✓	674	100.000
2 - Coleshill Rd (East)		✓	606	100.000
3 - Plough Hill Rd		✓	698	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Coleshill Rd (West)	2 - Coleshill Rd (East)	3 - Plough Hill Rd
From	1 - Coleshill Rd (West)	0	537	137
	2 - Coleshill Rd (East)	315	0	291
	3 - Plough Hill Rd	222	476	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Coleshill Rd (West)	2 - Coleshill Rd (East)	3 - Plough Hill Rd
From	1 - Coleshill Rd (West)	0	2	1
	2 - Coleshill Rd (East)	1	0	2
	3 - Plough Hill Rd	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Coleshill Rd (West)	0.86	28.59	5.7	D
2 - Coleshill Rd (East)	0.62	8.69	1.6	A
3 - Plough Hill Rd	0.77	15.27	3.2	C

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	517	359	968	0.534	512	1.1	7.964	A
2 - Coleshill Rd (East)	463	103	1124	0.412	460	0.7	5.481	A
3 - Plough Hill Rd	531	238	1076	0.493	527	1.0	6.578	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	617	431	930	0.663	614	1.9	11.474	B
2 - Coleshill Rd (East)	553	124	1113	0.497	552	1.0	6.498	A
3 - Plough Hill Rd	634	285	1049	0.604	632	1.5	8.660	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	755	525	880	0.859	742	5.2	24.628	C
2 - Coleshill Rd (East)	677	150	1099	0.616	675	1.6	8.566	A
3 - Plough Hill Rd	776	349	1014	0.766	770	3.1	14.545	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	755	529	876	0.861	754	5.7	28.585	D
2 - Coleshill Rd (East)	677	152	1097	0.617	677	1.6	8.687	A
3 - Plough Hill Rd	776	350	1013	0.766	776	3.2	15.265	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	617	437	927	0.666	631	2.1	12.944	B
2 - Coleshill Rd (East)	553	127	1111	0.498	555	1.0	6.601	A
3 - Plough Hill Rd	634	287	1048	0.605	640	1.6	9.048	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	517	364	965	0.535	520	1.2	8.294	A
2 - Coleshill Rd (East)	463	105	1123	0.412	464	0.7	5.556	A
3 - Plough Hill Rd	531	240	1075	0.494	533	1.0	6.744	A

2034 Local Plan, 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	13.21	B

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)
D3	2034 Local Plan	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Coleshill Rd (West)		✓	528	100.000
2 - Coleshill Rd (East)		✓	840	100.000
3 - Plough Hill Rd		✓	488	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Coleshill Rd (West)	2 - Coleshill Rd (East)	3 - Plough Hill Rd
From	1 - Coleshill Rd (West)	0	415	113
	2 - Coleshill Rd (East)	387	0	453
	3 - Plough Hill Rd	209	279	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Coleshill Rd (West)	2 - Coleshill Rd (East)	3 - Plough Hill Rd
From	1 - Coleshill Rd (West)	0	0	0
	2 - Coleshill Rd (East)	0	0	0
	3 - Plough Hill Rd	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Coleshill Rd (West)	0.58	8.69	1.4	A
2 - Coleshill Rd (East)	0.83	18.87	4.7	C
3 - Plough Hill Rd	0.56	8.39	1.2	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	398	209	1048	0.379	395	0.6	5.497	A
2 - Coleshill Rd (East)	632	85	1134	0.558	627	1.2	7.040	A
3 - Plough Hill Rd	369	289	1047	0.352	367	0.5	5.296	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	475	250	1026	0.463	474	0.9	6.509	A
2 - Coleshill Rd (East)	755	101	1125	0.671	752	2.0	9.579	A
3 - Plough Hill Rd	441	347	1015	0.434	440	0.8	6.276	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	581	306	996	0.584	579	1.4	8.595	A
2 - Coleshill Rd (East)	925	124	1113	0.831	915	4.4	17.393	C
3 - Plough Hill Rd	540	422	973	0.555	538	1.2	8.272	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	581	307	995	0.584	581	1.4	8.687	A
2 - Coleshill Rd (East)	925	124	1112	0.831	924	4.7	18.871	C
3 - Plough Hill Rd	540	426	971	0.556	540	1.2	8.385	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	475	252	1025	0.463	477	0.9	6.594	A
2 - Coleshill Rd (East)	755	102	1125	0.672	765	2.1	10.290	B
3 - Plough Hill Rd	441	353	1012	0.436	442	0.8	6.374	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	398	211	1047	0.380	399	0.6	5.563	A
2 - Coleshill Rd (East)	632	85	1134	0.558	636	1.3	7.276	A
3 - Plough Hill Rd	369	293	1045	0.353	370	0.6	5.363	A

2034 Local Plan + Development, 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	18.85	C

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)
D4	2034 Local Plan + Development	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Coleshill Rd (West)		✓	664	100.000
2 - Coleshill Rd (East)		✓	607	100.000
3 - Plough Hill Rd		✓	730	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Coleshill Rd (West)	2 - Coleshill Rd (East)	3 - Plough Hill Rd
From	1 - Coleshill Rd (West)	0	529	135
	2 - Coleshill Rd (East)	320	0	287
	3 - Plough Hill Rd	221	509	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Coleshill Rd (West)	2 - Coleshill Rd (East)	3 - Plough Hill Rd
From	1 - Coleshill Rd (West)	0	2	0
	2 - Coleshill Rd (East)	2	0	2
	3 - Plough Hill Rd	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Coleshill Rd (West)	0.86	29.32	5.7	D
2 - Coleshill Rd (East)	0.62	8.78	1.6	A
3 - Plough Hill Rd	0.80	17.71	3.8	C

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	508	380	957	0.531	503	1.1	7.992	A
2 - Coleshill Rd (East)	466	101	1125	0.414	463	0.7	5.524	A
3 - Plough Hill Rd	551	244	1072	0.514	547	1.0	6.822	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	606	456	916	0.662	603	1.9	11.559	B
2 - Coleshill Rd (East)	557	121	1114	0.499	555	1.0	6.556	A
3 - Plough Hill Rd	658	293	1045	0.630	656	1.7	9.214	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	743	555	864	0.860	730	5.2	25.083	D
2 - Coleshill Rd (East)	682	146	1101	0.619	679	1.6	8.659	A
3 - Plough Hill Rd	806	358	1008	0.799	798	3.7	16.556	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	743	560	861	0.863	741	5.7	29.320	D
2 - Coleshill Rd (East)	682	148	1100	0.620	682	1.6	8.781	A
3 - Plough Hill Rd	806	359	1008	0.800	806	3.8	17.710	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	606	463	912	0.665	621	2.1	13.114	B
2 - Coleshill Rd (East)	557	124	1113	0.500	559	1.0	6.664	A
3 - Plough Hill Rd	658	295	1044	0.630	667	1.8	9.765	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	508	385	954	0.532	512	1.2	8.332	A
2 - Coleshill Rd (East)	466	102	1124	0.415	467	0.7	5.600	A
3 - Plough Hill Rd	551	246	1071	0.515	554	1.1	7.019	A

2034 Local Plan + Development, 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	17.05	C

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)
D5	2034 Local Plan + Development	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Coleshill Rd (West)		✓	522	100.000
2 - Coleshill Rd (East)		✓	885	100.000
3 - Plough Hill Rd		✓	519	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Coleshill Rd (West)	2 - Coleshill Rd (East)	3 - Plough Hill Rd
From	1 - Coleshill Rd (West)	0	403	119
	2 - Coleshill Rd (East)	390	0	495
	3 - Plough Hill Rd	210	309	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Coleshill Rd (West)	2 - Coleshill Rd (East)	3 - Plough Hill Rd
From	1 - Coleshill Rd (West)	0	0	0
	2 - Coleshill Rd (East)	1	0	0
	3 - Plough Hill Rd	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Coleshill Rd (West)	0.59	8.96	1.4	A
2 - Coleshill Rd (East)	0.88	26.34	6.8	D
3 - Plough Hill Rd	0.60	9.33	1.5	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	393	234	1035	0.380	391	0.6	5.568	A
2 - Coleshill Rd (East)	669	89	1132	0.591	664	1.4	7.636	A
3 - Plough Hill Rd	395	294	1044	0.378	392	0.6	5.555	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	469	280	1010	0.465	468	0.9	6.634	A
2 - Coleshill Rd (East)	799	107	1122	0.712	795	2.4	10.932	B
3 - Plough Hill Rd	471	352	1012	0.466	470	0.9	6.700	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	575	342	977	0.588	573	1.4	8.856	A
2 - Coleshill Rd (East)	979	131	1109	0.882	963	6.2	22.707	C
3 - Plough Hill Rd	577	427	970	0.595	575	1.4	9.149	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	575	344	976	0.589	575	1.4	8.963	A
2 - Coleshill Rd (East)	979	131	1109	0.883	977	6.8	26.344	D
3 - Plough Hill Rd	577	433	967	0.597	577	1.5	9.328	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	469	282	1009	0.465	471	0.9	6.726	A
2 - Coleshill Rd (East)	799	107	1122	0.712	816	2.6	12.411	B
3 - Plough Hill Rd	471	361	1007	0.468	474	0.9	6.849	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	393	236	1033	0.380	394	0.6	5.640	A
2 - Coleshill Rd (East)	669	90	1131	0.592	674	1.5	7.979	A
3 - Plough Hill Rd	395	299	1042	0.379	396	0.6	5.636	A

2039 Local Plan, 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	17.97	C

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)
D6	2039 Local Plan	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Coleshill Rd (West)		✓	674	100.000
2 - Coleshill Rd (East)		✓	602	100.000
3 - Plough Hill Rd		✓	701	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Coleshill Rd (West)	2 - Coleshill Rd (East)	3 - Plough Hill Rd
From	1 - Coleshill Rd (West)	0	541	133
	2 - Coleshill Rd (East)	318	0	284
	3 - Plough Hill Rd	222	479	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Coleshill Rd (West)	2 - Coleshill Rd (East)	3 - Plough Hill Rd
From	1 - Coleshill Rd (West)	0	2	0
	2 - Coleshill Rd (East)	2	0	3
	3 - Plough Hill Rd	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Coleshill Rd (West)	0.86	28.61	5.7	D
2 - Coleshill Rd (East)	0.62	8.74	1.6	A
3 - Plough Hill Rd	0.77	15.73	3.3	C

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	516	362	967	0.533	511	1.1	7.953	A
2 - Coleshill Rd (East)	464	99	1126	0.412	462	0.7	5.529	A
3 - Plough Hill Rd	533	243	1073	0.497	529	1.0	6.635	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	616	433	928	0.663	612	1.9	11.462	B
2 - Coleshill Rd (East)	555	119	1115	0.497	553	1.0	6.551	A
3 - Plough Hill Rd	636	291	1046	0.608	634	1.5	8.780	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	754	528	878	0.859	741	5.2	24.627	C
2 - Coleshill Rd (East)	679	144	1102	0.616	677	1.6	8.627	A
3 - Plough Hill Rd	780	356	1010	0.772	773	3.2	14.939	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	754	532	876	0.861	752	5.7	28.605	D
2 - Coleshill Rd (East)	679	146	1101	0.617	679	1.6	8.742	A
3 - Plough Hill Rd	780	357	1009	0.773	779	3.3	15.730	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	616	440	925	0.665	630	2.1	12.940	B
2 - Coleshill Rd (East)	555	122	1114	0.498	557	1.0	6.655	A
3 - Plough Hill Rd	636	293	1045	0.609	643	1.6	9.194	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	516	366	964	0.535	519	1.2	8.284	A
2 - Coleshill Rd (East)	464	101	1125	0.413	466	0.7	5.602	A
3 - Plough Hill Rd	533	245	1072	0.497	535	1.0	6.805	A

2039 Local Plan, 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	14.14	B

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)
D7	2039 Local Plan	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Coleshill Rd (West)		✓	520	100.000
2 - Coleshill Rd (East)		✓	851	100.000
3 - Plough Hill Rd		✓	493	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Coleshill Rd (West)	2 - Coleshill Rd (East)	3 - Plough Hill Rd
From	1 - Coleshill Rd (West)	0	408	112
	2 - Coleshill Rd (East)	397	0	454
	3 - Plough Hill Rd	206	287	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Coleshill Rd (West)	2 - Coleshill Rd (East)	3 - Plough Hill Rd
From	1 - Coleshill Rd (West)	0	0	1
	2 - Coleshill Rd (East)	1	0	0
	3 - Plough Hill Rd	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Coleshill Rd (West)	0.58	8.65	1.4	A
2 - Coleshill Rd (East)	0.85	20.66	5.2	C
3 - Plough Hill Rd	0.57	8.66	1.3	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	392	215	1045	0.376	390	0.6	5.492	A
2 - Coleshill Rd (East)	644	85	1134	0.568	638	1.3	7.225	A
3 - Plough Hill Rd	373	299	1041	0.358	370	0.6	5.371	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	468	257	1022	0.458	468	0.8	6.495	A
2 - Coleshill Rd (East)	769	101	1125	0.683	765	2.1	9.969	A
3 - Plough Hill Rd	445	359	1008	0.442	444	0.8	6.400	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	574	315	991	0.579	572	1.3	8.554	A
2 - Coleshill Rd (East)	941	124	1113	0.846	930	4.9	18.757	C
3 - Plough Hill Rd	545	436	965	0.565	543	1.3	8.535	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	574	316	991	0.579	574	1.4	8.647	A
2 - Coleshill Rd (East)	941	125	1112	0.846	940	5.2	20.664	C
3 - Plough Hill Rd	545	441	962	0.567	545	1.3	8.665	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	468	259	1021	0.459	470	0.9	6.579	A
2 - Coleshill Rd (East)	769	102	1125	0.684	780	2.2	10.841	B
3 - Plough Hill Rd	445	366	1004	0.443	447	0.8	6.513	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	392	217	1044	0.376	393	0.6	5.556	A
2 - Coleshill Rd (East)	644	85	1134	0.568	647	1.3	7.490	A
3 - Plough Hill Rd	373	304	1039	0.359	374	0.6	5.442	A

2039 Local Plan + Development, 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	21.59	C

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)
D8	2039 Local Plan + Development	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Coleshill Rd (West)		✓	677	100.000
2 - Coleshill Rd (East)		✓	613	100.000
3 - Plough Hill Rd		✓	739	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Coleshill Rd (West)	2 - Coleshill Rd (East)	3 - Plough Hill Rd
From	1 - Coleshill Rd (West)	0	535	142
	2 - Coleshill Rd (East)	313	0	300
	3 - Plough Hill Rd	225	514	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Coleshill Rd (West)	2 - Coleshill Rd (East)	3 - Plough Hill Rd
From	1 - Coleshill Rd (West)	0	3	0
	2 - Coleshill Rd (East)	1	0	2
	3 - Plough Hill Rd	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Coleshill Rd (West)	0.89	36.14	7.2	E
2 - Coleshill Rd (East)	0.63	8.89	1.7	A
3 - Plough Hill Rd	0.81	18.65	4.1	C

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	522	388	953	0.548	517	1.2	8.369	A
2 - Coleshill Rd (East)	468	106	1122	0.417	465	0.7	5.537	A
3 - Plough Hill Rd	562	237	1077	0.522	558	1.1	6.949	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	623	465	912	0.683	619	2.1	12.454	B
2 - Coleshill Rd (East)	559	127	1111	0.503	558	1.0	6.592	A
3 - Plough Hill Rd	671	284	1050	0.639	668	1.7	9.454	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	763	566	858	0.889	746	6.3	29.292	D
2 - Coleshill Rd (East)	685	153	1097	0.624	682	1.6	8.759	A
3 - Plough Hill Rd	822	347	1015	0.810	813	3.9	17.308	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	763	571	855	0.892	760	7.2	36.143	E
2 - Coleshill Rd (East)	685	156	1095	0.625	685	1.7	8.892	A
3 - Plough Hill Rd	822	348	1014	0.810	821	4.1	18.651	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	623	473	907	0.687	642	2.3	14.819	B
2 - Coleshill Rd (East)	559	132	1109	0.505	562	1.0	6.714	A
3 - Plough Hill Rd	671	285	1049	0.640	680	1.8	10.077	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	522	393	950	0.549	526	1.3	8.779	A
2 - Coleshill Rd (East)	468	108	1121	0.418	470	0.7	5.617	A
3 - Plough Hill Rd	562	239	1076	0.522	565	1.1	7.161	A

2039 Local Plan + Development, 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	17.38	C

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)
D9	2039 Local Plan + Development	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Coleshill Rd (West)		✓	532	100.000
2 - Coleshill Rd (East)		✓	889	100.000
3 - Plough Hill Rd		✓	515	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1 - Coleshill Rd (West)	2 - Coleshill Rd (East)	3 - Plough Hill Rd
From	1 - Coleshill Rd (West)	0	415	117
	2 - Coleshill Rd (East)	400	0	489
	3 - Plough Hill Rd	209	306	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - Coleshill Rd (West)	2 - Coleshill Rd (East)	3 - Plough Hill Rd
From	1 - Coleshill Rd (West)	0	0	0
	2 - Coleshill Rd (East)	1	0	0
	3 - Plough Hill Rd	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Coleshill Rd (West)	0.60	9.17	1.5	A
2 - Coleshill Rd (East)	0.89	26.92	6.9	D
3 - Plough Hill Rd	0.60	9.37	1.5	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	401	231	1036	0.387	398	0.6	5.624	A
2 - Coleshill Rd (East)	672	88	1132	0.594	667	1.4	7.671	A
3 - Plough Hill Rd	392	302	1040	0.376	389	0.6	5.565	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	478	277	1011	0.473	477	0.9	6.725	A
2 - Coleshill Rd (East)	803	105	1123	0.715	799	2.4	11.019	B
3 - Plough Hill Rd	468	361	1007	0.465	467	0.9	6.718	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	586	339	979	0.599	583	1.5	9.058	A
2 - Coleshill Rd (East)	983	128	1110	0.886	967	6.4	23.082	C
3 - Plough Hill Rd	573	438	964	0.594	570	1.4	9.186	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	586	340	978	0.599	586	1.5	9.174	A
2 - Coleshill Rd (East)	983	129	1110	0.886	981	6.9	26.925	D
3 - Plough Hill Rd	573	444	960	0.596	573	1.5	9.370	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	478	279	1010	0.473	481	0.9	6.825	A
2 - Coleshill Rd (East)	803	106	1123	0.715	820	2.6	12.571	B
3 - Plough Hill Rd	468	371	1001	0.467	470	0.9	6.873	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Coleshill Rd (West)	401	233	1035	0.387	402	0.6	5.695	A
2 - Coleshill Rd (East)	672	88	1132	0.594	677	1.5	8.021	A
3 - Plough Hill Rd	392	306	1038	0.377	393	0.6	5.649	A

APPENDIX C – LANDSCAPE SENSITIVITY REVIEW

golby+luck

landscape architects

Plough Hil Road, Nuneaton

Landscape Sensitivity Review

Client: Bellway Homes

Issue: 2

GL Reference: GL2228

Review Issue 1: 29/09/2023	Status: Draft	Author: Jonathan Golby CMLI
Review Issue 2: 16/10/2023	Status: Final	Author: Jonathan Golby CMLI

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CONTENTS

1 INTRODUCTION

1.1 This review has been prepared by Golby & Luck Landscape Architects following instruction by Bellway Homes in relation to the land at Plough Hill Road, Nuneaton (site reference 'GAL-4' in Nuneaton and Bedworth Borough Council's Borough Local Plan evidence base).

1.2 The purpose of this review is to address the findings of the recently published Nuneaton and Bedworth Landscape Character Assessment published in February 2023, and more specifically, the findings in relation to the part of the Galley Commons Hills and Valleys landscape character area that extends to the east of Plough Hill Road.

1.3 The LCA identifies a number of landscape character areas that cover the landscapes that extend between the main built-up areas and the Borough boundary.

1.4 In the consideration of the Galley Commons Hills and Valleys character area the LCA has chosen to include the land to the west and east of Plough Hill Road. Given the extent of recent development, and future committed development to the east of Ploug Hill Road this landscape has a defined urban and urban fringe setting fundamentally different to the land to the west, and for that reason should have been treated differently in the LCA.

1.5 In addition, the extent of the Galley Commons Hills and Valleys identified on the plans in the LCA does not take account of the recent development to the east of Plough Hill Road that would significantly reduce what is already a small part of this character area.

1.6 The clear difference in character and reduction to the extent of the character area to the east of Plough Hill Road with recent developments accurately mapped would be of such a scale it would draw into question:

a) The degree to which this substantially development piece of land would be representative of what is otherwise an open and undeveloped farmland landscape; and

b) Whether the land to the east of Plough Hill Road is better defined as part of the settlement, or a separate character area more representative of its urban and urban fringe character.

1.7 In the preparation of this update report the following publications have been taken into consideration and are referenced:

- Nuneaton and Bedworth Borough Council – The Nuneaton and Bedworth Borough Council Borough Plan 2011 – 2031, published February 2019 (the Borough Plan); and

- Nuneaton and Bedworth Borough Council – Nuneaton and Bedworth Landscape Character Assessment – February 2023, prepared by FPCR (the LCA);

1.8 In addition, the following planning consents are considered to inform the landscape baseline setting of the land to the east of Plough Hill Road, neither of which are shown on the plans and maps included within the 2023 LCA:

- Planning reference 036690 – for the erection of 300 dwelling at Plough Hill Golf Centre to the north of the site; and
- Planning reference 034543 – for the rection of 262 dwellings on the land at Hall Farm to the south of the site.

2 GALLEY COMMONS HILLS AND VALLEYS LANDSCAPE CHARACTER AREA

2.1 It is clear that the landscape setting of the site is one of modern residential/urban development that in combination with its associated open space and infrastructure creates an urban fringe landscape setting.

2.2 The LCA recognise the rapid transition between the urban setting to the east of Plough Hill Road, and the wider open setting of farmland beyond stating:

"This area has a strong rural character with a rapid transition from the urban edge to the rural landscape. The rolling landform, woodland and wooded streams help to reinforce this rural character. The land has a simple pattern of farmland and woodland with views of individual and small clusters of properties."

2.3 However, the LCA continues to make an assessment of the quality and condition of the landscape, as a whole, that does not appear to take account of these two very different landscape settings. In relation to landscape strength the LCA states:

"This character area has a Strong character. The features are relatively uniform and consistent across the landscape. The pattern of arable and pasture farming with woodlands; hedgerow trees; wooded streams; and clusters of built form combine to create a rural agricultural character which has a sense of place relating to the Ancient Arden character reported in the previous Warwickshire Landscape Guidelines. Character alters slightly around Galley Common where land is sub-divided by wire and tape fences to create horse paddocks. Modern residential developments at Plough Hill also influence the surrounding landscape and higher land to the west which has views across to these developments."

2.4 The LCA combines this assessment of **strong** strength of character with an assessment of **moderate** landscape condition, to an assessment finding of **moderate-good** and landscape strategy of **conserve and enhance**.

2.5 When considering this landscapes capacity to accommodate change the LCA states:

"This is a landscape which largely retains a strong rural and remote character despite its close proximity to the urban edge. Key features that should be conserved and enhanced include: the undulating landform of low rounded hills; woodland on high ground; wooded streams; and frequent hedgerow trees. It is also important to ensure that development does not become prominent within the landscape."

2.6 The LCA concluded by setting out a number of landscape guidelines in relation to the Galley Common Hills and Valleys character area. The majority of these are focussed on the retention of the rural character of the area and its associated features that include its farming land use, field pattern, woodland, hedgerows, tree cover, and water courses.

2.7 The only specific guidance relating to the site is the need to retain what is described as the "***narrow strip of fields which separate Galley Common and Plough Hill***". This issue relates to what is in effect the redundant separation function that has been long since superseded by the recent developments between Galley Common and Plough Hill to the north and south of the site. Even if this function where still considered to existing this is a functional planning issue and not one concerning the assessment of landscape character.

2.8 What is clear from the findings of the LCA is that the intrinsic character of the Galley Common Hills and Valleys area, and the assessment which has led to a prescribed strategy of conservation and enhancement, has been led by the rural open setting of farmland to the west of Plough Hill Road. The land to the east of Plough Hill Road clearly does not share the same open setting being substantially contained within a modern residential setting resulting is a strong urban fringe character.

2.9 The LCA does provide an approach to the assessment of urban fringe landscapes where it identifies two urban fringe character areas, the Nuneaton and Bedworth Urban Fringes, and Keresley Urban Fringe. Both areas are assessed as being of relatively poor condition with prescribed landscape strategies of **enhance and restore** and **restore/create** respectively. These findings appear to be more consistent with the character and quality of the landscape associated with the site.

3 GALLEY COMMONS HILLS AND VALLEYS REASSESSMENT

3.1 Given the distinct change in character between the land to the east and west of Plough Hill Road, this should be reflected in the findings of the LCA, in the same way distinction has been drawn elsewhere between what are essentially open and undeveloped rural landscapes, and what are otherwise urban fringe landscapes.

3.2 The LCA methodology included definitions that are useful in informing the reassessment of the land to the east of Plough Hill Road as an individual element. At present this landscape has been assessed as having a strong character that in the LCA is defined as:

"A consistent distribution of distinctive characteristics such as hills, river floodplain, and woodland. These characteristics combine to create a strongly distinctive sense of place. Limited influence of detracting features."

3.3 The land to the east of Plough Hill Road is clearly not reflective of these qualities, comprising a narrow track of land with features that do not combine to create a strongly distinctive sense of place, and are heavily influenced by modern residential development.

3.4 The LCA defines a weak character as:

"A landscape where features and patterns are present which help to define character, however, there are often numerous influences none of which are overriding or consistent across the landscape; and many features show signs of alteration or decline. There may be a number of detracting elements."

3.5 This assessment criteria is considered to be far more representative of the landscape to the east of Plough Hill Road.

3.6 In terms of condition, the landscape associated with the Galley Commons Hills and Valleys landscape is assessed as moderate, defined in the LCA assessment methodology as:

"Features are mostly well managed although in places there is evidence of decline in management and loss of features such as some fragmented hedgerows or dilapidated walls."

3.7 The severance of the landscape associated with the site from the wider setting of farmland to the west of Plough Hill Road, and pressure from the immediate modern residential areas areas to the north and south has resulted in a more fragmented landscape setting with features that are transitioning in condition from the former regular farm management to a

less regular regime more representative of urban fringe landscapes. This has resulted in a more variable appearance and weaker condition. The LCA methodology defines a landscape of poor condition as:

"Few features are intact or well managed. Loss or decline of features is frequent. Boundaries such as hedgerows are rarely intact and other boundaries are often of variable style and condition. Such elements combine to give an untidy or disjointed appearance to the landscape."

3.8 When considered in isolation, the land to the east of Plough Hill Road that includes the site, should be assessed as a landscape **weak** character and **poor** condition, with an overall assessment of poor and landscape strategy of **restore/create**. This assessment would also be more consistent with other urban fringe landscapes identified in the LCA, and the site, that have an increased capacity to accommodate change in the form of residential development.

4 GALLEY COMMONS HILLS AND VALLEYS OPTIONS AND CONCLUSIONS

4.1 It is recommended that the land to the east of Plough Hill Road is reconsidered as part of an updated LCA in line with the following two options:

a) The removal of the land to the east of Plough Hill Road from the Galley Commons Hills and Valleys landscape character area and inclusion as part of the settlement; or

b) The removal of the land to the east of Plough Hill Road from the Galley Commons Hills and Valleys landscape and its reassessment as a separate urban fringe area as part of an addendum study.

4.2 In conclusion, the land to the east of Plough Hill Lane (including the site) cannot be considered as a landscape of strong character and moderate condition as identified in the LCA and should be identified within a landscape strategy area of conservation and enhancement. It is clear that this possess a weak strength of character and is of a poor condition and for this reason should either be removed from consideration in the LCA, or reassessed as part of a separate urban fringe character area.

5 SETTLEMENT SEPARATION

5.1 Settlement separation is an important function where there is a defined and functioning relationship between settlements where:

a) Settlements are separate both in the terms of physical and perceived separation;

b) Settlements have separate characters and identifies that can be interpreted on the ground;

5.2 Settlement separation has been identified in the LCA, recognizing the role that the last remaining fields (the site) play in the separate character and identifies of Galley Common and Plough Hill.

5.3 In terms of settlements, Nuneaton has expanded to the west with extensive areas of modern settlement absorbing what were once the separate settlements of Camp Hill, Chapel End, Galley Common, Whittleford, and Ansley Common. The pattern settlement is relatively consistent comprising swathes of modern housing interspersed with green space that tends to follow the low-lying land adjacent to water courses. The main body of the settlement until recently extended to disused alignment of the former Stockingford Brach railway line. Recent development to the north and south of the site has seen the expansion of the settlements of Gallow Common and Plough Hill to the north and south of the site, but these are settlements that have been long coalesced.

5.4 The land to the east of Plough Hill Road may have once given a perception of separation between these settlements, but the recent development has reduced any such function to the single field bound by modern development of almost identical character. This in turn has rendered any separation function as being almost imperceptible with a gap of approximately 180m that is equivalent in scale to the open space typologies that are interspersed with the wider settlement.

5.5 If is therefore clear that any separation function has been lost, and arguable as to whether any such function held value given the absence of a safeguarding policy.

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APPENDIX D – VISION DOCUMENT

PLOUGH HILL ROAD
NUNEATON

Bellway | STRATEGIC LAND

VISION DOCUMENT
July 2022

Contents

Introduction
An overall introduction to Nuneaton, the Site and development proposals, including overarching objectives and Vision.

Contextual Analysis
A detailed summary of the Site assessment context work carried out to ensure an informed approach to the design development of the settlement of Nuneaton.

Growth Strategy
Our vision and concept for Nuneaton, including the development of character areas and placemaking.

Conclusions
A summary of the key benefits of the proposal and its merit as the next logical location for new development in Nuneaton.

1 Introduction

★★★★★

5 STAR HOME BUILDER AWARD FOR CUSTOMER SATISFACTION FROM THE HOME BUILDERS FEDERATION

5 STAR HOME BUILDER
CUSTOMER SATISFACTION
HBF 2022
HOME BUILDERS FEDERATION

Introduction

This document has been prepared by Bellway Homes Ltd to demonstrate the opportunities associated with a deliverable new community on land east of Plough Hill Road.

Adjoining recently built homes to the north and south the Site has potential for up to 160 new homes (25% affordable) in a highly sustainable and accessible location, supported by a package of measures to promote walking and cycling.

It provides Nuneaton and Bedworth Borough Council (NBBC) with the opportunity to meet their local housing needs on land which is not within the Green Belt.

Introducing Bellway Homes

Bellway have over 70 years of homebuilding experience, growing from a local northeast of England family-owned business to a national FTSE 250 housebuilder operating through 22 divisions nationwide.

As well as building quality homes, Bellway are experts at successfully promoting and delivering strategic land.

We are advocates of positive engagement with the community at the local level, working with the correct level of rigour and sensitivity, working with experienced teams on all of our sites.

As a major PLC housebuilder we have the capability to appropriately engage, creating partnerships to enhance communities and deliver successful placemaking.

With our 5 star housebuilder status we also care about legacy and the communities in which we help create, which begins at the planning process.

Summary of Our Vision

The masterplan has been designed to maximise connectivity for walking and cycling to help minimise car use, reflecting the site's sustainability and accessibility advantages which includes:

- Proximity to local facilities, including Galley Common Infant School, existing and planned local retail.
- High frequency public transport (No 18/18A, 19 & 731 services)
- Off-road walking/cycling routes, including the Black Track
- Links with the adjoining residential areas (now nearing completion and previously consented by NBBC) including play areas and public open space.

We have created a landscape led masterplan that provides an attractive setting for the new community, respecting the character of Nuneaton and the rural identity of its surroundings.

By creating a masterplan that is landscape led we are introducing rich new habitats and increased biodiversity for the settlement.

Local distinctiveness in design, both in architecture and the landscape character is important to our team.

Existing landscape features are retained as far as possible within the site, and enhanced through new hedgerow, tree planting and wetland habitats.

This creates an opportunity to establish a new coherant and integrated community to the west of Nuneaton whereby the Site will act as a natural infill development, helping the town to create a strong and logical settlement edge along Plough Hill Road.

We want to create a sense of place that is 'more of what makes Nuneaton a great place to live'.


Bus stop adjoining the Site


Galley Common Infant School


Frequent local bus services


Public open space

Access to Black Track & links into Nuneaton


Chancery Lane Surgery


Cycling, walking & active travel


Existing local retail centre


School drop-off area & site for new local retail


Existing play area off Cabinhill Road

2 Contextual Analysis

Contextual Analysis

Strategic Planning Policy Considerations

Planning Policy Context

The Nuneaton and Bedworth Borough Plan 2011-2031 was adopted in June 2019, however was subject to an early review to ensure that future plans reflect current needs and growth requirements. This review is underway, with NBBC preparing a new Borough Plan to cover the period 2024-2039. The local planning and political context supports the Site's allocation in the new local plan for the following reasons:

- We know that NBBC is keen to avoid further development in the Green Belt. Bellway Homes' site east of Plough Hill Road provides a clear opportunity for NBBC to do so - meeting future needs in a non-Green Belt location.
- The Site's deliverability is key, with a 5* housebuilder in Bellway Homes already on board to bring the scheme forward. This helps meet the national government ambition to boost the supply of homes (National Planning Policy Framework (NPPF), July 2021).
- A key priority of both the adopted and emerging plan is to maximise sustainability and achieve a modal shift to walking, cycling and public transport, minimising private car use. The Site and Bellway's proposals are unique in this regard, given the ability to secure a package of measures to realise this modal shift.
- The Site's allocation would sit within a natural and logical completion of development that has already taken place beyond the settlement boundaries of Nuneaton in this location, and not result in any incursion into the countryside beyond, already strongly defined by Plough Hill Road itself.
- The scheme would align with planned interventions to the highway network in this location, not least the new link road associated with the Ansley Common allocation.

Site Opportunities and Constraints

An assessment of the Site and its context has been undertaken. As part of any future development proposals, a series of detailed technical surveys will be undertaken to inform the scheme design.

At this stage, there are no overriding technical constraints to development, and residential development could in fact be realised alongside a range of benefit.

There are hedgerows with trees interspersed along part of the northern, southern and western Site boundaries that would be retained as far as possible.

Where a section of hedgerow is affected on Plough Hill Road this reflects a design priority to help reinforce the 30mph speed limit on Plough Hill Road, enhancing highway safety. In addition, extensive new hedgerow and tree planting is to be included within the scheme's landscaping.

A Public Right of Way (330/N18/3) crosses the Site on a NE/SW alignment, which will also be integrated within a future development.

The land is located in Flood Zone 1 where the risk of flooding is assessed as low. The site is therefore sequentially preferable in NPPF terms, avoiding the need to build homes in locations affected by flooding.

Drainage systems would be designed to address surface water runoff from the Site and would complement biodiversity enhancements through the creation of new wetland habitats.

There are no listed buildings on or near the Site, and it is not part of a designated conservation area.

The Site is in an area of archaeological potential and a detailed programme of archaeological fieldwork would be developed to establish the potential for and archaeological remains and their significance.

The Site is located away from significant noise sources and there are no specific concerns regarding air quality, not within an AQMA.

There are no statutory ecology designations affecting the Site, and clear opportunities to realise biodiversity new gain as part of a multifunctional green infrastructure network.

The Site is not covered by any designations for landscape character or quality. The landscape impacts of the development would be very localised, given the context provided by the development under construction in views towards the Site.

Vehicular access can be taken from Plough Hill Road via a simple priority junction, similar to the neighbouring residential developments to the north and south. This would also help to create a residential frontage on Plough Hill Road, reflecting the 30mph environment, helping support safe movements for pedestrians and cyclists.

Internal access routes will link to existing pedestrian infrastructure on the local highway network - including to the existing pedestrian crossing to Galley Common Infant School as well as the Black Trak.

Pedestrian crossing to Galley Common infant school


Countryside Propoerties development to the north of the Site

Existing local retail centre to the south of Plough Hill Road

The Historical Growth of Nuneaton

Nuneaton was originally an Anglo-Saxon settlement known as 'Etone', which translates to 'settlement by water', referring to the River Anker. 'Etone' was listed in the Domesday Book in 1086 as a small farming settlement with a population of around 150.

In around 1155, Robert de Beaumont granted his manor of Etone to the French Abbey of Fontevraud, who established a Benedictine nunnery here, which became known as Nuneaton Priory. This led to Etone becoming known as Nuneaton.

The settlement obtained a market charter in around 1160 from Henry II which was reconfirmed in 1226, causing Nuneaton to develop into a market town and become the economic focal point of the district.

By 1851, 46% of Nuneaton's workforce was employed by the ribbon trade. Nevertheless, investment in the canal network (from 1764) and the opening of the Trent Valley Railway (1847) resulted in a rapid growth in the coal industry. By 1911, one third of the male workforce in Nuneaton were employed as miners. The industry declined rapidly in the 1950s and 1960s, with the last coal mine in Nuneaton closing in 1968.

Nuneaton suffered heavy bombing damage during The Blitz in the Second World War. The heaviest bombing raid took place in May 1941, when 380 houses were destroyed and over 10,000 damaged. In 1947 the architect and town planner Frederick Gibberd was appointed to create a masterplan to redevelop the town centre. Frederick's design included a new ringroad, indoor shopping centre, administrative centre and library.

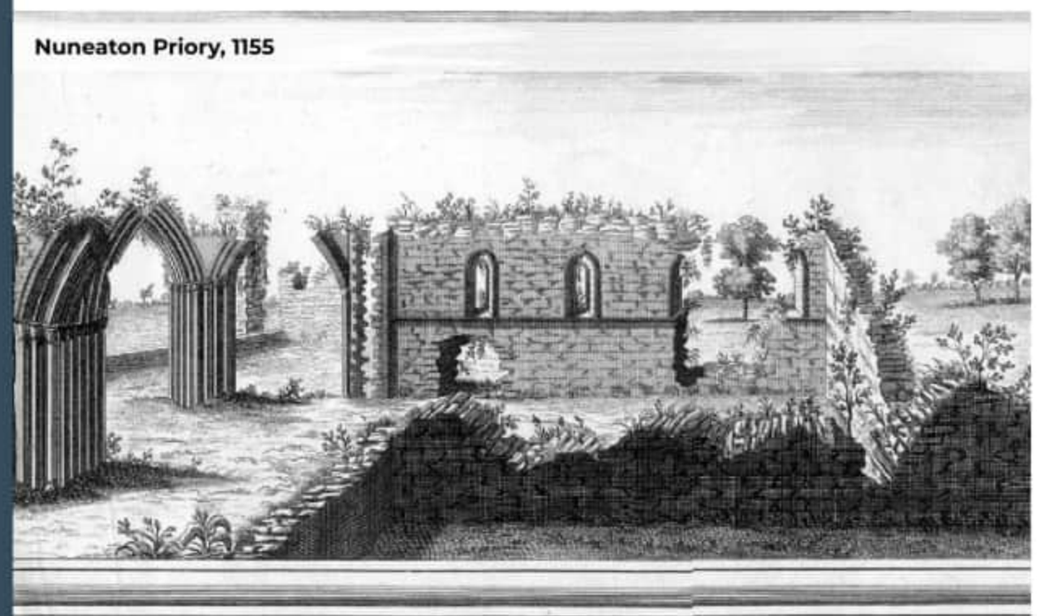
Around 2,500 council houses were built in response to the rising demand for low-cost housing following the War - the largest development being at Camp Hill, where 1,400 new houses were built by 1956.

Today, Nuneaton is a highly connected town offering a wide range of opportunities, making it a highly desirable place to live.

KEY:

- Site boundary
- Strategic road infrastructure
- Railway
- Dismantled railway
- Train station
- Development
- Potential future schemes
- Industry
- Quarries
- Woodland
- Water, including the River Anker

Nuneaton Priory, 1155



A View of Nun-Eaton Nunnery, in the County of Warwick.

1880

The arrival of a substantial railway network in the 19th Century stimulated the establishment of industries such as coal and granite.

1920

Urban development began to flourish with the rise in employment opportunities.

1980

Following WWII, the redevelopment of the heavily bombed town centre included the construction of a new ringroad and the development of mass-scale housing estates.

2021

The town continues to prosper, benefiting from direct train connections to Birmingham, Coventry, Rugby, and Leicester, making Nuneaton a highly desirable placve to live.

Nuneaton Today - Local Services & Facilities

A wide range of facilities and services exist in Nuneaton and can be reached from the Site within a 10 minute walk, as depicted on the plan opposite. This includes primary and secondary schools, churches, convenience stores, restaurants and doctors.

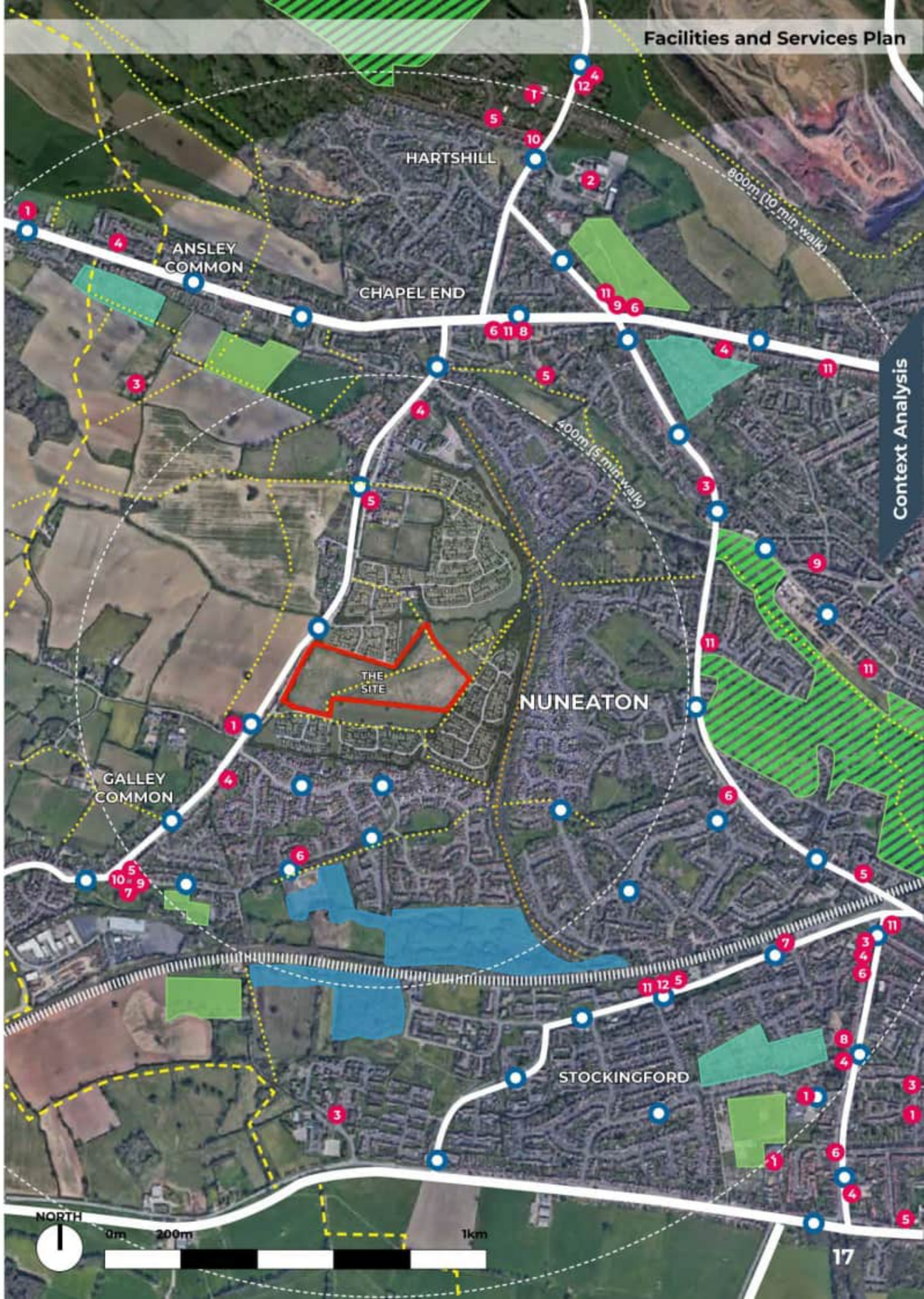
Being a market town, Nuneaton offers a market which is situated in the main pedestrian area of the town centre, with over 80 stalls trading every Wednesday and Saturday providing an eclectic mix of produce. Nuneaton market is one of the largest and most successful in the area attracting visitors from throughout Warwickshire and surrounding counties.

A highly connected Public Rights of Way network integrates the Site into the wider district, providing convenient access to these services and facilities by foot and bike. The Black Track walking route along the dismantled railway just east of the Site additionally offers a vehicle-free option which links Chapel End to Stockingford. Finally, the Warwickshire Centenary Way (long-distance path) runs across the fields west of the Site, providing an enjoyable recreational route connecting Nuneaton to Coventry, Warwick, and Royal Leamington Spa.

Employment opportunities can be found across Nuneaton and the surrounding area. The town centre can be reached within 20 minutes on the bus, whilst a wider range of work and leisure opportunities are located in the surrounding towns and cities and can be accessible via direct trains from Nuneaton station.

There are a number of existing recreation grounds and parks in Nuneaton, distributed relatively evenly across the district. The provision of further community spaces within the proposed development would provide increased opportunities for easy and safe access to public green spaces, benefiting new

- Site boundary
- 1 Primary School
- 2 Secondary School
- 3 Nursery
- 4 Place of Worship
- 5 Restaurant/Pub
- 6 Convenience store
- 7 Supermarket
- 8 Doctors
- 9 Pharmacy
- 10 Post Office
- 11 Takeaway
- 12 Community centre
- Parks
- Playing fields
- Allotments
- Nature reserves
- Public rights of way
- Long-distance path
- The Black Track
- Bus stops



Strategic Constraints & Opportunities

The Site is located within an accessible location which will enable the use of sustainable modes of travel.

The nearest employment facility is located south-west of the Site (around a 5 minute cycle or 7 minute walk), whilst further facilities are spread across Nuneaton and can easily be accessed via bus or bicycle.

The closest bus stop is located just outside of the Site along Plough Hill Road, and operates Buses 18 and 19 which links Arley and Ansley villages to Nuneaton town centre. These buses service from around 6:30am till 8pm Monday to Friday, and from 8am to 8pm on Saturdays.

The train station in the town centre provides direct services to Rugby and Tamworth (15 minutes), Leicester (20 minutes), Birmingham (30 minutes), and Coventry (50 minutes). From Coventry, it is just another 15 minute train ride to Birmingham Airport, providing convenient international connections.

KEY:

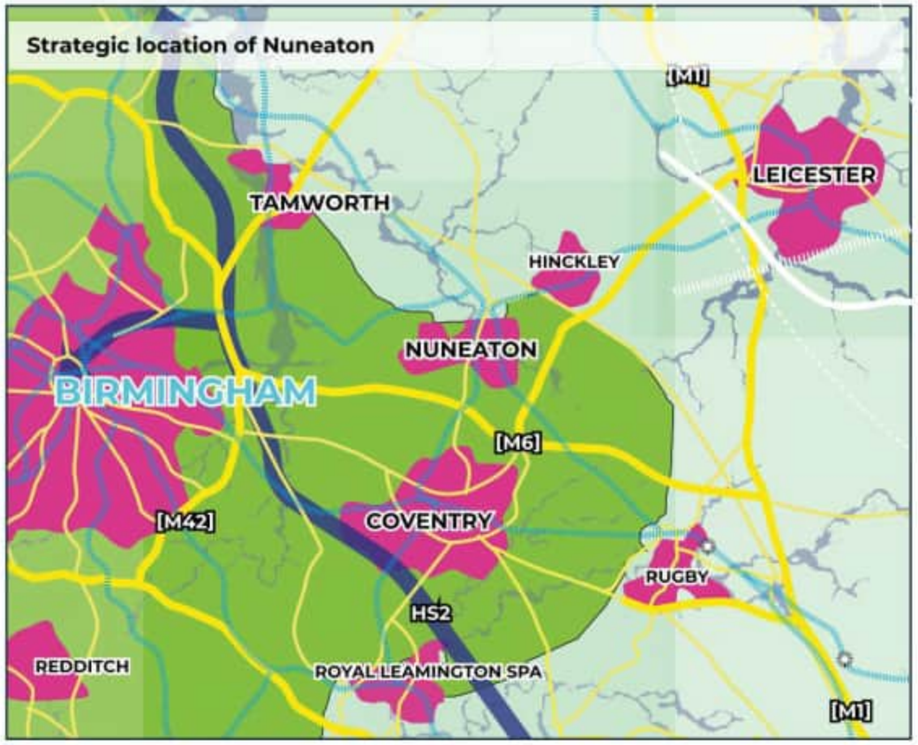
- Site Boundary
- Bus 18 & 19 route
- National Cycle Network Route 52
- National Cycle Network Route 524
- Countryside
- Green Belt
- Approved planning applications

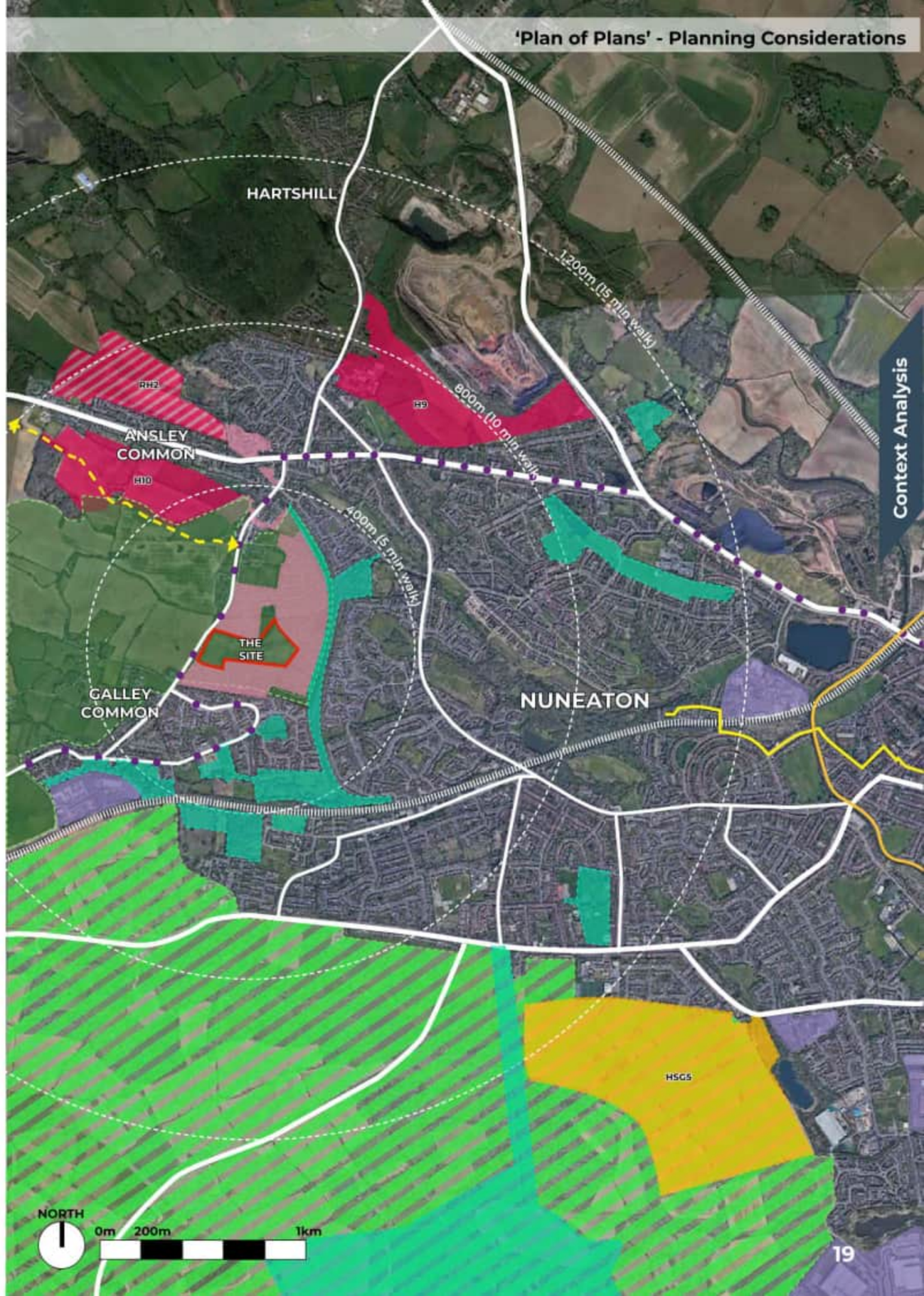
Nuneaton & Bedworth Adopted Borough Plan 2011-2031

- Community parks
- Strategic housing site
- Existing employment site

North Warwickshire Local Plan 2018 Submission

- LP39 - Housing Allocations
  - H9 - Land between Church Rd and Nuneaton Rd (400 dwellings).
  - H10 - Land south of Coleshill Road, Ansley Common (450 dwellings).
- LP39 (a) - Reserve Housing Sites
  - RH2 - Land north of Ansley Common
- Indicative link road, connecting Coleshill Road and Plough Hill Road





Constraints & Opportunities Plan

3 Growth Strategy for Nuneaton

The Emerging Concept

Our emerging concept seeks to provide a sustainable and logical completion of the settlement boundary to this part of Nuneaton, maximising connectivity for walking and cycling. The Site measures approximately 6.68 hectares and will deliver up to 160 dwellings in a balanced community, including market and affordable homes in a mix of dwelling types, as well as accommodation for the elderly.

The proposal can deliver a community set within, and structured around, a connected green infrastructure system, with a large percentage of the Site provided as green space through a range of informal and formal public open spaces, meeting open space needs for both current and future residents.

New green spaces will be well linked through the continuation of connected green infrastructure corridors to facilitate sustainable local movements.

The creation of a large area of public open space to the north east of the Site will serve to contain the development, provide a buffer to the existing routes and paths and importantly deliver substantial net biodiversity gains.

Creating Character & Placemaking

The masterplan provides a scale of development affording the opportunity for a housing scheme with a set of distinctive, landscape-led character areas.

Whilst the design of the masterplan and the integration with the existing landscape fits with the context of the settlement, there is also an opportunity to provide enhanced placemaking and an architecture of varying character.

A distinguished built form and a strong design hierarchy helps to create character and identity as well as serving to create a structure for reinforcing character areas within the scheme.

This character could be a contemporary interpretation of the existing character of Nuneaton or a number of linked landscape character areas that are complimentary and evolve as you move from one area of the development to another.

For example, character which is more defined and formal than the character of areas of homes on the rural edge of the proposed development.

The masterplan proposes the 'work of many hands' and the concept that the masterplan should create distinguished character areas within it.

By creating a number of character areas and with the potential for differing landscape, architectural styles and densities within these character areas, the masterplan will be enhanced through design interest and variety, creating a special place and a sense of belonging that 'fits' well into Nuneaton and the local context.

The masterplan proposals will demonstrate strong urban design and placemaking principles, delivering a place that people will want to live in as well as creating spaces for informal recreation with safe and liveable streets.

The integration of a network of routes throughout the proposal ensures maximum accessibility to the existing settlement and its facilities including the schools, leisure facilities, green spaces and residential areas and to the existing surrounding PRoW network. This connectivity promotes good placemaking, health and well-being.

Gateways
The access points to the Site on Plough Hill Road will be designed to create a landscape gateway to the development. It will be paramount that the gateways are designed to create interest and set a tone for the quality of the rest of the development.

Continuing a Landscape Legacy

The vision for the proposal is to deliver a landscape-led and design sensitive addition to Nuneaton.

In order to achieve this, the proposed landscaping will be soft and native to reflect the location of the Site on the edge of the settlement and the close relationship that Plough Hill enjoys with Nuneaton.

The existing landscape within the Site creates fantastic character and the opportunity for enhancing placemaking within the proposed development.

A mature landscape
The existing landscape provides the inspiration for new landscape spaces within the scheme and guides the character of the development.

One of the key concepts of the proposal is the inclusion of green corridors integrated with pedestrian routes. The existing landscape corridor consists of a number green axis' which will be connected to ensure the creation of a key landscape corridor which helps to intergrate all of the surrounding growth.

Connected habitats
Existing green corridors running east-west and north-south adjoining the development create continuous links between existing and proposed landscape features and ensure the creation of connected habitats. The green corridors will also integrate SuDS, including swales, to improve water quality and biodiversity.

The northern arc public open space
To the north east of the proposal, the masterplan proposes a high quality network of habitats and green spaces.

The existing footpath network becomes a key route and spine between these spaces and the development areas to the east and west as it creates a natural existing edge, which will ensure development fits in with its context and feels like it has always been there.

This northern green arc and western edge of the masterplan encourages a net gain in biodiversity and is designed to contain passive landscape uses so as to create a landscape and habitat transition between the proposed development to the north and the south.

Proposed enhanced planting
In order to enhance the existing hedgerow boundaries, additional planting is proposed to strengthen these boundaries.

New tree planting through the centre of the masterplan and areas of softer planting within the public open spaces, create a link with the existing habitats within the settlement.

By connecting existing habitats and extending them, the increase in biodiversity gain is not only richer but also encourages better retention and an increase in habitats and species.

By creating a continuous linked woodland edge, the development creates a green gateway to the north west of Nuneaton, emphasising the landscape character and legacy that is associated with the growth of the settlement.

The proposed landscape arc creates a natural and defensible extent to the settlement which ensures development is located in the right locations for growth.

Community landscapes
Public open space is linked to the local centre and facilities by the existing footpaths that exist within the Site and surroundings.

A community garden and open space is proposed at 1 creating a place that helps to integrate the landscape activity into the local area.

Illustrative Masterplan

4 Summary & Conclusions

Summary & Conclusions

Benefits of development
The Site is able to:

- Provide high quality, sustainable and well-designed new market and affordable homes.
- Help to meet local housing need over the plan period, and contribute towards five year housing land supply.
- Add to the range of market and affordable homes currently available in Nuneaton, complementing existing supply.
- Benefit from an accessible location, with good prospects for future connectivity including walking, cycling and public transport.
- Complete the ongoing and logical extension to this part of Nuneaton, creating a rational and defensible boundary to the settlement.
- Accommodate new development and meet housing need, reducing the need to use Green Belt land elsewhere in the Borough.
- Connect with existing walking and cycling routes, including Public Rights of Way.
- Benefit from planned improvements to bus stops and provision of pedestrian infrastructure secured along Plough Hill Road.
- Provide ecological enhancement measures as part of the development.

As well as providing an opportunity for allocation in the new Borough Plan, the scheme also clearly aligns with and supports achievement of policy objectives in the adopted Borough Plan, as follows:

- Policy H1, whereby '*development is required to provide a mix of housing types, sizes and tenures... as well as the characteristics of the surrounding area*';
- Policy H2, whereby '*proposals are required to provide affordable housing on-site which is well integrated within the proposed development*';
- Policy DS1, whereby schemes should '*improve the economic, social and environmental conditions in the area*';
- Policy DS2, whereby '*most development will be directed to Nuneaton as the primary town*';
- Policy DS3, whereby '*all new development will be sustainable and of a high quality, fully supported by infrastructure provision, as well as environmental mitigation and enhancement*';
- Policy DS4, whereby the Site (up to 160 homes) contributes to the Nuneaton and Bedworth Borough target of 14,060 dwellings by 2031;
- The provision of a landscape buffer which will be overlooked by homes ensuring a safe and welcoming view from Plough Hill Road;
- Retention and enhancement of existing landscaping on the Site boundaries to ensure that the development is sensitive to the existing landform, setting of the Site and neighbouring properties;
- Integration of additional tree planting and landscaping to improve the ecological value of the Site and provide a net gain for biodiversity;
- Enhanced Public Rights of Ways via the creation of a green corridor to encourage active modes of travel into Nuneaton and its existing facilities and services. This will help to minimise car dependency;
- Development that meets the requirements of current policy relating to open space, biodiversity and other environmental issues;
- Creation of construction jobs and financial support towards improving local infrastructure, services and facilities.

Illustrative Masterplan in the wider context

5 Appendices

Sustainability Strategy

Five design principles which have influenced the masterplan to maximise its short and long-term sustainability.

A Green Future: Our 25 Year Plan to Improve the Environment (2018)
Produce a healthier, greener environment where plants and animals can thrive.

Retaining and **enhancing** existing green and blue systems whilst establishing new **natural landscaping features** will help achieve a **net gain in biodiversity**.

The Sustainable Development Goals
Achieve social equity, inclusivity, accessibility, and opportunity for all.

Ensuring that all demographics have the right to buy a home **(30% affordability)**, and are able to access public spaces, such as **playgrounds** and **wildflower meadows**.

Paris Agreement (2015)
Mitigate against rising global temperatures in an effort to tackle climate change.

Convenient pedestrian and cycle access to nearby services and amenities will reduce vehicle dependency, helping to promote **sustainable lifestyles**

The Clean Growth Strategy (2017)
Promoting renewable energies for both residents and businesses.

Providing residents with the opportunity to **operate sustainably** within their homes, such as **water efficient fittings** to reduce water consumption to 110 litres per person per day.

The 2030 Climate Challenge
Series of targets for reducing operational energy, embodied carbon and potable water.

Buildings reducing operational energy demand, **embodied carbon** and potable water use while promoting health and **wellbeing** for their users.

National Design Guide (January 2021)

The 10 characteristics set in the recently amended National Design Guide further assisted in the creation of the masterplan.

These characteristics ensure that the Nuneaton scheme produces successfully designed places which *'influences the quality of our experience as we spend time in them and move around them'*. This checklist covers all levels of a masterplan, from the wider connectivity to the detailed built form.

National Design Guide considerations	Justification
1) Context *...is the location of the development and the attributes of its immediate, local and regional surroundings.*	The surrounding land uses, transport connections, historic assets, and environmental constraints and opportunities have been thoroughly analysed.
2) Identity *...comes from the way that buildings, streets and spaces, landscape and infrastructure combine together and how people experience them.*	The approved applications around the Site were analysed, to discover positive attributes which have been reflected in the masterplan to ensure a coherent character area.
3) Built form *...is the interrelationship between blocks, streets, buildings and open spaces that creates an attractive place to live, work and visit.*	Secure perimeter blocks create outward-looking housing which face onto streets and spaces, ensuring active and safe frontages.
4) Movement *...includes walking and cycling, access to facilities, employment and servicing, parking and the convenience of public transport.*	All properties can store bicycles in their garages or gardens. Wide pavements and green corridors enhance the PRoW's, promoting sustainable travel across the wider neighbourhood.
5) Nature *...contributes to people's quality of life, and involved natural and designed landscapes, high quality public open spaces, street trees, and other trees, grass, planting and water.*	The landscape-led scheme incorporates new vegetation and an ecological buffer, enhancing the overall green and blue infrastructure palette of the Site and surrounding area.

National Design Guide considerations	Justification
6) Public spaces *...considers the quality of the spaces between buildings which encourage social interaction.*	Green public spaces and play areas promote communal interaction, bringing together both new and existing residents by celebrating the outdoors.
7) Uses *...provide a mix of tenures and housing types that reflect local housing need and market demand, and support diverse land uses that promote everyday activities.*	A range of house sizes - from 2 to 5 beds - accommodates a diverse demographic residency and helps establish a blended community, whilst boosting the local supply of housing to meet rising demands.
8) Homes & buildings *...should be functional, accessible and sustainable. They provide internal environments and associated external spaces that support the health and wellbeing of their users and all who experience them.*	All homes should meet National Minimum Standards to ensure high and healthy standards of living. Each garden is at least 10 meters in length, offering private spaces for play and relaxation whilst facilitating local food production.
9) Resources *...respond to the impacts of climate change by being energy efficient and adapting to anticipated events, such as the increasing risk of flooding.*	Gable roofs provide opportunities for solar panel installations. SUDs mitigate against potential flood risks by absorbing excess water whilst offering further biodiversity benefits.
10) Lifespan *...to sustain beauty over the long term, and add to the quality of life of their users to promote care and respect over their lifespan.*	Incorporating hard and soft landscaping, attractive public spaces, establishing a clear street hierarchy, and designing beautiful homes will make residents feel proud of where they live.

Building for a Healthy Life (July 2020)

The 12 principles set in the recently published BHL document additionally helped structure the masterplan. These principles have been categorised into three sections:

1. Integrated neighbourhoods;
2. Distinctive places;
3. Streets for all.

Inspired by BHL, the following checklist ensures that the Nuneaton scheme brings plentiful benefits to both people and nature through the creation of a cohesive, attractive, and overall more sustainable development.

Building for a Healthy Life considerations	Justification
1) Natural connections *Create permeable, green corridors to better integrate both wildlife and people across the surrounding landscapes.*	Yes, the masterplan enhances the PRoW's within the Site by creating green corridors to promote their use. These connect the Site into the countryside and town centre.
2) Walking, cycling, + public transport *Routes should be attractive, safe, and enjoyable, and which discourage private vehicle usage.*	Yes, new and convenient pedestrian access to the bus stop on Plough Hill Road encourages public transport.
3) Facilities and services *Establish diverse social infrastructure which is accessible to all, and which promotes outdoor activity.*	Yes, the development will deliver generous public open spaces such as play grounds, community open space, and green corridors.
4) Homes for everyone *Varied housing + tenure forms should be dispersed across the site, and all residents deserve equal opportunities.*	Yes, the dwelling mix in the masterplan is varied and meets the local housing requirements and will be tweaked subject to detailed design.
5) Making the most of what's there *Transform urban + natural threats into unique opportunities through asset enhancement.*	Yes, the masterplan framework has been designed to respond to and enhance existing features on site and in the surrounding context.

Building for a Healthy Life considerations	Justification
6) A memorable character *Compliment the locality of the area (from integrated landscape design to distinctive architectural detailing.)*	Yes, this is the whole basis for the design, the masterplan framework has been designed to follow local distinctiveness.
7) Well defined streets and spaces *Transform the streets into a genuine experience by designing active and interesting edges.*	Yes, the streets and spaces are defined with landscapes features and a clear hierarchy is present.
8) Easy to find your way around *Character areas, landmarks, and nodal points should assist in the proprioception of residents.*	Yes, landmark buildings line the clear primary route through each developable parcel, while a clear street hierarchy provides legibility and means of wayfinding through the Site.
9) Healthy streets *Build streets not roads (attractive spaces for social interaction and activity, upon transport and movement).*	Yes, the masterplan is designed to ensure this is a liveable and safe place for pedestrians.
10) Cycle and car parking *Provide diverse vehicle parking solutions, but design even more creative and accessible cycle parking alternatives.*	Yes, sufficient car and cycle parking is provided in legible places and is integral to the streetscape and landscape.
11) Green and blue infrastructure *Natural networks should help structure the whole masterplan, to enrichen sensory and biodiverse experiences.*	Yes, the whole design of the masterplan is landscape-led, ensuring the development is set within generous and sensitive landscaping promoting biodiversity and well-being of the wider community.
12) Back of pavement, front of home *Define the private realm, providing residents with confidence in their ownership which encourages plot personalisation.*	Yes, the masterplan is clearly defined through public and private spaces such as changes in street surfaces or walled boundaries.

Part B – Please use a separate sheet for each representation

Name or Organisation:

3. To which part of the Borough Plan does this representation relate?

Paragraph	Appendix B – Housing Trajectory, Page 209
Policy Policies Map	

4. Do you consider the Borough Plan is:

4.(1) Legally compliant?

Yes	
No	

4.(2) Sound?

Yes	
No	**X**

4.(3) Complies with the Duty to Cooperate?

Yes	
No	**X**

Please mark with an 'X' as appropriate.

5. Please give details of why you consider the Borough Plan is not legally compliant, is unsound or fails to comply with the Duty to Cooperate. Please be as precise as possible.

If you wish to support the legal compliance or soundness of the Borough Plan, or its compliance with the Duty to Cooperate, please also use this box to set out your comments.

A. <u>Introduction</u>

1. This representation is submitted by Marrons on behalf of Bellway Homes Ltd in response to Nuneaton and Bedworth Borough Council (NBBC)'s consultation on the Borough Plan Review Publication Draft Plan 2021-2039 (the Publication Draft). The representations relate to Bellway Homes land interests east of Plough Hill Road, site ref, GAL-4.

B. Comments

2. The Housing Trajectory conflicts with the requirements of NPPF68, NPPF74, NPPF Annex 2, NPPG007 and NPPG020 (Housing Supply and Delivery) because it does not provide detail of the constituent sites, their lead-in times and build rates. As part of this evidence and justification is required to demonstrate whether or not sites are deliverable (where clear evidence is required) and whether other sites are developable (where there needs to be a reasonable prospect that they will come forward).

3. This will be critical to demonstrate a 5-year supply of housing land on adoption of the plan and developable supply for years 6-15, all as required by NPPF68.

(Continue on a separate sheet / expand box if necessary)

6. Please set out what modification(s) you consider necessary to make the Borough Plan legally compliant or sound, having regard to the matter you have identified in part 5 above, where this relates to soundness (Please note that any non-compliance with the Duty to Cooperate is incapable of modification at examination). You will need to say why this modification will make the Borough Plan legally compliant or sound. It will be helpful if you are able to put forward your suggested revised wording of any policy or text. Please be as precise as possible.

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4. A more detailed housing trajectory is required, alongside the requisite evidence on the deliverability and developability of specific sites for the first 5 years of the plan, years 6-10 and years 11-15, as required by NPPF68.

(Continue on a separate sheet / expand box if necessary

Please note your representation should cover succinctly all the information, evidence and supporting information necessary to support/justify the representation and the suggested modification, as there will not normally be a subsequent opportunity to make further representations based on the original representation at the publication stage.

After this stage, further submissions will be only at the request of the Inspector, based on the matters and issues he/she identifies for examination.

7. If your representation is seeking a modification, do you consider it necessary to participate at the oral part of the examination?

No, I do not wish to participate at the oral examination	
Yes, I wish to participate at the oral examination	**X**

8. If you wish to participate at the oral part of the examination, please outline why you consider this to be necessary:

Bellway Homes has raised fundamental matters of soundness regarding a number of aspects within the draft plan.

Please note the Inspector will determine the most appropriate procedure to adopt, to hear those who have indicated that they wish to participate at the oral part of the examination.

9.

Signature: (Please sign the box if you are filling in a paper copy. If you are filling in an electronic copy, the box can be left blank)	David Fovargue, Planning Director, Marrons
Date:	16.10.23