
Representations to Regulation 18 (Phase 2) Consultation: East Hampshire District Council

Chawton Park

Prepared for: Harrow Estates

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Chawton Park



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Executive Summary

Harrow Estates is promoting the land named 'Chawton Park' to East Hampshire District Council ('EHDC') for a landscape led sustainable neighbourhood, adjacent to Alton, to include up to 1,000 dwellings, new primary school, a local centre and significant new green infrastructure. The site is approximately 88 hectares ('ha') of land currently comprised of rough grassland and agricultural fields.

Harrow Estates ('HE') is a Master Development Company specialising in land and property acquisition, masterplanning, regeneration and commercial development. As part of the Redrow Group, HE adopts development principles which are focused on creating places that offer social and environmental benefits for new residents and the wider community they will be a part of. These principles contribute towards improving health and happiness, a sense of belonging, protection and enhancement of the built and natural environment, among other considerations. HE is committed to the delivery of a high-quality development and is committed to reducing carbon emissions and waste in its business activities and has established new carbon and waste reduction and renewable energy targets.

HE considers Chawton Park to be an excellent opportunity to help contribute towards the housing need and Local Plan objectives of EHDC and the wider region due to the reasons highlighted below:

- The site would deliver a **landscape-led and nature first community**, which addresses the key priorities set out within the draft Local Plan
- The site is highly self-contained visually and **is well connected to Alton** (a Tier 1 Settlement), the largest and most sustainable town in the district and the key centre for employment, commerce and industry locally
- Alton is also **served by excellent public transport links** and the local highway network, particularly its close connection to the A31, and the site benefits from being intersected by National Cycle Network Route 224 to which the development would provide enhancements to
- The site would deliver a **balanced community of up to 1,000 homes** for all, offering a range of sizes and mixes, including up to **400 affordable homes**, as well as delivering key social infrastructure such as a potential 2-form entry primary school, neighbourhood shops, and community uses to create a walkable neighbourhood
- The site could deliver a 10+% biodiversity net gain ('BNG') and the proposed development would retain more than **50% of the site as green space** including parks, playing pitches, allotments and habitat creation
- The site can deliver a significant required housing growth while preserving the setting of the Grade II listed farmhouse, associated buildings and the parkland setting and making this a focal point of the development

The standard methodology dictates a local housing need for EHDC at 578 dwellings per annum which equates to 10,982 homes over the proposed plan period to 2040. However, due to the aggregation of the South Downs National Park ('SDNP') into this figure, EHDC is planning for 478 dwellings per annum or 9,082 homes over the plan period. Policy S1 'Spatial Strategy' of the draft Local Plan sets out the spatial development strategy. Supporting text of the policy notes state that EHDC is required to plan for 2,857 new homes to meet local housing needs, as the rest of the requirement will be delivered upon sites with existing allocations, sites with planning permission or windfall sites. HE disagrees with this approach and considers that EHDC should 'plan positively' for a higher level of need, due to important issues such as affordability and unmet need in surrounding areas. HE agrees with EHDC's conclusion that Alton is the most suitable location for new development within the District, and present Chawton Park as an available and deliverable site to meet the needs of the Local Plan.

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1. Introduction

Purpose

- 1.1. This document provides representations on behalf of Harrow Estates to East Hampshire District Council on the Draft Local Plan in relation to the land named Chawton Park ('the site'). The Local Plan ('LP') is at Regulation 18 ('R18') Phase 2 public consultation stage and is due for adoption in September 2025. This R18 provides a whole draft plan with strategic policies, the proposed settlement hierarchy, new development management policies and draft allocations for meeting the District's needs for housing, employment, retail and other uses.
- 1.2. To date, HE has been promoting the site known at Chawton Park, identifying this site as being strategically well-placed within the District for making a significant contribution towards housing needs as well as other key objectives in the emerging Local Plan. The site has been promoted through all the previous LP consultations (listed below) and has been submitted in the Land Availability Assessment ('LAA') and provided the reference 'CHA-007'. The site had an assessed capacity of up to 855 dwellings in the next 10 to 15 years by EHDC which we refer to later in this representation.

▪ Regulation 18 consultation of the Draft Local Plan (March 2019)

Submission Pack:

- a. Main Representations Document 190318
- b. Appendix 1: Chawton Park GC Vision (V6)
- c. Appendix 1a: Chawton Park Layout Redrow Phasing
- d. Appendix 2: Landscape and Visual Impact Assessment
- e. Appendix 3: Preliminary Ecological Appraisal
- f. Appendix 4a: Comparative Accessibility Study
- g. Appendix 4b: Chawton Park Garden Village Transport Appraisal
- h. Appendix 5: Questionnaire
- i. Appendix 6a: Call for Sites Employment Area
- j. Appendix 6b: Call for Sites Housing Area

▪ Statement of Case (July 2019)

Submission Pack:

- a. Statement of Case Final 190709
- b. Appendix 1: SDA Location Plan
- c. Appendix 2: Land Use Considerations Constraints & Opportunities
- d. Appendix 3: Land Use Budget Plan
- e. Appendix 4: Letter of Consent 190708

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▪ Regulation 18 consultation on 10 Large Development Sites (October 2019)

Submission Pack:

- a. Harrow Estates EHDC Large Development Sites Representations
- b. Appendix 1: Chawton Park Heritage Note October 2019
- c. Appendix 2: Chawton Park Landscape Addendum and AVR Photography
- d. Appendix 3: Northbrook Masterplan Analysis 191014
- e. Appendix 4: Northbrook Landscape Analysis
- f. Appendix 5: Northbrook Ecology Technical Note
- g. Appendix 6: Technical Paper 1 – Chawton Transport Feasibility Report (and appendices part 1-4)
- h. Appendix 7: Technical Paper 2 – Transport Feasibility Report Northbrook Park
- i. Appendix 8: Technical Paper 3 – Transport Feasibility Report Neatham Down

▪ Local Plan Issues and Priorities (Part 1) Regulation 18 consultation (January 2023)

Submission Pack:

- a. Chawton Park Regulation 18 Phase 1 Representations
- b. Appendix 1: Alton Dateshine Commute

- 1.3. On 28 June 2021, EHDC published extensive site assessment work, and following the 10 Large Site Consultation, Chawton Park Farm was considered as the most sustainable option to develop due to a number of reasons including links to Alton's transport infrastructure, services and facilities, including but not limited to Chawton Park surgery, which is allocated for extension within the draft plan (Policy ALT2). This Spatial Strategy Preferred Option was presented at the EHDC Planning Policy Committee meeting on 6 July 2021 at which the recommendation for a spatial strategy option including Chawton Park Farm was carried: "*Members note the different spatial options for the EHDC Local Plan 2017-2038 and approve the preferred option (Option 2) for the spatial strategy to feature in the emerging East Hampshire Local Plan.*"
- 1.4. At the EHDC Council meeting on 23 September 2021 an amendment to that recommendation was accepted that removed the 'preferred' wording. It was resolved that Members: "*APPROVE the different spatial options for the EHDC Local Plan 2017-2038 for further consideration.*" The Evidence clearly demonstrated that Chawton Park was the most suitable option to deliver a large development site in the District and members approved the spatial options presented by Officers.
- 1.5. Resultant from the above recognition, HE attended a number of Parish workshops at the request of EHDC officers and who had subsequently appointed master planner Tibbalds to develop the concept plan for Chawton Park.
- 1.6. The site lies immediately to the south west of the defined area of Alton. The site is visually self-contained and its boundaries well defined by topography and woodland. HE, supported the preferred status of the site based on the outcomes of the previous Regulation 18 consultation on 10 Large Development Sites and agree that the site remains deliverable and developable. However, we disagree with the LAA's more recent conclusions that the site has capacity for just 855 dwellings, and note the correct capacity is up to 1,000

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dwellings. We also dispute that no delivery could occur within 0-5 years, and clarify that the site could commence in the first five years of the emerging Local Plan, such that new homes can be delivered on the site toward the end of the first five years of the plan period.

- 1.7. The technical vision document, submitted to the March 2019 Regulation 18 Consultation provides supporting evidence alongside further technical reports demonstrating the site's sustainable credentials and suitability. There are no technical considerations that would prohibit the site being delivered. This representation provides an evidence-based overview of the potential for a strategic residential allocation at the land at Chawton Park, having regards to national policy, the emerging Local Plan strategy and its supporting evidence base including housing need in both EHDC, the South Downs National Park ('SDNP') and the Partnership for South Hampshire ('PFSH') area.
- 1.8. EHDC adopted its Local Plan Part 1 (Joint Core Strategy) on 8 May 2014 and Part 2 (Housing and Employment Allocations) on 7 April 2016. The Joint Core Strategy sets out the long-term strategic plan for development within East Hampshire District, and includes the strategic vision, objectives and the key policies needed to achieve sustainable development in East Hampshire to 2028. EHDC committed to a new Local Plan in late 2017, which is now due to be adopted in September 2025 (in accordance with the currently approved Local Development Scheme). The new Local Plan will set out policies and guidance for development of the Borough over the next 15 years to 2040, in line with the minimum requirements set out in the National Planning Policy Framework ('NPPF') 2023. As set out in **Section 4**, HE considers that the plan period should be extended to 2042 to provide a more realistic adoption timescale and allow for any unexpected delays to adoption and sustain the policy requirement for a 15-year plan period as required by the NPPF.
- 1.9. Within this representation, we demonstrate that EHDC should positively plan for housing growth with a provision above the standard methodology, which is considered a minimum requirement figure, as per Paragraph 35 (a) of the NPPF. This conclusion is drawn due to the issues surrounding housing need and supply, namely due to potential for affordability and unmet need in the SDNP and adjacent PFSH authorities. It is considered that without amends to the proposed strategy, the Local Plan would be deemed unsound at examination. HE concludes that the land at Chawton Park provides a sound sustainable opportunity to contribute to the housing requirement in East Hampshire and should be allocated and retain its previous preferred status instead of the revised strategy which now includes a strategic development at Neatham Down which clearly conflicts with EHDC's own evidence base and requires much more detailed assessment to be considered a sound deliverable allocation.

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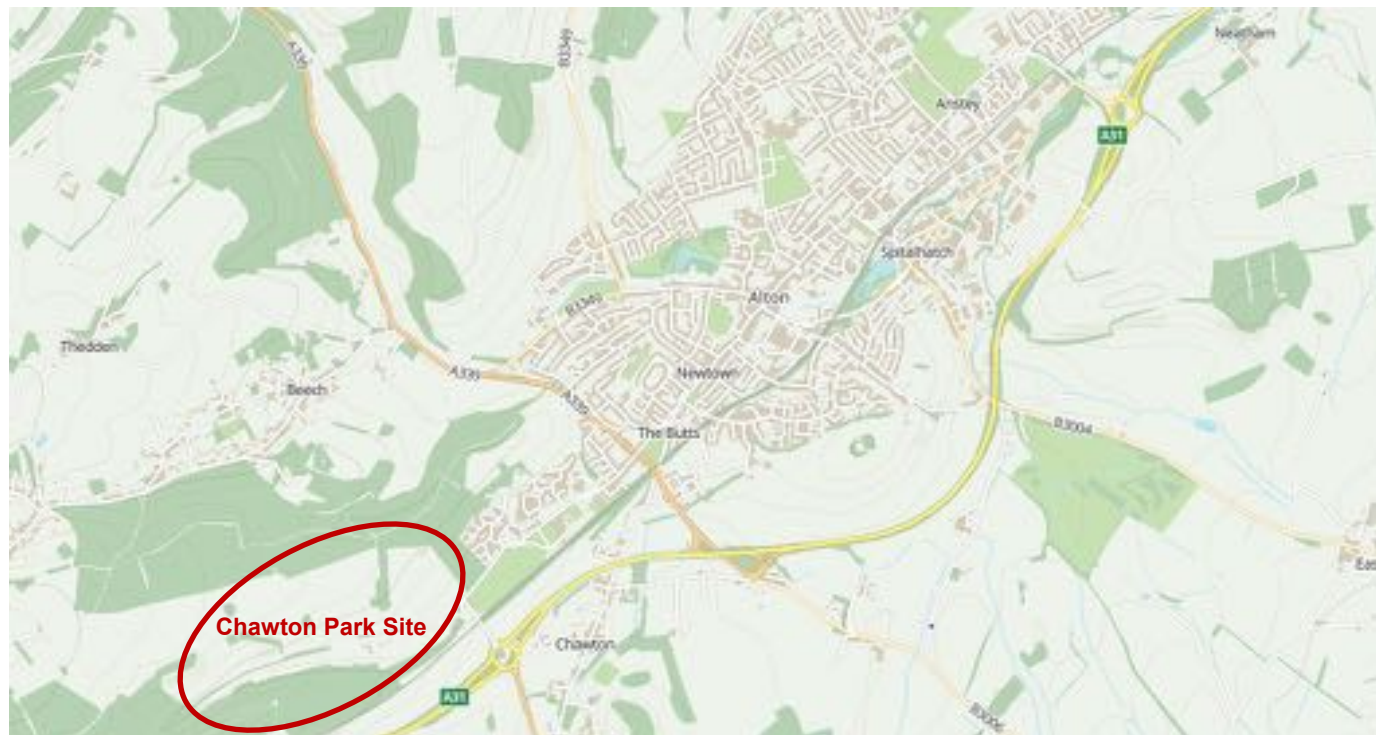
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Figure 1: Land at Chawton Park Red Line Site Plan



Figure 2: Land at Chawton Park Location Plan



[Source: Explore OS Maps]

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Representations Structure

1.10. This representation document is structured as follows:

- **Section 2** provided the principal comments from HE on the draft East Hampshire Local Plan, with the exception of housing which is covered in subsequent sections
- **Section 3** reviews the draft EHDC Local Plan housing requirements
- **Section 4** reviews both EHDC evidence base and our technical evidence to demonstrate why a greater percentage of the total housing need should be located in and around Alton
- **Section 5** sets out how the land at Chawton Park is the optimal site to meet the housing need Alton, as opposed to Neatham Down, through presentation of technical inputs regarding climate change, transport connectivity, ecology and socio-economics
- **Section 6** concludes this report

2. Representations on the Draft East Hampshire Local Plan

Overall response to East Hampshire Regulation 18 Phase 2 Local Plan

2.1. This section sets out HE's principal comments on the draft East Hampshire Local Plan. It is noted that detailed comments on the housing requirement and spatial distribution strategy are set out in subsequent sections.

Part A 'Introduction and Background'

Comments on '02 Vision and Objectives'

2.2. Overall, HE is supportive of the vision in the Local Plan in terms of recognising the key issues facing the District and its prioritisation of inclusive communities, sustainable location and carbon neutrality, while striving for homes for all, including affordable housing. The vision is:

"By 2040 and beyond, our residents will live in healthy, accessible and inclusive communities, where quality affordable homes, local facilities and employment opportunities in sustainable locations provide our communities with green and welcoming places to live, work and play and respond positively to the climate emergency" [our emphasis added].

2.3. The requirement to deliver accessible new homes and inclusive communities was evidenced within paragraph one on page three of the Local Plan Issues and Priorities (Part 1) R18 consultation (January 2023) which stated *"the best quality homes to be built in the best places, to meet all the needs of our residents in the most sustainable way possible. We want our new Local Plan to be as proactive as possible in meeting the challenges of the climate emergency and to ensure any development is as sustainable as possible"* [our emphasis added].

2.4. HE highlights concern that the above terminology, which seeks to meet all the needs of residents in the most sustainable way possible, has not been carried over to the Part 2 R18 draft local plan and notes it is fundamental to seek to achieve this ambition in order to deliver the Council's vision. As such, it is implicit that the Plan seeks to identify an optimised spatial strategy that not only delivers homes in sustainable locations, but which would also satisfy the higher threshold of delivering homes in the most sustainable locations to ensure that development is as sustainable as possible.

2.5. As such, whilst HE supports the overall aspiration of the vision, it is noted that the terms do not replicate the aspirational threshold of the previous consultation Plan, and as such considers that the vision has been watered down. It is therefore suggested that the wording of the vision is amended as follows: *"By 2040 and beyond, our residents will live in healthy, accessible and inclusive communities, where quality affordable homes, local facilities and employment opportunities in sustainable locations provide our communities with green and welcoming places to live, work and play and maximise our response to the climate emergency"* [our emphasis added].

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- 2.6. HE supports the identification of three objectives “*providing sustainable levels of growth through the plan*’, ‘*providing better quality, greener development in the right locations*’ and ‘*prioritising the health and well-being on communities in delivering what is needed to support new development*”, however objects to the fact that the largest Strategic allocation, Neatham Down, which later sections demonstrate, will not contribute to these three objectives.

Comments on ‘03 Managing Future Development’

- 2.7. Paragraph 3.2 of the draft Local Plan explains that the spatial strategy sets out the level and type of development that is considered appropriate for different places and plans for development up to 2040. The LDS as adopted (July 2023), sets out that adoption of the Local Plan is expected to take place in September 2025. It is crucial that the current timetable is maintained and there is no further delay to plan making, and that the adoption of the draft Local Plan does not slip the Plan Period beyond 2040. The current Local Plan was adopted 8 May 2014. Adoption of the draft Local Plan in September 2025 would be 12 years later and with only two years remaining on the current plan period to 2028. The current Development Plan is clearly out-of-date. That being said, it is crucial the new Local Plan comes forward with a robust and sound spatial strategy that meets the needs of the residents in the most sustainable way.
- 2.8. Paragraph 3.4 recognises that significantly boosting the supply of homes is a key government objective; as such, it is important that a sufficient amount and variety of land can come forward where it is needed, that the needs of groups with specific housing requirements are addressed and that land with planning permission is developed without unnecessary delay. EHDC goes onto recognise that the standard methodology identifies a minimum annual housing need figure (paragraph 3.5).
- 2.9. Paragraph 3.6 states that a minimum of 10,982 homes should be provided across East Hampshire district (including the South Downs National Park (‘SDNP’)) during the plan period (2021-2040). This is equivalent to 578 homes per annum. EHDC then goes onto to disaggregate the approach to the standard method between the two local planning authorities, concluding that the housing need within the EHDC Local Plan Area is 464 homes per annum. This results in a local housing need of 8,816 homes over the plan period. The Local Plan goes onto state that there is an unmet need of 14 dwellings per annum (dpa) in SDNP which EHDC will seek to deliver, taking the requirement to 478dpa or 9,082 homes across the plan period. As set out in Section 3, HE disagrees that the SDNP unmet need is just 14 dpa.
- 2.10. Notwithstanding, EHDC’s recognition of a substantial level of unmet need in the PFSH Spatial Position Statement (published December 2023) of approximately 12,000 homes by 2036 (paragraph 3.10), the Local Plan does not seek to contribute to this unmet need.
- 2.11. As such, while EHDC recognises the importance to boost supply of homes, acknowledged correctly that the standard methodology is a minimum figure and that there is significant unmet need in neighbouring authorities, the actual level of much needed housing is not being appropriately planned for. Our detailed assessment of housing supply and need can be found at **Section 3**.

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Policy S1 'Spatial Strategy'

2.12. As above, Policy S1 sets out that over the plan period (2021-2040), the Local Plan will make provision for the delivery of at least 9,082 new homes, equivalent to 478 homes per annum (S1.1). Supporting paragraph 3.25 clarifies that, as of 31 March 2023, part of this minimum requirement was already made up of 940 net completions and 3,965 existing planning permissions. Furthermore, based on the windfall allowance analysis, there is also expected to be an additional 1,320 dwellings throughout the duration of the plan period that have not specifically been identified in the Local Plan. This results in a total of 6,225 dwellings. Paragraph 2.26 states that once existing sources of supply are taken into account, there is a requirement to find a further minimum 2,857 new homes to meet local housing needs. It is noted that HE disagrees that only 2,857 new homes need to be planned for within the draft Local Plan. As above, our detailed assessment of housing supply and need can be found at **Section 3**.

Policy S2 'Settlement Hierarchy'

2.13. Policy S2 sets out the settlement hierarchy which dictates the most appropriate locations to deliver the 2,857 new homes and employment land as required under Policy S1. HE supports the classification of Alton as a Tier 1 settlement and expresses that the land at Chawton Park is linked and connected to Alton, for the reasons set out in **Section 4**, as opposed to Chawton, a lower tier settlement.

Comments on 'Part B Greener Places'

2.14. As set out under our response to the vision, HE supports the Council's prioritisation of responding to the climate emergency and creating desirable places, however suggests that the vision as worded does not go far enough to ensure delivery of residents' needs in the most sustainable way.

Part 04 'Responding to Climate Change'

2.15. EHDC at paragraph 4.1 recognises that the Government has set a legal requirement for the UK to reach net-zero carbon emissions by 2050 at the latest. As part of the Council's journey to net zero, as set out in Figure 4.1 on page 53, it is recognised that the Local Plan will:

- Reduce the CO₂ of running a new home to net zero
- Ensure the use of low-carbon building materials
- New developments be accessible by walking and cycling
- Charging infrastructure for electric vehicles installed
- Ensure new streets are tree-lined with the trees having enough room to grow

2.16. HE supports all of the priorities set out above, but emphasises the fact that greenhouse gas emissions within East Hampshire arise from a range of sources (as depicted on figure 4.2 of the Local Plan) and the Local Plan and associated development strategies should aim to address not just emissions from buildings but also emissions from industry and transportation. In practice this will mean commitments to net zero carbon new buildings, effective retrofit strategies and moving away from fossil fuelled vehicle use which should all play a critical part in how the Council appropriately responds to its declared climate emergency.

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- 2.17. HE supports the principle of Policy CLIM.1. (Tackling the Climate Emergency) which seeks to mitigate climate change and the associated requirements for new development, such as utilising the energy hierarchy, prioritisation of sustainable modes of transport and achieving net-zero operational carbon dioxide emissions. Fundamentally, to achieve Policy CLIM.1 locating new development in the most sustainable locations with the best public transport offer and active travel routes is the most credible strategy.
- 2.18. HE considers that the policies set out in the draft Local Plan consultation relating to Carbon Neutrality (CLIM1 to CLIM5) have been well considered and adopt a proven route to reducing emissions from new homes through utilising the energy hierarchy. This prioritises energy demand reduction in the first instance, which has the dual benefit of reducing energy bills for residents – an issue of critical importance at the time of writing. The best way of achieving demand reduction is through the ‘fabric first approach’ which requires a high-level of building fabric performance, targeting high levels of insulation, low thermal bridging and low air permeability to minimise heat loss through the building envelope. It is stressed that these priorities can be delivered on site at Chawton Park.
- 2.19. The draft Local Plan sets out the emerging requirement of the LETI Standards. EHDC sets out that using the LETI energy efficiency standards for residential dwellings in the Local Plan is not only the most effective approach to address climate emergency, but it will also assist the District to become net-zero. This emerging requirement using the Passivhaus Planning Package (PHPP) or CIBSE TM54 methodology will be essential to ensure that the 15 kWh/m² and 35 kWh/m² figures quoted in Policy CLIM2 (Net Zero Carbon Development: Operational Emissions) can be delivered in practice.
- 2.20. The adoption of the LETI standards to minimise heat demand to 15 kWh/m² per annum is an industry leading standard that will require time and effort to adapt to but will provide long-term benefits through lower operating costs and associated carbon emissions, even accounting for the fact that the electricity grid will decarbonise over time. The additional LETI 35 kWh/m² per annum target for total energy consumption (including regulated and unregulated loads) is also exacting but is a well-known design standard that is challenging but achievable. The adoption of both these targets would help to ensure that new homes are built to the highest standards of energy performance. Whilst HE is supportive of EHDC’s ambition to achieve LETI at new developments in principle, we do wish to draw reference to the Written Ministerial Statement (‘WMS’) ‘Planning – Local Energy Efficiency Standards Update’ made on 13 December 2023, which sets out:
- “Any planning policies that propose local energy efficiency standards for buildings that go beyond current or planned buildings regulation should be rejected at examination if they do not have a well-reasoned and robustly costed rationale that ensures:*
- *That development remains viable, and the impact on housing supply and affordability is considered in accordance with the National Planning Policy Framework.*
 - *The additional requirement is expressed as a percentage uplift of a dwelling’s Target Emissions Rate (TER) calculated using a specified version of the Standard Assessment Procedure (SAP)”.*
- 2.21. Based on the above, HE considers that further evidence is required by EHDC to understand the viability impact of requiring LETI standards and that a viability caveat should be added to any energy efficiency

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policy which seeks to go over and above building regulation standards to ensure that homes for all are delivered.

Part 05 'Safeguarding our Natural and Built Environment'

- 2.22. As part of the response to the climate emergency, EHDC recognises that a high-quality natural environment is a key contributor to sustainable development and can support a wide range of biodiversity and contributes to human health and wellbeing. HE notes that a key method of achieving this is to concentrate development in the most sustainable locations.
- 2.23. In line with the Environment Act 2021, the draft Local Plan includes a formal requirement for a minimum 10% measurable net gain in biodiversity as part of developments (Policy NBE3 Biodiversity Net Gain). Furthermore, developments are required to retain, protect and enhance biodiversity features, including priority habitat types and irreplaceable habitats, and geodiversity interests within the development site and its zone of influence through the development's design and implementation (NEB2 Biodiversity, Geodiversity and Nature Conservation .1 (b)). HE supports the approach set out within this section of the draft Local Plan and notes that the proposed development at Chawton Park will retain more than 50% of the site as green space on site and will provide a minimum 10% plus net gain. Furthermore, a Habitat Mitigation and Management Plan (HMMP) will be prepared in order to provide management of the site for 30 years and ensure habitats are established correctly and to the required condition.
- 2.24. Policy NBE8 (Water Quality, Supply and Efficiency) requires all residential developments to demonstrate that they meet a water efficiency standard of no more than 95 litres per person per day unless it can be demonstrated that doing so is not technically feasible or would make the scheme unviable. HE is supportive of Policy NBE8 and the need to reduce water consumption rates.
- 2.25. Policy NBE10 (Landscape) required development proposal to *"conserve and wherever possible enhance the special characteristics, value, features and visual amenity of the Local Plan Area's landscapes"*. Furthermore, applications are required to demonstrate that there will be no significant impact to *"b) the visual amenity and scenic quality of the landscape"*. HE supports the conservation of important landscapes but wish to highlight the wording 'no significant impact' which is considered to set a very high bar given the quantum of development required throughout the district. HE notes that development of any significant greenfield site is likely to result in some contradiction to this policy. The land at Chawton Park is considered to provide a unique opportunity to deliver up to 1,000 homes in a self-contained land parcel with minimal impacts on the wider landscape.
- 2.26. The Local Plan seeks to designate strategic green and blue infrastructure corridors under Policy NBE12 (Green and Blue Infrastructure). This includes a corridor between Alton and Four Marks called '3. New Strategic Semi-natural Greenspace', which washes over the Chawton Park Farm site on Figure 5.4 of the emerging Local Plan. The purpose of NBE12 is noted to be to maintain, protect and enhance the function, integrity, quality, connectivity and multi-functionality of the existing green and blue infrastructure network and individual sites. While HE supports the principle of this policy, it is considered that the areas designated are too general and do not consider functional relationship to built up settlements which allow for urban expansion.

- 2.27. HE notes that allocating Chawton Park Farm for mixed-use development could assist with the facilitation of the wider strategic opportunity identified in this location as identified within the EHDC Green Infrastructure Strategy (May 2019). Proposed development could deliver new semi-natural greenspace and enhance connectivity in a manner that is positively managed through the development process and that helps to mitigate and moderate the landscape and visual effects of the proposed development. Furthermore, as stated above, the Chawton Park Farm site, due to the combination of topography and woodland, is less open and therefore lies within a location which has less sensitivity (Medium/High) / greater capacity (Medium/Low) for development (TerraFirma Landscape Capacity Study, 2018) than Neatham Manor Farm, the current major site allocation. As such, HE urges EHDC to re-consider the boundaries of defined corridors or the wording of NBE12 to ensure local needs can be met, balancing both protection of the local landscape and housing needs.
- 2.28. Policy NBE14 (Historic Environment) seeks to protect and enhance the historic environment, and notes it is a key aspect of sustainable development. It is noted that this includes ancient woodlands. As such, developments are required to protect, conserve and, where possible, enhance the significance of designated and non-designated heritage assets and the contribution they make to local distinctiveness and sense of place. They should also make sensitive use of historic assets, especially those at risk, through regeneration and re-use, particularly where redundant or under-used buildings are brought into appropriate use. HE is in support of this approach. One of the greatest benefits of Chawton Park is that its location and topography are such that any new strategic development will not adversely affect the setting of Chawton. Furthermore, the setting of the Grade II listed farmhouse, associated buildings and the parkland setting will be preserved and enhanced with the listed building being made a focal point of the development. Development will be set back an appropriate buffer from the ancient woodland encompassing the site, see response of Policy DM2 (Trees, Hedgerows and Woodland) below.

Part 06 'Creating Desirable Places'

- 2.29. Policy DES1 (Well Designed Places) requires new development to help achieve the following design vision:
- “Through its location, design and layout, new development will prioritise the avoidance of new greenhouse gas emissions whilst creating or supporting climate resilient environments. In delivering this priority, proposals will need to ensure that development:*
- a. Follows the energy hierarchy through its block, plot and/or building layout and design, whilst maintaining or enhancing the landscape and built character of its immediate surroundings and the wider local area;*
 - b. Reinforces or creates a strong, positive identity that comes from the ways in which buildings, infrastructure, boundary treatments, open spaces and natural features visually and physically interact;*
 - c. Creates or contributes to a form of development that is easy to navigate, conveniently laid out for access on foot or by bike, and involves the right density, mix and orientation of building types and forms for attractive, green and safe environments;*
 - d. Integrates well with existing streets, cycle and walking connections and where relevant extends these movement networks within a development site, to create attractive, accessible, safe and direct routes that are inclusively designed;*

- e. *Supports the recovery of natural habitats and native species through providing space for nature and new green infrastructure that is managed and maintained to secure multi-functional benefits (ecology, drainage, local food production);*
 - f. *Creates or contributes to public spaces that encourage social interactions, feel safe and support the health and well-being of all users;*
 - g. *Within Tier 1 and 2 settlements enables residents to “live locally” by accessing some services and facilities within convenient walking or cycling distances, taking account of their varied needs and how the delivery of services may change over time; and*
 - h. *Incorporate contextually appropriate building materials of a high quality and durability”.*
- 2.30. HE supports the overarching Policy DSE1 which establishes a design vision and criteria, that directly relate to the Government’s National Design Guide. HE is in support of the recognition of benefits which can occur from locating housing in the right place to ensure the most efficient use of land and local service provision by locating new housing where it will be in proximity to essential services, facilities and infrastructure, helping to achieve a sustainable pattern of development and carbon neutrality. It is, however, noted that a greater emphasis needs to be provided to the role of site location in response to landscape/townscape character and the foundation this has in creating a well designed place that responds to local character.

Comments on ‘Part C Enabling Communities to Live Well’

Part 07 ‘Enabling Communities to Live Well’

- 2.31. HE supports EHDC’s identification that creating and supporting strong, vibrant and healthy communities is a key element of delivering sustainable development, and that planning can have a significant role in improving physical and mental health and wellbeing and enabling healthier lifestyles.
- 2.32. Policy HWC1 (Health and Wellbeing of Communities) requires development to contribute to healthy and active lifestyles through the provision of:
- a. *“Active design principles which support wellbeing and greater physical movement, and an inclusive development layout and public realm that considers the needs of all;*
 - b. *Access to sustainable modes of travel, including safe, well-designed, and attractive cycling and walking routes and easy access to public transport to reduce car dependency;*
 - c. *Access to safe and accessible green infrastructure, including to blue corridors, open spaces and leisure, recreation and play facilities to encourage physical activity; and*
 - d. *Access to local community facilities, services and shops, which encourage opportunities for social interaction and active living”.*
- 2.33. HE supports the principle of Policy HWC1 and express that Chawton Park will deliver a walkable neighbourhood which is readily connected to key cycle and active travel routes. As such internalisation will be delivered on site, furthermore, due to the sites relationship with nearby residential areas of Alton, existing residents will benefit from improved access to facilities via active travel methods. Furthermore, the proposal will deliver a local centre and will retain more than 50% of the site as open space.

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Part 08 'Delivering Green Connections'

- 2.34. EHDC sets out that mitigating and adapting to climate change and reducing the carbon footprint of the District is an important part of the new Local Plan. To achieve this, it is recognised that there is a requirement to address travel methods. This is due to the fact that transport is one of the highest contributors towards the carbon footprint of the District and the private car is the least sustainable form of transport. As such, EHDC recognises that it is essential for it to prioritise development towards sustainable modes of travel which includes safe and accessible means of transport with an overall low impact on the environment, which includes walking, cycling, ultra-low and zero carbon emission vehicles, car sharing and public transport.
- 2.35. Policy DGC2 (Sustainable Transport) requires developments of more than ten new homes or more than 500m² of non-residential floorspace should be situated in the most sustainable locations, taking account of the settlement hierarchy, to reduce demands on transport and reliance on private car travel. Sustainable locations are those that are in an accessible distance to enable local living and offer genuine opportunities to travel by sustainable modes (walking, cycling and public transport) for multiple journey purposes. HE supports the location of development in the most sustainable locations with the greatest opportunities for active and low carbon travel and delivery of walkable neighbourhoods. However, stress the importance of delivering a 'genuine' choice of 'attractive' sustainable transport modes which links to local amenities. It is considered that Chawton Park is fundamentally linked to Alton (the only Tier 1 settlement) via genuine and attractive sustainable transport connections including the National Cycle Network Route 224, which the development would enhance and the award winning 64 bus service, and will provide a local centre, and as such meets the requirements of DGC2.1. HE conclude that Chawton Park is primed to deliver sustainable development which is supported by a significant amount of technical evidence.

Part 09 'Homes for All'

- 2.36. The draft Local Plan sets out that one of the key aims of the Council is to provide 'Homes for All' and the Government has also made it very clear that it wants to boost the supply of new homes, to about 300,000 homes per annum nationally. Paragraph 9.3 notes that "*addressing housing need through the provision of new homes is a fundamental part of any Local Plan. The National Planning Policy Framework (NPPF) is clear that planning authorities should prepare Local Plans to boost the supply of market and affordable housing to ensure the right types of homes are built in the right places to meet the needs of the Local Plan Area*". HE agrees with the prioritisation for the correct type of housing in the right places to be delivered.
- 2.37. As set out above, **Section 3** of this report sets out our detailed assessment of EHDC's Local Plan's housing need and supply, including policy H1 (Housing Strategy). Policy H1 sets out that provision is made for about 3,500 new homes in the most sustainable and accessible locations in the Local Plan Area in accordance with the Settlement Hierarchy (Policy S2), this includes 1,700 homes in Alton. Of these 1,700 homes, 1,000 are attributed to Neatham Down (Policy ALT8), 150 to land at Brick Kiln Lane (Policy ALT1), 90 to land at Whitedown Lane (Policy ALT4) and 24 to land at Travis Perkins (ALT5), HE's analysis of the Neatham Down allocation and its suitability is set out in **Section 5**. Based on the above, Policy H1 leaves the Alton Neighbourhood Plan to allocate 436 dwellings within the settlement of Alton and its surrounding areas. HE disagree with placing such a reliance on a Neighbourhood Plan, and note that the Alton Town Council Full Council agenda for the 28th February 2024 seeks to remove site allocations from the Plan. HE consider that

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this need should be comprehensively planned for within the emerging Local Plan in order for to deliver much needed infrastructure alongside the new housing need.

- 2.38. With regard to other 'Homes for All' policies, HE agrees with the principles set out in Policy H2 (Housing Mix and Type) and confirms that development of Chawton Park would take account of the housing needs of the local area and would deliver a range of house types, tenures and sizes. Furthermore, the proposed housing would comply with building regulation standards as set out in H2.4.
- 2.39. Policy H3 (Affordable Housing) sets out the requirement to deliver 40% of the net number of dwellings as affordable housing on sites providing 10 or more dwellings, of which 70% will be affordable housing for rent and the remainder (30%) as other affordable home ownership products. The policy goes onto to state that affordable housing should be provided on-site, indiscernible from, well integrated with and dispersed throughout the market housing. At point H3.5, the policy caveats that only when fully justified, will the Local Planning Authority grant planning permission for schemes that fail to provide 40% affordable housing. From review of published Annual Monitoring Reports, it appears that this threshold has not been delivered, with approximately 30% of all completions in the year 2022-2023 being affordable. HE supports the principles set out in Policy H3 and recognises the importance of affordable housing delivery. As such, it is proposed that up to 400 affordable homes will be provided on site; 40% of the total number of dwellings proposed.
- 2.40. The emerging Local Plan, recognises the ageing nature of the EHDC population, as such Policy H5 (Specialist Housing) seeks to ensure appropriate housing is delivered. The policy dictates that development of specialist and supported housing that meets the needs of older persons or others requiring specialist care will be permitted if there is a proven local need for development and the site is located in or is well related to an existing settlement with appropriate access to services and facilities. HE supports the principle of Policy H5 and notes, subject to demonstrated need at the time of an application, there is potential to provide specialist accommodation on site in proximity to the local centre.
- 2.41. HE concludes that larger strategic sites, such as Chawton Park, deliver the greatest provision of infrastructure, affordable and specialist housing on site (as per paragraph 74 of the NPPF). Therefore, to meet the objectives of the Local Plan and NPPF, allocations of large sites is sensible.

Part 11: Development Management Policies

- 2.42. The draft Local Plan at Policy DM2 (Trees, Hedgerows and Woodland) at paragraph DM2.3 sets out that *"Development proposals that include the loss or deterioration of ancient woodland and ancient or veteran trees will be refused planning permission, other than in wholly exceptional circumstances and where a suitable compensation strategy is proposed"*. Supporting paragraph 11.13 goes onto explain that any development close to ancient woodland should provide an adequate buffer between the development and ancient woodland, including through the construction stage. While a minimum 15m buffer zone is required for root protection, a wider buffer is recommended.
- 2.43. HE supports the principle of protecting trees and ancient woodland, and commit to providing adequate buffers in accordance with guidance with a 15m minimum, as required under Policy DM2, with the potential to provide a buffer of up to 50m, as may be necessary in the most sensitive areas.

3. Why More Housing

- 3.1. The draft R18 LP sets out that the Standard Method results in a Local Housing Need for EHDC at 578 dwellings per annum which equates to 10,982 homes over the proposed plan period to 2040. However, due to the aggregation of the South Downs National Park ('SDNP') into this figure, EHDC is planning for 478 dwellings per annum or 9,082 homes over the plan period. HE considers that, due to an array of reasons, providing 9,082 homes up to 2040, is insufficient. Explanation of this is set out below.
- 3.2. Policy SP2 of the LP sets out the spatial strategy of development, this policy and distribution is discussed in **Section 4**.

Housing Need

- 3.3. The NPPF states (paragraph 61) [our emphasis added]:

“To determine the minimum number of homes needed, strategic policies should be informed by a local ho using need assessment, conducted using the standard method in national planning guidance. ...”

- 3.4. In this context, PPG explains (ID: 2a-001-20190220) [our emphasis added]:

“Housing need is an unconstrained assessment of the number of homes needed in an area. Assessing housing need is the first step in the process of deciding how many homes need to be planned for. It should be undertaken separately from assessing land availability, establishing a housing requirement figure and preparing policies to address this such as site allocations...”

- 3.5. The NPPF continues (ibid):

“... The outcome of the standard method is an advisory starting-point for establishing a housing requirement for the area (see paragraph 67 below). There may be exceptional circumstances, including relating to the particular demographic characteristics of an area²⁵ which justify an alternative approach to assessing housing need ...”

- 3.6. The evidence base document 'Technical Note: Testing the Standard Method Housing Need for East Hampshire' (Iceni, undated) concludes (Section f, page 16):

“Overall, there is nothing in the analysis that supports moving to consider a lower figure for housing need than is derived from the standard method. It is recommended that the standard method figure should be used as the appropriate starting point for plan-making before other factors such as nationally significant constraints are taken into account.”

- 3.7. HE concurs with this conclusion, and would further note that the latest, 2021-based, population projections reinforce the approach in PPG that require the use of the 2014-based household projections, projecting an even greater increase in population (4.067 million versus 3.553 million) and higher future national population (64.923 million versus 64.747 million), as shown below.

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Table 1: Comparison of National Population Projections

Population Projections	Population end of 2022/23 (000s)	Population end of 2032/33 (000s)	Total growth (000s)
2021-based	60,856	64,923	4,067
2018-based	60,717	62,938	2,221
2016-based	60,832	63,497	2,665
2014-based	61,194	64,747	3,553

Source: ONS

- 3.8. However, the calculation of the Standard Method Local Housing Need ('LHN') figure itself warrants further discussion.

Standard Method Local Housing Need

- 3.9. The Council's 2022 Housing and Economic Development Needs Assessment ('HEDNA') identified a Standard Method LHN of 632 dpa. HE concurs with this calculation, which was accurate in 2022. However, the R18 Plan identifies a LHN of 578 dpa; almost a 10% reduction. HE again concurs with this calculation, which is accurate for 2023.
- 3.10. The reason for the reduction is in small part a reducing average annual growth in households over time (as is the case in much of the country in the 2014-based projections), but in large part a reduction of the affordability ratio that forms the basis for the calculation of the Standard Method 'adjustment factor' from 14.51 to 12.70. This figure is the multiplier of median gross workplace-based earnings to median house price – a proxy for the multiplier of ones salary that would be needed to purchase a home.
- 3.11. The 2022 (the ratios are published a year after they are dated – the 2023 ratio is due to be published in March 2024) figure of 12.70 for East Hampshire is notable in that it is a 12% reduction on the previous figure; however, it is also (as is occasionally the case) based on annualised weekly earnings rather than annualised earnings as is usual (the methodology¹ published by the ONS clarifies that annualised weekly earnings are used where annualised earnings data is not available).
- 3.12. Affordability ratios are reviewed and where necessary corrected when the next set of ratios are published. Compared to the 12% reduction in the ratio for East Hampshire, the 2022 ratios across the 10 other local authority areas in Hampshire ranged from a 5% reduction to a 3% increase, with an outlier being Gosport that showed a 25% increase. HE considers it likely that the 12% reduction in the ratio for East Hampshire is likely an anomaly.
- 3.13. That this is an anomaly is supported by an investigation of the underlying data that shows the median workplace earnings in East Hampshire increasing from £28,504 to £33,868 – an increase in just one year of £5,364 (+18.8%), which as an average is considered highly unlikely. The consequence of such an

¹ <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/bulletins/housingaffordabilityinenglandandwales/2022>

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increase in earnings, compared to an increase in the median house price from £410,000 to £430,000 (+4.8%), leads to the reduction in the affordability ratio.

- 3.14. Considering the calculation of the LHN between 2020 and 2024, it is possible to see the effect that the variation in affordability ratio has on the eventual LHN figure, as shown below. It is also possible to see the effect in 2024 of the 2023 ratio increasing back to the level of the 2021 ratio as shown in *red italics*.

Table 2: Standard Methodology Need – Local Housing Need

	2021-2031	2022-2032	2023-2033	2024-2034
Base Date Households	51,219	51,628	52,029	52,433
Future Year Households	55,105	55,442	55,776	56,111
10-Year Increase in Households	3,886	3,814	3,747	3,678
Average Annual Increase in Households	388.6	381.4	374.7	367.8
Latest Affordability Ratio (as available at 01/04/23 in base year)	12.58 (2020 ratio)	14.51 (2021 ratio)	12.70 (2022 ratio)	<i>14.51</i>
Affordability Factor	1.53625	1.656875	1.54375	<i>1.656875</i>
SM LHN (rounded up)	597	632	578	<i>610</i>

Source: Various

- 3.15. Whilst HE concurs that the 2023 LHN figure is 578 dpa, it should be noted that this figure will need to be recalculated in 2024, ahead of Regulation 19 consultation and around the time the emerging Local Plan is submitted for Examination, PPG advising (ID: 2a-008-20190220):

“Strategic policy-making authorities will need to calculate their local housing need figure at the start of the plan-making process. This number should be kept under review and revised where appropriate.

The housing need figure generated using the standard method may change as the inputs are variable and this should be taken into consideration by strategic policy-making authorities.

However, local housing need calculated using the standard method may be relied upon for a period of 2 years from the time that a plan is submitted to the Planning Inspectorate for examination.”

- 3.16. If the 2023 affordability ratio does increase to the level of the 2021 ratio, then the 2024 LHN figure will increase from the 578 dpa figure, on which the R18 Plan is based, to 610 dpa. Over the proposed 19-year plan period, this would represent an increase in the overall housing need from 10,982 homes to 11,590 homes; an increase of 608 homes.
- 3.17. The R18 Plan then seeks to separate part of the 578 dpa LHN figure that will fail to be met in within the South Downs National Park, part of which lies within East Hampshire, and in relation to which there is a separate Local Plan.

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- 3.18. The R18 Plan identifies (based on the Council's 'Housing Technical Note update', September 2023) a split between the housing need emanating from with the National Park and non-National Park parts of East Hampshire respectively as 114 dpa and 464 dpa (see paragraph 3.7). Notably, the Technical Note update states that the original note (undated) had identified the need from the two parts of the District as being 115 dpa and 517 dpa (equating to a total of 632 dpa).
- 3.19. On this basis, a total LHN figure of 610 dpa could be disaggregated between the National Park and non-National Park parts of East Hampshire respectively as 115 dpa and 495 dpa.

Plan Period

- 3.20. The NPPF states (paragraph 22) (our emphasis added):
- “Strategic policies should look ahead over a minimum 15 year period from adoption¹³, to anticipate and respond to long-term requirements and opportunities, such as those arising from major improvements in infrastructure. ...”*
- 3.21. It is essential to appreciate the language used in paragraph 22, which expresses the 15 year period as an unambiguous minimum and arguably it should be exceeded where possible.
- 3.22. The proposed plan period is (1 April) 2021 to (31 March) 2040 (19 years).
- 3.23. As discussed elsewhere in our representations (see paragraph 1.8), if the emerging Plan is adopted later than 2025 as projected by the Council in its LDS, there will only be just over 14 years (December 2025 to 31 March 2040) following adoption. If, as seems more likely, the emerging Plan is not adopted until 2026 or even 2027, there will be potentially only 13 years of the plan period remaining. As such, HE considers that the plan period should be extended to at least 2042.
- 3.24. Within Chapter 13 – Appendices (page 486) of the R18 Plan, it is stated:
- “... The NPPF suggests Local Plans should be drawn up over an appropriate time scale, preferably 15 years from adoption. The plan period for the new Local Plan has therefore been set as 2021 to 2040. This allows for some flexibility.*
- 3.25. This is clearly not the case, as there is no flexibility in the proposed plan period and it needs to be extended. If the plan period was extended by two years based on the proposed housing requirement of 478 dpa, the overall requirement over the extended period would increase by 956 homes to 10,038 homes; if it were extended by two years based on an non-National Park need of 495 dpa (see para. 319 above), the overall requirement over the extended period would increase by 990 homes to 10,395 homes.

The Local Plan Housing Requirement

- 3.26. As noted above, establishing the Local Plan 'housing requirement' is distinct from determining the minimum housing need figure.
- 3.27. The NPPF states (paragraph 67):

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“Strategic policy-making authorities should establish a housing requirement figure for their whole area, which shows the extent to which their identified housing need (and any needs that cannot be met within neighbouring areas) can be met over the plan period. The requirement may be higher than the identified housing need if, for example, it includes provision for neighbouring areas, or reflects growth ambitions linked to economic development or infrastructure investment. ...”

3.28. Proposed Policy S1 – Spatial Strategy, of the R18 Plan includes:

“Over the plan period (2021-2040), the Local Plan will make provision for the delivery of at least 9,082 new homes, equivalent to 478 homes per annum. ...”

3.29. This is the proposed ‘housing requirement’, against which housing delivery and supply will be measured.

3.30. The distinction between housing ‘need’ and the Local Plan housing ‘requirement’ should be carefully set out to avoid confusion; in terms of the R18 Plan, the housing need across East Hampshire has been identified as 578 dpa (as at 2023) but the housing requirement is proposed to be 478 dpa.

This confusion of terminology is most clearly emphasised in paragraph 9.11 of the R18 Plan, wherein it states (our emphasis added):

“... As noted in Chapter 1 ... the minimum local housing need requirement is 478 homes per year, which totals 9,082 over the plan period (2021-2040)”.

3.31. The housing requirement includes:

- Housing need of 464 dpa emanating from that part of East Hampshire outside the SDNP;
- Unmet need of 14 dpa from that part of the SDNP within East Hampshire;
- No unmet need from any other local authority area;
- No uplift to reflect growth ambitions, etc.

3.32. Local Plan Objective A1 (see page 26) states (our emphasis added):

“Provide a sustainable level of housing growth to meet future housing needs and to provide homes for all, helping to deal with the issues of affordability and an ageing population. The Local Plan will:

a) identify and maintain a supply of land to meet the requirements for market housing and housing that is affordable, ensuring this is of the right size, type and tenure, and is in the right location; and

b) make provision for gypsies, travellers and travelling showpeople accommodation to meet needs”.

3.33. In this statement, the Council is expressly setting out to address housing affordability. The proposed housing requirement, being set at the minimum possible using the Standard Method will thus not do so any more than the minimum necessary; in short, the R18 Plan includes no specific provisions or measures to address affordability, contrary to the assertion in Objective A1.

3.34. The R18 Plan opens the section on housing with (paragraph 3.4):

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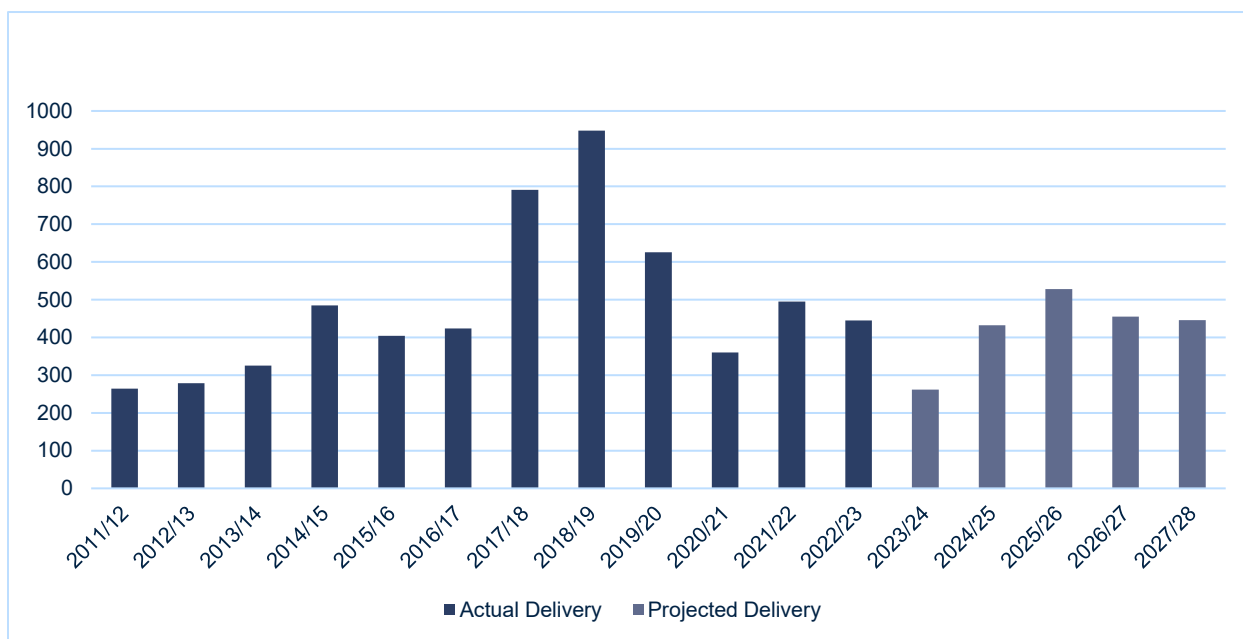
“Significantly boosting the supply of homes is a key government objective. To achieve this, it is important that a sufficient amount and variety of land can come forward where it is needed, that the needs of groups with specific housing requirements are addressed and that land with planning permission is developed without unnecessary delay.”

3.35. HE considers that this is an incorrect interpretation of national policy, or at least is an approach that is not then followed through in the emerging Plan.

3.36. Over the past five years (2018/19 to 2022/23) housing delivery in East Hampshire, excluding the SDNP, has (according to the Council’s own AMR, January 2024) averaged 575 dpa. The R18 Plan explicitly notes the Government’s objective to “significantly boost” the supply of homes, but then proposes a Local Plan housing requirement of 478 dpa and a supply averaging just 508 dpa.

3.37. As shown below, this will not represent a significant boost to the supply of homes, but in fact a contraction in supply, contrary to national policy.

Chart 1: Actual v. Projected Housing Delivery Per Annum



Source: EHDC AMR 2022, Table 6; EHDC 5YHLSPS, October 2023, Appendix K

3.38. HE therefore considers that EHDC should be planning for its average supply as a minimum to meet the homes for all objectives in the R18 plan.

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Unmet Housing Need

From the South Downs National Park

3.39. The R18 Plan states (paragraph 3.8):

“The total unmet needs of neighbouring authorities are currently unknown, however, considering the landscape sensitivity associated with the National Park, there is potential for some unmet housing needs from within the South Downs National Park area.”

3.40. It continues (paragraph 3.9):

“In order to estimate these unmet needs for this Local Plan, a pragmatic approach has been taken based on past delivery and historic agreements with the SDNPA. Based on the delivery of 100 homes per annum within the part of East Hampshire that falls within the National Park, it is estimated that there would be a residual requirement (potential unmet need) of 14 homes per annum (266 homes over the plan period). ...”

3.41. However, analysis by HE suggests that delivery within the SDNP in recent years has varied significantly from the 100 dpa assumption included in the R18 Plan:

Table 3: South Downs National Park East Hampshire Area Net Completions (2018-2023)

	2018- 2019	2019- 2020	2020- 2021	2021- 2022	2022- 2023
Net Completions	155	169	50	72	49

*Based on East Hampshire Net Additional Dwellings (Live Table 122), minus EHDC AMR 2022 net completions (excluding NP)

3.42. This would suggest that it cannot be assumed that the SDNP will deliver 100 dpa within East Hampshire each and every year until (31 March) 2040.

From Elsewhere in South Hampshire

3.43. The R18 Plan further states (paragraph 3.10):

“As detailed in the Partnership for South Hampshire (PFSH) Spatial Position Statement (December 2023) there is an unmet need across the sub-region of approximately 12,000 homes to 2036...”

3.44. These 12,000 homes are currently unplanned for. The figure equates to approximately 1,000 dpa over the period 2024-2036.

3.45. The December 2023 Spatial Position Statement (‘SPS’) sets out that East Hampshire is one of the named authorities who, in the short to medium term, may be able to meet and exceed its standard method need in its respective local plan area. Eastleigh, Fareham, Test Valley and Winchester are also named (paragraph 6.33), although Fareham has very recently adopted a new Local Plan. The statement anticipates delivery from these authorities in the short to medium term to deliver unmet need and that long term need will be met via Broad Locations of Growth. The Broad Locations of Growth are estimated to have a combined capacity of 9,700 dwellings, leaving a shortfall of 2,071 dwellings to be delivered in other

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locations. It is noted that the Broad Locations of Growth are currently speculative and therefore not concrete.

- 3.46. Eastleigh, Test Valley and Winchester are all preparing new Local Plans that do not currently provide for any of the 12,000 homes worth of unmet need.
- 3.47. If the emerging Local Plan is adopted as scheduled at the end of 2025 (or more likely in 2026 – see above) there will only be a need to review it by 2030 (or by 2031/2032 based on Savills estimates). If adopted without taking into account the potential for unmet need from south Hampshire there is the distinct likelihood that East Hampshire will serve no role in helping to meet this unmet need of 12,000 homes and an increased risk that the unmet need will remain unmet, and affordability worsen further.
- 3.48. The potential need to accommodate the unmet needs from other authorities will need to be firmly established prior to the emerging Plan being finalised and the next consultation undertaken. If, as projected, this consultation is undertaken in the summer of this year, then the source and quantum of these unmet needs should be established over the next few months. Failing to do so would render the emerging Plan contrary to national policy and guidance (ref. NPPF paragraph 35).

Summary and Conclusion

- 3.49. In summary:
- a) If the plan period were extended by two years, based on the proposed housing requirement of 478 dpa, the overall requirement over the extended period would increase by 956 homes to **10,038 homes** (R18 Plan + 2 years).
 - b) If the affordability ratio in 2023 were to increase what it was in 2021, the Standard Method Local Housing Need figure would increase from 578 to 610 homes, and deducting 115 dpa assumed to be deliverable within the National Park, the residual housing need in East Hampshire would be 495 dpa, equating to a need over the proposed plan period of 9,405 homes, or over an extended plan period as considered necessary by HE of **10,395 homes** (higher affordability ratio + 2 years).
 - c) If a 10% buffer were to be added to the Local Plan housing requirement to ensure a flexible and robust supply of housing, the emerging Plan should, depending on the above, provide for the delivery of **between 11,042 homes** (R18 Plan + 2 years + 10%) **and 11,435 homes** (higher affordability ratio + 2 years + 10%).
 - d) If some of the unmet need of 12,000 homes across South Hampshire were to be met, an unquantifiable greater housing requirement would be justified. By way of example only, if one quarter (25%) of the 12,000 homes of unmet need were to be met within East Hampshire, this would increase the housing requirement to **14,435 homes** (higher affordability ratio + 2 years + 10% + 3,000 unmet need).

Chart 3: Elements of a potential Local Plan Housing Requirement



Housing Supply

Overall Supply

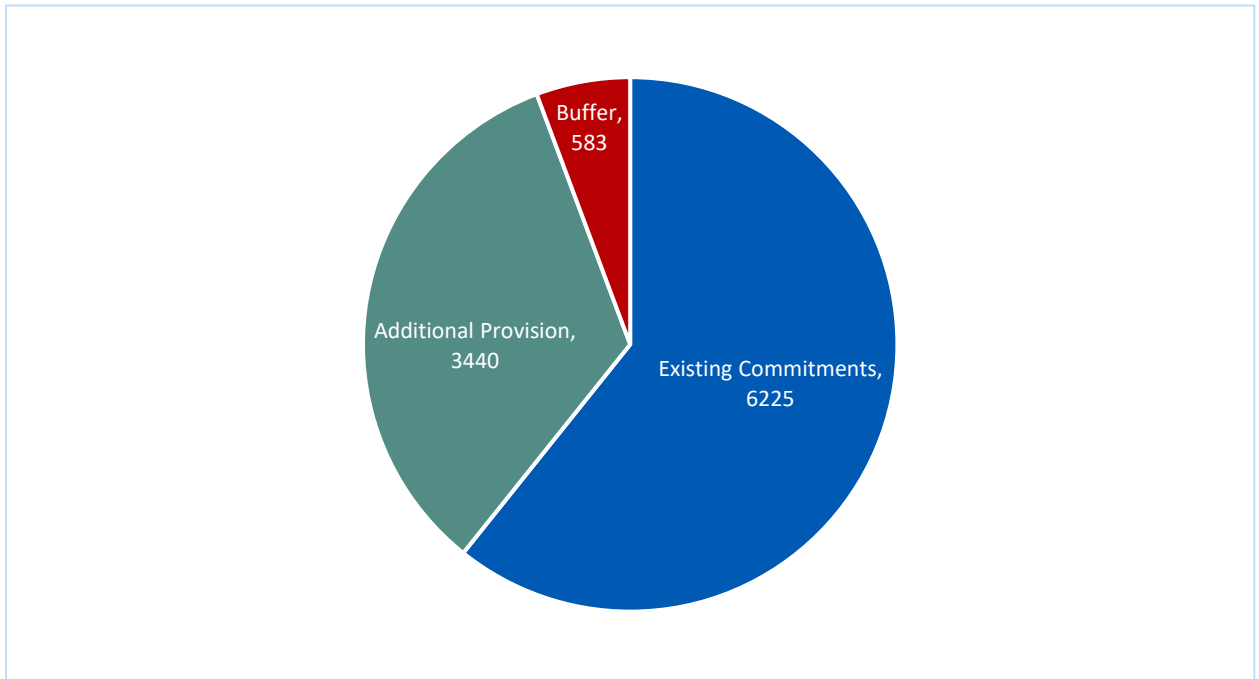
- 3.50. The R18 Plan explains that there is already an identified housing supply of 6,225 homes (see Local Plan Figure 9.6) and thus that, against a Local Plan housing requirement of 9,082 homes, there is a need to identify sites for a further, 2,857 homes.
- 3.51. Proposed Policy H1: Housing Strategy, then sets out (paragraph H1.1) that: *“Provision is made for about 3,500 new homes...”* However, Table 12.1 of the Plan appears to show that the figure of homes to be accommodated on new site allocations is only 3,440 homes.
- 3.52. On the face of it, this would result in a ‘buffer’ (i.e., oversupply against the requirement) of 643 homes over the plan period (or 583 homes based on Table 12.1), and the delivery over the proposed plan period of about 9,725 homes (or 9,665 homes).

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Chart 4: Proposed Housing Supply.



Source: R18 Plan

Housing Trajectory and 5-Year Housing Land Supply

3.53. The NPPF requires (paragraph 69):

“...Planning policies should identify a supply of:

- a) specific, deliverable sites for five years following the intended date of adoption³⁵; and*
- b) specific, developable sites or broad locations for growth, for the subsequent years 6-10 and, where possible, for years 11-15 of the remaining plan period.”*

3.54. The R18 Plan includes, at Appendix C, a ‘Housing Trajectory’ setting out when the proposed housing will be delivered, with year-on-year totals.

3.55. However, the R18 Plan includes no breakdown of this trajectory, thus it is impossible to HE to determine whether it is based on realistic assumptions. Moreover, HE considers that this absence, and specifically the absence of a policy, renders the R18 Plan contrary to national guidance.

3.56. HE notes that the Council’s ‘5-Year Housing Land Supply Position Statement’ (5YHLSPS) published in October 2023, with a base date of 1 April 2023, identifies a deliverable supply over the 5-year period 2023/24 to 2027/28 (inclusive) (i.e., 1 April 2023 to 31 March 2028) of 2,198 homes. HE also notes that this figure remains changed in the 5YHLSPS Addendum published in January 2024.

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- 3.57. However, the Housing Trajectory at Appendix C to the R18 Plan suggests delivery over the same period of 2,576 homes.
- 3.58. The 5YHLSPS includes a breakdown of the identified supply of 2,198 homes. HE considers that, based on national policy and guidance, at least (563) of these homes should not be included in the supply. This would reduce the identified supply to 1,635 homes – just a 3.4 year supply when compared to a 5YHLS requirement of 2,390 homes (478 x 5).
- 3.59. In relation to the emerging Plan, there is a need for the Council to demonstrate that there will be a 5YHLS on adoption of the Plan, otherwise it will not be sound. Further, the NPPF states (paragraph 76):
- “Local planning authorities are not required to identify and update annually a supply of specific deliverable sites sufficient to provide a minimum of five years’ worth of housing for decision making purposes if the following criteria are met⁴⁰:*
- a) their adopted plan is less than five years old; and*
 - b) that adopted plan identified at least a five year supply of specific, deliverable sites at the time that its examination concluded.”*

Summary & Conclusion

- 3.60. The R18 consultation material does not demonstrate that there will be a 5YHLS on adoption (i.e. *“at the time that its examination is concluded”*); based on the information available, it would appear that there would not be a 5YHLS on adoption, but rather a significantly material shortfall in deliverable housing sites.
- 3.61. In short, a proposed housing supply of 9,725 (or 9,665) homes only very barely meets the requirements of the R18 Plan as drafted, but would be neither flexible nor robust – i.e., it would stand a significant risk of failure.
- 3.62. As such, the Local Plan would not comply with paragraph 76 of the NPPF and the Council would therefore not benefit with a five year protection before an updated 5YHLS position is required.

4. Why Alton

- 4.1. As set out in **Section 2**, HE supports the overall vision set out in the draft Local Plan, and places emphasis on the importance of paragraph 3.2 which sets out that: *“A spatial strategy sets out the level and type of development that is considered appropriate for different places. At its heart is a commitment to responding to the climate emergency and to deliver sustainable placemaking, contributing towards the achievement of sustainable development. The scale and location of growth proposed has been informed by careful consideration of the evidence and the balancing of the social, economic and environmental positive and negative effects which could arise from growth and development across the Local Plan Area up to 2040”*.
- 4.2. Policy S1 sets out that the Spatial Strategy will be delivered in line with the settlement hierarchy (Policy S2), with a greater proportion of development in the larger and more sustainable settlements. The pre-text to Policy S2 sets out that: *“The scale of development proposals will be expected to be relative to the existing or proposed level of facilities and services in the settlement, together with their accessibility”*. As such, the settlement hierarchy will ensure that new development continues to be directed to the more sustainable settlements and is appropriate for the settlement in question.
- 4.3. Policy S2 recognises Alton (including Holybourne) as identified as the only Tier 1 settlement. The Revised Settlement Hierarchy Background Paper² (January 2024) incorporates a simplistic scoring system based around the modelled travel distance from the centre of modelled hexagons set at 500-metre centres around the key population centres, towards a range of amenity types. The amenities are accessible where they accord with the principles of 20-minute neighbourhoods, which is to say a travel time of 10-minutes each way by foot or by bike.
- 4.4. Whilst an accessibility-led approach to the spatial plan is endorsed, there are a number of issues with the current approach which may impact on the findings of the study, including:-
- The setting of hexagons at 500-metre centres within an urban context is crude and, when combined with the rudimentary placement of the hexagons, leads to statistically unreliable journey distances being calculated between the origins and destinations. A more fine-grain analysis is required, assuming 50-metre centres which would more accurately reflect the changing accessibility levels across a site whilst increasing the statistical reliability of the resultant average.
 - The methodology ignores the frequency of visits undertaken to each amenity type. Whilst the three dimensions of sustainability incorporate a social strand, meaning that access to a post office and GP Surgery is important, the fact remains that these are visited less frequently than places of work or education, for example. In this way, the analysis is skewed against the optimising for environmental strand which is a flawed concept in light that the vision, objectives and policies of the emerging Plan are focused on minimising car use in response to the climate emergency.

² <https://www.easthants.gov.uk/media/7736/download?inline>



- The scoring is based on a range of land-uses that serve no amenity value in the way people conduct their day-to-day lives. For example, inclusion of Fire and Police Stations is not a destination for residents and should be excluded from the analysis as it may currently distort the results.
 - The study fails to acknowledge the wider complexities of inter-urban movement which can make up the majority of travel from development and settlements. It is a fact of life that people may live in one area and work in another and the study fails to consider how this majority of movement may be undertaken by sustainable travel modes.
- 4.5. In this sense, the analysis, even when undertaken robustly, should be seen as a starting point. The complex nature of sustainability cannot be adequately considered within such a high level appraisal, particularly in light of the response to climate change and the stated vision and objectives of the emerging Local Plan.
- 4.6. Notwithstanding, HEs comments regarding the methodology within the Revised Settlement Hierarchy. HE support the identification of Alton as the primary settlement, as recognised in the emerging LP at Policy SP1.
- 4.7. However, HE disagrees with the suggestion at S2.4 and expanded upon at Policy NBE1 that *“development outside the settlements listed above [referring to the hierarchy] is considered countryside and will be restricted to that which is appropriate in a rural area...”* and consider that this policy is restrictive and may work against the stated Plan vision and objectives, in so much that it prejudices more meaningful development on the edge of the larger, most sustainable locations identified in the settlement hierarchy. Where the settlement boundaries are drawn so tightly, the policy has the unintended consequence of delivering the same amount of housing in a more dispersed manner and in more rural areas that would not have the same opportunities to minimise the need to travel, or to travel by non-car modes, contrary to Objective B4 of the Plan.

5. Why Chawton Park

5.1. The draft Local Plan at paragraph 9.26 sets out that sites have been selected for allocation based on whether they would help deliver the Local Plan strategy, an assessment of their benefits and impacts (including the Integrated Impact Assessment (IIA) of individual sites). Paragraph 2.25 notes that EHDC consider that the best sites have been selected through comprehensive reviews to identify and assess potential sites. HE disagrees that the allocated sites, in particular Neatham Down, have had comprehensive reviews and notes that there are clearly numerous unknowns which is acknowledged requires further technical assessment and which will most certainly restrict the quantum of development deliverable. HE considers that the site at Chawton Park presents an excellent opportunity, which has undergone extensive technical review, to help deliver the Local Plan strategy and, as such, should be utilised to provide the housing need identified in Alton. This section initially sets out an overview of the site, an overview of Neatham Down and then references why Chawton Park is suitable by referring to both published Local Plan evidence and technical evidence produced on behalf of HE.

Overview of the Site

5.2. The land at Chawton Park, comprises approximately 88 hectares (217.45 acres) of land located to the south west of Alton, East Hampshire. The site is located adjacent to the A31 and is encompassed by defined woodlands resulting in high self-containment.

5.3. The majority of the site is comprised of rough grassland and agricultural fields. The site also features a Grade II listed farmhouse and associated buildings, which would not be subject to re-development, however would form a focal point of the proposed development. This principle was agreed during the Tibbalds masterplanning exercise with Parishes, resultant from preferred status of the Large Development sites process, as set out in **Section 1**.

5.4. The LAA identified Chawton Park as available and deliverable with an estimated capacity of approximately 855 dwellings which could be delivered in 5-15 years. As set out in **Section 2**, HE agrees with the conclusion that the site is deliverable and developable, however disagrees with the LAA conclusions that the site has capacity for just 855 dwellings, and notes correct capacity is up to 1,000 dwellings. HE also disagrees that no delivery could occur within 0-5 years, and clarify that the site could commence, and indeed deliver units in the first five years following adoption of the Local Plan.

5.5. HE notes that the evidence base which has been published since the previous R18 Consultation, where Chawton Park was the indicated preferred site, is minimal. Revised evidence base documents include:

- Employment Land Review (2023)
- Retail Leisure Survey (July 2023)
- Flood Risk Sequential Test (2023)
- Habitat Regulations Assessment (January 2024)
- Integrated impact assessment (December 2023)
- Housing Need Technical Note (September 2023)
- Windfall Allowance (October 2023)
- Settlement Hierarchy Background Paper (January 2024)

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- East Hampshire Accessibility Study (January 2024)
- Community Facilities Study (October 2023)
- Emerging Infrastructure Plan (January 2024)
- Statements of Common Ground (January 2024)
- East Hampshire Land Availability Assessment (November 2023)
- Interim settlement boundary review (January 2024)

- 5.6. It is considered that much of the above evidence base has little credibility in demonstrating how Neatham Down is the optimal development allocation in Alton, in comparison to Chawton Park, as demonstrated in the technical analysis in the following sub-sections. Further, it is crucially noted that the updated evidence base does not overcome the conclusions made on behalf of EHDC within the AECOM Sustainability Appraisal on Strategic Site Options (February 2021), which noted Neatham Down is “*considered to be a highly sensitive landscape with a low capacity for development*” (page 7 of SA 2021) [our emphasis added].
- 5.7. The evidence base document of greatest relevance is considered to be the Integrated Impact Assessment (‘IIA’), which supersedes the AECOM Sustainability Appraisal on Strategic Site Options (February 2021). The rankings provided to both Chawton Park and Neatham Down in the IIA are explored below.
- 5.8. The IIA ranked Chawton Park (CHA-007) as strong positive effects for IIA6 (economy) and IIA8 (housing), minor positive effect for IIA5 (health and wellbeing) and IIA9 (landscape). Neutral effects or mixed/uncertain effects for IIA1 (biodiversity), IIA2 (carbon emissions) and IIA3 (climate adaption). Minor adverse effects for IIA11 (water resources) and IIA12 (pollution), and, strong adverse effects for IIA4 (accessibility), IIA7 (heritage) and IIA10 (natural resources).
- 5.9. Neatham Down (referred to as Land at Neatham Manor Farm, BIN-011) has been awarded the following IIA rankings. Strong positive effects for IIA6 (economy) and IIA8 (housing) and minor positive effects for IIA2 (carbon emissions). Neutral effects or mixed/uncertain effects for IIA1 (biodiversity) and IIA5 (health and wellbeing). Minor adverse effects for IIA4 (accessibility), IIA7 (heritage) and IIA12 (pollution), and, strong adverse effects for IIA3 (climate adaption), IIA9 (landscape), IIA10 (natural resources) and IIA11 (water resources). A comparison of Chawton Park and Neatham Down’s rankings can be found at Table 3.

Table 3: Integrated Impact Assessment (IIA) Rankings of Chawton Park and Neatham Down

IIA Criteria	Chawton Park	Neatham Down
IIA1: To protect, enhance and restore biodiversity across the East Hampshire planning area	mixed effect	uncertain effect
IIA2: To minimise carbon emissions and contribute to achieving net zero carbon emission in the East Hampshire planning area	neutral effect	minor positive effect
IIA3: To promote adaptation and resilience to climate change	neutral effect	strong adverse effect
IIA4: To promote accessibility and create well-integrated communities	strong adverse effect	minor adverse effect

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IIA Criteria	Chawton Park	Neatham Down
IIA5: To actively promote health and wellbeing across East Hampshire and create safe communities free from crime	minor positive effect	mixed effect
IIA6: To strengthen the local economy and provide accessible jobs and skills development opportunities for local residents	strong positive effect	strong positive effect
IIA7: To protect and enhance built and cultural heritage assets in the East Hampshire planning area	strong adverse effect	minor adverse effect
IIA8: To provide good quality and sustainable housing for all	strong positive effect	strong positive effect
IIA9: To converse and enhance the character of the landscape and townscape	minor positive effect	strong adverse effect
IIA10: To support efficient and the sustainable use of East Hampshire's natural resources	strong adverse effect	strong adverse effect
IIA11: To achieve sustainable water resource management	minor adverse effect	strong adverse effect
IIA12: To minimise air, noise and light pollution in the East Hampshire planning area	minor adverse effect	minor adverse effect

5.10. Based on the above, HE considers that it is clear that Chawton Park, continues to provide a logical and credible site for allocation, as opposed to Neatham Down. The following section of this report considers in more detail the IIA rankings of Neatham Down, followed by Chawton Park. Further, we demonstrate how we can improve the ranking of Chawton Park through mitigation measures which further demonstrates its suitability.

Neatham Down

5.11. Draft Policy allocation ALT8 'Land at Neatham Manor Farm, Alton', sets out that the site will deliver approximately 1,000 dwellings and supporting infrastructure. HE note that allocation of Neatham Down, does not comply with Option 2 '*concentrate new development in the largest settlements*' which was supported as the preferred option by Members following the Large Development Sites Consultation, but aligns more closely with Option 4 '*concentrate new development in a new settlement*' as it would result in a development which is physically severed from Alton. Notwithstanding this, Neatham Down does not have the ability to deliver the critical mass (1,500 homes) to be deemed a new settlement as defined within the EHDC Spatial Options Background Paper.

5.12. Further to the above, HE questions the land use budget set out in the draft policy and notes that enough land has not been dedicated towards development of a local centre to accommodate a school and other required essential services such as a community centre to support the delivery of 1,000 homes. As such, unless the development is brought forward with an inappropriate density and/or mix, it is considered that 1,000 homes will not be delivered on this site, which in turn brings around questions of critical mass to support the allocation's sustainability credentials in line with draft policies and the said local centre, primary school etc. A review of other key issues is set out below.

Landscape

- 5.13. Landscape is one fundamental issue impacting the Neatham Down site allocation. Draft Policy ALT8, identifies the following landscape constraints and opportunities: *“potential for adverse visual and landscape impacts. The site forms part of an unsettled landscape with a strong sense of rural tranquillity despite the proximity of Alton and the A31. There is potential for long-distance views of the South Downs National Park from eastern parts of the site and views into the site from the Hangers Way. Western areas of the site are better contained by landform.”*
- 5.14. The policy wording identifies that the allocation *“forms part of an unsettled landscape with a strong sense of rural tranquillity”*. This is reflected in the EHDC Landscape Capacity Study 2018, which forms part of the evidence base for the Local Plan. This identifies Landscape Character Area 6c: Worldham as having a High overall landscape sensitivity and a Low landscape capacity [our emphasis added]. The Capacity Study states that this character area is *“constrained by its strong rural character and its role as part of the Wey Valley and Greensand Terrace landscapes and the setting of SDNP and Binstead Conservation Area”* (page 33). The capacity study goes on to state that: *“It is possible that a very small amount of development could be accommodated within or around existing settlements or clusters of built form or building conversions provided it is informed by further landscape and visual impact assessment and sensitively integrated into the landscape, respecting the historic settlement pattern and local distinctiveness, although great care would need to be taken to avoid any landscape or visual harm. The area should otherwise remain undeveloped”* (page 33) [our emphasis added].
- 5.15. As set out above, the landscape evidence base informing the Local Plan does not even remotely suggest that this landscape character area can accommodate a strategic allocation of 600 units (the quantum proposed at the time the evidence base was published) contained within the defined ridgeline, let alone an increased allocation of 1,000 units which breaches the important ridgeline. The policy wording recognises the potential for *“adverse visual and landscape impacts”* as a result. Field work undertaken by Fabrik, on behalf of HE, has identified additional views of this proposed allocation site from the road and Public Rights of Way (ProW) networks and residential areas on higher ground to the north of Alton. Monk Wood and the rising ground of the site allocation, on which development is proposed in the policy concept plan would be prominent in these long distance views across Alton to the South Downs National Park and therefore development within this site is likely to lead to major adverse landscape and visual effects on the setting of the South Downs National Park. Similarly, major adverse impacts on Landscape Character Area 6c are predicted to arise from this allocation, an LCA which has a low capacity to accommodate change and is characterised by its *“unsettled and tranquil”* nature [our emphasis added].
- 5.16. Allocation of Neatham Down, will introduce significant development beyond the A31, removing the current durable and defensible boundary to Alton and setting a new precedent for future development on the greensand ridge in the setting of the SDNP. Furthermore, the Alton Neighbourhood Development Plan identifies four *“important views into and out of the town”* that are either from within the Neatham Manor Farm site (two viewpoints) or look across the Neatham Manor Farm site to the SDNP (from Lynch Hill and from the landscape to the north of Alton). These views are not recognised in the proposed allocation policy, nor the emerging masterplan.
- 5.17. As set out above, the proposed allocation is at odds with EHDC’s landscape evidence base and it is due to these reasons that the site receives a strong adverse negative effect for landscape impact. It is therefore

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not clear from the policy how the landscape evidence base for the Local Plan has in any way informed this site selection over other sites such as Chawton Park Farm, which would create a more logical extension to Alton in keeping with its recent historic growth. This site would keep the urban area to the north of the A31 in a more visually enclosed setting that does not impact any important views identified by the Alton Neighbourhood Development Plan, and within a landscape character area considered to be less sensitive and with slightly higher capacity for change.

- 5.18. Furthermore, in terms of Policy ALT8: Land at Neatham Manor Farm is also considered to be in contravention of Policies DES1 and DES2 through virtue of its location within a highly sensitive “*unsettled*” landscape. As such it is considered that allocation of this site is not consistent with the priorities and objectives set out in the draft local plan.
- 5.19. HE urges the Council, to allocate another reasonable alternative which: is supported by a credible evidence base; is visually self-contained; is north of the A31 and; is not in close visual proximity to the National Park boundary. It is noted that Chawton Park provides the optimal opportunity to comply with these criteria as previously concluded by EHDC while still providing critically needed housing to the Tier 1 settlement of Alton.

Transport

- 5.20. Transport is a second key issue impacting the Neatham Down site allocation, in both the forms of sustainable travel and highways capacity. Each of these issues are explored below.

Sustainable Travel

- 5.21. The location of the Neatham Manor Farm draft allocation is physically divorced from the main settlement of Alton by the A31 dual carriageway.
- 5.22. The A31 therefore presents one of the primary technical challenges, which presents a formidable barrier to sustainable travel. The high traffic volumes and speeds on this major road create a physical and perceived severance effect, compounded by the significant level of fear and intimidation experienced by pedestrians and cyclists attempting to cross [as per the IEMA guidance set out in Appendix 5 Neatham Down Highways Appraisal]. Consequently, the evidence clearly confirms the A31 as having a physical and perceived severance effect, where such perceptions are likely to be magnified by a significant level of fear and intimidation.
- 5.23. The A31 therefore constitutes a significant barrier that precludes non-car permeability between the Neatham Manor Farm allocation and the local amenities in Alton, which is relied upon to deliver sustainable development. The physical and perceived severance caused by the A31 would also detract from any hope of creating an attractive route to encourage sustainable travel between the site and the amenities in Alton. Contrary to the fundamental principles of sustainable development outlined in both national and local policies.
- 5.24. Consequently, there is a reliance on using the existing A31 overbridge to deliver high-quality connections via Lynch Hill. However, whilst the bridge is a highway asset, the route provided across the bridge is not adopted highway maintainable at public expense, as confirmed in the Hampshire County Council interactive

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maps. Rather, the route over the bridge and through the adjoining Lynch Hill development site, is the subject of a legal 'Right of Access' which follows the alignment of the existing single track, only. However, it is important to note that a right of access is not a right of improvement, and the developer would have no automatic privilege to upgrade that route to prioritise pedestrian and cycle movements from the site along an attractive, safe and direct route. In this way, there is a very real prospect of a ransom scenario that would act as a barrier to development, both in respect of timing and viability.

- 5.25. As such, this poses additional deliverability issues; land control constraints and the absence of adopted highway maintainable at public expense limit the ability to upgrade routes to prioritise pedestrian and cycle movements effectively. This, coupled with gradient limitations that demonstrate an LTN1/20 complaint route could not be provided, further diminishes the feasibility of creating safe, direct, and attractive routes for sustainable travel.
- 5.26. Ultimately, the Neatham Manor Farm site fails to meet the necessary criteria for sustainable development outlined in policy and lacks the technical feasibility to support non-car travel infrastructure adequately. The inclusion of this site in the Plan would not only compromise policy objectives but also render the Plan unsound.
- 5.27. Furthermore, the policies of the emerging Local Plan place a clear priority on ensuring a 'genuine' choice in sustainable travel options from new development and a priority in securing good access by public transport. HE notes that as per Appendix 5 [Neatham Down Highways Appraisal], the proposed allocation of Neatham Manor Farm is not sufficiently large as to create the commercial conditions necessary to implement and sustain a new bus service. The draft allocation would therefore be entirely reliant on the diversion of an existing service.
- 5.28. For this to be viable, any diversion needs to be achieved via minimal change to mileage and additional journey time to avoid risking a loss in patronage on other parts of the route due to it becoming inefficient. It also needs to ensure a suitable frequency to allow buses to become a genuine and viable alternative to private car travel.
- 5.29. The Neatham Down site allocation sits in relative proximity to the route of the Number 65 bus service, which connects Alton Town Centre and railway station to Guildford via Farnham. The existing route means that it could have potential to divert into the Neatham Down Farm allocation, assuming vehicular access is taken from the Montecchio Way / A31 roundabout. The bus service however, has a frequency of only one service every 75 minutes throughout the day.
- 5.30. Census 2011 suggests that only 1.59% of people travelling from Alton to Bentley, Farnham and Guildford do so by bus. As such, bus services would need to be uplifted to a minimum frequency of 30 minutes throughout the day to provide a genuine opportunity to travel by bus, in line with emerging policy. This would, however, require significant investment and it is uncertain, given the destinations on the route, whether this could be commercially viable in perpetuity, especially given the step change needed against current patronage levels.
- 5.31. The significant uncertainty in the availability of higher frequency bus services in perpetuity and their ability to reduce residual car journeys place significant doubt on the ability to deliver sustainable development at Neatham Down, contrary to policy.

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- 5.32. In addition to the above, in the era of climate change, the application of 20-minute principles is not only an inward looking evaluation to focus on new development, but rather it is a case of looking at the cumulative effects of the development and its potential to deliver wider benefits that may encourage modal shift amongst parts of the existing community.
- 5.33. In the context of the proposed allocation at Neatham Down, the site does not lie within 20-minute neighbourhood distance of any existing residential areas within Alton. Consequently, even if it were to provide on-site amenities, those facilities would deliver a sustainable travel benefit to existing residents of the town. Moreover, where in the case of a primary school, for example, the catchment was to draw from the wider area, these trips would almost certainly need to be undertaken by car, due to the reasons highlighted above, contrary to the sustainable development policies that run throughout the emerging Local Plan and the aim of HCC's Transport Plan (LTP4) in creating a prioritising active travel by foot and bicycle.
- 5.34. This lack of suitable sustainable travel connections is recognised in the sites poor scoring within the EHDC Living Locally Accessibility Study (Report 1) (January 2024), in which is received one of the lowest minimum scores in the district at a minimum of 4 given its inaccessible location.

Highways Capacity

- 5.35. With regard to highways capacity attention is drawn to paragraph 4.62 of the Transport Background Paper (January 2024) which forms part of the evidence to the Draft Local Plan R18, as set out below.

“Due to the quantum of the proposed homes at the strategic allocation site of Neatham Manor Farm it is likely that this development, in isolation, will have the largest impacts on existing highway conditions in Alton. It is likely that this proposed development will exacerbate existing congestion in the vicinity of the site, specifically B3004 Montecchio Way, Anstey Road, High Street, B3004 Mill Lane and adjoining junctions. It is also likely that a development of this scale will cause additional highway congestion at nearby key destinations, such as local supermarkets and schools as well as the potential for new delay “hotspots” in the town, particularly on the A31 and its associated. However, it should be kept in mind that a development of this scale can provide new education facilities as well as a new local centre with facilities and services to cater for daily needs. Consequently, the development and its associated new infrastructure could allow for residents to live locally and have greater opportunity to make short distance journeys within the proposed development, and to surrounding Alton via active travel modes. This will be greatly encouraged by EHDC by ensuring the design, services and accompanying infrastructure emphasise good sustainable linkages within the development and to surrounding Alton. The potential highway impacts of the development will of course be investigated by an independent site-specific transport assessment as well as the district’s cumulative transport assessment of the Local Plan.” [our emphasis added].

- 5.36. On the basis of the above, the Neatham Down allocation would be entirely reliant upon a suitable scale and mix of land-uses to be delivered within the limits of the allocation, in a timely manner, to offset the potential impacts on the most sensitive parts of the highway network, around and within Alton itself. However, the indicative land use / parameter plan identified within the associated Policy (ALT8) does not appear to be of a physical scale sufficient to accommodate such a range of land uses necessary to create meaningful and realistic opportunities to internalise movements.

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5.37. It is due to the reasons that HE considers that the proposal would represent development in an unsustainable location which would not, and could not, be made sustainable, contrary to the requirements of NPPF and draft Policy HWC1 which requires development to contribute to healthy and active lifestyles through the provision of access to sustainable modes of transport. It is due to these reasons that HE disagrees with the sites IIA ranking of minor adverse effects for criteria 4 accessibility, and considers that this should be elevated to a strong adverse effect ranking as the local plan prioritises active travel over vehicular travel as per Government guidance. HE considers that EHDC should allocate an alternative site, such as Chawton Park that is not reliant on such new infrastructure, to deliver sustainable travel measures.

Ecology

5.38. Ecology is a key consideration for any allocated site. Neatham Down falls within the impact zone of three Natura 2000 sites, within 1.5 km of East Hampshire Hangers SAC, 3.9 km of Shortheath Common SAC and 4.6 km of Wealden Heaths Phase II SPA, which could be impacted by increases recreation pressure from the residents of the proposed development. The existing SPD states an impact zone of 4km from the site where as the new draft policy states an impact zone of 400 meters to 5km (Policy NBE4). Requirement for Suitable Alternative Natural Greenspace ('SANG') at Neatham Down is confirmed in the new A Habitat Regulations Assessment (HRA) (January 2024).

5.39. Despite the fact that Neatham Down is located within the impact zone, draft Policy ALT8 is vague regarding this point and does not include SANG on the indicative concept plan. HE notes that provision of SANG, given its likely land take for a development of 1,000 units would, reduce the quantum of development on site by approximately 25%, reducing the site capacity to 750 units as detailed within the HRA below, potentially resulting in questions regarding critical mass, and could inhibit BNG delivery on-site:

"Land at Neatham Manor Farm – BIN-011, for 1000 dwellings will need its own SANG, at least for the c. 25% of the allocation that lies within 5 km of Wealden Heaths Phase II SPA" (paragraph 6.19).

5.40. Ancient and semi-natural woodlands are present directly adjacent to the site boundary. These are: Monks Wood, an area of Ancient Semi- Natural Woodland and Ancient Replanted Woodland along the southern site boundary; and an Ancient Semi- Natural Woodland is also present along the eastern site boundary, however, this area of woodland is not named. Mitigation in the form of buffers, which are not currently shown on the masterplan, will be required which may reduce the quantum of development. In addition, the proposed development would require removal of some woodland along the east boundary to facilitate access to the A31. This would sever the commuting corridor along the south boundary which may impact various species groups and require mitigation.

5.41. Furthermore, the River Way, or the North Wey, chalk stream is located directly adjacent to the northern boundary of the site which forms part of the river corridor. It is noted that chalk streams are a priority habitat within the UK and are under threat from both direct and indirect impacts of development. As such, while the allocation does not directly impact the river physically, as it falls outside of the site boundary, it could lead to an increase in pollutants from run-off and increase in pollutants from domestic sources, which could enter the river from sewage outfalls. Furthermore, at the construction phase run off from the development could lead to an increase in pollutants and silt entering the watercourse without suitable mitigation. Therefore its proximity needs to be acknowledged within draft Policy ALT8 and appropriate mitigation incorporated to assure no adverse impact.

Air Quality

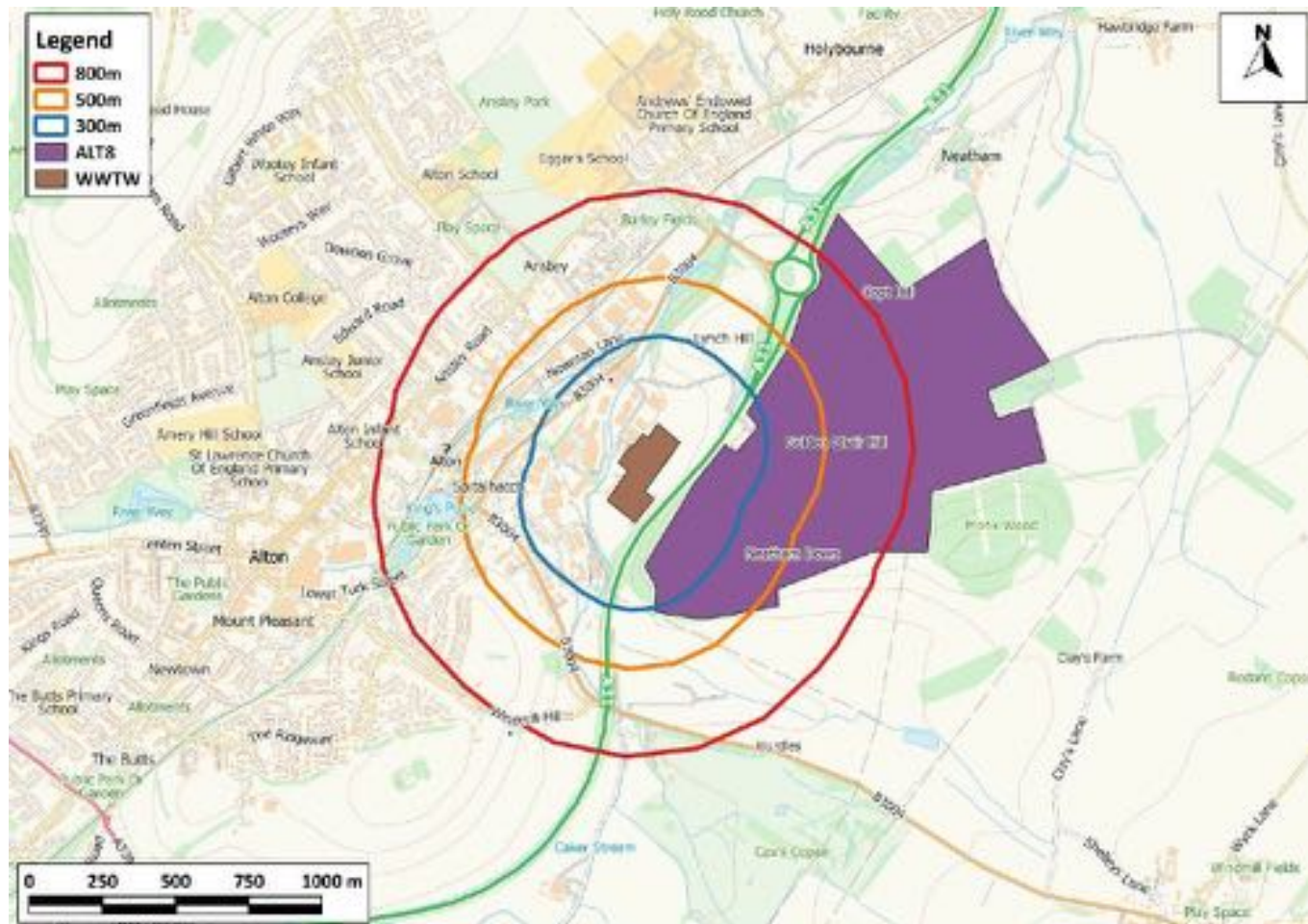
- 5.42. Neatham Farm is located in proximity to the Alton wastewater treatment works (WWTW) (circa 100 metres away), and odour emissions from this WWTW could potentially influence the area of the site suitable for housing. The proximity of the works are identified in draft Policy ALT8 “*potential for adverse impacts on residential amenity in western areas of the site from noise associated with traffic on the A31 and the close proximity of the Alton Sewage Treatment Works.*”
- 5.43. Nearer to the WWTW, ALT3 – Land adjacent to Alton Sewage Treatment Works, Alton is identified in the Site Allocations document for employment and waste water infrastructure. Within this document it is also stated that “*noise from the A31 and odour from the sewage treatment works mean that this site would be unsuitable for more sensitive uses.*”
- 5.44. Thames Water provided a response on 12 January 2023 to the East Hampshire Local Plan Issues and Priorities Consultation. With respect to development within the vicinity of Sewage Treatment Works and Sewage Pumping Stations, Thames Water has stated:
- “The new Local Plan should assess impact of any development within the vicinity of existing sewage works/sewage pumping stations in line with the Agent of Change principle set out in the NPPF, paragraph 187.*
- Where development is being proposed within 800m of a sewage treatment works or 15m of a sewage pumping station, the developer or local authority should liaise with Thames Water to consider whether an odour impact assessment is required as part of the promotion of the site and potential planning application submission. The odour impact assessment would determine whether the proposed development would result in adverse amenity impact for new occupiers, as those new occupiers would be located in closer proximity to a sewage treatment works/pumping station.”*
- 5.45. Thames Water uses a modelled 3 Oue/m³ contour to define a ‘cordon sanitaire’ for each WWTW, which is the area in which “*customers’ living arrangements are affected*”. It has not been possible to obtain the results of any odour modelling carried out for the Alton WWTW. However, based on experience elsewhere, odour concentrations of greater than 3 Oue/m³ as a 98th percentile of hourly values are often modelled 200-500m from similar sized WWTWs. Therefore, it is highly likely that part of the ALT8 site would be unsuitable for residential development. The unsuitable area could potentially include a significant portion of the site and thus limit the number of homes that could be delivered, particularly when other site constraints are taken into account, including steep slopes and high voltage cables are considered, see figure 3 below [Figure 3.1 of Appendix 1: Neatham Down Air Quality Report].

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Figure 3: Waste Water Treatment Works Isochrone Plan



5.46. Measures for mitigation of odour impacts within the ALT8 site will be limited. Whilst the existing mature hedgerows alongside the A31 may increase turbulence and thus dispersion between the WWTW and ALT8, it is unlikely that any additional barrier would be effective, as the receptors are too distant from the source to provide further dispersion of odours. As a result, mitigation is limited to improvements to the WWTW, which would require infrastructure improvement works at the WWTW itself, and thus a significant investment.

5.47. Based on the above, HE concludes that a significant proportion of the land at Neatham Down is not suitable for residential-led development and without robust evidence to the contrary the allocation would be technically unsound.

Ground Water

5.48. The East Hampshire Strategic Flood Risk Assessment ('SFRA') concludes that the risk of groundwater flooding in the district is generally high on account of the chalk bedrock. Figure 4A of the SFRA, shows areas at risk of groundwater flooding in the district. The SFRA mapping is based on the BGS dataset 'Susceptibility to Groundwater Flooding'.

- 5.49. As shown in Figure 4A, Neatham Down is predicted by the SFRA mapping to be partially located within an area of potential groundwater flooding. The mapping suggests such areas would be located in the valley that runs through the western portion of the site, with the ridge areas at lower risk. It is noted that the entirety of the Chawton Park site to be in an area of *“Limited potential for groundwater flooding to occur”*.
- 5.50. Paragraph 167 of NPPF states that *“All plans should apply a sequential, risk-based approach to the location of development – taking into account all sources of flood risk and the current and future impacts of climate change”*. The important aspect in this is the reference to all sources of flood risk.
- 5.51. Paragraph 168 augments paragraph 167 by stating *“The aim of the sequential test is to steer new development to areas with the lowest risk of flooding from any source. Development should not be allocated or permitted if there are reasonably available sites appropriate for the proposed development in areas with a lower risk of flooding.”* It also confirms that the SFRA will provide the basis for applying this test.
- 5.52. The Draft LP reflects the NPPF through Policy NBE7 (Managing Flood Risk). In particular, part NBE7.1 states that *“...development will be permitted provide[sic] that: it meets the sequential and exception test (where required) and outline in Government guidance.”* In addition, NBE7.5 retains wording from the Adopted Local Plan by stating *“Development should be avoided in areas at risk from, susceptible to, or have a history of groundwater flooding”*.
- 5.53. Therefore, in cases where comparison is required between strategic sites, the site at lowest mapped risk of flooding should be preferred. As a result, and based on the evidence provided within Appendix 4 [Chawton and Neatham Down Ground Water Appraisal], HE concludes that Chawton Park would be sequentially preferable over Neatham Down in line with national and local guidance.

Agricultural Land Classification

- 5.54. ADAS on behalf of HE have produced a Desk Study of the Agricultural Land Classification (‘ALC’) at Neatham Down [Appendix 8]. The report sets out that the agricultural climate is an important factor in assessing the agricultural quality of land. The agricultural climate of the proposed Neatham Down site has been calculated using the Climatological Data for Agricultural Land Classification¹. The relevant data for the site’s lowest (105 m AOD), intermediate (115 m AOD) and highest (150 m AOD) elevations.
- 5.55. The British Geological Survey (‘BGS’) information records the bedrock geology of the site as mainly Zig Zag Chalk Formation with a small area of West Malling Modular Chalk Formation in the vicinity of the A31 roundabout. Except for a narrow strip of Head (clay, silt, sand and gravel) extending South East into the site from the A31 roundabout no superficial geology is recorded on the site.
- 5.56. The national soils map, published at 1:250,000 scale, records the soil association for the site as Coombe 1 association. Coombe 1 soils are described as well drained calcareous fine silty soils, deep in valley bottoms but shallow to chalk on valley sides in places with a slight risk of water erosion. These soils are developed in chalky drift over chalk.
- 5.57. Gradients across the site were assessed using LIDAR. This showed areas, mainly across the south and a strip in the middle to the west side of the site, as having gradients of 7-11o and 11-18o which respectively

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limit the grade of the land to Subgrade 3b and Grade 4 in these areas. The remainder, and majority of the land, has a slope of <7° which does not pose a limitation to the grade of the land.

- 5.58. The Agricultural Land Classification (ALC) system provides a framework for classifying land according to the extent to which its physical or chemical characteristics impose long-term limitations on agricultural use for food production. The land proposed for the Neatham Manor Farm development is likely to be a mix of Grade 2 and Subgrade 3a i.e. Best and Most Versatile (BMV land) but limited areas of the land could be downgraded to Subgrade 3b or Grade 4 because of gradient. Top 25 cm stone content could also downgrade the land from Grade 2/Subgrade 3a to non-BMV land but this could only be ascertained by on-site assessment of stone content.

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- 5.59. Due to the reasons set out above, HE considers that the allocation of Neatham Down is inappropriate and as such suggests that Chawton Park is best placed to meet this need. This view point was previously considered by the Council, who adopted Chawton Park as its preferred site after the Large Sites Consultation.
- 5.60. HE has instructed its consultants to re-rank Chawton Park taking into account proposed mitigation and consideration of technical evidence produced. A summary of outputs can be found below.

Contribution to East Hampshire Housing Need

- 5.61. Part 09 of the emerging Local Plan sets out the policies regarding 'Homes for All', including Policy H1 housing strategy, H2 housing mix and type and H3 affordable housing. HE's primary analysis of housing need is set out in **Section 3**, in which we conclude that the Draft Local Plan should be providing for a higher housing need up to 2040, and as per the Settlement Hierarchy, the greatest proportion of homes should be allocated to Alton and its surrounding areas as a Tier 1 settlement.
- 5.62. HE agrees with the ranking which Chawton Park receives in relation to IIA Objective 8 "*to provide good quality sustainable housing to all*" as strong positive effect, as it will provide up to 1,000 dwellings of a mixed size and tenure, including 40% affordable, and as such have not re-ranked this criteria.

Contribution to Carbon Neutrality and Sustainable Travel

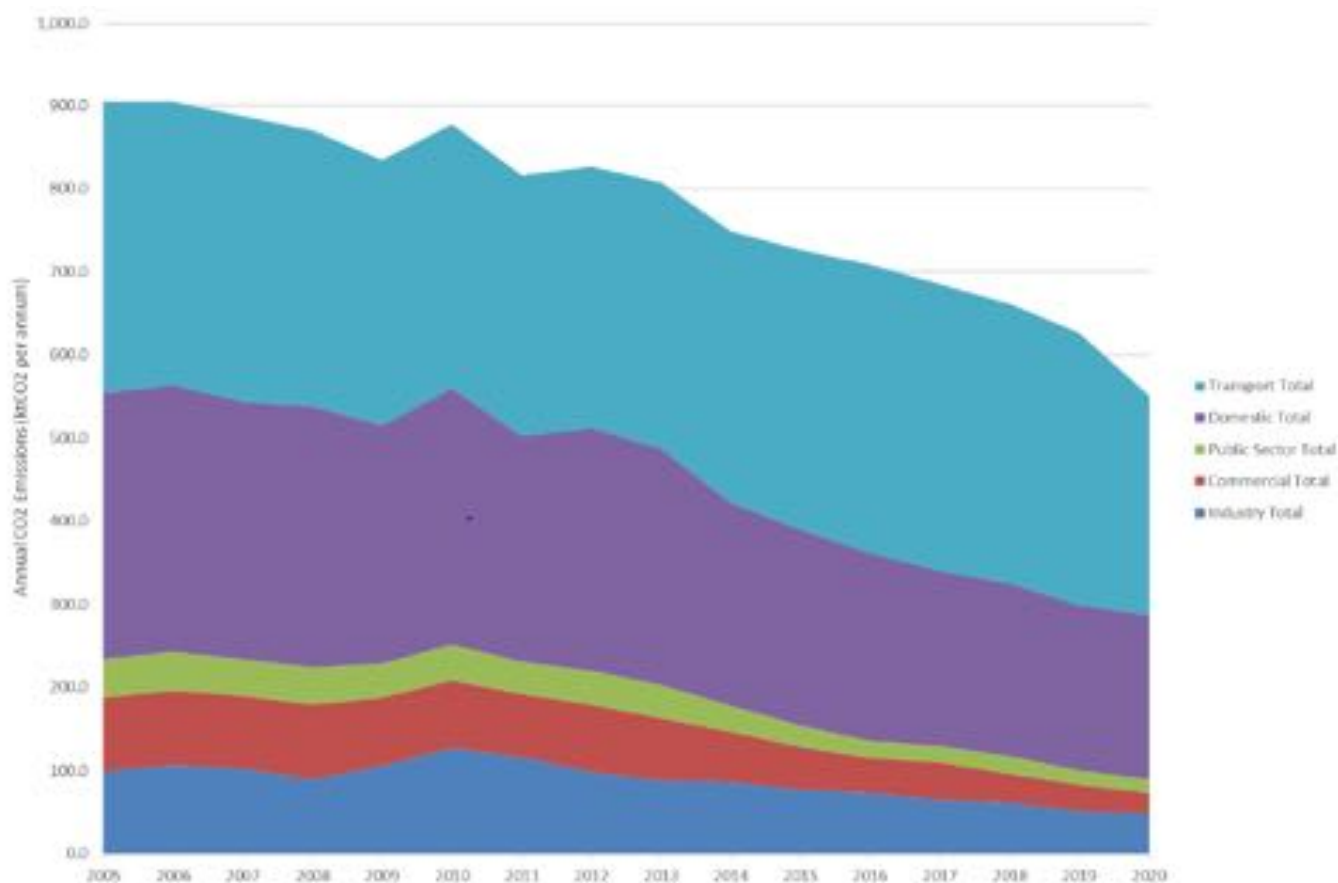
- 5.63. As set out in **Section 2**, carbon neutrality is at the heart of the draft Local Plan, evidenced by the proposed vision and strategic policies. The principle of focusing development in Alton, offers the ability for reduced carbon dioxide emission through reducing journeys by private car, if the correct site with suitable active travel links is identified. The fundamental importance of locating development in sustainable places is demonstrated on figure 4 below, which sets out the source of greenhouse gas emissions across EHDC.

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Figure 4: EHDC District Greenhouse Gas Emissions from all sources



5.64. Resultant from the above, the R18 Local Plan prioritises sustainable travel options and robust public transport access. As recognised by Sustrans, Chawton Park offers the potential to deliver improvements to nationally important cycle infrastructure, including route 224, to Alton town centre and beyond, which would not only benefit residents of the proposed allocation but the wider Alton community. Similarly, the local bus operator, Stagecoach, has endorsed the promotion because of its potential to seamlessly integrate with one of the most viable, fastest growing service in the District which avoids any commercial viability concerns. This is evidenced by an increase in +15% patronage in the last two years and higher frequency services. In addition to the benefits of the frequency of service, the route of the 64 also provides special services to schools and colleges (for example Eggars, Perins, Peter Symonds and independent schools in Winchester) and to Winchester and Alton Hospitals, meaning residents of Chawton Park could access vital services via sustainable travel. Such endorsement from the bus operator and cycle charity underscores the potential for Chawton Park to provide genuine alternatives to private car use, ensuring a more certain path toward achieving sustainable development objectives.

5.65. Due to the above and the opportunities for internalisation and in-commuting through means of active travel due to the delivery of a range of amenities on site and the sites proximity to existing residential areas of Alton, development at Chawton Park would result in a reduced volume of residual traffic movements than from an equivalent development at Neatham Down. As such allocation of Chawton Park would have

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reduced impact on the more sensitive and congested aspects of the Alton highways network, including but not limited to Montecchio Way. HE therefore conclude that the development of Chawton Park could deliver in line with key emerging Local Plan policies, such as HWC1 and DGC2.

- 5.66. Noting the above, it is recognised that suitable vehicular access is still critical. As set out in appendix 6 [Chawton Park Highways Appraisal], the opportunity has been taken to enhance the sense of arrival to the site by diverting Northfield Lane and Chawton Park Lane and by doing so addressing the insufficient geometry at the site entrance. Furthermore, to improve vehicular traffic movements through the rail bridge, traffic lights would be incorporated which has been tested in capacity modelling software and found to deliver improvements to the A31 access.
- 5.67. The proposed allocation of Chawton Park is conceived of a well developed masterplan and access strategy which has been developed in consultation with key stakeholders. Significant evidence has been prepared throughout the Local Plan process which has been independently audited, both by the Council's own external consultants and by others. In common, they find the promotion of Chawton Park to be sound, both in terms of its ability to deliver sustainable development – as recognised within the Council's 2019 Sustainability Appraisal – whilst avoiding unacceptable highway capacity effects.
- 5.68. Further to the above, as shown on Figure 4, domestic sources also play a large role in district wide greenhouse gas emissions. As set out in **Section 2**, EHDC is intending on achieving a 100% reduction in regulation and un-regulated emissions, commonly referred to as a net zero carbon building, by application of the LETI Standard. Subject to viability, HE will seek to meet these standards through a number of discrete interventions, such as: using a fabric first approach to reduce energy demand to less than 15 kWh/m² per annum; targeting operational energy consumption of less than 35 kWh/m² per annum for both regulated and unregulated sources; use of low carbon materials; use of water efficient fixtures and fittings; provision of PV and; provision of green and blue infrastructure providing a 10%+ BNG.
- 5.69. In addition, the design development work will quantify the extent to which the proposed sustainable transport interventions will reduce transport related emissions. Details of the proposed sustainable transport measures to be included within the site are as follows:
- Provision of electric vehicle charging points for all homes
 - Provision of circa 5,000m of dedicated recreational footpaths alongside dedicated cycle routes and connections to the National Cycle Network Route 224
 - Delivery of the 20-minute neighbourhood principles will ensure access to facilities and services, including but not limited to Chawton Park surgery, which is allocated for extension within the draft plan (Policy ALT2), within walking and cycling distance
 - Provision of a on site mobility hub to include an electric car club, electric bike and electric scooter hire
 - Provision of sustainable transport will be provided with a frequent bus service into Alton and the wider area
- 5.70. Based on the benefits and mitigation suggested by HE's technical consultant team, it is considered that the IIA rankings for Objectives 2, 3 and 4 should be updated to minor positive effect and 11 to neutral effect as demonstrated in the table below.

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Table 4: Provided IIA Rankings for Objectives 2, 3, 4 and 11 and Updated Ranking to reflect Proposed Mitigation (Chawton Park)

IIA Criteria	Chawton Park IIA Report Ranking	Chawton Park IIA Ranking with Proposed Mitigation
IIA2: To minimise carbon emissions and contribute to achieving net zero carbon emission in the East Hampshire planning area	neutral effect	minor positive effect
IIA3: To promote adaptation and resilience to climate change	neutral effect	minor positive effect
IIA4: To promote accessibility and create well-integrated communities	strong adverse effect	minor positive effect
IIA11: To achieve sustainable water resource management	minor adverse effect	neutral effect

Natural Environment and Landscape

- 5.71. Part 05 of the emerging Local Plan sets out policies relevant to safeguarding the natural and built environment. This includes policies NBE2 ‘Biodiversity, Geodiversity and Nature Conservation’ seeks to protect and enhance designated landscapes and biodiversity, and requires development to provide a minimum of a 10% measurable net gain, NBE10 ‘Landscape’ which requires developments to have ‘no significant impact’ on landscape amenity and NBE12 ‘Strategic Green and Blue Infrastructure’ which aims to maintain, protect and enhance the function, integrity, quality, connectivity and multi-functionality of the existing green and blue infrastructure network and individual sites. Furthermore, part 11 sets out a range of development management policies including those related to trees and ancient woodland (DM2).
- 5.72. Chawton Park is free of any statutory national, regional or locally protected landscape that is designated for its special scenic or historic qualities. The site does, however, lie within the setting of the SDNP, which is located approximately 350m south of the site on the south side of the A31 following the alignment of the road.
- 5.73. As set out within previous promotion material, the site is enclosed by significant woodland, including Ancient and Semi Natural Woodland and Sites of Importance for Nature Conservation (‘SINC’). The woodland includes Bushy Leaze Wood and Ackender Wood to the north and northeast of the site and Chawton Park Wood to the south. The site is also located within close proximity to numerous Priority Habitats / SINC and Sites of Special Scientific Interest (‘SSSI’), which are scattered around the local landscape.
- 5.74. The site is located within Local Areas 2.6: Chawton Park Clay Plateau and 2b Four Marks within the EHDC Landscape Capacity Study (2018). The study concludes that the Local Area 2b.6 has a medium / low capacity for development. Notwithstanding this fact, the Council provides the site with a minor positive effect ranking for the IIA Criteria 9 regarding landscape.

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- 5.75. Fabrik in its Landscape Review of Alternative Sites [Appendix 3], sets out that views from the wider landscape are largely confined to those elevated locations to the east and south of the site within the wider landscape. Only parts of the site can be discerned through an understanding of where the site lies in relation to Alton and its settlement boundary. Further, there are no views of the whole site area, due to the combination of sloping topography and intervening woodland blocks, ensuring that any development would be well contained visually within the site boundaries.
- 5.76. Based on the concept masterplan presented within the Chawton Park Farm Vision and Framework Masterplan (December 2021, prepared on behalf of EHDC by Tibbalds), development of Chawton Park Farm would result in a series of development parcels interspersed with green infrastructure.
- 5.77. The landscape and green infrastructure includes a central green corridor, providing an east-west connection across the site, as well as providing a sequence of spaces that vary in scale, character and function, connecting the neighbourhood parcels. Other areas of green space include the sloping buffer to the rear of the listed building, enhanced north-south ecological corridors to bolster the biodiversity of the site, and the linear space north of Chawton Park Wood which incorporates attenuation ponds to mitigate flood risk. There is a buffer zone to the Ancient Woodland, with no residential development blocks within this buffer zone.
- 5.78. The proposed new built form has been set back from the site boundary and is located predominately within the northern, central and south-eastern section of the site. New housing would be located on various high points, which is anticipated to be visible within the local / wider area but which remain set within a wooded landscape and not breaching the skyline. The built form within the northern high points will be of lower density, nestled within strategic landscaping and green infrastructure, which moderates the impact on views of the proposed development from the SDNP, surrounding landscape and setting to Chawton House Registered Park and Gardens, in particular from Windmill Hill (to the east of the site) and from Upper Farringdon, along the Writers Way long distant route (to the south of the site).
- 5.79. HE notes that, as per Appendix 4 [Chawton and Neatham Down Ground Water Appraisal], Chawton Park is located in Flood Zone 1 and at Low risk of fluvial flooding. Furthermore, as above, Chawton Park is located in an area of "*Limited potential for groundwater flooding to occur*". As such, HE concludes that Chawton Park is sequentially preferable to Neatham Down.
- 5.80. Chawton Park is partially within small bands of Source Protection Zones. However, the local conditions, notably the depth to groundwater, demonstrate that the site would meet the Local Plan requirements by negating the risk to the quality of the groundwater resource.
- 5.81. With regard to agricultural land, ADAS have produced a Desk Study on behalf of HE [Appendix 7], which concludes the land proposed for the Chawton Park is likely to be predominantly Subgrade 3b, the extent of which is reflected by the areas mapped as Carstens soil association. This area is therefore less likely to be Best and Most Versatile (BMV land). ALC Grade 2 or Subgrade 3a (BMV) are more likely to be present where the Combe 1 soil association is shown. Any areas that might have silty clay 0-25 cm topsoil would be downgraded to Subgrade 3b and some of the land could be downgraded to Subgrade 3b (and even a small area down to Grade 4) because of gradient. Top 25cm stone content could also downgrade the land from Grade 2/Subgrade 3a to non-BMV land but this could only be ascertained by on-site assessment of stone content.

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- 5.82. HE considers that Chawton Park Farm creates the opportunity to create a new landscape led community for East Hampshire which will deliver a generous and biodiverse rich place through retention of more than 50% of the site as new green infrastructure and open space and will deliver a 10%+ biodiversity net gain. Furthermore, it is considered that, with the careful design of the scheme, the scheme could see a minor benefit provided that priority habitat losses are avoided and mitigation for all protected species impacts.
- 5.83. As set out in the appended Landscape Review of Alternative Sites [Appendix 3], landscape design, biodiversity and geodiversity will be a fundamental part of the identity for the development will create a positive setting for Alton. Spaces will be multi-functional where appropriate, providing opportunities for play, recreation, movement, drainage, food growing and wildlife. Thus, HE considers the site an optimal development location to capitalise on landscape and environmental benefits while delivering up to 1,000 new homes.
- 5.84. Based on the benefits and mitigation suggested by HE's technical consultant team, it is considered that the IIA ranking for Objectives 9 and 11 should be updated to strong positive effect and neutral effect respectively. IIA Objective 1 remains as mixed effect.

Table 5: Provided IIA Rankings for Objectives 1, 9 and 11 and Updated Ranking to reflect Proposed Mitigation (Chawton Park)

IIA Criteria	Chawton Park IIA Report Ranking	Chawton Park IIA Ranking with Proposed Mitigation
IIA1: To protect, enhance and restore biodiversity across the East Hampshire planning area	mixed effect	mixed effect
IIA9: To converse and enhance the character of the landscape and townscape	minor positive effect	strong positive effect
IIA10: To support efficient and the sustainable use of East Hampshire's natural resources	strong adverse effect	neutral effect

Conserving Heritage

- 5.85. Policy NBE14 'Historic Environment' seeks to protect and enhance the historic environment, and notes it is a key aspect of sustainable development. It is noted that this includes ancient woodlands. As such, developments are required to protect, conserve and, where possible, enhance the significance of designated and non-designated heritage assets and the contribution they make to local distinctiveness and sense of place, and make sensitive use of historic assets, especially those at risk, through regeneration and re-use, particularly where redundant or under-used buildings are brought into appropriate use.
- 5.86. The site lies to the west of Alton Conservation Area, to the South of Shalden Conservation Area and to the northwest of Cheriton Conservation Area. There are a number of Listed Buildings and Scheduled Ancient Monuments present in the local settlements and wider landscape beyond, including the Grade I listed Jane Austin's House and Grade II* listed Chawton House to the south and southwest of the site. Chawton Park Farmhouse Grade II Listed Building (id: 1093968) is located on site.

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5.87. The proposed development will preserve the setting of the listed building, and make it a focal point of the development. Furthermore, development will have a buffer inline with the emerging Local Plan from the ancient woodland encompassing the site.

5.88. Based on the above design response, HE considers that the IIA7 (heritage) ranking should be updated to neutral effect as demonstrated in the table below.

Table 6: Provided IIA Rankings for Objective 7 and Updated Ranking to reflect Proposed Mitigation (Chawton Park)

IIA Criteria	Chawton Park IIA Report Ranking	Chawton Park IIA Ranking with Proposed Mitigation
IIA7: To protect and enhance built and cultural heritage assets in the East Hampshire planning area	strong adverse effect	neutral effect

Vibrant Economy

5.89. Part 10 of the emerging Local Plan sets out the policies related to supporting the local economy. Chawton Park will support EHDC's vision to build a strong and competitive economy through providing a range of uses to create a thriving community and also increase local economic prosperity and social interaction. A local centre, including community facilities and a 2FE primary school, will be provided with Chawton Park Farmhouse at its heart.

5.90. Socio-economic benefits based on a community of up to 1,000 new homes and a community centre are summarised as follows:

- An average of 60 construction jobs per year;
- An estimated £6 million of residential expenditure;
- An estimated £16 million additional gross value added per annum associated with additional jobs; and
- Circa 300 permanent jobs

5.91. Based on the benefits set out above, HE agrees with the ranking which Chawton Park receives in relation to IIA Objective 6 *“to strengthen the local economy and provide accessible jobs and skills development opportunities for local residents”* as strong positive effect and as such has not re-ranked this criteria.

Living Well

5.92. Enabling Communities to Live Well is part 07 of the emerging Local Plan. In this, Policy HWC1 'health and wellbeing of communities' requires developments to contribute to healthy and active lifestyles through the provision of active design principles, access to sustainable modes of travel, access to safe and accessible green infrastructure and access to local facilities.

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- 5.93. As above, development of Chawton Park would include a mixed-use community centre and would provide extensive active travel and green infrastructure connections. The Chawton Park masterplan and key land uses and activities are designed to remove barriers and enable people to partake in healthier lifestyles, including greater connectivity to the natural environment for recreation, during active travel and social settings, all aiding positive physical, mental and social health and wellbeing.
- 5.94. The scheme will be designed in accordance with the 20-minute neighbourhood principles and as such would: provide easy access to local goods and services including grocery stores and GPs; support healthy eating and increase physical activity by encouraging active modes of transportation and support improving air quality. A key point of note is the proximity of the site to Chawton Park Surgery which is noted to currently have capacity and is allocated to expand under emerging policy ALT2, whereas in contrast the Wilson Practice which is located in proximity to the Neatham Down allocation is over subscribed. As such, the scheme will provide a new walkable and permeable neighbourhood, through implementation of practical measures, such as allotments and community orchards and through wayfinding techniques to create a safe, secure and memorable place.
- 5.95. The social and health value therefore extends beyond the site, with shared amenities, facilities and community assets to complement and integrate with the existing and wider community.
- 5.96. Based on the benefits and mitigation suggested by HE's technical consultant team, it is considered that IIA rankings for Objectives 5 and 12 (those directly relevant to this subsection) should be updated to strong positive effect and neutral respectively as demonstrated in the table below.

Table 7: Provided IIA Rankings for Objectives 5 and 12 and Updated Ranking to reflect Proposed Mitigation (Chawton Park)

IIA Criteria	Chawton Park IIA Report Ranking	Chawton Park IIA Ranking with Proposed Mitigation
IIA5: To actively promote health and wellbeing across East Hampshire and create safe communities free from crime	minor positive effect	strong positive effect
IIA12: To minimise air, noise and light pollution in the East Hampshire planning area	minor adverse effect	neutral effect

Summary

- 5.97. As set out in the above sections, the proposed development at Chawton Park is capable of delivering against all key issues and priorities in the draft R18 Local Plan, including carbon neutrality, affordable homes and 20-minute neighbourhood principles.
- 5.98. Based on the above points, HE disputes the conclusion raised by EHDC that “*the best sites have been selected through comprehensive reviews to identify and assess potential sites*” (IIA paragraph 2.25) and suggests that Chawton Park presents a better opportunity to assist the Council in achieving its vision for

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the District than Neatham Farm. This point is re-emphasised in the IIA table below which provides the cumulation of the rankings set out above as adjusted for the scheme's inherent mitigation.

Table 8: Provided IIA Rankings and Updated Ranking to reflect Proposed Mitigation (Chawton Park)

IIA Criteria	Chawton Park IIA Report Ranking	Chawton Park IIA Ranking with Proposed Mitigation
IIA1: To protect, enhance and restore biodiversity across the East Hampshire planning area	mixed effect	mixed effect
IIA2: To minimise carbon emissions and contribute to achieving net zero carbon emission in the East Hampshire planning area	neutral effect	minor positive effect
IIA3: To promote adaptation and resilience to climate change	neutral effect	minor positive effect
IIA4: To promote accessibility and create well-integrated communities	strong adverse effect	minor positive effect
IIA5: To actively promote health and wellbeing across East Hampshire and create safe communities free from crime	minor positive effect	strong positive effect
IIA6: To strengthen the local economy and provide accessible jobs and skills development opportunities for local residents	strong positive effect	strong positive effect
IIA7: To protect and enhance built and cultural heritage assets in the East Hampshire planning area	strong adverse effect	neutral effect
IIA8: To provide good quality and sustainable housing for all	strong positive effect	strong positive effect
IIA9: To converse and enhance the character of the landscape and townscape	minor positive effect	strong positive effect
IIA10: To support efficient and the sustainable use of East Hampshire's natural resources	strong adverse effect	neutral effect
IIA11: To achieve sustainable water resource management	minor adverse effect	neutral effect
IIA12: To minimise air, noise and light pollution in the East Hampshire planning area	minor adverse effect	neutral effect

6. Conclusion

- 6.1. This representations document responds to the EHDC R18 Consultation and promotes the land at Chawton Park on behalf of Harrow Estates for a new landscape-led sustainable neighbourhood, adjacent to Alton, of up to 1,000 dwellings, new primary school, a local centre and significant new green infrastructure.
- 6.2. **Section 1** of the report provides an introduction and background to the history of the site. The site is being promoted by Harrow Estates and has been through all previous LP consultations and has been submitted the Land Availability Assessment ('LAA') and provided the reference 'CHA-007', where it was deemed to have a capacity of up to 855 dwellings in the next 10-15 years by EHDC. The LAA and previous LP consultations deem the site as deliverable and developable. Harrow Estates is in agreement with these points, however notes that the site has a capacity for up to 1,000 dwellings and that development could commence in the first five years of the emerging Local Plan.
- 6.3. It is at **Section 2** that this representation document begins to explore EHDC's draft R18 consultation document. It is noted that Harrow Estates is largely in agreement with the vision, priorities and objectives presented in the document, however raises concern that the vision has been watered down regarding its sustainability credentials and emphasis on homes for all from previous consultation versions. Further, some concerns are raised in regard to specific policies.
- 6.4. Harrow Estates urges the importance of increasing the proposed housing supply from the standard method requirement in **Section 3** due to the variety of factors discussed, including but not limited to affordability and unmet need in the South Downs National Park and Partnership for South Hampshire. It is considered that without these amends, the draft Local Plan would be deemed unsound.
- 6.5. At **Section 4** Harrow Estates agrees with the conclusion that Alton is the principle settlement in East Hampshire and as such should be the focal point for new development. Harrow Estates does raise concerns regarding the nature of the tightly drawn settlement boundaries and considers that this is unnecessarily restrictive to sustainable growth.
- 6.6. **Section 5** of this report sets out the reasons why Harrow Estates considers that the land at Chawton Park offers a better option for strategic development in Alton than Neatham Down through analysis of technical constraints. A number of these reasons why Neatham Down is not suitable for allocation are summarised below.
- **Landscape:** The proposed development at Neatham Down would have a major adverse impact on the local landscape as demonstrated within the supporting evidence base which recognises *"It is possible that a very small amount of development could be accommodated within or around existing settlements or clusters of built form or building conversions provided it is informed by further landscape and visual impact assessment and sensitively integrated into the landscape, respecting the historic settlement pattern and local distinctiveness, although great care would need to be taken to avoid any landscape or visual harm. The area should otherwise remain undeveloped"* (page 33) [our emphasis added].

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- As demonstrated in this text extract, the landscape evidence base informing the Local Plan does not even remotely suggest that this landscape character area can accommodate a strategic allocation of 600 units (the quantum proposed at the time the evidence base was published) contained within the defined ridgeline, let alone an increased allocation of 1,000 units which breaches the important ridgeline.
- **Transport:** The proposed development at Neatham Down does not benefit from active or sustainable travel connections due to the site's severance from Alton by the A31 and reliance on third-party landowners to form connections. Furthermore, the Local Plan evidence base recognises that: *"Due to the quantum of the proposed homes at the strategic allocation site of Neatham Manor Farm it is likely that this development, in isolation, will have the largest impacts on existing highway conditions in Alton"* (Transport Background Paper January 2024).
- **Ecology:** The draft Neatham Down allocation, falls within the impact zone of three Natura 2000 sites, it is 1.5 km of East Hampshire Hangers SAC, 3.9 km of Shortheath Common SAC and 4.6 km of Wealden Heaths Phase II SPA. As such, as per the Habitat Regulations Assessment, at least 25% of the site would be needed for SANG which is not shown on the indicative masterplan, reducing quantum to 750 homes and causing the question of critical mass.
- **Air Quality:** The majority of the draft Neatham Down allocation lies within 800m of Alton wastewater treatment works (WWTW) and some within 100m rendering much of the site unsuitable for residential development as per Thames Water modelling and guidance. As above, this brings into question the critical mass of the proposed development at Neatham Down.
- **Ground Water:** The site at Neatham Down has demonstrated susceptibility to ground water flooding meaning it is not sequentially preferable in line with the NPPF.

6.7. It is due to these reasons above others, detailed within the provided technical appendices, that Harrow Estates considers that allocation of Neatham Down is at odds with the EHDC evidence base and draft policies. As such, Harrow Estates concludes that, due to the reasons set out in Section 5, Chawton Park is the optimal location to help EHDC meet its housing requirement in Alton and the wider district and deliver its Local Plan objectives.



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Report

East Hampshire Local Plan

**Review of Odour Constraints Upon
Land at Neatham Manor Farm Site
Allocation (ALT8)**

For Harrow Estates

16 February 2024

Document control

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1 Introduction

- 1.1.1 Air Quality Consultants has been instructed by Harrow Estates to provide a review of the potential odour issues associated with the allocation of the Land at Neatham Manor Farm (known as ALT8) for residential development in the emerging East Hampshire Local Plan. The Neatham Manor Farm site is near to the Alton wastewater treatment works (WWTW) and odour emissions from this WWTW could potentially influence the area of the site suitable for housing. Harrow Estates are the promoter of an alternative site at Chawton Park farm.
- 1.1.2 This document sets out a review of available information to determine whether odour impacts could be a constraint to development of the Neatham Manor Farm site for residential use. It also makes recommendations for further work that could support opposition to the site's allocation.

2 Policy Background

2.1 East Hampshire Local Plan 2021-2040¹

Development Management Policy

2.1.1 Policy DM11.1 identifies that "development will only be permitted where it:

- a. does not have a significant adverse impact on the amenity of nearby buildings or spaces;
- b. provides acceptable standards of amenity for any existing and future users and occupiers of the development site; and
- c. where possible, contributes to improvements in the amenity of public spaces."

2.1.2 The explanatory text for Policy DM11.1 goes on to say:

"Where there is potential for a significant adverse impact on amenity, or where levels of amenity could be unacceptable following development, details of appropriate avoidance or mitigation measures may be requested in support of a planning application. Such information may relate to the impacts of new buildings or spaces and their use on, or the impacts on these new buildings or spaces arising from, the current situation for a development site and its locality in respect of:

- a. privacy;
- b. outlook;
- c. overbearing;
- d. access to sunlight and daylight/overshadowing;
- e. ambient temperature;
- f. noise;
- g. vibration;
- h. pollution;
- i. dust; and
- j. odour."

Site Allocations

2.1.3 The Land at Neatham Manor Farm, site, as shown in [Figure 2-1](#), is called ALT8 and is identified for residential (including travelling communities), commercial, education and community uses, with approximately 1000 dwellings (including 6 travelling showpeople plots). The Site Allocations document acknowledges that there is "potential for adverse impacts on residential amenity in western areas of the site from noise associated with traffic on the A31 and the close proximity of the Alton Sewage Treatment Works."

¹ East Hampshire District Council (2024) Local Plan 2021 – 2040, Regulation 18. Available at: <https://www.easthants.gov.uk/media/8743/download?inline>

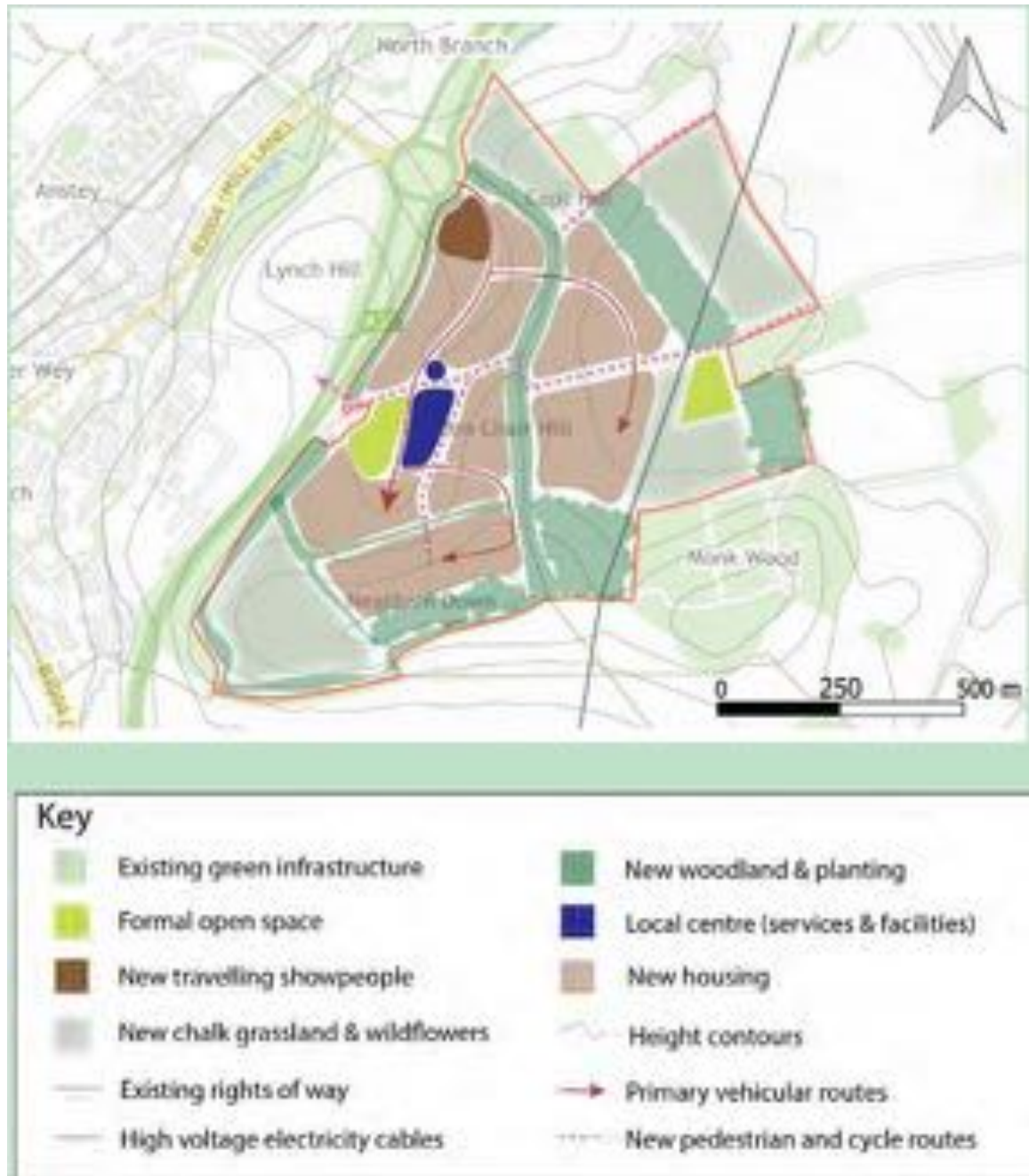


Figure 2-1: ALT8 Indicative Site Layout

- 2.1.4 Nearer to the WWTW, ALT3 - Land adjacent to Alton Sewage Treatment Works, Alton¹ is identified in the Site Allocations document for employment and waste water infrastructure. Within this document it is acknowledged that "noise from the A31 and odour from the sewage treatment works mean that this site would be unsuitable for more sensitive uses". ALT3 is directly adjacent to the northeast boundary of ALT3 and is also allocated for employment uses, although potential odour constraints are not identified.



Figure 2-2: ALT3 Site Allocation

Local Plan Consultation

- 2.1.5 Thames Water² provided a response on 12th January 2023 to the East Hampshire Local Plan Issues and Priorities Consultation. With respect to development within the vicinity of Sewage Treatment Works and Sewage Pumping Stations, Thames Water have stated:

"The new Local Plan should assess impact of any development within the vicinity of existing sewage works/sewage pumping stations in line with the Agent of Change principle set out in the NPPF, paragraph 187.

Where development is being proposed within 800m of a sewage treatment works or 15m of a sewage pumping station, the developer or local authority should liaise with Thames Water to consider whether an odour impact assessment is required as part of the promotion of the site and potential planning application submission. The odour impact assessment would determine whether the proposed development would result in adverse amenity impact for new occupiers, as those new occupiers would be located in closer proximity to a sewage treatment works/pumping station."

² East Hampshire District Council (n.d) Consultation Responses. Available at: <https://www.easthants.gov.uk/media/8196/download?inline>

“The odour impact study would establish whether new resident’s amenity will be adversely affected by the sewage works and it would set the evidence to establish an appropriate amenity buffer. On this basis, text similar to the following should be incorporated into the Neighbourhood Plan: “When considering sensitive development, such as residential uses, close to the Sewage Treatment Works, a technical assessment should be undertaken by the developer or by the Council. The technical assessment should be undertaken in consultation with Thames Water. The technical assessment should confirm that either: (a) there is no adverse amenity impact on future occupiers of the proposed development or; (b) the development can be conditioned and mitigated to ensure that any potential for adverse amenity impact is avoided.”

- 2.1.6 Inclusion of Thames Water's suggested text within the Local Plan would make it consistent with Thames Water's guidance on risk assessment for odour encroachment³.

³ Thames Water (2020) Risk assessment for odour encroachment. Available at: <https://www.thameswater.co.uk/media-library/home/developers/larger-scale-developments/planning/water-and-wastewater-capacity/odour-encroachment-guidance.pdf>

3 Review

- 3.1.1 Alton WWTW is located approximately 100m from the boundary of ALT8 and serves a population equivalent to approximately 50,000⁴. It has not been possible to determine any details of the processes carried out at the works from published information online. Based on professional experience and aerial photographs, it appears that some sludge processing is carried out on site, which can result in the strongest and most offensive odours from a WWTW.
- 3.1.2 [Figure 3-1](#) shows the 300 m, 500 m and 800 m distance bands from the WWTW boundary. This demonstrates that the majority of ALT8 falls within the 800 m Thames Water consultation zone³. Based on the indicative site layout shown in [Figure 2-1](#), the 800 m band encompasses the majority of the area identified for new housing.

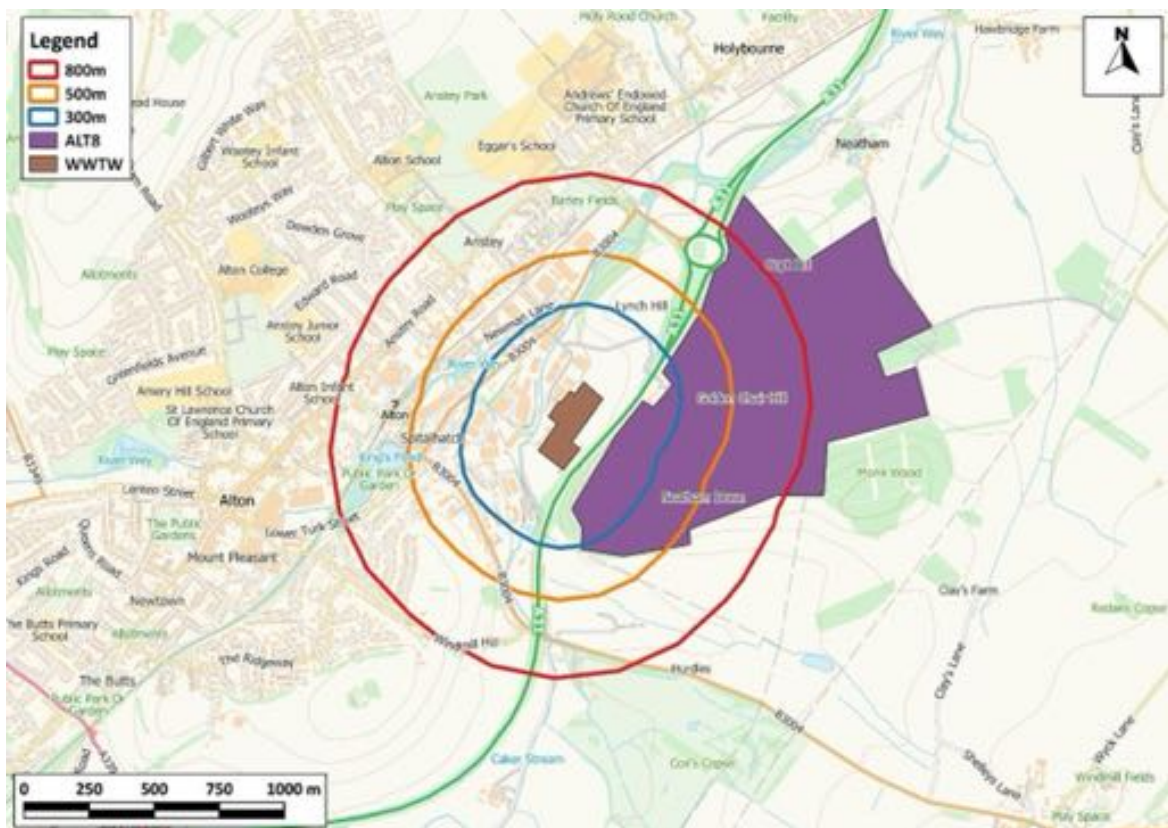


Figure 3-1: Distance bands from Alton WWTW

- 3.1.3 Thames Water use a modelled 3 OUE/m³ contour to define a 'cordon sanitaire' for each WWTW, which is the area in which "customers' living arrangements are affected". It has not been possible to obtain the results of any odour modelling carried out for the Alton WWTW. However, based on experience elsewhere, odour concentrations of greater than 3 OUE/m³ as a 98th percentile of hourly values are often modelled 200 - 500m from similar sized WWTWs. Therefore, it is highly likely that part of the ALT8 site would be unsuitable for residential development. The unsuitable area could potentially include a significant portion of the site and thus limit the number of homes that could be

⁴ Urban waste water treatment map (2024)
<https://eea.maps.arcgis.com/apps/MapJournal/index.html?appid=e7e93bfd95ab44e28cae733b5a4ff54b%20&embed=true#>

delivered, particularly when other site constraints are taken into account, including steep slopes and high voltage cables, as indicated in [Figure 2-1](#).

- 3.1.4 Measures for mitigation of odour impacts within the ALT8 site will be limited. Whilst the existing mature hedgerows alongside the A31 may increase turbulence and thus dispersion between the WWTW and ALT8, it is unlikely that any additional barrier would be effective, as the receptors are too distant from the source to provide further dispersion of odours. As a result, mitigation is limited to improvements to the WWTW, which would require infrastructure improvement works at the WWTW itself, and thus a significant investment.
- 3.1.5 [Figure 3-2](#) shows wind roses for the Odiham meteorological site, which is located approximately 8.5 km to the north of the ALT8 site. This shows that the prevailing wind direction is from the southwest, meaning that the majority of the ALT8 site would not be downwind of the WWTW for the majority of the time. However, there will be periods when winds would transport odours towards areas of the site, as due to the size and proximity of ALT8 it would be affected by winds from a large range of directions; from approximately 220 to 300 degrees. It is important to note that the odour model contours are based on the highest 2 percent of hours in the year, rather than the average; the wind roses indicate that winds occur from 220 to 300 degrees for more than 2% of the year.

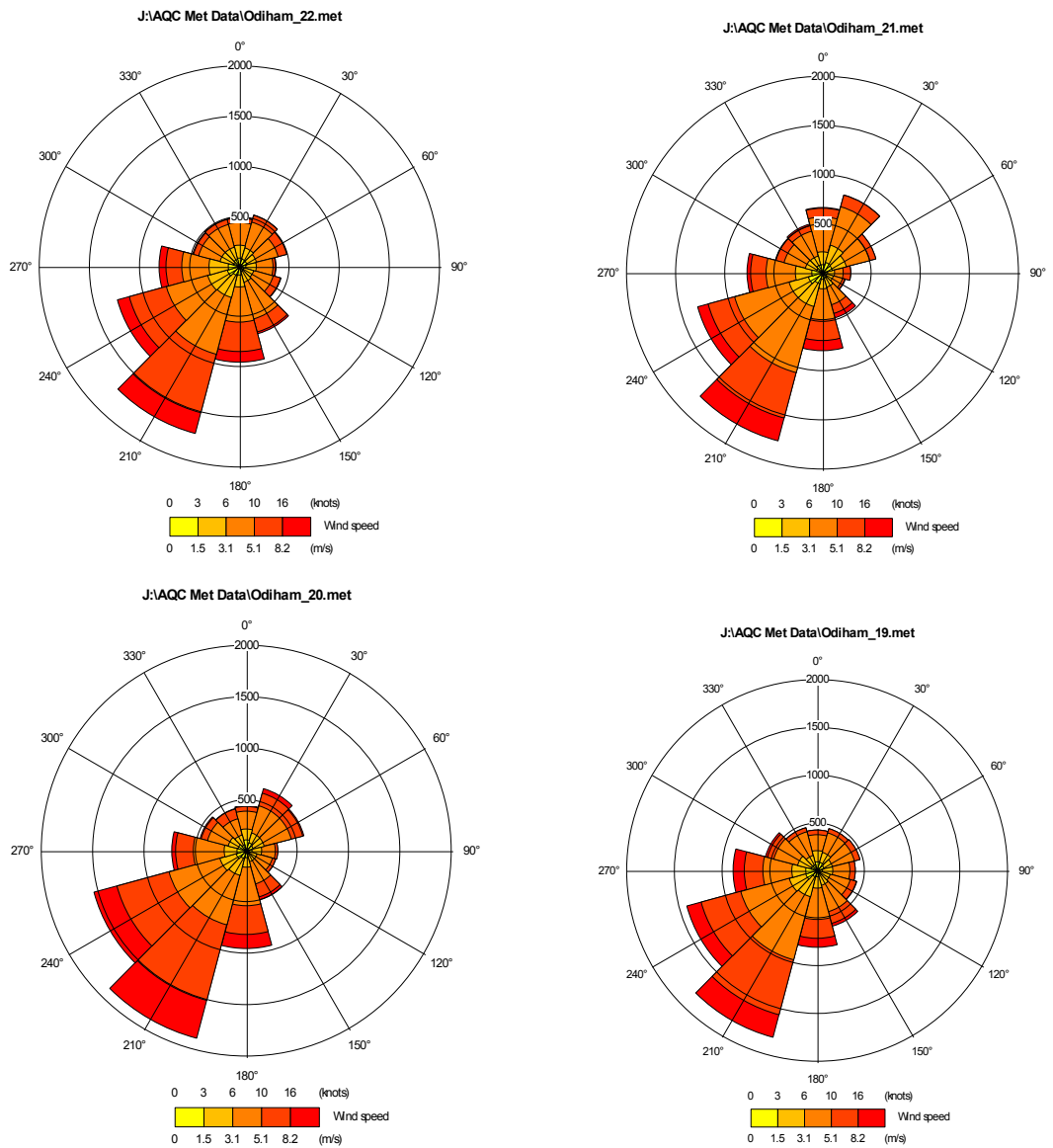


Figure 3-2: Wind Roses for Odiham 2019-2022

4 Conclusions and Recommendations

- 4.1.1 The majority of the ALT8 site identified for housing falls within Thames Water's 800 m consultation zone for odour encroachment upon WWTW. It is judged likely that a significant portion of the site would fall within an area which Thames Water would consider unsuitable for residential development; Thames Water are thus likely to object to any planning application within that area. As a result, it is unlikely that it would be possible to deliver 1,000 dwellings on the ALT8 site.
- 4.1.2 Thames Water requires all odour modelling for planning applications to be carried out by one of their sub-contractors (at the developer's expense). Whilst AQC could prepare an odour model to provide an indication of the likely area affected, it would need to be based on the limited information available in the public domain, rather than specific operations at the works.
- 4.1.3 If access can be obtained to any of the ALT8 site, then sniff tests could be carried out under suitable worst-case conditions. This would need to be during dry conditions in the summer months (April to September), when winds are blowing from the WWTW towards any accessible areas of ALT8, i.e. public footpaths. Sniff tests would provide an indication of the strength of any odours detectable at the site under those specific conditions.



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+ Desk-Based Ecology Review



Land at Neatham Manor Farm, Alton
29th February 2024

Project No:	Report No.	Date	Revision
12147	R10b	29th February 2024	A
Admin QA	Author	Checked	Approved

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Section 1: Introduction

Introduction

- 1.1. This report has been prepared by Tyler Grange Group Ltd on behalf of Harrow Estates. It sets out a high-level Desk-Based Ecology Review associated with a proposed development at Land at Neatham Manor Farm, Alton, hereafter referred to as 'the site'. See **Figure 1.1** for the indicative red line boundary.

Context

- 1.2. This review considers the redline boundary and proposed layout included as part of the allocations for the draft East Hampshire District Council (EHDC) Local Plan, see **Figure 1.1** below. No technical supporting information has been submitted by the applicant to support the site's allocation in the local plan.
- 1.3. Neatham Manor Farm is proposed to be allocated within the draft local plan which states the site will deliver the following:

'As identified in Policy H1 – Housing Strategy, provision is made for about 3,500 new homes in the most sustainable and accessible locations in the Local Plan Area in accordance with the Settlement Hierarchy (Policy S2). The distribution of these homes includes 700 new homes in Alton, as well as a new proposed Strategic Allocation, which consists of land at Neatham Manor Farm. This proposal includes:

A minimum of 1,000 homes, including six travelling showpeople plots;

New areas of woodland and chalk grassland;

Supporting infrastructure (potential for a new primary school and neighbourhood amenities).

A mixed-use strategic allocation in close proximity to the largest settlement in the Local Plan Area presents the opportunity to deliver a unique place with a focus on local character, that takes a landscape-led approach to development. Concentrating a large amount of development within close proximity to the most sustainable settlement will also help to prevent sporadic urban sprawl across the Local Plan Area, in less sustainable locations'

- 1.4. Full details of the proposed allocation are present in ALT8 of the EHDC local plan.





Figure 1.1. Indicative layout submitted for inclusion in Draft East Hampshire Local Plan.

Methodology

Data Search

1.5. A desk-based study was conducted whereby records of designated sites, priority habitats and records of protected species licenses were obtained. The following resources were consulted/contacted:

- Multi-Agency Geographic Information for the countryside (MAGIC) website¹;
- Local Council website²;
- Joint Nature Conservation Committee (JNCC) website³,

¹ <https://magic.defra.gov.uk/> [Accessed 16/02/2024]

² <https://www.easthants.gov.uk/> [Accessed 16/02/2024]

³ <http://jncc.defra.gov.uk/ProtectedSites/> [Accessed 16/02/2024]



- Natural England (NE) designated sites website⁴,
- Ordnance Survey mapping; and
- Google Maps, including aerial photography.

1.6. The following areas of search around the boundary of the site boundary were applied:

- 2 km for protected species licenses, national statutory designated and non-statutory sites; and
- 10 km for European statutory sites.

1.7. This assessment and the terminology used are consistent with published guidance^{5 6}.

Limitations

1.8. This assessment is underpinned by a desk-based review only and as such may not accurately portray the habitats and impacts present on-site.

Quality Control

1.9. All ecologists at Tyler Grange Group Limited are members of the Chartered Institute of Ecology and Environmental Management (CIEEM) or are working towards membership and act under the direction of members, and abide by the Institute's Code of Professional Conduct⁷.

⁴ <https://designatedsites.naturalengland.org.uk/> [Accessed 16/02/2024]

⁵ CIEEM (2017) *Guidelines for Preliminary Ecological Appraisal, 2nd edition*. Chartered Institute of Ecology and Environmental Management, Winchester.

⁶ CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*. Chartered Institute of Ecology and Environmental Management, Winchester.

⁷ CIEEM (2022) Code of Professional Conduct, CIEEM, Winchester



Section 2: Ecological Baseline

Designated Sites

- 2.1. The data search returned six Natura 2000 sites within 10 km of the site, and two statutory designated sites within 2 km of the Site. These are detailed in **Table 2.1** and shown on **Figure 2.1** below, along with potential impacts and mitigation measures which may be required.

Table 2.1. Designated Sites

Designated site	Direction and Distance from site	Description and Summary of Reason for Designation
East Hampshire Hangers Special Area of Conservation (SAC)	East 1.5 km	The SAC is separated into several distinct compartments. It is designated primarily for the presence of the Annex I ⁸ habitats: <ul style="list-style-type: none"> • ‘Asperulo-Fagetum beech forests’; and • ‘Tilio-Aceron forests of slopes, screes and ravines’. Other Annex I habitats present as a qualifying feature, but not a primary reason for designation: <ul style="list-style-type: none"> • ‘semi-natural dry grasslands and scrubland facies on calcareous substrates’; and • ‘<i>Taxus baccata</i> woods of the British Isles. Annex II ⁹ species present as a qualifying feature, but not a primary reason for designation, is early gentian <i>Gentianella anglica</i> .
Shortheath Common SAC	East 3.9km	The SAC comprises a single parcel. It is designated primarily for the presence of the Annex I habitat ‘transition mires and quaking bogs’.
Wealden Heaths Phase II Special Protection Area (SPA)	East 4.6 km	The SPA qualifies under Article 4.1 of the Habitats Directive (79/409/EEC) by supporting populations of European importance of Dartford warbler <i>Sylvia undata</i> , nightjar <i>Caprimulgus europaeus</i> and woodlark <i>Lullula arborea</i> (all Annex I species).
Woolmer Forest SAC	East 7.7 km	The SAC is separated into several distinct compartments. It is designated primarily for the presence of the Annex I habitats: <ul style="list-style-type: none"> • ‘Natural dystrophic lakes and ponds’; • ‘European dry heaths’; and • ‘Depressions on peat substrates of the <i>Rhynchosporion</i>’.

⁸ Annex I of the Habitats Directive (1992) Annex I of the Habitats Directive (1992)

⁹ Annex II of the Habitats Directive (1992)



		<p>Other Annex I habitats present as qualifying features:</p> <ul style="list-style-type: none"> • 'Northern Atlantic wet heaths with <i>Erica tetralix</i>'; and • 'Transition mires and quaking bogs'.
Thursley, Ash, Pirbright & Chobham SAC	East 9.6 km	<p>The SAC is separated into several distinct compartments. It is designated primarily for the Annex I habitats:</p> <ul style="list-style-type: none"> • Northern Atlantic wet heaths with <i>Erica tetralix</i>; • European dry heaths; and • Depressions on peat substrates of the <i>Rhynchosporion</i>.
Thursley, Hankley & Frensham Commons SPA	East 9.6 km	<p>Legally underpinned by Thursley, Hankley & Frensham Commons Site of Special Scientific Importance (SSSI).</p> <p>Designated features:</p> <ul style="list-style-type: none"> • Dartford warbler • Nightjar; and • Woodlark.
Upper Greensand Hangers: Wyck to Wheatley Site of Special Scientific Interest (SSSI)	East 1.5 km	<p>This site is composed of woods on the steep rocky slopes of the Upper Greensand. Bare rocks are covered by lime-loving bryophytes such as <i>Tortula marginata</i>, <i>Chiloscyphus pallescens</i> and <i>Fissidens gracilifolius</i>. There is also a population of the nationally scarce mollusc <i>Macrogastera rolphii</i>. This site is part of East Hampshire Hangers SAC.</p>
Wick Wood and Worldham Hangers SSSI	East 1.85 km	<p>This site has ancient semi-natural woods on the steep slopes of the Upper Greensand and the adjacent gently sloping Gault Clay, with a number of springs at the junction of the two strata. The ground flora on the unstable upper slopes is sparse, but lower down it is rich and dominated by wild garlic <i>Allium ursinum</i>. Two ponds add to the habitat diversity</p> <p>This site is part of East Hampshire Hangers SAC.</p>



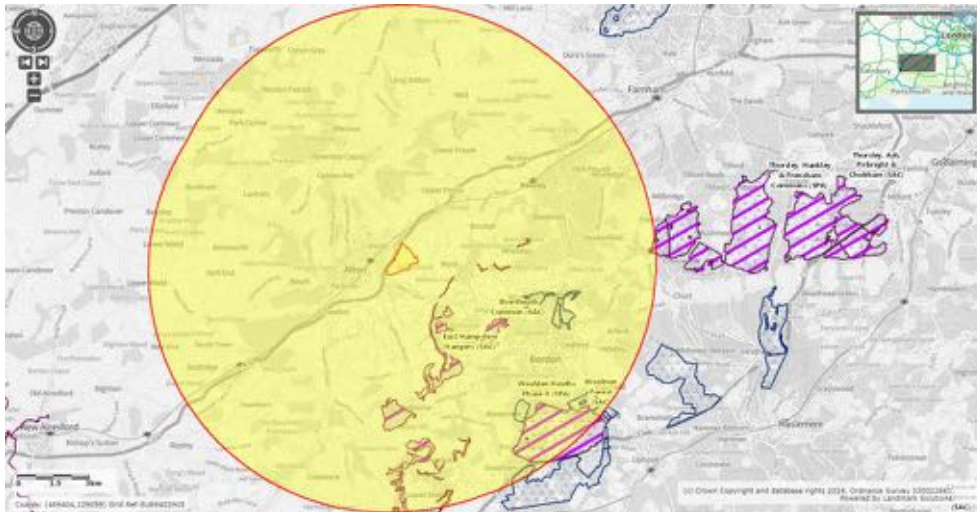


Figure 2.1. Statutory designated sites within 10 km of the site boundary.

- 2.2. SPAs and SACs as Natura 2000 sites are part of the European network of important sites that make a significant contribution to conserving the 189 habitat types and 788 species identified in Annexes I and II of the Habitats Directive (as amended) and Annex I of the Birds Directive. By virtue of their designation as important sites on account of their ecological interest, SPAs and SACs are of **international ecological importance**.
- 2.3. By the virtue of their designation, SSSIs are of **national ecological importance**.
- 2.4. Non-statutory protected sites are also present in the site’s vicinity (the details of these are not freely available online). In Hampshire they are known as Sites of Importance for Nature Conservation (SINC) and Road Verges of Ecological Importance (RVEI); both protected under planning policy. SINC are sites of conservation value in the context of the county and are selected on the basis that they meet the criteria for local wildlife sites selection. They are therefore of **county ecological importance**. RVEIs are considered to be of up to **local ecological importance**.

Habitats

- 2.5. Based on aerial imagery the site appears to be predominantly arable land bisected by hedgerows. The site also appears to support grassland, scrub, woodland and ponds.





Figure 2.2. Aerial imagery of the site.

- 2.6. Ancient woodlands (defined as continuous woodland cover since at least 1600 AD) are present directly adjacent to the site boundary, see **Figure 2.3** below. These are: Monks Wood, an area of Ancient Semi- Natural Woodland and Ancient Replanted Woodland along the southern site boundary; and an Ancient Semi- Natural Woodland is also present along the eastern site boundary, however, this area of woodland is not named. Ancient woodlands are protected in the National Planning Policy Framework (NPPF) as irreplaceable habitats, due to their protection ancient woodlands are considered to be of **local ecological importance**.

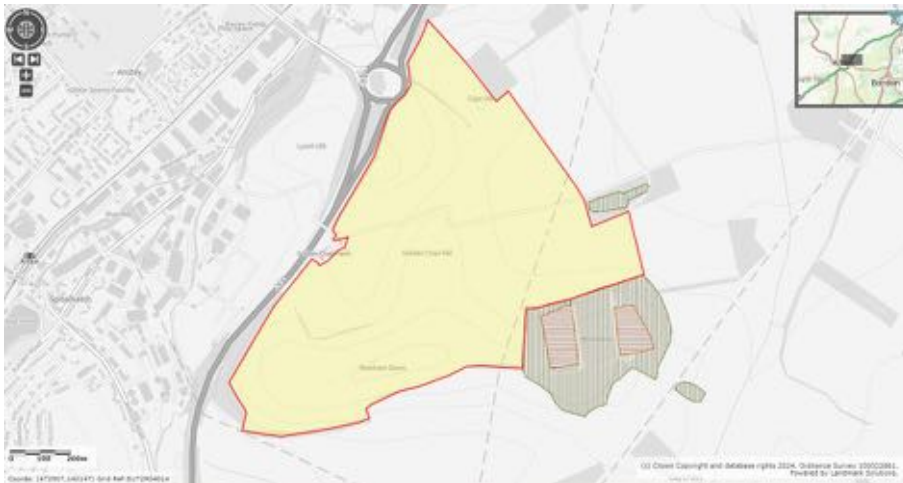


Figure 2.3. Ancient woodland directly adjacent to the site boundary (Green crosshatching represents Ancient Semi- Natural and brown cross hatching represents Ancient Replanted Woodland.)

- 2.7. Several areas of priority habitat, namely Deciduous Woodland are present along the north, east and south site boundaries, see **Figure 2.4** below. Priority habitats are important native habitats protected under Section 41 of the Natural Environment and Rural Communities (NERC) Act, 2006 (As amended). Given the site, location of



these habitats and their connectivity to the surrounding landscape they are likely of **district ecological importance**.

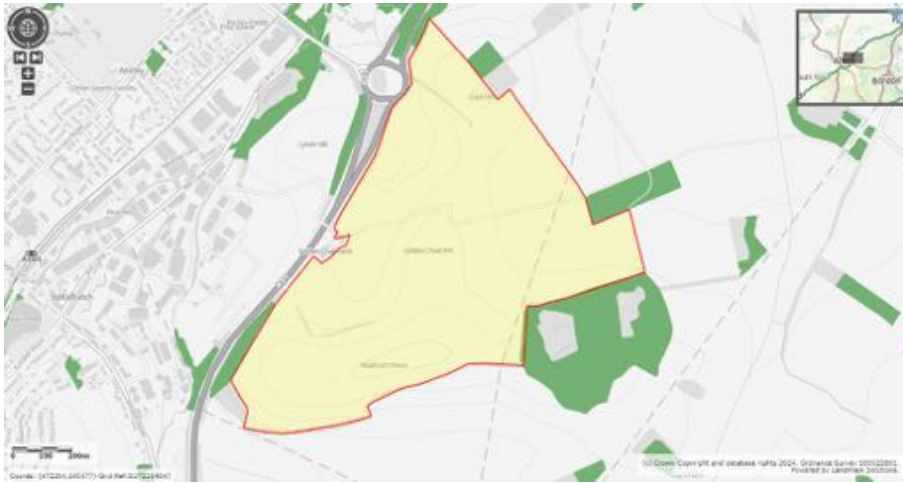


Figure 2.4. Deciduous Woodland present adjacent to the site boundary.

- 2.8. The site is directly adjacent to the River Wey which runs through the woodland along the northern site boundary toward Alton, see **Figure 2.5** below. The River Wey is a tributary of the Thames with this section being part of the North Wey sub-catchment and is known as ‘The North Wey’. The North Wey is a stretch of chalk stream running from Farnham through to Alton. Chalk rivers are an ecologically diverse and important habitat classed as a HoPI¹⁰. The site forms part of the river corridor, generally taken as 50 m from the river bank. As a priority habitat, chalk rivers are protected under Section 41 of the NERC Act, 2006 (As amended). Given its classification as a chalk stream, connectivity to the wider landscape, this habitat is likely to be of **county ecological importance**.

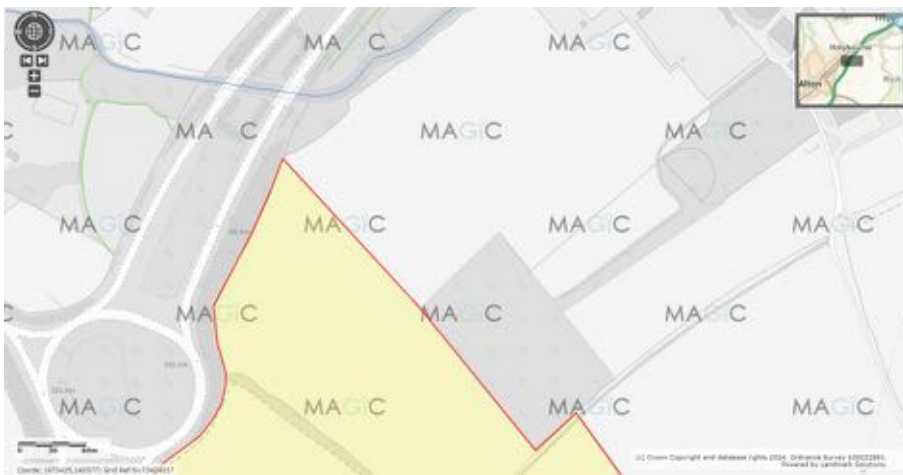


Figure 2.5. Chalk river (Blue line) adjacent to the northern site boundary.

- 2.9. No other priority habitats were identified during the data search, but some may be present on-site.

¹⁰[efaidnbmnnnibpcajpcglclefindmkaj/https://data.jncc.gov.uk/data/01d6ab5b-6805-4c4c-8d84-16bfebe95d31/UKBAP-BAPHabitats-45-Rivers-2011.pdf](https://data.jncc.gov.uk/data/01d6ab5b-6805-4c4c-8d84-16bfebe95d31/UKBAP-BAPHabitats-45-Rivers-2011.pdf)



Protected Species

- 2.10. A search of European Protected Species (EPS) licences and great crested newt (GCN) *Triturus cristatus* licence returns found several records of licences for bat species (including common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, brown long-eared *Plecotus auritus* and serotine *Eptesicus serotinus*) and hazel dormouse *Muscardinus avellanarius*. GCN licence returns found three populations of GCN; one within the site boundary (in 2017) and two directly south of the site boundary, see **Figure 2.6** below.

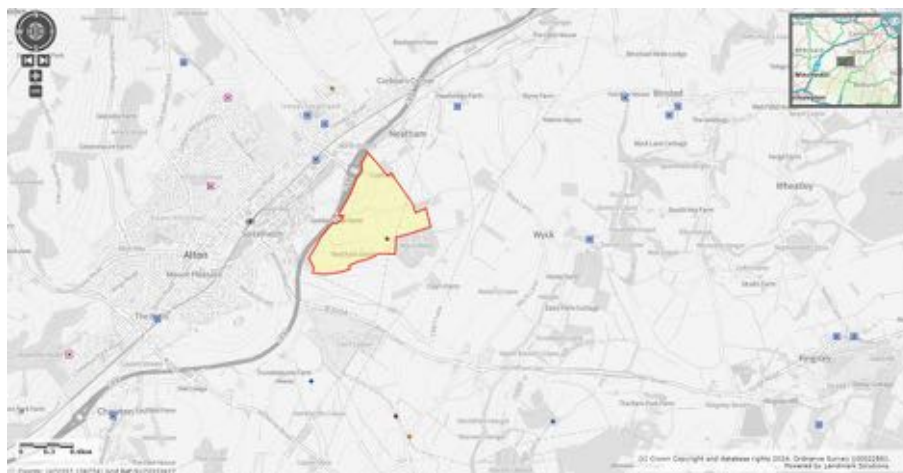


Figure 2.6. EPS licences issued by NE and GCN licence returns. Bat and hazel dormouse licences are shown blue and pink squares, and positive GCN records are indicated by the pink and blue dots, yellow represents negative GCN records.

- 2.11. Based on the habitats likely present and local records, the site likely supports populations of the following species:
- Badgers *Meles meles*;
 - Bats;
 - GCN;
 - Breeding birds (particularly farmland and ground nesting birds such as skylark *Alauda arvensis* and Schedule 1 species such as barn owl *Tyto alba*); and
 - Common reptiles.
- 2.12. The habitats within the site are part of a wider ecological network and as such could have impacts on Favourable Conservation Status (FCS) of the species present if suitable mitigation cannot be provided.
- 2.13. Given the size of the site, habitats present and potential for protected species it is likely that any populations on-site are of **local ecological importance**.



Section 3: Site Constraints

Designated Sites

- 3.1. The proposed development is within 1.5 km of East Hampshire Hangers SAC, 3.9 km of Shortheath Common SAC and 4.6 km of Wealden Heaths Phase II SPA. Draft planning policy NBE4 states that any sites within a 5 km radius of these Nature 2000 sites may result in harm from increased recreational pressure. Due to the close proximity to these Natura 2000 sites, a Habitats Regulations Assessment (HRA) will be required. The local authority and Natural England should be consulted in order to determine if the proposed development will result in any impacts to these proposed sites.
- 3.2. In order to support the draft local planning policy a new HRA¹¹ has been undertaken to assess impact of the proposed site allocations. This HRA states that a bespoke Suitable Alternative Nature Greenspace (SANG) will be required for the proposed development at Neatham Manor Farm, see the below quote:

“Land at Neatham Manor Farm - BIN-011, for 1000 dwellings will need its own SANG, at least for the c. 25% of the allocation that lies within 5 km of Wealden Heaths Phase II SPA”.
- 3.3. Provision of a SANG is not detailed within the proposed site design (detailed in **Figure 1.1**) as such, it may impact the quantum of housing that could be delivered as part of the allocation.
- 3.4. The proposed development is outside of the recognised impact zones for the Thames Basin Heaths SPA (5-7 km as stated in draft planning policy NBE5) and Solent SPA (5 km as stated in draft planning policy NBE6). As such, impacts to these sites are not anticipated.
- 3.5. Given the proximity of the site to two SSSIs, an impact assessment will be required to determine if any potential impacts from the proposed development will occur and if any mitigation is required.
- 3.6. An assessment of non-statutory sites cannot be made as the data is not publicly available. An assessment of potential implications for future development cannot be made at this time.

Habitats

- 3.7. Ancient woodland is present directly adjacent to the site boundary. Advice from Natural England and the Forestry Commission states that at least a buffer of 15m will be required. However, that buffers may need to be larger based on impacts of the proposed development¹², which may impact the quantum of development that could be provided on-site. There may be the potential for disturbance and degradation of the retained woodlands from increased recreational use which could occur if access from new residents, and associated trampling, littering, informal play, and fire setting, cannot be controlled. A strategy would be required to mitigate such effects, and also those of potential increased lighting levels, though such effects are not likely to preclude development.
- 3.8. The plans for the proposed site seek to remove a section of woodland to provide access from the A31 to the proposed development. Being a linear feature of habitats throughout the landscape this area is likely a community corridor for various groups species and as such maybe be impacted by the loss of this habitat.

¹¹ AECOM. (2024). East Hampshire Local Plan Habitat Regulations Assessment Regulation 18.

¹² <https://www.gov.uk/guidance/ancient-woodland-ancient-trees-and-veteran-trees-advice-for-making-planning-decisions>



- 3.9. As the proposed development is residential, it will lead to an increase recreational pressure on the woodland which could impact the condition and function of woodlands. To mitigate for impacts to woodland (listed above) buffers should be included from the development and woodland. Neither woodland appears to be public ally accessible based on the results of the desk-based assessment and is not likely currently subject to recreational pressure. In line with draft planning policy NBE2 and NBE13 the proposed development would need to provide mitigation for the loss of habitat, mitigation for increased recreational pressure on woodland and demonstrate improvements to green infrastructure as part of the development proposals.
- 3.10. The North Wet (section of the River Wey) runs directly adjacent to the north boundary of the site. The site forms part of the river corridor. Chalk rivers are a HoPI and important habitat for a range of species including fish and invertebrates. Chalk rivers are susceptible to impacts as results of development, such as pollution and run-off. Residential development can negatively impact river from recreation pressure (were accessible), construction impacts (pollutants, dust and silt entering the water course), run-off (from roads and increased traffic) and other pollutants (such as domestic and sewage).
- 3.11. The latest data from the Environment Agencies, Catch Data Explored shows the section of the North Wey is classified as 'Poor ecological status'¹³, see **Figure 3.1** below and fails on several levels of pollutants, including phosphates.

Classification Item	2019	2022	Chemical		
Ecological	Poor	Poor	Priority hazardous substances	Fail	Does not require assessment
Biological quality elements	Poor	Poor	Benzopyrene	Good	
Fish	Poor	Poor	Benzofluoranthene	Fail	
Invertebrates	High	High	Benzofluoranthene	Fail	
Macrophytes and Phytobenthos Combined	Moderate	Good	Benzofluoranthene	Fail	
Macrophytes Sub Element	Moderate	Good	Cadmium and its Compounds	Good	
Physico-chemical quality elements	Moderate	Moderate	DQ ethylhexyltin chloride (Priority hazardous)	Good	
Acid Neutralising Capacity	High	High	Dioxins and dioxin-like compounds	Good	
Ammonia (Phys-Chem)	High	High	Heptachlor and cis-heptachlor epoxide	Good	
Biochemical Oxygen Demand (BOD)		High	Hexabromocyclohexane (HBCDD)	Good	
Dissolved oxygen	Moderate	High	Hexachlorobenzene	Good	
Phosphate	Poor	Poor	Hexachlorobutadiene	Good	
Temperature	High	High	Mercury and its Compounds	Good	
pH	High	High	Monophenols	Good	
Hydromorphological Supporting Elements	Supports good	Supports good	Perfluorooctane sulphate (PFOS)	Fail	
Hydrological Regime	Supports good	Supports good	Polybrominated diphenyl ethers (PBDE)	Fail	
Morphology	Supports good	Supports good	Tributyltin Compounds	Good	
Specific pollutants	High	High	Priority substances	Fail	Does not require assessment
Copper	High	High	Copernicium (Priority)	Fail	
Iron	High	High	Fluoranthene	Good	
Manganese	High	High	Lead and its Compounds	Good	
Nickel	High	High	Nickel and its Compounds	Good	
Zinc	High	High	Other Pollutants	Does not require assessment	Does not require assessment

Figure 3.1. Catchment data from for the North Wey (Alton to Tilford) Water Body.

- 3.12. In the absence of suitable mitigation, pollutants and run-off from the proposed development could further negatively impact the water quality, increase pollutants such as nitrates and phosphates, and impact species utilising this habitat. It is likely that any impacts can be mitigated for through provision of a Construction and Environment Management Plan (CEMP) and a suitable drainage strategy. As such, these impacts are unlikely to impact the principle of development or quantum proposed at Neatham Manor Farm.
- 3.13. Further assessments of habitats including an assessment for priority habitats should be undertaken, these cannot be evaluated as details of any habitat surveys have not been provided. In order for development to be compliant with policy NBE2 of the draft local plan, which seeks to protect protected habitats. Given the size of the site and low distinctiveness habitats present it is likely mitigation for impacts and losses of habitats could be provided on-site without significantly reducing the viability or quantum of residential units.

¹³ <https://environment.data.gov.uk/catchment-planning/WaterBody/GB106039017830>



Species

- 3.14. The EPS licences issued by NE within the sites vicinity indicate that several protected species may be present at the site, including bats and hazel dormouse. The presence of a GCN licence return from 2017 could indicate a population of GCN is present on-site. These cannot be evaluated as details of any protected species surveys have not been provided.
- 3.15. Given the desk study records and habitats hazel dormouse, bats, breeding birds and GCN are likely present within the site boundary.
- 3.16. For development to be compliant with policy NBE2 of the draft local plan, which seeks to protected various protected and priority species, mitigation or compensation would need to be provided for impacts to protected species. Given the size of the site and low distinctiveness habitats present it is likely mitigation for impacts to protected species could be provided on-site without significantly reducing the viability or quantum of residential units.

Biodiversity Net Gain

- 3.17. As detailed in the Environment Act 2021 and policies NBE2 and NBE3 of the draft local plan, the proposed development will be required to provide a minimum of 10% biodiversity net gain.
- 3.18. Mitigation for losses of habitats because of the proposed development should be implemented as per the biodiversity net gain hierarchy, with the initial aim of on-site provision of habitats.
- 3.19. As shown on the proposed site plan included as part of the proposed development (see **Figure 1.1** above) new chalk grassland and woodland is proposed as part of the development. Aerial imagery shows the site is likely arable farmland therefore, it has likely been subject to fertilizer application which alters the nutrients.
- 3.20. Farming practices may also impact the structure of the soil. As such, soil sampling and possible remediation may be required for chalk grassland and woodland habitat creation to be successful on-site.
- 3.21. Given the size of the site and the likely low distinctiveness habitats currently present it is likely a 10% net gain could be achieved on-site. However, the required provision of a SANG may impact the delivery of BNG as areas cannot be double counted. This may then impact the proposed quantum of development that could be provided.
- 3.22. Any habitat created on-site will be required to be managed in perpetuity for 30 years by a Habitat Management and Maintenance Plan (HMMP), as per the Environment Act 2021.



Section 4: Conclusion

- 4.1. A number of constraints exist in relation to the development at Neatham Manor Farm. A HRA and subsequent mitigation, likely a SANG, will be required for recreational impacts to Natura 2000 sites within the ZoI of the proposed development at Neatham Manor Farm.
- 4.2. Mitigation for impacts to ancient woodland and priority woodland habitat, and protected and priority species, require further assessment. However, based on the likely habitats present and the size of the site, it is likely these are deliverable on-site without significantly impacting the principle or quantum of development on-site.
- 4.3. A BNG assessment would be required to determine the habitats of the site and if the proposals can deliver the required 10% net gain. Based on the likely low distinctiveness habitats present it is likely, in isolation, delivery of 10% can be achieved on-site without impact the quantum of development.
- 4.4. However, in combination with the provision of SANG and 10% BNG the provision of both may impact the quantum of development potentially deliverable on-site. As the habitats created for SANG cannot be counted toward a net gain, with additional habitat creation being required on top of those provided for the SANG which can count towards a net gain.



Appendix 1: Legislation and Planning Policy

Legislation

- A1.1. Specific habitats and species receive legal protection in the UK under various pieces of legislation, including:
- The Environment Act 2021;
 - The Wildlife and Countryside Act (WCA) 1981 (as amended);
 - The Conservation of Habitats and Species Regulations 2017 (as amended);
 - The Countryside and Rights of Way (CRoW) Act 2000;
 - The Natural Environment and Rural Communities Act (NERC) 2006;
 - The Hedgerows Regulations 1997; and
 - The Protection of Badgers Act 1992.
- A1.2. The European Council Directive on the Conservation of Natural Habitats and of Wild Flora and Fauna, 1992, often referred to as the 'Habitats Directive', provides for the protection of key habitats and species considered of European importance. Annexes II and IV of the Directive list all species considered of community interest. The legal framework to protect the species covered by the Habitats Directive has been enacted under UK law through The Conservation of Habitats and Species Regulations 2017 (as amended).
- A1.3. In Britain, the WCA 1981 (as amended) is the primary legislation protecting habitats and species. SSSIs, representing the best examples of our natural heritage, are notified under the WCA 1981 (as amended) by reason of their flora, fauna, geology or other features. All breeding birds, their nests, eggs and young are protected under the Act, which makes it illegal to knowingly destroy or disturb the nest site during nesting season. Schedules 1, 5 and 8 afford protection to individual birds, other animals and plants.
- A1.4. The CRoW Act 2000 strengthens the species enforcement provisions of the WCA 1981 (as amended) and makes it an offence to 'recklessly' disturb a protected animal whilst it is using a place of rest or shelter or breeding/nest site.

Environment Act 2021: Upcoming Town and Country Planning Act

- A1.5. The Environment Act gained Royal Assent in November 2022. Whilst the premise of BNG has been around prior to this, the Assent of the Act sets the Framework for future legislation to be changed. This will be in the form of the Town and Country Planning Act (TaCPA), specifically Schedule 14 of the TaCPA, which will make Biodiversity Net Gain a condition of planning (not a planning condition). The target 'gain' is currently set at 10% but the Secretary of State has the ability to change this.



National Planning Policy

National Planning Policy Framework (NPPF), December 2023

- A1.6. The updated National Planning Policy Framework (NPPF) was published in December 2023 and sets out the Government's planning policies for England and how these should be applied. It replaces the first National Planning Policy Framework published in March 2012.
- A1.7. Paragraph 11 states that:
- “Plans and decisions should apply a presumption in favour of sustainable development.”*
- Section 11 of the NPPF, paragraph 120, sub-section b states that planning policies and decisions should:
- b) *“encourage multiple benefits from both urban and rural land, including through mixed use schemes and taking opportunities to achieve net environmental gains such as developments that would enable new habitat creation or improve public access to the countryside;*
 - c) *recognise that some undeveloped land can perform many functions, such as for wildlife, recreation, flood risk mitigation, cooling/shading, carbon storage or food production”*
- A1.8. Section 15 of the NPPF (paragraphs 174 to 188) considers the conservation and enhancement of the natural environment.
- A1.9. Paragraph 180 states that planning and decisions should contribute to and enhance the natural and local environment by:
- a) *“protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);*
 - b) *recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;*
 - c) *maintaining the character of the undeveloped coast, while improving public access to it where appropriate; and*
 - d) *minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures”*
- A1.10. Paragraph 181 states that plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.
- Paragraph 185 states that in order to protect and enhance biodiversity and geodiversity, plans should:
- a) *“Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for*



biodiversity¹⁴; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation¹⁵; and

- b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.”*

A1.11. When determining planning applications, Paragraph 186 states that local planning authorities should apply the following principles:

- a) “if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
- b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;*
- c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons¹⁶ and a suitable compensation strategy exists; and*
- d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.”*

A1.12. As stated in paragraph 187 the following should be given the same protection as habitats sites¹⁷:

- a) “potential Special Protection Areas and possible Special Areas of Conservation;*
- b) listed or proposed Ramsar sites¹⁸; and*
- c) sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.”*

¹⁴ Circular 06/2005 provides further guidance in respect of statutory obligations for biodiversity and geological conservation and their impact within the planning system.

¹⁵ Where areas that are part of the Nature Recovery Network are identified in plans, it may be appropriate to specify the types of development that may be suitable within them.

¹⁶ For example, infrastructure projects (including nationally significant infrastructure projects, orders under the Transport and Works Act and hybrid bills), where the public benefit would clearly outweigh the loss or deterioration of habitat.

¹⁷ The policies referred to are those in this Framework (rather than those in development plans) relating to: habitats sites (and those sites listed in paragraph 181) and/or designated as Sites of Special Scientific Interest; land designated as Green Belt, Local Green Space, an Area of Outstanding Natural Beauty, a National Park (or within the Broads Authority) or defined as Heritage Coast; irreplaceable habitats; designated heritage assets (and other heritage assets of archaeological interest referred to in footnote 68); and areas at risk of flooding or coastal change.

¹⁸ Potential Special Protection Areas, possible Special Areas of Conservation and proposed Ramsar sites are sites on which Government has initiated public consultation on the scientific case for designation as a Special Protection Area, candidate Special Area of Conservation or Ramsar site.



- A1.13. Paragraph 182 states that the presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.

Local Planning Policy

East Hampshire District Council Draft Local Plan 2021-2040¹⁹

- A1.14. Policies relating to ecology and nature conservation can be found in Chapter 5: Safeguarding our Natural and Built Environment, which are summarised as follows:

- A1.15. Policy NBE2: Biodiversity, geodiversity and nature conservation

The protection, conservation, management and/or restoration of natural environments and the ecological communities supported by them.

NBE2.1 Development proposals will be permitted where they protect and enhance biodiversity and geodiversity features and must be supported by adequate and up-to-date ecological information which demonstrates that development proposals:

a. Will not have an adverse effect on an international, national or locally designated wildlife site or sites that meet designated sites criteria. The level of protection afforded to these sites is commensurate with their status within this hierarchy.¹

b. Will retain, protect and enhance biodiversity features, including priority habitat types and irreplaceable habitats, and geodiversity interests within the development site and its zone of influence through the development's design and implementation.

c. Will incorporate a minimum of 10% measurable biodiversity net gain² as measured through the submission of a required biodiversity metric and biodiversity net gain plan and to cover a time period of at least 30 years. BNG to be delivered first and foremost on-site, if not possible, off-site offsets should be delivered which support agreed strategically nature recovery initiatives.

d. Will protect and support the recovery of protected and notable priority species ensuring no adverse impact of the local conservation status of such species.

e. Will contribute to the protection, restoration and enhancement of existing wildlife habitats, the creation of new wildlife habitats and to the maintenance of existing and the creation of new habitat linkages between sites and ecological features which there by create and enhance local ecological networks.

f. Any residual losses of biodiversity must be delivered first and foremost on-site or offset as a last resort.

g. Will enable biodiversity to respond and adapt to the impacts of climate change.

¹⁹ East Hampshire District Council, 2024. Our Local Plan 2021-2040. Accessed from: <https://www.easthants.gov.uk/planning-services/planning-policy/local-plan/draft-local-plan-2021-2040>.



NBE2.2 Where development proposals do not comply with the above, they will only be permitted if it has been clearly demonstrated that there is an overriding public need for the proposal which outweighs the need to safeguard biodiversity and/or geodiversity and there is no satisfactory alternative with less or no harmful impacts. In such cases, as a last resort, compensatory measures will be secured to ensure no net loss of biodiversity/geodiversity and provide a net gain.

A1.16. Policy NBE3 Biodiversity Net Gain

NBE3.1 Development will only be permitted where a measurable BNG of at least 10% is demonstrated and secured in perpetuity (for at least 30 years) subject to:

a. The latest DEFRA metric or agreed equivalent being submitted to quantify the baseline and post-development biodiversity value of the development site and off-site areas proposed for habitat creation.

b. The assessment being undertaken by a suitably qualified and/or experienced ecologist and is submitted together with baseline and proposed habitat mapping in a digital format with the application.

c. The submission of a 30 year management plan detailing how the post-development biodiversity values of the site and any supporting off-site mitigation will be achieved and funded over the time period; and

d. The location of any off-site habitats created are within areas which maximise opportunities for local nature recovery wherever this is possible.

A1.17. Policy NBE4 Wealden Heaths European SPA and SAC sites

NBE4.1 No net gain in residential dwellings or Gypsy, Traveller and Travelling Show people pitches or plots will be permitted within 400m of the Wealden Heaths Phase II Special Protection Area, Woolmer Forest SAC and Shortheath Common SAC boundaries, unless an Appropriate Assessment that demonstrates that the development would not result in harm to the SPA or SACs, has been agreed by the Local Planning Authority in consultation with Natural England.

NBE4.2 Development within the 400m to 5 km core catchment area around the Wealden Heaths Phase II SPA, Woolmer Forest SAC and Shortheath Common SAC boundaries must be supported by a Habitats Regulations Assessment setting out the likely significant effect (or effect on site integrity where the appropriate assessment stage of HRA is triggered) of the development on the interest features of the SPA and SACs. If an adverse effect on the integrity of any European sites will arise (such as through the delivery of net new residential development) the HRA must also set out the avoidance and/or mitigation measures proposed.

NBE4.3 The types of mitigation measures considered and/or required will depend on the type and size of the proposed development. Any such mitigation measures are to be delivered prior to occupation and in perpetuity.11

NBE4.4 Planning permission will only be granted where an Appropriate Assessment concludes that there are no adverse effects on the integrity of either the Wealden Heaths Phase II Special Protection Area, Woolmer Forest SAC or Short heath Common SAC, unless the applicant can demonstrate that the subsequent tests of the Conservation of Habitats and Species Regulations 2017 (as amended) (namely demonstrating Imperative Reasons of Overriding Public Interest and No Alternatives) can be met.

A1.18. Policy NBE5 Thames Basin Heaths Special Protection Area



NBE5.1 Development proposals for residential development resulting in a net increase in dwellings¹² or Gypsy, Traveller and Travelling Showpeople pitches or plots within the buffers of the Thames Basin Heaths Special Protection Area (TBHSPA) must be supported by a Habitats Regulations Assessment (HRA) setting out the likely impacts of the development on the interest features of the SPA. Details of any avoidance and/or mitigation measures will need to be assessed on a case by case basis by the council, following agreement with Natural England.

NBE5.2 Large scale residential development (over 50 new dwellings) within 5-7km of the SPA will be assessed individually and, if needed, bespoke mitigation will be required in accordance with Natural England guidance.

NBE5.3 Planning permission will only be granted where an Appropriate Assessment concludes that there are no adverse effects on the integrity of the TBHSPA

A1.19. Policy NBE6 Solent Special Protection Areas

NBE6.1 Development proposals for residential development resulting in a net increase in dwellings¹⁴ or Gypsy, Traveller and Travelling Showpeople pitches or plots within the 5.6km buffer of the Solent SPAs must be supported by a Habitats Regulation Assessment (HRA) setting out the likely impact of the development on the interest features of the Solent SPAs and details of any mitigation measures proposed.

NBE6.2 Mitigation could be:

a. A financial contribution; or

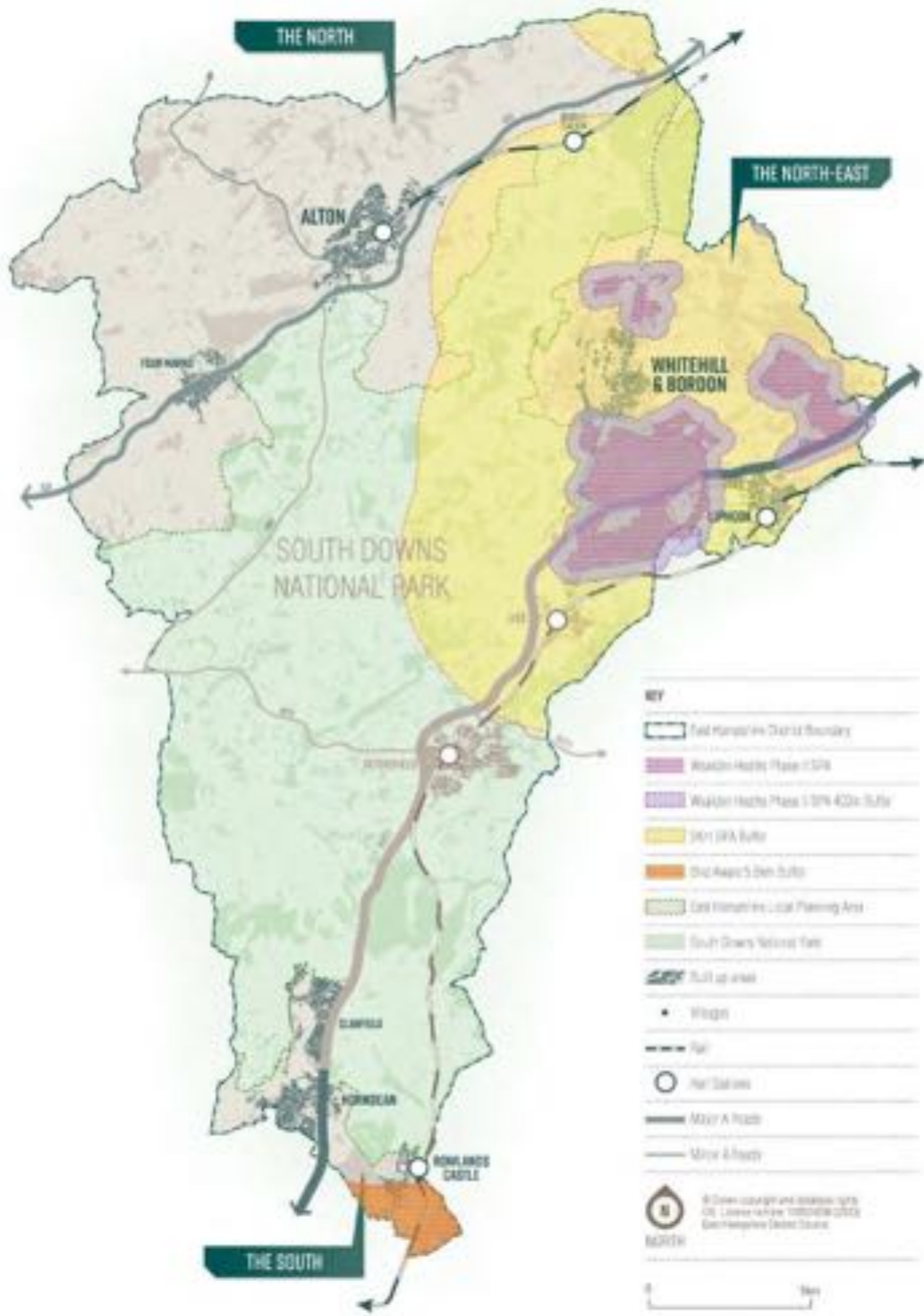
b. A developer-provided package of measures associated with the proposed development designed to avoid or mitigate any likely significant effect on the SPAs subject to meeting the tests of the

Habitats Regulations; or

c. A combination of measures in (a) and (b) above.

NBE6.3 Planning permission will only be granted where an Appropriate Assessment concludes that there would be no adverse effects on the integrity¹⁵ of the Solent SPAs.





A1.20. Policy NBE9 Water Quality impact on the Solent International Sites

BE9.1 Development that results in a net gain in residential units and/or overnight accommodation will be permitted (subject to other material considerations) where the applicant can demonstrate through a nutrient budget and



Habitats Regulations Assessment that the proposal is either nutrient neutral or has approved on-site and/or off-site mitigation measures which result in the proposal becoming nutrient neutral.

A1.21. Policy NBE12 Green and blue infrastructure

NBE12.1 Development will be supported provided that:

a. it maintains, protects and enhances the function, integrity, quality, connectivity and multi-functionality of the existing green and blue infrastructure network and individual sites thereby supporting the findings and guidance set out in the East Hampshire Green Infrastructure Strategy, GI Framework Urban Greening Factor Standard and Natural England's

15 GI Principles.

b. it contributes to nature recovery and the protection, creation and restoration of wildlife rich habitats, including the potential to create new designated wildlife sites and the maintenance and creation of ecological connectivity and the integrity of linkages within the site.

c. it protects existing trees and hedges and ensures no loss of canopy

cover as a minimum. Proposals will be supported which incorporate existing trees and hedges into the new development and provide an uplift in canopy cover including tree lined streets and the consideration of the location and species of new trees with regards to biodiversity, connectivity, climate change and adaptation.

d. any adverse impacts on or loss of the green and blue infrastructure

network should be fully mitigated and/or compensated through the provision of green and/or blue infrastructure on site. Where it can be proven that on-site provision is not possible financial contributions will be required for the provision and management of GI sites and will be negotiated on a site by site basis.

e. where new green infrastructure is provided within new development, suitable arrangements should be in place for its future funding, maintenance and management long term.

f. A Green Infrastructure Plan should be submitted as part of the application process detailing how the development responds to Natural England's 15 GI Principles and how it responds to the EHDC GI Strategy's seven themes.

A1.22. Policy NBE13 Protection of natural resources

NBE13.1 Development proposals will be permitted provided that they ensure that the Local Plan Area's natural resources remain safe, protected, and prudently used. Development proposals will be expected to demonstrate that they:

a. Do not give rise to soil contamination or air, noise, radiation, light or water pollution where the level of discharge, emissions or contamination could cause harm to sensitive receptors (including impact on dark night skies);

b. Ensure that, where evidence of contamination exists, the land is made fit for its intended purpose and does not pose an unacceptable risk to sensitive receptors;

c. Do not result in a reduction in the quality or quantity of groundwater resources; this includes the protection of principal aquifers and the source protection zones within the southern part of the Local Plan Area;



d. Where appropriate, identify how the proposals will contribute to achieving the objectives of the relevant River Basin Management Plan(s), which require the restoration and enhancements of water bodies to prevent deterioration and promote their recovery of waterbodies.

e. Avoid the best and most versatile agricultural land unless the benefits of the proposal outweigh the need to protect the land for agricultural purposes;

f. Do not sterilise mineral resources identified as of particular importance unless it can be demonstrated that it would not be practicable and environmentally feasible to extract the identified mineral resource prior to development taking place.





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CHAWTON PARK FARM, ALTON

LANDSCAPE REVIEW OF ALTERNATIVE SITES

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1.0 LAND AT NEATHAM MANOR FARM, ALTON

INTRODUCTION

Land at Neatham Manor Farm, Alton is located within East Hampshire District and is a proposed allocation for residential (including travel communities), commercial, education and community uses under Policy ALT8 of the Regulation 18 consultation draft of the EHDC Local Plan, published in December 2023. The Site location is shown on the plan on the following page (Figure 1.1), covering approximately 97.9 hectares. Draft Policy ALT8 states that:

“The site’s development would constitute a significant expansion to the settlement of Alton, the largest settlement in the Local Plan Area, creating a new neighbourhood with the potential for its own distinct character.”

Section 1 of this representation provides a summary of the policies and designations specific to this Site. It also provides a summary of the landscape character, landscape sensitivity/capacity and potential visual sensitivities of relevance to the Site. These aspects are then cross referenced against the emerging indicative concept for development and then summarised to provide a conclusion on the suitability of the Site and its current proposals to deliver the policy expectations, without significant adverse landscape and visual effects.

DESIGNATIONS AND POLICY

The Site lies to the southeast of Alton, beyond the settlement edge and on the eastern side of the A31. The Site does not lie within any national, regional or locally protected landscape that is designated for its special scenic or historic qualities.

However, the Site does lie within the setting of the South Downs National Park (SDNP), which is located approximately 1.2km east of the Site. The SDNP has extensive long distance views across the study area.

The Site is also located within close proximity to numerous Priority Habitats / SINC and Sites of Special Scientific Interest (SSSI), which are scattered around the local landscape. Several Priority Habitats /SINCs fall along the Site boundary to the east west and south.

Ancient and Semi Natural Woodlands are a frequent feature across the study area, with a combination of small copses to large areas of woodland, mainly populating the SDNP and areas to the east and northwest of the local landscape. There are two Ancient and Semi Natural Woodland, including Monk Wood, within the immediate proximity and along the eastern Site boundary.

The Site lies to the south of Hollybourne Conservation Area and to the east of Alton, Shalden and Cheriton Conservation Areas. There are a number of Listed Buildings and Scheduled Ancient Monuments present in the local settlements and wider landscape beyond. Notable listed buildings within the local Landscape are Grade I Jane Austin’s House and Grade II* Chawton House to the southwest of the Site. Grade II Chawton House Historic Park and Garden also lies to the southwest of the Site.

With the exception of the above, there are no historic and cultural designations located within close proximity to the Site.

Figure 1.1 illustrates the landscape, ecological, and heritage designations, in the immediate vicinity of the Site and in the study area.

EAST HAMPSHIRE DISTRICT LOCAL PLAN: JOINT CORE STRATEGY

The following adopted policy is of relevance to the Site, as set out in the East Hampshire District Local Plan: Joint Core Strategy (Adopted June 2014).

CP20 Landscape

“The special characteristics of the district’s natural environment will be conserved and enhanced. New development will be required to:

- a. *conserve and enhance the natural beauty, tranquillity, wildlife and cultural heritage of the South Downs National Park and its setting, and promote the opportunities for the understanding and enjoyment of its special qualities, and be in accordance with the ambitions within the emerging South Downs Management Plan;*
- b. *protect and enhance local distinctiveness sense of place and tranquility by applying the principles set out in the district’s Landscape Character Assessments, including the Community/Parish Landscape Character Assessments;*
- c. *protect and enhance settlements in the wider landscape, land at the urban edge and green corridors extending into settlements;*
- d. *protect and enhance natural and historic features which contribute to the distinctive character of the district’s landscape, such as trees, woodlands, hedgerows, soils, rivers, river corridors, ditches, ponds, ancient sunken lanes, ancient tracks, rural buildings and open areas;*
- e. *incorporate appropriate new*

planting to enhance the landscape setting of the new development which uses local materials, native species and enhances biodiversity;

- f. maintain, manage and enhance the green infrastructure networks (see Policy CP28 Green Infrastructure)."

EAST HAMPSHIRE DISTRICT DRAFT LOCAL PLAN: REGULATION 18

The Site is a proposed allocation under Policy ALT8 in the East Hampshire District Draft Local Plan Regulation 18 (December 2023). In addition to this policy, the following draft policies are of relevance to the Site.

Policy NBE2 Biodiversity, Geodiversity and Nature Conservation

"Development proposals will be permitted where they protect and enhance biodiversity and geodiversity features and must be supported by adequate and up-to-date ecological information which demonstrates that development proposals:

- a. Will not have an adverse effect on an international, national or locally designated wildlife site or sites that meet designated sites criteria. The level of protection afforded to these sites is commensurate with their status within this hierarchy."

Policy NBE4 Wealden Heaths European SPA and SAC Sites

"Development within the 400m to 5 km core catchment area around

the Wealden Heaths Phase II SPA, Woolmer Forest SAC and Shortheath Common SAC boundaries must be supported by a Habitats Regulations Assessment setting out the likely significant effect (or effect on site integrity where the appropriate assessment stage of HRA is triggered) of the development on the interest features of the SPA and SACs. If an adverse effect on the integrity of any European sites will arise (such as through the delivery of net new residential development) the HRA must also set out the avoidance and/or mitigation measures proposed"

The eastern section of the Site just falls within 5km radius of the Wealden Heaths Phase II SPA.

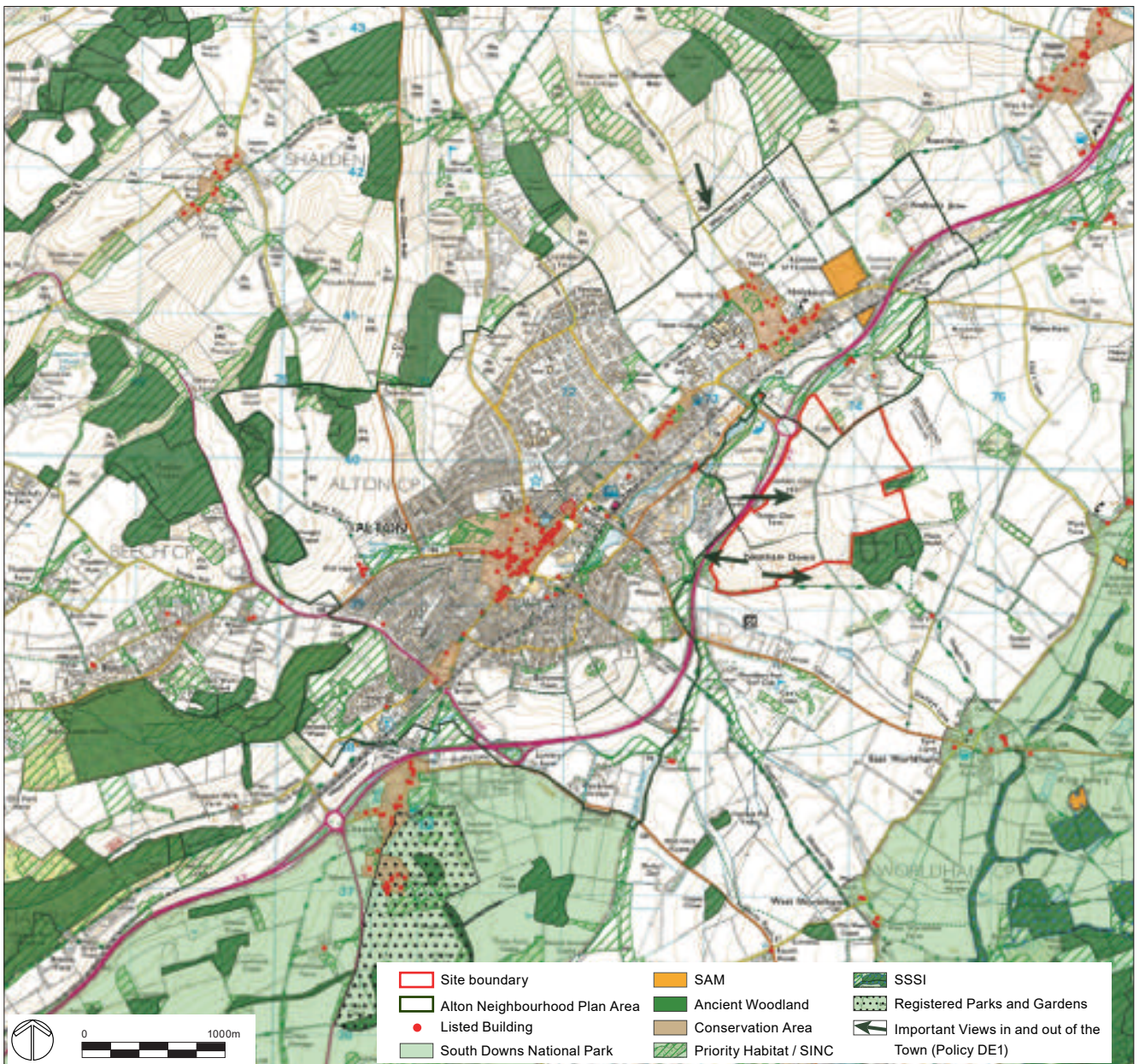


FIGURE 1.1: LANDSCAPE RELATED DESIGNATIONS OF RELEVANCE TO THE SITE (FABRIK, 2024)

Policy NBE10 Landscape

“Development proposals must conserve and wherever possible enhance the special characteristics, value, features and visual amenity of the Local Plan Area’s landscapes.

Development proposals will be supported where there will be no significant impact to:

- a. The qualities and principles identified within the relevant landscape character assessments, capacity study and relevant guidance;*
- b. The visual amenity and scenic quality of the landscape;*
- c. Important local, natural and historic landscapes and features; and*
- d. The setting of the South Downs National Park, with regard to its special qualities (including dark skies), tranquillity and essential characteristics of the National Park. Development proposals must be sensitively located and designed to avoid or minimise adverse impacts on the South Downs National Park.”*

Policy DES1 Well-Designed Places

“New development will be permitted where it would help to achieve the following design vision:

Through its location, design and layout, new development will prioritise the avoidance of new greenhouse gas emissions whilst creating or supporting climate resilient environments. In delivering this priority, proposals will need to ensure that development:

- a. Follows the energy hierarchy through its block, plot and/or building layout and design, whilst maintaining or enhancing the landscape and built character of its immediate surroundings and the wider local area;*
- b. Reinforces or creates a strong, positive identity that comes from the ways in which buildings, infrastructure, boundary treatments, open spaces and natural features visually and physically interact;*
- c. Creates or contributes to a form of development that is easy to navigate, conveniently laid out for access on foot or by bike, and involves the right density, mix and orientation of building types and forms for attractive, green and safe environments;*

- d. Integrates well with existing streets, cycle and walking connections and where relevant extends these movement networks within a development site, to create attractive, accessible, safe and direct routes that are inclusively designed;*
- e. Supports the recovery of natural habitats and native species through providing space for nature and new green infrastructure that is managed and maintained to secure multi-functional benefits (ecology, drainage, local food production);*
- f. Creates or contributes to public spaces that encourage social interactions, feel safe and support the health and well-being of all users;*
- g. Within Tier 1 and 2 settlements enables residents to “live locally” by accessing some services and facilities within convenient walking or cycling distances, taking account of their varied needs and how the delivery of services may change over time; and*
- h. Incorporate contextually appropriate building materials of a high quality and durability.”*

Policy DES2 Responding to Local Character

“Detailed proposals for the design and layout of new development will be required to:

- a. Respect local characteristics for plot size and shape, plot layout, building form, scale, height and massing, unless a departure from any of these characteristics is demonstrably more appropriate for delivering the Council’s design vision (Policy DES1);*
- b. Ensure that the layout of new development is sympathetic to its immediate setting in terms of its relationships to adjoining buildings, spaces around buildings and landscape features;*
- c. Ensure that building facades, fenestration, roofs, boundary treatments, street furniture and green spaces respect or improve the character and appearance of the local area;*
- d. Demonstrate how and where good quality, resilient, low embodied carbon materials of an appropriate scale, profile, finish and colour would be used;*
- e. Take particular account of local landscape and townscape*

features such as those identified within neighbourhood plans, design statements or guides, or townscape character assessments;

- f. Ensure that the design of new buildings, open spaces and streets would provide passive surveillance of the public realm and security for private areas, to minimise opportunities for crime and anti-social behaviour;*
- g. Ensure that areas of new public open space are easily accessible, attractive to use and designed to serve all of their intended functions (e.g. recreation, leisure, social interaction, food production, sustainable drainage, supporting local wildlife) in complementary ways;*
- h. Provide car parking in ways that would remove cars from the street or that would not enable cars to visually or physically dominate local streets, whilst being safe and convenient to use for all residents and visitors;*
- i. Provide enough room within the public realm, including street spaces and along new pedestrian and cycle routes, to allow for the planting and growth of contextually appropriate vegetation, including native tree species that would offer shade and shelter;*
- j. Provide adequate private amenity space for new residential uses whilst meeting nationally described internal space standards and ensuring separation distances between buildings that avoid overlooking or over-shadowing;*
- k. Provide high-quality, secure waste and recycling bin storage and collection points that are conveniently located for collection purposes whilst avoiding adverse impacts on street scenes; and*
- l. Avoid or minimise light pollution (such as glare or light spillage from buildings and the site as a whole) through the design of new light fixtures and by proposing the minimum amount of lighting necessary to achieve its purposes without compromising safety.”*

Policy DES3 Residential Density and Local Character

“Residential development proposals within settlement policy boundaries and on allocated sites must optimise the density of new residential uses through making an efficient use of land, whilst delivering a contextually

appropriate and coherent built form.”

ALTON NEIGHBOURHOOD DEVELOPMENT PLAN 2011 TO 2028 (UPDATED 2021)

The far southern tip of the Site lies within the designated Neighbourhood Development Plan area, and therefore the following policies are relevant to the Site.

DE1 Town setting and natural assets

“Development proposals that impact on the discreet setting of Alton within the surrounding landscape must demonstrate that this setting is maintained.

Development proposals that impact on key views and gateways into and out of the town, in particular from the National Park to the south, must demonstrate how they have responded positively to these views and gateways.”

Within the Site there are two important views looking into and out of the town from the top of Neatham Down, within the south of the Site. There are also two important views out of the town looking directly towards the Site, in particular the northern Section of the Site. These are shown on Figure 1.1 on the previous page.

SOUTH DOWNS NATIONAL PARK

The Site lies approximately 1.2km from the South Downs National Park and therefore is within its setting. Therefore the following policies are pertinent to the Site.

Strategic Policy SD6: Safeguarding Views

“1. Development proposals will only be permitted where they preserve the visual integrity, identity and scenic quality of the National Park, in particular by conserving and enhancing key views and views of key landmarks within the National Park.

2. Development proposals will be permitted that conserve and enhance the following view types and patterns identified in the Viewshed Characterisation & Analysis Study:

- a. *Landmark views to and from viewpoints and tourism and recreational destinations;*
- b. *Views from publically accessible areas which are within, to*

and from settlements which contribute to the viewers’ enjoyment of the National Park;

- c. *Views from public rights of way, open access land and other publically accessible areas; and*
 - d. *Views which include or otherwise relate to specific features relevant to the National Park and its special qualities, such as key landmarks*
- 3. Development proposals will be permitted provided they conserve and enhance sequential views, and do not result in adverse cumulative impacts within views.”*

Strategic Policy SD7: Relative Tranquillity

“1. Development proposals will only be permitted where they conserve and enhance relative tranquillity and should consider the following impacts:

a) Direct impacts that the proposals are likely to cause by changes in the visual and aural environment in the immediate vicinity of the proposals;

b) Indirect impacts that may be caused within the National Park that are remote from the location of the proposals themselves such as vehicular movements; and

c) Experience of users of the PRoW network and other publicly accessible locations.

2. Development proposals in highly tranquil and intermediate tranquillity areas should conserve and enhance, and not cause harm to, relative tranquillity.

3. Development proposals in poor tranquillity areas should take opportunities to enhance relative tranquillity where these exist.”

SITE CHARACTER & CONTEXT

The Site has large scale irregular field pattern, with boundaries defined by agricultural access tracks, hedgerows, small copses and tree belts. A substantial area of woodland, Monk Wood, bounds the Site along the south-east boundary. The field parcels are of arable use, with public footpaths following the eastern and southern Site boundaries, as well as crossing through the Site (on a north-south alignment), connecting Copt Hill in the north with Neatham Down in the south.

The topography of the Site consists

of landform rising from the A31 corridor as part of an undulating downland landscape, with the western areas of the Site being enclosed by landform. A distinctive ridgeline runs through the central section of the Site between Copt Hill and Neatham Down. To the east of the ridgeline, the land gently slopes towards the eastern Site boundary. Electricity pylons pass and an underground gas pipeline cross through the eastern and central areas of the Site.

The Site lies on the edge of the chalk landscape in East Hampshire, close to the geological boundary within the Wealden greensands Terrace Landscape Character Area (LCA). The South Downs National Park lies to the east of the Site, where the topography begins to rise and becomes more undulating.

The A31 cuts through the landscape on a northeast-southwest alignment and provides the main transport route through the local area. Within the local landscape there are two railway lines; Southwestern Railway from Alton to London and the Watercross Line. Both Railway lines follow the alignment of the A31.

The wider landscape is accessed via a series of B-roads and rural lanes. An extensive network of PRoWs cross through the local area, including one within the Site and two following along and just beyond the Site boundary, providing recreational access through the landscape, particularly to the South Downs as shown on Figure 1.2.

EAST HAMPSHIRE DISTRICT LANDSCAPE ASSESSMENT

The Site is predominately located within Landscape Character Area (LCA) 6C: Worldham Greensand Terrace, with a small portion of the Site located within LCA 4b Northern Wey, as identified in the East Hampshire District Landscape Assessment (2006).

The Site and is representative of the LCA 6C, displaying the following key characteristics:

- *“An open landscape dominated by medium to large fields of pasture and arable agriculture”;*
- *“Generally an absence of woodland with a single block of ancient woodland occurring at Monk Wood.” (Immediately adjacent to the Site);*

- “Ditches as well as hedgerows are a common boundary feature”;
- Absence of settlement with no villages and only a scattering of isolated farmsteads set within early enclosures”;
- “No open access land but the area is crossed by a number of footpaths including the Hangers Way” (Immediately adjacent to the Site, following part of the southern Site Boundary); and
- “From the chalk hills to the north, at Neatham there are views across the Wey Valley. Otherwise there are open views across arable farmland. The wooded escarpment at Selborne is a prominent backdrop feature to the south.”

The Site is partially in LCA 4b northern Wey Valley. The following key characteristics representative of the Site:

- “A broad valley, cutting through and enclosed by the Chalk, Upper Greensand and Gault Mudstone geology.
- The northern chalk valley sides are indented by short coombe valleys and form bold bluffs overlooking the valley.
- The valley floodplain is predominantly pastoral with arable cultivation on the valley sides.
- Main transport routes (A31 and railway) cut across the flat open valley floor, interrupting the otherwise tranquil character.”

EAST HAMPSHIRE DISTRICT COUNCIL LANDSCAPE CAPACITY STUDY

The Site is located within Local Area 4b.2: Alton to Bentley, South of A31 and Local Area 6c.1: Neatham Down to Binstead Greensand Terrace within the East Hampshire District Council Capacity Study (2018).

The capacity study identifies that local area 4b.2 has a “**low capacity**, constrained by its strong rural character and its importance as the valley of the River Wey, and the rural setting of a number of historic mills and the Isington Conservation Area. There are views from and within the conservation area and from public footpaths, and rural lanes. The area affords views across the Wey Valley to the downs to the north and also to the SDNP. For the most part the area has a clear sense of history

and contains characteristics typical of the wider LCA nearby SDNP. It is possible that a very small amount Local area 4b.2 has a low capacity, constrained by its strong rural character and its importance as the valley of the River Wey, and the rural setting of a number of historic mills and the Isington Conservation Area. There are views from and within the conservation area and from public footpaths, and rural lanes. The area affords views across the Wey Valley to the downs to the north and also to the SDNP.

For the most part the area has a clear sense of history and contains characteristics typical of the wider LCA nearby SDNP. It is possible that a very small amount of development could be accommodated around clusters of built form or building conversions within the valley area provided it is informed by further landscape and visual impact assessment and sensitively integrated into the landscape, respecting the historic settlement pattern and local distinctiveness, although great care would need to be taken to avoid any landscape or visual harm. Further development around Bentley Station would be heavily constrained by the proximity to the river on one side and the railway and SDNP boundary on the other. The area around Holt Pound is less sensitive and less representative of the wider valley landscape character, and development in this area could be accommodated subject to protection of the adjacent SDNP and the settings of footpaths. The area should otherwise generally remain undeveloped.”

Local area 6c.1 has a “**low capacity**, constrained by its strong rural character and its role as part of the Wey Valley and Greensand Terrace landscapes and the setting of SDNP and Binstead Conservation Area. There are views from roads, public footpaths, including the Hangers Way and views into and out of the SDNP to the east. The area has a clear sense of history and contains characteristics typical of the adjacent SDNP. It is possible that a very small amount of development could be accommodated within or around existing settlements or clusters of built form or building conversions provided it is informed by further landscape and visual impact assessment and sensitively integrated into the landscape, respecting the historic settlement pattern and local distinctiveness, although great care would need to be taken to avoid any landscape

or visual harm. The area should otherwise remain undeveloped.”

The landscape and visual capacity and sensitivity of both Local areas are as follows:

Local Area 4b.2: Alton to Bentley, South of A31

Visual Sensitivity: **Medium**
 Landscape Sensitivity: **Medium/High**
 Wider Landscape Sensitivity: **High**
 Overall Landscape Sensitivity: **High**
 Landscape Value: **Medium**
 Landscape Capacity: **Medium/Low**

Local Area 6c.1: Neatham Down to Binstead Greensand Terrace

Visual Sensitivity: **Medium**
 Landscape Sensitivity: **Medium/High**
 Wider Landscape Sensitivity: **High**
 Overall Landscape Sensitivity: **High**
 Landscape Value: **Medium**
 Landscape Capacity: **Low**

EAST HAMPSHIRE DISTRICT COUNCIL LARGE DEVELOPMENT SITES LANDSCAPE VALUE STATEMENTS (JULY 2020)

The Site is included within the East Hampshire District Council Large Development Sites Landscape Value Statement. The key aspects of value associated with the Site are as follows.

- “The Site has attractive views from the footpath along the site boundary which evoke connections with the nearby SDNP in reflecting the first special quality.
- The locally distinct ‘bowled’ topography of the Site and its immediate setting
- The Site has positive characteristics of the wider LCA:
- Open landscape with views across arable farmland
- A peaceful and unsettled landscape
- Part of an area with an overall strategy to conserve the open unsettled landscape with broad views across fields bound by hedgerow
- The Site’s strong relationship and continuity with the countryside to the east
- Low capacity for the wider area identified in the EHDC Landscape Capacity Study outlined above (2018)
- Valued characteristics identified in the Alton Neighbourhood Development Plan:
- The discreet setting of

Alton within the surrounding landscape, including the skylines

- Valued characteristics identified in the Alton Town Design Statement
- Alton's setting, surrounded by varied countryside with a remote and quiet rural character
- The undeveloped skyline of hills surrounding Alton
- Important vistas out of the town may include views to Neatham Down and the Site.
- The outer framework of agricultural hedgerows and trees which is particularly strong where it reflects historic field boundaries or provides valuable and linked habitat."

IEWS & VISIBILITY

The Site has an open character and is viewed as a rural landscape with often far-reaching panoramic views from the PRoW network within and along the Site boundary.

As demonstrated in photo 1, there are open views from the southern parts of the Site looking north / east towards the South Downs National Park and to the undulating landscape beyond the A31 to the north. There are also views of the pylon and pipeline which are constraints to the Site with likely significant easements.

Due to the undulating topography and high points, the Site is visible from

various elevated viewpoints within the local and distant landscape, including from various points within the South Downs National Park such as from Upper Farringdon, along the Writers Way long distant route to the south of the Site and from the edge of West Worldham (refer to viewpoints 6 and 7).

The most visible areas within the Site are within the southern and western areas, where there are open views of field parcels and defined hedgerow/treebelts. The prominence of Monk Wood means the Site is easily located within the landscape in these views. Refer to photo 2 - 7 for viewpoint locations that demonstrate views of the Site within the local and wider landscape.

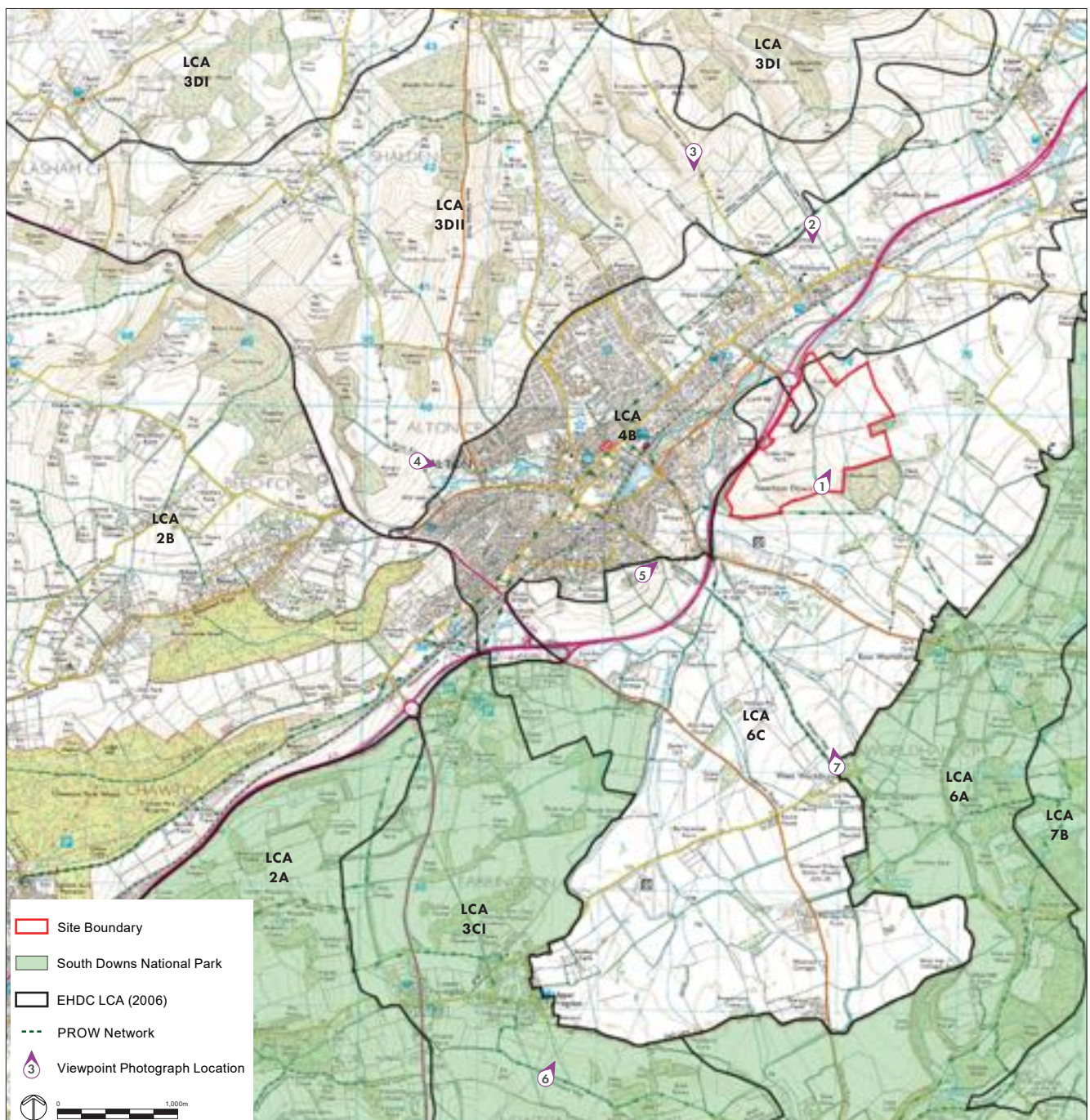


FIGURE 1.2: CONTEXT PLAN WITH VIEWPOINT PHOTOGRAPH LOCATIONS (FABRIK, 2024)



PHOTO 1: INTERNAL VIEW FROM THE SOUTHERN SECTION OF THE SITE AND ALONG FOOTPATH 020/1/1. THERE ARE OPEN VIEWS OF THE EASTERN SITE FIELD PARCELS AND BOUNDARY VEGETATION. LONG DISTANT VIEWS OF THE WIDER LANDSCAPE AND SDNP ARE EXPERIENCED.



PHOTO 2: VIEW FROM NEW LANE TRACK, ON THE POINT BETWEEN BRIDALWAY 002/501/2 AND 002/505/2, TO THE NORTHWEST OF THE SITE. THERE ARE OPEN VIEWS OF THE NORTHERN AND NORTHWESTERN FIELD PARCELS AND BOUNDARY HEDGEROW/TREE BELT



PHOTO 3: VIEW FROM BROCKHAM HILL LANE, TO THE NORTHWEST OF THE SITE. THERE ARE OPEN VIEWS OF THE NORTHERN AND WESTERN FIELD PARCELS AND BOUNDARY HEDGEROW/TREE BELT.



PHOTO 4: VIEW FROM BRICK KILN LANE, TO THE WEST OF THE SITE. THERE ARE OPEN VIEWS OF THE SOUTHWESTERN FILED PARCEL AND ASSOCIATED BOUNDARY VEGETATION.



PHOTO 5: VIEW FROM WINDMILL HILL, TO THE SOUTHWEST OF THE SITE. THERE ARE OPEN VIEWS OF THE SOUTHERN SITE BOUNDARY, WITH PARTIAL VIEWS OF THE FAR SOUTHERN FIELD PARCELS.



PHOTO 6: VIEW FROM WITHIN THE SDNP AT THE CROSS POINT OF FOOTPATH 087/15/1 AND BRIDLEWAY 087/10/3 LONG DISTANT ROUTE - WRITERS WAY, TO THE SOUTH OF THE SITE . THERE ARE OPEN VIEWS OF THE SOUTHERN FIELD PARCELS AND ASSOCIATED BOUNDARY WITHIN THE SITE.



PHOTO 7: VIEW FROM WITHIN THE SDNP ALONG BY-WAY OPEN TO ALL TRAFFIC 259/40/1 AND THE LONG DISTANT ROUTE - WRITERS WAY, TO THE SOUTHEAST OF THE SITE. AGAIN, THERE ARE OPEN VIEWS OF THE SOUTHERN FIELD PARCELS AND ASSOCIATED BOUNDARY WITHIN THE SITE.

REVIEW OF THE PROPOSALS

An extract of the emerging concept masterplan presented within the EHDC Regulation 18 draft Local Plan, is shown in Figure 1.3. This concept masterplan demonstrates significant development of 1000 units within the red line area in the form of development parcels interspersed with green infrastructure with green infrastructure. Key woodland belts, hedgerow and PRowS have been retained. The concept masterplan proposes areas of new woodland and natural planting which is outlined in the draft local plan as “likely to be required to avoid adverse landscape impacts. This will need to be introduced in advance of development, given time to become established and would need to be maintained to ensure the effective screening of new built form”.

The proposed new built form has been set back from the Site boundary and is located predominately to the west and centre of the Site. The new housing is however located on various high points within the Site, which is anticipated to be visible, from the local/ wider viewpoints, particularly from New Lane Track and

Brockham Hill Lane (to the northeast and northwest of the Site), Brick Kiln Lane (to the west of the Site), Windmill Hill (to the southwest of the Site) and from Upper Farringdon and from the edge of West Worldham, along the Writers Way long distant route again (to the south and southeast of the Site). Refer to Figure 1.2 and photo 2 -7.

The constraints and opportunities outlined in the draft local plan for this Site highlights “potential for adverse visual and landscape impacts. The site forms part of an unsettled landscape with a strong sense of rural tranquillity despite the proximity of Alton and the A31. There is potential for long-distance views of the South Downs National Park from eastern parts of the site and views into the site from the Hangers Way. Western areas of the site are better contained by landform.”

The masterplan presents a significant extension of 1,000 units from 600 proposed within the previous strategic Site boundary within the East Hampshire Local Plan Sustainability Appraisal (SA) Report - Strategic Site Options (February 2021). The additional developable area extends to the east and south of the previous concept masterplan.

These areas push development higher in the landscape which is considered to elevate visual and landscape harm. It is anticipated that development in these locations would greatly increase the adverse landscape and visual effects of this scheme, due to the more extensive scale of development within a LCA identified as low landscape capacity.

Whilst landscape elements have been considered for this Site, no detailed evidence is presented within the draft local plan that explains how visual issues have been considered in the development of the emerging masterplan. No reference of contribution of Site makes to views of the SDNP from the landscape to north of Alton. No mention is made of Neighbourhood Plan important views looking into and out of the town.



FIGURE 1.3: EMERGING CONCEPT MASTERPLAN PRESENTED WITHIN THE EAST HAMPSHIRE DISTRICT DRAFT LOCAL PLAN (EAST HAMPSHIRE DISTRICT, 2023)

CONCLUSION

The concept masterplan appears to be in contravention with both East Hampshire District Local Plan Policy CP20 Landscape and Emerging Draft Local Plan, Policy NBE10 Landscape. The proposal would see a large scale development replace arable landscape within the setting of the SDNP, thus creating significant harm to the special characteristics, value features and visual amenity of the district's natural environment, including the tranquillity and natural beauty of the setting to the SDNP.

The landscape of the Site and surrounding area have an open character and are visible from numerous locations within the local area. Despite the relative distance from the Site, its location is easy to decipher due to the prominence of Monk Wood adjacent to the Site boundary. The Site contributes to the local landscape character and to the setting of the South Downs National Park and is identified to have High overall Landscape sensitivity (East Hampshire Landscape Capacity Study). As such, the introduction of a development of this scale, in this location would have significant adverse effects on the setting of the South Downs National Park and landscape character areas 6C: Worldham Greensand Terrace as identified in the East Hampshire District Landscape Assessment (2006).

Whilst the concept masterplan proposes new woodland and planting around the built form, it is anticipated that the location of the proposed built form within high points of the Site will be visible above the tree line. The visual effects of the proposed built form on local / distant views therefore will create adverse impact on views towards and out of the SDNP, as well as important views identified within the Alton Neighbourhood plan (policy DE1 Town Setting and Natural Assets).

The proposed development will also see adverse effects on the open land that contributes to the form and character of existing settlements and breaches the durable boundary of the A31 that contains Alton. The proposals appear to be in contravention with policies DES1 and DES2 in the Emerging Draft Local Plan, where the development will cause adverse effects to the unsettled nature of the landscape by crossing the defensible boundary of the A31.

It is therefore considered that the proposed allocation of this Site as a sustainable settlement of this scale is wholly in contravention with the existing adopted/emerging landscape and visual policies as set out within the East Hampshire District Local Plan, Emerging Draft Local Plan, Alton Neighbourhood Plan and South Downs Local Plan. It is also not supported by the findings of the Councils own published landscape evidence base to the draft Local Plan.

2.0 CHAWTON PARK FARM, ALTON

INTRODUCTION

Chawton Park Farm, Alton is a proposed residential led, urban extension which is being promoted for the forthcoming local plan as a future residential allocation.

The Site is considered to have capacity for in excess of 1000 dwellings as well as other uses including community provision, allotments, playing fields and public open space.

The Chawton Park Farm Vision and Framework Masterplan (December 2021) describes the Site as where:

“Chawton Park Farm will be a neighbourhood that is well-connected - both to its surrounding communities and to nature, providing a unique opportunity to set a sustainable legacy for Alton. Development will be set within the valley framed by woodland, which together with the site’s heritage assets provides a rich design narrative from which to create a new place. The development proposals seek to protect and enhance these assets, ensuring the distinct identity of Chawton Park Farm is retained and matures into a robust and healthy community.”

Section 2 of this representation provides a summary of the policies and designations specific to this Site. It also provides a summary of the landscape character, landscape sensitivity/capacity and potential visual sensitivities of relevance to the Site. These aspects are then cross referenced against the emerging indicative concept for development and then summarised to provide a conclusion on the suitability of the Site and its current proposals to deliver the policy expectations without significant adverse landscape and visual effects.

POLICY & DESIGNATIONS

The Site is located to the southwest of Alton, to the west of Chawton village. The Site is located to the north of the A31 and Watercross railway line, which separate the Site from Chawton village.

The Site does not lie within any national, regional or locally protected landscape that is designated for its special scenic or historic qualities. However, the Site does lie within the setting of the SDNP, which is located approximately 350m south of the Site following the alignment of the A31.

The Site is enclosed by significant woodland, including Ancient and Semi Natural Woodland and Sites of Importance for Nature Conservation (SINC). The woodland includes Bushy Leaze Wood and Ackender Wood to the North and northeast of the Site, and Chawton Park Wood to the South.

The Site is also located within close proximity to numerous Priority Habitats / SINCs and Sites of Special Scientific Interest (SSSI), which are scattered around the local landscape.

Ancient and Semi Natural Woodlands are a frequent feature across the study area, with a combination of small copses to large areas of woodland, mainly populating the SDNP and areas to the east and northwest of the local landscape.

The Site lies to the west of Alton Conservation Area, to the South of Shalden Conservation Area and to the northwest of Cheriton Conservation Area. There are a number of Listed Buildings and Scheduled Ancient Monuments present in the local settlements and wider landscape beyond. The Site includes the Grade II Listed Chawton Park Farmhouse and sits within a

core of Historic farm buildings.

Notable listed buildings within the local Landscape and to the south of the Site are Grade I Jane Austin’s House and Grade II* Chawton House to the southwest of the Site. Grade II Chawton House Historic Park and Garden also lies approximately 750m to the southwest of the Site.

Figure 2.1 illustrates the landscape, ecological, heritage designations, in the immediate vicinity of the Site and in the study area.

The Site is located adjacent to the defined settlement boundary for Alton, within the countryside.

A summary of the relevant policies in respect of landscape and visual matters are outlined below.

EAST HAMPSHIRE DISTRICT LOCAL PLAN: JOINT CORE STRATEGY

The following adopted policy is of relevance to the Site, as set out in the East Hampshire District Local Plan: Joint Core Strategy (Adopted June 2014).

CP20 Landscape

“The special characteristics of the district’s natural environment will be conserved and enhanced. New development will be required to:

- a. *conserve and enhance the natural beauty, tranquillity, wildlife and cultural heritage of the South Downs National Park and its setting, and promote the opportunities for the understanding and enjoyment of its special qualities, and be in accordance with the ambitions within the emerging South Downs Management Plan;*
- b. *protect and enhance local distinctiveness sense of place*

- and tranquility by applying the principles set out in the district's Landscape Character Assessments, including the Community/Parish Landscape Character Assessments;
- c. protect and enhance settlements in the wider landscape, land at the urban edge and green corridors extending into settlements;
 - d. protect and enhance natural and historic features which contribute to the distinctive character of the district's landscape, such as trees, woodlands, hedgerows, soils, rivers, river corridors, ditches, ponds, ancient sunken lanes, ancient tracks, rural buildings and open areas;

- e. incorporate appropriate new planting to enhance the landscape setting of the new development which uses local materials, native species and enhances biodiversity;
- f. maintain, manage and enhance the green infrastructure networks (see Policy CP28 Green Infrastructure)."

EAST HAMPSHIRE DISTRICT DRAFT LOCAL PLAN: REGULATION 18

The following draft policies are of relevance to the Site.

Policy NBE2 Biodiversity, Geodiversity and Nature Conservation

"Development proposals will be permitted where they protect and enhance biodiversity and geodiversity features and must be supported by adequate and up-to-date ecological information which demonstrates that development proposals:

- a. Will not have an adverse effect on an international, national or locally designated wildlife site or sites that meet designated sites criteria. The level of protection afforded to these sites is commensurate with their status within this hierarchy."

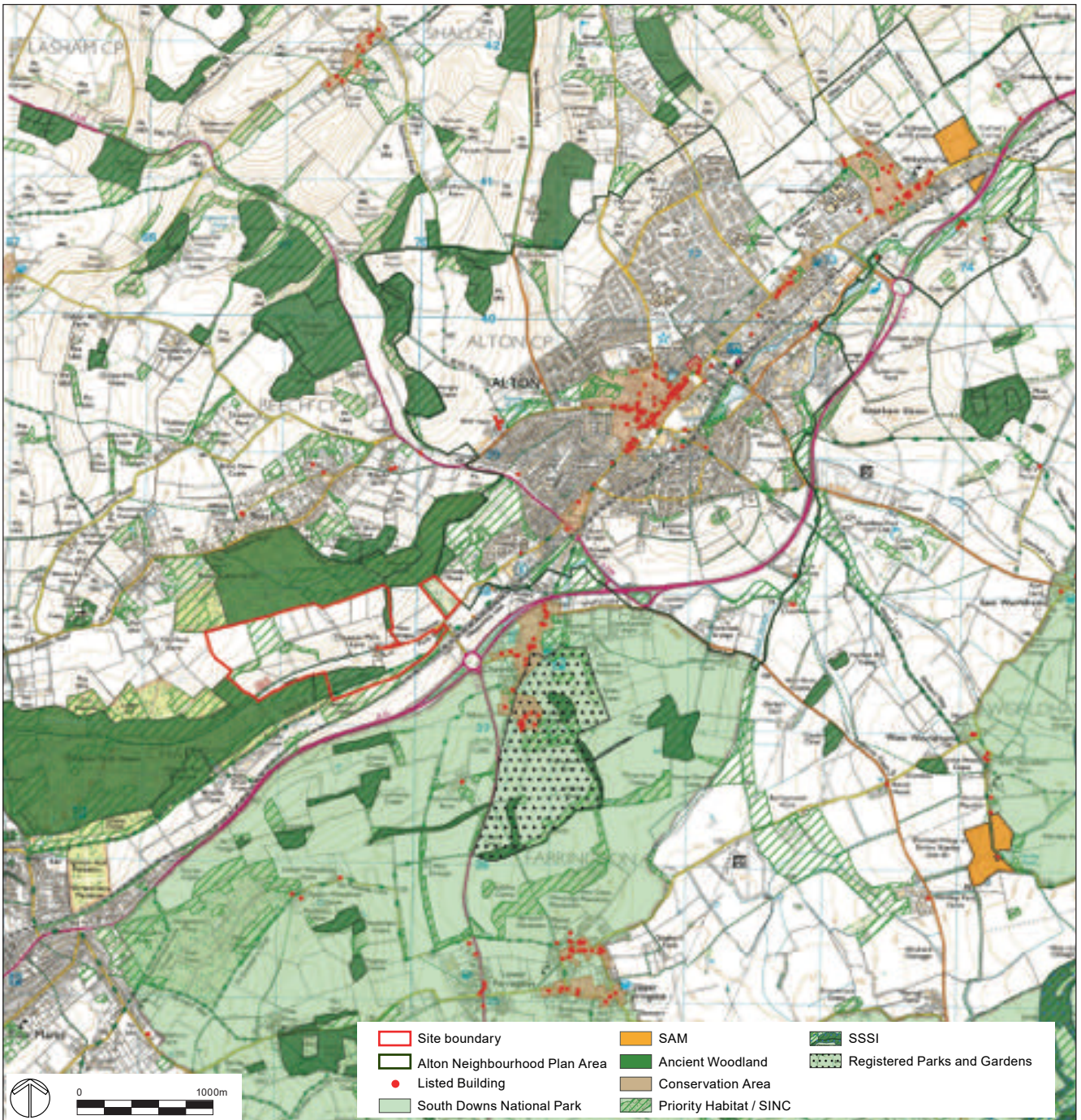


FIGURE 2.1: LANDSCAPE RELATED DESIGNATIONS OF RELEVANCE TO THE SITE (FABRIK, 2024)

Policy NBE10 Landscape

“Development proposals must conserve and wherever possible enhance the special characteristics, value, features and visual amenity of the Local Plan Area’s landscapes.

Development proposals will be supported where there will be no significant impact to:

- a. The qualities and principles identified within the relevant landscape character assessments, capacity study and relevant guidance;*
- b. The visual amenity and scenic quality of the landscape;*
- c. Important local, natural and historic landscapes and features; and*
- d. The setting of the South Downs National Park, with regard to its special qualities (including dark skies), tranquillity and essential characteristics of the National Park. Development proposals must be sensitively located and designed to avoid or minimise adverse impacts on the South Downs National Park.”*

Policy NBE11 Gaps Between Settlements

“New development in the countryside must avoid reducing the open land that contributes to the form and character of existing settlements and maintains their separate identities.

Planning permission will be granted for development which maintains the open character and appearance of the countryside between settlements and the individual identity of towns and villages”

Policy DES1 Well-Designed Places

“New development will be permitted where it would help to achieve the following design vision:

Through its location, design and layout, new development will prioritise the avoidance of new greenhouse gas emissions whilst creating or supporting climate resilient environments. In delivering this priority, proposals will need to ensure that development:

- a. Follows the energy hierarchy through its block, plot and/or building layout and design, whilst maintaining or enhancing the landscape and built character of its immediate surroundings and the wider local area;*

- b. Reinforces or creates a strong, positive identity that comes from the ways in which buildings, infrastructure, boundary treatments, open spaces and natural features visually and physically interact;*
- c. Creates or contributes to a form of development that is easy to navigate, conveniently laid out for access on foot or by bike, and involves the right density, mix and orientation of building types and forms for attractive, green and safe environments;*
- d. Integrates well with existing streets, cycle and walking connections and where relevant extends these movement networks within a development site, to create attractive, accessible, safe and direct routes that are inclusively designed;*
- e. Supports the recovery of natural habitats and native species through providing space for nature and new green infrastructure that is managed and maintained to secure multi-functional benefits (ecology, drainage, local food production);*
- f. Creates or contributes to public spaces that encourage social interactions, feel safe and support the health and well-being of all users;*
- g. Within Tier 1 and 2 settlements enables residents to “live locally” by accessing some services and facilities within convenient walking or cycling distances, taking account of their varied needs and how the delivery of services may change over time; and*
- h. Incorporate contextually appropriate building materials of a high quality and durability.”*

Policy DES2 Responding to Local Character

“Detailed proposals for the design and layout of new development will be required to:

- a. Respect local characteristics for plot size and shape, plot layout, building form, scale, height and massing, unless a departure from any of these characteristics is demonstrably more appropriate for delivering the Council’s design vision (Policy DES1);*
- b. Ensure that the layout of new development is sympathetic to its immediate setting in terms of its relationships to adjoining*

buildings, spaces around buildings and landscape features;

- c. Ensure that building facades, fenestration, roofs, boundary treatments, street furniture and green spaces respect or improve the character and appearance of the local area;*
- d. Demonstrate how and where good quality, resilient, low embodied carbon materials of an appropriate scale, profile, finish and colour would be used;*
- e. Take particular account of local landscape and townscape features such as those identified within neighbourhood plans, design statements or guides, or townscape character assessments;*
- f. Ensure that the design of new buildings, open spaces and streets would provide passive surveillance of the public realm and security for private areas, to minimise opportunities for crime and anti-social behaviour;*
- g. Ensure that areas of new public open space are easily accessible, attractive to use and designed to serve all of their intended functions (e.g. recreation, leisure, social interaction, food production, sustainable drainage, supporting local wildlife) in complementary ways;*
- h. Provide car parking in ways that would remove cars from the street or that would not enable cars to visually or physically dominate local streets, whilst being safe and convenient to use for all residents and visitors;*
- i. Provide enough room within the public realm, including street spaces and along new pedestrian and cycle routes, to allow for the planting and growth of contextually appropriate vegetation, including native tree species that would offer shade and shelter;*
- j. Provide adequate private amenity space for new residential uses whilst meeting nationally described internal space standards and ensuring separation distances between buildings that avoid overlooking or over-shadowing;*
- k. Provide high-quality, secure waste and recycling bin storage and collection points that are conveniently located for collection purposes whilst avoiding adverse impacts on street scenes; and*
- l. Avoid or minimise light pollution (such as glare or light spillage*

from buildings and the site as a whole) through the design of new light fixtures and by proposing the minimum amount of lighting necessary to achieve its purposes without compromising safety.”

SITE CHARACTER & CONTEXT

The Site comprises pasture fields (currently used for grazing) defined by a combination of either well maintained hedgerow with mature trees, fences or gappy hedgerow. There are individual trees within the Site and field parcels which contributes towards a parkland character and some smaller scale enclosure. The historic core is formed by the built form of the listed building of Chawton Park Farmhouse and associated agricultural buildings.

Primary Woodland encloses the Site to the north and south, with part of Chawton Park Wood running through the southern part of the Site. The woodland comprises both conifer and deciduous mature trees and create a sense of enclosure. The woodland strongly contains the Site both physically and visually.

Two public rights of way pass through the Site on east - west alignments, within the south of the Site. Beyond the Site, the large woodlands to the north and west of the Site provide good footpath connections and open access to nearby settlements and the landscape beyond.

The topography and landcover comprises large scale downland that is gently sloping and elevated (at approximately 190m AOD) within the north of the Site to a more intimate and steeply sloping landscape that forms the valley below (at approximately 130m AOD) to the south. Within the northern section of the Site, off the public rights of way there are extensive views across and out of the Site towards the SDNP and wider landscape to the south and east.

The Site lies within Four Marks clay plateau LCA and within close proximity to the South Downs National Park, located approximately 350m south of the Site, beyond the A31, where the topography begins to rise and becomes more undulating.

The A31 cuts through the landscape on a northeast-southwest alignment and provides the main transport route through the local area. There are two railway lines; Southwestern Railway

to London; and the Watercress Line (which lies directly south of the Site), within the Study area and following the alignment of the A31.

The wider landscape is accessed via a series of B-roads and rural lanes. An extensive network of PRoWs cross through the local area.

EAST HAMPSHIRE DISTRICT LANDSCAPE ASSESSMENT

The Site and local area are representative of the key characteristics of the LCAs identified for 2b Four Marks Clay Plateau in the East Hampshire District Landscape Assessment (2006). In particular where:

- *“Elevated undulating plateau with an almost continuous clay cap overlying the chalk bedrock.*
- *A landscape of dominated by pasture but also with some arable fields, reflecting variations in soil type and including considerable areas of pasture managed by horse grazing.*
- *Fields of late medieval origin in the north and south of the area with the central part of the character area comprising distinctive planned enclosure of the late 19th century (at Four Marks, Dry Hill and Medstead).*
- *Ancient woodlands have been replanted, and often comprise a mix of broadleaved and coniferous tree species. The majority are relatively small, although occasional large blocks such as Chawton Park Wood and Bushy Lease Wood occur.*
- *Occasional areas of neutral grassland and ponds and a relatively intact hedgerow network contribute to the ecological value of the landscape.*
- *Tree cover creates a secluded and enclosed landscape contrasting with the openness of the arable fields.*
- *Settlement includes isolated farmsteads of 18-19th century and of medieval origin.*
- *Cut by the A31 but otherwise a network of rural roads cross the area.*
- *A good rights of way network.*
- *Despite the density of settlement around the A31 at Four Marks this is a peaceful and in places a tranquil and rural landscape.”*

EAST HAMPSHIRE DISTRICT COUNCIL LANDSCAPE CAPACITY STUDY

The Site is also located within Local Area Local Area 2b.6: Chawton Park Clay Plateau within the East Hampshire District Council Capacity Study (2018).

The capacity study identifies that *“Local area 2b.6 has a **medium/low capacity**. The capacity of the area is constrained by its rural and generally tranquil character and its role as an integral part of the rural setting of the nearby settlements, including the distinctive topography and wooded character. The area is also constrained by the contribution it makes to the separation of the settlements of Beech, Alton Four Marks and Medstead. There are views to and across the area from public rights of way, rural lanes including from the Watercress Line, and extensive area of open access woodland within the area, the A31 and nearby settlement. There is also some intervisibility with the SDNP to the south.*

The local area has a good sense of history and offers long reaching views across undulating countryside including to the South Downs National Park to the south. The strong containment provided by woodland and other vegetation should be protected to avoid urbanisation of the area and retain the separation between the existing settlements. It is possible that a small amount of development could be accommodated within existing clusters of settlement or building conversions provided it is informed by further landscape and visual impact assessment and sensitively integrated into the landscape, respecting the historic settlement pattern and locally distinctiveness, although great care would need to be taken to avoid any landscape or visual harm. The local area should otherwise remain generally undeveloped.”

The landscape and visual capacity and sensitivity of the Local area are as follows:

Local Area 2b.6: Chawton Park Clay Plateau

Visual Sensitivity: **Medium**
Landscape Sensitivity: **Medium**
Wider Landscape Sensitivity: **Medium/High**

Overall Landscape Sensitivity: **Medium/High**
 Landscape Value: **Medium**
 Landscape Capacity: **Medium/Low**

EAST HAMPSHIRE DISTRICT COUNCIL LARGE DEVELOPMENT SITES LANDSCAPE VALUE STATEMENTS (JULY 2020)

The Site is included as a site within the East Hampshire District Council Large Development Sites Landscape Value Statement. The key aspects of value associated with the Site are as follows.

- “Attractive views from the footpaths which run east to west through the site, and evoke connections with the nearby SDNP
- The distinct dry-valley topography of the site and its immediate setting
- Positive characteristics of the wider LCA:
- A rolling landform
- A landscape dominated by pasture
- Fields of late medieval origin and

of planned enclosure

- Ancient woodland, often replanted, including large Chawton Park and Bushy Leaze Woods
- Tree cover creates a secluded and enclosed landscape, contrasting with open arable fields
- Isolated farmsteads of 18th and 19th century and medieval origin
- Part of an area with an overall strategy to conserve peaceful, rural landscape of the Four Marks clay plateau, maintaining the rural character created by the unifying woodland / tree cover and farmland mosaic
- The sites strong relationship and continuity with the countryside to the west
- Medium-low capacity for the wider area identified in the EHDC Landscape Capacity Study (2018)
- Valued characteristics identified in the Alton Neighbourhood Development Plan:
- The discreet setting of Alton within the surrounding landscape, including the skylines, to which the site contributes

- Valued characteristics identified in the Alton Town Design Statement:
- Alton’s setting, surrounded by varied countryside with a remote and quiet rural character
- The undeveloped skyline of hills surrounding Alton
- The surrounding framework of woodland and trees which encloses the site and is particularly strong where it reflects historic field boundaries or provides valuable and linked habitat.

Within the context of this study, no aspect of the Site has a high value. The high ground to the south and north of the site is considered to form part of the setting of the SDNP. The Site contributes to the setting of the grade II listed Chawton Park Farmhouse in the eastern part of the Site is considered of significance and the landscape possesses a generally high scenic quality, tranquillity, sense of history and intactness, especially surrounding the east-west footpath. The Site is therefore considered to be out of the ordinary and overall the value of this site is medium/high.”

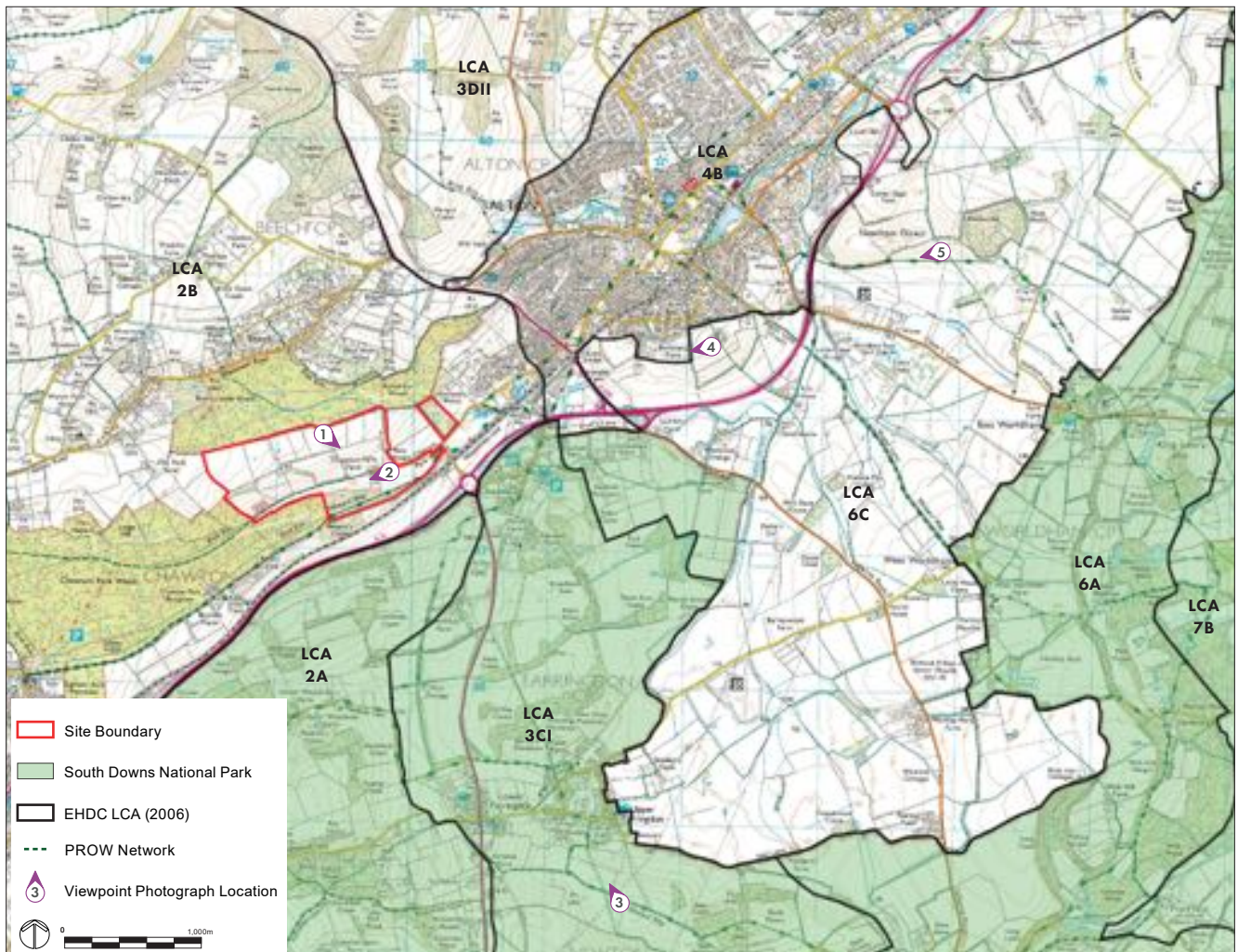


FIGURE 2.2: CONTEXT PLAN WITH VIEWPOINT PHOTOGRAPH LOCATIONS (FABRIK, 2024)

VIEWS & VISIBILITY

Whilst the Site has an enclosed character, there are long distance views from the high points within the northern section of the Site. As demonstrated in photo 1, there are open views from the northern area of the Site looking south / east towards the South Downs National Park and to the undulating landscape to the East.

As described in the EHDC Capacity Study (2018), the immediate/local area 2b.6 Chawton Park Clay

Plateau, contains significant areas of woodland, which limits the visual envelope, contains and filters views of the Site from the surrounding landscape, including from the SDNP.

Views from the wider landscape are largely confined to those elevated locations to the east and south of the Site within the wider landscape. Only parts of the Site can be discerned through an understanding of where the Site lies in relation to Alton and it's settlement boundary.

There are no views of the whole

Site area, due to the combination of sloping topography and intervening woodland blocks and where the valley floor remains well contained within the Site boundaries.

Refer to photos 3 - 5 for viewpoint locations that demonstrate views of the Site within the local and wider landscape.

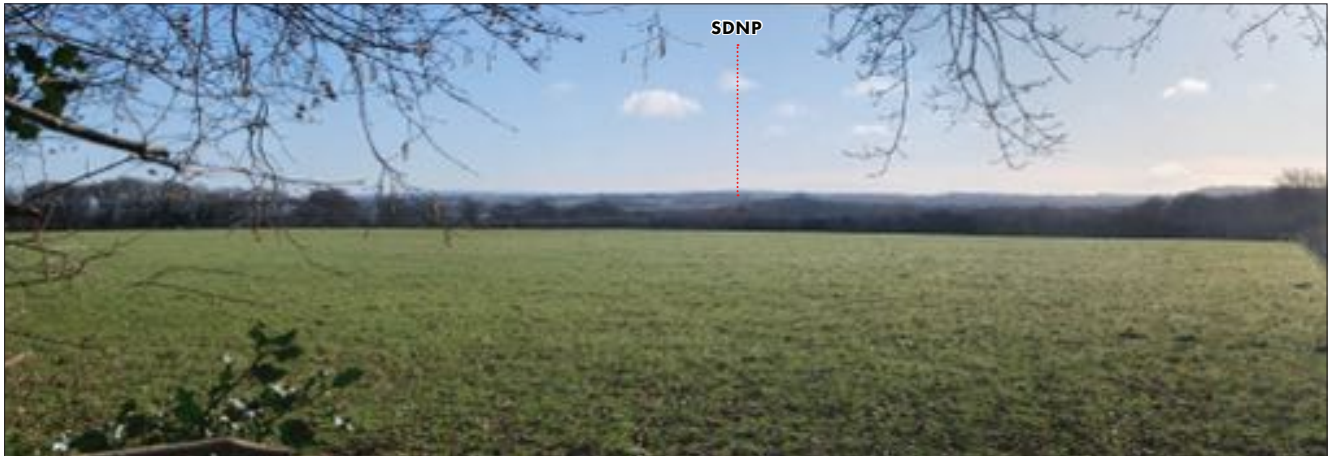


PHOTO 1: VIEW FROM THE NORTHERN SITE BOUNDARY FROM WITHIN THE CENTRAL NORTHERN SECTION OF THE SITE. THERE ARE OPEN LONG DISTANT VIEWS BEYOND THE FILED PARCEL, OUT OF THE SITE TOWARDS THE LANDSCAPE TO THE SOUTH AND SDNP.



PHOTO 2: VIEW FROM THE CENTRE OF THE SITE LOOKING TOWARDS THE WESTERN AREA OF THE SITE. WOODLAND TO THE SOUTH AND EAST BOUNDS THE SITE. THE UNDULATING TOPOGRAPHY FORMS A VALLEY IN THE CENTRE OF THE SITE AND CREATING A SENSE OF ENCLOSURE.



PHOTO 3: VIEW FROM THE SDNP AT THE CROSS POINT OF FOOTPATH 087/15/1 AND BRIDLEWAY 087/10/3 LONG DISTANT ROUTE - WRITERS WAY, TO THE SOUTH OF THE SITE. THERE ARE PARTIAL, DISTANT VIEWS OF THE NORTHERN FIELD PARCELS AND ASSOCIATED WOODLAND BOUNDARY.



PHOTO 4: VIEW FROM WINDMILL HILL, TO THE SOUTHWEST OF THE SITE. AGAIN THERE ARE PARTIAL, DISTANT VIEWS OF THE NORTHERN FIELD PARCELS AND ASSOCIATED WOODLAND BOUNDARY.



PHOTO 5: VIEW FROM FOOTPATH 020/70/1 AND THE HANGERS WAY, ADJACENT TO THE LAND AT NEATHAM MANOR FARM SITE. VIEWS OF THE SITE ARE DIFFICULT TO DISCERN DUE TO WINDMILL HILL LYING IN THE FOREGROUND, OBSCURING VIEWS OF THE NORTHERN FIELD PARCELS.

REVIEW OF THE PROPOSALS

An extract of the framework masterplan presented within the Chawton Park Farm Vision and Framework Masterplan (December 2021), is shown in Figure 2.3 below.

This concept masterplan demonstrates a series of development parcels interspersed with green infrastructure.

The landscape and green infrastructure includes a central green corridor, providing an east-west connection across the Site, as well as providing a sequence of spaces that vary in scale, character and function, connecting the neighbourhood parcels. Other areas of green space include the sloping buffer to the rear of the listed building, enhanced north-south ecological corridors to bolster the biodiversity of the Site, and the linear space north of Chawton Park Wood which incorporates attenuation ponds to mitigate flood risk. There is a 50m buffer zone to the Ancient Woodland, with no residential development blocks within this buffer zone.

The proposed new built form has been set back from the Site boundary and is located predominately within the northern, central and southeastern section of the Site. New housing is located on various high points, which is anticipated

to be visible within the local/ wider area but which remain set within a wooded landscape and not breaching the skyline. The built form within the northern high points will be of lower density, nestled within strategic landscaping and green infrastructure, which moderates the impact on views of the proposed development from the SDNP, surrounding landscape and setting to Chawton House Registered Park and Gardens, in particular from Windmill Hill (to the east of the Site) and from Upper Farringdon, along the Writers Way long distant route (to the south of the Site).



FIGURE 2.3: EXTRACT FROM THE CHAWTON PARK FARM VISION AND FRAMEWORK MASTERPLAN OF THE FRAMEWORK MASTERPLAN (TIBBALDS, 2021)

CONCLUSION

The landscape of the Site has an enclosed character and is visible from only a few locations within the local and wider area. The proposed built form within the Site will be enclosed by the existing woodland and will be integrated into a new network of trees and vegetation that will enhance the wooded skyline and reduce visual harm.

The special characteristics, value features and visual amenity of the district's natural environment, including the tranquillity and natural beauty of the setting to the SDNP will in part be retained through the strategic landscape and green infrastructure, as well as the sensitive response to density and built form within the Site.

The Site contributes to the local landscape character and plays a well treed role in the setting of the South Downs National Park and Chawton House Registered Park and Gardens, and is identified to have Medium/High overall Landscape Sensitivity (East Hampshire Landscape Capacity Study). As such, the introduction of a development of this scale in this location would have less significant adverse effects on the setting of the South Downs National Park and landscape character area 2b Four Marks Clay Plateau, than Land at Neatham Manor Farm, which has High overall Landscape Sensitivity. The lower overall sensitivity of the Site is largely due to topography and landscape features of the Site creating an enclosed character, especially within the lower parts of the Site. This identifies that the Site is in a less sensitive LCA than Land at Neatham Manor Farm with more capacity to accommodate change.

Whilst close proximity to a Registered Park and Gardens could cause adverse landscape effects, there is limited visual connectivity between Chawton Park Farm and Chawton House Registered Park and Gardens due to the intervening vegetation and topography. Also the proposed retention of surrounding woodland and boundary vegetation will fundamentally retain the immediate setting and of Chawton House Registered Park and Gardens, reducing landscape and visual impact.

Furthermore, considering the historic expansion of Alton, which has developed along the valley

floor and up the lower valley sides, the proposed development in this location reflects and respects that settlement pattern.

As with the development of any part brownfield and greenfield Site, adverse landscape and visual effects will occur. However, views of the new development will be limited to the immediate, local and wider landscape due to the existing woodland containing the Site. The new, high quality, amenity and residential element, will be set in the context of the existing retained boundary vegetation and adjacent built form. The combination of the high quality nature of the proposed development, the landscape proposals and the maturation of the proposed development over time will moderate these adverse effects.

3.0 SUMMARY

LANDSCAPE ASSESSMENT

This critique has analysed the two Sites; Land at Neatham Manor Farm, Alton (within Regulation 18 draft of the EHDC Local Plan, November 2023) and Chawton Park Farm, Alton (proposed residential led, urban extension which is being promoted for the forthcoming local plan) against the adopted landscape policies and designations, character and capacity assessments, and provided an analysis of their visual sensitivities based on desktop and field-based analysis. Due to the nature and scale of the housing need over the plan period, the current level of development proposed within both the Sites is predicted to have significant effects on both East Hampshire District Local Plan Policy CP20 Landscape and Emerging Draft Local Plan, Policy NBE10 Landscape. This is an unavoidable consequence.

The proposal at Land at Neatham Manor Farm would see a large scale development replace arable landscape within the setting of the SDNP, thus creating significant harm to the special characteristics, value features and visual amenity of the district's natural environment, including the tranquillity and natural beauty of the setting to the SDNP. In comparison, Chawton Park Farm would in part retain these elements through the strategic landscaping and green infrastructure proposals, alongside a sensitive response to density and built form within the Site.

The proposed development at Neatham Manor Farm will also see adverse effects on the open land that contributes to the form and character of existing settlements. The proposals appear to be in contravention with policies DES1 and DES2 in the Emerging Draft Local Plan, where the development

will cause adverse effects to the unsettled nature of the landscape by crossing the defensible boundary of the A31.

Land at Neatham Manor Farm has an open character and is visible from a number of locations within the local area. The Site contributes to the local landscape character and to the setting of the South Downs National Park and is identified to have High overall Landscape Sensitivity (East Hampshire Landscape Capacity Study). Whilst Chawton Park Farm also contributes to the local landscape character, to the setting of the South Downs National Park and Chawton House Registered Park and Gardens, the Site is identified to have Medium / High overall Landscape Sensitivity (East Hampshire Landscape Capacity Study). As such, the introduction of a development of this scale in this location would have less significant adverse effects on the setting of the South Downs National Park and LCA 2b Four Marks Clay Plateau, than Land at Neatham Manor Farm for LCA 6c. The lower overall sensitivity of Chawton Park Farm is largely due to topography and landscape features of the Site creating an enclosed character, especially within the lower parts of the Site. This identifies that the Site is in a less sensitive LCA than Land at Neatham Manor Farm with more capacity to accommodate the proposed change.

Whilst the concept masterplan for Land at Neatham Manor Farm proposes new woodland and planting around the built form, it is anticipated that the location of the proposed built form within high points of the Site will be visible above the tree line. In addition The increased masterplan pushes development higher in the landscape which is considered to elevate visual and landscape harm. It is anticipated that development in these locations would greatly increase the adverse landscape

and visual effects of this scheme, due to the more extensive scale of development within a LCA identified as low landscape capacity.

Chawton Park Farm proposes to also locate built form within high points of the Site, however due to the existing woodland containing the Site, built form within the Site will be enclosed and integrated into a new network of trees and vegetation that will maintain the wooded skyline and minimise visual harm.

Conversely, the visual effects of the proposed built form on local / distant views arising from the proposals at Land at Neatham Manor Farm will create adverse impact on views towards and out of the SDNP, as well as important views identified within the Alton Neighbourhood plan (policy DE1 Town Setting and Natural Assets). It is therefore considered that the proposed allocation of the Land at Neatham Manor Farm is not justifiable in the context of adopted and emerging policy relating to landscape and visual matters relative to the East Hampshire District Local Plan, Emerging Draft Local Plan, Alton Neighbourhood Plan and South Downs Local Plan.

The Site at Chawton Park Farm would be a more suitable Site to consider in landscape and visual terms. The Site is located on the same side of the A31 to Alton, therefore not causing adverse effects to the unsettled nature of the landscape by crossing the defensible and durable boundary of the A31. In addition, landscape evidence base, in particular East Hampshire Landscape Capacity Study identifies Chawton Park Farm as being more suitable, with Medium/High overall Landscape Sensitivity, in comparison to High overall Landscape Sensitivity at Land at Neatham Manor Farm. This should be given more weight in the balance of Site allocations within the EHDC Emerging Draft Local Plan.

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Title	Chawton Park Garden Village and Neatham Down Sites Appraisal
Job Name	Chawton Park Garden Village, Alton
Job Number	20-347
Date	22 February 2024

1 INTRODUCTION

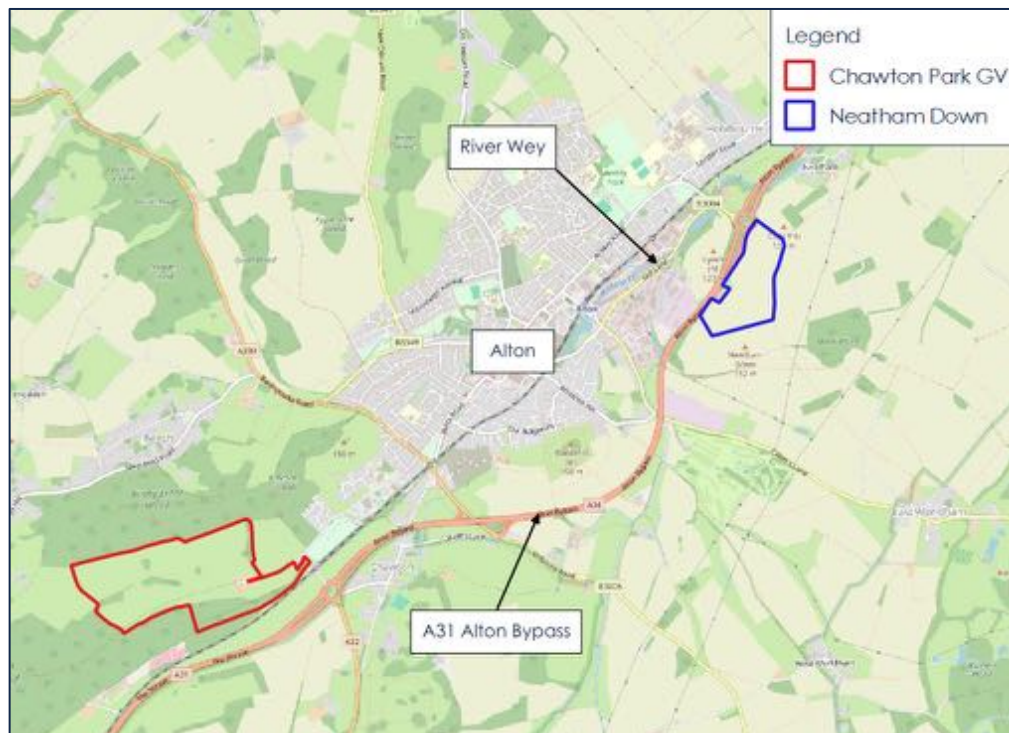
1.1 Background

1.1.1 This note provides an appraisal of two prospective development sites near Alton in east Hampshire, Chawton Park Garden Village (GV) and Neatham Down. The appraisal focuses on the potential risk of flooding posed to both sites from all sources as well as their likely impact on groundwater quality.

1.2 Sites Location and Geology

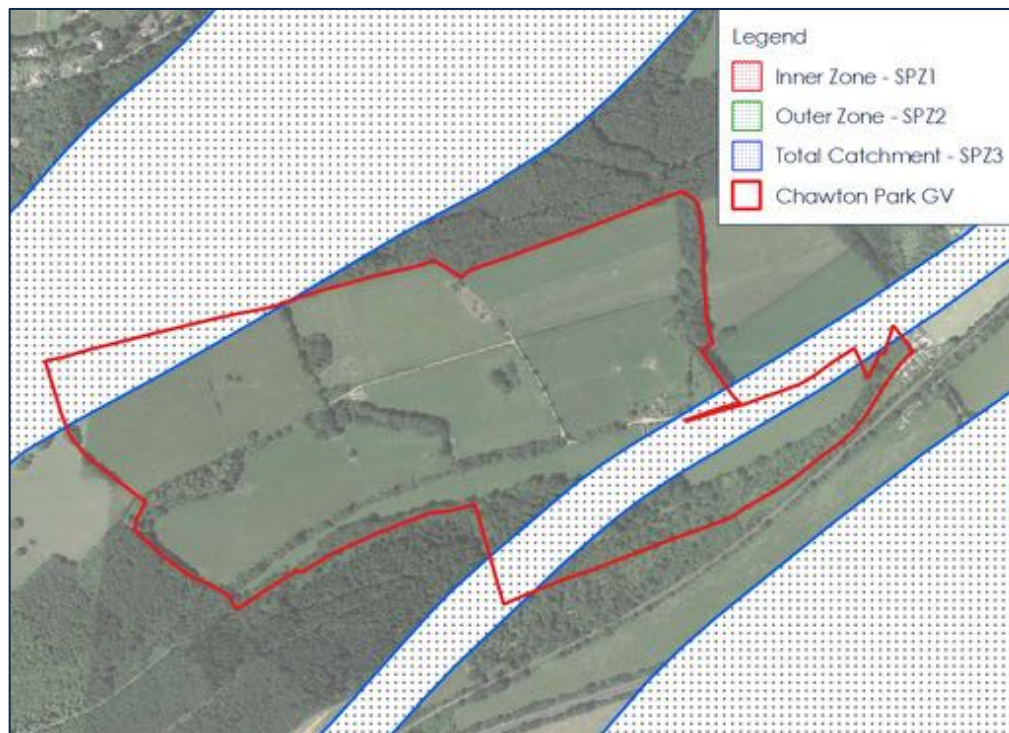
1.2.1 The two sites are located adjacent to the existing settlement of Alton in the East Hampshire District Council (EHDC) administrative area, as shown in Figure 1-1. Chawton Park GV, which is located to the southwest of Alton, with the approximate NGR for the centre of the site being 469340, 137590. Neatham Down is located to the east of Alton and the A31 Alton bypass road, approximate NGR 473560, 139760.

Figure 1-1 Sites Location



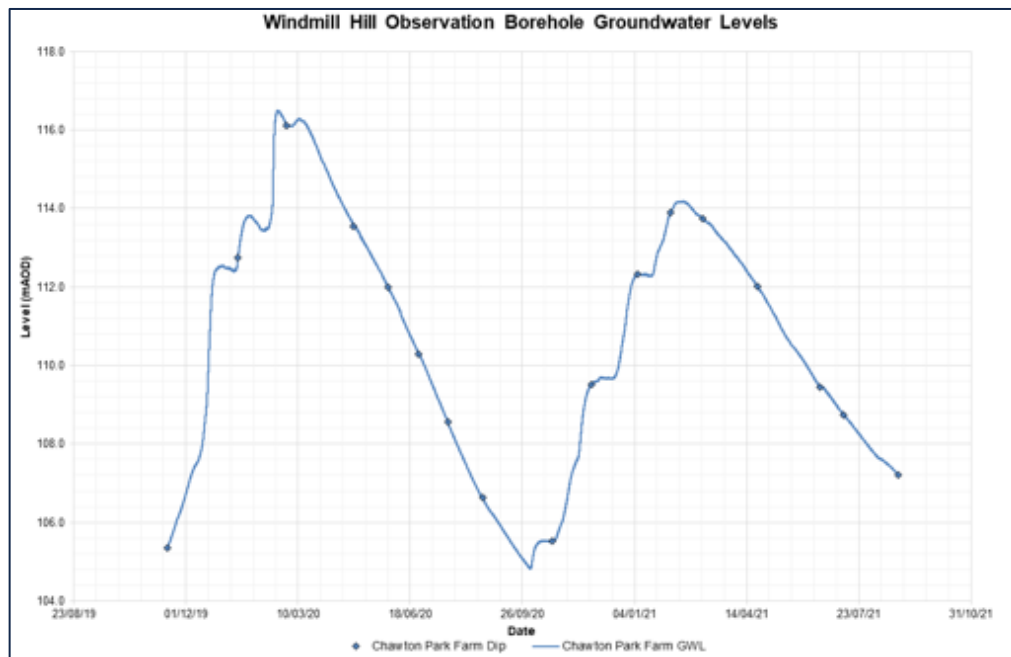
- 1.2.2 The sites and surrounding areas are underlain by chalk bedrock of varying types. Chawton Park GV is predominantly underlain by Lewes Nodular Chalk with Neatham Down entirely underlain by Zig Zag Chalk Formation. Both of these are defined as a highly productive aquifer and a Principal aquifer shown by Defra Magic mapping.
- 1.2.3 Both sites are underlain by Head superficial deposits comprising clays, silts sands and gravel, although the extent of superficial deposits is more extensive across the Chawton Park GV site than Neatham Down.
- 1.2.4 The Soilsapes website predicts that both sites are underlain by freely draining soils. However, site observations at Chawton Park GV shows that soils at this site are clay-based with poor infiltration but beneath this, the underlying geology has high infiltration rates.
- 1.2.5 Defra Magic mapping shows that the vast majority of the Neatham Down site to be within an area of High vulnerability to groundwater pollution, with only small parts of the site within Medium – High vulnerability. The same mapping shows the Chawton Park GV site to be located in areas of Low, Medium – Low and Medium vulnerability.
- 1.2.6 Environment Agency mapping shows the Chawton Park GV site to be partially located within a groundwater Source Protection Zone (SPZ) 3 – Total Catchment. However, this is largely confined to the central valley and a small part of the northwestern corner of the site as shown in Figure 1-2.

Figure 1-2 Source Protection Zones



- 1.2.7 The SPZ3 is defined as the area around a supply source within which all the groundwater ends up at the abstraction point. Water in this area would take over 400 days to reach an abstraction point.
- 1.2.8 Southern Water undertake monitoring including groundwater level measurements at a borehole within the existing property at Chawton Park GV. The data, shown in Figure 1-3, shows that groundwater levels remain over 18m below the ground level – noting that ground levels at the borehole are approximately 135mAOD.

Figure 1-3 Chawton Park Groundwater Level Records



1.3 Topography

1.3.1 The topography of the sites, generated from LiDAR data, is demonstrated in Figure 1-4 and Figure 1-5. Note that the LiDAR data is incomplete for Chawton Park.

Figure 1-4 Topography – Chawton Park GV

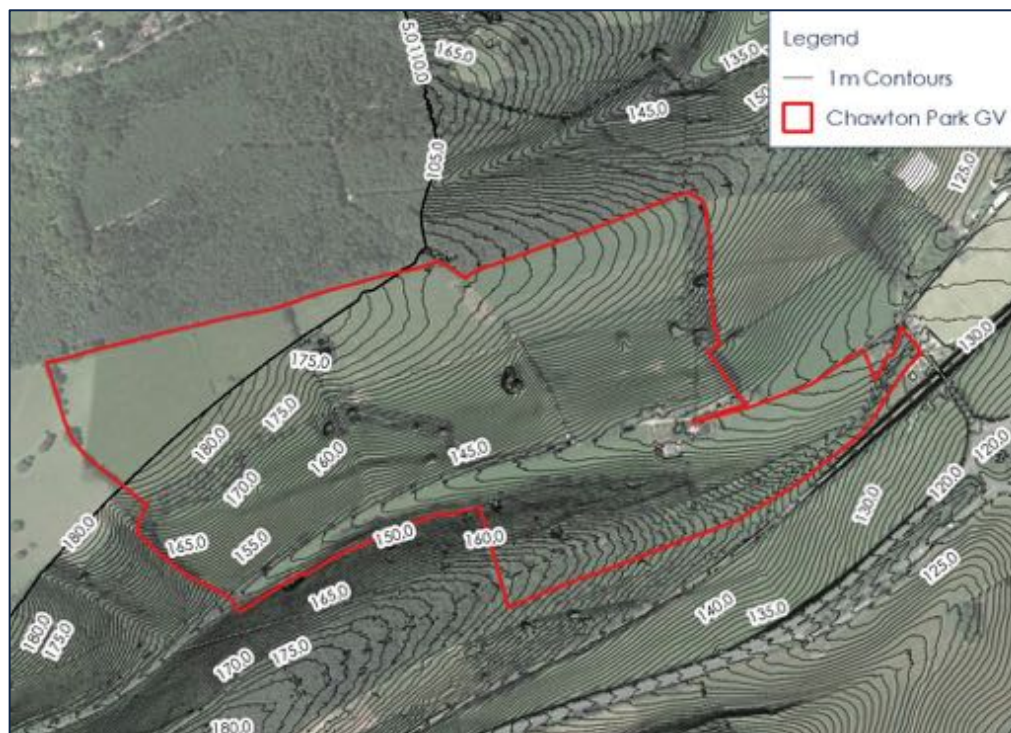


Figure 1-5 Topography – Neatham Down



- 1.3.2 Topography is a defining feature of both sites. Neatham Down is defined by a ridge that runs along the eastern boundary. Another, lower, ridge exists along the western boundary. These features create a valley that runs in a north-south alignment through the western part of the site.
- 1.3.3 Chawton Park GV slopes steeply down to a valley that runs in a west to east alignment through the centre of the site.

2 FLOOD RISK ANALYSIS – NEATHAM DOWN

2.1 Fluvial Flood Risk

- 2.1.1 The site is located in Flood Zone 1 and is consequently at Low risk of fluvial flooding.

2.2 Surface Water Flood Risk

- 2.2.1 The vast majority of the site is at Very Low risk of surface water flooding. Only very minor parts of the site are predicted to be at risk by the Environment Agency's Risk of Flooding from Surface Water (RoFSW) dataset, as shown in Figure 2-1. This is not deemed to be an impediment to development.

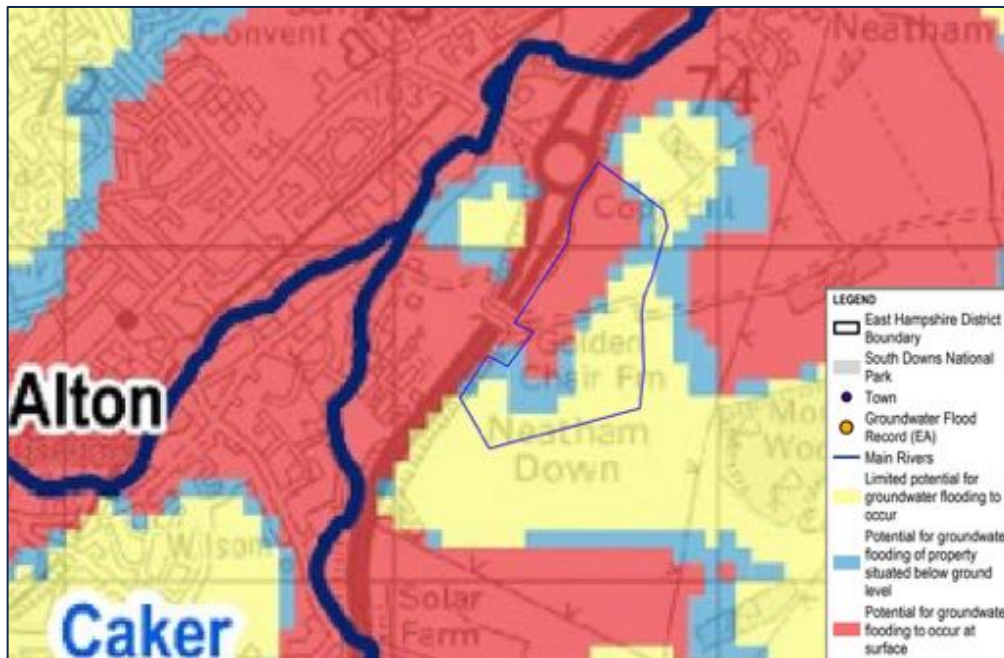
Figure 2-1 RoFSW Extents



2.3 Groundwater Flooding

- 2.3.1 The East Hampshire Strategic Flood Risk Assessment (SFRA) concludes that the risk of groundwater flooding in the district is generally high on account of the chalk bedrock.
- 2.3.2 Figure 4A of the SFRA and reproduced in Figure 2-2, shows areas at risk of groundwater flooding in the district. The SFRA mapping is based on the BGS dataset 'Susceptibility to Groundwater Flooding'.

Figure 2-2 SFRA Groundwater Flooding



2.3.3 As shown in Figure 2-2, the site is predicted by the SFRA mapping to be partially located within an area of potential groundwater flooding. The mapping suggests such areas would be located in the valley that runs through the western portion of the site, with the ridge areas at lower risk.

2.4 Other Sources of Flooding

2.4.1 The site is located outside of areas predicted to be at risk from a reservoir breach and given its rural setting it is unlikely to be at risk from sewer flooding. Therefore, the risk from these sources is deemed to be Negligible.

3 FLOOD RISK ANALYSIS – CHAWTON PARK GV

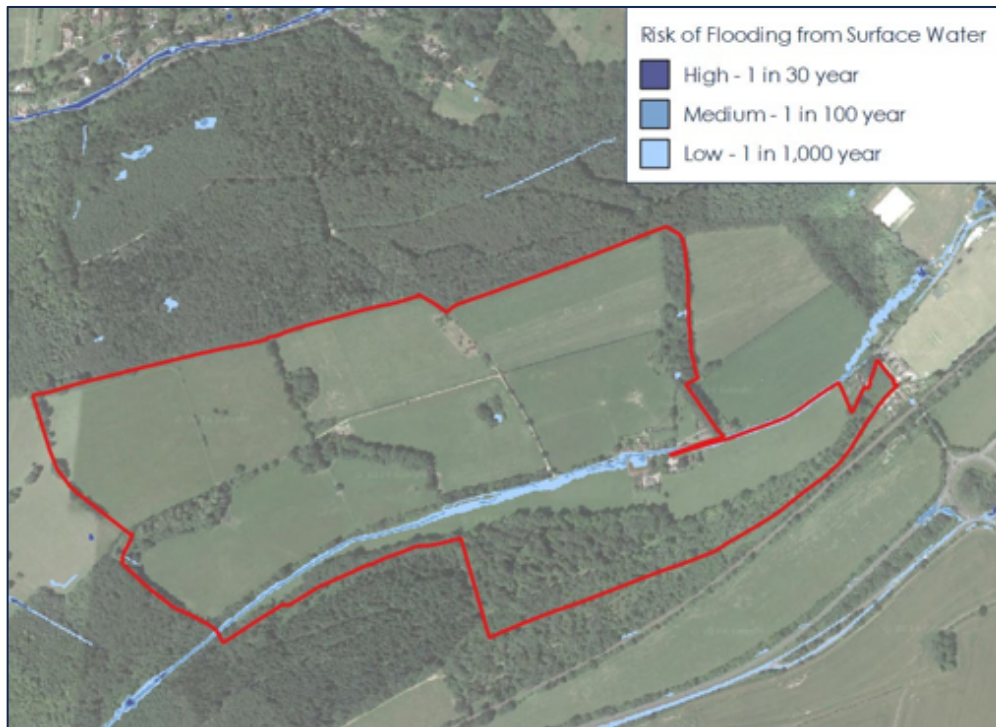
3.1 Fluvial Flood Risk

3.1.1 Chawton Park GV is located in Flood Zone 1 and at Low risk of fluvial flooding.

3.2 Surface Water Flood Risk

3.2.1 As with Neatham Down, the vast majority of the site is at Very Low risk of surface water flooding. Only very minor parts of the site, on the base of the valley feature, are predicted to be at risk by the Environment Agency's Risk of Flooding from Surface Water (RoFSW) dataset, as shown in Figure 3-1. This is not deemed to be an impediment to development.

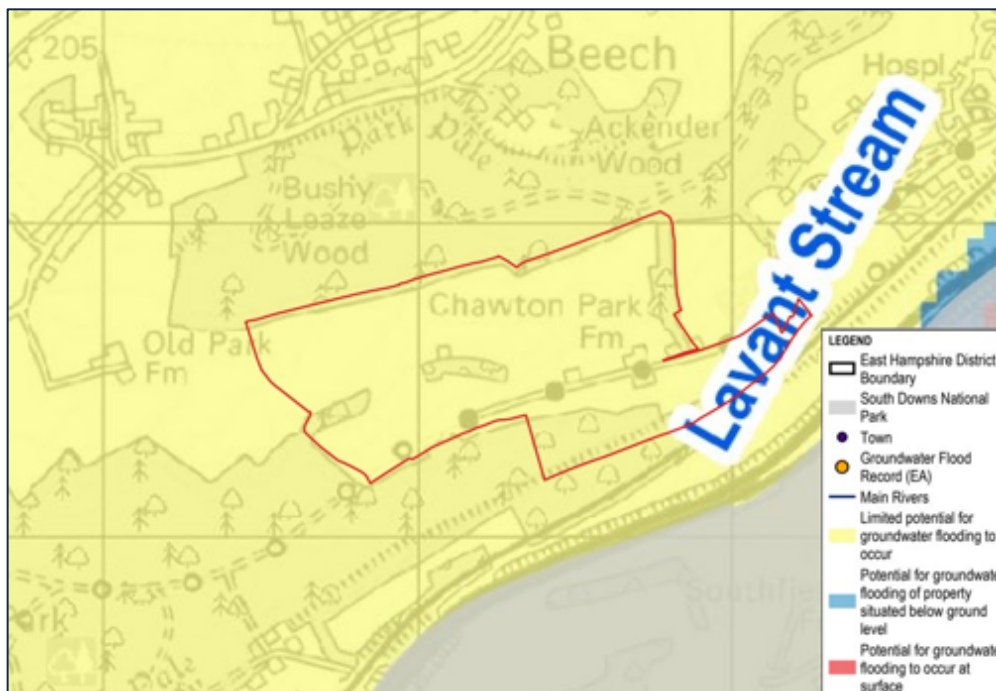
Figure 3-1 RoFSW Extents



3.3 Groundwater Flooding

3.3.1 Figure 4a of the SFRA, replicated in Figure 3-2, shows the entire Chawton Park GV site to be in an area of 'Limited potential for groundwater flooding to occur'.

Figure 3-2 SFRA Groundwater Flooding



3.3.2 The data presented in Figure 3-2 reflects local conditions, i.e., groundwater levels being significantly below the ground surface and clay soils restricting vertical migration of groundwater to the surface.

3.3.3 As a result of the above, the risk of groundwater flooding posed to the site is Negligible.

3.4 Other Sources of Flooding

3.4.1 The site is located outside of areas predicted to be at risk from a reservoir breach and given its rural setting it is unlikely to be at risk from sewer flooding. Therefore, the risk from these sources is deemed to be Negligible.

4 SITE COMPARISON – POLICY IMPLICATIONS

4.1 Flood Risk Management

National Planning Policy Framework

4.1.1 Paragraph 167 of The National Planning Policy Framework (NPPF) states that '*All plans should apply a sequential, risk-based approach to the location of development – taking into account all sources of flood risk and the current and future impacts of climate change*'. The important aspect in this is the reference to all sources of flood risk.

4.1.2 Paragraph 168 augments paragraph 167 by stating '*The aim of the sequential test is to steer new development to areas with the lowest risk of flooding from any source. Development should not be allocated or permitted if there are reasonably available sites appropriate for the proposed development in areas with a lower risk of flooding.*' It also confirms that the SFRA will provide the basis for applying this test.

EHDC Adopted Local Plan

4.1.3 Policy CP25 (Flood Risk) of the Joint Core Strategy part of the adopted EHDC Local Plan reflects the NPPF by stating '*Development in areas at risk of flooding, now and in the future, as identified on the latest Environment Agency flood risk maps and the Council's SFRA will be permitted provided that:*

a) *It meets the sequential and exception test (where required) as outlined in Government guidance.*

4.1.4 The supporting text for Policy CP25 highlights the importance of groundwater flooding, particularly in the River Wey catchment (the setting for Neatham Down as shown in Figure 1-1). It states that '*development should be avoided in areas at risk from, susceptible to, or have a history of groundwater flooding.*'

EHDC Draft Local Plan (2021 – 2040)

- 4.1.5 The Draft Local Plan reflects the Adopted Local Plan through Policy NBE7 (Managing Flood Risk). In particular, part NBE7.1 states that *'...development will be permitted provide[sic] that: it meets the sequential and exception test (where required) and outline in Government guidance.'*
- 4.1.6 In addition, NBE7.5 retains wording from the Adopted Local Plan by stating *'Development should be avoided in areas at risk from, susceptible to, or have a history of groundwater flooding'*.

EHDC SFRA

- 4.1.7 The SFRA is a key policy evidence base document in the Sequential Test process. Paragraph 10.2.2 of the 2022 SFRA iteration reflects the above by stating that *'All sources must be considered when planning for new development including flooding from land or surface water runoff; groundwater; sewers; and artificial sources.'* Furthermore, the Sequential Test flow diagram provided in Figure 10-1 of the SFRA commences with the question *'Is there a more suitable site at lower flood risk?'*

Site Comparison

- 4.1.8 As shown in Section 2, the flood risks posed to the two sites from all sources except groundwater is low. Therefore, to select the sequentially preferable site relies on comparison of groundwater flooding.
- 4.1.9 It is acknowledged that sometimes more detailed analysis can suggest that strategic mapping such as SFRA flood risk maps misrepresents the risk of flooding. However, the sequential approach to strategic development site allocations is normally blind to such analysis. Therefore, in cases where comparison is required between strategic sites, the site at lowest mapped risk of flooding should be preferred.
- 4.1.10 As a result, and based on the evidence provided in this note, the Chawton Park GV site would be sequentially preferable over Neatham Down.

4.2 Groundwater Quality

National Planning Policy Framework

- 4.2.1 Paragraph 180 of the NPPF states that *'Planning policies and decisions should contribute to and enhance the natural and local environment by:*

.....

- e) *'preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability.'*

- 4.2.2 Paragraph 189 states that *'Planning policies and decisions should ensure that:*

- a) *'a site is suitable for its proposed use taking account of ground conditions and any risks arising from land instability and contamination.'*

EHDC Adopted Local Plan

4.2.3 Policy CP26 (Water Resources/Water Quality) of the Adopted Local Plan states that *'Development will be required to protect the quality and quantity of water, and make efficient use of water. Development will be permitted provided that:*

- a) *it protects and enhances the quality and quantity of groundwater, surface water features and controls aquatic pollution to help to achieve the requirements of the European Water Framework Directive;*

4.2.4 The supporting text to the policy continues by referring to the importance of the chalk aquifer to the freshwater environment of the district and the need to safeguard it during development. Furthermore, paragraph 7.48 refers to the need for future developments to *'..be planned carefully so that it does not result in further pressure on the water environment.'*

EHDC Draft Local Plan (2021 – 2040)

4.2.5 Policy NBE13 (Protection of Natural Resources) explains that pollution can arise from the development process. Paragraph 5.95 states that *'Preventing and alleviating pollution and minimising the risk to human health and the environment are key objectives of sustainable development'*.

4.2.6 Part NBE13.1 states that *'Development proposals will be expected to demonstrate that they:*

- a) *Do not give rise to soil contamination or air, noise, radiation, light or water pollution where the level of discharge, emissions or contamination could cause harm to sensitive receptors (including impact on dark night skies);*

....

- c) *Do not result in a reduction in the quality or quantity of groundwater resources; this includes the protection of principal aquifers and the source protection zones within the southern part of the Local Plan Area;*

Site Comparison

4.2.7 The sequential approach to development location in relation to groundwater quality is less well-defined than the flood risk Sequential Test process. Nonetheless, local plan processes should follow a sequential approach to the location of strategic development site and select sites that are located in areas of lower vulnerability to groundwater quality issues.

- 4.2.8 In this context, the sites selection process should, wherever possible, select sites that are located within areas where the groundwater is less vulnerable to pollution. This would, in particular, assist with meeting paragraph 5.95 of the Draft Local Plan and paragraph 180 of the NPPF by helping to prevent pollution issues at the outset.
- 4.2.9 It is acknowledged that the Chawton Park GV site falls partially within an SPZ3 – Total Catchment. The wording of the Adopted and Draft Local Plan refers to development avoiding areas within SPZs '*where there may be a risk to the quality of the groundwater source*' (Adopted Local Plan, paragraph 3.23). Chawton Park GV is only partially with SPZ 3 (Total Catchment) and the distance to the groundwater table is significant, which would allow for filtering of water as it migrates through the strata. Furthermore, the site would include a sustainable drainage strategy that adequately cleanses water before discharge to the ground which would negate the risk to groundwater quality and consequently meet the Local Plan requirement.
- 4.2.10 The Chawton Park GV site is located in an area where groundwater is less vulnerable to pollution than the Neatham Down site area. Therefore, Chawton Park GV would be a preferred location for a strategic site and would better align with local and national policy.

5 SUMMARY

- 5.1.1 This note summarises the flood risks posed to two prospective sites in east Hampshire, Chawton Park Garden Village and Neatham Downs.
- 5.1.2 It also summarises the likely vulnerability of groundwater beneath both of the sites given the importance of the groundwater resource to the built and natural environment of the East Hampshire District Council administrative area.
- 5.1.3 Both sites are at low risk of flooding from fluvial, surface water, sewer and artificial sources.
- 5.1.4 The East Hampshire Strategic Flood Risk Assessment shows that Chawton Park is at low risk of groundwater flooding. This prediction is supported by known conditions on the site notably the water table being over 18m below the ground and clay soils that would prevent the vertical migration of groundwater.
- 5.1.5 The SFRA predicts significant parts of the Neatham Down site to be at high risk of groundwater flooding.
- 5.1.6 In accordance with local and national policy, specifically the sequential approach to development, Chawton Park is a more suitable strategic development location.

- 5.1.7 Chawton Park is partially within small bands of Source Protection Zones. However, the local conditions, notably the depth to groundwater, demonstrates that the site would meet the Local Plan requirements by negating the risk to the quality of the groundwater resource.
- 5.1.8 Chawton Park is located in areas where the groundwater has lower vulnerability to pollution than Neatham Down. Therefore, Chawton Park is preferred as it would minimise the risk of pollution to groundwater from the outset and therefore it aligns better with local and national policy than Neatham Down.



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Transport Planning | Flood Risk & Hydrology | Infrastructure & Drainage

EAST HAMPSHIRE DISTRICT COUNCIL LOCAL PLAN (2021-2040)

REGULATION 18 CONSULTATION
ENDING MARCH 2024

Response to:
Policy ALT8: Neatham Manor Farm

OBO: Redrow Homes – Harrow Estates
Division

Project No 22-201-10

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Control Sheet

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Appendix A	LTN1/20 Route Appraisal
Appendix B	Stagecoach Email of 14 th October 2019

1 EXECUTIVE SUMMARY

- 1.1.1 Calibro has been appointed by 'Redrow Homes – Harrow Estates Division' (the "client") to provide technical representations on matters relating to transport, highways and associated sustainability, as part of the Regulation 18 Consultation ending March 2024 in respect of the emerging East Hampshire District Council Local Plan (2021-2040).
- 1.1.2 This report provides our representations in respect of **Policy ALT8: Neatham Manor Farm** and which has informed our client's position to **OBJECT** to the proposed allocation on matters of soundness.
- 1.1.3 The proposed allocation of Neatham Manor Farm raises several significant concerns relating to its compliance with local council policies, which are admirably aimed at fostering sustainable transport to minimise car use in response to the changing climate. Central to these concerns is the inability of Neatham Manor Farm to deliver on the principles of prioritising walking, cycling, and public transport via high-quality, attractive and direct infrastructure, as required by the emerging Local Plan.
- 1.1.4 A critical examination of the Accessibility Study commissioned by the Council reveals significant shortcomings in the methodology employed and the resulting findings. The study's reliance on coarse hexagon settings and its oversight of trip frequencies skews the analysis against minimising car use, undermining its reliability in identifying suitable allocation sites. Furthermore, Neatham Manor Farm's failure to fall within the 20-minute neighbourhood distance of existing residential areas raises doubts about its capacity to encourage sustainable travel behaviours and enhance the credentials of the wider area.
- 1.1.5 This is particularly true in the case of primary education access, which may facilitate non-car access for residents within the allocation itself, if indeed a school could be provided, but for any part of the school catchment outside of the allocation site, access to the school will necessitate car-dependent trips.
- 1.1.6 Conversely, Chawton Park Garden Village offers a well-designed masterplan capable of accommodating a diverse range of land uses conducive to reducing car reliance. The site's favourable location, coupled with interest from potential operators, underscores its potential to align with local plan objectives and promote sustainable transport to a range of amenities and employment opportunities, both within Alton itself and further afield via bus. Unlike Neatham Manor Farm, Chawton Park Garden Village's minimal impact on congested highway networks positions it as a more favourable option in terms of congestion management and overall sustainability.

- 1.1.7 The reliance of Neatham Manor Farm on diverting existing bus services further compounds its challenges in meeting policy compliance. With uncertainties surrounding the delivery of on-site amenities and the potential impacts on traffic congestion, Neatham Manor Farm's suitability as an allocation site is cast into doubt. The draft allocation's inability to provide a meaningful solution to existing congestion issues runs counter to the Council's objectives of prioritising sustainable transportation modes and minimizing adverse traffic effects.
- 1.1.8 In light of these concerns, the Neatham Manor Farm allocation appears at odds with the vision and objectives outlined in the emerging Local Plan. Its uncertainties and potential adverse impacts on traffic congestion undermine its compliance with policy directives aimed at fostering sustainable development. Conversely, Chawton Park Garden Village emerges as a more viable option, offering an 'oven-ready' allocation aligned with local plan objectives and capable of promoting sustainable transportation practices in the area.
- 1.1.9 Ultimately, the shortcomings of Neatham Manor Farm in meeting policy objectives and addressing existing congestion concerns are considered sufficient to render the plan unsound and the Neatham Manor Farm allocation should be replaced by a more sustainable development that is demonstrably aligned to achieving the Council's vision and objectives.

2 BACKGROUND

2.1 Introduction & Purpose

- 2.1.1 Calibro has been appointed by 'Redrow Homes – Harrow Estates Division' (the "client") to provide technical representations on matters relating to transport, highways and associated sustainability, as part of the Regulation 18 Consultation ending March 2024 in respect of the emerging East Hampshire District Council Local Plan (2021-2040).
- 2.1.2 This report provides our representations in respect of **Policy ALT8: Neatham Manor Farm** and which has informed our client's position to **OBJECT** to the proposed allocation on matters of soundness.
- 2.1.3 The purpose of this report is to set out the findings of our appraisal of the degree of compliance (or otherwise) of the proposed allocation of Neatham Manor Farm against relevant national and local policies.

2.2 Report Structure

- 2.2.1 This report has been prepared with the purpose of providing an evidence base that considers the Site's suitability for residential development, considering relevant planning policy matters and technical constraints. The report sets out the various considerations under the following structure:

SECTION Error! Reference source not found. – Error! Reference source not found. – This section of the report critiques the relevant national and local sustainable transport policies such that the degree of compliance can be assessed in the subsequent section of the report.

SECTION 4 – POLICY COMPLIANCE – SUSTAINABILITY BY BUS

2.3 Introduction

- 2.3.1 The policies of the emerging Local Plan place a clear priority on ensuring a 'genuine' choice in sustainable travel options from new development and a priority in securing good access by public transport. Indeed, it is implicit from the terms of policy, that failure to do so would result in the converse scenario in which development would be found to be unsustainable and therefore non-compliant with policy.
- 2.3.2 This section of the report therefore considers the public transport opportunities that are, or could be, provided from ALT8: Neatham Manor Farm to assess its potential to undermine the soundness of the Plan.

2.4 A Lack of Bus Services

2.4.1 It is noteworthy that, in their email to Calibro dated 14th October 2019 (contained at [Appendix B](#)), in response to the Regulation 18 consultation of the time, the local bus operator (Stagecoach) commented as follows:-

“Industry benchmark metrics such as supplied periodically by TAS have established that in larger urban contexts one single bus is generally supported by about 4000 people: something in the order of 1600 dwellings. However this presumes a significant urban network reflecting a significant volume of demand for intra urban journeys. Alton is in no way such a context. Generally I would suggest we would expect a larger development of say 2000 dwellings to start to create a business case for a standalone service; all assuming a policy-compliant affordable housing contribution and broad dwelling mix and a reasonable demand to a town centre venue/railhead. East Anton in Andover starts to exemplify such a scenario.”

2.4.2 The view of the operator should be given great weight in the consultation process, given the requirements of 16(c) and 110(b) of the NPPF, which require the active participation of bus operators in the earliest stages of plan-making.

2.4.3 In this regard, the proposed allocation of Neatham Manor Farm is not sufficiently large as to create the commercial conditions necessary to implement and sustain a new bus service. The draft allocation would therefore be entirely reliant on the diversion of an existing service.

2.5 Potential to Divert Existing Bus Services

2.5.1 For this to be viable, any diversion needs to be achieved via minimal change to mileage and additional journey time to avoid risking a loss in patronage on other parts of the route due to it becoming inefficient. It also needs to ensure a suitable frequency to allow bus to become a genuine and viable alternative to private car travel.

2.5.2 The Neatham Down Farm site allocation sits in relative proximity to the route of the Number 65 bus service, which connects Alton Town Centre and railway station to Guildford via Farnham. The existing route means that it could have potential to divert into the Neatham Down Farm allocation, assuming vehicular access is taken from the Montecchio Way / A31 roundabout.

2.5.3 The current bus timetable is extracted below and identifies frequencies in the order of one service every 75 minutes throughout the day, between Monday and Saturday. There are no Sunday services, and it should be noted that, unlike existing services adjoining the alternative at Chawton Park Garden Village, the Number 65 service does not provide connectivity to key local amenities, including local schools and hospitals.

2.5.4 This is obviously not a 'good' service. Indeed, Census 2011 suggests that only 1.59% of people travelling from Alton to Bentley, Farnham and Guildford do so by bus. As such, bus services would need to be uplifted to a minimum frequency of 30-minutes throughout the day to provide a genuine opportunity to travel by bus, in line with emerging policy.

Figure 5-1 Bus Service Number 65 Timetable

• Guildford • Farnham • Alton		65											
MONDAY TO FRIDAY (excluding Public Holidays)													
Guildford Bus Station [stand 16]	-	0625	0730	0855	1025	1125	1225	1340	1440	1540	1710	1815	1915
Puttenham Hog's Back Cafe	-	0635	0742	0907	1037	1137	1237	1352	1452	1552	1724	1829	1926
Farnham East Street [stop J]	0606	0645	0756	0918	1048	1148	1248	1403	1503	1603	1736	1841	1937
Bentley Crossroads	0616	0655	0808	0930	1100	1200	1300	1415	1505	1615	1750	1852	1948
Holybourne Eggars School	0623	0703	0818	0938	1108	1208	1308	1423	1523	1623	1800	1900	1955
Alton Station [stop R]	0626	0706	0821	0941	1111	1211	1311	1426	1526	1626	1803	1903	1958
Alton High Street	0630	0710	0825	0945	1115	1215	1315	1430	1530	1630	1807	1907	2002
SATURDAY													
Guildford Bus Station [stand 16]	0700	0800	0925	1025	1125	1225	1340	1440	1540	1710	1815	1915	
Puttenham Hog's Back Cafe	0710	0810	0937	1037	1137	1237	1352	1452	1552	1721	1826	1926	
Farnham East Street [stop J]	0719	0819	0948	1048	1148	1248	1403	1503	1603	1732	1837	1937	
Bentley Crossroads	0729	0829	1000	1100	1200	1300	1415	1515	1615	1743	1848	1948	
Holybourne Eggars School	0736	0836	1006	1106	1206	1306	1423	1523	1623	1750	1855	1955	
Alton Station [stop R]	0739	0839	1011	1111	1211	1311	1426	1526	1626	1753	1858	1958	
Alton High Street	0743	0843	1015	1115	1215	1315	1430	1530	1630	1757	1902	2002	

stagecoachbus.com valid from 23rd January 2023

2.5.5 This would, however, require significant investment and it is uncertain, given the destinations on the route, whether this could be commercially viable in perpetuity, especially given the step change needed against current patronage levels.

2.5.6 Indeed, uncertainty is increased by the fact that the diversion into the site and the increased journey time would be likely to reduce patronage from other parts of the existing route. In this way, reference to the Department for Transport (DfT) RAND study suggests that a reduction in existing patronage levels of around 6% would result from a 5-minute increase in journey times.

2.5.7 The significant uncertainty in the availability of higher frequency bus services in perpetuity and their ability to reduce residual car journeys place significant doubt on the ability to deliver sustainable development at Neatham Manor Farm, contrary to policy.

- 2.5.8 However, it is important to note that the alternative at Chawton Park Garden Village has no such uncertainty. That site lies on the route of the Number 64 bus service, which connects Alton to Winchester and is shown to accommodate almost 6% of trips along the route based on Census 2011 data – a mode share that is almost four times greater than the Number 65 service.
- 2.5.9 Yet, this was prior to significant investment and restructuring of the route by Stagecoach, which has led to the route experiencing the fastest growth in patronage in the district. It is also an award-winning route, and the bus operator has publicly endorsed an allocation of Chawton Park Garden Village because of its potential for bus to be a genuine alternative to private car use. They have also provided representations to earlier Local Plan consultations.

2.6 Implication

- 2.6.1 The emerging Local Plan prioritises sustainable travel options and robust public transport access. However, the proposed Neatham Manor Farm allocation faces significant challenges in establishing a new standalone bus services due to insufficient population density. The reliance on diverting existing services raises concerns regarding long-term viability, compounded by uncertainties about patronage levels and potential reductions in other route segments.
- 2.6.2 Significant questions exist regarding the potential for the proposed allocation of Neatham Manor Farm to deliver public transport services in a way that provides a genuine choice in sustainable transport, such that any development would then be “unsustainable”. This would be contrary to policy and risk the soundness of the plan.
- 2.6.3 In contrast, Chawton Park Garden Village offers a more promising outlook, situated along a bus route with higher mode shares and recent investments leading to substantial growth in patronage. Endorsement from the bus operator underscores its potential as a genuine alternative to private car use, ensuring a more certain path toward achieving sustainable development objectives.
- 2.6.4 Ultimately, while Neatham Manor Farm struggles to overcome logistical and commercial hurdles in providing adequate public transport, Chawton Park Garden Village offers an ‘oven-ready’ public transport solution.

3 POLICY COMPLIANCE – ACCESSIBILITY STUDY RESULTS

3.1 Introduction

- 3.1.1 The Council have undertaken an Accessibility Study which has been used to inform their Settlement Hierarchy and draft allocation sites, including ALT8: Neatham Down Farm.
- 3.1.2 The approach incorporates a simplistic scoring system based around the modelled travel distance from the centre of modelled hexagons set at 500-metre centres around the key population centres, towards a range of amenity types. The amenities are accessible where they accord with the principles of 20-minute neighbourhoods, which is to say a travel time of 10-minutes each way by foot or by bike.
- 3.1.3 Whilst an accessibility-led approach to the spatial plan is endorsed, there are a number of issues with the current approach which may impact on the findings of the study, including:-
- The setting of hexagons at 500-metre centres within an urban context is crude and, when combined with the rudimentary placement of the hexagons, leads to statistically unreliable journey distances being calculated between the origins and destinations. A more fine-grain analysis is required, assuming 50-metre centres which would more accurately reflect the changing accessibility levels across a site whilst increasing the statistical reliability of the resultant average.
 - The methodology ignores the frequency of visits undertaken to each amenity type. Whilst the three dimensions of sustainability incorporate a social strand, meaning that access to a post office and GP Surgery is important, the fact remains that these are visited less frequently than places of work or education, for example. In this way, the analysis is skewed against the optimising for the environmental strand which is a flawed concept in light that the vision, objectives and policies of the emerging Plan are focused on minimising car use in response to the climate emergency.
 - The scoring is based on a range of land-uses that serve no amenity value in the way people conduct their day-to-day lives. For example, inclusion of Fire and Police Stations is not a destination for residents and should be excluded from the analysis as it may currently distort the results.

- The study fails to acknowledge the wider complexities of inter-urban movement which can make up the majority of travel from development and settlements. It is a fact of life that people may live in one area and work in another and the study fails to consider how this majority of movement may be undertaken by sustainable travel modes. This is of particular relevance in the context of the inclusion of Neatham Manor Farm, which is considered at [Section 5](#) above.
- In this sense, the analysis, even when undertaken robustly, should be seen as a starting point. The complex nature of sustainability cannot be adequately considered within such a high level appraisal, particularly in light of the response to climate change and the stated vision and objectives of the emerging Local Plan.
- Consequently, whilst the analysis may be identifying the right settlement hierarchy, the results have the significant potential to mislead in the determination of suitable allocation sites. This has been shown to be the case throughout this study.

3.2 Measurement of 20-Minute Principles

- 3.2.1 In addition to the above, in the era of climate change, the application of 20-minute principles is not only an inward-looking evaluation to focus on new development but rather it is a case of looking at the cumulative effects of the development, and its potential to deliver wider benefits that may encourage modal shift amongst parts of the existing community.
- 3.2.2 For example, the addition of a primary school within a development would no doubt help to deliver 20-minute principles within the scheme itself, but its location may also mean that residents living in surrounding areas would have a new opportunity to access primary education much closer, potentially within the 20-minute threshold. In this sense, there is a potential for those existing trips which are more likely to be undertaken by car, to switch to more sustainable travel options. The carbon savings associated with that behaviour should be credited to the development. However, this is not reflected within the analysis and is a significant flaw and failure to provide a holistic and informed decision-making framework.
- 3.2.3 In the context of the proposed allocation at Neatham Manor Farm, the site does not lie within 20-minute neighbourhood distance of any existing residential areas within Alton. Consequently, even were it to provide on-site amenities, those facilities would not deliver a sustainable travel benefit to existing residents of the town. Moreover, where in the case of a primary school, for example, the catchment was to draw from the wider area, these trips would almost certainly need to be undertaken by car, contrary to the sustainable development policies that run throughout the emerging Local Plan.

- 3.2.4 Conversely, the opportunity at Chawton Park Garden Village is a western extension of the built-up area of Alton and relates well to existing residential areas served via Chawton Park Road, including the Lord Mayor Treloar development (marketed as Ackender Hill) and Connaught Way.
- 3.2.5 This analysis has been undertaken in the context of Chawton Park Garden Village and the potential benefits of providing a primary school. In this context, the results indicate that around 1.5% of the total Alton population would have improved access to primary education and become highly accessible by foot and bike. This is a small percentage change of a much larger number, such that its significance becomes material, particularly in the context of the need to achieve even marginal gains towards net zero, in line with the vision and objectives of the emerging Local Plan.
- 3.2.6 In this context, Chawton Park Garden Village would contribute to the Council's stated aims and objectives, and support its emerging policies, more meaningfully than the current draft allocation at Neatham Manor Farm.

3.3 Implication

- 3.3.1 The Accessibility Study conducted by the Council to inform the Settlement Hierarchy and draft allocation sites, including Neatham Manor Farm, introduces a significant degree of uncertainty in its methodology and findings. Several issues with the approach undermine the reliability of the study's conclusions. Notably, the coarse setting of hexagons at 500-metre intervals within urban contexts leads to statistically unreliable journey distance calculations, while the neglect of trip frequencies to different amenities skews the analysis against minimising car use. Moreover, the study fails to acknowledge the complexities of inter-urban movement and overlooks the potential for misleading results in determining suitable allocation sites.
- 3.3.2 This uncertainty is particularly manifest concerning primary schools, where the potential to make the wrong decision is evident in the failure to credit developments for encouraging modal shift among existing communities through improved access to amenities such as schools within the 20-minute threshold.
- 3.3.3 The lack of acknowledgment of wider community benefits and potential modal shifts within the Accessibility Study underscores the risk of misinformed decision-making, particularly evident in the comparison between Neatham Manor Farm and Chawton Park Garden Village. While the former fails to lie within a 20-minute neighbourhood distance of existing residential areas in Alton, thereby potentially necessitating car-dependent trips for amenities like primary education, the latter offers a more promising outlook, with its proximity to existing residential areas and potential to significantly improve access to primary education within sustainable travel thresholds.
- 3.3.4 Thus, the shortcomings of the Accessibility Study highlight the importance of a more nuanced and informed decision-making framework to ensure that future developments align with the objectives of the emerging Local Plan.

HIGHWAY CAPACITY – Sustainability by active travel modes– The report considers accessibility of ALT8: Neatham Manor Farm by active travel modes and includes an assessment using IEMA Guidelines to assess severance, fear and intimidation and compliance with LTN 1/20.

SECTION 5 – Policy Compliance – Sustainability by bus - The report considers the public transport opportunities that are, or could be, provided from ALT8: Neatham Manor Farm to assess its potential to undermine the soundness of the Plan.

SECTION 6 – Policy Compliance – Accessibility study results – This section reviews the Council's Accessibility Study which has been used to inform their Settlement Hierarchy and draft allocation sites, including ALT8: Neatham Down Farm.

SECTION 7 – Highway capacity – This section focuses on and reviews paragraph 4.62 of the Transport Background Paper (January 2024) which forms part of the evidence to the Draft Local Plan (Regulation 18) and outlines the implications of potential effects on highway capacity if the envisaged scale of development cannot be realised.

SECTION 8 - Summary & Conclusion – A summary of the salient findings of the report are provided within this section and these are used to evidence an overarching conclusion regarding the suitability of the Site for residential development.

4 RELEVANT POLICY CONSIDERATIONS

4.1 Introduction

- 4.1.1 This section of the report sets out the relevant national and local sustainable transport policies that provide the context for evaluating the Local Plan strategies and policies for the achievement of sustainable development; these being the core policies that would underpin the evaluation of the soundness of the Local Plan, in transport terms.
- 4.1.2 The policies are critiqued and used to create a narrative to provide understanding of the salient priorities and outcomes expected from the emerging Plan. In this context of this report, they are used to evaluate the soundness of Policy ALT8: Land at Neatham Manor Down, in combination with technical appraisals set out in the subsequent sections.

4.2 National Planning Policy Framework (NPPF)

- 4.2.1 The NPPF sets out the Government's planning policies for England and how it expects these to be applied. The Framework clarifies at Paragraph 7 that **“the purpose of the planning system is to contribute to the achievement of sustainable development”** and this is the only occasion within the entirety of the Framework that the purpose of the planning system is stated. In this regard, and reflecting the ‘plan-led’ system, paragraph 16(a) requires that Local Plans must reflect this purpose.
- 4.2.2 It is therefore evident that the sole purpose of the planning system is to achieve sustainable development and the achievement of such is therefore to be given the highest degree of weight in the Local Plan process. Moreover, since the policies within the NPPF must be considered in the preparation of Local Plans, it is implicitly the case that Local Plans must evaluate with evidence the likely outcomes in the context of achieving sustainable development.
- 4.2.3 To assist in this purpose, Paragraph 3 of the Framework confirms that **“the Framework should be read as a whole (including footnotes and annexes).”** In concise terms, Paragraph 8 identifies that sustainable development is achieved via three mutually dependant dimensions (economic, social and environmental) and these give rise to the need for the planning system to fulfil a number of objectives:

“An economic objective – to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure;

A social objective – to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering well-designed, beautiful and safe places, with accessible services and open spaces that reflect current and future needs and support communities’ health, social and cultural well-being; and

An environmental objective – to protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.”

- 4.2.4 In this respect, sustainability can be thought of as complex and multi-faceted concept where, each of the objectives needs to be pursued in mutually supportive ways to secure net gains which can be delivered in each across each of the objectives (Paragraph 8, NPPF).
- 4.2.5 In the case of transport-related sustainability, Paragraph 108 of the Framework requires that **“transport issues should be considered at the earliest stages [emphasis added] of plan making”** so that the **“environmental impacts of traffic and transport can be identified and taken into account – including appropriate opportunities of avoiding [emphasis added] and mitigating adverse impacts”**.
- 4.2.6 This is supplemented by Paragraph 109 of the Framework which requires that **“the planning system should actively manage patterns of growth”** and **“significant development should be focused in locations which are or can be made sustainable, through limiting [emphasis added] the need to travel and offering a genuine transport modes. However, opportunities to maximise [emphasis added] sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making”**.
- 4.2.7 To help inform the appropriate pattern of growth, paragraph 16(b) clarifies that Local Plans should **“be shaped by early, proportionate and effective engagement between planmakers and communities, local organisations, businesses, infrastructure providers and operators and statutory consultees”**. Paragraph 110(b) is more explicit in so much it requires that planning policies should be **“prepared with the active involvement [emphasis added] of local highway authorities, other transport infrastructure providers and operators”**.
- 4.2.8 Taking this together, the NPPF therefore seeks to deliver development (in this case, housing development) in locations and with appropriate strategies that *minimise* (taken to be its smallest possible level) the need to travel and where sustainable travel options can be *maximised* (taken to be its highest possible level).

4.2.9 It is the case therefore that Government policy is concerned in the significant part with the location of development relative to supporting jobs, shops, and local amenities, which combine to create the need to travel. In this context, Paragraph 109 of the Framework requires that locations that *minimise* the need to travel should be prioritised as these can help to **“reduce congestion and emissions and improve air quality and public health”**.

4.2.10 It is therefore the case that policy requires that journey lengths are *minimised*, this being a threshold set at a higher level than merely to “reduce” and which suggests of a relative requirement to reduce journeys to the smallest possible degree. It is therefore fundamental that each allocation demonstrate that it is located where the need to travel can be minimised and non-car travel options be maximised, relative to the available alternatives.

4.2.11 This requirement is implicitly transposed to Paragraph 32 which requires that **“significant adverse impacts... should be avoided [emphasis added] and, where possible, alternative options which reduce or eliminate [emphasis added] such impact should be pursued”**.

4.3 East Hampshire District Council (EHDC) Local Plan (2021-240), Regulation 18 Consultation, March 2024

4.3.1 East Hampshire District Council's vision for their emerging Plan is identified as:

“By 2040 and beyond, our residents will live in healthy, accessible and inclusive communities where quality affordable homes, local facilities and employment opportunities in sustainable locations provide our communities with green and welcoming places to live, work and play and response positively to the climate emergency.”

4.3.2 In the context of the draft allocation at Neatham Manor Farm, and from a transport perspective, the salient issues arising from the vision are therefore to consider whether the inclusion of the site supports or detracts from the vision to provide a “sustainable location” where opportunities to work, live and play are “accessible” by non-car travel options.

4.3.3 To help deliver on the vision, the Local Plan identifies a number of key objectives in relation to travel and transport. The first of these key objectives (B4) is to **“enable people to live locally and reduce their reliance on the private car, to help reduce the impacts of transport on the environment and improve health and wellbeing”** and part of this will be reliant upon objective C1 which seeks to **“enable and encourage timely delivery of services and infrastructure to support strong communities.”**

- 4.3.4 Section 3 of the emerging Plan sets out the emerging spatial strategic and how the Authority will manage future development. Paragraph 3.3 therein recognises that **“the distribution of development and consideration of the right type and location of development is fundamental [emphasis added] to delivering sustainable growth”**. The converse of course is that development in the wrong location, or of the wrong type, would fail to deliver sustainable growth.
- 4.3.5 In this context, the client supports Policy S1.4 of the emerging Plan, which is focused on achieving sustainable growth in accordance with the Spatial Strategy and in line with the settlement hierarchy, which identifies a greater portion of growth in the larger and more sustainable settlements. Policy S2 is supportive of this principle in so much that it correctly places Alton at the top of the settlement hierarchy.
- 4.3.6 However, the suggestion at S2.4 and expanded upon at Policy NBE1, that **“development outside the settlements listed above [referring to the hierarchy] is considered countryside and will be restricted to that which is appropriate in a rural area...”**.
- 4.3.7 This policy is restrictive and may work against the stated Plan vision and objectives, in so much that it prejudices more meaningful development on the edge of the larger, most sustainable locations identified in the settlement hierarchy. Where the settlement boundaries are drawn so tightly, the policy has the unintended consequence of delivering the same amount of housing in a more dispersed manner and in more rural areas that would not have the same opportunities to minimise the need to travel, or to travel by non-car modes, contrary to Objective B4 of the Plan.
- 4.3.8 This would clearly make the policy unsound, not only in against national policy but Policy CLIM1.2 of Plan also makes it clear that, in new development **“sustainable modes of transport (e.g. walking, cycling public transport) will be prioritised [emphasis added] through the location, design and layout of new development”** and this is further supported by Policies DES1, DES2 and DGC2.
- 4.3.9 Policy DGC2. clarifies that **“sustainable locations are those that are in an accessible distance to enable local living and offer genuine [emphasis added] opportunities to travel by sustainable modes (walking, cycling and public transport) for multiple journey purposes”** whilst Policy DES1.1 states that new development will be permitted where it would help to achieve the stated vision and where development **“integrates well with existing streets, cycle and walking connections and where relevant extends these movement networks within a development site, to create attractive, accessible, safe and direct routes that are inclusively designed”**. In this respect, the requirement for a “genuine choice” includes a need to consider deliverability and quality or attractiveness of sustainable travel infrastructure.

- 4.3.10 The concept of routes needing to be 'attractive' is also replicated within Policy HWC1.1 which acknowledges that development should contribute to healthy and active lifestyles by delivering **"access to sustainable modes of travel, including safe, well-designed, and attractive [emphasis added] cycling and walking routes and easy access to public transport to reduce car dependency"**.
- 4.3.11 The nature of well-design routes is also expressed within Policy DGC2.2 which states that development will be permitted that **"provides linkages to existing or proposed transport infrastructure and networks, prioritising connections to public transport services and routes promoted in the LCWIP"** and which **"provides attractive and well-designed walking and cycling networks with relevant supporting infrastructure that will improve the perceived safety and security of these modes"**.
- 4.3.12 Furthermore, the Plan seeks to ensure that sustainable travel infrastructure is not only well designed but, by controlling development under Policy CLIM 1.3, to ensure that planning permission will only be granted where **"any new transport infrastructure (roads, footpaths, cycleways) has been designed to prioritise [emphasis added] walking, cycling and the use of public transport"**, the Plan infers that development that does not design transport solutions that put pedestrian, cyclists and public transport uses first, will be considered unacceptable.
- 4.3.13 The Policy DGC1.1 implicitly recognises that, in order that infrastructure is prioritised, **"infrastructure necessary to support new development will be available when first needed..."** whilst DGC1.6 is clear, that **"if the timely provision of infrastructure necessary to support new development cannot be secured in line with this policy, planning permission will be refused"**.
- 4.3.14 In this regard, failure to deliver appropriate links will result in deliverability issues for individual sites on which the Plan is reliant upon for soundness reasons. There should therefore be comfort that all sites can be delivered in accordance with the terms of its policies.
- 4.3.15 This includes the need to consider phasing of infrastructure, since it is implicit that a minimum level of connectivity by sustainable transport modes will be needed at each stage of development. This means development that is divorced from amenities and services on which it depends to provide a genuine choice in sustainable travel modes, must provide a proportionate level of connectivity from the outset and indeed, it cannot be said that sustainable travel is *prioritised* (as required by Policy CLIM1.3) if such options are not available early in the development trajectory.

4.4 Client Statement of Support

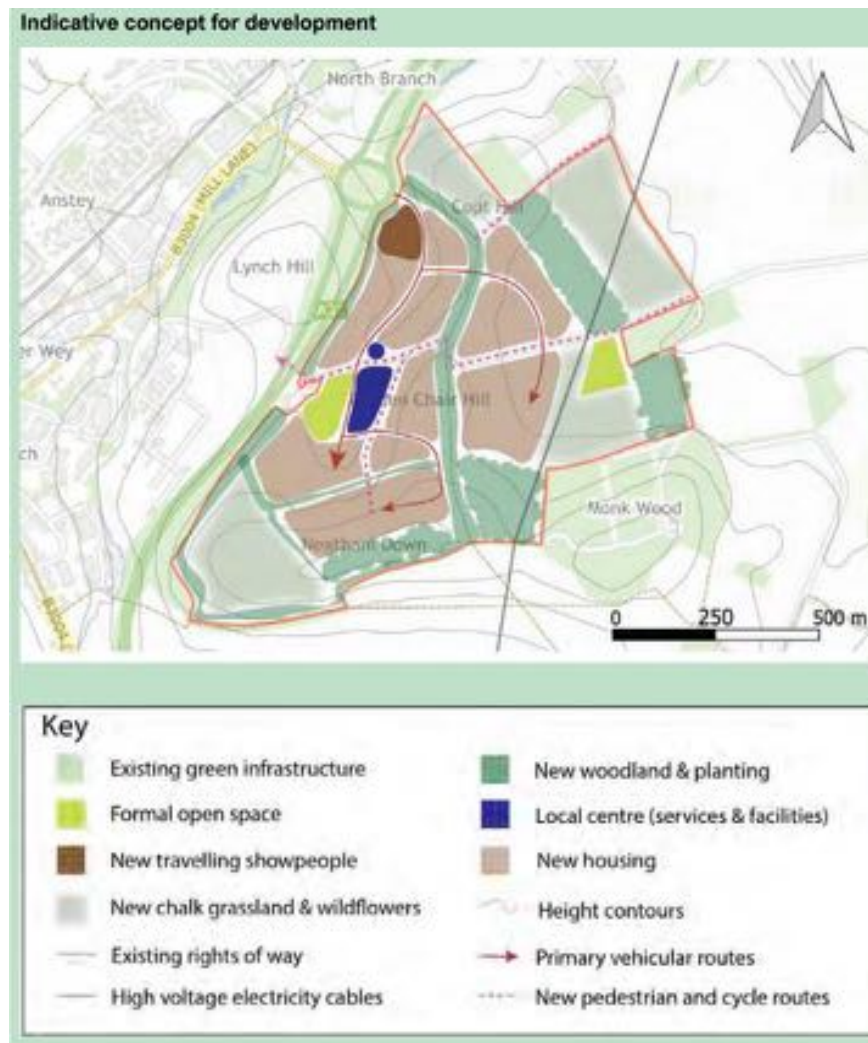
- 4.4.1 The client broadly supports the above policies as, taken together, they provide a coherent approach that reflects the significance of the transport hierarchy and need to respond to the climate emergency. However, it is relevant to note that, by stating terms as a "priority" implicitly implies of a degree of cruciality, such that a failure to prioritise sustainable travel opportunities will not be accepted.

4.4.2 This has an important bearing on the delivery of individual sites identified (and those that have not) within the Spatial Strategy and concern exists that the above policies have not been applied in the selection of Neatham Manor Farm, as more appropriate sites exist which offer greater certainty. The position is evidenced by the remainder of this report.

4.4.3 For clarity, the policy for Land at Neatham Manor Farm is extracted below.

Policy ALT8 – Land at Neatham Manor Farm, Alton

Access and accessibility is an important consideration for a sustainable development. There is existing road infrastructure (a roundabout on the A31) that could connect the site to the road network, although the highways authority has advised that an assessment of traffic movements on the A31 must demonstrate that there is no negative impact. Overall, the site scores above average in the Local Planning Authority's Accessibility Study. However, there is a large variation in accessibility scores across the site, with areas in the west being (in theory) more accessible to facilities and services in Alton by walking and cycling modes. Proposals will need to take advantage of opportunities to open up the existing bridge to pedestrians and cyclists and to support improvements to the network of routes identified in the LCWIP. Passive design principles, the installation of solar panels and the potential for a district heating system could help tackle the climate emergency.



In respect of the stated policy infrastructure requirements, the salient aspects include the following:-

- **“Local centre: the on-site provision of new local services, including a shop, a pub and/or a community centre should be investigated.**
- **Access: A new vehicular access point onto the A31 (via a new arm off the existing roundabout) and a new on-site movement framework suitable for all users will be necessary to support development. Improved connectivity to rural rights of way and greater permeability should be investigated. New, high-quality pedestrian and cycle connections to Alton will be imperative to avoid feelings of disconnection from the town. The existing bridge across the A31 should be made publicly accessible for walking and cycling, whilst other pedestrian and cycling improvements (e.g. along Montechio Way and across the A31) should be investigated. Developer contribution (e.g. by a s.106 contribution) to implementing the Alton LCWIP may be required.”**

4.4.4 It is noteworthy therefore that the Council consider that enabling a high-quality and publicly available route via the existing A31 overbridge, in combination with other improvements to foot and cycle routes, is imperative to ensuring the Neatham Manor Down allocation can be delivered sustainably.

4.5 Hampshire County Council Local Transport Plan 4

4.5.1 Hampshire County Council's fourth Local Transport Plan (LTP4) proposes transformational changes, marking a shift from planning for vehicles to that of planning for people and places. It supports the national priorities for decarbonising the transport system, including reducing dependence on the private car as a mode of transport.

Its vision is to deliver **“A carbon neutral, resilient and inclusive transport system designed around people which: supports health, wellbeing and quality of life for all; supports a connected economy and creates successful and prosperous places; and respects and seeks to enhance Hampshire’s unique environment”**.

4.5.2 LTP4 places emphasis on integrating land-use and transport planning, to enable sustainable travel choices and reduce the need to travel in the first place. Walking and cycling are prioritised as transport modes that should be the first choice for shorter journeys. Hampshire residents are encouraged to own fewer cars and use them less. But it is recognised that realistic alternatives to the private car need to be provided,

4.5.3 LTP4 therefore places an increased emphasis on addressing the barriers to walking and cycling, including issues with personal safety. When developing transport strategies and schemes, a hierarchical approach is proposed that considers different users needs but which generally prioritises the vulnerable, then walkers, then cyclists and horse riders, then public transport users, then deliveries and finally other motor vehicles.

4.6 Section Conclusion

- 4.6.1 It is implicit from the above that there will be an underlying requirement in determining an optimal spatial strategy to ensure that proposed allocations are located close to relevant amenities and job opportunities (to minimise the need to travel) and to provide a genuine choice of non-car travel options (to minimise emissions and other costs of private car use).
- 4.6.2 The remainder of this report therefore considers the locational merits of the site together with technical issues impacting on deliverability of ALT8: Land at Neatham Manor Farm, Alton.

5 POLICY COMPLIANCE – SUSTAINABILITY BY ACTIVE TRAVEL MODES

5.1 Introduction

- 5.1.1 As recognised within the emerging Local Plan policies identified at [Section 4](#) previously, the Council acknowledge the importance of delivering sustainable development that minimises reliance on the private car, by delivering transport infrastructure that prioritises pedestrians, cyclists and public transport users, via high-quality, attractive and direct routes.
- 5.1.2 The implication of course is that the converse would be true were such infrastructure not to be delivered, such that sustainable development could not be secured. This would not only be contrary to policy, which would cause effectiveness issues in the Plan, it would also actively work against the stated vision and objectives of the Plan, rendering it unsound.
- 5.1.3 It is therefore imperative that the inclusion of Neatham Manor Farm is demonstrably deliverable against these terms and this section of the study provides an initial appraisal.

5.2 A31 – A Barrier to Sustainable Travel

- 5.2.1 The location of the Neatham Manor Farm draft allocation is physically divorced from the main settlement of Alton by the A31 dual carriageway. The A31 is a former trunk road of county strategic importance with commensurately high traffic volumes and speeds. The road therefore has a severance effect that creates a barrier to movement over the road and towards Alton. This is shown in context by the below Figure.

Figure 5-1 A31 in Context



- 5.2.2 In this regard, Paragraph 3.13 of the Institute of Environmental Management and Assessment (IEMA) Guidance: Environmental Assessment of Traffic and Movement (July 2023) states that **“in the context of a traffic and movement assessment, severance is the perceived division that can occur within a community when it becomes separated by major transport infrastructure”** and that **“severance may result from the difficult of crossing a heavily trafficked road or a physical barrier created by infrastructure”**. This is broadly mirrored by the definition provided within LA112 Revision 1 of the Design Manual for Roads and Bridges (DMRB) which classifies severance as **“the extent to which members of communities are able (or not able) to move around their community and access services/facilities”**.
- 5.2.3 In proximity of the proposed Neatham Manor Down allocation, the A31 is a dual two-lane carriageway of national speed limit, and which provides a country strategic function, providing connectivity for freight and interurban road movements across the district. A physical severance is therefore not only created by virtue of the size of the two carriageways, which has the effect of having to cross two major roads, but also the volume, speed and type of traffic travelling along the route.
- 5.2.4 Indeed, it is recognised that a contributory factor of severance is the fear and intimidation created by all moving objects (i.e. traffic) and the extent of fear and intimidation is dependent upon the speed, classification and volume of traffic passing along the route.
- 5.2.5 Table 3.1 of the IEMA Guidelines helpfully provides a suggested scoring system to identify the extent of the fear and intimidation for the purposes of Environmental Impact Assessment (EIA), and is derived from the total volume of traffic, composition of heavy vehicles, and the speed of passing vehicles. This is extracted below for ease, whilst highlighted cells have been added to indicate the relative performance of the A31 against these criteria.

Table 5-1 Extract of Table 3.1 of EIA Guidance (Fear & Intimidation Degree of Hazard)

Average traffic flow over 18-hour day – all vehicles/hour 2-way (a)	Total 18-hour heavy vehicle flow (b)	Average vehicle speed (c)	Degree of hazard Score
+1,800	+3,000	->40	30
1,200-1,800	2,000-3,000	30-40	20
600-1,200	1,000-2,000	30-30	10
<600	<1,000	<20	0

- 5.2.6 The total score from all three elements is combined to provide a 'level' of fear and intimidation, which IEMA guidance categorises as “extreme”, “great”, “moderate” or “small”. This is shown in the below table, as extracted from the IEMA guidance.

Table 5-2 Extract of Table 3.2 of EIA Guidance (Levels of Fear & Intimidation)

Level of fear and intimidation	Total hazard score (a) + (b) + (c)
Extreme	71+
Great	41-70
Moderate	21-40
Small	0-20

5.2.7 Based on the evaluation presented at Table 4-1, the A31 would achieve a score of '70'. This means the level of fear and intimidation resulting from the A31 dual carriageway is at the very upper end of the classification of 'great' but is only one point away from being classified as 'extreme'. To all intents therefore, the level of fear is, by any measure, significant and material.

Implication

5.2.8 Consequently, the evidence clearly confirms the A31 as having a physical and perceived severance effect, where such perceptions are likely to be magnified by a significant level of fear and intimidation.

5.2.9 The A31 therefore constitutes a significant barrier that precludes non-car permeability between the Neatham Manor Farm allocation and the local amenities in Alton, which is relied upon to deliver sustainable development. The physical and perceived severance caused by the A31 would also detract from any hope of creating an attractive route to encourage sustainable travel between the site and the amenities in Alton.

5.2.10 In this sense, a scheme that is reliant upon, in part or in full, the crossing of the A31 by pedestrians and cyclists, would be contrary to national and local policies in so much that:-

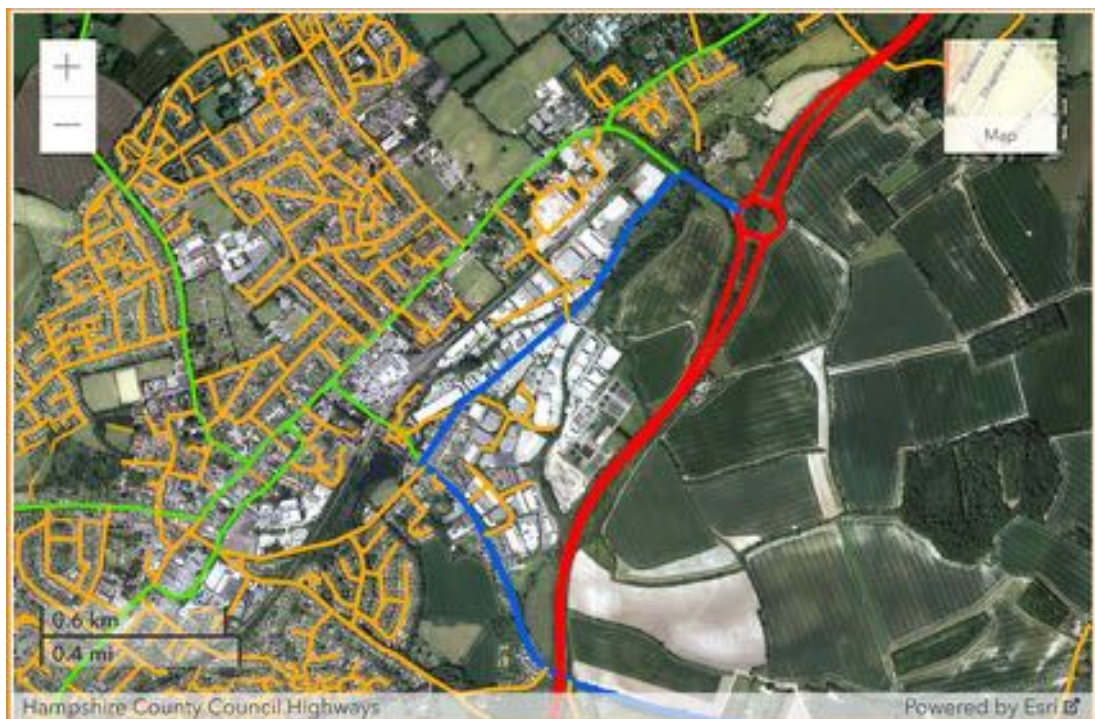
- The A31 would create a level of fear and intimidation that would reduce the attractiveness and quality of the foot or cycle route, contrary to policy;
- By failing to provide an attractive and high-quality route, the development would (without alternative) be unable to demonstrate that priority has been given to pedestrians, cyclists and public transport users, contrary to policy; and
- Since a priority has not been given to pedestrians, cyclists and public transport users by providing them with high-quality and attractive routes, the development would be unable to minimise reliance on private car use, contrary to policy.

5.3 Deliverability Issues: A31 Overbridge Corridor

Land Control

- 5.3.1 The proposed Neatham Manor Down allocation seeks to address the fact the site is physically divorced from the main settlement of Alton by the high-speed A31 dual carriageway, and the significant severance effect caused by it, by relying upon an existing overbridge that connects Lynch Hill to Golden Gate Farm, and into the allocation site.
- 5.3.2 However, whilst the bridge is a highway asset, the route provided across the bridge is not adopted highway maintainable at public expense, as confirmed in the Hampshire County Council interactive maps and as extracted below.

Figure 5-2 Hampshire County Council Interactive Map – Adopted Highways



- 5.3.3 Rather, the route over the bridge and through the adjoining Lynch Hill development site, is the subject of a legal 'Right of Access' which follows the alignment of the existing single track, only. However, it is important to note that a right of access is not a right of improvement, and the developer would have no automatic privilege to upgrade that route to prioritise pedestrian and cycle movements from the site along an attractive, safe and direct route.

- 5.3.4 It is acknowledged that the Lynch Hill site has the benefit of an outline planning permission which premises a footway/cycleway connection onto Waterbrook Road, via the existing track access which would be resurfaced. The nature of the existing outline planning consent means that the principal points and nature of access, including by non-car modes, is clearly established. There are no legal obligations to require the Lynch Hill site to deliver a higher standard of connection than is already consented. In this regard, the Council have little influence during any Reserved Matters application to integrate development.
- 5.3.5 Notwithstanding, the Lynch Hill development does not control the freehold of the track as it passes alongside Lynch Hill Cottage, whilst Waterbrook Road is itself in a separate private ownership.
- 5.3.6 In this way, there is a very real prospect of a ransom scenario that would act as a barrier to development, both in respect of timing and viability. The promotion of ALT8: Neatham Manor Down does not therefore satisfy the deliverability tests and inclusion of the site would therefore render the Plan unsound.

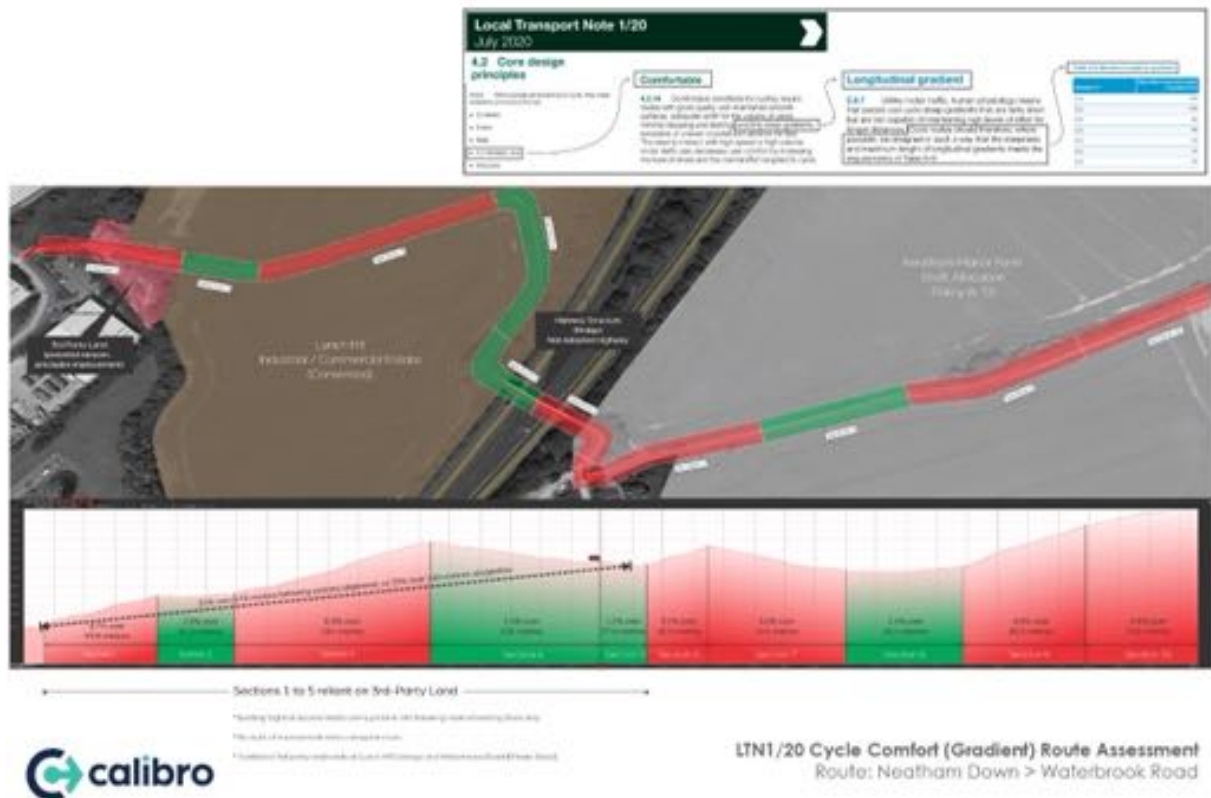
Comfort & Attractiveness

- 5.3.7 The policies of the emerging Local Plan talk to the create of a connected network of sustainable travel routes that prioritise pedestrians, cyclists and public transport users, along high-quality, direct and attractive routes. Whilst the policies do not identify the metrics to qualify what may constitute an acceptable route, LTN1/20 is the Government's guidance covering the same principles as they relate to cycling.
- 5.3.8 The guidance identifies five core principles, which comprise the key requirements for people wishing to travel by bicycle; these are routes that should be:
1. **Coherent** – cyclists should be able to easily and safely join and navigate along different sections of the same route and between different routes in the network. Cyclists should not be 'abandoned', particularly at junctions, where provision may be required to ensure safe crossing movements.
 2. **Direct** – routes should follow the shortest options available and be as near to the 'as-the-crow-flies- distance as possible. The number of times a cyclist has to stop or loses right of way on a route should be minimised, including at junctions and crossings. Routes should avoid steep gradients as uphill sections increase time, effort and discomfort.
 3. **Safe** - routes should avoid conflict with kerbside activity, including car parking, bus stops etc and junction treatment is needed to reduce the risk of collision.
 4. **Comfortable** - the surface along cycle routes should provide a smooth and level surface where cyclists can cycle comfortably without risk of conflict with other users, both on and off road.
 5. **Attractive** – Routes should be appealing and perceived as safe and useable. They should be well-used and maintained, illuminated and overlooked.

5.3.9 Gradient is a key factor which impacts on directness, comfort and attractiveness of routes. Unlike motor traffic, human physiology means that people can cycle steeper gradients but only over fairly short distances. They are not capable of maintaining high levels of effort for longer distances. LTN1/20 therefore requires that cycle routes should be designed in such a way that the steepness and maximum length of longitudinal gradients meets the requirements of Table 5-8 (from LTN 1/20), which is extracted as follows in Figure 5-3 for ease of reference.

5.3.10 These principles have been applied to the route between the proposed allocation of Neatham Manor Farm and Waterbrook Road, where parity is reached with the rest of the road infrastructure. The below Figure 5-3, which is contained at Appendix A to a larger scale, illustrates that two-thirds (67.4%) of the route following the existing right of access is significantly below the standards required of LTN1/20.

Figure 5-3 LTN1/20 Gradient Appraisal of Existing Route to Neatham Manor Farm



5.3.11 It is, however, acknowledged that there are sections of the route between Waterbrook Road and the A31 overbridge that fall within permissible limits, and which may therefore offer the potential to blend the gradient more effectively along the full length of the route. In this regard, the straight-line gradient has been calculated following the alignment of the existing track and separately between Waterbrook Road and the A31 overbridge, ignoring the consequences of cutting and filling the adjoining land.

5.3.12 The results suggest that the optimised gradient would be 25% (or 1 in 4) over a significant distance of 470-metres when following the alignment of the existing track, compared with a steeper gradient of 33% (1 in 3) over a shorter distance of 340-metres when taken as a more direct straight line to the bridge.

Implication

5.3.13 Consequently - even ignoring the significant land control issues referenced above - there would be no opportunity to deliver a direct route between the draft allocation and Waterbrook Road as informed by LTN1/20.

5.3.14 It is therefore implicitly the case that Neatham Manor Farm could not deliver infrastructure that prioritises pedestrians and cyclists or accommodate them on routes that are well-designed and attractive. Moreover, as the Local Plan policies recognise that the need to prioritise sustainable travel movements through high-quality attractive routes is to minimise the use of private car travel, it must implicitly follow that the reverse is true when this cannot be achieved.

5.3.15 In this context, Neatham Manor Farm is reliant on travel by private car and would therefore fail to deliver sustainable development, contrary to the policies of the emerging Local Plan and the NPPF.

5.3.16 The same is not true of the alternative site at Chawton Park Garden Village, which benefits from nationally significant cycle infrastructure that runs through the heart of the potential allocation and which connects to Alton Town Centre. Moreover, that proposed allocation has the explicit endorsement of Sustrans, as the cycling charity, with a remit to promote leisure and commuter cycle trips on the national network.

5.3.17 The technical evidence submitted in earlier Local Plan consultations has also been evaluated by the Council's own independent consultant, who agreed with the transport strategy, whilst SYSTRA also undertook an independent review of the information on behalf of the applicant and reached the same conclusion.

5.3.18 Thus, the Council are proposing to include a draft allocation which has significant encumbrances which will preclude it from delivering high-quality non-car transport infrastructure that will prevent it from meeting the terms of sustainable development, contrary to policy and rendering the Plan unsound.

5.3.19 Conversely, the alternative at Chawton Park Garden Village, has no such incumbrances and comfort can be taken from the extensive evidence already prepared to support that promotion, and the two separate independent reviews which have endorsed its conclusions.

5.4 Availability of Alternatives

- 5.4.1 A review of existing public rights of way mapping has been undertaken to identify potential alternative points of non-car access to the proposed allocation of Neatham Down Farm. In this regard, Figure 5-4 below identifies existing PRow network in the area of the Montechio Way roundabout with the A31. It confirms that the PRow network runs though the proposed allocation to the roundabout but ceases at the junction before continuing on the western side.
- 5.4.2 This is consistent with on-site observations which confirm an absence of formal or informal crossing facilities at the junction. Moreover, the allocation site sits significantly higher than the carriageway of the A31, which is cut into the land for much of its frontage access. To deliver a high-quality, comfortable and attractive walk or cycle route in this location would require significant cut into the allocation site, sterilising part of the developable area and adding significant cost.
- 5.4.3 Notwithstanding, however, even were this to be possible, a crossing of the A31 would need to be accommodated by way of Toucan Crossing. Yet it is improbable that such a crossing would be acceptable from a highway capacity perspective, noting the Highway Authority's position to additional junctions on the A31 at Lynch Hill. Yet, this would still be unable to address the severance issues associated with the A31, including fear and intimidation, which would work against provision of an attractive and high-quality route where pedestrians and cyclists are prioritised.

Figure 5-4 Public Rights of Way (PRow)



5.5 Section Conclusion

- 5.5.1 In examining the suitability of the Neatham Manor Farm draft allocation, it is evident that significant barriers exist, both in policy and technical terms, rendering the site unsuitable and unable to deliver sustainable development.
- 5.5.2 The core policies of the emerging Local Plan emphasise the importance of sustainable development that prioritises pedestrian, cycling, and public transport infrastructure. Failure to adhere to these principles not only undermines policy effectiveness but also runs counter to the overarching vision of the Plan.
- 5.5.3 One of the primary technical challenges is the A31 dual carriageway, which presents a formidable barrier to sustainable travel. The high traffic volumes and speeds on this major road create a physical and perceived severance effect, compounded by the significant level of fear and intimidation experienced by pedestrians and cyclists attempting to cross. Such conditions directly contradict the objectives of providing attractive, high-quality routes for non-car travel, thereby undermining the fundamental principles of sustainable development outlined in both national and local policies.
- 5.5.4 Consequently, there is a reliance on using the existing A31 overbridge to deliver high-quality connections via Lynch Hill. However, this poses additional deliverability issues; land control constraints and the absence of adopted highway maintainable at public expense limit the ability to upgrade routes to prioritise pedestrian and cycle movements effectively. This, coupled with gradient limitations that demonstrate an LTN1/20 complaint route could not be provided, further diminishes the feasibility of creating safe, direct, and attractive routes for sustainable travel.
- 5.5.5 Ultimately, the Neatham Manor Farm site fails to meet the necessary criteria for sustainable development outlined in policy and lacks the technical feasibility to support non-car travel infrastructure adequately. The inclusion of this site in the Plan would not only compromise policy objectives but also render the Plan unsound.
- 5.5.6 In contrast, alternative sites like Chawton Park Garden Village offer more favourable conditions, with nationally significant cycle infrastructure and explicit endorsement from relevant authorities. The absence of encumbrances and extensive supporting evidence make such alternatives more aligned with the goals of sustainable development.

6 POLICY COMPLIANCE – SUSTAINABILITY BY BUS

6.1 Introduction

- 6.1.1 The policies of the emerging Local Plan place a clear priority on ensuring a 'genuine' choice in sustainable travel options from new development and a priority in securing good access by public transport. Indeed, it is implicit from the terms of policy, that failure to do so would result in the converse scenario in which development would be found to be unsustainable and therefore non-compliant with policy.
- 6.1.2 This section of the report therefore considers the public transport opportunities that are, or could be, provided from ALT8: Neatham Manor Farm to assess its potential to undermine the soundness of the Plan.

6.2 A Lack of Bus Services

- 6.2.1 It is noteworthy that, in their email to Calibro dated 14th October 2019 (contained at [Appendix B](#)), in response to the Regulation 18 consultation of the time, the local bus operator (Stagecoach) commented as follows:-

“Industry benchmark metrics such as supplied periodically by TAS have established that in larger urban contexts one single bus is generally supported by about 4000 people: something in the order of 1600 dwellings. However this presumes a significant urban network reflecting a significant volume of demand for intra urban journeys. Alton is in no way such a context. Generally I would suggest we would expect a larger development of say 2000 dwellings to start to create a business case for a standalone service; all assuming a policy-compliant affordable housing contribution and broad dwelling mix and a reasonable demand to a town centre venue/railhead. East Anton in Andover starts to exemplify such a scenario.”

- 6.2.2 The view of the operator should be given great weight in the consultation process, given the requirements of 16(c) and 110(b) of the NPPF, which require the active participation of bus operators in the earliest stages of plan-making.
- 6.2.3 In this regard, the proposed allocation of Neatham Manor Farm is not sufficiently large as to create the commercial conditions necessary to implement and sustain a new bus service. The draft allocation would therefore be entirely reliant on the diversion of an existing service.

6.3 Potential to Divert Existing Bus Services

- 6.3.1 For this to be viable, any diversion needs to be achieved via minimal change to mileage and additional journey time to avoid risking a loss in patronage on other parts of the route due to it becoming inefficient. It also needs to ensure a suitable frequency to allow bus to become a genuine and viable alternative to private car travel.

- 6.3.2 The Neatham Down Farm site allocation sits in relative proximity to the route of the Number 65 bus service, which connects Alton Town Centre and railway station to Guildford via Farnham. The existing route means that it could have potential to divert into the Neatham Down Farm allocation, assuming vehicular access is taken from the Montecchio Way / A31 roundabout.
- 6.3.3 The current bus timetable is extracted below and identifies frequencies in the order of one service every 75 minutes throughout the day, between Monday and Saturday. There are no Sunday services, and it should be noted that, unlike existing services adjoining the alternative at Chawton Park Garden Village, the Number 65 service does not provide connectivity to key local amenities, including local schools and hospitals.
- 6.3.4 This is obviously not a 'good' service. Indeed, Census 2011 suggests that only 1.59% of people travelling from Alton to Bentley, Farnham and Guildford do so by bus. As such, bus services would need to be uplifted to a minimum frequency of 30-minutes throughout the day to provide a genuine opportunity to travel by bus, in line with emerging policy.

Figure 5-1 Bus Service Number 65 Timetable

• Guildford • Farnham • Alton		65											
MONDAY TO FRIDAY (excluding Public Holidays)													
Guildford Bus Station [stand 16]	-	0625	0730	0855	1025	1125	1225	1340	1440	1540	1710	1815	1915
Puttenham Hog's Back Cafe	-	0635	0742	0907	1037	1137	1237	1352	1452	1552	1724	1829	1926
Farnham East Street [stop J]	0606	0645	0756	0918	1048	1148	1248	1403	1503	1603	1736	1841	1937
Bentley Crossroads	0616	0655	0808	0930	1100	1200	1300	1415	1505	1615	1750	1852	1948
Holybourne Eggars School	0623	0703	0818	0938	1108	1208	1308	1423	1523	1623	1800	1900	1955
Alton Station [stop R]	0626	0706	0821	0941	1111	1211	1311	1426	1526	1626	1803	1903	1958
Alton High Street	0630	0710	0825	0945	1115	1215	1315	1430	1530	1630	1807	1907	2002
SATURDAY													
Guildford Bus Station [stand 16]	0700	0800	0925	1025	1125	1225	1340	1440	1540	1710	1815	1915	
Puttenham Hog's Back Cafe	0710	0810	0937	1037	1137	1237	1352	1452	1552	1721	1826	1926	
Farnham East Street [stop J]	0719	0819	0948	1048	1148	1248	1403	1503	1603	1732	1837	1937	
Bentley Crossroads	0729	0829	1000	1100	1200	1300	1415	1515	1615	1743	1848	1948	
Holybourne Eggars School	0736	0836	1008	1108	1208	1308	1423	1523	1623	1750	1855	1955	
Alton Station [stop R]	0739	0839	1011	1111	1211	1311	1426	1526	1626	1753	1858	1958	
Alton High Street	0743	0843	1015	1115	1215	1315	1430	1530	1630	1757	1902	2002	

stagecoachbus.com valid from 23rd January 2023

- 6.3.5 This would, however, require significant investment and it is uncertain, given the destinations on the route, whether this could be commercially viable in perpetuity, especially given the step change needed against current patronage levels.

- 6.3.6 Indeed, uncertainty is increased by the fact that the diversion into the site and the increased journey time would be likely to reduce patronage from other parts of the existing route. In this way, reference to the Department for Transport (DfT) RAND study suggests that a reduction in existing patronage levels of around 6% would result from a 5-minute increase in journey times.
- 6.3.7 The significant uncertainty in the availability of higher frequency bus services in perpetuity and their ability to reduce residual car journeys place significant doubt on the ability to deliver sustainable development at Neatham Manor Farm, contrary to policy.
- 6.3.8 However, it is important to note that the alternative at Chawton Park Garden Village has no such uncertainty. That site lies on the route of the Number 64 bus service, which connects Alton to Winchester and is shown to accommodate almost 6% of trips along the route based on Census 2011 data – a mode share that is almost four times greater than the Number 65 service.
- 6.3.9 Yet, this was prior to significant investment and restructuring of the route by Stagecoach, which has led to the route experiencing the fastest growth in patronage in the district. It is also an award-winning route, and the bus operator has publicly endorsed an allocation of Chawton Park Garden Village because of its potential for bus to be a genuine alternative to private car use. They have also provided representations to earlier Local Plan consultations.

6.4 Implication

- 6.4.1 The emerging Local Plan prioritises sustainable travel options and robust public transport access. However, the proposed Neatham Manor Farm allocation faces significant challenges in establishing a new standalone bus services due to insufficient population density. The reliance on diverting existing services raises concerns regarding long-term viability, compounded by uncertainties about patronage levels and potential reductions in other route segments.
- 6.4.2 Significant questions exist regarding the potential for the proposed allocation of Neatham Manor Farm to deliver public transport services in a way that provides a genuine choice in sustainable transport, such that any development would then be “unsustainable”. This would be contrary to policy and risk the soundness of the plan.
- 6.4.3 In contrast, Chawton Park Garden Village offers a more promising outlook, situated along a bus route with higher mode shares and recent investments leading to substantial growth in patronage. Endorsement from the bus operator underscores its potential as a genuine alternative to private car use, ensuring a more certain path toward achieving sustainable development objectives.
- 6.4.4 Ultimately, while Neatham Manor Farm struggles to overcome logistical and commercial hurdles in providing adequate public transport, Chawton Park Garden Village offers an ‘oven-ready’ public transport solution.

7 POLICY COMPLIANCE – ACCESSIBILITY STUDY RESULTS

7.1 Introduction

7.1.1 The Council have undertaken an Accessibility Study which has been used to inform their Settlement Hierarchy and draft allocation sites, including ALT8: Neatham Down Farm.

7.1.2 The approach incorporates a simplistic scoring system based around the modelled travel distance from the centre of modelled hexagons set at 500-metre centres around the key population centres, towards a range of amenity types. The amenities are accessible where they accord with the principles of 20-minute neighbourhoods, which is to say a travel time of 10-minutes each way by foot or by bike.

7.1.3 Whilst an accessibility-led approach to the spatial plan is endorsed, there are a number of issues with the current approach which may impact on the findings of the study, including:-

- The setting of hexagons at 500-metre centres within an urban context is crude and, when combined with the rudimentary placement of the hexagons, leads to statistically unreliable journey distances being calculated between the origins and destinations. A more fine-grain analysis is required, assuming 50-metre centres which would more accurately reflect the changing accessibility levels across a site whilst increasing the statistical reliability of the resultant average.
- The methodology ignores the frequency of visits undertaken to each amenity type. Whilst the three dimensions of sustainability incorporate a social strand, meaning that access to a post office and GP Surgery is important, the fact remains that these are visited less frequently than places of work or education, for example. In this way, the analysis is skewed against the optimising for the environmental strand which is a flawed concept in light that the vision, objectives and policies of the emerging Plan are focused on minimising car use in response to the climate emergency.
- The scoring is based on a range of land-uses that serve no amenity value in the way people conduct their day-to-day lives. For example, inclusion of Fire and Police Stations is not a destination for residents and should be excluded from the analysis as it may currently distort the results.

- The study fails to acknowledge the wider complexities of inter-urban movement which can make up the majority of travel from development and settlements. It is a fact of life that people may live in one area and work in another and the study fails to consider how this majority of movement may be undertaken by sustainable travel modes. This is of particular relevance in the context of the inclusion of Neatham Manor Farm, which is considered at [Section 5](#) above.
- In this sense, the analysis, even when undertaken robustly, should be seen as a starting point. The complex nature of sustainability cannot be adequately considered within such a high level appraisal, particularly in light of the response to climate change and the stated vision and objectives of the emerging Local Plan.
- Consequently, whilst the analysis may be identifying the right settlement hierarchy, the results have the significant potential to mislead in the determination of suitable allocation sites. This has been shown to be the case throughout this study.

7.2 Measurement of 20-Minute Principles

- 7.2.1 In addition to the above, in the era of climate change, the application of 20-minute principles is not only an inward-looking evaluation to focus on new development but rather it is a case of looking at the cumulative effects of the development, and its potential to deliver wider benefits that may encourage modal shift amongst parts of the existing community.
- 7.2.2 For example, the addition of a primary school within a development would no doubt help to deliver 20-minute principles within the scheme itself, but its location may also mean that residents living in surrounding areas would have a new opportunity to access primary education much closer, potentially within the 20-minute threshold. In this sense, there is a potential for those existing trips which are more likely to be undertaken by car, to switch to more sustainable travel options. The carbon savings associated with that behaviour should be credited to the development. However, this is not reflected within the analysis and is a significant flaw and failure to provide a holistic and informed decision-making framework.
- 7.2.3 In the context of the proposed allocation at Neatham Manor Farm, the site does not lie within 20-minute neighbourhood distance of any existing residential areas within Alton. Consequently, even were it to provide on-site amenities, those facilities would not deliver a sustainable travel benefit to existing residents of the town. Moreover, where in the case of a primary school, for example, the catchment was to draw from the wider area, these trips would almost certainly need to be undertaken by car, contrary to the sustainable development policies that run throughout the emerging Local Plan.

- 7.2.4 Conversely, the opportunity at Chawton Park Garden Village is a western extension of the built-up area of Alton and relates well to existing residential areas served via Chawton Park Road, including the Lord Mayor Treloar development (marketed as Ackender Hill) and Connaught Way.
- 7.2.5 This analysis has been undertaken in the context of Chawton Park Garden Village and the potential benefits of providing a primary school. In this context, the results indicate that around 1.5% of the total Alton population would have improved access to primary education and become highly accessible by foot and bike. This is a small percentage change of a much larger number, such that its significance becomes material, particularly in the context of the need to achieve even marginal gains towards net zero, in line with the vision and objectives of the emerging Local Plan.
- 7.2.6 In this context, Chawton Park Garden Village would contribute to the Council's stated aims and objectives, and support its emerging policies, more meaningfully than the current draft allocation at Neatham Manor Farm.

7.3 Implication

- 7.3.1 The Accessibility Study conducted by the Council to inform the Settlement Hierarchy and draft allocation sites, including Neatham Manor Farm, introduces a significant degree of uncertainty in its methodology and findings. Several issues with the approach undermine the reliability of the study's conclusions. Notably, the coarse setting of hexagons at 500-metre intervals within urban contexts leads to statistically unreliable journey distance calculations, while the neglect of trip frequencies to different amenities skews the analysis against minimising car use. Moreover, the study fails to acknowledge the complexities of inter-urban movement and overlooks the potential for misleading results in determining suitable allocation sites.
- 7.3.2 This uncertainty is particularly manifest concerning primary schools, where the potential to make the wrong decision is evident in the failure to credit developments for encouraging modal shift among existing communities through improved access to amenities such as schools within the 20-minute threshold.
- 7.3.3 The lack of acknowledgment of wider community benefits and potential modal shifts within the Accessibility Study underscores the risk of misinformed decision-making, particularly evident in the comparison between Neatham Manor Farm and Chawton Park Garden Village. While the former fails to lie within a 20-minute neighbourhood distance of existing residential areas in Alton, thereby potentially necessitating car-dependent trips for amenities like primary education, the latter offers a more promising outlook, with its proximity to existing residential areas and potential to significantly improve access to primary education within sustainable travel thresholds.
- 7.3.4 Thus, the shortcomings of the Accessibility Study highlight the importance of a more nuanced and informed decision-making framework to ensure that future developments align with the objectives of the emerging Local Plan.

8 HIGHWAY CAPACITY

- 8.1.1 Attention is drawn to paragraph 4.62 of the Transport Background Paper (January 2024) which forms part of the evidence to the Draft Local Plan (Regulation 18), as set out below.

“Due to the quantum of the proposed homes at the strategic allocation site of Neatham Manor Farm it is likely that this development, in isolation, will have the largest impacts on existing highway conditions in Alton. It is likely that this proposed development will exacerbate existing congestion in the vicinity of the site, specifically B3004 Montecchio Way, Anstey Road, High Street, B3004 Mill Lane and adjoining junctions. It is also likely that a development of this scale will cause additional highway congestion at nearby key destinations, such as local supermarkets and schools as well as the potential for new delay “hotspots” in the town, particularly on the A31 and its associated junctions.[emphasis added] However, it should be kept in mind that a development of this scale can provide new education facilities as well as a new local centre with facilities and services to cater for daily needs. Consequently, the development and its associated new infrastructure could allow for residents to live locally and have greater opportunity to make short distance journeys within the proposed development, and to surrounding Alton via active travel modes. This will be greatly encouraged by EHDC by ensuring the design, services and accompanying infrastructure emphasise good sustainable linkages within the development and to surrounding Alton. The potential highway impacts of the development will of course be investigated by an independent site-specific transport assessment as well as the district’s cumulative transport assessment of the Local Plan.”

- 8.1.2 On the basis of the above, the Neatham Manor Farm allocation would be entirely reliant upon a suitable scale and mix of land-uses to be delivered within the limits of the allocation, in a timely manner, to offset the potential impacts on the most sensitive parts of the highway network, around and within Alton itself. However, the indicative land-use / parameter plan identified within the associated Policy (ALT8) does not appear to be of a physical scale sufficient to accommodate such a range of land-uses necessary to create meaningful and realistic opportunities to internalise movements.
- 8.1.3 Indeed, the wording of the policy requires only that **“the on-site provision of new local services, including a shop, a pub and/or a community centre should be investigated [emphasis added]”**. There is no formal requirement to provide such facilities or indeed, as one might expect, a minimum range or size of amenities. There can therefore be no certainty that Neatham Manor Down has the potential to internalise movement to avoid impact to existing congestion in Alton.

- 8.1.4 The issue is contextualised by Sustrans' 'Walking and Cycling Index' which suggests that, only 23% of people will drive to a primary school when it is within a 10-minute walk, yet this more than doubles to 51% when the school is located further afield. A failure to provide a sufficient range in services within Neatham Manor Farm would therefore fail to minimise car use which would, in turn, exacerbate existing congestion within Alton.
- 8.1.5 This contrasts with the alternative at Chawton Park Garden Village, which has confirmed suitable space to accommodate a range of uses, and indeed already has interest from a number of potential operators. Furthermore, the residual traffic movements would not impact the sensitive parts of the Alton highway network that would be impacted by the Neatham Manor Farm allocation.

8.2 Implication

- 8.2.1 The draft allocation of Neatham Manor Farm presents significant concerns regarding its potential to exacerbate existing congestion within Alton. Despite aspirations to promote active travel modes and minimise car use, significant uncertainties exist regarding the development's ability to deliver on-site amenities sufficient to internalise movement. The lack of clarity in the scale and mix of land-uses, coupled with vague policy language regarding the provision of local services, leaves doubts about Neatham Manor Farm's capacity to alleviate traffic pressures in the area. This uncertainty raises questions about the development's adherence to local plan policies that seek to prioritise walking, cycling, and public transport to minimise car use.
- 8.2.2 In this way, the Neatham Manor Farm allocation is contrary to policy given that the resultant effects would work against the vision and objectives of the plan, could render it unsound.
- 8.2.3 In contrast, Chawton Park Garden Village emerges as a proven alternative, with a well-developed masterplan that identifies space for diverse land-uses and with interest already received from potential operators. In this way, there is confidence that Chawton Park Garden Village can provide a mix of land uses that is conducive to reducing reliance on cars and fosters sustainable modes of transportation. Notwithstanding, its location suggests that traffic movements would not burden the sensitive parts of the Alton highway network, offering a more favourable outlook in terms of congestion management.
- 8.2.4 Thus, whilst the performance of Neatham Manor Farm is highly uncertain and likely to work against the stated Plan vision, objectives and emerging policies, Chawton Park Garden Village presents an 'oven ready' allocation to meet local plan objectives and promoting sustainable transportation practices in the area.

9 SUMMARY & CONCLUSION

9.1 Report Summary

9.1.1 This report has been prepared on behalf of Cleve RFC to support the promotion their Site through the emerging Local Plan. The report has been undertaken as an appraisal of the opportunities and constraints related to the development of the Site, and the findings of the report may be summarised as follows:

- The emerging Local Plan prioritises sustainable travel options and robust public transport access. However, the proposed Neatham Manor Farm allocation faces significant challenges in establishing a new standalone bus service due to insufficient population density. The reliance on diverting existing services raises concerns regarding long-term viability, compounded by uncertainties about patronage levels and potential reductions in other route segments. In contrast, Chawton Park Garden Village offers higher mode shares on existing bus routes and recent investments leading to substantial growth in patronage. Endorsement from the bus operator underscores its potential as a genuine alternative to private car use, ensuring a more certain path toward achieving sustainable development objectives.
- The Accessibility Study conducted by the Council introduces a significant degree of uncertainty in its methodology and findings. Several issues with the approach undermine the reliability of the study's conclusions. Notably, the coarse setting of hexagons at 500-metre intervals within urban contexts leads to statistically unreliable journey distance calculations, while the neglect of trip frequencies to different amenities skews the analysis against minimising car use. Moreover, the study fails to acknowledge the complexities of inter-urban movement and overlooks the potential for misleading results in determining suitable allocation sites. This uncertainty underscores the risk of misinformed decision-making, particularly evident in the comparison between Neatham Manor Farm and Chawton Park Garden Village.
- The draft allocation of Neatham Manor Farm presents significant concerns regarding its potential to exacerbate existing congestion within Alton, as identified within the Council's own evidence. Despite aspirations to promote active travel modes and minimise car use, significant uncertainties exist regarding the development's ability to deliver on-site amenities sufficient to internalise movement. The lack of clarity in the scale and mix of land-uses, coupled with vague policy language regarding the provision of local services, leaves doubts about Neatham Manor Farm's capacity to alleviate traffic pressures in the area. In contrast, the Chawton Park Garden Village proposed allocation has a well-developed masterplan that identifies space for diverse land-uses and with interest already received from potential operators.

- The proposed allocation of Neatham Manor Farm lacks the necessary population density to support the implementation and sustainability of a new bus service. The existing bus timetable, with infrequent services every 75 minutes, falls short of providing a genuine alternative to private car travel, as mandated by emerging policy. Moreover, diverting existing services to the Neatham Manor Farm site would require significant investment which jeopardises its commercial viability in perpetuity, and could lead to reduced patronage on other parts of the route. This uncertainty contrasts sharply with the situation at Chawton Park Garden Village, which benefits from an established bus route with higher mode shares and recent investments, making it a more viable option for sustainable public transport access.

9.2 Report Conclusion

- 9.2.1 The overarching conclusion of this report is that a future residential development of ALT8: Neatham Manor Farm would fail to accord with the sustainable transport planning policies within local and national policy and would conflict with the identified issues and broader Preferred growth strategy of the emerging plan and would thus constitute unsustainable development.
- 9.2.2 In this context, the site has the potential to render the Plan unsound and should be removed in favour of more suitable, compliant allocations that are more closely aligned with the Council's vision and objectives.

APPENDICES



APPENDIX A
LTN1/20 Route Appraisal

Local Transport Note 1/20

July 2020



4.2 Core design principles

4.2.2 When people are travelling by cycle, they need networks and routes that are:

- ▶ Coherent;
- ▶ Direct;
- ▶ Safe;
- ▶ Comfortable; and
- ▶ Attractive

Comfortable

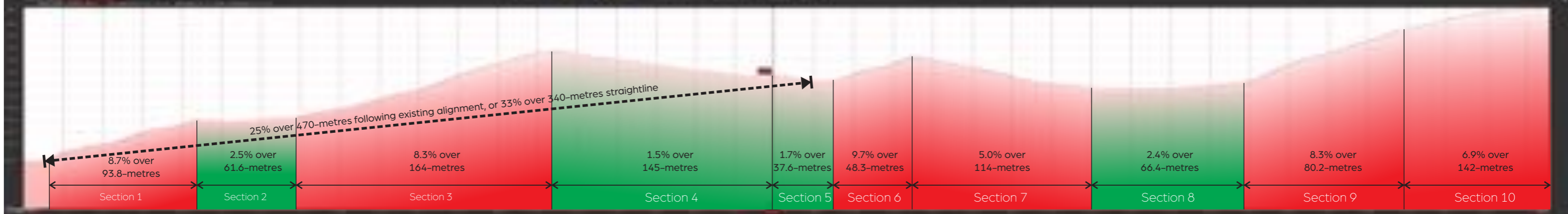
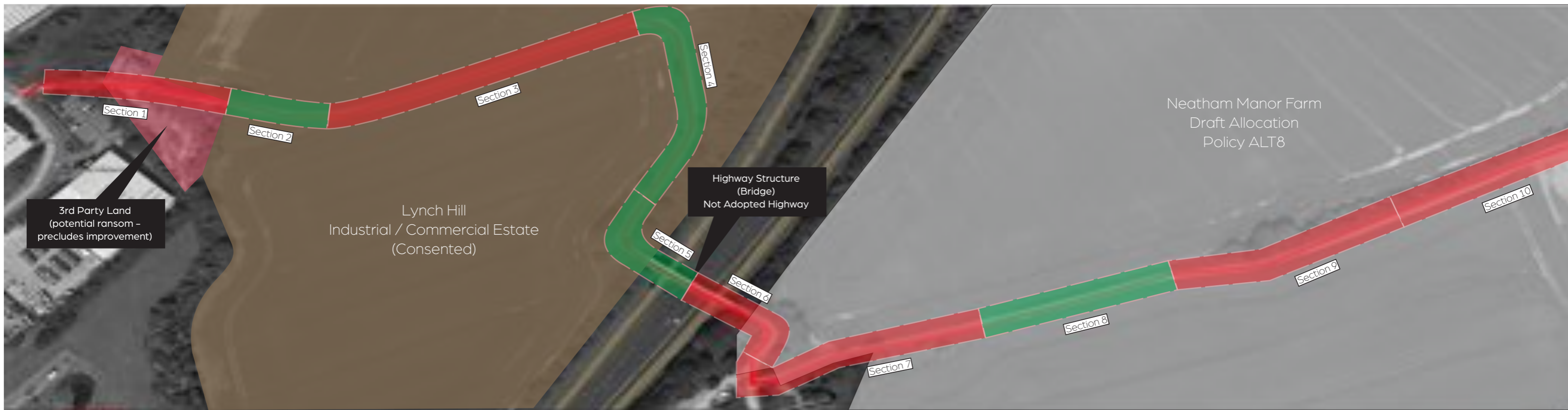
4.2.14 Comfortable conditions for cycling require routes with good quality, well-maintained smooth surfaces, adequate width for the volume of users, minimal stopping and starting, avoiding steep gradients, excessive or uneven crossfall and adverse camber. The need to interact with high speed or high-volume motor traffic also decreases user comfort by increasing the level of stress and the mental effort required to cycle.

Longitudinal gradient

5.9.7 Unlike motor traffic, human physiology means that people can cycle steep gradients that are fairly short but are not capable of maintaining high levels of effort for longer distances. Cycle routes should therefore, where possible, be designed in such a way that the steepness and maximum length of longitudinal gradients meets the requirements of Table 5-8.

Table 5-8: Maximum length for gradients

Gradient %	Desirable maximum length of gradient (m)
2.0	150
2.5	100
3.0	80
3.5	60
4.0	50
4.5	40
5.0	30



← Sections 1 to 5 reliant on 3rd-Party Land →

* Existing 'Right of Access' exists over Lynch Hill Site following route of existing track only.

* No right of improvement exists along the route.

* Additional 3rd party land exists at Lynch Hill Cottage and Waterbrook Road (Private Road).



APPENDIX B

Stagecoach Email of 14th October 2019

From: [REDACTED]
To: [REDACTED]
Cc:
Subject: Re: EHDC Local Plan REG18 process - [Viable Bus Strategies]
Date: 14 October 2019 11:28:02

Dear [REDACTED]

Conscious that a number of promotions are being advanced in the District with widely varying degrees to which a relevant bus service could be offered, I would firstly strongly reaffirm that the comments made in our duly made representations remain valid, and equally our separate letter to yourselves.

Firstly, electric bus service operation is as much a matter of depot siting and provision as “buying electric buses”. The technical viability of such vehicles can be in no doubt. However their deployment requires a wide range of criteria to be satisfied. Running a single electric shuttle bus on a solus basis in a small town like Alton with no obvious means of supporting the operation is far from being the simple undertaking that it superficially might appear. We have operating centres in Winchester Basingstoke and Guildford all of which are relatively distant from Alton. Supporting this sort of operation from any of those points would be really quite challenging.

At least as relevant is the matter alluded to in your second question: the relevance, potential revenue and long term commercial viability of such a service. Industry benchmark metrics such as supplied periodically by TAS have established that in larger urban contexts one single bus is generally supported by about 4000 people: something in the order of 1600 dwellings. However this presumes a significant urban network reflecting a significant volume of demand for intra urban journeys. Alton is in no way such a context. Generally I would suggest we would expect a larger development of say 2000 dwellings to start to create a business case for a standalone service; all assuming a policy-compliant affordable housing contribution and broad dwelling mix and a reasonable demand to a town centre venue/railhead. East Anton in Andover starts to exemplify such a scenario.

600 dwellings lying off line of any regular bus route would in no way justify a new standalone service in the context of EHDC.

This is why (given the local context) we have strongly urged EHDC to direct significant development towards existing strong inter urban bus corridors, among which our 64 stands out. This is the only spatial strategy that comfortably would maximise the use of public transport in East Hants. Development should relate directly to the routes concerned minimising as far as possible the need to divert, but recognising too that folk will walk further (up to about 900m) or even cycle, to access regular high quality bus services particularly where destinations are further afield.

Better yet, if such proposals also lay within good walking and cycling distance of a wide range of local facilities this further damps demand for car use limiting trip generation in local networks- something we are also very keen to see given the seriousness of the effects of deteriorating congestion on our services.


This is why we have unequivocally supported your client’s promotion at Chawton Park.

I trust the foregoing clarifies the points you raise sufficient for your purposes. Please revert should you need anything further.

Yours sincerely



Sent from my iPhone

On 8 Oct 2019, at 10:30  wrote:

Dear 

Thank you for your on-going commitment to engaging with the developers of the large development sites being promoted as part of the EHDC Local Plan REG18 process.

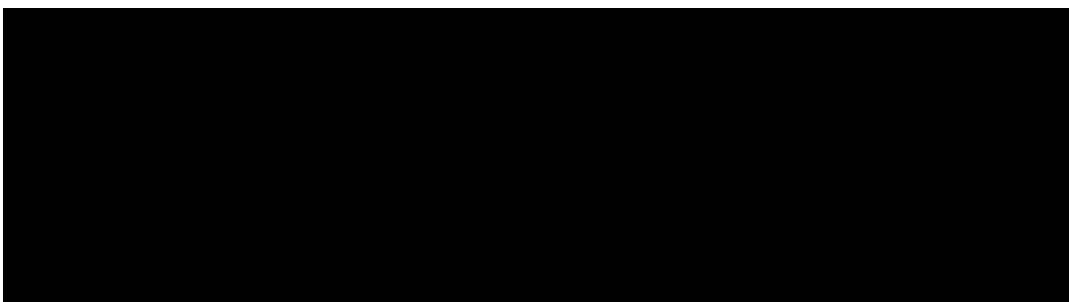
Whilst my expertise in matters of bus operations is far inferior to your own, I am mindful that there are suggestions of running a viable electric bus shuttle service between the Neatham Down proposal at the northern end of Alton (albeit divorced from the Town) to the railway station. In my mind this has a limited catchment that may not be sufficient to maintain a commercially viable service in perpetuity, especially as the proposal suggests the use of electric buses which I know have significantly larger capex costs that are several multiples of the equivalent diesel fleet.

I wonder, are there ways to deliver a suitable frequency and commercially viable service in perpetuity in the way suggested, for a site of 600 dwellings?

On a related point, do Stagecoach recognise a threshold of development that can sustain a new bespoke bus service?

My thanks in advance.

With Best Regards,



www.calibro-consultants.com

<image001.jpg>

[>> Take a look at the Calibro Service Brochure here <<](#)

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EAST HAMPSHIRE DISTRICT COUNCIL LOCAL PLAN (2021-2040)

REGULATION 18 CONSULTATION
ENDING MARCH 2024

Sustainable Development Opportunities
at Chawton Park Garden Village

OBO: Redrow Homes – Harrow Estates
Division

Project No 22-201-10

Revision No 01

Issue date 04/03/24

Control Sheet

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Prepared by	Signature	Date
[Redacted]	[Redacted]	04/03/2024
		Date
		04/03/2024
Date		
		04/03/2024



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Appendix C	SYSTRA Technical Review
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1 EXECUTIVE SUMMARY

- 1.1.1 Calibro has been appointed by 'Redrow Homes – Harrow Estates Division' (the "client") to provide technical representations on matters relating to transport, highways and associated sustainability, as part of the Regulation 18 Consultation ending March 2024 in respect of the emerging East Hampshire District Council Local Plan (2021-2040).
- 1.1.2 It presents a thorough appraisal of the opportunities and constraints associated with the development of the site, highlighting key findings that support its suitability for fulfilling the Council's local plan vision, objectives, and policies.
- 1.1.3 In this regard, Chawton Park Garden Village's alignment with the emerging Local Plan's emphasis on providing a genuine choice of sustainable travel options, including by robust public transport, is unmatched – including by the current draft allocation of Neatham Manor Farm. Indeed, it is only Chawton Park Garden Village that is endorsed by Sustrans and the local bus (Stagecoach) operator, as offering clear and proven potential enhancements to cycle infrastructure and seamless integration with public transport services. These endorsements underscore its capacity to provide viable alternatives to private car use, thus facilitating progress towards sustainable development objectives outlined in the local plan.
- 1.1.4 The allocation of Neatham Manor Farm is largely premised on the results of the Council's Accessibility Study. However, the methodology and application of its findings introduces uncertainty, potentially leading to misinformed decision-making. Notably, a comparison between Neatham Manor Farm and Chawton Park Garden Village reveals the latter's wider accessibility benefits, emphasising its potential contribution to sustainability objectives whereas Neatham Manor Farm actively works against the Plan objectives.
- 1.1.5 The opportunity at Chawton Park Garden Village has also been established via a well-developed masterplan and access strategy, formulated in consultation with key stakeholders. Independent audits by the Council's external consultants and other parties confirm the site's ability to deliver sustainable development while avoiding adverse highway capacity effects. This comprehensive approach, supported by technical solutions and stakeholder input, enhances the credibility of the site's viability for sustainable housing growth.
- 1.1.6 In conclusion, Chawton Park Garden Village aligns with sustainable transport planning policies at local and national levels, offering a viable solution to address identified issues and contribute to the Council's vision, objectives, and policies. The strategic reallocation of resources to prioritise Chawton Park Garden Village over the current draft allocation at Neatham Manor Farm is therefore not only recommended but is a necessity in order to protect the soundness of the Plan.

2 BACKGROUND

2.1 Introduction & Purpose

- 2.1.1 Calibro has been appointed by 'Redrow Homes – Harrow Estates Division' (the "client") to provide technical representations on matters relating to transport, highways and associated sustainability, as part of the Regulation 18 Consultation ending March 2024 in respect of the emerging East Hampshire District Council Local Plan (2021-2040).
- 2.1.2 This report provides our representations in respect of **Chawton Park Garden Village, Alton** which represents the potential to deliver sustainable development on the edge of the built-up area of Alton, in single ownership.
- 2.1.3 In this way, Chawton Park Garden Village would support the aspirational vision and objectives, and indeed the policies, of the emerging Local Plan unlike alternative allocations identified in the Plan. Specifically, this report should be read in conjunction with the Calibro 'Response to Policy ALT8: Neatham Manor Farm', dated 24th February 2024, which identifies a number of areas where the draft allocation of Neatham Manor Farm jeopardises the soundness of the emerging Plan.
- 2.1.4 A significant amount of technical work has been undertaken over several years to demonstrate the deliverability of the Chawton Park Garden Village proposed allocation. The various conclusions of this work have not only received the agreement of EHDC's external transport and highways consultant but has also been the subject of rigorous independent review, undertaken by SYSTRA – a consultant of Hampshire County Council.
- 2.1.5 Furthermore, the promotion of Chawton Park Garden Village has received public endorsement by both Stagecoach, as the local bus operator, and Sustrans, as the cycle charity. In this context, the site's sustainability credentials have been independently validated by two key stakeholders.
- 2.1.6 The extent of independent external examination speaks of the significant opportunity to deliver sustainable development at Chawton Park Garden Village and this should be given significant weight in the Plan-making process.
- 2.1.7 Notwithstanding, the purpose of this report is to provide an updated assessment of compliance with the vision, objectives and policies of the emerging Plan, and to provide a summary of the extensive technical work undertaken to date to demonstrate there are no barriers that would preclude delivery of sustainable development at Chawton Park Garden Village.

2.2 Report Structure

2.2.1 This report has been prepared with the purpose of providing an evidence base that considers the Site's suitability for residential development, considering relevant planning policy matters and technical constraints. The report sets out the various considerations under the following structure:

SECTION 3 – Relevant Policy Considerations – This section of the report sets out the relevant national and local sustainable transport policies that provide the context for evaluating the Local Plan strategies and policies for the achievement of sustainable development; these being the core policies that would underpin the evaluation of the soundness of the Local Plan, in transport terms

SECTION 4 – Policy Compliance – Sustainability by Active Travel Modes - The report considers the potential offered by Chawton Park Garden Village to deliver a genuine opportunity to travel by active travel modes to reduce reliance on the private car .

SECTION 5 – Policy Compliance – Sustainability by Bus – The report considers the potential offered by Chawton Park Garden Village to deliver a genuine opportunity to travel by public transport to reduce reliance on the private car and therein deliver sustainable development.

SECTION 6 – Policy Compliance – Accessibility Study Results – The report considers the Council's Accessibility Study and its application of the results in informing of its spatial strategy and identification of draft allocation sites.

SECTION 7 – Highway Capacity– A summary of technical elements of the vehicular access strategy to Chawton Park Garden Village is considered in this section of the report, including consideration of highway capacity.

SECTION 7 - Summary & Conclusion – A summary of the salient findings of the report are provided within this section and these are used to evidence an overarching conclusion regarding the suitability of the Site for residential development.

3 RELEVANT POLICY CONSIDERATIONS

3.1 Introduction

- 3.1.1 This section of the report sets out the relevant national and local sustainable transport policies that provide the context for evaluating the Local Plan strategies and policies for the achievement of sustainable development; these being the core policies that would underpin the evaluation of the soundness of the Local Plan, in transport terms.
- 3.1.2 The policies are critiqued and used to create a narrative to provide understanding of the salient priorities and outcomes expected from the emerging Plan. In this context of this report, they are used to evaluate important ways in which Chawton Park Garden Village could actively support the delivery of the priorities of the emerging Local Plan.

3.2 National Planning Policy Framework (NPPF)

- 3.2.1 The NPPF sets out the Government's planning policies for England and how it expects these to be applied. The Framework clarifies at Paragraph 7 that **“the purpose of the planning system is to contribute to the achievement of sustainable development”** and this is the only occasion within the entirety of the Framework that the purpose of the planning system is stated. In this regard, and reflecting the ‘plan-led’ system, paragraph 16(a) requires that Local Plans must reflect this purpose.
- 3.2.2 It is therefore evident that the sole purpose of the planning system is to achieve sustainable development and the achievement of such is therefore to be given the highest degree of weight in the Local Plan process. Moreover, since the policies within the NPPF must be considered in the preparation of Local Plans, it is implicitly the case that Local Plans must evaluate with evidence the likely outcomes in the context of achieving sustainable development.
- 3.2.3 To assist in this purpose, Paragraph 3 of the Framework confirms that **“the Framework should be read as a whole (including footnotes and annexes).”** In concise terms, Paragraph 8 identifies that sustainable development is achieved via three mutually dependant dimensions (economic, social and environmental) and these give rise to the need for the planning system to fulfil a number of objectives:

“An economic objective – to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure;

A social objective – to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering well-designed, beautiful and safe places, with accessible services and open spaces that reflect current and future needs and support communities’ health, social and cultural well-being; and

An environmental objective – to protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.”

- 3.2.4 In this respect, sustainability can be thought of as complex and multi-faceted concept where, each of the objectives needs to be pursued in mutually supportive ways to secure net gains which can be delivered in each across each of the objectives (Paragraph 8, NPPF).
- 3.2.5 In the case of transport-related sustainability, Paragraph 108 of the Framework requires that **“transport issues should be considered at the earliest stages [emphasis added] of plan making”** so that the **“environmental impacts of traffic and transport can be identified and taken into account – including appropriate opportunities of avoiding [emphasis added] and mitigating adverse impacts”**.
- 3.2.6 This is supplemented by Paragraph 109 of the Framework which requires that **“the planning system should actively manage patterns of growth”** and **“significant development should be focused in locations which are or can be made sustainable, through limiting [emphasis added] the need to travel and offering a genuine transport modes. However, opportunities to maximise [emphasis added] sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making”**.
- 3.2.7 To help inform the appropriate pattern of growth, paragraph 16(b) clarifies that Local Plans should **“be shaped by early, proportionate and effective engagement between planmakers and communities, local organisations, businesses, infrastructure providers and operators and statutory consultees”**. Paragraph 110(b) is more explicit in so much it requires that planning policies should be **“prepared with the active involvement [emphasis added] of local highway authorities, other transport infrastructure providers and operators”**.
- 3.2.8 Taking this together, the NPPF therefore seeks to deliver development (in this case, housing development) in locations and with appropriate strategies that *minimise* (taken to be its smallest possible level) the need to travel and where sustainable travel options can be *maximised* (taken to be its highest possible level).

3.2.9 It is the case therefore that Government policy is concerned in the significant part with the location of development relative to supporting jobs, shops, and local amenities, which combine to create the need to travel. In this context, Paragraph 109 of the Framework requires that locations that *minimise* the need to travel should be prioritised as these can help to **“reduce congestion and emissions and improve air quality and public health”**.

3.2.10 It is therefore the case that policy requires that journey lengths are *minimised*, this being a threshold set at a higher level than merely to “reduce” and which suggests of a relative requirement to reduce journeys to the smallest possible degree. It is therefore fundamental that each allocation demonstrate that it is located where the need to travel can be minimised and non-car travel options be maximised, relative to the available alternatives.

3.2.11 This requirement is implicitly transposed to Paragraph 32 which requires that **“significant adverse impacts... should be avoided [emphasis added] and, where possible, alternative options which reduce or eliminate [emphasis added] such impact should be pursued”**.

3.3 East Hampshire District Council (EHDC) Local Plan (2021-240), Regulation 18 Consultation, March 2024

3.3.1 East Hampshire District Council's vision for their emerging Plan is identified as:

“By 2040 and beyond, our residents will live in healthy, accessible and inclusive communities where quality affordable homes, local facilities and employment opportunities in sustainable locations provide our communities with green and welcoming places to live, work and play and response positively to the climate emergency.”

3.3.2 In the context of the opportunity at Chawton Park Garden Village and from a transport perspective, the salient issues arising from the vision are therefore to consider whether the inclusion of the site would support the vision to provide growth in a “sustainable location” where opportunities to work, live and play are “accessible” by non-car travel options.

3.3.3 To help deliver on the vision, the Local Plan identifies several key objectives in relation to travel and transport. The first of these key objectives (B4) is to **“enable people to live locally and reduce their reliance on the private car, to help reduce the impacts of transport on the environment and improve health and wellbeing”** and part of this will be reliant upon objective C1 which seeks to **“enable and encourage timely delivery of services and infrastructure to support strong communities.”**

- 3.3.4 Section 3 of the emerging Plan sets out the emerging spatial strategic and how the Authority will manage future development. Paragraph 3.3 therein recognises that **“the distribution of development and consideration of the right type and location of development is fundamental [emphasis added] to delivering sustainable growth”**. The converse of course is that development in the wrong location, or of the wrong type, would fail to deliver sustainable growth.
- 3.3.5 In this context, the client supports Policy S1.4 of the emerging Plan, which is focused on achieving sustainable growth in accordance with the Spatial Strategy and in line with the settlement hierarchy, which identifies a greater portion of growth in the larger and more sustainable settlements. Policy S2 is supportive of this principle in so much that it correctly places Alton at the top of the settlement hierarchy.
- 3.3.6 However, the suggestion at S2.4 and expanded upon at Policy NBE1, that **“development outside the settlements listed above [referring to the hierarchy] is considered countryside and will be restricted to that which is appropriate in a rural area...”**.
- 3.3.7 This policy is restrictive and may work against the stated Plan vision and objectives, in so much that it prejudices more meaningful development on the edge of the larger, most sustainable locations identified in the settlement hierarchy. Where the settlement boundaries are drawn so tightly, the policy has the unintended consequence of delivering the same amount of housing in a more dispersed manner and in more rural areas that would not have the same opportunities to minimise the need to travel, or to travel by non-car modes, contrary to Objective B4 of the Plan.
- 3.3.8 This would clearly render the policy unsound, not only in against national policy but Policy CLIM1.2 of Plan also makes it clear that, in new development **“sustainable modes of transport (e.g. walking, cycling public transport) will be prioritised [emphasis added] through the location, design and layout of new development”** and this is further supported by Policies DES1, DES2 and DGC2.
- 3.3.9 Policy DGC2. clarifies that **“sustainable locations are those that are in an accessible distance to enable local living and offer genuine [emphasis added] opportunities to travel by sustainable modes (walking, cycling and public transport) for multiple journey purposes”** whilst Policy DES1.1 states that new development will be permitted where it would help to achieve the stated vision and where development **“integrates well with existing streets, cycle and walking connections and where relevant extends these movement networks within a development site, to create attractive, accessible, safe and direct routes that are inclusively designed”**. In this respect, the requirement for a “genuine choice” includes of a need to consider deliverability and quality or attractiveness of sustainable travel infrastructure.

- 3.3.10 The concept of routes needing to be 'attractive' is also replicated within Policy HWC1.1 which acknowledges that development should contribute to healthy and active lifestyles by delivering **“access to sustainable modes of travel, including safe, well-designed, and attractive [emphasis added] cycling and walking routes and easy access to public transport to reduce car dependency”**.
- 3.3.11 The nature of well-design routes is also expressed within Policy DGC2.2 which states that development will be permitted that **“provides linkages to existing or proposed transport infrastructure and networks, prioritising connections to public transport services and routes promoted in the LCWIP”** and which **“provides attractive and well-designed walking and cycling networks with relevant supporting infrastructure that will improve the perceived safety and security of these modes”**.
- 3.3.12 Furthermore, the Plan seeks to ensure that sustainable travel infrastructure is not only well designed but, by controlling development under Policy CLIM 1.3, to ensure that planning permission will only be granted where **“any new transport infrastructure (roads, footpaths, cycleways) has been designed to prioritise [emphasis added] walking, cycling and the use of public transport”**, the Plan infers that development that does not design transport solutions that put pedestrian, cyclists and public transport uses first, will be considered unacceptable.
- 3.3.13 The Policy DGC1.1 implicitly recognises that, in order that infrastructure is prioritised, **“infrastructure necessary to support new development will be available when first needed...”** whilst DGC1.6 is clear, that **“if the timely provision of infrastructure necessary to support new development cannot be secured in line with this policy, planning permission will be refused”**.
- 3.3.14 In this regard, failure to deliver appropriate links will result in deliverability issues for individual sites on which the Plan is reliant upon for soundness reasons. There should therefore be comfort that all sites can be delivered in accordance with the terms of its policies.
- 3.3.15 This includes the need to consider phasing of infrastructure, since it is implicit that a minimum level of connectivity by sustainable transport modes will be needed at each stage of development. This means development that is divorced from amenities and services on which it depends to provide a genuine choice in sustainable travel modes, must provide a proportionate level of connectivity from the outset and indeed, it cannot be said that sustainable travel is *prioritised* (as required by Policy CLIM1.3) if such options are not available early in the development trajectory.

3.4 Client Statement of Support

- 3.4.1 The client broadly supports the above policies as, taken together, they provide a coherent approach that reflects the significance of the transport hierarchy and need to respond to the climate emergency. However, it is relevant to note that, by stating terms as a “priority” implicitly implies of a degree of cruciality, such that a failure to prioritise sustainable travel opportunities will not be accepted.

3.5 Hampshire County Council Local Transport Plan 4

- 3.5.1 Hampshire County Council's fourth Local Transport Plan (LTP4) proposes transformational changes, marking a shift from planning for vehicles to that of planning for people and places. It supports the national priorities for decarbonising the transport system, including reducing dependence on the private car as a mode of transport.

Its vision is to deliver **"A carbon neutral, resilient and inclusive transport system designed around people which: supports health, wellbeing and quality of life for all; supports a connected economy and creates successful and prosperous places; and respects and seeks to enhance Hampshire's unique environment"**.

- 3.5.2 LTP4 places emphasis on integrating land-use and transport planning, to enable sustainable travel choices and reduce the need to travel in the first place. Walking and cycling are prioritised as transport modes that should be the first choice for shorter journeys. Hampshire residents are encouraged to own fewer cars and use them less. But it is recognised that realistic alternatives to the private car need to be provided,
- 3.5.3 LTP4 therefore places an increased emphasis on addressing the barriers to walking and cycling, including issues with personal safety. When developing transport strategies and schemes, a hierarchical approach is proposed that considers different users needs but which generally prioritises the vulnerable, then walkers, then cyclists and horse riders, then public transport users, then deliveries and finally other motor vehicles.

3.6 Section Conclusion

- 3.6.1 It is implicit from the above that there will be an underlying requirement in determining an optimal spatial strategy to ensure that proposed allocations are located close to relevant amenities and job opportunities (to minimise the need to travel) and to provide a genuine choice of non-car travel options (to minimise emissions and other costs of private car use).
- 3.6.2 The remainder of this report therefore considers the locational merits of the Chawton Park Garden Village whilst addressing technical considerations of highway access and capacity which demonstrate the site is deliverable early in the Plan period.

4 POLICY COMPLIANCE – SUSTAINABILITY BY ACTIVE TRAVEL MODES

4.1 Introduction

- 4.1.1 As recognised within the emerging Local Plan policies identified at [Section 3](#), previously, the Council acknowledges the importance of delivering sustainable development that minimises reliance on the private car, by delivering transport infrastructure that prioritises pedestrians, cyclists and public transport users, via high-quality, attractive and direct routes.
- 4.1.2 The implication of course is that the converse would be true were such infrastructure not to be delivered, such that sustainable development could not be secured. This would not only be contrary to policy, which would cause effectiveness issues in the Plan, it would also actively work against the stated vision and objectives of the Plan, rendering it unsound.
- 4.1.3 Unlike the proposed allocation of Neatham Manor Farm (Policy ALT8), Chawton Park Garden Village is demonstrably deliverable against these terms and this section of the study provides an initial appraisal.

4.2 EHDC Local Plan Evidence

- 4.2.1 The Sustainability Assessment undertaken by AECOM in previous iterations of the Local Plan identified Chawton Park Gaden Village as warranting further consideration given its potential to deliver a mix of uses and new/upgraded infrastructure, as well as good links to Alton and the strategic road network.
- 4.2.2 Indeed, the assessment provides the following summary of the opportunity:-

“Option 1 performs reasonably well against the SA objectives. As with the other new settlement options, Chawton Park Farm is of strategic scale and therefore offers potential to deliver some local services within the site itself, feasibly reducing the need to travel for some services [emphasis added]. Notably, however, Chawton Park Farm is also sufficiently close to Alton that providing cycle routes into the town centre could be a viable sustainable transport option [emphasis added]. The town centre services and facilities are around 2 miles from the site, with Alton station a further half a mile. It should also be possible to extend existing bus services, particularly services 38 and 64, to serve the Chawton Park Farm site....

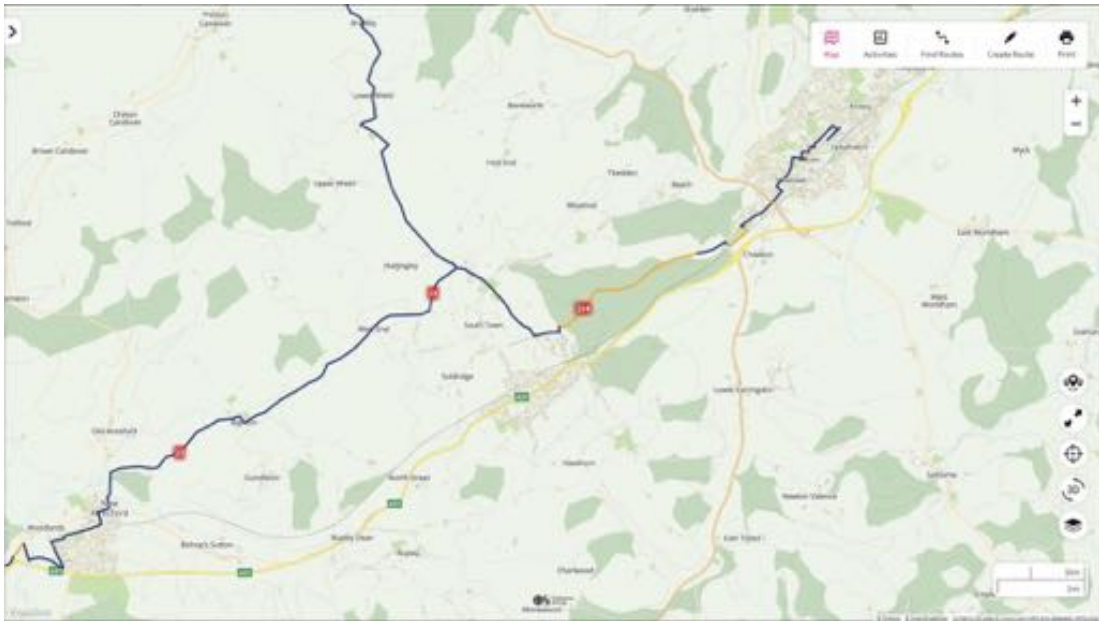
Option 1 would deliver substantial growth to the west of Alton, making it well placed for the existing community facilities of Alton Sports Centre and Alton Community Hospital. Additionally, Option 1 would be ideally placed to access the recreational offroad cycle path which runs through Chawton Park Wood, between Alton and Four Marks [emphasis added]. The long distance St Swithun's footpath is also within easy reach of the Chawton Park Farm strategic site, as well as a number of smaller sites at Ropley and Four Marks...

- 4.2.3 It is unclear why, in the latest iteration of the emerging Local Plan, Chawton Park Garden Village has been excluded given that, on the Council's own evidence, it has the potential to deliver sustainable development that is able to provide a genuine choice of travel options that can reduce the need to travel by car, and which is well placed to access a range of amenities.
- 4.2.4 This sits in contrast to the draft allocation of Neatham Manor Farm (ALT8) which we have shown in supporting evidence, cannot achieve the requisite non-car travel connections to facilitate non-car travel options to local amenities and would therefore be almost entirely reliant on private car travel.

4.3 Anchored by Nationally Significant Infrastructure

- 4.3.1 The proposed allocation of Chawton Park Garden Village is located on the National Cycle Network (NCN) Route 224 which, by its very nature, provides nationally significant cycle infrastructure that connects the site to Alton town centre in the east, Four Marks to the west and onwards to Winchester via New Alresford.
- 4.3.2 In this way, the proposed allocation is anchored by strategic cycle infrastructure that has the in-built potential to provide a genuine choice of alternative travel options, reducing the need to travel by car.
- 4.3.3 The location of the proposed allocation is shown in context by the below Figure 4.1.

Figure 4.1 National Cycle Network (Route 224)



- 4.3.4 The NCN is the responsibility of Sustrans, the cycling charity. Active engagement has been undertaken with Sustrans since 2019 and work is on-going to refine proposals to deliver an LTN1/20 compliant footway/cycleway the resolve the existing deficiencies along the part of Chawton Park Road that is currently recognised by Sustrans as being substandard.
- 4.3.5 Further optioneering has been undertaken to investigate the potential to introduce a modal-filter on Chawton Park Road, west of the Lord Mayor Treloar development, reducing the potential for rat-running, which was identified as an issue by the Local Highway Authority during the consultation for the Treloar application. This would have the benefit of further prioritising walking, cycling and public transport in line with the terms of the emerging Local Plan policies.
- 4.3.6 This is shown the below Figure 4.2 and to a larger scale at [Appendix A](#).

Figure 4.2 Emerging Cycle Improvements – Chawton Park Road



4.3.7 Whilst the promotion of Chawton Park Garden Village is not reliant upon delivery of modal filters along Chawton Park Road to deliver appropriate cycle routes into Alton, it does helpfully demonstrate that there are options to maximise the potential contributions that an allocation of the Garden Village could make to the vision and objectives of the emerging Local Plan that would be consulted upon.

Indeed, in a letter dated 23rd November 2021 (available at [Appendix B](#)), Sustrans wrote to Calibro in support of the work being undertaken to promote Chawton Park Garden Village and highlighting the potential wider community benefits that could be unlocked by infrastructure improvements enabled by the proposed allocation of Chawton Park Garden Village. Indeed, within the correspondence, they stated:-

“We recognise that there are sections of the existing NCN that are substandard by modern standards in the area around Chawton Park Road (between Northfield Lane and Whitedown Lane). If improvements can be made to bring these areas up to an acceptable standard there would be benefits in encouraging local residents and visitors (existing and future) to walk and cycle for both leisure and work purposes [emphasis added]. This would then also help us to deliver against our various strategic objectives, such as increasing the use of the NCN for commuter journeys and ensuring that the NCN is accessible for everyone”

4.3.8 It is therefore clear that, in line with the requirements of the NPPF to actively involve the key stakeholder for cycling, with an extended remit to improve use of the NCN for commuting and leisure purposes, Chawton Park Garden Village would help to deliver strategically significant improvements to the existing infrastructure. Indeed, this is summarised within the Sustrans letter which concludes:-

“As the charity who are “making it easier for people to walk and cycle”, we see the opportunity to improve Chawton Park Road as a significant benefit to those living in Alton and the surrounding area. In turn, it also actively supports the Government’s policy towards tackling the current climate emergency.”

4.3.9 The opportunity to integrate cycling within the Sustainable Transport Strategy for Chawton Park Garden Village was also reviewed independently by SYSTRA, in their review dated 29th April 2022. The results of this review are included at [Appendix C](#) but which helpfully summarises:-

“National Cycle Route 224 (NCR 224) routes along the majority of Chawton Park Road between Butts Road in the east and Red Hill in the west. This route provides a link between Farnham to Medstead via Alton, and between Wickham and Gosport. There are opportunities to incorporate and enhance this provision through an integrated masterplan for Chawton Park, whilst enhancing connectivity to the countryside for the wider Alton community.” (paragraph 2.5.9)

“The [provision of upgrades to the NCN] this is likely to be considered the base situation with regards to Cycle provision from the site, but the delivery of this improvement would encourage cycle use for development-based trips, at a likely level above that of the Local Plan area as a whole. SYSTRA therefore concludes that the site has a good potential to be supportive of Local Plan cycling aims.” (paragraph 3.2.1)

4.4 EHDC Position

4.4.1 Whilst the current Regulation 18 consultation version of the emerging Local Plan excludes Chawton Park Garden Village as a draft allocation, it is pertinent to note that EHDC officers recommended the proposed allocation to Full Cabinet following the 2019 Large Sites Consultation as a 'Preferred Site'.

4.4.2 This followed submission of a range of transport evidence to the Council and review by their external transport and highway consultant. In view of officer's recommendation, it is implicit that the Council's expert consultant agreed that the Chawton Park Garden Village was both sustainable and deliverable.

Implication

- 4.4.3 The opportunity to deliver sustainable development which can provide a genuine choice of non-car travel options – in this case, by bicycle – has been demonstrated on the Council's own evidence (the Sustainability Assessment) and has been confirmed by several external and independent audits, including by Sustrans, SYSTRA and the Council's own highway experts.
- 4.4.4 There can therefore be no question of the site's credentials and the important contributions it can make to the Council's stated vision and objectives. The current draft allocation of Neatham Manor Farm (ALT8) should therefore be replaced given significant technical issues related to delivery of that site which would undermine the vision and objectives of the Local Plan.

5 POLICY COMPLIANCE – SUSTAINABILITY BY BUS

5.1 Introduction

- 5.1.1 The policies of the emerging Local Plan place a clear priority on ensuring a 'genuine' choice in sustainable travel options from new development and a priority in securing good access by public transport.
- 5.1.2 This section of the report therefore considers the public transport opportunities that are, or could be, provided from ALT8: Neatham Manor Farm to assess its potential to undermine the soundness of the Plan.

5.2 A Lack of Bus Services

- 5.2.1 It is noteworthy that, in their email to Calibro dated 14th October 2019 (contained at [Appendix D](#)), in response to the Regulation 18 consultation of the time, the local bus operator (Stagecoach) commented as follows:-
- 5.2.2 It is accepted that public transport accessibility comprises two principal aspects:
- Access to public transport which is concerned with how far the development is from the public transport network and the level of service on that network; and
 - Access by public transport which takes account of where the services go and the opportunities to access amenities located within the catchment areas served.
- 5.2.3 Detailed discussions have been undertaken with the local bus operator (Stagecoach) to identify an appropriate strategy for the Chawton Park site. This includes a nominal diversion of the Number 64 services to a central hub located within the heart of the development. The hub would be located where the on-site traffic-free greenways/cycleways converge around the proposed neighbourhood centre, thereby maximising the integrity of the bus offer.
- 5.2.4 Discussion with the bus operator also confirm that the Number 64 bus service is an award-winning service which has experienced a +15% increase in patronage levels in the two years since its relaunch with new double decked vehicles.
- 5.2.5 Based on the most recent information available to Calibro, 91% of services along the route were classified as being 'on time' and this relates to average punctuality ratings of 86% for regional services, as identified in the Annual bus statistics: England 2022 report prepared by the Department for Transport; this being the most recent version.
- 5.2.6 This is reflected in the comments of Stagecoach as the local bus operator, who state in their letter of 5th February 2019 (copied at [Appendix E](#)) that:

“the relevance and effectiveness of route 64 in providing a sustainable transport choice is well reflected in its recent history. Patronage on this service has strong and steady growth for some years...[and] it should also be pointed out that your promotion offers substantial synergistic effects with committed development immediately to the east at the Former Lord Mayor Treloar Hospital, and at Borovere Farm, both also on or very close to the 64 Route...we are therefore pleased to unequivocally endorse your promotion...”

- 5.2.7 The position is also reaffirmed in an email from Stagecoach of 14th October 2019, also included at [Appendix D](#).

“Consequently, the proposed allocation of Chawton Park Garden Village would not be burdened by costly investment in pump-priming bus services – only relatively minor investment may be required. Moreover, in view of the increasing year-on-year patronage level increases, the bus routes that would service the proposed allocation are already commercially viable and there can thus be no question on their long-term availability, in-perpetuity.”

- 5.2.8 It is understood that this remains the position of Stagecoach. Indeed, during the most recent engagement with them, it was reported that routes such as the 64 Service would be more important than ever, given that it is the higher frequency inter-urban services that have sustained patronage throughout recent times, and which will continue to provide sustainable travel options in perpetuity. This is in contrast to lower frequency, and more rural services, which have suffered disproportionate patronage loss since the pandemic, and which are increasingly reliant on public subsidy.
- 5.2.9 In this context, the Chawton Park Garden Village continues to benefit from access to an established, commercially viable service that has demonstrable resilience to economic uncertainties. This contrasts with the current draft allocation of Neatham Manor Farm (ALT8) which is reliant upon the diversion of an existing low-frequency bus service that is implicitly more exposed to changes in patronage.

5.3 Implication

- 5.3.1 The emerging Local Plan prioritises sustainable travel options and robust public transport access.
- 5.3.2 In line with the NPPF, active consultation with the public transport operator has identified significant and unwavering support for growth to occur at Chawton Park Garden Village. This public endorsement, which is reflect within their separate representations to early Regulation 18 consultations, is based upon established higher frequency, high patronage growth services that have proven reliance to economic uncertainty and which therefore provide the most appropriate platform to guarantee bus is a genuine alternative to private car travel.

- 5.3.3 In this context, Chawton Park Garden Village is, without doubt, able to provide a genuine alternative to the car and in so doing would reduce the need to travel by private motor vehicles, in line with the emerging local policy, and fully supportive of the requirements of LTP4 and NPPF.
- 5.3.4 Conversely, however, the proposed Neatham Manor Farm allocation faces significant challenges in establishing a new standalone bus services due to insufficient population density. The reliance on diverting existing services raises concerns regarding long-term viability, compounded by uncertainties about patronage levels and potential reductions in other route segments.
- 5.3.5 Significant questions exist regarding the potential for the proposed allocation of Neatham Manor Farm to deliver public transport services in a way that provides a genuine choice in sustainable transport, such that any development would then be “unsustainable”. This would be contrary to policy and risk the soundness of the plan.

6 POLICY COMPLIANCE – ACCESSIBILITY STUDY RESULTS

6.1 Introduction

- 6.1.1 The Council have undertaken an Accessibility Study which has been used to inform their Settlement Hierarchy and draft allocation sites, including ALT8: Neatham Down Farm.
- 6.1.2 The approach incorporates a simplistic scoring system based around the modelled travel distance from the centre of modelled hexagons set at 500-metre centres around the key population centres, towards a range of amenity types. The amenities are accessible where they accord with the principles of 20-minute neighbourhoods, which is to say a travel time of 10-minutes each way by foot or by bike.
- 6.1.3 Whilst an accessibility-led approach to the spatial plan is endorsed, there are a number of issues with the current approach which may impact on the findings of the study, including:-
- The setting of hexagons at 500-metre centres within an urban context is crude and, when combined with the rudimentary placement of the hexagons, leads to statistically unreliable journey distances being calculated between the origins and destinations. A more fine-grain analysis is required, assuming 50-metre centres which would more accurately reflect the changing accessibility levels across a site whilst increasing the statistical reliability of the resultant average.
 - The methodology ignores the frequency of visits undertaken to each amenity type. Whilst the three dimensions of sustainability incorporate a social strand, meaning that access to a post office and GP Surgery is important, the fact remains that these are visited less frequently than places of work or education, for example. In this way, the analysis is skewed against the optimising for environmental strand which is a flawed concept in light that the vision, objectives and policies of the emerging Plan are focused on minimising car use in response to the climate emergency.
 - The scoring is based on a range of land-uses that serve no amenity value in the way people conduct their day-to-day lives. For example, inclusion of Fire and Police Stations is not a destination for residents and should be excluded from the analysis as it may currently distort the results.

- The study fails to acknowledge the wider complexities of inter-urban movement which can make up most of the travel from development and settlements. It is a fact of life that people may live in one area and work in another, and the study fails to consider how this majority of movement may be undertaken by sustainable travel modes. This is of particular relevance in the context of the inclusion of Neatham Manor Farm, which is considered at [Section 5](#). above.
- In this sense, the analysis, even when undertaken robustly, should be seen as a starting point. The complex nature of sustainability cannot be adequately considered within such a high level appraisal, particularly in light of the response to climate change and the stated vision and objectives of the emerging Local Plan.
- Consequently, whilst the analysis may be identifying the right settlement hierarchy, the results have the significant potential to mislead in the determination of suitable allocation sites. This has been shown to be the case throughout this study.

6.2 Measurement of 20-Minute Principles

- 6.2.1 In addition to the above, in the era of climate change, the application of 20-minute principles is not only an inward-looking evaluation to focus on new development but rather it is a case of looking at the cumulative effects of the development, and its potential to deliver wider benefits that may encourage modal shift amongst parts of the existing community.
- 6.2.2 For example, the addition of a primary school within a development would no doubt help to deliver 20-minute principles within the scheme itself, but its location may also mean that residents living in surrounding areas would have a new opportunity to access primary education much closer, potentially within the 20-minute threshold. In this sense, there is a potential for those existing trips which are more likely to be undertaken by car, to switch to more sustainable travel options. The carbon savings associated with that behaviour should be credited to the development. However, this is not reflected within the analysis and is a significant flaw and failure to provide a holistic and informed decision-making framework.
- 6.2.3 In the context of the proposed allocation at Neatham Manor Farm, the site does not lie within 20-minute neighbourhood distance of any existing residential areas within Alton. Consequently, even were it to provide on-site amenities, those facilities would deliver a sustainable travel benefit to existing residents of the town. Moreover, where in the case of a primary school, for example, the catchment was to draw from the wider area, these trips would almost certainly need to be undertaken by car, contrary to the sustainable development policies that run throughout the emerging Local Plan.

- 6.2.4 Conversely, the opportunity at Chawton Park Garden Village is a western extension of the built-up area of Alton and relates well to existing residential areas served via Chawton Park Road, including the Lord Mayor Treloar development (marketed as Ackender Hill) and Connaught Way.
- 6.2.5 This analysis has been undertaken in the context of Chawton Park Garden Village and the potential benefits of providing a primary school. In this context, the results indicate that around 1.5% of the total Alton population would have improved access to primary education and become highly accessible by foot and bike. This is a small percentage change of a much larger number, such that its significance becomes material, particularly in the context of the need to achieve even marginal gains towards net zero, in line with the vision and objectives of the emerging Local Plan..
- 6.2.6 In this context, Chawton Park Garden Village would contribute to the Council's stated aims and objectives, and support its emerging policies, more meaningfully than the current draft allocation at Neatham Manor Farm.

6.3 Implication

- 6.3.1 The Accessibility Study conducted by the Council to inform the Settlement Hierarchy and draft allocation sites, including Neatham Manor Farm, introduces a significant degree of uncertainty in its methodology and findings. Several issues with the approach undermine the reliability of the study's conclusions. Notably, the coarse setting of hexagons at 500-metre intervals within urban contexts leads to statistically unreliable journey distance calculations, while the neglect of trip frequencies to different amenities skews the analysis against minimising car use. Moreover, the study fails to acknowledge the complexities of inter-urban movement and overlooks the potential for misleading results in determining suitable allocation sites.
- 6.3.2 This uncertainty is particularly manifest concerning primary schools, where the potential to make the wrong decision is evident in the failure to credit developments for encouraging modal shift among existing communities through improved access to amenities such as schools within the 20-minute threshold.
- 6.3.3 The lack of acknowledgment of wider community benefits and potential modal shifts within the Accessibility Study underscores the risk of misinformed decision-making, particularly evident in the comparison between Neatham Manor Farm and Chawton Park Garden Village.
- 6.3.4 While the former fails to lie within a 20-minute neighbourhood distance of existing residential areas in Alton, thereby potentially necessitating car-dependent trips for amenities like primary education, Chawton Park Garden Village is proximate to existing residential areas and therefore delivers the potential to significantly improve access to primary education within sustainable travel thresholds.

6.3.5 Thus, the shortcomings of the Accessibility Study highlight the importance of a more nuanced and informed decision-making framework to ensure that future developments align with the objectives of the emerging Local Plan. Where this is considered, materially different conclusions would be drawn that would reinforce the need for Chawton Park Garden Village to be included as a draft allocation.

7 HIGHWAY CAPACITY

- 7.1.1 Significant work has been undertaken to evaluate the highway impacts of the proposed allocation of Chawton Park Garden Village. These are presented in the various Technical Notes that have been submitted as evidence to the 2019 Large Sites Consultation.
- 7.1.2 Further work has also been undertaken as part of a formal pre-application process with the Local Highway Authority and supplemented by an independent audit of the proposed strategy, technical designs, and capacity analyses.
- 7.1.3 By way of summary, the proposed access strategy includes the following elements:-
1. A realignment of Chawton Park Road and Northfield Lane to create a 'horeshoe' configuration that bring the road into the development area and in so doing resolves an existing 90-degree bend which is substandard in visibility, geometry and highway safety terms. It is also recognised by the bus company as causing conflict and delay between their vehicles and opposing traffic movements.
 2. A localised widening of Northfield Lane and formalisation of existing shuttle-working through the existing railway bridge using traffic signal control.
 3. A left-turn filter land from Northfield Lane onto the westbound A31 carriageway; and
 4. An additional offside lane on the eastbound A31 carriageway to accommodate all right-turning traffic onto Northfield Lane.
- 7.1.4 The proposed realignment of Chawton Park Road and Northfield Lane is contextualised in Figure 4.2 previously, whilst the configuration of the A31 improvements and Northfield Lane bridge are shown in the below Figure 7.1. Note that this includes identification of a potential access to Land North of Northfield Lane which is no longer proposed as a draft allocation within the emerging Local Plan.
- 7.1.5 The proposed upgrades are also shown to a larger scale at [Appendix F](#).

Figure 7.1 A31 Proposed Improvements



7.1.6 The proposed access strategy has been independently audited by SYSTRA in 2022, both in terms of their general configuration and ability to adequately accommodate anticipated travel levels without breaching available capacity. Following their appraisal, they concluded that: -

“2.1.6 From our review, we consider that Calibro have provided sufficient information to show that physical access to the site is possible, as Calibro have provided:

- **A layout that is within the highway boundary, where the proposals change the current layout**
- **Geometry identified on drawing BR-617-0002_SK01-RevA, so that design guidance can be checked by the Local Highway Authority if required as well evidencing the improvement of Northfield Lane’s junction with Chawton Park Road to a layout more in keeping with current standards**
- **Vertical consideration of operation through the Northfield Bridge in drawing BR-617-0002-SK02_RevB**

2.1.7 The information, particularly that contained within the drawings identified, can be considered to demonstrate access is achievable, and is therefore unlikely to result in a sustainable objection at Examination in Public. The evidence is therefore considered proportionate.”

- 7.1.7 It is also relevant to note that the above independent review was undertaken on the basis of a traditional traffic forecasting approach, whereas a vision-led approach would take into account the synergistic effects of co-locating a range of amenities on the site, together with provision of a genuine choice of non-car travel options, which would combine to reduce the need to travel by car and thereby create further headroom in the highway capacity analyses.
- 7.1.8 Significant comfort can therefore be taken that the Chawton Park Garden Village would be deliverable in the context of highway capacity and vehicular access, in contrast to the current draft allocation of Neatham Manor Farm (ALT8) which is shown on the Council's own evidence to be likely to impact on the most sensitive parts of the highway network in Alton, where existing congestion is already present.

7.2 Implication

- 7.2.1 Chawton Park Garden Village is a proven alternative that address all the deficiencies and uncertainties that would impede the delivery of the current draft allocation of Neatham Manor Farm (ALT8) in line with the current vision, objectives and policies of the emerging Local Plan.
- 7.2.2 In contrast with Neatham Manor Farm, Chawton Park Garden Village is conceived by a well-developed masterplan that identifies space for diverse land-uses and with interest already received from potential operators. In this way, there is confidence that Chawton Park Garden Village can provide a mix of land uses that is conducive to reducing reliance on cars and fosters sustainable modes of transportation.
- 7.2.3 Whilst these positive effects have not been reflected in highway capacity evidence submitted to date, independent review of the access strategy and resulting highway capacity effects, concludes that any residual traffic movements from Chawton Park Garden Village can be comfortably accommodated within the capacity of the highway network. Moreover, such effects would not therefore magnify the burden the sensitive parts of the Alton highway network.
- 7.2.4 Thus, whilst the performance of Neatham Manor Farm is highly uncertain and likely to work against the stated Plan vision, objectives and emerging policies, Chawton Park Garden Village presents an 'oven ready' allocation to meet local plan objectives and promoting sustainable transport practices in the area.

8 SUMMARY & CONCLUSION

8.1 Report Summary

8.1.1 This report has been prepared on behalf of Redrow Homes Ltd – Harrow Estates Division to support the promotion Chawton Park Garden Village, Alton through the emerging Local Plan. The report has been undertaken as an appraisal of the opportunities and constraints related to the development of the Site, and the findings of the report may be summarised as follows:

- The emerging Local Plan prioritises sustainable travel options and robust public transport access. As recognised by Sustrans, Chawton Park Garden Village offers the potential to deliver improvements to nationally important cycle infrastructure to Alton town centre and beyond, which would not only benefit residents of the proposed allocation but the wider Alton community. Similarly, the local bus operator has endorsed the promotion because of its potential to seamlessly integrate with one of the most viable, fastest growing and higher frequency services in the District which avoids any commercial viability concerns.
- Such endorsement from the bus operator and cycle charity underscores the potential for Chawton Park Garden Village to provide genuine alternatives to private car use, ensuring a more certain path toward achieving sustainable development objectives, in line with the emerging Local Plan.
- The Accessibility Study conducted by the Council introduces a significant degree of uncertainty in its methodology and findings. Several issues with the approach undermine the reliability of the study's conclusions. Notably, the coarse setting of hexagons at 500-metre intervals within urban contexts leads to statistically unreliable journey distance calculations, while the neglect of trip frequencies to different amenities skews the analysis against minimising car use. Moreover, the study fails to acknowledge the complexities of inter-urban movement and overlooks the potential for misleading results in determining suitable allocation sites.
- This uncertainty underscores the risk of misinformed decision-making, which is particularly evident in the comparison between Neatham Manor Farm and Chawton Park Garden Village, where the Garden Village creates wider accessibility benefits to the established Alton community, magnifying its potential contributions to the sustainability objectives of the emerging Local Plan.

- The proposed allocation of Chawton Park Garden Village is conceived of a well developed masterplan and access strategy which has been developed in consultation with key stakeholders. Significant evidence has been prepared throughout the Local Plan process which has been independently audited, both by the Council's own external consultants and by others. In common, they find the promotion of Chawton Park Garden Village to be sound, both in terms of its ability to deliver sustainable development – as recognised within the Council's 2019 Sustainability Appraisal – whilst avoiding unacceptable highway capacity effects.
- This in contrast to the current draft allocation of Neatham Manor Farm, which is notably absent of any detailed technical solutions or support from key stakeholders. Indeed, based on our own analyses, the existing draft allocation would fail to deliver such technical solutions in a manner to unlock truly sustainable development and it would therefore render the Plan unsound.

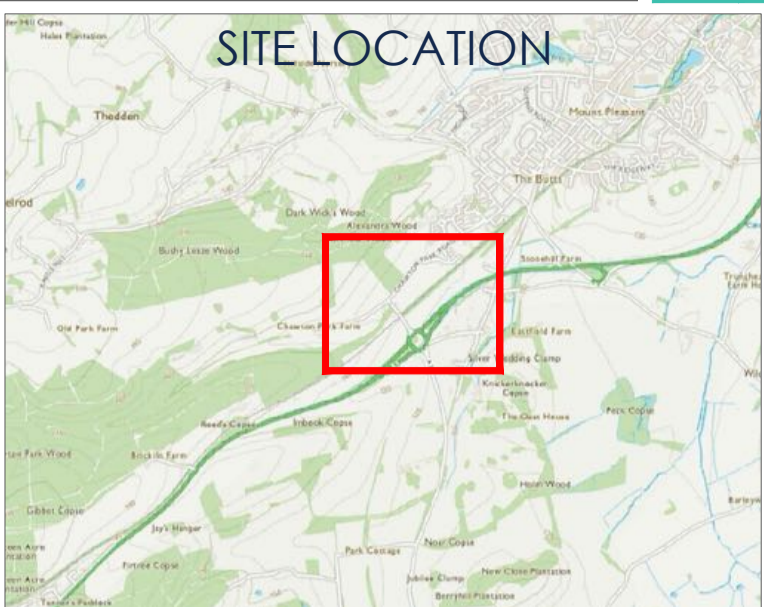
8.2 Report Conclusion

- 8.2.1 The overarching conclusion of this report is that a future residential development of Chawton Park Garden Village would accord with the sustainable transport planning policies within local and national policy. It would support in addressing the identified issues and broader preferred growth strategy of the emerging plan and would thus constitute sustainable development that is deliverable.
- 8.2.2 This is a conclusion that is supported by key stakeholders, including the public transport operator (Stagecoach) and the cycling charity, Sustrans. Moreover, the transport strategy, its implications on sustainable development and highway capacity, have been independently validated by several parties, including on behalf of the Council.
- 8.2.3 In this context, the site has an important role to play in contributing to the delivery of the Council's vision, objectives and policies, unlike the current draft allocation at Neatham Manor Farm (ALT8). For this reason, Chawton Park Garden Village should replace the current draft allocation to protect the soundness and efficiency of the emerging Plan.

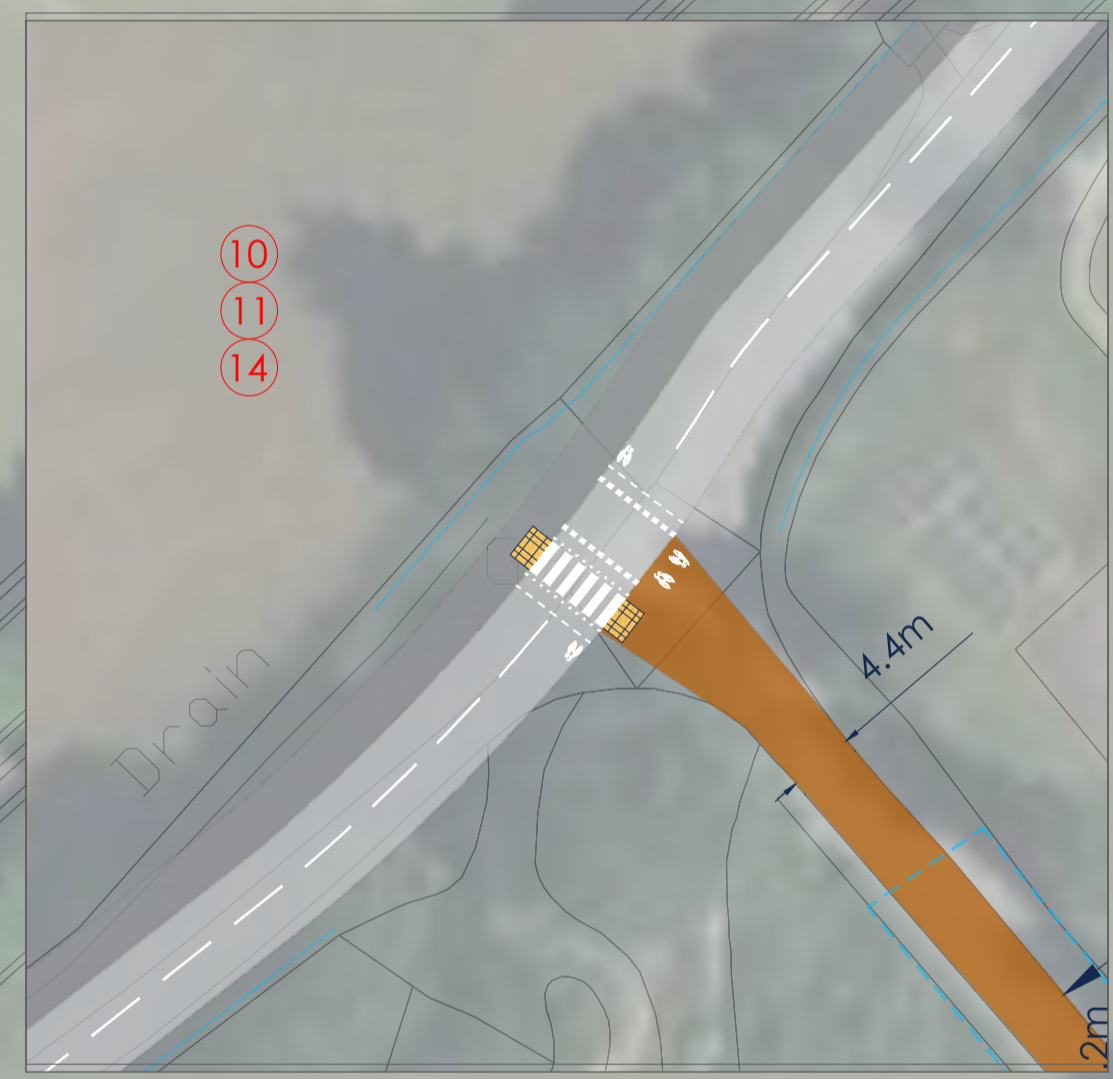
APPENDICES

APPENDIX A

Emerging Cycle Improvements – Chawton Park Road



- 2.4x43m VISIBILITY SPLAYS
SSD FOR 30mph
Manual for Streets (MfS)
- 32m FORWARD VISIBILITY SPLAYS
SSD FOR 25mph,
REDUCED FROM 30mph DUE TO
BEND, MfS
- INTERVISIBILITY
- CARRIAGEWAY
- FOOTWAY
- SHARED FOOT- & CYCLEWAY



02	RESPONSE TO Sustrans COMMENTS	AF	13/10/22
01	RESPONSE TO Sustrans COMMENTS	AF	23/09/22
-	FIRST ISSUE	AF	09/03/22
REV:	DESCRIPTION:	BY:	DATE:

STATUS: **FOR INFORMATION**

CLIENT:
HARROW ESTATES

SITE: **CHAWTON PARK GARDEN VILLAGE, ALTON**
TITLE: **GENERAL ARRANGEMENT / HIGHWAY IMPROVEMENTS**



SCALE AT A1:	DATE:	DRAWN:	CHECKED:
1:1000	09/03/22	AF	SC
PROJECT NO:	DRAWING NO:	REVISION:	
20-347	20-119	02	



APPENDIX B

SUSTRANS Letter dated 23rd November 2021

Our ref: CP_DR_01

[REDACTED]

Calibro Consultants
81 Whiteladies Road
Bristol
BS8 2NT

23 November 2021

Dear [REDACTED]

RE: Design Review, Chawton Park.

I write in support of the above design work, currently investigating the potential to improve the connectivity, safety, accessibility and coherence of National Cycle Network (NCN) Route 224 as part of the proposed allocation of a site at Chawton Park Garden Village in Alton, Hampshire.

NCN Route 224 currently runs south west from Alton railway station, approximately two miles northeast of Chawton Park Garden Village. The route is mostly on-road until it reaches Chawton Park Farm where it transitions to a traffic-free route and provides onward connectivity to the settlement of Four Marks.

We recognise that there are sections of the existing NCN that are substandard by modern standards in the area around Chawton Park Road (between Northfield Lane and Whitedown Lane). If improvements can be made to bring these areas up to an acceptable standard there would be benefits in encouraging local residents and visitors (existing and future) to walk and cycle for both leisure and work purposes. This would then also help us to deliver against our various strategic objectives, such as increasing the use of the NCN for commuter journeys and ensuring that the NCN is accessible for everyone.

We are aware that Calibro have been engaged by Harrow Estates to work on the transport aspects concerning the proposed large development site at Chawton Park Garden Village, as part of its promotion in the East Hants District Council (EHDC) emerging Local Plan. Calibro and Sustrans have undertaken a number of virtual meetings to discuss the opportunity, and Sustrans are now actively working to evaluate design options for Chawton Park Road.

In this regard, we are aware that the LCWIP Technical Report (Witteveen+Bos UK Ltd., 2020) produced for EHDC identifies the need to improve facets of Chawton Park Road, particularly its junction with Whitedown Lane.

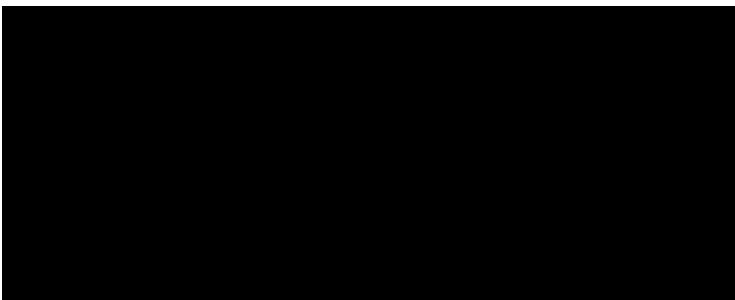
An initial site visit has taken place with Calibro to review existing conditions for cyclists and pedestrians and, whilst this technical work is still on-going, our experience in such matters mean we are confident that deliverable design solutions exist for Chawton Park Road.

We will be using the latest Department for Transport (DfT) design guidance and associated compliance tools with this work. Moreover, our design work is very much in line with the DfT's Gear Change Policy (July 2020) which outlines why and how we are required to make a "step change in cycling and walking in the coming years" and how we need "actions not words to make England an active travel nation".

As the charity who are "making it easier for people to walk and cycle", we see the opportunity to improve Chawton Park Road as a significant benefit to those living in Alton and the surrounding area. In turn, it also actively supports the Government's policy towards tackling the current climate emergency.

I therefore offer our on-going support to working with Calibro, to realise this opportunity over the coming months and years.

Yours faithfully,



APPENDIX C
SYSTRA Technical Review



FAO East Hampshire District Council
C/O Redrow Homes Ltd (Harrow Estates Division)
Midland House
West Way, Oxford
OX2 0PH

Our Ref: 110902

Client Ref:



Chawton Park Farm – Transport Evidence Review

13th May 2022

Dear Sirs,

Further to our instruction to provide an independent review of evidence produced by Calibro in support of the on-going promotion of Chawton Park Garden Village, Alton through the emerging EHDC Local Plan, we write to set out a summary of the conclusions and recommendations recorded in Systra Technical Notes GB01T22B09-TN001, GB01T22B09-TN002. These technical notes are derived from a review of the following evidence prepared by Calibro and supported by further independent analysis undertaken by Systra to enable the review to be completed:

- Technical Note TP01 – General Briefing
- Technical Note TP02 – Sustainability and Means of Access
- Technical Note TP03 – Northfield Lane Bridge
- Technical Note TP04 – Highway Capacity

In line with our instruction, our review considers whether the evidence produced can be considered to have met the following issues:

1. Issue 1: Whether sufficient transport evidence has been prepared to demonstrate, to the level required for a Local Plan, that there are no barriers that would preclude delivery of Chawton Park Garden Village within the Plan Period, having particular regard to the Northfield Lane Bridge;
2. Issue 2: Whether the delivery of new homes at Chawton Park Garden Village would accord with the principles of sustainable development, taking into account its individual merits relative to reasonable alternatives and statements from the local bus operator and Sustrans; and
3. Issue 3: Whether the current position of objection of Hampshire County Council, as the relevant Highway Authority, is justified considering the conclusions to the preceding questions, and whether their position is likely to be sustainable at Examination in Public.

Note that whilst this review considers the Chawton Park site on its own merits in relation to the likely Local Plan requirements and does not therefore specifically consider other alternative sites that may currently be under consideration by EHDC Officers and Members, the relative performance of the Chawton Park site is set relative to EHDC as a whole. In this way, the review provides commentary on whether we consider the potential allocation of Chawton



Park Garden Village can be judged to be a location that could developed in a viable fashion to positively contribute to the Plans transport objectives.

The review is broken down into two notes. The first looks to address issue 1. *GB01T22B09-TN001 – Chawton Park Highway Access Review* focuses on a technical review of highway capacity analysis within the context of what network changes would need to be considered at Local Plan stage.

The second note looks to address issue 2. *GB01T22B09-TN002 – Chawton Park Sustainability* focuses on whether the Chawton Park site evidence reviewed by Systra demonstrates that the site has the potential to achieve sustainable transport outcomes that will be required by new development brought forward as part of the Local Plan.

Issue 1 – Evidence There Are No Barriers That Would Preclude Delivery of Chawton Park Garden Village Within the Plan Period

This issue is largely considered within our Technical Note *GB01T22B09-TN001 – Chawton Park Highway Access Review*.

Our review notes the importance of delivering vehicular access onto the A31 via Northfield Lane, as this is the primary access route to the strategic road network for all vehicular traffic from this site. We consider that a failure to deliver this connection would represent a barrier that would preclude delivery of Chawton Park within the Plan Period, and we understand that Hampshire County Council as the Local Highway Authority have expressed concerns in this regard.

In consideration of this issue, Systra undertook a technical review of the evidence prepared by Calibro and as set out in their Technical Note TP03 (Northfield Lane Bridge) and Technical Note TP04 (Highway Capacity). Together, they considered the effects of a proposed signalised shuttle-working beneath the Northfield Lane Bridge and its interaction with the A31/A32 Roundabout.

We have appraised the scheme design including a review of the tracking (including 3D tracking through the Northfield Lane bridge), and concluded the scheme appears to be deliverable and has the potential to facilitate improvements to walking, cycling and bus services in the locality. This comment is made based on the assumption that the highway boundary used and tracking is accurate, although that data on which this analysis is based appears to have been provided from the Local Highway Authority and does not appear to have been questioned by the authority.

In respect of highway capacity, Calibro's evidence was set around a multi-scenario approach which is understood to have stemmed from difficulties in obtaining up-to-date traffic data, related to the covid pandemic. Calibro's reports broadly concludes that properties within the proposed allocation would need to generate traffic at a level higher than the predicted level of traffic associated with the permitted Lord Mayor Treloar development, which is currently being delivered by Crest.

Systra has undertaken its own assessment of the likely reasonable traffic generation and distribution from the site to validate the likely vehicle trip rates that would be expected to be generated, and which would be appropriate for assessment at planning application stage. Systra also undertook an independent review of the traffic on the network, using traffic count data associated with the Lord Mayor Treloar permission. Systra understand that there is not currently an objection to the method of adjustment to existing traffic flows to take account of the potential for covid related data issues. Systra conclude from their own review that of the current base traffic data used by Calibro is in line with what would be expected for a planning application.

Systra undertook a technical review of the capacity calculation models using a review process that is in line Systra's standard approach for formal review of planning application evidence. A note *GB01T22B09-TN001* provides the results of Systra's review and recommendations, as they related to the validity of Calibro's conclusions.



By way of summary, we can confirm that Systra's capacity analysis lies within the range modelled by Calibro. Neither Calibro's capacity analysis, or the comparative capacity analysis undertaken by Systra, makes allowances for potential savings in traffic demand external to the site that could be reasonably expected from the inclusion of a primary school and neighbourhood centre on the site.

Whilst there are opportunities to improve the capacity modelling provided by Calibro that would be expected as part of the due process, Systra considers that any changes are unlikely to materially alter the overarching conclusions. In this context, we suggest that an on-going objection to the site's inclusion as a Draft Allocation would not be sustainable or indeed cause the Plan to be unsound.

Consequently, whilst we would suggest that refinements to the model are undertaken to improve the rigour of the Local Plan evidence base, and to resolve objections raised by the Local Highway Authority, we consider on the current evidence that the proposed allocation of up to 1,200 dwellings via a signalised shuttle working scheme beneath the Northfield Lane bridge to be both acceptable and deliverable. In this way there would be no abnormal highway access barriers that would be expected to delay or preclude the delivery of site from coming forward as a potential allocated site within the Local Plan.

Issue 2 - The delivery of new homes at Chawton Park Garden Village would accord with the principles of sustainable development

The sustainability evidence review related to issue 2 is detailed in our note GB01T22B09-TN002 – Chawton Park Sustainability.

As part of Systra's review, an existing bus network accessibility analysis was undertaken for the District which confirms that the proposed site is close to existing services that operate at a frequency (every 30-minutes) that is at a level higher than a significant part of the Local Plan area, and which is close to routes that operate between existing service centres. Therefore, Systra suggest the broad location would be likely to be amongst the most accessible locations by bus relative to other parts of the District.

In terms of whether the site has the potential to access existing public transport services, Systra undertook detailed catchment analysis of existing bus services that operate broadly at the site access – but which the operator has confirmed would be diverted to the proposed neighbourhood centre – to provide a judgement on the relative sustainability merits of accessible bus services based on the amenities that would be available within an acceptable travel time of the site.

Taken together, Systra conclude the site is located where it would have the opportunity to access existing bus services that already operate with a bus frequency that is considered acceptable in the EHDC context, but which nevertheless may have opportunities for further improvement. Consequently, Systra confirm that the site would satisfy policy requirements from a public transport perspective.

Calibro's evidence has also looked to tie existing bus services into the proposed development and has discussed the proposals with local operators (Stagecoach). Calibro have provided correspondence with the relevant bus operators which seemingly confirms that they would be willing to divert their services (No. 64 service) into the site. This correspondence also identifies support for the allocation of the site. This position is validated by Systra's review outlined above and further supports the conclusion that the proposed site could be serviced by acceptable levels of bus provision.



Systra considers the ability of the site to connect into an established bus service to be helpful in removing potential long term viability issues, such that comfort may be taken that the site will be delivered with access to bus travel in perpetuity.

We also note that '*Technical Note TP04 – Highway Capacity*' evidences the creation of a bus gate along Chawton Park Road. This can be expected to further support the sustainable transport aims of the Local Plan, as it will create a situation where private vehicles have to take a longer route than public transport, walking and cycling, while at the same time allowing traffic management potential, particularly in the context of mass take up of congestion based satellite navigation use, and the potential use of Northfield Lane by strategic traffic routing as an alternative to use of A roads (i.e. rat-running), an issue which Systra understand to historically has caused concern with the Local Highway Authority.

Systra note existing highway constraints where Northfield Lane meets with Chawton Park Road at a 90-degree blind bend, which causes larger vehicles to occupy the opposing side of the carriageway in conflict with oncoming traffic. Systra considers that the package of highway mitigation measures proposed by Calibro, which include the closure of the northern section of Northfield Lane and the creation of an alternative route via a 'horseshoe arrangement' to the rear of the existing cottages, would help to overcome the existing friction between traffic and specifically aid bus movements.

A review of the cycle infrastructure proposed identifies that a connection to the closest and most significant service centre in the EHDC context (i.e. Alton Town Centre) can be delivered by the development. This includes improvement to an existing National Cycle Route both within and external to the site. The evidence reviewed by Systra, which includes consideration of public statements made by Sustrans, gives comfort that a strategically significant cycle route through the site, connecting to the main centre, would provide an opportunity for higher cycle usage than the Local Plan area as a whole. Systra's review of the evidence, in the context of Local Plan requirements on encouraging cycle use for development-based trips, therefore concludes that the site has a good potential to be supportive of Local Plan cycling aims.

Providing suitable opportunities to walk from the site are best considered in the context of the 20-minute neighbourhood principles, and inherently therefore with an awareness of providing connectivity to local shopping, education and employment destinations.

The evidence provided by Calibro identifies that it would be possible to deliver the site in broad compliance with the 20-minute principles – and identifies the opportunity to improve local service provision for existing residential areas in the west of the Town, with the proposed on-site primary school and neighbourhood centre. The proposed footway along Chawton Park Road would help to facilitate onward connections towards the town centre. Therefore, at this point it is considered a deliverable scheme.

The provision of a new footway under the Northfield Lane Railway Bridge would be desirable if the draft employment allocation of employment land under Policy SA24 came forward. However, it is also noted that the footway through the Northfield Lane bridge would offer wider benefits by helping to remove the existing severance effect of the bridge. The review of the evidence provided to support the delivery of this footway demonstrates that it is physically achievable.

With regards to sustainable transport, the evidence provided by Calibro, and the additional analysis of the existing provision across the Local Plan area undertaken by Systra, is considered to stand up to public scrutiny and demonstrate compliance with the principles of sustainable development and help to deliver the Council's Local Plan objectives. The provision of the bus gate on Chawton Park Road is seen as a strong measure in the context of addressing modern private vehicle use and future highway interventions that Highway Authorities are likely to need to address at some point.



Issue 3 - Whether the current position of objection of Hampshire County Council, as the relevant Highway Authority, is justified considering your conclusions to the preceding questions, and whether you consider that position is likely to be sustainable at Examination in Public?

Consideration of this point is a function of the responses to issues 1 and 2, and their resolution. While there are minor technical improvements suggested to the capacity modelling, Systra's review has determined these to be of a level that would not affect the current conclusions. Systra also note that those refinements to the modelling are normally associated with detailed planning applications, and at this stage, analysis beyond proving safe and efficient access. Should the site be included as a Proposed Allocation, we would however advise that updated assessments of the required highway mitigation models are undertaken to ensure complete rigour in the Council's evidence base.

On the basis of the advice above, the detail of which is covered in technical notes GB01T22B09-TN001 and GB01T22B09-TN002 Systra consider that the level of technical assessment and design work undertaken to date is proportionate. We consider that Hampshire County Council, in their role as Local Highway Authority have correctly raised areas of concern, however these issues appear to be both resolvable, and can be expected to be resolved during the normal course of a planning application.

As such, in conclusion, the analysis and review produced by Systra identifies that the evidence produced by Calibro can be relied upon for the purposes of deciding whether the site merits inclusion as a draft Allocation and that any further modelling can be updated without risk to significant changes to the overall conclusions.

Yours Sincerely,

Scott Cooper
Principal Transport Planner

Copies:

████████████████████

Redrow Homes Limited



TECHNICAL NOTE

CHAWTON PARK HIGHWAY ACCESS REVIEW

IDENTIFICATION TABLE	
Project	Chawton Park, Alton, East Hampshire
Title of Document	Chawton Park Highway Access Review
Document reference	GB01T22B09-TN001.
Type of Document	Technical Note
Date	19/05/2022
Number of pages	15

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1. INTRODUCTION

1.1 Context

- 1.1.1 SYSTRA has been commissioned to provide an independent review of evidence produced by Calibro in support of the on-going promotion of Chawton Park Garden Village, Alton through the emerging EHDC Local Plan. The development is being promoted for up to 1,200 dwellings in Alton, East Hampshire. The development will also include a two form primary school, neighbourhood centre and possibly employment land.
- 1.1.2 The site has a history of housing development proposed and was submitted to East Hampshire District Council large sites consultation, as part of their local plan development.
- 1.1.3 The planning authority have previously considered the site as a potential preferred site, but the Local Plan is currently preceding with no preferred sites, rather that sites should have technical studies undertaken to ensure delivery is possible.
- 1.1.4 We understand Hampshire County Council (as the Local Highway Authority) has objected the application on sustainability and capacity grounds, focusing on the impact of the Northfield Lane bridge, the replacement of which would require involvement of a third party. The developer has produced technical reports with the aim of satisfying the LHA that a solution is deliverable.
- 1.1.5 In line with our instruction, our review is considers whether the evidence produced can be considered to have met the following issues:

Issue 1: Whether sufficient transport evidence has been prepared to demonstrate, to the level required for a Local Plan, that there are no barriers that would preclude delivery of Chawton Park Garden Village within the Plan Period, having particular regard to the Northfield Lane Bridge;

Issue 2: Whether the delivery of new homes at Chawton Park Garden Village would accord with the principles of sustainable development, taking into account its individual merits relative to reasonable alternatives and statements from the local bus operator and Sustrans; and

Issue 3: Whether the current position of objection of Hampshire County Council, as the relevant Highway Authority, is justified considering the conclusions to the preceding questions, and whether their position is likely to be sustainable at Examination in Public.

- 1.1.6 To ascertain the appropriateness of the Local Highway Authority's (Hampshire County Council) consideration of impacts of the development, for inclusion in the Local Plan, the following reports have been reviewed, in addition to correspondence with Hampshire County Council (HCC) on which their current objection is evidenced:

- Technical Note TP01 – General Briefing
- Technical Note TP02 – Sustainability and Means of Access
- Technical Note TP03 – Northfield Lane Bridge
- Technical Note TP04 – Highway Capacity

- 1.1.7 Systra have produced two notes to detail this review, as well as a non-technical summary letter, to respond to the three issues Systra have been commissioned to address.

- 1.1.8 Technical Note 1 reviews the technical assessment of the highway proposals put forward with this development site. This note considers the technical accuracy of these assessments to determine whether the evidence produced by Calibro is sufficient to determine if highway access to the proposed development is achievable, in the context of the promotion of this site through the Local Plan. This allows Issue 1 to be addressed.
- 1.1.9 Technical Note 2 has considered Calibro's evidence in relation to the traffic generation of this site, and its likely distribution onto the network, considering how this relates to the means of access for all modes, and the potential performance of the site in relation to sustainable transport in the context of East Hampshire. This allows Issue 2 to be addressed.
- 1.1.10 With regards to issue 1, It is understood that the Local Highway Authority has specific concerns relating to the highway network, based on the safe operation of Northfield Lane at the point it travels under the railway (this is a third party bridge that has a heritage line operating across it), and how these signals will interact with the A31 / A32 roundabout that exists immediately to the south of the proposed signals. As such, this note will:
- Provide a high level review of the design context of Northfield Lane, and the signals associated with the Rail Bridge;
 - Undertake a technical review of the Calibro models used to confirm the proposed signal scheme on Northampton Lane, and the nearby A31 / A32 roundabout operates with the appropriate capacity results, specifically the models associated with note TP03;
 - Consider the flows used to feed into the capacity analysis reported in TP03; and
 - Provide the results of an assessment undertaken by Systra, taking into account the technical review and likely flows that a future Transport Assessment would require
- 1.1.11 The actions above will allow a commentary to be made on whether the proposed access arrangements have been considered in enough detail to provide confidence that the proposed means of access to the site is acceptable in the context of including the Site as a Draft Allocation within the emerging Local Plan. This report will therefore review the information and analysis produced to assess the development impact and suitability of proposed mitigation measures on Northfield Lane and the A31 / A32 roundabout. As such, this note primarily reviews the evidence associated with TP03, primarily the evidence produced to demonstrate access to Chawton Park Farm and detail the impact on Northfield Lane, and its connection with the A31. This review allows a commentary to be made on how the proposed mitigation addresses viable and safe access to the site.
- 1.1.12 We note that a Bus Gate has been considered in TP04, with its resulting impact considered in terms of diverted trips. Consideration of the Bus Gate has been considered in the potential to enhance sustainability potential of the site.

2. MEANS OF VEHICLE ACCESS

- 2.1.1 Systra have reviewed information within the four notes provided to identify the access layout information that has been provided by Calibro. This is to allow consideration of whether there is likely to be any barrier to access in the context of the site being delivered within the plan period.
- 2.1.2 Systra have interpreted the level of evidence required for a local plan to be:
- Show that physical access by vehicles is possible
 - Provide evidence to the Local Highway Authority to enable a check against relevant standards to be made, to allow consideration of specific design issues that may result in vehicle access being undeliverable and unsafe
 - Show that transport capacity is available in the context of Local Plan policy
- 2.1.3 Within the four technical notes provided, Calibro have provided the following information with regards to vehicle access:
- Section 2.4 of note TN02 which details the proposed shuttle working layout for the Northfield Bridge.
 - Section 2 of TN03, which illustrates Access Strategy, including its interaction with Chawton Park Road and Northfield Lane
 - Drawings BR-617-0002_SK01-RevA Proposed Site Access and BR-617-0002-SK02_RevB Signalised Shuttle Working shows the layout of the site access and the proposed mitigation along Northfield Lane.
- 2.1.4 Note that this review has not undertaken a review against specific highway standards (for example DMRB or Manual for Streets) rather it looks to consider whether Calibro have provided information that demonstrates physical access is possible.
- 2.1.5 We understand that the Local Highway Authority have raised specific concerns about conflict through the Northfield Lane rail bridge, as this section of highway could be considered to be too narrow to operate as a two way uncontrolled link, and consideration of the junction between Northfield Lane and Chawton Park road related to forward visibility and conflict between oncoming vehicles, due to the sharp turn from Northfield Lane to Chawton Park Road in both directions.
- 2.1.6 From our review, we consider that Calibro have provided sufficient information to show that physical access to the site is possible, as Calibro have provided:
- A layout that is within the highway boundary, where the proposals change the current layout
 - Geometry identified on drawing BR-617-0002_SK01-RevA, so that design guidance can be checked by the Local Highway Authority if required as well evidencing the improvement of Northfield Lane's junction with Chawton Park Road to a layout more in keeping with current standards
 - Vertical consideration of operation through the Northfield Bridge in drawing BR-617-0002-SK02_RevB
- 2.1.7 The information, particularly that contained within the drawings identified, can be considered to demonstrate access is achievable, and is therefore unlikely to result in a sustainable objection at Examination in Public. The evidence is therefore considered proportionate.

3. TECHNICAL REVIEW OF MODELS

3.1 Model Build

3.1.1 The proposed mitigation introduces a change in the operation of Northfield Lane, that could impact operational capacity, and the development traffic can have a significant impact, in the immediate vicinity of the site. Therefore the capacity analysis provided by Calibro has been reviewed.

3.1.2 The information included within TP03 includes two models in the appendices. There is a model associated with the A31 / A32 / Northfield Lane roundabout, and a model associated with the proposed signalisation of Northfield Lane rail bridge. The model associated with the Northfield Lane rail bridge is the model from which the results reported within TP03 are derived from. The Northfield Lane rail bridge model includes in it the A31 / A32 Northfield Lane roundabout, to consider any interaction between Northfield Lane and the A31 / A32 / Northfield Lane Roundabout.

A31 / A32 / Northfield Lane Roundabout

3.1.3 The file “A31 - Northfield Ln_Lane Simulation - Future.j9” has undergone a technical review. This report is included in **Appendix A**.

3.1.4 The junctions 9 model itself is run in lane simulation mode. This is not advised for reporting of capacity results per se, only in determining if there is potential lane starvation issues that the geometry based capacity model would fail to consider. The geometry recorded in this file is shown in **Table 1**.

Table 1. TP03 - Geometry Recorded for file A31 - Northfield Ln_Lane Simulation – Future.j9

Arm	V - Approach Road Half Width (m)	E - Entry Width (m)	l' - Effective Flare length (m)	R - Entry radius (m)	D - Inscribed Circle Diameter (m)	PHI - Conflict (entry) angle (deg)
1- Northfield Ln	2.9	7.1	23.1	30.2	135.4	6
2 - A31 WB	6.6	6.6	0	48	130.8	31
3 - Winchester Rd	3.5	4.3	2	14.2	136	45
4 - A32	3.5	7.1	41.7	82.4	137.7	26
5 - A31 EB	6.9	7.8	5.6	77.6	137	21

3.1.5 Following review of the TP03, it was identified the geometry shown in the technical note doesn't relate to the existing situation. In particular, Northfield Lane appears to show geometry of a larger approach. Following a clarification request, additional information was provided by Calibro. This information provided is listed below:

- 20-347-20-100 Arcady Measurements A31 Existing
- 20-347-20-101 Arcady Measurements A31 Option 1A
- 20-347-20-102 Arcady Measurements A31 Option 1B
- 20-347-20-103 Linsig Measurements A31 Existing
- 20-347-20-104 Linsig Measurements A31 Option 1A
- 220108_A31 Roundabout_Existing Format - Full Input Data And Results (linsig output file)

3.1.6 This additional information was provided as pdf's.

3.1.7 Furthermore, to allow a comparison against geometry measurements previously reviewed and accepted by the Local Highway Authority, the geometry for the A31 / A32 junction as

used in the application for the Lord Mayor Treloar Development, as recorded in the transport assessment associated with that development, was extracted. This information is shown in **Table 2**.

Table 2. Treloar Application – Geometry recorded for file A31 – A32 Roundabout – TA.arc7

Arm	V - Approach Road Half Width (m)	E - Entry Width (m)	l' - Effective Flare length (m)	R - Entry radius (m)	D - Inscribed Circle Diameter (m)	PHI - Conflict (entry) angle (deg)
1- Northfield Ln	2.9	5.45	16.6	27.4	135.4	42
2 - A31 WB	7.05	7.05	0	47	130.8	21
3 - Winchester Rd	3.4	3.99	6.2	16	136	45
4 - A32	3.5	6.82	21.6	47.1	137.7	32
5 - A31 EB	6.9	6.9	0	63.5	137	33

3.1.8 While generally similar, there were notable differences in the geometry, in particular in relation to the Northfield Lane arm.

3.1.9 When modelling priority controlled roundabouts, the following aspects are likely to raise concerns to a detailed review, as they suggest a layout that does not fit with what design requirements would suggest:

- A entry radii over 60m, which identifies a risk that design parameters related to deflection may not be represented in the model.
- A conflict angle less that 15 degrees or more than 60 degrees,
- Duel carriageway two lane (or more) approaches recorded with no flare, if the two lanes of the duel carriageway

3.1.10 The junctions 9 file within TP03, when comparing the advice above, and when comparing Table 1 with Table 2, suggest that the Local Highway Authority may raise concerns with the geometry of the Northfield Lane approach, and a slight consistent undermeasurement of the conflict entry angle on all arms.

3.1.11 The junction 9 geometry based analysis identified above does not directly report capacity results in TP03, rather the junction 9 geometry has been used to provide input to the linsig file that is used to report results within TP03. Specifically, the saturation flow and intercept values for all the approach arms of the A31 / A32 / Northfield Lane roundabout as defined by the Junctions 9 assessment, act as inputs to the linsig file that assesses the proposed signalisation of the Northfield Lane Bridge, and its interaction with the A31 / A32 / Northfield Lane Roundabout.

3.1.12 Therefore the saturation flow and intercept values recorded in the following files are shown in **Table 3** for saturation flow and **Table 4** for intercept:

- A31 - Northfield Ln_Lane Simulation – Future.j9 (within TP03)
- 220108_A31 Roundabout_Existing Format.lsg3 (within TP03)
- A31 – A32 Roundabout – TA.arc7 (within the Lord Mayor Treloar TA)

3.1.13 These values determine the capacity of the A31 / A32 roundabout, and therefore, while they are not the primary focus of the mitigation (that being the signalisation on Northfield Lane under the rail bridge) they do influence how the A31 / A32 roundabout performs, and how the signals link to the roundabout, particularly in terms of traffic flow rates and risk of queuing back from the roundabout to the proposed signals.

Table 3. A31 / 32 roundabout – Saturation Flow Comparison

Saturation Flow			
Arm	TP03 - File A31 - Northfield Ln_Lane Simulation - Future.j9	TP03 - file 291121_Chawton Park_Option 1a_Shuttle Working_A31 Roundabout_Mitigation - AM.lsg3x	Lord Mayor Treloar application file - A31 - A32 Roundabout TA.arc7
1- Northfield Ln	2646	2247	2158
2 - A31 WB	2733	2686	2964
3 - Winchester Rd	1885	1654	1921
4 - A32	2763	2584	2549
5 - A31 EB	3090	2912	2840

Table 4. A31 / 32 roundabout –Intercept Comparison

Intercept			
Arm	TP03 - File A31 - Northfield Ln_Lane Simulation - Future.j9	TP03 - file 291121_Chawton Park_Option 1a_Shuttle Working_A31 Roundabout_Mitigation - AM.lsg3x	Lord Mayor Treloar application file - A31 - A32 Roundabout TA.arc7
1- Northfield Ln	1.044	0.72	0.839
2 - A31 WB	1.069	1.03	1.148
3 - Winchester Rd	0.738	0.61	0.745
4 - A32	1.07	0.94	0.985
5 - A31 EB	1.199	1.04	1.095

- 3.1.14 When using the ARCADY model in junctions 9 to provide saturation and intercept values to input into linsig, it is the geometry values from the standard model (as opposed to lane simulation) that are used.
- 3.1.15 This review of the A31 / A32 roundabout element of the assessment can conclude that, within TP03, the geometry of Junctions 9 file A31 – Northfield_Ln_Lane Simulation – Future.j9 does not relate to the linsig file on which the reported results are based.
- 3.1.16 However, Systra note that the saturation flow and intercept values in the linsig file TP03 – file 291121_Chawton Park_Option 1a_Shuttle Working_A31 Roundabout_Mitigation – AM.lsg3x appears within expected variation of the Lord Mayor Treloar assessment previously approved, and so it is not expected that a long term objection would be held against the reported results as far as the interaction with the A31 / 32 roundabout is concerned.
- 3.1.17 Note that within the linsig file the saturation flow and intercept is split between multiple lanes, with the values suggesting lane specific geometry measured. This is not specifically displayed as a geometry drawing in TP03. While this could be considered the most accurate way to measure the saturation flow and intercept values, there are specific issues related to arms that have approaches where the number of approach lanes falls between whole numbers of lanes, such as the Northfield Lane approach.
- 3.1.18 Therefore, we would recommend, to further support the rigour of Examination in Public and a potential future planning application, that the saturation flow and intercept is taken from the Lord Mayor Treloar A31 / A32 junction assessments, and when input into linsig, for any approaches where there are multiple lanes, the saturation flow and intercept values are divided between the number of lanes when input, rather than lane specific measurements.

3.1.19 For the avoidance of doubt, however, we consider that these are refinements to the model which would not be expected to materially alter the results of the modelling and therefore that the conclusions drawn from the current modelling remain valid. In this context, we suggest that the current modelling provides sufficient comfort on which to inform the emerging Local Plan.

Northfield Lane Bridge Signalisation

3.1.20 The file “291121_Chawton Park_Option 1a_Shuttle Working_A31 Roundabout_Mitigation - AM.lsg3” has undergone a technical review. This report is included in **Appendix A**.

3.1.21 This model includes two arms associated with the signalisation of the bridge, as well as all approaches and circulatory arms associated with the A31 / A32 roundabout. With regards to the lane specific capacity inputs for the A31 / A32 roundabout, this is input from the Junctions 9 assessment, which is covered above in the section entitled **A31 / A32 / Northfield Lane Roundabout**.

3.1.22 When modelling priority controlled roundabouts within linsig, the following aspects apparent in file *291121_Chawton Park_Option 1a_Shuttle Working_A31 Roundabout_Mitigation - AM.lsg3* are likely to raise the following concerns to a detailed review:

- The priority arms approaching the roundabout do not give way to all circulating traffic.
- Representation of Northfield Lane approach as a 2 lane approach, when it is marked as a single lane.

3.1.23 Additionally, it is advisable to keep individual lane lengths on roundabout circulatory arms, including any custom lane length adjustments, as while they may vary slightly on the ground, in terms of routing, keeping the lengths the same prevents routing of vehicles based on very minor route distances.

3.1.24 As there is no precedent with previous applications related to the signalisation of Northfield Lane Bridge, we have not reviewed the signal operation against any previous layout or modelling.

3.1.25 When modelling signal operation within linsig, the following aspect apparent in file *291121_Chawton Park_Option 1a_Shuttle Working_A31 Roundabout_Mitigation - AM.lsg3* are likely to raise the following concerns to a detailed review

- The intergreen between phases A and B do not allow sufficient clearance between the two traffic phases travelling north and south through the bridge.

3.1.26 Therefore, we would recommend, going forward, that the intergreens are adjusted to 11 sections between A-B and B-A. The current intergreen value is 7 seconds and so we determine this is unlikely to result in a material change to the model. However, it is recommended to make this change for any future modelling that may be undertaken.

Conclusion

3.1.27 There are three points listed above would likely result in technical objections to the linsig model that produces that would require the assessment model updating, were they part of a model that supported a planning application that required agreement with the Local Highway Authority. This level of assessment (site specific individual junction assessment)

could be considered in excess of what is required for a Local Plan as the changes are unlikely to materially alter the overarching conclusions to support the case for/against the Site’s inclusion in the emerging Local Plan. Notwithstanding, it is advised that, going forward the individual junction models should be updated to action the comment above,.

4. ASSESSMENT FLOWS

4.1 Base flows

- 4.1.1 A survey was undertaken in 2021. This was during Covid, and therefore underwent a factoring process based on pre covid flows on the A31, which we understand the Local Highway Authority agreed. As part of this review, Systra have undertaken an additional review of the base data that forms the basis on which capacity based conclusion are made, by comparing it to the outputs from the assessments that were included in the Lord Mayor Treloar application.
- 4.1.2 The flows derived and agreed within the Lord Mayor Treloar application were used as a reference point to the adjusted survey counts used by Calibro in there analysis. The Lord Mayor Treloar assessments had a future assessment year of 2020, projected from surveys in 2014. Therefore, the traffic flows from figures 7.18 (2020 AM Base + Committed Development + Development Traffic) and figures 7.19 (2020 PM Base + Committed Development + Development Traffic) were compared to the Calibro adjusted survey flows from 2021. These are shown in **Table 5**.

Table 5. Comparison of traffic flows at A31 / A32 roundabout

Arm	Flow Comparison			
	AM Peak		PM Peak	
	Chawton Park Adjsuted Survey	Lord Mayor Treloar Application	Chawton Park Adjsuted Survey	Lord Mayor Treloar Application
1- Northfield Ln	171	223	177	319
2 - A31 WB	923	900	1222	1324
3 - Winchester Rd	59	28	68	24
4 - A32	557	777	506	301
5 - A31 EB	1034	1095	899	754
Total	2744	3023	2872	2722

- 4.1.3 This comparison suggests that the adjusted survey information used by Calibro is accurate, particularly given that the Lord Mayor Treloar predicted flows include the full development associated with that permission, where the development is not yet fully built out on the ground.

Conclusion

- 4.1.4 The data collection and adjustment undertaken by Calibro is in line with what would be expected without Covid restriction, and would not be a reason for an objection through to Examination in Public. Additionally, the comparison with the Lord Mayor Treloar data collection, based in 2014 surveys, shows a strong correlation to predicted growth, suggesting that the network in the area currently has stable travel patterns.

4.2 Future Year Local Plan Assessments – Systra Generated Flows

- 4.2.1 To allow a judgement to be made on the operation of the proposed Northfield Lane signals and A31/32 roundabout, Systra have created future year flows appropriate for assessment at the end of the Local Plan period.

4.2.2 The detail of the expected traffic flows associated with the local plan, and the expected traffic flows from the development, is considered in Systra technical note GB01T22B09-TN002. Chawton Park Sustainability. Specifically TEMPro growth rates and development traffic generation and distribution are reviewed in the context of full trip generation of the proposed development by all modes, and the potential to facilitate sustainable transport choices. The Systra generated trip rates, distribution, and TEMPro growth rates are replicated in Tables 6, 7 and 8 respectively.

Table 6. Systra Trip Rates and Development Traffic

trip rate	AM PEAK (07:00-08:00)			PM PEAK (17:00-18:00)		
	IN	OUT	TWO-WAY	IN	OUT	TWO-WAY
Per Dwelling	0.135	0.366	0.501	0.336	0.157	0.493
TRICS DATABASE	162	439	601	403	188	592

Table 7. Chawton Park Distribution

DESTINATION	ROUTE	% OF TRIPS
Alton	A31 East	72% (25% Alton)
Fleet		
Bordon		
Haslemere	A31 West	9%
New Alresford		
Winchester		
Petersfield	A32 South	3%
Basingstoke	A339 North	16%

Table 8. Current TEMPro Rates

PEAK	ROAD CLASSIFICATION	RTF18
		2021-2036
AM	Rural Trunk	1.1371
PM	Rural Trunk	1.1441

4.2.3 These have been added to the flows from figures 7.18 and 7.19, from the Lord Mayor permission, as reported in **Table 5**. This results in 2036 turning counts that can be assessed in a linsig model of the Northfield Lane signals and A31 / A32 roundabout for the following scenarios:

- 2036 Do Minimum
- 2036 Do Something (No Chawton Park Road Bus Gate)
- 2036 Do Something (Bus Gate on Chawton Park Bus Gate)

- 4.2.4 The bus gate proposed on Chawton Park Road has the result of increasing the level of development traffic travelling south along Northfield Lane and then turning left at the Northfield Lane approach to the A31/ A32 roundabout.
- 4.2.5 Note that, with a bus gate, a switch to modes other than driving would be expected, which is not reflected in the flows reported in **Appendix B**. This potential shift, and its contribution to sustainable transport goals, which is considered in note GB01T22B09-TN002. Chawton Park Sustainability.

5. ASSESSMENT

5.1 Model and flows

- 5.1.1 The linsig file provided by Calibro for review, which produced the results as reported in TP03, was updated with all the comments reported in the technical review sheets, as detailed in **Appendix A**. This updated model then had the flows added to it, as determined in **Section 4.2**.
- 5.1.2 The results shown below detail the operation of the proposed signalisation of the Northfield Lane Bridge into Shuttle working.

Table 9. Signalised Shuttle Working – Northfield Lane Bridge Mitigation

Northfield Lane Signals	Link	AM PEAK (07:00-08:00)			PM PEAK (17:00-18:00)		
		RFC	Queue	Cycle Time	RFC	Queue	Cycle Time
2036 Do Minimum	Northfield SB	47.40%	3.3	50	63.40%	5.2	50
	Northfield NB	52.00%	2.7	50	59.80%	3	50
2036 With Development (no Bus Gate)	Northfield SB	80.40%	9.3	57	87.70%	10.8	60
	Northfield NB	76.50%	5.5	57	88.50%	10	60
2036 With Development (Bus Gate)	Northfield SB	84.1	16	79	89.60%	16.9	90
	Northfield NB	83.80%	9.4	79	90.00%	17.6	90

- 5.1.3 Comparison of these results with those reported by Calibro in TP03 and TP04 represents an independent check on the operation of the proposed shuttle working of the Northfield Lane bridge, and demonstrates that the Calibro results fall within what Systra has independently produced. We can therefore conclude that the conclusions made with regards to capacity for the signalised Northfield Bridge made by Calibro is within the range of Systra’s independent checking.
- 5.1.4 The modelling does include the existing layout of the A31 / A32 roundabout. Systra have only considered this in its existing form within the modelling. The Northfield Lane Approach to this roundabout, in the AM peak with development records a capacity result of 96% without the bus gate, and 130% with the bus gate. No other capacity results are over 90%. Therefore going forward at application, the main focus would be balancing the demands of sustainable travel design against strategic highway capacity.

6. CONCLUSION

- 6.1.1 While there are updates to the assessments we would recommend, as detailed in this note, for future modelling assessment, systra do not believe that there are barriers that would preclude delivery of Chawton Park Garden Village within the Plan Period, having particular regard to the Northfield Lane Bridge, and that no objection is likely to be sustainable at Examination in Public.

APPROVAL

Version	Name	Position	Date	Modifications
			20/5/22	
			20/5/22	FINAL
			31/5/22	

Appendix A – Model Technical Reviews

Chawton Park, Alton, East Hampshire	Technical Note
Application Review	19/05/2022

Junctions 9 Checking Sheet

Job Name: Chawton Park
Job No: GB1T22B09
Note No: 001
Date: 25/04/2022
Prepared By: ██████████
Subject: A30 / A31 Rbt

1.0 Introduction

1.1.1 An audit has been carried out on the following model:

A31 - Northfield Ln_Lane Simulation - Future.j9

Note that this Junctions 9 file seems to exist primarily as an input into linsig, providing sat flow and intercept values, therefore, while commentary is included associated with flows, this does not require action.

2.0 Junctions 9 Model Review

2.1.1 Table 1 contains the results of the Junctions 9 model audit.

Table 1: Model Audit Results

Ref.	Junctions 9 Parameter	Comment	Suggested Action
A	Model Setup		
1	Junction Type	Large Roundabout - Correct	
2	Are arms clearly labelled?	Yes	
3	File Description	OK	
B	Data > Units		
1	Traffic Flows	Not Reviewed against flows that report results in the technical note TP03.	
2	Traffic Units	PCU	
C	Demand Sets		
1	Traffic Profile Type	Direct – flows appear to be input for lane simulation results only, and are based on direct measurements taken from a count. It is therefore an accurate assessment method. Note that if this model is to be used for input to linsig, this is not relevant.	
2	Time Segment Length	15 minutes, counts directly linked to segments.	
3	Are all demand sets included?	yes	

Junctions 9 Checking Sheet

Ref.	Junctions 9 Parameter	Comment	Suggested Action
D <i>Junction Geometry</i>			
1	Arm Geometry	<p>The Phi conflict angle seems generally a little low for all arms, with the value recorded for Northfield Lane being very low. The geometry plan has circular constructs for the circulatory angles, and is likely the cause, as they should be straight, tangential to entry.</p> <p>Northfield Lane has geometry that suggests a multi lane approach, with all values too big. This is likely related to the geometry being referenced to a mitigation drawing</p> <p>A31 approaches shouldn't have flares, as they have same number of lanes approaching and entering roundabout.</p>	<p>Phi conflict angle re-measured with 'straight line' to form the circulatory path.</p> <p>A31 geometry flares removed to reflect 2 lane duel carriageway approach.</p> <p>For Northfield Lane base on clear plan.</p>
2	Pedestrian Crossings	Not included - acceptable	
3	Calibration	n/a	
E <i>Traffic Flows</i>			
1	O-D Matrix	OK	
2	Vehicle Mix	OK	
F <i>Lane Simulation</i>			
1	Lanes	Accurate to A31/32 layout 1A	Note that lane simulation is not recommended for use as capacity consideration, only to test for lane starvation issues.
2	Assign Lanes	Accurate to A31/32 layout 1A	
G <i>Results</i>			
1	RFC	Not checked, as not reported in note.	
2	Delay	Not checked, as not reported in note.	
3	Queueing	Not checked, as not reported in note.	

Summary

The layout that the model relates is not clear in the report, so the summary below relates to actions related to modelling the existing layout.

1. Phi a little low in general, very low on Northfield Lane
2. Northfield Lane not representative of exiting layout
3. A31 approaches, given the specific type of layout, shouldn't have flares.

LinSig Checking Sheet

Job Name: Chawton Park
Job No: GB1T22B09
Note No: 002
Date: 18/05/22
Prepared By: Scott Cooper
Subject: **A30 / 31 and Northfield Lane Bridge**

1.0 Introduction

1.1.1 An audit has been carried out on the following model:
291121_Chawton Park_Option 1a_Shuttle Working_A31 Roundabout_Mitigation - AM.lsg3x

2.0 LinSig Model Review

2.1.1 Table 1 contains the results of the LinSig model audit.

Table 1: Committed Scheme Model Audit Results

Ref.	LinSig Parameter	Comment	Suggested Action
A <i>Controller List View / Edit Controller</i>			
1	Controller definition(s).	OK	
2	Stage streams.	OK	
3	Phase minimums.	Minimum on phase C can be reduced to 5 seconds	Adjust
B <i>Network Layout View (General)</i>			
1	Edit Junction View.	OK	
2	Do arms/lanes reflect junction layout?	Arms 1:3 and 2:2 can be removed as they are not required. Arm 2:1 (northfield lane) should be modelled as a single lane approach for the existing layout. The A32 approach (arm 2:10) should have a 40m flare, rather than 2 long lanes. Circulatory arms made unconstrained to prevent artificial flow constraint.	Remove 1:3, 2:2 and 2:1/1. Turn lane 2:10/1 into a 40m short lane
3	Traffic movement link connectors.	Reflect the lane specific movements available at the junction	
4	Link connector cruise times/speeds.	All cruise speeds associated with entry links are set at 40mph, except those entering Arm 2:10 EB circ, from Arm 2:8 winchester road. These should be updated to 40mph. All exit arms based on exit speed limit.	Update cruise speeds between 2:8 and 2:10.
5	Platoon dispersion coefficients (i.e. disable on short links such as roundabout circulatory lanes).	Includes on roundabout as its priority controlled. Acceptable.	
C <i>Traffic Flows View</i>			
1	Do values agree with source flows?	n/a	
2	Flow scenario definitions.	n/a	

LinSig Checking Sheet

Ref.	LinSig Parameter	Comment	Suggested Action
3	Auto assign OD flows selected?	ok	
D	Traffic Flows (Route List View & Matrix Estimation View)		
1	Permitted routes.	OK	
2	Locked flows.	OK, none	
3	Matrix estimation.	None	
E	Phase View & Intergreen View		
1	Phase definitions / stage streams.	OK	
2	Phase minimums.	Ped phase can have green man time of 5 seconds, recorded as 7.	Update minimum green for phase C to 5 seconds
3	Phase intergreens / ped. clearances.	Intergreen between phases A and B too low, with values of 5 and 7 recorded when they both should be 11 seconds.	Update to 11 seconds for changes between A and B
F	Stage View		
1	Phases and stages.	OK	
G	Network Layout View / Edit Lane View / (General View & Lane Details View)		
1	Lane control / phase allocation	OK	
2	Lane lengths.	OK, but update lane lengths of Arms 2:1 and 1:4 to compensate for the loss of arms 1:3 and 2:2. While circulatory arms within the A31 / A32 junction are accurate, they have been adjusted to match on circulatory	Update lengths as described.
3	Custom Occupancy	Utilised, within the circulatory kept consistent to avoid abnormal routing.	
H	Network Layout View / Edit Lane View / (Entry Lane Cruise Time/Speed, Sat. Flow & Multi-lane Views)		
1	Default Cruise Time	Ok	
2	Lane saturation flows.	Signalised arms ok. Priority controlled arms to use	
3	Multiple lane representation.	Ok	
4	Flare saturation flows.	n/a	
I	Network Layout View / Edit Lane View / (Advanced View & Flows: General Traffic View)		
1	Effective green displacements.	None, ok	
2	Optimiser queue constraints.	None, ok	
3	Optimiser weightings.	None, ok	
4	Ignore random delay (i.e. short links on a signalised roundabout).	None, not appropriate for priority roundabout elements.	
5	Queue de-sliver.	Included on northbound bridge signal and Northfield Lane A31 rbt approach to prevent sliver queues less than 1 vehicle long.	Add 0.5 sliver queue value to arm 1:4
6	Entry profiles.	Ok	
7	Flows: General Traffic View	N/A	
J	Network Layout View / Edit Lane View / Storage in Front of Stop-line & Non-blocking Storage Views		
1	Right turn storage settings.	n/a	
2	Non-blocking storage.	n/a	
K	Network Layout View / Edit Lane View / Movement Give Way Data View		
1	Give-way lanes/movements.	All give way lanes are modelled as such.	

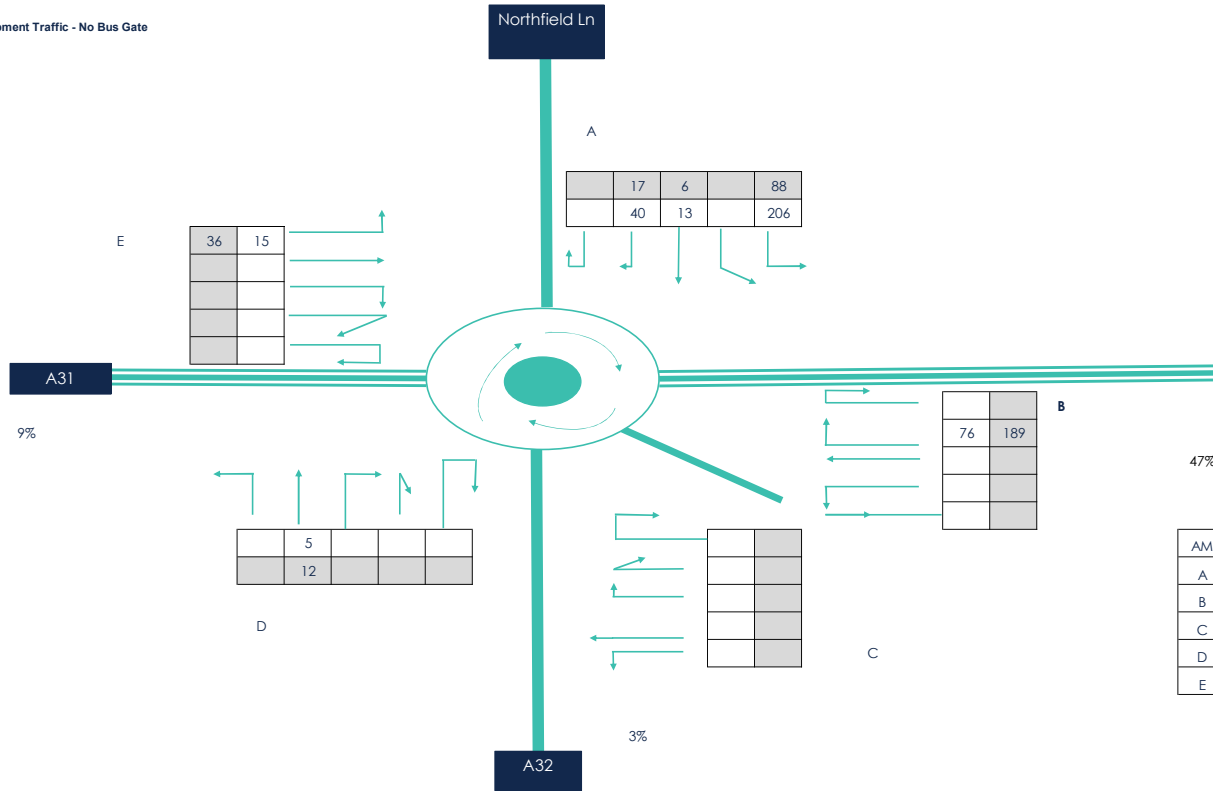
LinSig Checking Sheet

Ref.	LinSig Parameter	Comment	Suggested Action
2	Opposing links.	Give way on roundabout approaches should be for all circulatory movements, as the sat flow and intercept values are based on data that considers all movements.	Updated so that all circulatory give way.
3	Opposing Traffic Stopped flows.	Use maximum flow while giving way value, rather than lane saturation value. Lane saturation only for signalised arms.	Update all priority controlled arms to 'maximum flow while giving way value'.
4	Maximum flows.	ok	
5	Opposing lane coefficients.	Broadly accurate, although should match a geometry based on a junctions 9 assessment that can be directly referenced.	For Systra assessments, these were matched to Lord Mayor
6	Clear conflict times.	n/a	
L	Stage Sequence View (for Each Scenario)		
1	Stage sequence(s).	ok	
M	Network Control Plans View & Scenarios View		
1	Stage sequence(s) in Plan(s).	ok	
2	Named Scenarios.	n/a	
3	Scenario Flow Groups & Plans.	n/a	
4	Optimiser Settings View	ok	
N	Interstage View (for Each Stage Stream)		
1	Permitted stage changes.	ok	
2	Phase delays.	ok	
O	Signal Timing View (for Each Scenario / Stage Stream)		
1	Cycle time(s).	ok	
2	Maintain Cycle Time.	ok	
3	Allow Edit Timings.	ok	
4	Double/triple settings correct.	ok	
5	Are any stages / offsets locked?	ok	
P	Optimisation		
1	Traffic flow assignment.	ok	
2	Model optimisation.	ok	
Q	Model Output Results		
1	Degrees of saturation	ok	
2	Circulatory link queues	n/a	

Note that the exact layout that the model audited related to was not clear, so comments related to the A31 / A32 roundabout assume the existing layout is being modelled

Appendix B- Assessment Turning Flows for Linsig

Development Traffic - No Bus Gate



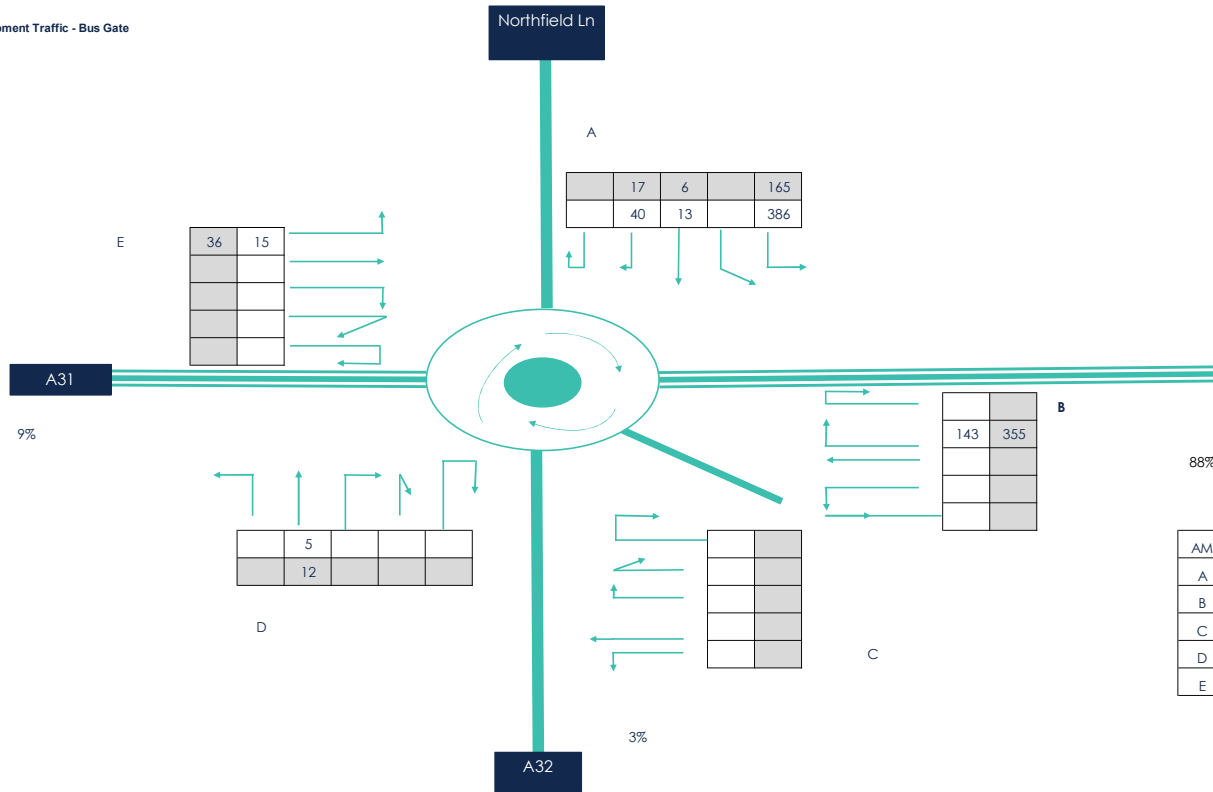
47% 47

AM	A	B	C	D	E
A	0	206	0	13	40
B	76	0	0	0	0
C	0	0	0	0	0
D	5	0	0	0	0
E	15	0	0	0	0

PM	A	B	C	D	E
A	0	88	0	6	17
B	189	0	0	0	0
C	0	0	0	0	0
D	12	0	0	0	0
E	36	0	0	0	0

3%

Development Traffic - Bus Gate

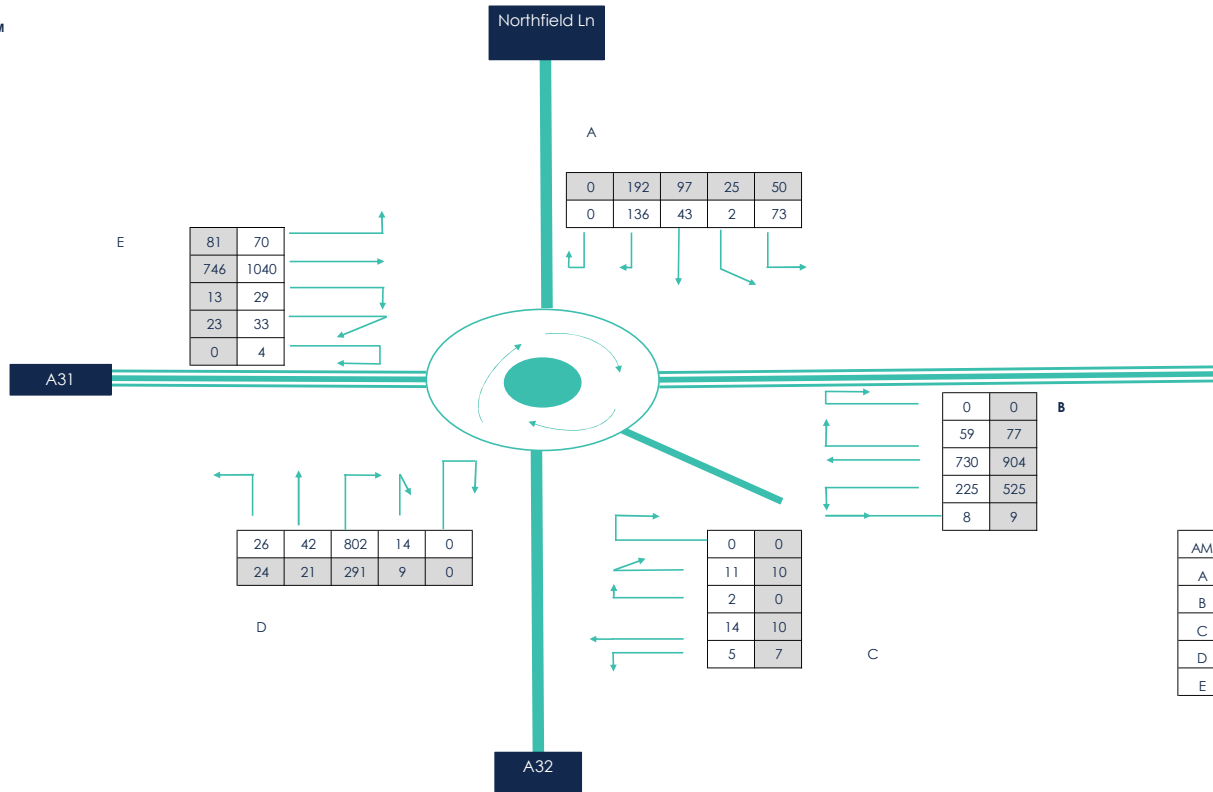


88% 47

AM	A	B	C	D	E
A	0	386	0	13	40
B	143	0	0	0	0
C	0	0	0	0	0
D	5	0	0	0	0
E	15	0	0	0	0

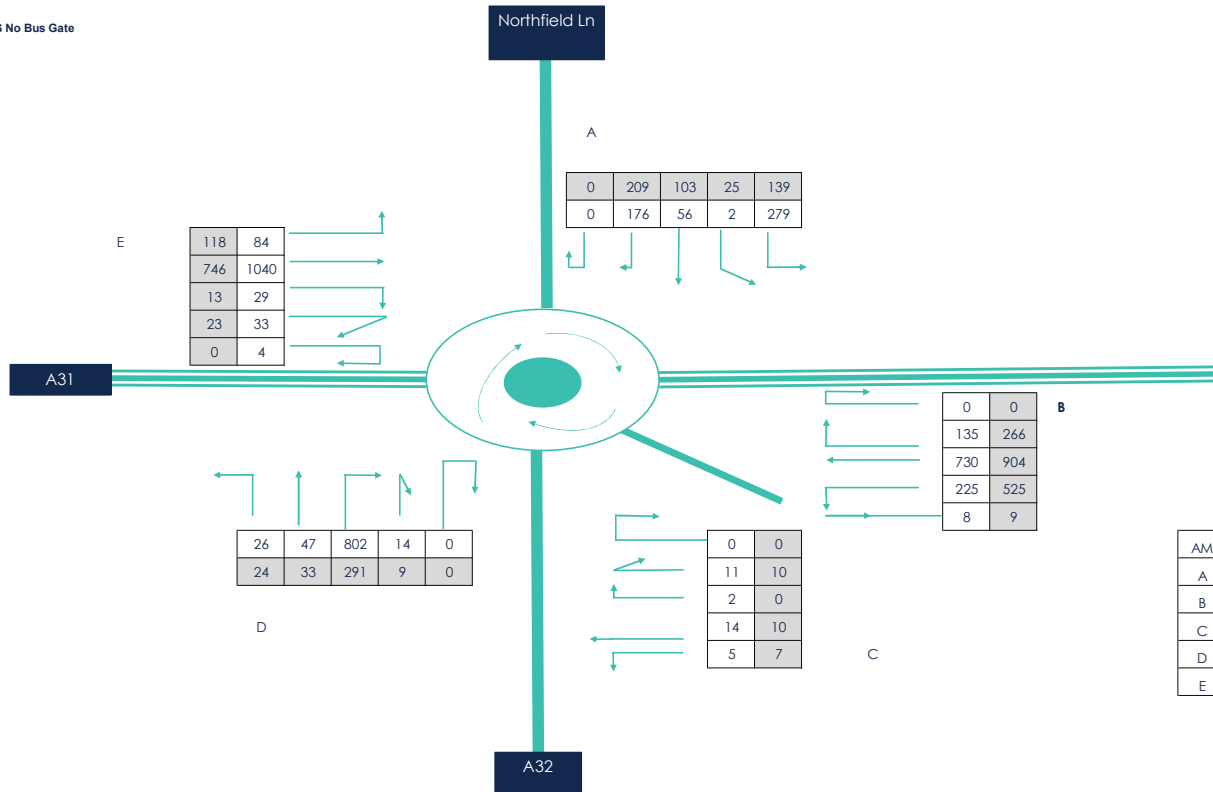
PM	A	B	C	D	E
A	0	165	0	6	17
B	355	0	0	0	0
C	0	0	0	0	0
D	12	0	0	0	0
E	36	0	0	0	0

3%



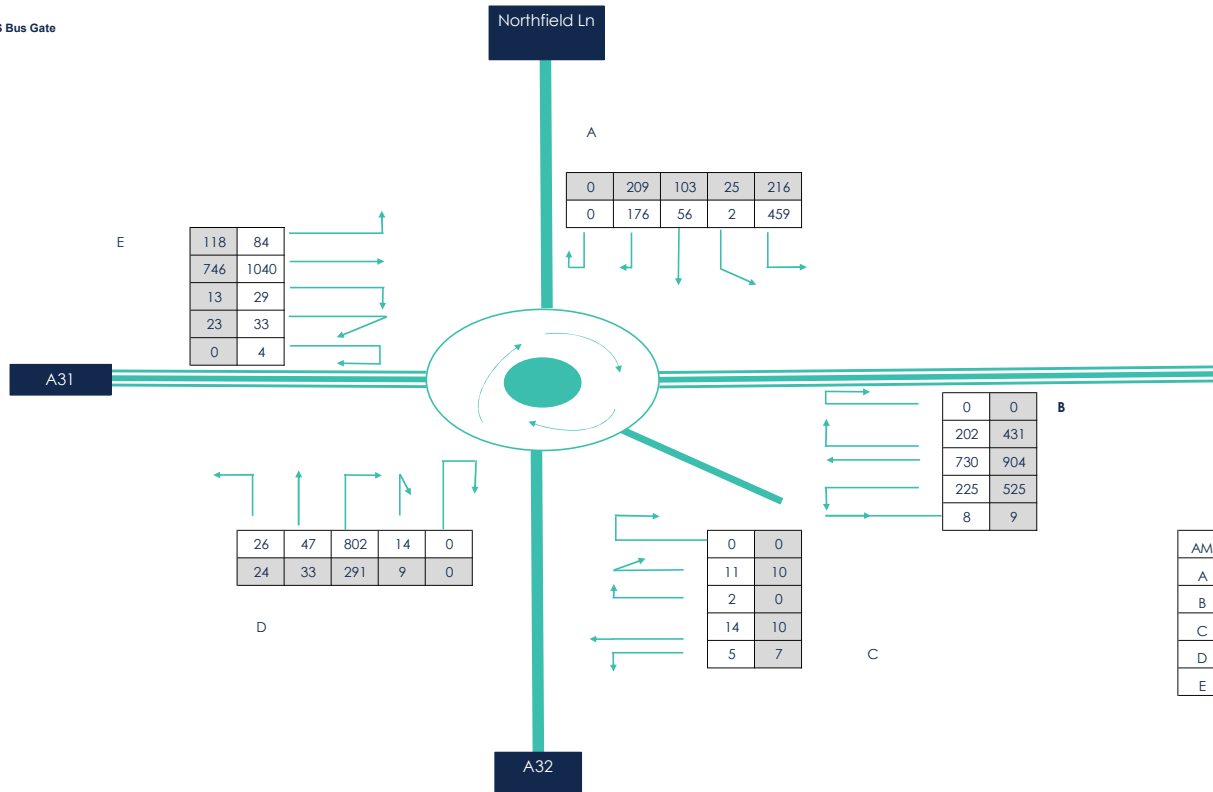
AM	A	B	C	D	E
A	0	73	2	43	136
B	59	0	8	225	730
C	2	11	0	5	14
D	42	802	14	0	26
E	70	1040	29	33	4

PM	A	B	C	D	E
A	0	50	25	97	192
B	77	0	9	525	904
C	0	10	0	7	10
D	21	291	9	0	24
E	81	746	13	23	0



AM	A	B	C	D	E
A	0	279	2	56	176
B	135	0	8	225	730
C	2	11	0	5	14
D	47	802	14	0	26
E	84	1040	29	33	4

PM	A	B	C	D	E
A	0	139	25	103	209
B	266	0	9	525	904
C	0	10	0	7	10
D	33	291	9	0	24
E	118	746	13	23	0



AM	A	B	C	D	E
A	0	459	2	56	176
B	202	0	8	225	730
C	2	11	0	5	14
D	47	802	14	0	26
E	84	1040	29	33	4

PM	A	B	C	D	E
A	0	216	25	103	209
B	431	0	9	525	904
C	0	10	0	7	10
D	33	291	9	0	24
E	118	746	13	23	0

Appendix C- Linsig Outputs

Full Input Data And Results
Full Input Data And Results

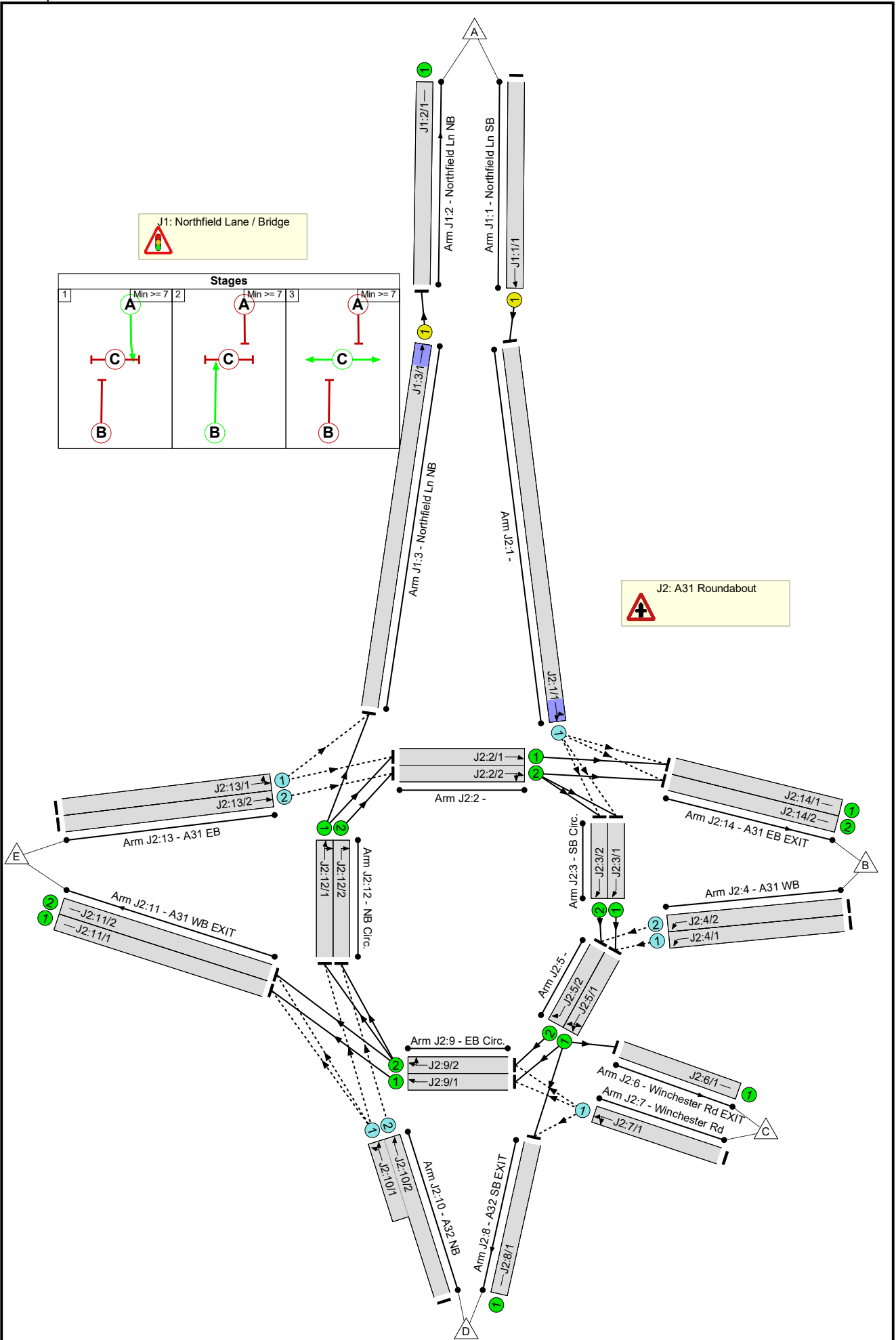
User and Project Details

Project:	Chawton Park
Title:	
Location:	
Client:	Calibro
Additional detail:	
File name:	291121_Chawton Park_Systra Review.lsg3x
Author:	██████████
Company:	systra
Address:	

Full Input Data And Results

Network Layout Diagram

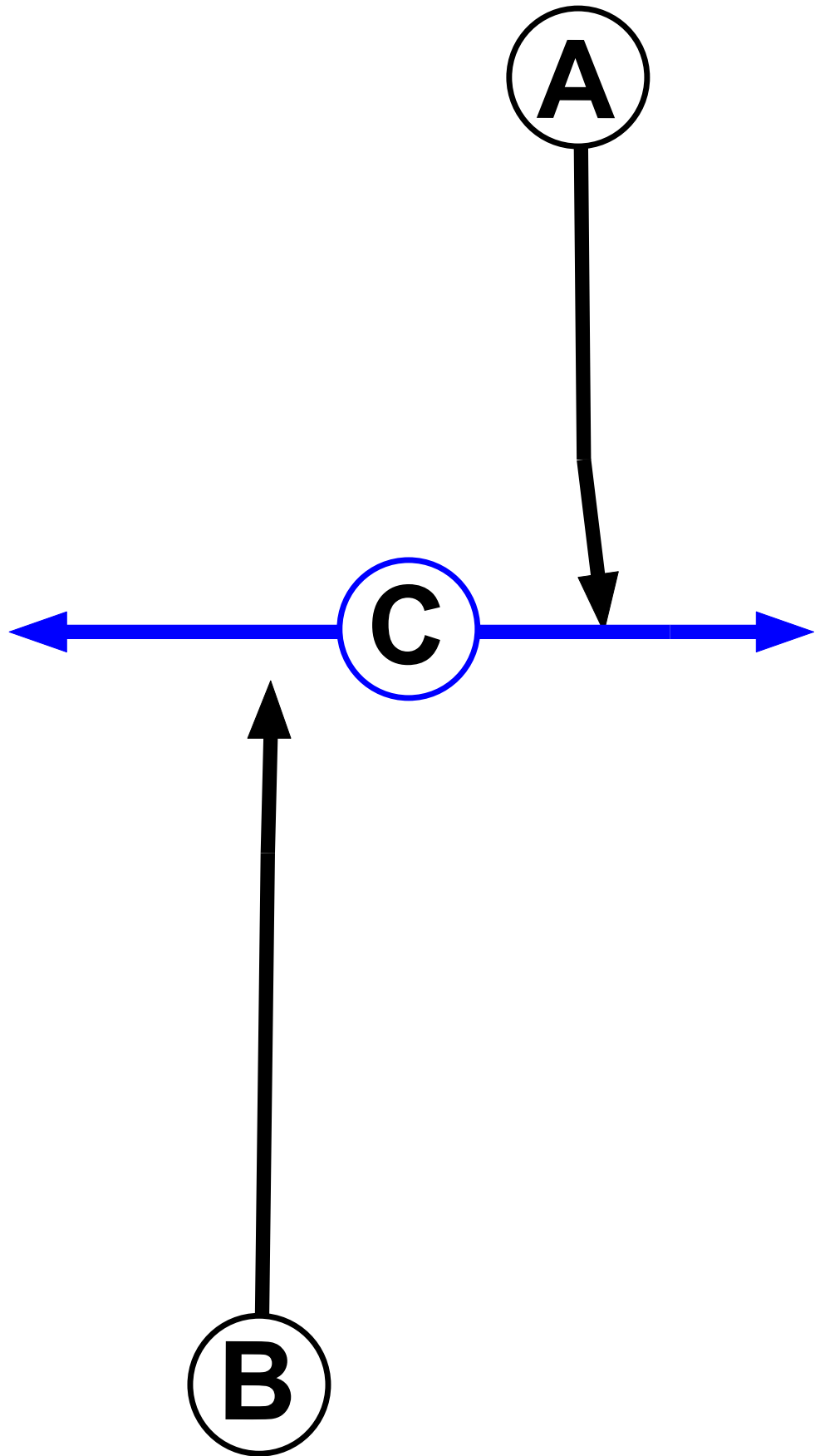
Full Input Data And Results



Full Input Data And Results

Full Input Data And Results

Phase Diagram



Full Input Data And Results

Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Pedestrian		7	7

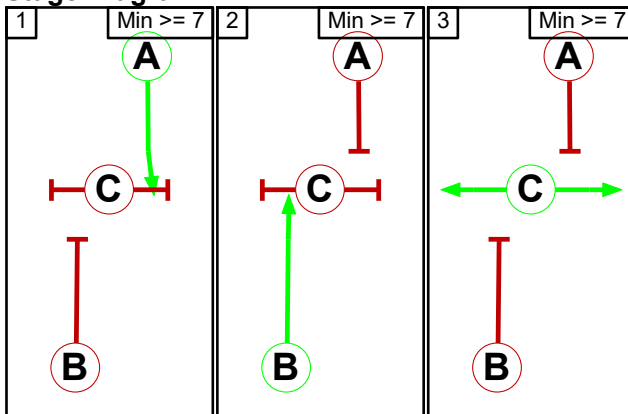
Phase Intergreens Matrix

		Starting Phase		
		A	B	C
Terminating Phase	A		11	10
	B	11		5
	C	5	7	

Phases in Stage

Stage No.	Phases in Stage
1	A
2	B
3	C

Stage Diagram



Phase Delays

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

Prohibited Stage Change

		To Stage		
		1	2	3
From Stage	1		11	10
	2	11		5
	3	5	7	

Full Input Data And Results

Give-Way Lane Input Data

Junction: J1: Northfield Lane / Bridge

There are no Opposed Lanes in this Junction

Full Input Data And Results

Junction: J2: A31 Roundabout

Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
J2:1/1	J2:3/1 (Ahead)	2158	0	J2:2/1	0.84	All	-	-	-	-	-
				J2:2/2	0.84	All					
	J2:3/2 (Ahead)	2158	0	J2:2/1	0.84	All					
				J2:2/2	0.84	All					
J2:4/1 (A31 WB)	J2:14/1 (Left)	2158	0	J2:2/1	0.84	All					
				J2:2/2	0.84	All					
	J2:14/2 (Left)	2158	0	J2:2/1	0.84	All					
				J2:2/2	0.84	All					
J2:5/1 (Left)	1482	0	J2:3/1	0.52	All						
			J2:3/2	0.52	All						
J2:4/2 (A31 WB)	J2:5/2 (Left)	1482	0	J2:3/1	0.52	All					
				J2:3/2	0.52	All					
J2:7/1 (Winchester Rd)	J2:8/1 (Left)	1921	0	J2:5/1	0.74	To J2:8/1 (Ahead) To J2:9/1 (Right)					
				J2:5/2	0.74	All					
	J2:9/1 (Ahead)	1921	0	J2:5/1	0.74	To J2:8/1 (Ahead) To J2:9/1 (Right)					
				J2:5/2	0.74	All					
J2:9/2 (Ahead)	1921	0	J2:5/1	0.74	To J2:8/1 (Ahead) To J2:9/1 (Right)						
			J2:5/2	0.74	All						
J2:10/1 (A32 NB)	J2:11/1 (Left)	1275	0	J2:9/1	0.49	All					
				J2:9/2	0.49	All					
	J2:11/2 (Left)	1317	0	J2:9/1	0.47	All					
				J2:9/2	0.47	All					

Full Input Data And Results

	J2:12/1 (Ahead)	1317	0	J2:9/1	0.47	All						
				J2:9/2	0.47	All						
J2:10/2 (A32 NB)	J2:12/2 (Ahead)	1275	0	J2:9/1	0.49	All						
				J2:9/2	0.49	All	-	-	-	-	-	-
	J1:3/1 (Left)	1420	0	J2:12/1	0.55	All						
J2:13/1 (A31 EB)				J2:12/2	0.55	All						
	J2:2/1 (Ahead)	1420	0	J2:12/1	0.55	All	-	-	-	-	-	-
				J2:12/2	0.55	All						
J2:13/2 (A31 EB)	J2:2/2 (Ahead)	1420	0	J2:12/1	0.55	All						
				J2:12/2	0.55	All	-	-	-	-	-	-

Full Input Data And Results

Lane Input Data

Junction: J1: Northfield Lane / Bridge												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
J1:1/1 (Northfield Ln SB)	U	A	2	3	20.7	Geom	-	3.00	0.00	Y	Arm J2:1 Ahead	Inf
J1:2/1 (Northfield Ln NB)	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:3/1 (Northfield Ln NB)	U	B	2	3	21.4	Geom	-	3.00	6.00	Y	Arm J1:2 Ahead	Inf

Full Input Data And Results

Junction: J2: A31 Roundabout												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
J2:1/1	O		2	3	29.0	User	1900	-	-	-	-	-
J2:2/1	U		2	3	13.0	Inf	-	-	-	-	-	-
J2:2/2	U		2	3	13.0	Inf	-	-	-	-	-	-
J2:3/1 (SB Circ.)	U		2	3	18.6	Inf	-	-	-	-	-	-
J2:3/2 (SB Circ.)	U		2	3	18.6	Inf	-	-	-	-	-	-
J2:4/1 (A31 WB)	O		2	3	60.0	User	1900	-	-	-	-	-
J2:4/2 (A31 WB)	O		2	3	60.0	User	1900	-	-	-	-	-
J2:5/1	U		2	3	6.3	Inf	-	-	-	-	-	-
J2:5/2	U		2	3	6.3	Inf	-	-	-	-	-	-
J2:6/1 (Winchester Rd EXIT)	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:7/1 (Winchester Rd)	O		2	3	60.0	User	1900	-	-	-	-	-
J2:8/1 (A32 SB EXIT)	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:9/1 (EB Circ.)	U		2	3	9.9	Inf	-	-	-	-	-	-
J2:9/2 (EB Circ.)	U		2	3	9.9	Inf	-	-	-	-	-	-
J2:10/1 (A32 NB)	O		2	3	7.3	User	1900	-	-	-	-	-
J2:10/2 (A32 NB)	O		2	3	60.0	User	1900	-	-	-	-	-
J2:11/1 (A31 WB EXIT)	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:11/2 (A31 WB EXIT)	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:12/1 (NB Circ.)	U		2	3	18.8	Inf	-	-	-	-	-	-
J2:12/2 (NB Circ.)	U		2	3	18.8	Inf	-	-	-	-	-	-
J2:13/1 (A31 EB)	O		2	3	60.0	User	1900	-	-	-	-	-
J2:13/2 (A31 EB)	O		2	3	60.0	User	1900	-	-	-	-	-
J2:14/1 (A31 EB EXIT)	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:14/2 (A31 EB EXIT)	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2036 AM DM'	08:00	09:00	01:00	
2: '2036 PM DM'	17:00	18:00	01:00	
3: '2036 AM DS no BG'	08:00	09:00	01:00	
4: '2036 PM DS no BG'	17:00	18:00	01:00	
5: '2036 AM DS BG'	08:00	09:00	01:00	
6: '2036 PM DS BG'	17:00	18:00	01:00	

Scenario 1: '2036 AM DM' (FG1: '2036 AM DM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	73	2	43	136	254
	B	59	0	8	225	730	1022
	C	2	11	0	5	14	32
	D	42	802	14	0	26	884
	E	70	1040	29	33	4	1176
	Tot.	173	1926	53	306	910	3368

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: 2036 AM DM
Junction: J1: Northfield Lane / Bridge	
J1:1/1	254
J1:2/1	173
J1:3/1	173
Junction: J2: A31 Roundabout	
J2:1/1	254
J2:2/1	940
J2:2/2	993
J2:3/1	135
J2:3/2	126
J2:4/1	565
J2:4/2	457
J2:5/1	700
J2:5/2	583
J2:6/1	53
J2:7/1	32
J2:8/1	306
J2:9/1	359
J2:9/2	597
J2:10/1 (short)	481
J2:10/2 (with short)	884(In) 403(Out)
J2:11/1	373
J2:11/2	537
J2:12/1	522
J2:12/2	408
J2:13/1	591
J2:13/2	585
J2:14/1	976
J2:14/2	950

Lane Saturation Flows

Junction: J1: Northfield Lane / Bridge								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Northfield Ln SB)	3.00	0.00	Y	Arm J2:1 Ahead	Inf	100.0 %	1915	1915
J1:2/1 (Northfield Ln NB Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:3/1 (Northfield Ln NB)	3.00	6.00	Y	Arm J1:2 Ahead	Inf	100.0 %	1663	1663

Full Input Data And Results

Junction: J2: A31 Roundabout								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1							1900	1900
J2:2/1							Inf	Inf
J2:2/2							Inf	Inf
J2:3/1 (SB Circ. Lane 1)							Inf	Inf
J2:3/2 (SB Circ. Lane 2)							Inf	Inf
J2:4/1 (A31 WB Lane 1)							1900	1900
J2:4/2 (A31 WB Lane 2)							1900	1900
J2:5/1							Inf	Inf
J2:5/2							Inf	Inf
J2:6/1 (Winchester Rd EXIT Lane 1)							Inf	Inf
J2:7/1 (Winchester Rd Lane 1)							1900	1900
J2:8/1 (A32 SB EXIT Lane 1)							Inf	Inf
J2:9/1 (EB Circ. Lane 1)							Inf	Inf
J2:9/2 (EB Circ. Lane 2)							Inf	Inf
J2:10/1 (A32 NB Lane 1)							1900	1900
J2:10/2 (A32 NB Lane 2)							1900	1900
J2:11/1 (A31 WB EXIT Lane 1)							Inf	Inf
J2:11/2 (A31 WB EXIT Lane 2)							Inf	Inf
J2:12/1 (NB Circ. Lane 1)							Inf	Inf
J2:12/2 (NB Circ. Lane 2)							Inf	Inf
J2:13/1 (A31 EB Lane 1)							1900	1900
J2:13/2 (A31 EB Lane 2)							1900	1900
J2:14/1 (A31 EB EXIT Lane 1)							Inf	Inf
J2:14/2 (A31 EB EXIT Lane 2)							Inf	Inf

Full Input Data And Results

Scenario 2: '2036 PM DM' (FG2: '2036 PM DM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					Tot.
		A	B	C	D	E	
Origin	A	0	50	25	97	192	364
	B	77	0	9	525	904	1515
	C	0	10	0	7	10	27
	D	21	291	9	0	24	345
	E	81	746	13	23	0	863
	Tot.	179	1097	56	652	1130	3114

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: 2036 PM DM
Junction: J1: Northfield Lane / Bridge	
J1:1/1	364
J1:2/1	179
J1:3/1	179
Junction: J2: A31 Roundabout	
J2:1/1	364
J2:2/1	539
J2:2/2	553
J2:3/1	225
J2:3/2	134
J2:4/1	810
J2:4/2	705
J2:5/1	1035
J2:5/2	839
J2:6/1	56
J2:7/1	27
J2:8/1	652
J2:9/1	344
J2:9/2	849
J2:10/1 (short)	223
J2:10/2 (with short)	345(In) 122(Out)
J2:11/1	361
J2:11/2	769
J2:12/1	283
J2:12/2	125
J2:13/1	435
J2:13/2	428
J2:14/1	564
J2:14/2	533

Lane Saturation Flows

Junction: J1: Northfield Lane / Bridge								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Northfield Ln SB)	3.00	0.00	Y	Arm J2:1 Ahead	Inf	100.0 %	1915	1915
J1:2/1 (Northfield Ln NB Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:3/1 (Northfield Ln NB)	3.00	6.00	Y	Arm J1:2 Ahead	Inf	100.0 %	1663	1663

Full Input Data And Results

Junction: J2: A31 Roundabout								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1							1900	1900
J2:2/1							Inf	Inf
J2:2/2							Inf	Inf
J2:3/1 (SB Circ. Lane 1)							Inf	Inf
J2:3/2 (SB Circ. Lane 2)							Inf	Inf
J2:4/1 (A31 WB Lane 1)							1900	1900
J2:4/2 (A31 WB Lane 2)							1900	1900
J2:5/1							Inf	Inf
J2:5/2							Inf	Inf
J2:6/1 (Winchester Rd EXIT Lane 1)							Inf	Inf
J2:7/1 (Winchester Rd Lane 1)							1900	1900
J2:8/1 (A32 SB EXIT Lane 1)							Inf	Inf
J2:9/1 (EB Circ. Lane 1)							Inf	Inf
J2:9/2 (EB Circ. Lane 2)							Inf	Inf
J2:10/1 (A32 NB Lane 1)							1900	1900
J2:10/2 (A32 NB Lane 2)							1900	1900
J2:11/1 (A31 WB EXIT Lane 1)							Inf	Inf
J2:11/2 (A31 WB EXIT Lane 2)							Inf	Inf
J2:12/1 (NB Circ. Lane 1)							Inf	Inf
J2:12/2 (NB Circ. Lane 2)							Inf	Inf
J2:13/1 (A31 EB Lane 1)							1900	1900
J2:13/2 (A31 EB Lane 2)							1900	1900
J2:14/1 (A31 EB EXIT Lane 1)							Inf	Inf
J2:14/2 (A31 EB EXIT Lane 2)							Inf	Inf

Full Input Data And Results

Scenario 3: '2036 AM DS no bus gate' (FG3: '2036 AM DS no BG', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					Tot.
		A	B	C	D	E	
Origin	A	0	279	2	56	176	513
	B	135	0	8	225	730	1098
	C	2	11	0	5	14	32
	D	47	802	14	0	26	889
	E	84	1040	29	33	4	1190
	Tot.	268	2132	53	319	950	3722

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: 2036 AM DS no bus gate
Junction: J1: Northfield Lane / Bridge	
J1:1/1	513
J1:2/1	268
J1:3/1	268
Junction: J2: A31 Roundabout	
J2:1/1	513
J2:2/1	917
J2:2/2	1016
J2:3/1	220
J2:3/2	94
J2:4/1	562
J2:4/2	536
J2:5/1	782
J2:5/2	630
J2:6/1	53
J2:7/1	32
J2:8/1	319
J2:9/1	422
J2:9/2	650
J2:10/1 (short)	474
J2:10/2 (with short)	889(In) 415(Out)
J2:11/1	434
J2:11/2	516
J2:12/1	590
J2:12/2	421
J2:13/1	595
J2:13/2	595
J2:14/1	1056
J2:14/2	1076

Lane Saturation Flows

Junction: J1: Northfield Lane / Bridge								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Northfield Ln SB)	3.00	0.00	Y	Arm J2:1 Ahead	Inf	100.0 %	1915	1915
J1:2/1 (Northfield Ln NB Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:3/1 (Northfield Ln NB)	3.00	6.00	Y	Arm J1:2 Ahead	Inf	100.0 %	1663	1663

Full Input Data And Results

Junction: J2: A31 Roundabout								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1							1900	1900
J2:2/1							Inf	Inf
J2:2/2							Inf	Inf
J2:3/1 (SB Circ. Lane 1)							Inf	Inf
J2:3/2 (SB Circ. Lane 2)							Inf	Inf
J2:4/1 (A31 WB Lane 1)							1900	1900
J2:4/2 (A31 WB Lane 2)							1900	1900
J2:5/1							Inf	Inf
J2:5/2							Inf	Inf
J2:6/1 (Winchester Rd EXIT Lane 1)							Inf	Inf
J2:7/1 (Winchester Rd Lane 1)							1900	1900
J2:8/1 (A32 SB EXIT Lane 1)							Inf	Inf
J2:9/1 (EB Circ. Lane 1)							Inf	Inf
J2:9/2 (EB Circ. Lane 2)							Inf	Inf
J2:10/1 (A32 NB Lane 1)							1900	1900
J2:10/2 (A32 NB Lane 2)							1900	1900
J2:11/1 (A31 WB EXIT Lane 1)							Inf	Inf
J2:11/2 (A31 WB EXIT Lane 2)							Inf	Inf
J2:12/1 (NB Circ. Lane 1)							Inf	Inf
J2:12/2 (NB Circ. Lane 2)							Inf	Inf
J2:13/1 (A31 EB Lane 1)							1900	1900
J2:13/2 (A31 EB Lane 2)							1900	1900
J2:14/1 (A31 EB EXIT Lane 1)							Inf	Inf
J2:14/2 (A31 EB EXIT Lane 2)							Inf	Inf

Full Input Data And Results

Scenario 4: '2036 PM DS no bus gate' (FG4: '2036 PM DS no BG', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					Tot.
		A	B	C	D	E	
Origin	A	0	139	25	103	209	476
	B	266	0	9	525	904	1704
	C	0	10	0	7	10	27
	D	33	291	9	0	24	357
	E	118	746	13	23	0	900
	Tot.	417	1186	56	658	1147	3464

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: 2036 PM DS no bus gate
Junction: J1: Northfield Lane / Bridge	
J1:1/1	476
J1:2/1	417
J1:3/1	417
Junction: J2: A31 Roundabout	
J2:1/1	476
J2:2/1	484
J2:2/2	608
J2:3/1	288
J2:3/2	94
J2:4/1	864
J2:4/2	840
J2:5/1	1152
J2:5/2	934
J2:6/1	56
J2:7/1	27
J2:8/1	658
J2:9/1	451
J2:9/2	948
J2:10/1 (short)	202
J2:10/2 (with short)	357(In) 155(Out)
J2:11/1	466
J2:11/2	681
J2:12/1	449
J2:12/2	160
J2:13/1	452
J2:13/2	448
J2:14/1	553
J2:14/2	633

Lane Saturation Flows

Junction: J1: Northfield Lane / Bridge								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Northfield Ln SB)	3.00	0.00	Y	Arm J2:1 Ahead	Inf	100.0 %	1915	1915
J1:2/1 (Northfield Ln NB Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:3/1 (Northfield Ln NB)	3.00	6.00	Y	Arm J1:2 Ahead	Inf	100.0 %	1663	1663

Full Input Data And Results

Junction: J2: A31 Roundabout								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1							1900	1900
J2:2/1							Inf	Inf
J2:2/2							Inf	Inf
J2:3/1 (SB Circ. Lane 1)							Inf	Inf
J2:3/2 (SB Circ. Lane 2)							Inf	Inf
J2:4/1 (A31 WB Lane 1)							1900	1900
J2:4/2 (A31 WB Lane 2)							1900	1900
J2:5/1							Inf	Inf
J2:5/2							Inf	Inf
J2:6/1 (Winchester Rd EXIT Lane 1)							Inf	Inf
J2:7/1 (Winchester Rd Lane 1)							1900	1900
J2:8/1 (A32 SB EXIT Lane 1)							Inf	Inf
J2:9/1 (EB Circ. Lane 1)							Inf	Inf
J2:9/2 (EB Circ. Lane 2)							Inf	Inf
J2:10/1 (A32 NB Lane 1)							1900	1900
J2:10/2 (A32 NB Lane 2)							1900	1900
J2:11/1 (A31 WB EXIT Lane 1)							Inf	Inf
J2:11/2 (A31 WB EXIT Lane 2)							Inf	Inf
J2:12/1 (NB Circ. Lane 1)							Inf	Inf
J2:12/2 (NB Circ. Lane 2)							Inf	Inf
J2:13/1 (A31 EB Lane 1)							1900	1900
J2:13/2 (A31 EB Lane 2)							1900	1900
J2:14/1 (A31 EB EXIT Lane 1)							Inf	Inf
J2:14/2 (A31 EB EXIT Lane 2)							Inf	Inf

Full Input Data And Results

Scenario 5: '2036 AM DS bus gate' (FG5: '2036 AM DS BG', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					Tot.
		A	B	C	D	E	
Origin	A	0	459	2	56	176	693
	B	202	0	8	225	730	1165
	C	2	11	0	5	14	32
	D	47	802	14	0	26	889
	E	84	1040	29	33	4	1190
	Tot.	335	2312	53	319	950	3969

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 5: 2036 AM DS bus gate
Junction: J1: Northfield Lane / Bridge	
J1:1/1	693
J1:2/1	335
J1:3/1	335
Junction: J2: A31 Roundabout	
J2:1/1	693
J2:2/1	917
J2:2/2	1016
J2:3/1	224
J2:3/2	90
J2:4/1	583
J2:4/2	582
J2:5/1	807
J2:5/2	672
J2:6/1	53
J2:7/1	32
J2:8/1	319
J2:9/1	447
J2:9/2	692
J2:10/1 (short)	474
J2:10/2 (with short)	889(In) 415(Out)
J2:11/1	460
J2:11/2	490
J2:12/1	657
J2:12/2	421
J2:13/1	595
J2:13/2	595
J2:14/1	1146
J2:14/2	1166

Lane Saturation Flows

Junction: J1: Northfield Lane / Bridge								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Northfield Ln SB)	3.00	0.00	Y	Arm J2:1 Ahead	Inf	100.0 %	1915	1915
J1:2/1 (Northfield Ln NB Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:3/1 (Northfield Ln NB)	3.00	6.00	Y	Arm J1:2 Ahead	Inf	100.0 %	1663	1663

Full Input Data And Results

Junction: J2: A31 Roundabout								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1							1900	1900
J2:2/1							Inf	Inf
J2:2/2							Inf	Inf
J2:3/1 (SB Circ. Lane 1)							Inf	Inf
J2:3/2 (SB Circ. Lane 2)							Inf	Inf
J2:4/1 (A31 WB Lane 1)							1900	1900
J2:4/2 (A31 WB Lane 2)							1900	1900
J2:5/1							Inf	Inf
J2:5/2							Inf	Inf
J2:6/1 (Winchester Rd EXIT Lane 1)							Inf	Inf
J2:7/1 (Winchester Rd Lane 1)							1900	1900
J2:8/1 (A32 SB EXIT Lane 1)							Inf	Inf
J2:9/1 (EB Circ. Lane 1)							Inf	Inf
J2:9/2 (EB Circ. Lane 2)							Inf	Inf
J2:10/1 (A32 NB Lane 1)							1900	1900
J2:10/2 (A32 NB Lane 2)							1900	1900
J2:11/1 (A31 WB EXIT Lane 1)							Inf	Inf
J2:11/2 (A31 WB EXIT Lane 2)							Inf	Inf
J2:12/1 (NB Circ. Lane 1)							Inf	Inf
J2:12/2 (NB Circ. Lane 2)							Inf	Inf
J2:13/1 (A31 EB Lane 1)							1900	1900
J2:13/2 (A31 EB Lane 2)							1900	1900
J2:14/1 (A31 EB EXIT Lane 1)							Inf	Inf
J2:14/2 (A31 EB EXIT Lane 2)							Inf	Inf

Full Input Data And Results

Scenario 6: '2036 PM DS bus gate' (FG6: '2036 PM DS BG', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					Tot.
		A	B	C	D	E	
Origin	A	0	216	25	103	209	553
	B	431	0	9	525	904	1869
	C	0	10	0	7	10	27
	D	33	291	9	0	24	357
	E	118	746	13	23	0	900
	Tot.	582	1263	56	658	1147	3706

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: 2036 PM DS bus gate
Junction: J1: Northfield Lane / Bridge	
J1:1/1	553
J1:2/1	582
J1:3/1	582
Junction: J2: A31 Roundabout	
J2:1/1	553
J2:2/1	484
J2:2/2	608
J2:3/1	278
J2:3/2	104
J2:4/1	934
J2:4/2	935
J2:5/1	1212
J2:5/2	1039
J2:6/1	56
J2:7/1	27
J2:8/1	658
J2:9/1	510
J2:9/2	1054
J2:10/1 (short)	202
J2:10/2 (with short)	357(In) 155(Out)
J2:11/1	522
J2:11/2	625
J2:12/1	614
J2:12/2	160
J2:13/1	452
J2:13/2	448
J2:14/1	592
J2:14/2	671

Lane Saturation Flows

Junction: J1: Northfield Lane / Bridge								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Northfield Ln SB)	3.00	0.00	Y	Arm J2:1 Ahead	Inf	100.0 %	1915	1915
J1:2/1 (Northfield Ln NB Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:3/1 (Northfield Ln NB)	3.00	6.00	Y	Arm J1:2 Ahead	Inf	100.0 %	1663	1663

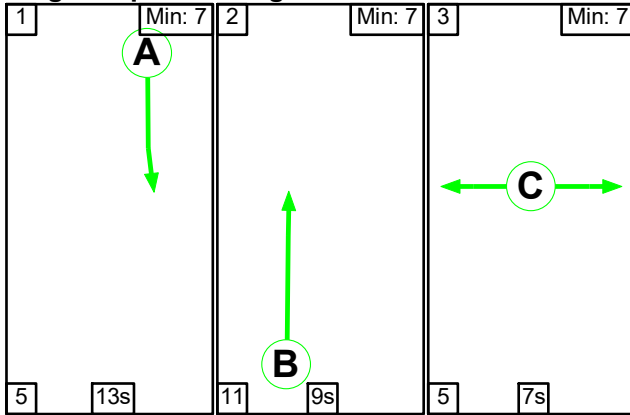
Full Input Data And Results

Junction: J2: A31 Roundabout								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1							1900	1900
J2:2/1							Inf	Inf
J2:2/2							Inf	Inf
J2:3/1 (SB Circ. Lane 1)							Inf	Inf
J2:3/2 (SB Circ. Lane 2)							Inf	Inf
J2:4/1 (A31 WB Lane 1)							1900	1900
J2:4/2 (A31 WB Lane 2)							1900	1900
J2:5/1							Inf	Inf
J2:5/2							Inf	Inf
J2:6/1 (Winchester Rd EXIT Lane 1)							Inf	Inf
J2:7/1 (Winchester Rd Lane 1)							1900	1900
J2:8/1 (A32 SB EXIT Lane 1)							Inf	Inf
J2:9/1 (EB Circ. Lane 1)							Inf	Inf
J2:9/2 (EB Circ. Lane 2)							Inf	Inf
J2:10/1 (A32 NB Lane 1)							1900	1900
J2:10/2 (A32 NB Lane 2)							1900	1900
J2:11/1 (A31 WB EXIT Lane 1)							Inf	Inf
J2:11/2 (A31 WB EXIT Lane 2)							Inf	Inf
J2:12/1 (NB Circ. Lane 1)							Inf	Inf
J2:12/2 (NB Circ. Lane 2)							Inf	Inf
J2:13/1 (A31 EB Lane 1)							1900	1900
J2:13/2 (A31 EB Lane 2)							1900	1900
J2:14/1 (A31 EB EXIT Lane 1)							Inf	Inf
J2:14/2 (A31 EB EXIT Lane 2)							Inf	Inf

Full Input Data And Results

Scenario 1: '2036 AM DM' (FG1: '2036 AM DM', Plan 1: 'Network Control Plan 1')

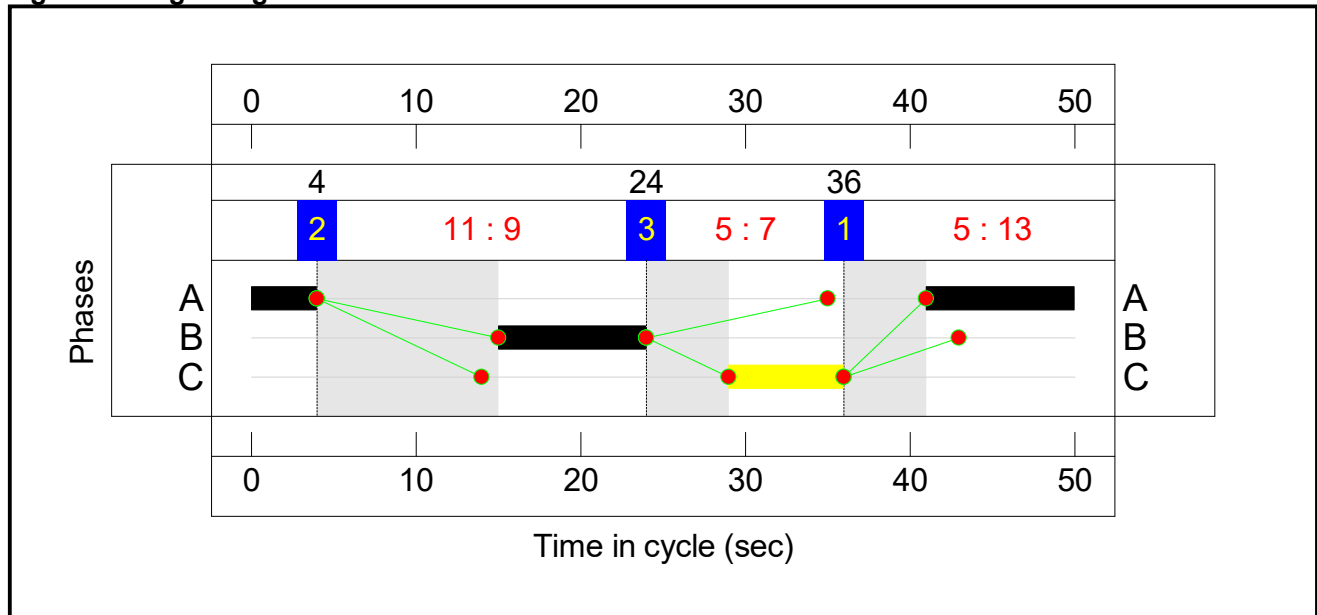
Stage Sequence Diagram



Stage Timings

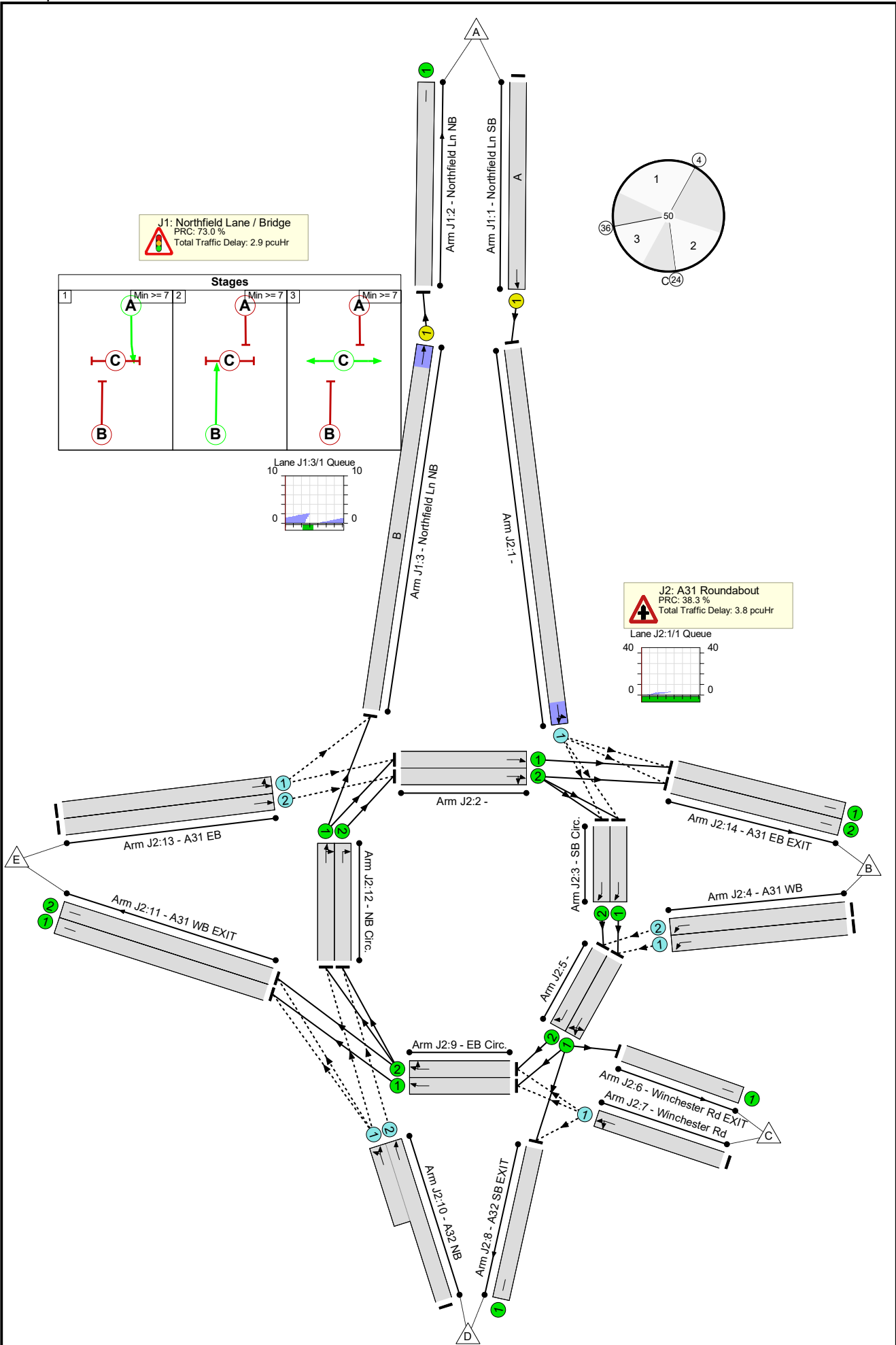
Stage	1	2	3
Duration	13	9	7
Change Point	36	4	24

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results
Network Results

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	65.1%
J1: Northfield Lane / Bridge	-	-	N/A	-	-		-	-	-	-	-	-	52.0%
1/1	Northfield Ln SB Ahead	U	N/A	N/A	A		1	13	-	254	1915	536	47.4%
2/1	Northfield Ln NB	U	N/A	N/A	-		-	-	-	173	Inf	Inf	0.0%
3/1	Northfield Ln NB Ahead	U	N/A	N/A	B		1	9	-	173	1663	333	52.0%
J2: A31 Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	65.1%
1/1	Ahead Left	O	N/A	N/A	-		-	-	-	254	1900	534	47.6%
2/1	Ahead	U	N/A	N/A	-		-	-	-	940	Inf	Inf	0.0%
2/2	Right Ahead	U	N/A	N/A	-		-	-	-	993	Inf	Inf	0.0%
3/1	SB Circ. Ahead	U	N/A	N/A	-		-	-	-	135	Inf	Inf	0.0%
3/2	SB Circ. Ahead	U	N/A	N/A	-		-	-	-	126	Inf	Inf	0.0%
4/1	A31 WB Left	O	N/A	N/A	-		-	-	-	565	1900	1346	42.0%
4/2	A31 WB Left	O	N/A	N/A	-		-	-	-	457	1900	1346	34.0%
5/1	Left Ahead Right	U	N/A	N/A	-		-	-	-	700	Inf	Inf	0.0%
5/2	Right	U	N/A	N/A	-		-	-	-	583	Inf	Inf	0.0%
6/1	Winchester Rd EXIT	U	N/A	N/A	-		-	-	-	53	Inf	Inf	0.0%
7/1	Winchester Rd Left Ahead	O	N/A	N/A	-		-	-	-	32	1900	1011	3.2%
8/1	A32 SB EXIT	U	N/A	N/A	-		-	-	-	306	Inf	Inf	0.0%
9/1	EB Circ. Ahead	U	N/A	N/A	-		-	-	-	359	Inf	Inf	0.0%
9/2	EB Circ. Ahead Right	U	N/A	N/A	-		-	-	-	597	Inf	Inf	0.0%
10/2+10/1	A32 NB Left Ahead	O	N/A	N/A	-		-	-	-	884	1900:1900	806+866	50.0 : 55.6%

Full Input Data And Results

11/1	A31 WB EXIT	U	N/A	N/A	-	-	-	-	373	Inf	Inf	0.0%
11/2	A31 WB EXIT	U	N/A	N/A	-	-	-	-	537	Inf	Inf	0.0%
12/1	NB Circ. Ahead Right	U	N/A	N/A	-	-	-	-	522	Inf	Inf	0.0%
12/2	NB Circ. Right	U	N/A	N/A	-	-	-	-	408	Inf	Inf	0.0%
13/1	A31 EB Left Ahead	O	N/A	N/A	-	-	-	-	591	1900	908	65.1%
13/2	A31 EB Ahead	O	N/A	N/A	-	-	-	-	585	1900	908	64.4%
14/1	A31 EB EXIT	U	N/A	N/A	-	-	-	-	976	Inf	Inf	0.0%
14/2	A31 EB EXIT	U	N/A	N/A	-	-	-	-	950	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	4252	0	0	2.2	4.5	0.0	6.7	-	-	-	-
J1: Northfield Lane / Bridge	-	-	0	0	0	1.9	1.0	0.0	2.9	-	-	-	-
1/1	254	254	-	-	-	1.1	0.4	-	1.5	21.3	2.9	0.4	3.3
2/1	173	173	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	173	173	-	-	-	0.9	0.5	-	1.4	29.1	2.1	0.5	2.7
J2: A31 Roundabout	-	-	4252	0	0	0.3	3.5	0.0	3.8	-	-	-	-
1/1	254	254	254	0	0	0.3	0.5	-	0.8	11.1	2.9	0.5	3.4
2/1	940	940	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/2	993	993	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	135	135	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2	126	126	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	565	565	565	0	0	0.0	0.4	-	0.4	2.3	0.0	0.4	0.4
4/2	457	457	457	0	0	0.0	0.3	-	0.3	2.0	0.0	0.3	0.3
5/1	700	700	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	583	583	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	53	53	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	32	32	32	0	0	0.0	0.0	-	0.0	1.8	0.0	0.0	0.0
8/1	306	306	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	359	359	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	597	597	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2+10/1	884	884	1768	0	0	0.0	0.6	-	0.6	2.3	0.0	0.6	0.6
11/1	373	373	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	537	537	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	522	522	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	408	408	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	591	591	591	0	0	0.0	0.9	-	0.9	5.6	0.0	0.9	0.9

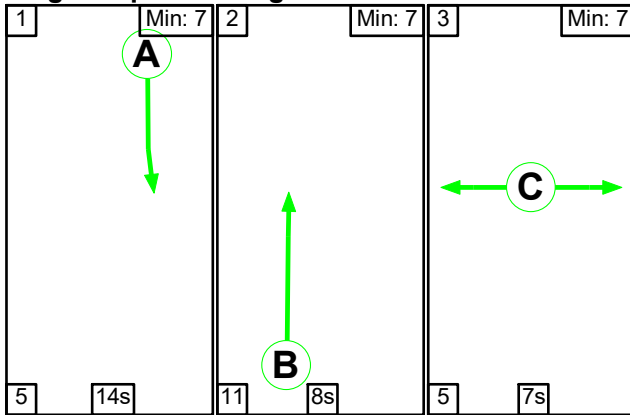
Full Input Data And Results

13/2	585	585	585	0	0	0.0	0.9	-	0.9	5.5	0.0	0.9	0.9
14/1	976	976	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	950	950	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1		PRC for Signalled Lanes (%):		73.0		Total Delay for Signalled Lanes (pcuHr):		2.90		Cycle Time (s):		50	
		PRC Over All Lanes (%):		38.3		Total Delay Over All Lanes(pcuHr):		6.70					

Full Input Data And Results

Scenario 2: '2036 PM DM' (FG2: '2036 PM DM', Plan 1: 'Network Control Plan 1')

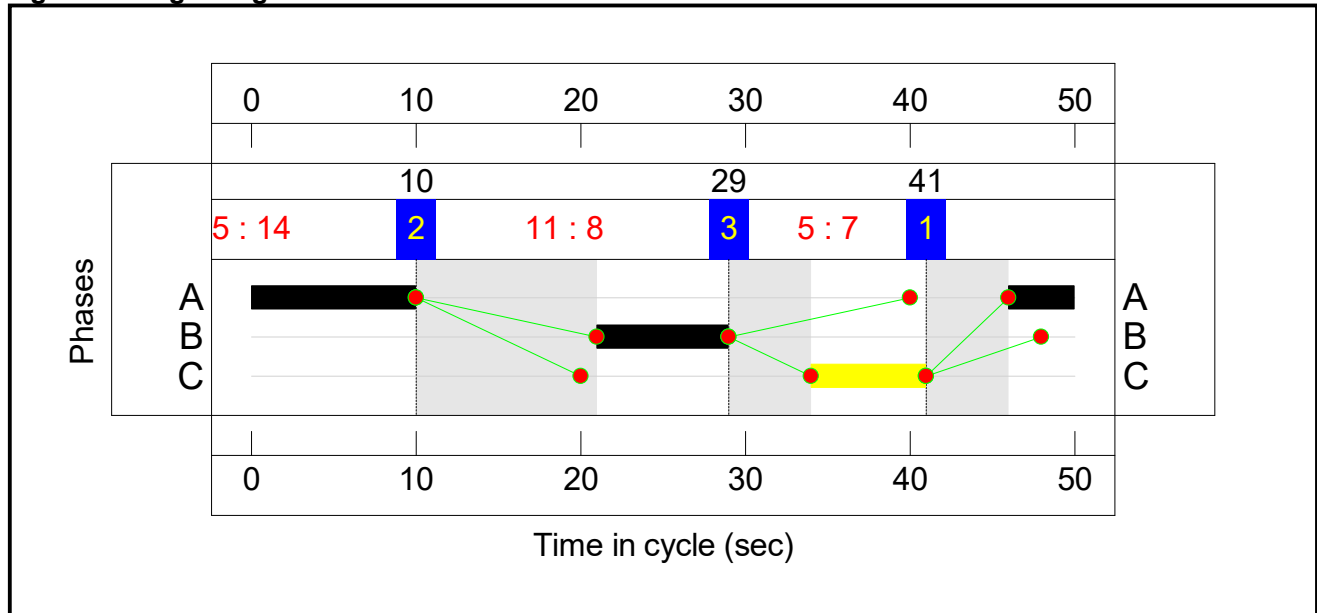
Stage Sequence Diagram



Stage Timings

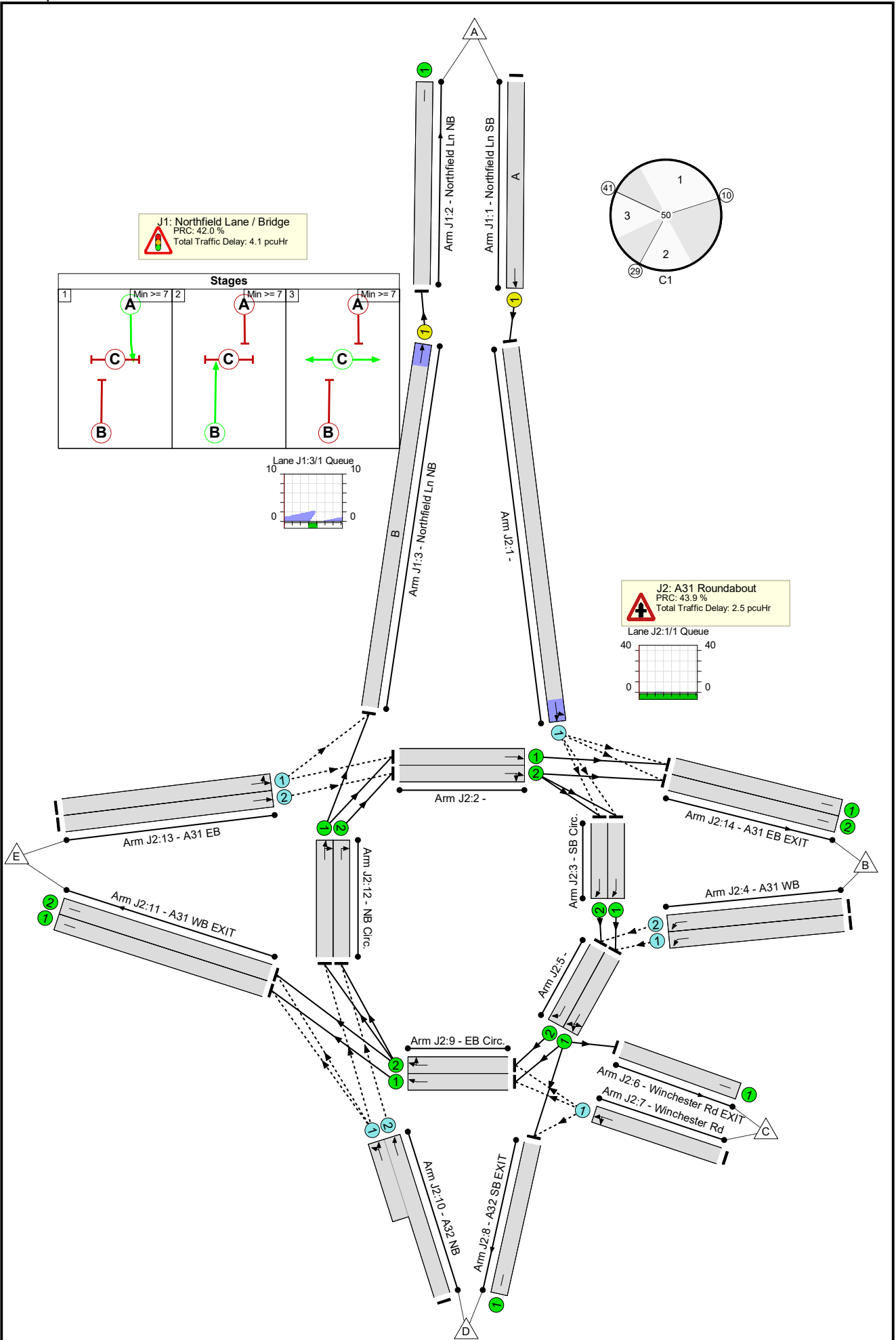
Stage	1	2	3
Duration	14	8	7
Change Point	41	10	29

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results
Network Results

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	63.4%
J1: Northfield Lane / Bridge	-	-	N/A	-	-		-	-	-	-	-	-	63.4%
1/1	Northfield Ln SB Ahead	U	N/A	N/A	A		1	14	-	364	1915	574	63.4%
2/1	Northfield Ln NB	U	N/A	N/A	-		-	-	-	179	Inf	Inf	0.0%
3/1	Northfield Ln NB Ahead	U	N/A	N/A	B		1	8	-	179	1663	299	59.8%
J2: A31 Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	62.5%
1/1	Ahead Left	O	N/A	N/A	-		-	-	-	364	1900	1241	29.3%
2/1	Ahead	U	N/A	N/A	-		-	-	-	539	Inf	Inf	0.0%
2/2	Right Ahead	U	N/A	N/A	-		-	-	-	553	Inf	Inf	0.0%
3/1	SB Circ. Ahead	U	N/A	N/A	-		-	-	-	225	Inf	Inf	0.0%
3/2	SB Circ. Ahead	U	N/A	N/A	-		-	-	-	134	Inf	Inf	0.0%
4/1	A31 WB Left	O	N/A	N/A	-		-	-	-	810	1900	1295	62.5%
4/2	A31 WB Left	O	N/A	N/A	-		-	-	-	705	1900	1295	54.4%
5/1	Left Ahead Right	U	N/A	N/A	-		-	-	-	1035	Inf	Inf	0.0%
5/2	Right	U	N/A	N/A	-		-	-	-	839	Inf	Inf	0.0%
6/1	Winchester Rd EXIT	U	N/A	N/A	-		-	-	-	56	Inf	Inf	0.0%
7/1	Winchester Rd Left Ahead	O	N/A	N/A	-		-	-	-	27	1900	576	4.7%
8/1	A32 SB EXIT	U	N/A	N/A	-		-	-	-	652	Inf	Inf	0.0%
9/1	EB Circ. Ahead	U	N/A	N/A	-		-	-	-	344	Inf	Inf	0.0%
9/2	EB Circ. Ahead Right	U	N/A	N/A	-		-	-	-	849	Inf	Inf	0.0%
10/2+10/1	A32 NB Left Ahead	O	N/A	N/A	-		-	-	-	345	1900:1900	411+751	29.7 : 29.7%

Full Input Data And Results

11/1	A31 WB EXIT	U	N/A	N/A	-	-	-	-	361	Inf	Inf	0.0%
11/2	A31 WB EXIT	U	N/A	N/A	-	-	-	-	769	Inf	Inf	0.0%
12/1	NB Circ. Ahead Right	U	N/A	N/A	-	-	-	-	283	Inf	Inf	0.0%
12/2	NB Circ. Right	U	N/A	N/A	-	-	-	-	125	Inf	Inf	0.0%
13/1	A31 EB Left Ahead	O	N/A	N/A	-	-	-	-	435	1900	1195	36.4%
13/2	A31 EB Ahead	O	N/A	N/A	-	-	-	-	428	1900	1195	35.8%
14/1	A31 EB EXIT	U	N/A	N/A	-	-	-	-	564	Inf	Inf	0.0%
14/2	A31 EB EXIT	U	N/A	N/A	-	-	-	-	533	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	3459	0	0	2.5	4.0	0.0	6.5	-	-	-	-
J1: Northfield Lane / Bridge	-	-	0	0	0	2.5	1.6	0.0	4.1	-	-	-	-
1/1	364	364	-	-	-	1.5	0.9	-	2.4	23.6	4.3	0.9	5.2
2/1	179	179	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	179	179	-	-	-	0.9	0.7	-	1.7	33.6	2.2	0.7	3.0
J2: A31 Roundabout	-	-	3459	0	0	0.0	2.4	0.0	2.5	-	-	-	-
1/1	364	364	364	0	0	0.0	0.2	-	0.2	2.4	0.4	0.2	0.6
2/1	539	539	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/2	553	553	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	225	225	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2	134	134	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	810	810	810	0	0	0.0	0.8	-	0.8	3.7	0.0	0.8	0.8
4/2	705	705	705	0	0	0.0	0.6	-	0.6	3.0	0.0	0.6	0.6
5/1	1035	1035	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	839	839	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	56	56	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	27	27	27	0	0	0.0	0.0	-	0.0	3.3	0.0	0.0	0.0
8/1	652	652	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	344	344	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	849	849	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2+10/1	345	345	690	0	0	0.0	0.2	-	0.2	2.2	0.0	0.2	0.2
11/1	361	361	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	769	769	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	283	283	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	125	125	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	435	435	435	0	0	0.0	0.3	-	0.3	2.4	0.0	0.3	0.3

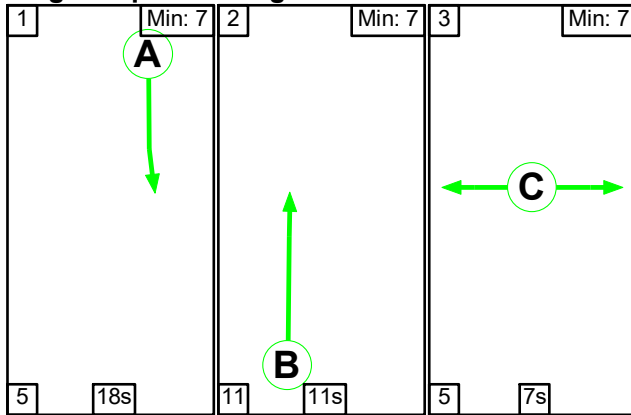
Full Input Data And Results

13/2	428	428	428	0	0	0.0	0.3	-	0.3	2.3	0.0	0.3	0.3
14/1	564	564	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	533	533	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1		PRC for Signalled Lanes (%):		42.0		Total Delay for Signalled Lanes (pcuHr):		4.06		Cycle Time (s):		50	
		PRC Over All Lanes (%):		42.0		Total Delay Over All Lanes(pcuHr):		6.53					

Full Input Data And Results

Scenario 3: '2036 AM DS no bus gate' (FG3: '2036 AM DS no BG', Plan 1: 'Network Control Plan 1')

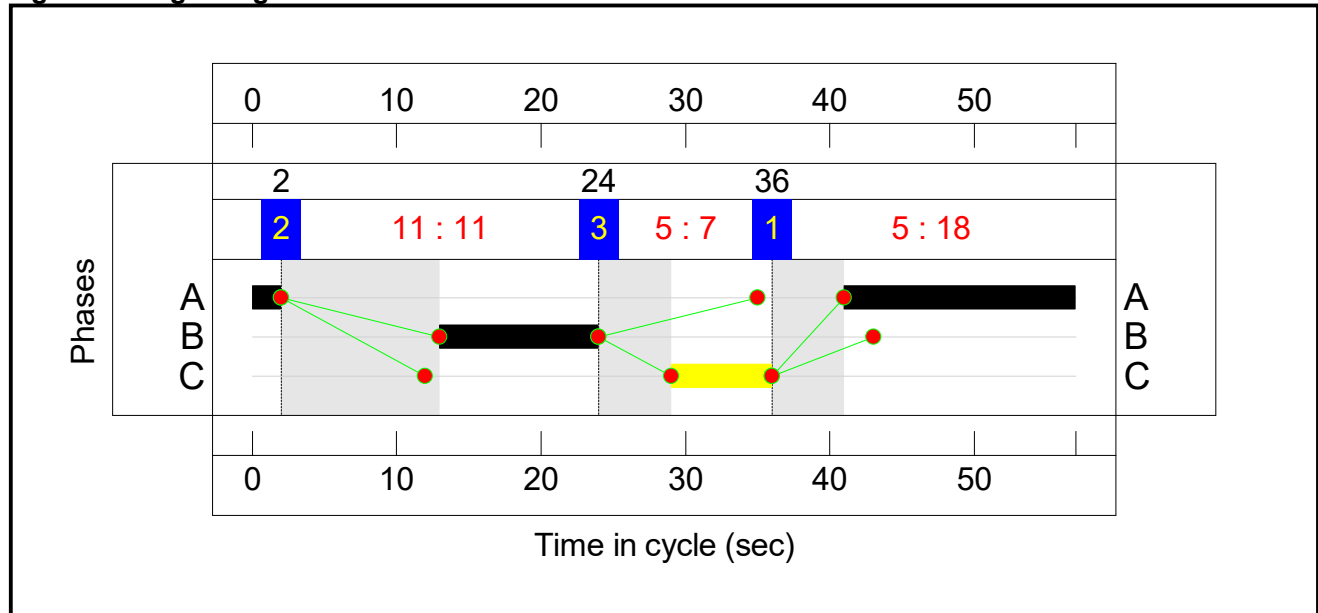
Stage Sequence Diagram



Stage Timings

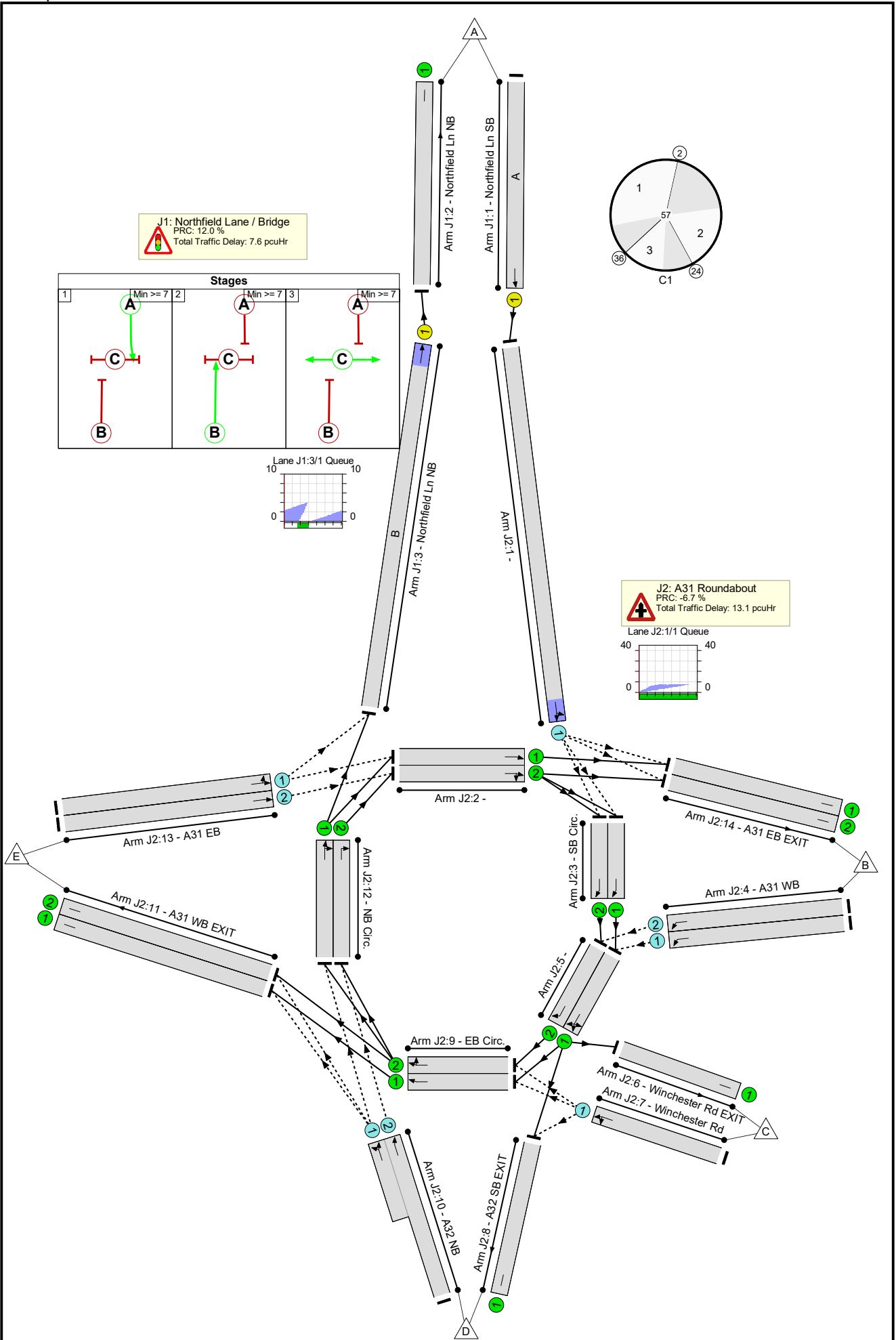
Stage	1	2	3
Duration	18	11	7
Change Point	36	2	24

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results
Network Results

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	96.0%
J1: Northfield Lane / Bridge	-	-	N/A	-	-		-	-	-	-	-	-	80.4%
1/1	Northfield Ln SB Ahead	U	N/A	N/A	A		1	18	-	513	1915	638	80.4%
2/1	Northfield Ln NB	U	N/A	N/A	-		-	-	-	268	Inf	Inf	0.0%
3/1	Northfield Ln NB Ahead	U	N/A	N/A	B		1	11	-	268	1663	350	76.5%
J2: A31 Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	96.0%
1/1	Ahead Left	O	N/A	N/A	-		-	-	-	513	1900	534	96.0%
2/1	Ahead	U	N/A	N/A	-		-	-	-	917	Inf	Inf	0.0%
2/2	Right Ahead	U	N/A	N/A	-		-	-	-	1016	Inf	Inf	0.0%
3/1	SB Circ. Ahead	U	N/A	N/A	-		-	-	-	220	Inf	Inf	0.0%
3/2	SB Circ. Ahead	U	N/A	N/A	-		-	-	-	94	Inf	Inf	0.0%
4/1	A31 WB Left	O	N/A	N/A	-		-	-	-	562	1900	1318	42.6%
4/2	A31 WB Left	O	N/A	N/A	-		-	-	-	536	1900	1318	40.7%
5/1	Left Ahead Right	U	N/A	N/A	-		-	-	-	782	Inf	Inf	0.0%
5/2	Right	U	N/A	N/A	-		-	-	-	630	Inf	Inf	0.0%
6/1	Winchester Rd EXIT	U	N/A	N/A	-		-	-	-	53	Inf	Inf	0.0%
7/1	Winchester Rd Left Ahead	O	N/A	N/A	-		-	-	-	32	1900	915	3.5%
8/1	A32 SB EXIT	U	N/A	N/A	-		-	-	-	319	Inf	Inf	0.0%
9/1	EB Circ. Ahead	U	N/A	N/A	-		-	-	-	422	Inf	Inf	0.0%
9/2	EB Circ. Ahead Right	U	N/A	N/A	-		-	-	-	650	Inf	Inf	0.0%
10/2+10/1	A32 NB Left Ahead	O	N/A	N/A	-		-	-	-	889	1900:1900	749+811	55.4 : 58.4%

Full Input Data And Results

11/1	A31 WB EXIT	U	N/A	N/A	-	-	-	-	434	Inf	Inf	0.0%
11/2	A31 WB EXIT	U	N/A	N/A	-	-	-	-	516	Inf	Inf	0.0%
12/1	NB Circ. Ahead Right	U	N/A	N/A	-	-	-	-	590	Inf	Inf	0.0%
12/2	NB Circ. Right	U	N/A	N/A	-	-	-	-	421	Inf	Inf	0.0%
13/1	A31 EB Left Ahead	O	N/A	N/A	-	-	-	-	595	1900	864	68.9%
13/2	A31 EB Ahead	O	N/A	N/A	-	-	-	-	595	1900	864	68.9%
14/1	A31 EB EXIT	U	N/A	N/A	-	-	-	-	1056	Inf	Inf	0.0%
14/2	A31 EB EXIT	U	N/A	N/A	-	-	-	-	1076	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	4611	0	0	6.4	14.4	0.0	20.7	-	-	-	-
J1: Northfield Lane / Bridge	-	-	0	0	0	4.0	3.6	0.0	7.6	-	-	-	-
1/1	513	513	-	-	-	2.5	2.0	-	4.4	31.2	7.3	2.0	9.3
2/1	268	268	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	268	268	-	-	-	1.6	1.6	-	3.1	42.3	3.9	1.6	5.5
J2: A31 Roundabout	-	-	4611	0	0	2.3	10.8	0.0	13.1	-	-	-	-
1/1	513	513	513	0	0	2.3	7.2	-	9.5	66.9	7.6	7.2	14.8
2/1	917	917	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/2	1016	1016	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	220	220	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2	94	94	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	562	562	562	0	0	0.0	0.4	-	0.4	2.4	0.0	0.4	0.4
4/2	536	536	536	0	0	0.0	0.3	-	0.3	2.3	0.0	0.3	0.3
5/1	782	782	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	630	630	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	53	53	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	32	32	32	0	0	0.0	0.0	-	0.0	2.0	0.0	0.0	0.0
8/1	319	319	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	422	422	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	650	650	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2+10/1	889	889	1778	0	0	0.0	0.7	-	0.7	2.7	0.0	0.7	0.7
11/1	434	434	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	516	516	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	590	590	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	421	421	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	595	595	595	0	0	0.0	1.1	-	1.1	6.6	0.0	1.1	1.1

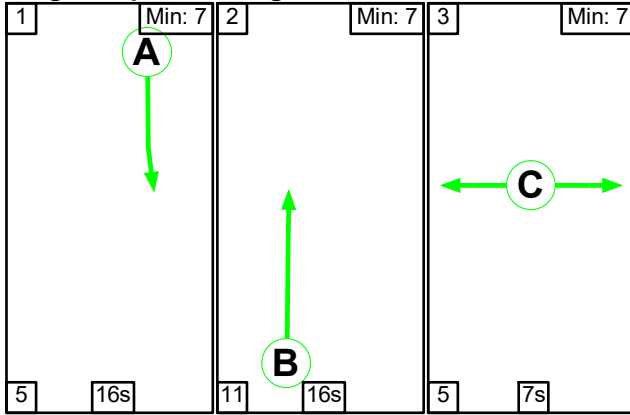
Full Input Data And Results

13/2	595	595	595	0	0	0.0	1.1	-	1.1	6.6	0.0	1.1	1.1
14/1	1056	1056	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	1076	1076	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1		PRC for Signalled Lanes (%):		12.0		Total Delay for Signalled Lanes (pcuHr):		7.60		Cycle Time (s):		57	
		PRC Over All Lanes (%):		-6.7		Total Delay Over All Lanes(pcuHr):		20.72					

Full Input Data And Results

Scenario 4: '2036 PM DS no bus gate' (FG4: '2036 PM DS no BG', Plan 1: 'Network Control Plan 1')

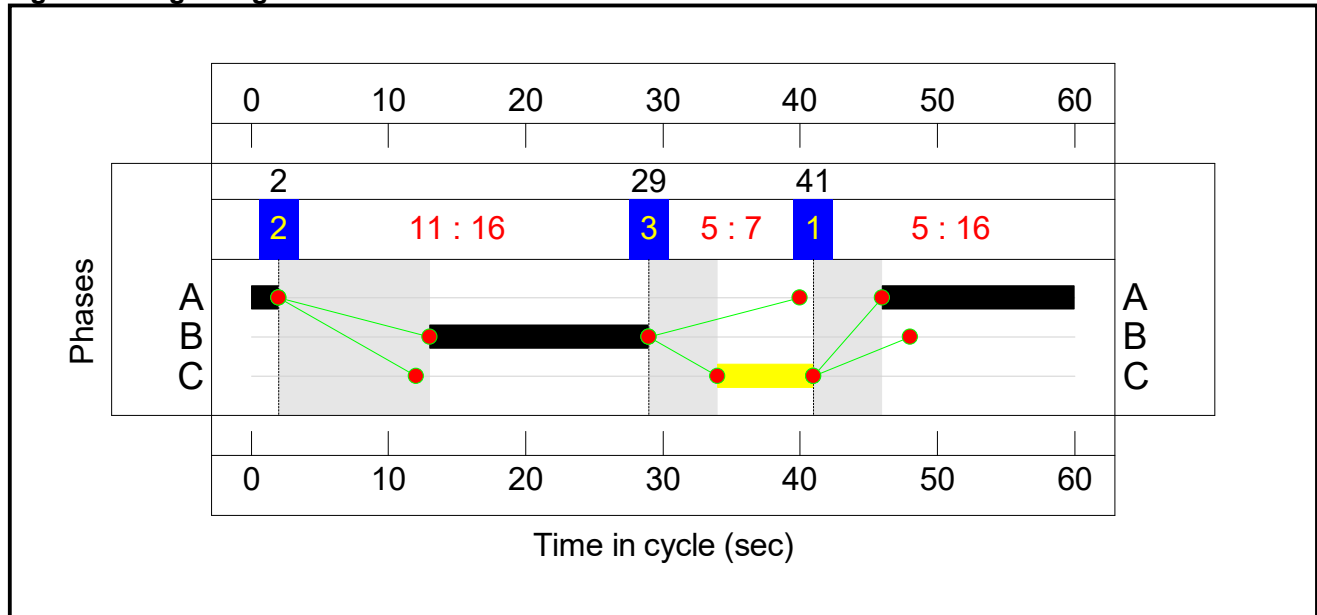
Stage Sequence Diagram



Stage Timings

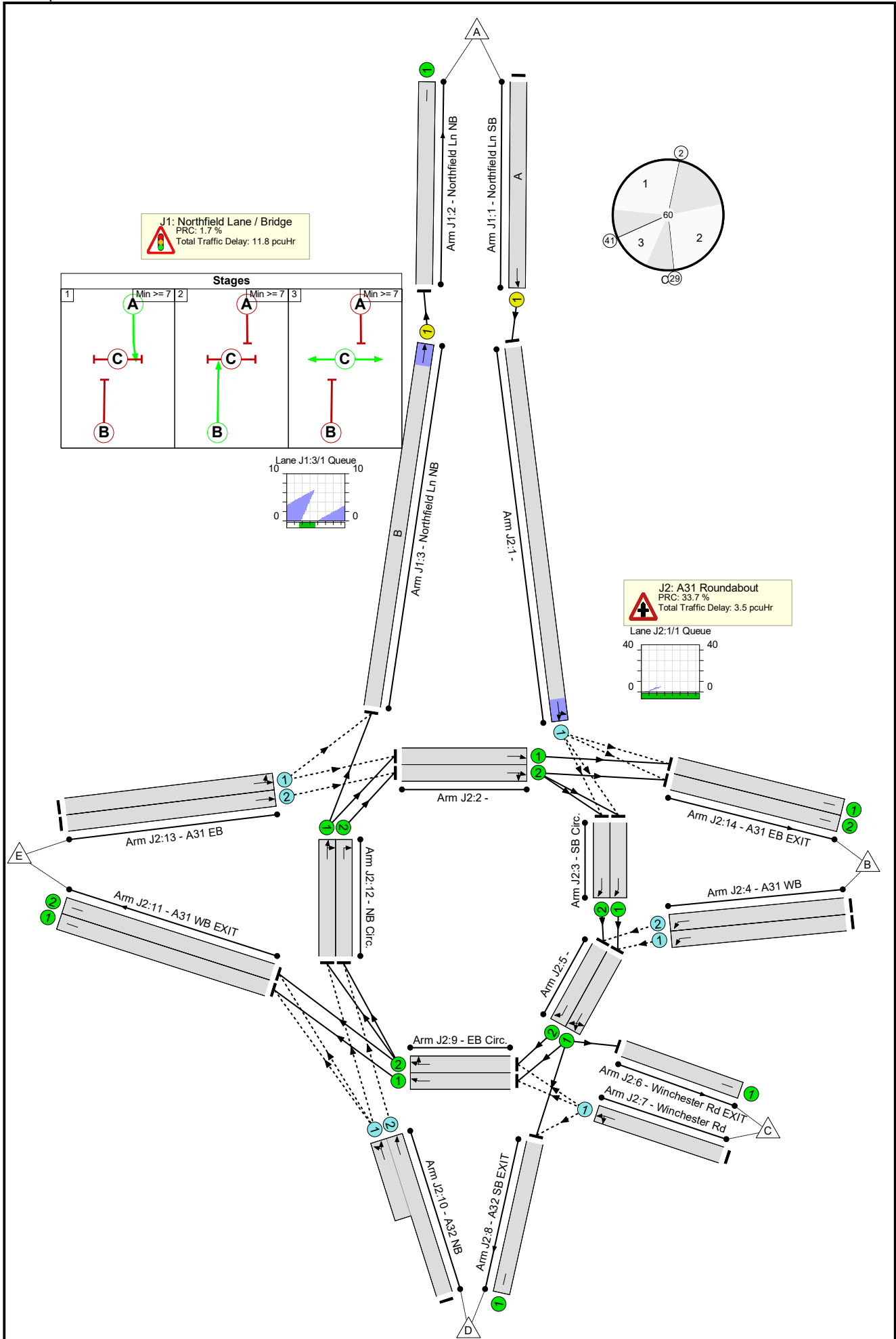
Stage	1	2	3
Duration	16	16	7
Change Point	41	2	29

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results
Network Results

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	88.5%
J1: Northfield Lane / Bridge	-	-	N/A	-	-		-	-	-	-	-	-	88.5%
1/1	Northfield Ln SB Ahead	U	N/A	N/A	A		1	16	-	476	1915	543	87.7%
2/1	Northfield Ln NB	U	N/A	N/A	-		-	-	-	417	Inf	Inf	0.0%
3/1	Northfield Ln NB Ahead	U	N/A	N/A	B		1	16	-	417	1663	471	88.5%
J2: A31 Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	67.3%
1/1	Ahead Left	O	N/A	N/A	-		-	-	-	476	1900	1241	38.4%
2/1	Ahead	U	N/A	N/A	-		-	-	-	484	Inf	Inf	0.0%
2/2	Right Ahead	U	N/A	N/A	-		-	-	-	608	Inf	Inf	0.0%
3/1	SB Circ. Ahead	U	N/A	N/A	-		-	-	-	288	Inf	Inf	0.0%
3/2	SB Circ. Ahead	U	N/A	N/A	-		-	-	-	94	Inf	Inf	0.0%
4/1	A31 WB Left	O	N/A	N/A	-		-	-	-	864	1900	1283	67.3%
4/2	A31 WB Left	O	N/A	N/A	-		-	-	-	840	1900	1283	65.5%
5/1	Left Ahead Right	U	N/A	N/A	-		-	-	-	1152	Inf	Inf	0.0%
5/2	Right	U	N/A	N/A	-		-	-	-	934	Inf	Inf	0.0%
6/1	Winchester Rd EXIT	U	N/A	N/A	-		-	-	-	56	Inf	Inf	0.0%
7/1	Winchester Rd Left Ahead	O	N/A	N/A	-		-	-	-	27	1900	419	6.4%
8/1	A32 SB EXIT	U	N/A	N/A	-		-	-	-	658	Inf	Inf	0.0%
9/1	EB Circ. Ahead	U	N/A	N/A	-		-	-	-	451	Inf	Inf	0.0%
9/2	EB Circ. Ahead Right	U	N/A	N/A	-		-	-	-	948	Inf	Inf	0.0%
10/2+10/1	A32 NB Left Ahead	O	N/A	N/A	-		-	-	-	357	1900:1900	589+654	26.3 : 30.9%

Full Input Data And Results

11/1	A31 WB EXIT	U	N/A	N/A	-	-	-	-	466	Inf	Inf	0.0%
11/2	A31 WB EXIT	U	N/A	N/A	-	-	-	-	681	Inf	Inf	0.0%
12/1	NB Circ. Ahead Right	U	N/A	N/A	-	-	-	-	449	Inf	Inf	0.0%
12/2	NB Circ. Right	U	N/A	N/A	-	-	-	-	160	Inf	Inf	0.0%
13/1	A31 EB Left Ahead	O	N/A	N/A	-	-	-	-	452	1900	1085	41.7%
13/2	A31 EB Ahead	O	N/A	N/A	-	-	-	-	448	1900	1085	41.3%
14/1	A31 EB EXIT	U	N/A	N/A	-	-	-	-	553	Inf	Inf	0.0%
14/2	A31 EB EXIT	U	N/A	N/A	-	-	-	-	633	Inf	Inf	0.0%

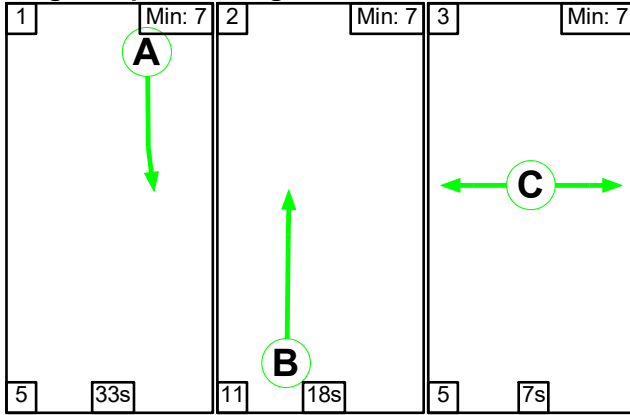
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	3821	0	0	5.3	9.9	0.0	15.2	-	-	-	-
J1: Northfield Lane / Bridge	-	-	0	0	0	5.1	6.7	0.0	11.8	-	-	-	-
1/1	476	476	-	-	-	2.7	3.3	-	6.0	45.1	7.5	3.3	10.8
2/1	417	417	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	417	417	-	-	-	2.4	3.4	-	5.8	50.1	6.6	3.4	10.0
J2: A31 Roundabout	-	-	3821	0	0	0.2	3.2	0.0	3.5	-	-	-	-
1/1	476	476	476	0	0	0.2	0.3	-	0.6	4.2	5.0	0.3	5.3
2/1	484	484	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/2	608	608	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	288	288	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2	94	94	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	864	864	864	0	0	0.0	1.0	-	1.0	4.3	0.0	1.0	1.0
4/2	840	840	840	0	0	0.0	0.9	-	0.9	4.0	0.0	0.9	0.9
5/1	1152	1152	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	934	934	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	56	56	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	27	27	27	0	0	0.0	0.0	-	0.0	4.6	0.0	0.0	0.0
8/1	658	658	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	451	451	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	948	948	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2+10/1	357	357	714	0	0	0.0	0.2	-	0.2	2.0	0.0	0.2	0.2
11/1	466	466	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	681	681	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	449	449	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	160	160	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	452	452	452	0	0	0.0	0.4	-	0.4	2.8	0.0	0.4	0.4

Full Input Data And Results

13/2	448	448	448	0	0	0.0	0.4	-	0.4	2.8	0.0	0.4	0.4
14/1	553	553	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	633	633	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1		PRC for Signalled Lanes (%):		1.7		Total Delay for Signalled Lanes (pcuHr):		11.77		Cycle Time (s):		60	
		PRC Over All Lanes (%):		1.7		Total Delay Over All Lanes(pcuHr):		15.23					

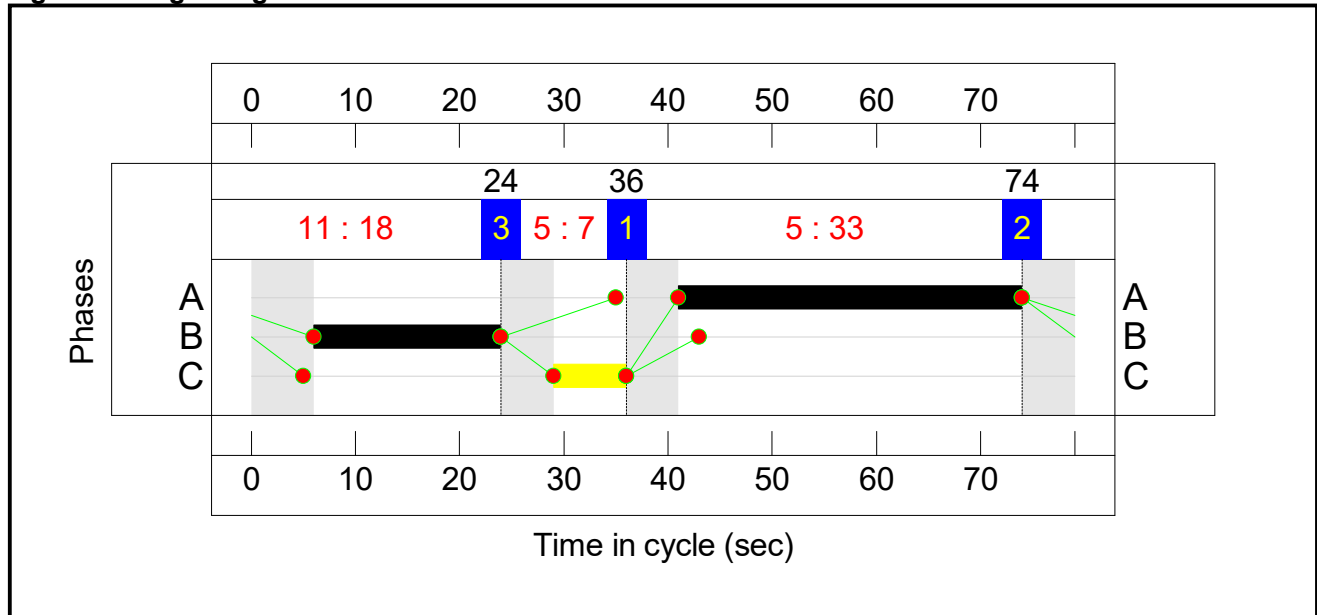
Stage Sequence Diagram



Stage Timings

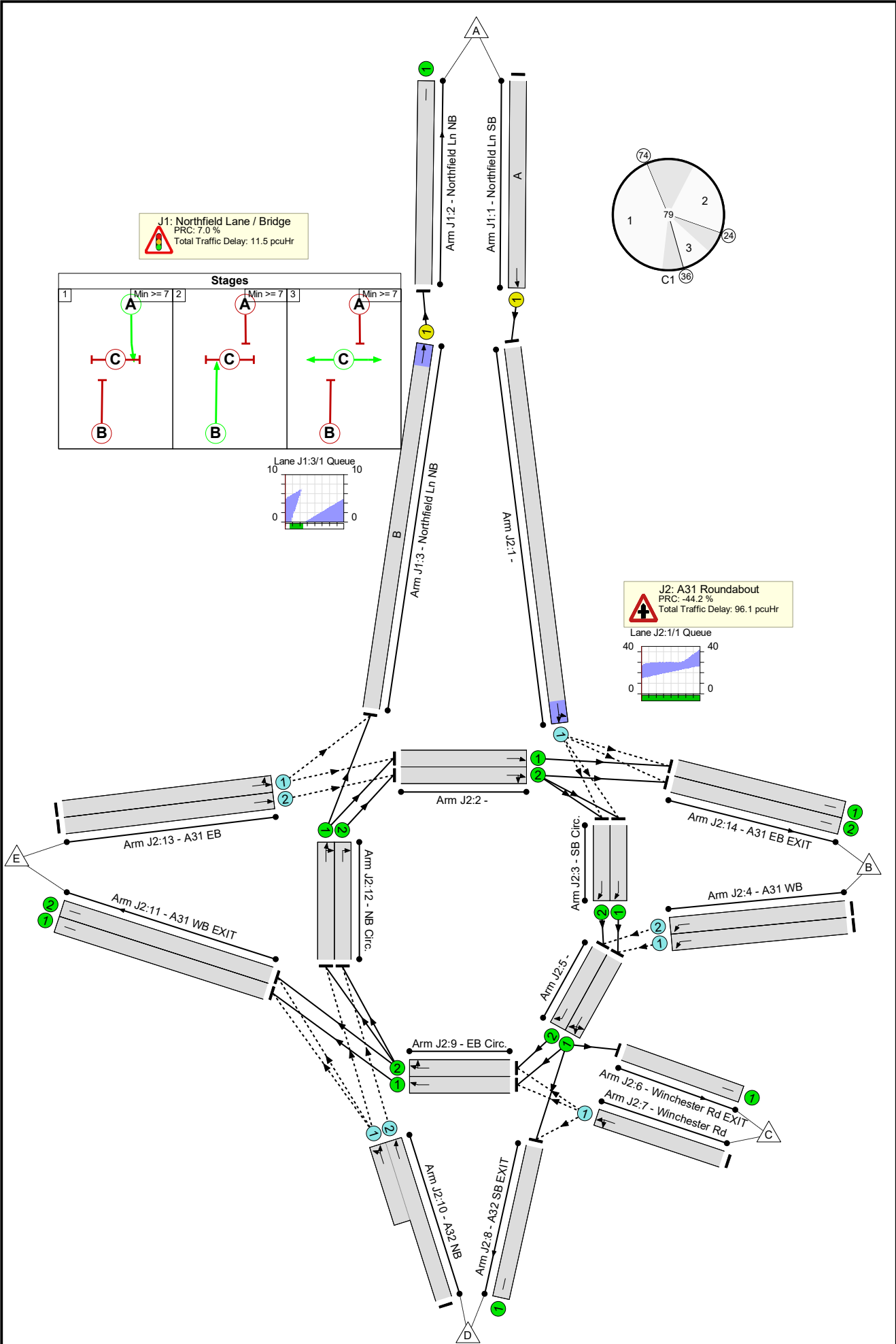
Stage	1	2	3
Duration	33	18	7
Change Point	36	74	24

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results
Network Results

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	129.7%
J1: Northfield Lane / Bridge	-	-	N/A	-	-		-	-	-	-	-	-	84.1%
1/1	Northfield Ln SB Ahead	U	N/A	N/A	A		1	33	-	693	1915	824	84.1%
2/1	Northfield Ln NB	U	N/A	N/A	-		-	-	-	335	Inf	Inf	0.0%
3/1	Northfield Ln NB Ahead	U	N/A	N/A	B		1	18	-	335	1663	400	83.8%
J2: A31 Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	129.7%
1/1	Ahead Left	O	N/A	N/A	-		-	-	-	693	1900	534	129.7%
2/1	Ahead	U	N/A	N/A	-		-	-	-	917	Inf	Inf	0.0%
2/2	Right Ahead	U	N/A	N/A	-		-	-	-	1016	Inf	Inf	0.0%
3/1	SB Circ. Ahead	U	N/A	N/A	-		-	-	-	224	Inf	Inf	0.0%
3/2	SB Circ. Ahead	U	N/A	N/A	-		-	-	-	90	Inf	Inf	0.0%
4/1	A31 WB Left	O	N/A	N/A	-		-	-	-	583	1900	1346	43.3%
4/2	A31 WB Left	O	N/A	N/A	-		-	-	-	582	1900	1346	43.2%
5/1	Left Ahead Right	U	N/A	N/A	-		-	-	-	807	Inf	Inf	0.0%
5/2	Right	U	N/A	N/A	-		-	-	-	672	Inf	Inf	0.0%
6/1	Winchester Rd EXIT	U	N/A	N/A	-		-	-	-	53	Inf	Inf	0.0%
7/1	Winchester Rd Left Ahead	O	N/A	N/A	-		-	-	-	32	1900	905	3.5%
8/1	A32 SB EXIT	U	N/A	N/A	-		-	-	-	319	Inf	Inf	0.0%
9/1	EB Circ. Ahead	U	N/A	N/A	-		-	-	-	447	Inf	Inf	0.0%
9/2	EB Circ. Ahead Right	U	N/A	N/A	-		-	-	-	692	Inf	Inf	0.0%
10/2+10/1	A32 NB Left Ahead	O	N/A	N/A	-		-	-	-	889	1900:1900	736+799	56.4 : 59.4%

Full Input Data And Results

11/1	A31 WB EXIT	U	N/A	N/A	-	-	-	-	460	Inf	Inf	0.0%
11/2	A31 WB EXIT	U	N/A	N/A	-	-	-	-	490	Inf	Inf	0.0%
12/1	NB Circ. Ahead Right	U	N/A	N/A	-	-	-	-	657	Inf	Inf	0.0%
12/2	NB Circ. Right	U	N/A	N/A	-	-	-	-	421	Inf	Inf	0.0%
13/1	A31 EB Left Ahead	O	N/A	N/A	-	-	-	-	595	1900	827	72.0%
13/2	A31 EB Ahead	O	N/A	N/A	-	-	-	-	595	1900	827	72.0%
14/1	A31 EB EXIT	U	N/A	N/A	-	-	-	-	1146	Inf	Inf	0.0%
14/2	A31 EB EXIT	U	N/A	N/A	-	-	-	-	1166	Inf	Inf	0.0%

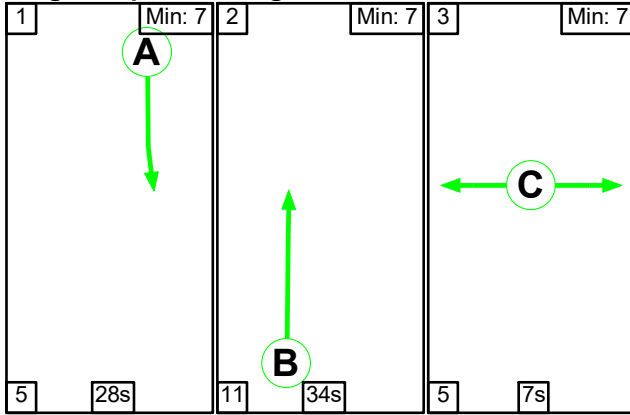
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	4699	0	0	17.1	90.5	0.0	107.6	-	-	-	-
J1: Northfield Lane / Bridge	-	-	0	0	0	6.5	4.9	0.0	11.5	-	-	-	-
1/1	693	693	-	-	-	3.9	2.5	-	6.4	33.3	13.5	2.5	16.0
2/1	335	335	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	335	335	-	-	-	2.7	2.4	-	5.1	54.3	7.0	2.4	9.4
J2: A31 Roundabout	-	-	4699	0	0	10.6	85.6	0.0	96.1	-	-	-	-
1/1	693	534	534	0	0	10.6	81.6	-	92.1	478.5	41.8	81.6	123.4
2/1	917	917	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/2	1016	1016	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	191	191	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2	70	70	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	583	583	583	0	0	0.0	0.4	-	0.4	2.4	0.0	0.4	0.4
4/2	582	582	582	0	0	0.0	0.4	-	0.4	2.4	0.0	0.4	0.4
5/1	774	774	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	652	652	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	53	53	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	32	32	32	0	0	0.0	0.0	-	0.0	2.1	0.0	0.0	0.0
8/1	306	306	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	427	427	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	672	672	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2+10/1	889	889	1778	0	0	0.0	0.7	-	0.7	2.8	0.0	0.7	0.7
11/1	440	440	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	470	470	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	657	657	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	421	421	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	595	595	595	0	0	0.0	1.3	-	1.3	7.7	0.0	1.3	1.3

Full Input Data And Results

13/2	595	595	595	0	0	0.0	1.3	-	1.3	7.7	0.0	1.3	1.3
14/1	1093	1093	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	1113	1113	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1		PRC for Signalled Lanes (%):		7.0		Total Delay for Signalled Lanes (pcuHr):		11.47		Cycle Time (s):		79	
		PRC Over All Lanes (%):		-44.2		Total Delay Over All Lanes(pcuHr):		107.59					

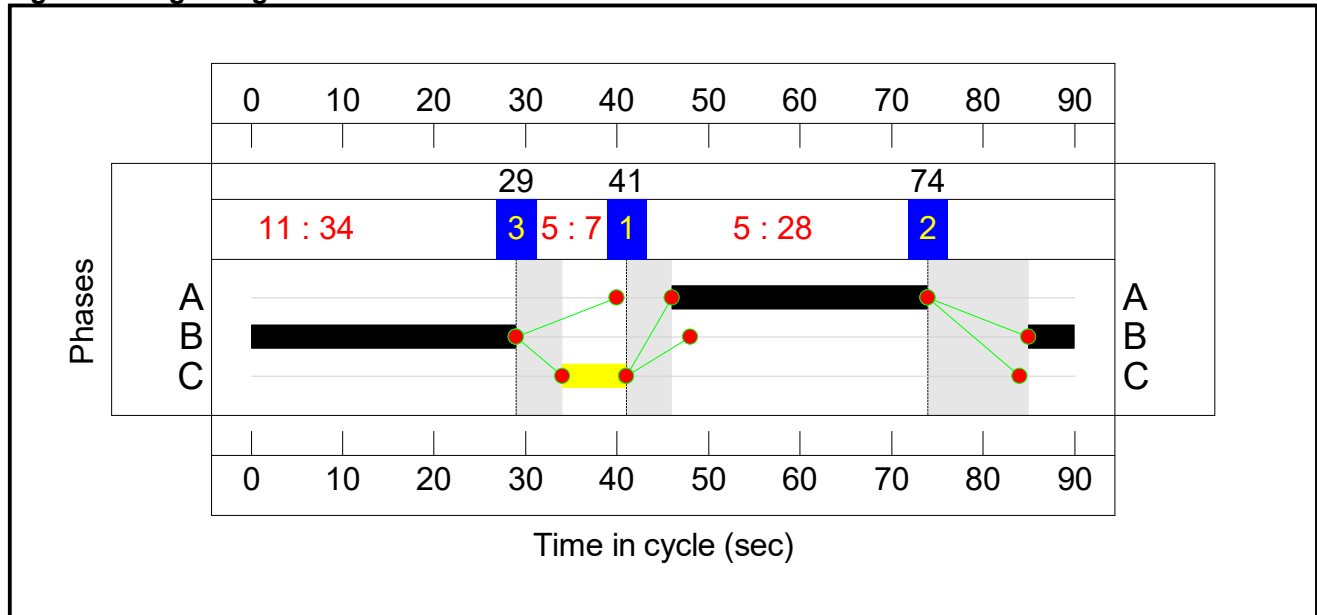
Stage Sequence Diagram



Stage Timings

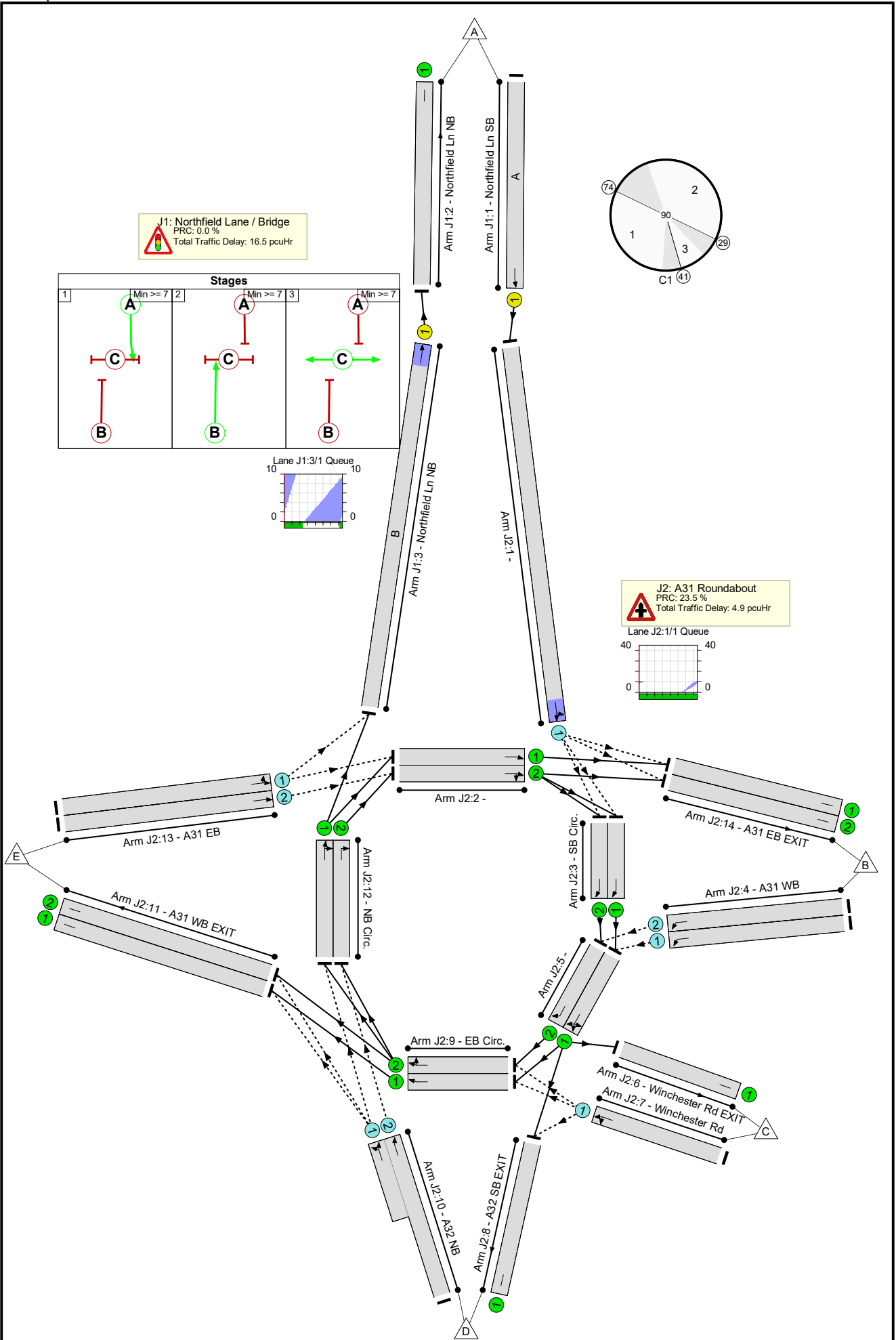
Stage	1	2	3
Duration	28	34	7
Change Point	41	74	29

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

Full Input Data And Results
Network Results

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	90.0%
J1: Northfield Lane / Bridge	-	-	N/A	-	-		-	-	-	-	-	-	90.0%
1/1	Northfield Ln SB Ahead	U	N/A	N/A	A		1	28	-	553	1915	617	89.6%
2/1	Northfield Ln NB	U	N/A	N/A	-		-	-	-	582	Inf	Inf	0.0%
3/1	Northfield Ln NB Ahead	U	N/A	N/A	B		1	34	-	582	1663	647	90.0%
J2: A31 Roundabout	-	-	N/A	-	-		-	-	-	-	-	-	72.9%
1/1	Ahead Left	O	N/A	N/A	-		-	-	-	553	1900	1241	44.6%
2/1	Ahead	U	N/A	N/A	-		-	-	-	484	Inf	Inf	0.0%
2/2	Right Ahead	U	N/A	N/A	-		-	-	-	608	Inf	Inf	0.0%
3/1	SB Circ. Ahead	U	N/A	N/A	-		-	-	-	278	Inf	Inf	0.0%
3/2	SB Circ. Ahead	U	N/A	N/A	-		-	-	-	104	Inf	Inf	0.0%
4/1	A31 WB Left	O	N/A	N/A	-		-	-	-	934	1900	1283	72.8%
4/2	A31 WB Left	O	N/A	N/A	-		-	-	-	935	1900	1283	72.9%
5/1	Left Ahead Right	U	N/A	N/A	-		-	-	-	1212	Inf	Inf	0.0%
5/2	Right	U	N/A	N/A	-		-	-	-	1039	Inf	Inf	0.0%
6/1	Winchester Rd EXIT	U	N/A	N/A	-		-	-	-	56	Inf	Inf	0.0%
7/1	Winchester Rd Left Ahead	O	N/A	N/A	-		-	-	-	27	1900	297	9.1%
8/1	A32 SB EXIT	U	N/A	N/A	-		-	-	-	658	Inf	Inf	0.0%
9/1	EB Circ. Ahead	U	N/A	N/A	-		-	-	-	510	Inf	Inf	0.0%
9/2	EB Circ. Ahead Right	U	N/A	N/A	-		-	-	-	1054	Inf	Inf	0.0%
10/2+10/1	A32 NB Left Ahead	O	N/A	N/A	-		-	-	-	357	1900:1900	508+577	30.5 : 35.0%

Full Input Data And Results

11/1	A31 WB EXIT	U	N/A	N/A	-	-	-	-	522	Inf	Inf	0.0%
11/2	A31 WB EXIT	U	N/A	N/A	-	-	-	-	625	Inf	Inf	0.0%
12/1	NB Circ. Ahead Right	U	N/A	N/A	-	-	-	-	614	Inf	Inf	0.0%
12/2	NB Circ. Right	U	N/A	N/A	-	-	-	-	160	Inf	Inf	0.0%
13/1	A31 EB Left Ahead	O	N/A	N/A	-	-	-	-	452	1900	994	45.5%
13/2	A31 EB Ahead	O	N/A	N/A	-	-	-	-	448	1900	994	45.1%
14/1	A31 EB EXIT	U	N/A	N/A	-	-	-	-	592	Inf	Inf	0.0%
14/2	A31 EB EXIT	U	N/A	N/A	-	-	-	-	671	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	4063	0	0	9.4	12.0	0.0	21.4	-	-	-	-
J1: Northfield Lane / Bridge	-	-	0	0	0	8.6	7.9	0.0	16.5	-	-	-	-
1/1	553	553	-	-	-	4.5	3.9	-	8.3	54.2	13.1	3.9	16.9
2/1	582	582	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	582	582	-	-	-	4.2	4.0	-	8.2	50.6	13.6	4.0	17.6
J2: A31 Roundabout	-	-	4063	0	0	0.8	4.2	0.0	4.9	-	-	-	-
1/1	553	553	553	0	0	0.7	0.4	-	1.1	7.4	11.1	0.4	11.5
2/1	484	484	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/2	608	608	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	278	278	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2	104	104	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	934	934	934	0	0	0.0	1.3	-	1.3	5.1	0.0	1.3	1.3
4/2	935	935	935	0	0	0.0	1.3	-	1.3	5.1	0.0	1.3	1.3
5/1	1212	1212	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	1039	1039	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	56	56	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	27	27	27	0	0	0.0	0.1	-	0.1	10.1	0.2	0.1	0.3
8/1	658	658	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	510	510	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	1054	1054	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2+10/1	357	357	714	0	0	0.0	0.2	-	0.2	2.5	0.0	0.2	0.2
11/1	522	522	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	625	625	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	614	614	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/2	160	160	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	452	452	452	0	0	0.0	0.4	-	0.4	3.3	0.0	0.4	0.4

Full Input Data And Results

13/2	448	448	448	0	0	0.0	0.4	-	0.4	3.3	0.0	0.4	0.4
14/1	592	592	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	671	671	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1		PRC for Signalled Lanes (%):		0.0		Total Delay for Signalled Lanes (pcuHr):		16.50		Cycle Time (s):		90	
		PRC Over All Lanes (%):		0.0		Total Delay Over All Lanes(pcuHr):		21.44					

TECHNICAL NOTE

CHAWTON PARK SUSTAINABILITY EVIDENCE REVIEW

IDENTIFICATION TABLE	
Project	Chawton Park, Alton, East Hampshire
Title of Document	Chawton Park Sustainability Evidence Review
Document reference	GB01T22B09-TN002.
Type of Document	Technical Note
Date	29/04/2022
Number of pages	17

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1. INTRODUCTION

1.1 Context

1.1.1 SYSTRA has been commissioned to provide an independent review of evidence produced by Calibro in support of the on-going promotion of Chawton Park Garden Village, Alton through the emerging EHDC Local Plan. The development is being promoted for up to 1,200 dwellings in Alton, East Hampshire. The development will also include a two form primary school, neighbourhood centre.

1.1.2 The site has a history of housing development proposed and was submitted to East Hampshire District Council large sites consultation, as part of their local plan development.

1.1.3 The planning authority have previously considered the site as a potential preferred site, but the Local Plan is currently preceding with no preferred sites, rather that sites should have technical studies undertaken to ensure delivery is possible.

1.1.4 We understand Hampshire County Council (as the Local Highway Authority) has objected the application on sustainability and capacity grounds, focusing on the impact of the Northfield Lane bridge, the replacement of which would require involvement of a third party. The developer has produced technical reports with the aim of satisfying the LHA that a solution is deliverable.

1.1.5 In line with our instruction, our review is considers whether the evidence produced can be considered to have met the following issues:

Issue 1: Whether sufficient transport evidence has been prepared to demonstrate, to the level required for a Local Plan, that there are no barriers that would preclude delivery of Chawton Park Garden Village within the Plan Period, having particular regard to the Northfield Lane Bridge;

Issue 2: Whether the delivery of new homes at Chawton Park Garden Village would accord with the principles of sustainable development, taking into account its individual merits relative to reasonable alternatives and statements from the local bus operator and Sustrans; and

Issue 3: Whether the current position of objection of Hampshire County Council, as the relevant Highway Authority, is justified considering the conclusions to the preceding questions, and whether their position is likely to be sustainable at Examination in Public.

1.1.6 To ascertain the appropriateness of the Local Highway Authority's (Hampshire County Council) consideration of impacts of the development, for inclusion in the Local Plan, the following reports have been reviewed, in addition to correspondence with Hampshire County Council (HCC) on which their current objection is evidenced:

- Technical Note TP01 – General Briefing
- Technical Note TP02 – Sustainability and Means of Access
- Technical Note TP03 – Northfield Lane Bridge
- Technical Note TP04 – Highway Capacity

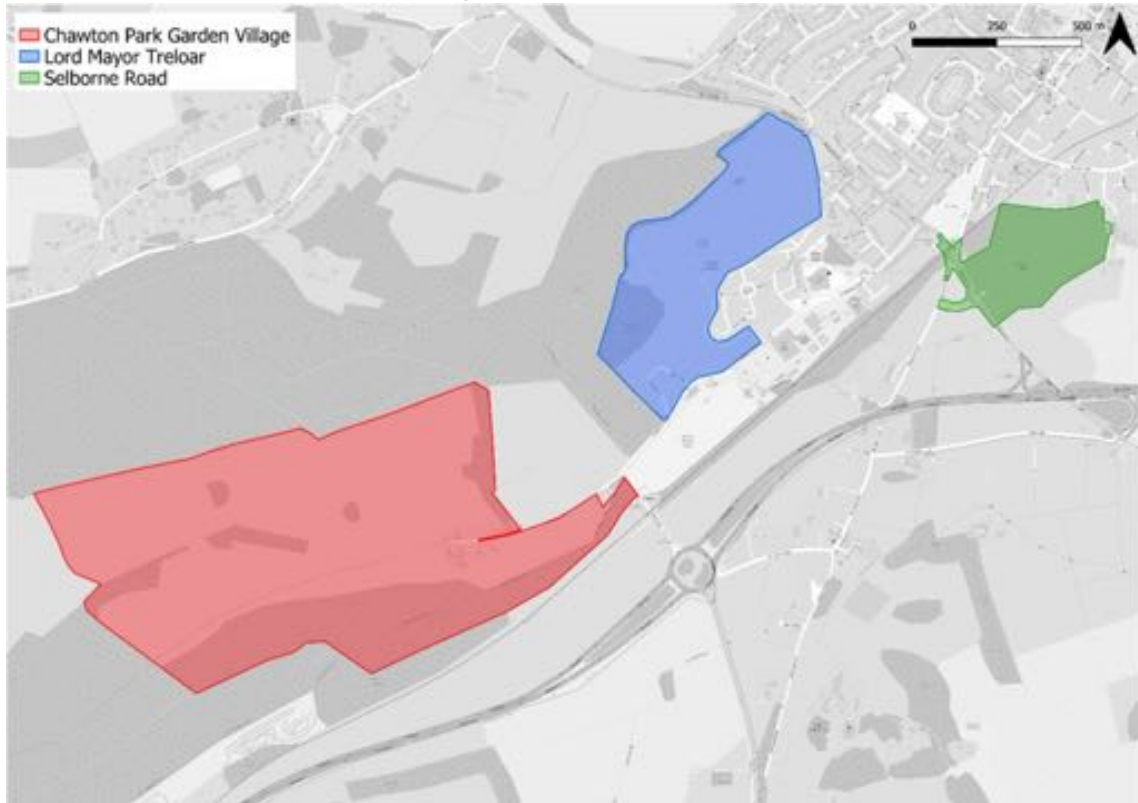
- 1.1.7 Systra have produced two notes to detail this review, as well as a non-technical summary letter, to respond to the three issues Systra have been commissioned to address.
- 1.1.8 Technical Note 1 reviews the technical assessment of the highway proposals put forward with this development site. This note considers the technical accuracy of these assessments to determine whether the evidence produced by Calibro is sufficient to determine if highway access to the proposed development is achievable, in the context of the promotion of this site through the Local Plan. This allows Issue 1 to be addressed.
- 1.1.9 Technical Note 2 has considered Calibro's evidence in relation to the traffic generation of this site, and its likely distribution onto the network, considering how this relates to the means of access for all modes, and the potential performance of the site in relation to sustainable transport in the context of East Hampshire. This allows Issue 2 to be addressed.
- 1.1.10 This technical note therefore looks to respond to issue 2, considering sustainability considerations for the development site, in the context of Local Plan evidence. This includes consideration of development trips, and their subsequent application to the future multi modal network.

2. TRANSPORT SUSTAINABILITY REVIEW

2.1 Local Applications

- 2.1.1 This report will consider applications within close proximity to the site as comparators. For reference, Figure 1 below shows the location of these sites.

Figure 1. Site Boundaries



- 2.1.2 Land at Lord Mayor Treloar is a current 11ha allocation in the Alton Neighbourhood Plan. Planning permission for the site has been granted for 280 dwellings, and construction is under way.
- 2.1.3 The site is not included as an allocated site in the current local plan (Adopted June 2014) however the 2017 East Hampshire Draft Local Plan includes an allocation for 280 dwellings at this site. This allocation supersedes the Alton Neighbourhood Plan.
- 2.1.4 The Selborne Road application is referred to as 'Land at Borovere Farm' within the Draft Local Plan. It is a 9.5ha site, allocated for 249 dwellings with planning permission. This allocation supersedes the Alton Neighbourhood Plan.
- 2.1.5 The Chawton Park Farm application is not currently considered as an allocation in the Alton Neighbourhood Plan (noting it is outside of its boundary), nor the current or Draft East Hampshire Local Plan.

2.2 Trip Rates

- 2.2.1 The trip rates for the Chawton Park Garden Village development have been obtained from Calibro’s Technical Note dated 29th November 2021: ‘Technical Note TP03: Northfield Lane Bridge’.
- 2.2.2 These trip rates were obtained by Calibro from the South Alton Masterplan Transport Assessment, in which it is stated that these trip rates were agreed with Hampshire County Council. The trip rates from the South Alton Masterplan Transport Assessment TA have been reproduced in Table 1 for reference.
- 2.2.3 These rates were also used in the Land at Lord Mayor Treloar Hospital Site TA.

Table 1. South Alton Masterplan Trip Rates

	AM PEAK (07:00-08:00)			PM PEAK (17:00-18:00)		
	IN	OUT	TWO-WAY	IN	OUT	TWO-WAY
1 Bed Dwelling	0.044	0.128	0.172	0.125	0.062	0.187
2-3 Bed Dwelling	0.101	0.295	0.396	0.228	0.144	0.431
4+ Bed Dwelling	0.117	0.343	0.460	0.334	0.167	0.501

- 2.2.4 Calibro’s first technical note ‘TP01: General Briefing’ states how the site used these trip rates to assess network capacity impact, as below:

“...the starting point of the assessment was to utilise the trip generation rates agreed with the Highway Authority in the technical assessments for the close by scheme at the Former Lord Mayor Treloar site. Those trip generation rates were then growthed in intervals of +10%, with the maximum trip rate tested being twice that of the agreed Lord Mayor Treloar assessment.”

- 2.2.5 These trip rates have been reproduced in Table 2 below for reference.

Table 2. Calibro Trip Rates

	AM PEAK (07:00-08:00)			PM PEAK (17:00-18:00)		
	IN	OUT	TWO-WAY	IN	OUT	TWO-WAY
4+ Bed Dwelling	0.117	0.343	0.460	0.334	0.167	0.501
+5%	0.123	0.360	0.483	0.351	0.175	0.526
+10%	0.129	0.3777	0.506	0.367	0.184	0.551
+20%	0.140	0.4122	0.552	0.401	0.200	0.601
+30%	0.152	0.446	0.598	0.434	0.217	0.651
+40%	0.164	0.480	0.644	0.468	0.234	0.701
+50%	0.176	0.515	0.690	0.501	0.251	0.752
+60%	0.187	0.549	0.736	0.534	0.267	0.802
+70%	0.199	0.583	0.782	0.568	0.284	0.852
+80%	0.211	0.617	0.828	0.601	0.301	0.902
+90%	0.222	0.652	0.874	0.635	0.317	0.952
+100%	0.234	0.686	0.920	0.668	0.334	1.002

2.2.6 Calibro’s second Technical Note ‘TN02 Sustainability’ suggests that capacity in the morning peak hour would only be breached where the trip rates were 30% higher than the agreed rates used for the Former Lord Mayor Treloar site, but with 100% of that traffic travelling towards the Northfield Lane bridge.

2.2.7 It states that:

‘If a more realistic distribution of say, 70%, is assumed, the trip generation rate would need to be 80% higher than the rates used in the Former Lord Mayor Treloar Hospital site, in order to breach capacity.’

2.2.8 The systematic assessment provides a comprehensive set of results, considering variation in both trip rates and distribution, but does not lend itself to easily identifying which distribution and trip rate scenario is most suited to providing the information the LHA are likely to want in relation to evidence of impact mitigation from the site. Therefore Systra have reviewed trip rates, distribution and future growth.

SYSTRA Calculated Trip Rates

2.2.9 SYSTRA has derived trip rates from the TRICS database V7.9.1. The following criteria was used to filter the data:

- Land Use – Residential (Houses Privately Owned)
- All regions excluding those in Greater London and Ireland
- No of Dwellings – Range between 500 and 2000
- Surveys from weekdays allowed
- Edge of Town Locations
- Sub categories including Residential Zone and Out of Town

2.2.10 The trip rates obtained from this analysis are shown in Table 3. The TRICS outputs obtained by SYSTRA are included as **Appendix A** for reference.

Table 3. SYSTRA Calculated Trip Rates

TRIP RATE	AM PEAK (07:00-08:00)			PM PEAK (17:00-18:00)		
	IN	OUT	TWO-WAY	IN	OUT	TWO-WAY
Per Dwelling	0.135	0.366	0.501	0.336	0.157	0.493

2.2.11 A comparison of the Former Lord Mayor Treloar site (4+ bed dwelling rate) is shown in table 4. This shows that, in general terms, a vehicle trip rate for what could be considered by the highway authority as similar sites, produces a similar rate to the highest associated with the Former Lord Mayor Treloar site.

2.2.12 The Systra derived trip rates are also noted to lie towards the bottom end of the range of those considered in Calibro’s assessment, being around +10% higher than the previously agreed Lord Mayor Treloar trip rates in the morning peak, whereas the updated trip rates are lower than the Lord Mayor Treloar assessment in the evening peak.

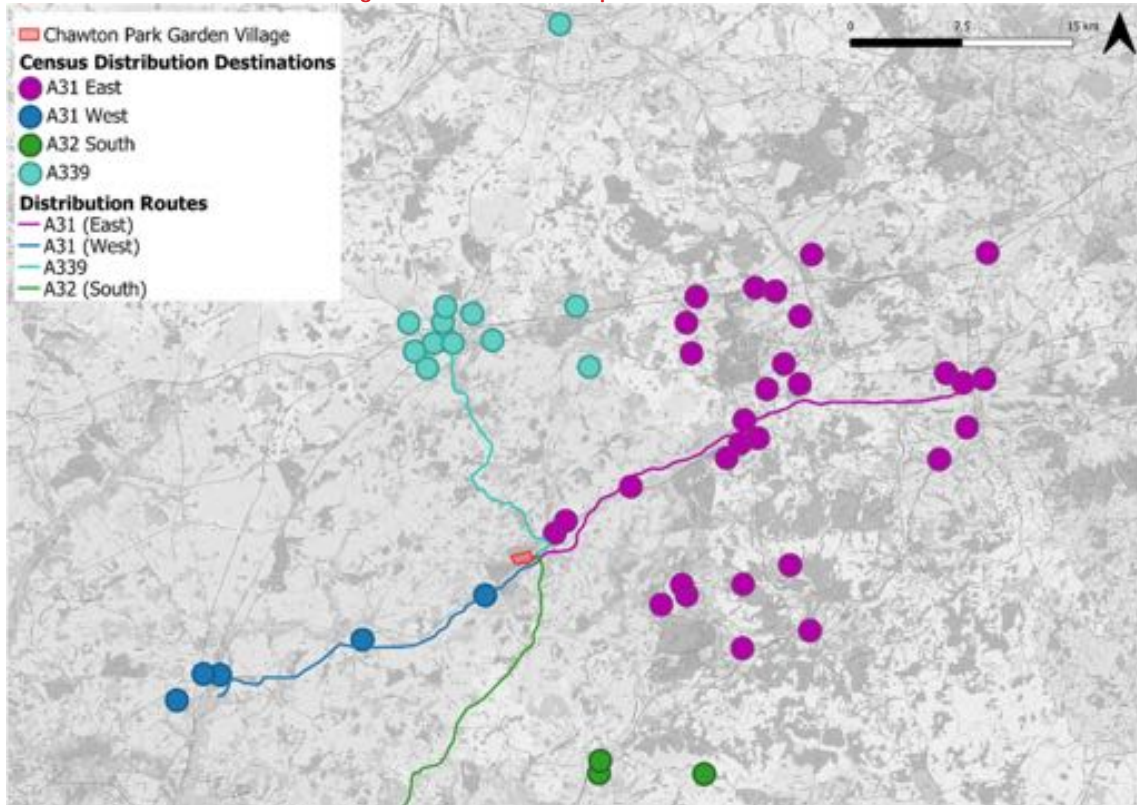
Table 4. Difference in Trip Rates

TRIP RATE (1,200 DWELLINGS)	AM PEAK (07:00-08:00)			PM PEAK (17:00-18:00)		
	IN	OUT	TWO- WAY	IN	OUT	TWO- WAY
Application Trip Rate (4+ Bed Dwelling)	140	412	552	401	200	601
TRICS Database	162	439	601	403	188	592
Difference	22	28	49	2	-12	-10

2.3 Distribution

- 2.3.1 The Calibro analysis presented within the notes reviewed focuses on a full range of development distribution variation, which whilst designed to highlight that extreme scenarios may be needed for the network capacity to be breached, the approach is more difficult to pick out a value to design mitigation to.
- 2.3.2 SYSTRA has therefore used 2011 Census Journey to Work data from the NOMIS database to calculate the likely distribution of trips from Chawton Park site, as this is a generally accepted method of defining distribution. The distribution is assigned on to the road links used by those travelling to various destinations, particularly focusing on whether those travelling east and south of the site, use the A31 (East) or Northfield Lane, travelling under the bridge.

Figure 2. Distribution of Trips from Chawton Park



2.3.3 The distribution demonstrates that the majority of trips from the Chawton Park development would route east in the first instance to reach their destination. Table 5 below shows the 88% of trips which route on each of the four links shown in Figure 2.

Table 5. Chawton Park Distribution

DESTINATION	ROUTE	% OF TRIPS
Alton	A31 East	72% (25% Alton)
Fleet		
Bordon		
Haslemere		
New Alresford	A31 West	9%
Winchester		
Petersfield	A32 South	3%
Basingstoke	A339 North	16%

- 2.3.4 Of the 88% that route east, those traveling to Basingstoke and the town of Alton have a direct desire line along Chawton Park Road, as they don't specifically need to access the A31 to arrive at their destination. Basingstoke accounts for 16% of peak hour trips, and Alton accounts for 25% of peak hour trips (within the 72% grouped to the A31 travelling east)
- 2.3.5 Therefore, using the census based distribution data, there is a potential of between 55% and 100% of development trips routing via Northfield Lane to exit the development site. 55% is the expected proportion routing through Northfield Lane to the A31, with the switch to 100% requiring intervention, such as the bus gate, on Chawton Park Road.

2.4 TEMPro Growth Factors

- 2.4.1 The Chawton Park Garden Village Technical Note 3 states that growth factors were derived East Hampshire 007 datasets of TEMPRO for 'Principal' roads and assume zero household growth. This reflects the fact that a development of Chawton Park Garden Village, in combination with the former Lord Mayor Treloar Hospital site, would account for all development potential within the immediate area. In this way, however, the growth factors allow for a level of growth for through-flowing traffic.
- 2.4.2 The assumed growth factors obtained from the Technical Note have been reproduced in 6 below.

Table 6. Chawton Park TEMPro Growth Factors

PEAK	ROAD CLASSIFICATION	2021-2036
AM	Rural Principal (No HH)	1.0726
	Rural Principal Full	1.2433
	Rural Trunk Road	1.2766
PM	Rural Principal (No HH)	1.0516
	Rural Principal Full	1.2409
	Rural Trunk Road	1.2742

SYSTRA Calculated Growth Rates

- 2.4.3 SYSTRA has obtained growth rates from TEMPro V7.2c for the East Hampshire area as a whole, in particular due to the inclusion of the A31/32 roundabout in the consideration of the analysis. Testing within TEMPro suggests the East Hampshire level growth rate is slightly higher than the East Hampshire 007 growth rates. The resultant growth rates for East Hampshire are shown in Table 7.

PEAK	ROAD CLASSIFICATION	NTM AF15	RTF18
		2021-2036	2021-2036
AM	Rural Principal	1.1582	1.1169

	Rural Trunk	1.1608	1.1371
PM	Rural Principal	1.1652	1.1237
	Rural Trunk	1.1679	1.1441

Table 7. SYSTRA Calculated TEMPro Growth Rates

2.4.4 Assuming that the Northfield Road and Chawton Park Road growth is dominated by the local developments is appropriate, however, when assessing the Northfield Road and A31 / 32 Roundabout together, this creates a mis match in future growth. Given this is associated with consideration at Local Plan level, it is appropriate to use the growth rates associated with that geographical region, and reduce the level of dwellings by the proposed development. The growth in households between 2021 and 2036 at the Local Plan (East Hampshire) level, in TEMPro, is an additional 11,489 dwellings. Reducing this by 1,200 gives an alternative assumption of 10,289 dwellings. Applying this assumption to the current TEMPro East Hampshire growth rates gives the growth rates identified in Table 8. These rates would follow current best practice, standing up to scrutiny. The rates in column RTF18 are taken forward for future year assessments by Systra.

2.4.5 One final clarification in relation to the TEMPro data is that a major update to TEMPro growth calculations occurred in February 2022. This results in a significantly lower growth rate than previously output. This type of update happens approximately every 5 years.

Table 8. SYSTRA Calculated TEMPro Growth Rates

PEAK	ROAD CLASSIFICATION	NTM AF15	RTF18
		2021-2036	2021-2036
AM	Rural Principal	1.1478	1.1069
	Rural Trunk	1.1504	1.1270
PM	Rural Principal	1.1535	1.1124
	Rural Trunk	1.1561	1.1325

2.5 Sustainable Transport Modes

2.5.1 Alton is a historic market town, the most significant local service centre and the largest settlement in the sub-area. It offers transport connections to regional centres via the strategic road and rail networks, with rail connections to London Waterloo.

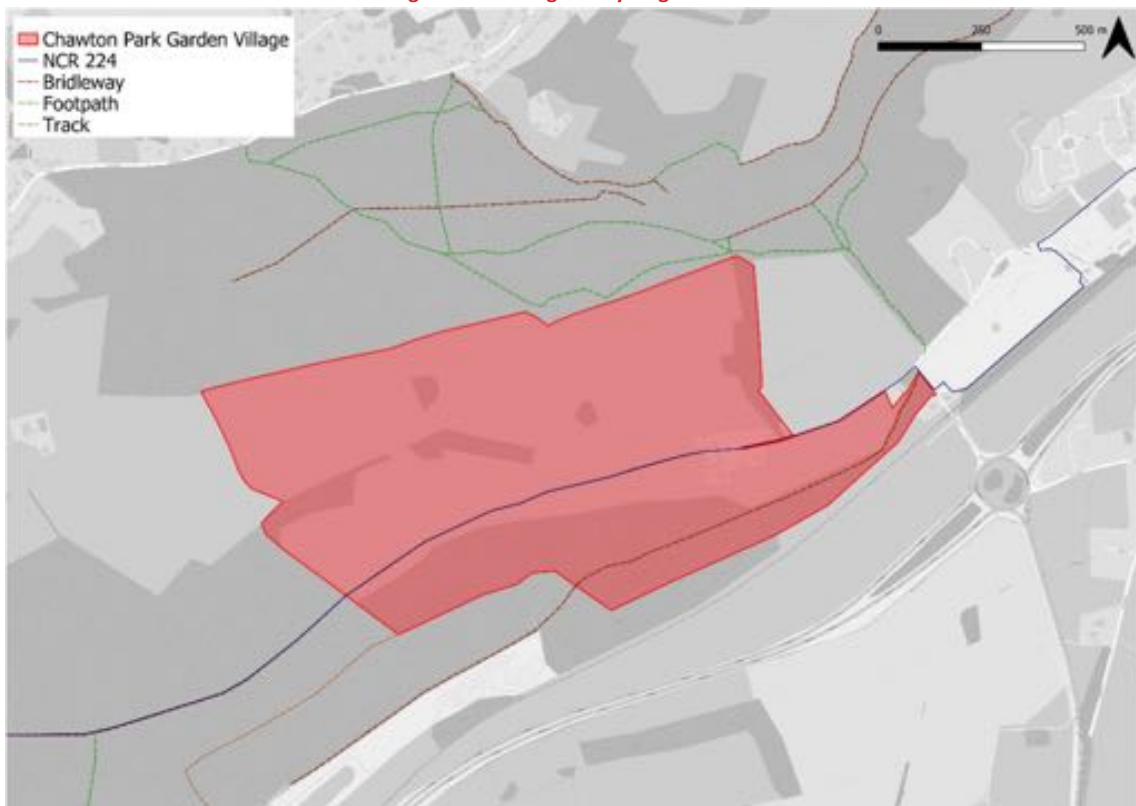
2.5.2 This section will discuss the sustainability of the proposed Chawton Park development, particularly in relation to public transport, walking, and cycling facilities.

2.5.3 Calibro have taken the approach that achieving the principles of a 20 minute neighbourhood, i.e. providing accessibility by none car modes to multiple destination types, evidences the delivery of a sustainable site. Systra agree with this general principle, and within their own analysis have considered delivering sustainable access to a large proportion of Alton as a delivering this.

Pedestrian / Cycle Network

- 2.5.4 Pedestrian infrastructure in the vicinity of the site is of a standard commensurate with its rural location. Footways help to facilitate pedestrian movements on many of the roads in the local area, with several of the roads having 30mph speed limits.
- 2.5.5 Two bridleways run through the site, connecting to nearby settlements of Medstead and Four Marks to the west. The bridlepath along the southern part of the site also routes towards a Public Right of Way from Chawton Park Road to the nearby residential area of Beech.
- 2.5.6 Figure 3 shows the existing walking routes within close proximity of the site boundary.

Figure 3. Walking and Cycling Routes



- 2.5.7 Opportunities appear to exist to connect the existing formal pedestrian network along Chawton Park Road to the existing Leisure Centre, and this would be incorporated within existing highway verge.
- 2.5.8 A new school is promoted as part of the development proposals.
- 2.5.9 National Cycle Route 224 (NCR 224) routes along the majority of Chawton Park Road between Butts Road in the east and Red Hill in the west. This route provides a link between Farnham to Medstead via Alton, and between Wickham and Gosport. There are opportunities to incorporate and enhance this provision through an integrated masterplan for Chawton Park, whilst enhancing connectivity to the countryside for the wider Alton community.
- 2.5.10 In addition NCR 224 provides access onto National Cycle Route 23 in the east which continues northwards towards Basingstoke and southwest towards Winchester.

- 2.5.11 Chawton Park Road is a single carriageway, narrow in nature with no footway provision. West of its junction with Gurdons Road it has a posted speed limit for 30mph, to the east of this junction it is subject to national speed limit.
- 2.5.12 Northfield Lane to the south of the development is a single lane carriageway between Chawton Park Road and the A31/A32 junction. This road has a footway on the southbound side of the carriageway for approximately 70m north of the junction.
- 2.5.13 There are two specific cycle and walking constraints in the vicinity of the site, associated with a barrier created by the railway line, and poor provision on Northfield Lane between Chawton Park Road and the Northfield Lane Rail Bridge. This results in a break in NCR 224, at a point where visibility associated with a sharp corner is poor, and the lack of any pedestrian or cycle provision through the Northfield Lane bridge.

Train Network

- 2.5.14 Alton Station is circa 3km east of Chawton Park, and accessible by bike or bus service 64.
- 2.5.15 Based on a 40-minute total travel time, Chawton Park would facilitate access to a catchment containing approximately a further 5,000 jobs. However, this number would increase markedly when considering the likelihood of longer rail-based commutes, as services from Alton provide connections to Farnham, Aldershot, Woking, West Byfleet, London Waterloo and the wider rail network.

Bus Services

- 2.5.16 The closest bus stop to the site is currently located on Northfield Lane on its approach to the A31 roundabout junction. This stop is served by routes 38 and 64 which offer a combined frequency of approximately 3 buses an hour.
- 2.5.17 Route 38 provides connections between Petersfield and Alton and route 64 between Winchester and Alton. These routes are also accessible from Alton Rail Station.
- 2.5.18 The left hand window of Figure 4 shows the bus accessibility for the whole of East Hampshire, which represents the base bus service access provision across the local plan area.
- 2.5.19 The right hand figure of Figure 3 shows the bus accessibility, assuming users within the development site can access services currently using Northfield Lane.
- 2.5.20 The areas with best accessibility shown in green, and the worst in red. This figure demonstrates the site is close to existing services which serve the local town, as well as linking to routes that travel between settlements. As such, operators are likely to be committed to the area, and in general, the site has a good opportunity to tie into existing provision which is of a level that could be considered to be of a higher standard than the general Local Plan area.

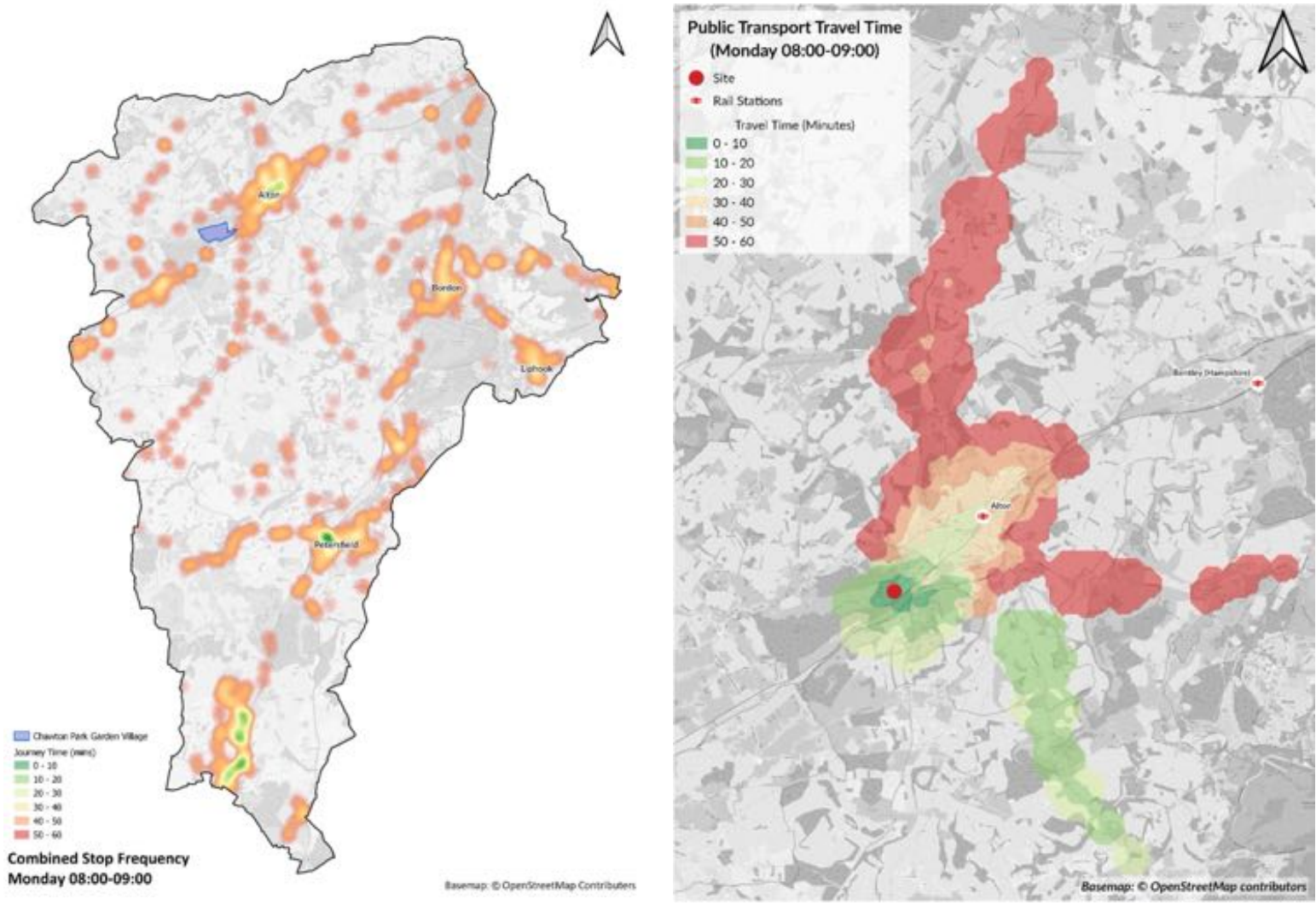


Figure 4. Bus Accessibility Heat Maps

2.1 Sustainability Assessment

- 2.1.1 The Sustainability Assessment (SA) undertaken by AECOM suggests that the Chawton Park settlement, whilst subject to significant constraints, does warrant further consideration given the potential to deliver a mix of uses and new/upgraded infrastructure, as well as given good links to Alton and the strategic road network.
- 2.1.2 As part of the SA, an analysis was undertaken, categorising the performance of sites on a red/amber/green scale in relation to a number of considerations such as distance to amenities. The Chawton Park development is divided into three LAA references (CHA-004, CHA-005 and CHA-006)
- 2.1.3 The analysis found that the site is within a reasonable distance from schools and doctors, however is classified as ‘red’ for its proximity to town/local centres.
- 2.1.4 The assessment provides the following summary regarding Chawton Park:

“Option 1 performs reasonably well against the SA objectives. As with the other new settlement options, Chawton Park Farm is of strategic scale and therefore offers potential to deliver some local services within the site itself, feasibly reducing the need to travel for some services. Notably, however, Chawton Park Farm is also sufficiently close to Alton that providing cycle routes into the town centre could be a viable sustainable transport option. The town centre services and facilities are around 2 miles from the site, with Alton station a further half a mile. It should also be possible to extend existing bus services, particularly services 38 and 64, to serve the Chawton Park Farm site....”

Option 1 would deliver substantial growth to the west of Alton, making it well placed for the existing community facilities of Alton Sports Centre and Alton Community Hospital. Additionally, Option 1 would be ideally placed to access the recreational off-road cycle path which runs through Chawton Park Wood, between Alton and Four Marks. The long distance St Swithun’s footpath is also within easy reach of the Chawton Park Farm strategic site, as well as a number of smaller sites at Ropley and Four Marks. However, the draft East Hampshire Green Infrastructure Strategy identifies “an existing deficiency in natural and semi-natural open space in the North West [A31 Corridor] subarea” which is “likely to be exacerbated to a small extent by planned growth”.

- 2.1.5 This would suggest that should the development be able to provide connection to nearby bus services, and resolve the current deficiencies related to the NCR 224 at Northfield Lane, as well as improving pedestrian facilities on Chawton Park Road and Northfield Lane (potentially extending to provision across the A31 at the A31 / A32 roundabout), the development could be shown to be addressing Sustainability and Active Travel requirements a development would be expected to deliver.

3. SUMMARY AND CONCLUSIONS

3.1 Development Impact Definition

3.1.1 The development trip rates, distribution and growth rates have been reviewed. The values derived separately in this report on these aspects are considered to be derived in a methodology that has can be considered a standard travel assessment for a development complaint with nationally accepted methods. A single updated assessment based on these parameters could be considered to be a baseline development consideration, on which improvements to Active Travel would influence the level of vehicular trips generated to a level below this. The development trip generation, distribution, and growth to a local plan based timeline generated by Systra sits within the range of these factors that Calibro have presented in their evidence.

3.2 Cycle Provision

3.2.1 A review of the cycle infrastructure proposed identifies that a connection to the closest and most significant service centre in the EHDC context (i.e. Alton Town Centre) can be delivered by the development. Primarily this will be through the national cycle route that runs through the development, route 224. There is a public statement by sustrans offering support for the improvements the development could deliver, specifically to deliver improvements where the route has a break in its connectivity in the vicinity of Northfield Lane / Chawton Park Road. The resolution of this is likely to be considered the base situation with regards to Cycle provision from the site, but the delivery of this improvement would encourage cycle use for development-based trips, at a likely level above that of the Local Plan area as a whole. Systra therefore concludes that the site has a good potential to be supportive of Local Plan cycling aims.

3.3 Pedestrian Provision

3.3.1 Calibro framed their review in the context of providing suitable opportunities to walk from the site in the context of the 20-minute neighbourhood principles, and inherently therefore with an awareness of providing connectivity to local shopping, education and employment destinations with the development and Alton.

3.3.2 Pedestrian facilities between the site and the town can be considered a base level of provision for the site to achieve 20 minute neighbourhood principles. This means that provision along the length of Chawton Park Road can be considered a minimum requirement. The proposed footway along Chawton Park Road would help to facilitate onward connections towards the town centre. Therefore, at this point it is considered a deliverable scheme.

3.3.3 The improvement of the pedestrian facilities through Northfield Lane Rail Bridge can be considered as a requirement for the wider local plan delivery, as the current situation means that the footpath through the bridge has little direct benefit in the current network. Rather it is a long term, strategic benefit connected to future development. That said, for local leisure access in particular, a walking route in the current situation through Northfield Bridge, to the south side of the A31, can be seen as a requirement for long term sustainable travel provision.

3.3.4 The provision of a new footway under the Northfield Lane Railway Bridge would be desirable if the draft employment allocation of employment land under Policy SA24 came forward.

However, it is also noted that the footway through the Northfield Lane bridge would offer wider benefits by helping to remove the existing severance effect of the bridge.

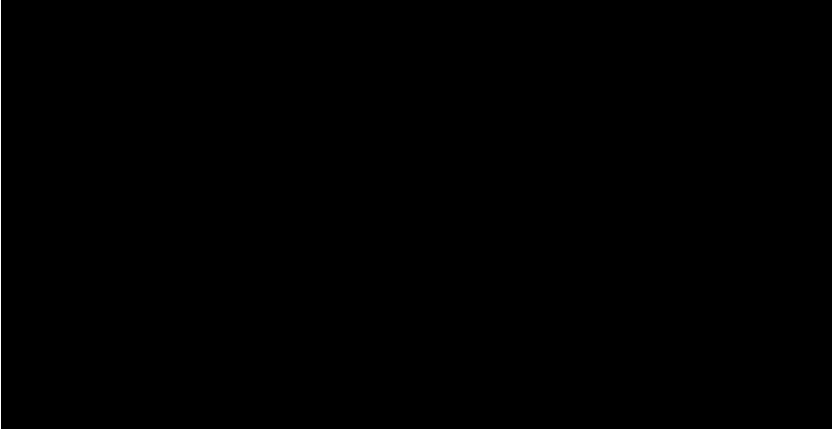
3.4 Bus Provision

- 3.4.1 Calibro's evidence looked to tie existing bus services into the proposed development and has discussed the proposals with local operators (Stagecoach). Calibro have provided correspondence with the relevant bus operators which seemingly confirms that they would be willing to divert their services (No. 64 service) into the site. This correspondence also identifies support for the allocation of the site.
- 3.4.2 This note has undertaken base accessibility for the Local Plan area, and directly from the site, to review the potential for bus access. In terms of potential, the proximity of inter settlement routes (identified by the 'linear contours') near the site can generally be considered as a location operators would see as easier to integrate into their existing operations. The proximity to both existing high levels of provision, along with proximity to existing inter settlement routes, suggest this site has a high chance of successful public transport integration, compared to East Hampshire as a whole.
- 3.4.3 Therefore Calibro's position is validated by Systra's review and separate analysis, outlined above in this technical note, and further supports the conclusion that the proposed site could be serviced by acceptable levels of bus provision.
- 3.4.4 Systra considers the likely ability of the site to connect into an established bus service to be helpful in removing potential long term viability issues, such that comfort may be taken that the site will be delivered with access to bus travel in perpetuity.

3.5 Conclusion

- 3.5.1 Systra's review of Calibro's evidence, as well as Systra's own analysis identifies that it is likely that the delivery of new homes at Chawton Park Garden Village would accord with the principles of sustainable development, taking into account its individual merits relative to reasonable alternatives and statements from the local bus operator and Sustrans.

APPROVAL

Version	Name	Position	Date	Modifications
				DRAFT
				FINAL

Appendix A – Systra TRICS outputs

Calculation Reference: AUDIT-700704-220427-0427

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : A - HOUSES PRIVATELY OWNED

TOTAL VEHICLES

Selected regions and areas:

02 SOUTH EAST		
ES	EAST SUSSEX	3 days
EX	ESSEX	1 days
HC	HAMPSHIRE	2 days
HF	HERTFORDSHIRE	1 days
KC	KENT	2 days
SC	SURREY	2 days
WS	WEST SUSSEX	5 days
03 SOUTH WEST		
SM	SOMERSET	1 days
04 EAST ANGLIA		
NF	NORFOLK	8 days
SF	SUFFOLK	1 days
05 EAST MIDLANDS		
DS	DERBYSHIRE	1 days
06 WEST MIDLANDS		
SH	SHROPSHIRE	1 days
ST	STAFFORDSHIRE	2 days
WK	WARWICKSHIRE	1 days
07 YORKSHIRE & NORTH LINCOLNSHIRE		
NE	NORTH EAST LINCOLNSHIRE	1 days
08 NORTH WEST		
CH	CHESHIRE	1 days
LC	LANCASHIRE	1 days
09 NORTH		
DH	DURHAM	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: No of Dwellings
 Actual Range: 10 to 984 (units:)
 Range Selected by User: 500 to 2000 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 28/02/20

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

Selected survey days:

Monday	6 days
Tuesday	6 days
Wednesday	10 days
Thursday	7 days
Friday	6 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	32 days
Directional ATC Count	3 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.

Selected Locations:

Edge of Town 35

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone 33
 Out of Town 1
 No Sub Category 1

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

C3 35 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,000 or Less 1 days
 1,001 to 5,000 4 days
 5,001 to 10,000 8 days
 10,001 to 15,000 13 days
 15,001 to 20,000 6 days
 20,001 to 25,000 3 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000 4 days
 25,001 to 50,000 4 days
 50,001 to 75,000 5 days
 75,001 to 100,000 7 days
 100,001 to 125,000 1 days
 125,001 to 250,000 12 days
 250,001 to 500,000 2 days

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

Car ownership within 5 miles:

0.6 to 1.0 9 days
 1.1 to 1.5 24 days
 1.6 to 2.0 2 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes 16 days
 No 19 days

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

PTAL Rating:

No PTAL Present 34 days
 2 Poor 1 days

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

LIST OF SITES relevant to selection parameters

<p>1 CH-03-A-10 SEMI-DETACHED & TERRACED MEADOW DRIVE NORTHWICH BARNTON Edge of Town Residential Zone Total No of Dwellings: 40 Survey date: TUESDAY 04/06/19</p>	<p>CHESHIRE</p> <p>Survey Type: MANUAL</p>
<p>2 DH-03-A-03 SEMI-DETACHED & TERRACED PILGRIMS WAY DURHAM Edge of Town Residential Zone Total No of Dwellings: 57 Survey date: FRIDAY 19/10/18</p>	<p>DURHAM</p> <p>Survey Type: MANUAL</p>
<p>3 DS-03-A-02 MIXED HOUSES RADBOURNE LANE DERBY Edge of Town Residential Zone Total No of Dwellings: 371 Survey date: TUESDAY 10/07/18</p>	<p>DERBYSHIRE</p> <p>Survey Type: MANUAL</p>
<p>4 ES-03-A-03 MIXED HOUSES & FLATS SHEPHAM LANE POLEGATE Edge of Town Residential Zone Total No of Dwellings: 212 Survey date: MONDAY 11/07/16</p>	<p>EAST SUSSEX</p> <p>Survey Type: MANUAL</p>
<p>5 ES-03-A-04 MIXED HOUSES & FLATS NEW LYDD ROAD CAMBER Edge of Town Residential Zone Total No of Dwellings: 134 Survey date: FRIDAY 15/07/16</p>	<p>EAST SUSSEX</p> <p>Survey Type: MANUAL</p>
<p>6 ES-03-A-05 MIXED HOUSES & FLATS RATTLE ROAD NEAR EASTBOURNE STONE CROSS Edge of Town Residential Zone Total No of Dwellings: 99 Survey date: WEDNESDAY 05/06/19</p>	<p>EAST SUSSEX</p> <p>Survey Type: MANUAL</p>
<p>7 EX-03-A-02 DETACHED & SEMI-DETACHED MANOR ROAD CHIGWELL GRANGE HILL Edge of Town Residential Zone Total No of Dwellings: 97 Survey date: MONDAY 27/11/17</p>	<p>ESSEX</p> <p>Survey Type: MANUAL</p>
<p>8 HC-03-A-21 TERRACED & SEMI-DETACHED PRIESTLEY ROAD BASINGSTOKE HOUNDMILLS Edge of Town Residential Zone Total No of Dwellings: 39 Survey date: TUESDAY 13/11/18</p>	<p>HAMPSHIRE</p> <p>Survey Type: MANUAL</p>

LIST OF SITES relevant to selection parameters (Cont.)

9	HC-03-A-22 BOW LAKE GARDENS NEAR EASTLEIGH BISHOPSTOKE Edge of Town Residential Zone Total No of Dwellings: 40 Survey date: WEDNESDAY 31/10/18	MIXED HOUSES	HAMPSHIRE	<i>Survey Type: MANUAL</i>
10	HF-03-A-03 HARE STREET ROAD BUNTINGFORD Edge of Town Residential Zone Total No of Dwellings: 160 Survey date: MONDAY 08/07/19	MIXED HOUSES	HERTFORDSHIRE	<i>Survey Type: MANUAL</i>
11	KC-03-A-04 KILN BARN ROAD AYLESFORD DITTON Edge of Town Residential Zone Total No of Dwellings: 110 Survey date: FRIDAY 22/09/17	SEMI-DETACHED & TERRACED	KENT	<i>Survey Type: MANUAL</i>
12	KC-03-A-07 RECVLVER ROAD HERNE BAY Edge of Town Residential Zone Total No of Dwellings: 288 Survey date: WEDNESDAY 27/09/17	MIXED HOUSES	KENT	<i>Survey Type: MANUAL</i>
13	LC-03-A-31 GREENSIDE PRESTON COTTAM Edge of Town Residential Zone Total No of Dwellings: 32 Survey date: FRIDAY 17/11/17	DETACHED HOUSES	LANCASHIRE	<i>Survey Type: MANUAL</i>
14	NE-03-A-02 HANOVER WALK SCUNTHORPE Edge of Town No Sub Category Total No of Dwellings: 432 Survey date: MONDAY 12/05/14	SEMI DETACHED & DETACHED	NORTH EAST LINCOLNSHIRE	<i>Survey Type: MANUAL</i>
15	NF-03-A-03 HALING WAY THETFORD Edge of Town Residential Zone Total No of Dwellings: 10 Survey date: WEDNESDAY 16/09/15	DETACHED HOUSES	NORFOLK	<i>Survey Type: MANUAL</i>

LIST OF SITES relevant to selection parameters (Cont.)

16	NF-03-A-04	MIXED HOUSES		NORFOLK
	NORTH WALSHAM ROAD NORTH WALSHAM			
	Edge of Town Residential Zone			
	Total No of Dwellings:	70		
	Survey date: WEDNESDAY	18/09/19		Survey Type: MANUAL
17	NF-03-A-05	MIXED HOUSES		NORFOLK
	HEATH DRIVE HOLT			
	Edge of Town Residential Zone			
	Total No of Dwellings:	40		
	Survey date: THURSDAY	19/09/19		Survey Type: MANUAL
18	NF-03-A-06	MIXED HOUSES		NORFOLK
	BEAUFORT WAY GREAT YARMOUTH BRADWELL			
	Edge of Town Residential Zone			
	Total No of Dwellings:	275		
	Survey date: MONDAY	23/09/19		Survey Type: MANUAL
19	NF-03-A-07	MIXED HOUSES & FLATS		NORFOLK
	SILFIELD ROAD WYMONDHAM			
	Edge of Town Out of Town			
	Total No of Dwellings:	297		
	Survey date: FRIDAY	20/09/19		Survey Type: DIRECTIONAL ATC COUNT
20	NF-03-A-09	MIXED HOUSES & FLATS		NORFOLK
	ROUND HOUSE WAY NORWICH CRINGLEFORD			
	Edge of Town Residential Zone			
	Total No of Dwellings:	984		
	Survey date: TUESDAY	24/09/19		Survey Type: MANUAL
21	NF-03-A-10	MIXED HOUSES & FLATS		NORFOLK
	HUNSTANTON ROAD HUNSTANTON			
	Edge of Town Residential Zone			
	Total No of Dwellings:	17		
	Survey date: WEDNESDAY	12/09/18		Survey Type: DIRECTIONAL ATC COUNT
22	NF-03-A-16	MIXED HOUSES & FLATS		NORFOLK
	NORWICH COMMON WYMONDHAM			
	Edge of Town Residential Zone			
	Total No of Dwellings:	138		
	Survey date: TUESDAY	20/10/15		Survey Type: DIRECTIONAL ATC COUNT
23	SC-03-A-04	DETACHED & TERRACED		SURREY
	HIGH ROAD BYFLEET			
	Edge of Town Residential Zone			
	Total No of Dwellings:	71		
	Survey date: THURSDAY	23/01/14		Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

24	SC-03-A-05 REIGATE ROAD HORLEY	MIXED HOUSES	SURREY
	Edge of Town Residential Zone Total No of Dwellings: 207 Survey date: MONDAY 01/04/19		Survey Type: MANUAL
25	SF-03-A-05 VALE LANE BURY ST EDMUNDS	DETACHED HOUSES	SUFFOLK
	Edge of Town Residential Zone Total No of Dwellings: 18 Survey date: WEDNESDAY 09/09/15		Survey Type: MANUAL
26	SH-03-A-06 ELLESMERE ROAD SHREWSBURY	BUNGALOWS	SHROPSHIRE
	Edge of Town Residential Zone Total No of Dwellings: 16 Survey date: THURSDAY 22/05/14		Survey Type: MANUAL
27	SM-03-A-01 WEMBDON ROAD BRIDGWATER NORTHFIELD	DETACHED & SEMI	SOMERSET
	Edge of Town Residential Zone Total No of Dwellings: 33 Survey date: THURSDAY 24/09/15		Survey Type: MANUAL
28	ST-03-A-07 BEACONSIDE STAFFORD MARSTON GATE	DETACHED & SEMI-DETACHED	STAFFORDSHIRE
	Edge of Town Residential Zone Total No of Dwellings: 248 Survey date: WEDNESDAY 22/11/17		Survey Type: MANUAL
29	ST-03-A-08 SILKMORE CRESCENT STAFFORD MEADOWCROFT PARK	DETACHED HOUSES	STAFFORDSHIRE
	Edge of Town Residential Zone Total No of Dwellings: 26 Survey date: WEDNESDAY 22/11/17		Survey Type: MANUAL
30	WK-03-A-04 DALEHOUSE LANE KENILWORTH	DETACHED HOUSES	WARWICKSHIRE
	Edge of Town Residential Zone Total No of Dwellings: 49 Survey date: FRIDAY 27/09/19		Survey Type: MANUAL
31	WS-03-A-04 HILLS FARM LANE HORSHAM BROADBRIDGE HEATH	MIXED HOUSES	WEST SUSSEX
	Edge of Town Residential Zone Total No of Dwellings: 151 Survey date: THURSDAY 11/12/14		Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

- | | | | |
|-----------|---|---------------------------------|---------------------|
| 32 | WS-03-A-08 | MIXED HOUSES | WEST SUSSEX |
| | ROUNDSTONE LANE
ANGMERING | | |
| | Edge of Town
Residential Zone | | |
| | Total No of Dwellings: | 180 | |
| | Survey date: THURSDAY | 19/04/18 | Survey Type: MANUAL |
| 33 | WS-03-A-09 | MIXED HOUSES & FLATS | WEST SUSSEX |
| | LITTLEHAMPTON ROAD
WORTHING
WEST DURRINGTON | | |
| | Edge of Town
Residential Zone | | |
| | Total No of Dwellings: | 195 | |
| | Survey date: THURSDAY | 05/07/18 | Survey Type: MANUAL |
| 34 | WS-03-A-10 | MIXED HOUSES | WEST SUSSEX |
| | TODDINGTON LANE
LITTLEHAMPTON
WICK | | |
| | Edge of Town
Residential Zone | | |
| | Total No of Dwellings: | 79 | |
| | Survey date: WEDNESDAY | 07/11/18 | Survey Type: MANUAL |
| 35 | WS-03-A-11 | MIXED HOUSES | WEST SUSSEX |
| | ELLIS ROAD
WEST HORSHAM
S BROADBRIDGE HEATH | | |
| | Edge of Town
Residential Zone | | |
| | Total No of Dwellings: | 918 | |
| | Survey date: TUESDAY | 02/04/19 | Survey Type: MANUAL |

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
CH-03-A-09	type
DC-03-A-08	type

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

TOTAL VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	35	175	0.077	35	175	0.307	35	175	0.384
08:00 - 09:00	35	175	0.135	35	175	0.366	35	175	0.501
09:00 - 10:00	35	175	0.140	35	175	0.169	35	175	0.309
10:00 - 11:00	35	175	0.116	35	175	0.143	35	175	0.259
11:00 - 12:00	35	175	0.119	35	175	0.127	35	175	0.246
12:00 - 13:00	35	175	0.141	35	175	0.141	35	175	0.282
13:00 - 14:00	35	175	0.146	35	175	0.137	35	175	0.283
14:00 - 15:00	35	175	0.154	35	175	0.175	35	175	0.329
15:00 - 16:00	35	175	0.248	35	175	0.172	35	175	0.420
16:00 - 17:00	35	175	0.268	35	175	0.160	35	175	0.428
17:00 - 18:00	35	175	0.336	35	175	0.157	35	175	0.493
18:00 - 19:00	35	175	0.300	35	175	0.159	35	175	0.459
19:00 - 20:00	1	97	0.062	1	97	0.052	1	97	0.114
20:00 - 21:00	1	97	0.031	1	97	0.021	1	97	0.052
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.273			2.286			4.559

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

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Parameter summary

Trip rate parameter range selected: 10 - 984 (units:)
 Survey date date range: 01/01/14 - 28/02/20
 Number of weekdays (Monday-Friday): 39
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 7
 Surveys manually removed from selection: 2

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

APPENDIX D

Stagecoach Email dated 14th October 2019

From: [REDACTED]
To: [REDACTED]
Cc: [REDACTED]
Subject: Re: EHDC Local Plan REG18 process - [Viable Bus Strategies]
Date: 14 October 2019 11:28:02

Dear [REDACTED]

Conscious that a number of promotions are being advanced in the District with widely varying degrees to which a relevant bus service could be offered, I would firstly strongly reaffirm that the comments made in our duly made representations remain valid, and equally our separate letter to yourselves.

Firstly, electric bus service operation is as much a matter of depot siting and provision as “buying electric buses”. The technical viability of such vehicles can be in no doubt. However their deployment requires a wide range of criteria to be satisfied. Running a single electric shuttle bus on a solus basis in a small town like Alton with no obvious means of supporting the operation is far from being the simple undertaking that it superficially might appear. We have operating centres in Winchester Basingstoke and Guildford all of which are relatively distant from Alton. Supporting this sort of operation from any of those points would be really quite challenging.

At least as relevant is the matter alluded to in your second question: the relevance, potential revenue and long term commercial viability of such a service. Industry benchmark metrics such as supplied periodically by TAS have established that in larger urban contexts one single bus is generally supported by about 4000 people: something in the order of 1600 dwellings. However this presumes a significant urban network reflecting a significant volume of demand for intra urban journeys. Alton is in no way such a context. Generally I would suggest we would expect a larger development of say 2000 dwellings to start to create a business case for a standalone service; all assuming a policy-compliant affordable housing contribution and broad dwelling mix and a reasonable demand to a town centre venue/railhead. East Anton in Andover starts to exemplify such a scenario.

600 dwellings lying off line of any regular bus route would in no way justify a new standalone service in the context of EHDC.

This is why (given the local context) we have strongly urged EHDC to direct significant development towards existing strong inter urban bus corridors, among which our 64 stands out. This is the only spatial strategy that comfortably would maximise the use of public transport in East Hants. Development should relate directly to the routes concerned minimising as far as possible the need to divert, but recognising too that folk will walk further (up to about 900m) or even cycle, to access regular high quality bus services particularly where destinations are further afield.

Better yet, if such proposals also lay within good walking and cycling distance of a wide range of local facilities this further damps demand for car use limiting trip generation in local networks- something we are also very keen to see given the seriousness of the effects of deteriorating congestion on our services.

This is why we have unequivocally supported your client’s promotion at Chawton Park.

I trust the foregoing clarifies the points you raise sufficient for your purposes. Please revert should you need anything further.

Yours sincerely

[REDACTED]

[REDACTED]

Sent from my iPhone

On 8 Oct 2019, at 10:30, [REDACTED] wrote:

Dear [REDACTED]

Thank you for your on-going commitment to engaging with the developers of the large development sites being promoted as part of the EHDC Local Plan REG18 process.

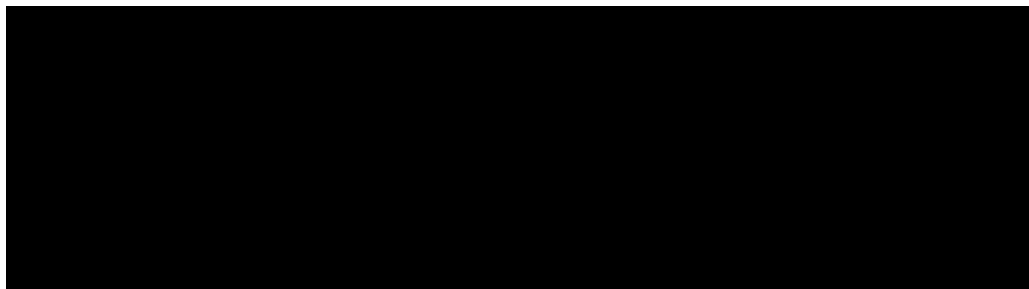
Whilst my expertise in matters of bus operations is far inferior to your own, I am mindful that there are suggestions of running a viable electric bus shuttle service between the Neatham Down proposal at the northern end of Alton (albeit divorced from the Town) to the railway station. In my mind this has a limited catchment that may not be sufficient to maintain a commercially viable service in perpetuity, especially as the proposal suggests the use of electric buses which I know have significantly larger capex costs that are several multiples of the equivalent diesel fleet.

I wonder, are there ways to deliver a suitable frequency and commercially viable service in perpetuity in the way suggested, for a site of 600 dwellings?

On a related point, do Stagecoach recognise a threshold of development that can sustain a new bespoke bus service?

My thanks in advance.

With Best Regards,



www.calibro-consultants.com

<image001.jpg>

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APPENDIX E

Stagecoach Letter dated 5th February 2019



Harrow Estates plc
Bridgemere House
Chester Road
Preston Brook
RUNCORN
Cheshire
WA7 3BD

5th February 2019

Dear 

Land at Chawton Park Farm, Alton, Hampshire

I am very pleased to confirm that Stagecoach South is entirely supportive of your promotion of land referred to above, for the delivery of strategic extension to Alton including both commercial and employment uses, and up to 1300 dwellings, through the East Hampshire Local Plan Review. We have considered the other sites proposed for allocation to meet the objectively assessed development needs of the District, and we consider that this option stands apart as that which represents one where the fullest possible use can be made of sustainable transport modes. This includes walking, cycling and public transport, all of which support more healthy, lower carbon lifestyles.

Releasing land at Chawton Park Farm would be an entirely rational response by the Local Planning Authority to support the emerging strategic objectives of the Local Plan Review, in particular Core Objective B5 where the Council states that the Plan will seek to *“encourage new developments in places that will reduce the need for people to use their cars. This will help minimise air pollution, help address climate change by reducing road congestion and carbon emissions, and encourage people to live more healthy lifestyles by facilitating walking and cycling.”*

It would also, at least as importantly, be squarely in conformity with the Revised National Planning Policy Framework (NPPF2) as a pattern of development that achieves all the objectives of paragraph 102.

Specifically:

- a) The promotion has been conceived with explicit and close regard to the potential transport impacts of the development, not least, involving us as the local bus operator at the earliest relevant stage;
- b) Opportunities presented by local transport infrastructure have been carefully considered in the selection of the site, and the approach to achieving appropriate access and movement to and through the proposed development. The fact the site is bisected by the current route of our busy and successful service 64, which is by some margin the most regular and fastest growing bus service in East Hampshire reflects this. As such, all residents will have immediate access to a regular and direct bus service to both Alton and Alresford/Winchester, being the main local destinations, from first occupation. It cannot be over-stated just how exceptional this is, for a promotion of this scale in this kind of context.
- c) You and the client team have correctly identified that the availability of service 64 represents a fundamental structuring principle of the promotion, alongside improved walking and cycling links in the location and disposition of proposed land uses, and the access and movement strategy that is emergent, and you are looking to strongly leverage these opportunities to maximise their uptake.
- d) In so doing, the opportunities to effectively address the overall traffic and environmental impacts of transport associated with this promotion are maximised.
- e) The layout of the scheme is being worked up to make fullest possible use of these opportunities, for example in improving operating conditions on the existing bus route through the site and in ensuring new and improved bus stop infrastructure is appropriately sited and well related to convenient pedestrian nodes.

We see no other site within the District that comes close to offering the opportunities to maximise the use of public transport, walking and cycling that this one does.

The relevance and effectiveness of route 64 in providing a sustainable transport choice is well reflected in its recent history. Patronage on this service has strong steady growth for some years, and we have made a number of recent changes that have very substantially further boosted use of the route. The most obvious is the investment in an entirely new fleet of low-emissions double-deck buses that was launched in 2017, which offer further improvements in passenger comfort and amenity. Less readily apparent is the improvements to the evening and Sunday service, on a commercial basis, with the last departure from Winchester to Alton at 2320 on Thursday-Saturday nights inclusive.

It should also be pointed out that your promotion offers substantial synergistic effects with committed development immediately to the east at the Former Lord Mayor Treloar Hospital, and at Borovere Farm, both also on or very close to the 64 route. The combination of additional demands from these sites (over 500 dwellings) with your own, starts to make it possible to envisage a potentially higher service frequency being sustainable in the longer term, subject to suitable pump priming investment being forthcoming. This would increase both peak capacity and the flexibility of the service to meet travel needs. Evidence elsewhere, not least the analogous service S6 between Faringdon and Oxford, shows that such an evolution to the service could well have substantial wider benefits in terms of damping traffic growth in the A31 corridor, not just from Alton, but at least as importantly at Four Marks and Alresford.

Given that NPPF2 Paragraph 103 explicit directs plan-makers to focus “*significant development ... on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes*”, we regret greatly that the Local Planning Authority has passed over your promotion as a highly-sustainable potential allocation, in favour of a small new settlement promotion of about 800 dwellings, in a contrived location on the very edge of the District at Northbrook, which is of entirely insufficient scale to support the provision of meaningful local facilities and amenities on site, and in contrast to Chawton Park Farm, is remote from settlements where employment, secondary education, and a wide range of facilities is available. While Northbrook is served by our route 65 which operates between Alton and Farnham, continuing to Guildford, this operates only hourly, and this is insufficient to offer a relevant choice to those who would otherwise drive. This service is simply not amenable to being improved to a higher frequency on a commercially sustainable basis, certainly not on the basis of the proposed allocation.

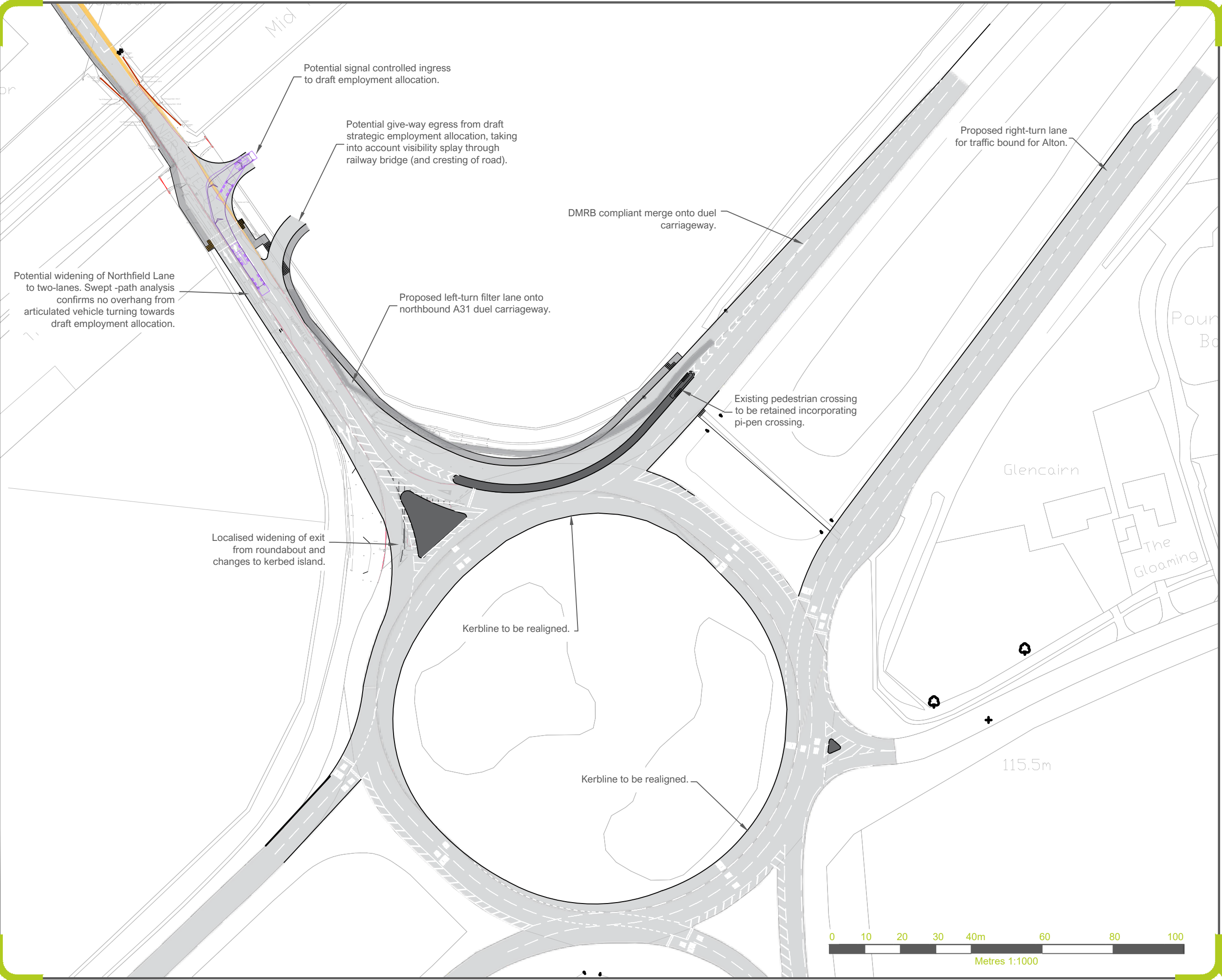
We are therefore pleased to unequivocally endorse your promotion, and look forward to working with you, your client team, the Local Planning Authority, and other stakeholders in fully exploring the opportunities that your interest offers to achieving a sustainable level and pattern of development for East Hampshire.



Yours sincerely

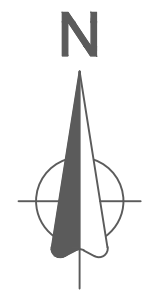


APPENDIX F
A31 Improvements





- LEGEND:
-  HIGHWAY
 -  FOOTWAY



-	FIRST ISSUE	CB	04/10/19
REV:	DESCRIPTION:	BY:	DATE:
STATUS:		FOR INFORMATION	

CLIENT: HARROW ESTATES

SITE: CHAWTON PARK GARDEN VILLAGE ALTON

TITLE: LOCAL HIGHWAY NETWORK 1 IMPROVEMENTS - OPTION 2

SCALE AT A3: 1:1,000	DATE: 04/10/19	DRAWN: CB	CHECKED: SC
PROJECT NO: BR-657-0001	DRAWING NO: SK102	REVISION: -	





81 Whiteladies Road | Bristol | BS8 2NT



0117 2441 970



Transport Planning | Flood Risk & Hydrology | Infrastructure & Drainage



EMA Engineering the world
forward

Chawton Park Garden Village, Alton, Hampshire ALC Desk Study

A desk study of publicly available information was carried out to assess the likely Agricultural Land Classification (ALC) grade of land proposed for Chawton Park Garden Village, Alton, Hampshire development. The information assessed was:-

- Climatic data
- Geological information
- Previous ALC for the area
- Soil information
- Gradient

The information gathered is considered below.

Climate

The agricultural climate is an important factor in assessing the agricultural quality of land. The agricultural climate of the proposed Chawton Park Garden Village development site has been calculated using the Climatological Data for Agricultural Land Classification¹. The relevant data for the site's lowest (135 m AOD), intermediate (158 m AOD) and highest (170 m AOD) elevations are given below.

Table 1: ALC agro-climatic data

Grid Reference	SU696375	SU696377	SU683375
Altitude	135 m	158 m	170 m
Average Annual Rainfall (AAR)	898 mm	909 mm	918 mm
January-June Accumulated Temperature (ATO)	1385 day °C	1359 day °C	1346 day °C
Field Capacity Days (FCD)	196	197	196
Field Capacity Period	October-March	October-March	October-March
Moisture Deficit Wheat (MDW)	89 mm	86 mm	84 mm
Moisture Deficit Potatoes (MWP)	76 mm	72 mm	70 mm
Climate (upper grade limit)	1	2	2

The site is located on lowland in the South East of England. At the two highest altitudes a climatic limitation limits the land to at best Grade 2.

¹ Meteorological Office, (1989). *Climatological Data for Agricultural Land Classification*.

Geology

1:50,000 scale British Geological Survey (BGS)² information records the bedrock geology of the site as mainly Lewis Modular Chalk Formation with some New Pit Chalk Formation in the south east part of the site. Except in the south east part of the site, superficial geology of Clay-with-flints Formation overlies the chalk.

Previous Agricultural Land Classification

The provisional ALC map, published at 1:250,000 scale^{3,4} records the land as being of Grade 3 quality (see Appendix 1). Note that the provisional ALC maps are intended for strategic use only and are not sufficiently accurate for use in the assessment of individual fields or sites. Some detailed post-1988 agricultural land classification is publicly available for an area of land just to the east of this proposed development site (see Appendix 2). This showed that land to be a mix of Grade 2 and Subgrades 3a and 3b quality.

Soils

The national soils map⁵, published at 1:250,000, records the soil association for the majority of the site as Carstens association, with an area of Coombe 1 association in the south east of the site. Carstens soils are described as well drained fine silty over clayey, clayey and fine silty soils which are often very flinty. These soils are developed in Plateau drift and Clay with flints. Coombe 1 soils are described as well drained calcareous fine silty soils, deep in valley bottoms but shallow to chalk on valley sides in places with a slight risk of water erosion. These soils are developed in chalky drift over chalk. The soil associations mapped fit in with the geology mapped for the area.

Gradient

Gradients across the site were assessed using LIDAR (see Appendix 3). This showed areas across the middle and south of the site as having a gradient of 7-11°. This limits the grade of these areas of land to Subgrade 3b. Smaller areas in the middle and south of the site have a gradient of 11-18°. This limits the grade of these areas of land to Grade 4. The remainder, and majority of the land, has a slope of <7° which does not pose a limitation to the grade of the land.

Agricultural Land Classification

The Agricultural Land Classification (ALC) system⁶ provides a framework for classifying land according to the extent to which its physical or chemical characteristics impose long-term limitations on agricultural use for food production. The limitations can operate in one or more of four principal ways; they may affect the range of crops which can be grown, the level of crop yield, the consistency of crop yield, and the cost of obtaining a crop.

² British Geological Survey, 2022. *Geology of Britain viewer*. Online resource: https://geologyviewer.bgs.ac.uk/?_ga=2.137937008.1567294961.1661416609-123387117.1661416609

³ Defra, 2020. *Interactive map of Great Britain*. Online resource: <https://magic.defra.gov.uk/MagicMap.aspx>

⁴ <http://publications.naturalengland.org.uk/publication/127056?category=5954148537204736>

⁵ Jarvis, M.G. et al.; 1984. Bulletin No. 15 *Soils and their use in South East England*. Soil Survey of England and Wales; Harpenden. Regional 1:250,000 scale soil map Sheet 6 South East England.

⁶ MAFF 1988. *Agricultural Land Classification of England and Wales, Revised guidelines and criteria for grading the quality of agricultural land*.

The classification system gives considerable weight to flexibility of cropping, whether actual or potential, however the ability of some land to produce consistently high yields of a narrower range of crops is also taken into account.

The Agricultural Land Classification (ALC) system classifies land into five grades numbered 1 to 5, with Grade 3 divided into two Subgrades (3a and 3b). The system was devised and introduced by the Ministry of Agriculture, Fisheries and Food (MAFF now Defra) in the 1960s and revised in 1988⁵. A description of the grades used in the ALC system is attached to this report in the Appendix 5. Planning guidance states that development should avoid using land regarded as Best and Most Versatile (BMV) where possible. The ALC grades 1, 2 and subgrade 3a are regarded as BMV land.

For this site part of the area will be limited to Grade 2 due to a climatic limitation (See Climate paragraph above). Other parts of the site could be limited to Subgrade 3b or 4 due to a gradient limitation (see previous section on *Gradient*).

Carstens association soils generally have well structured clayey or silty subsoils horizons allowing good vertical drainage into the underlying chalk so they are rarely waterlogged (Wetness Class I). Moisture reserves are adequate for most crops, though grass may suffer from drought on heavier soils in the association. With the ALC climatic data showing the number of Field Capacity Days (196 or 197) to be within the range 176-225 with a likely medium silty clay loam, heavy silty clay loam or silty clay 0-25cm topsoil texture the wetness grade would be respectively Grade 2, Subgrade 3a or Subgrade 3b for the Carsten association part of the land. A *post-1988* detailed ALC survey was undertaken by the former Ministry of Agriculture Fisheries and Food (MAFF) in 1998 on immediately adjacent land to the east. This recorded the area mapped as Carsten's soil association to have heavy clay loam topsoils present which, when combined with the climate values, result in an ALC subgrade 3b.

Coombe 1 association soils are predominantly well drained (Wetness Class 1) and surplus winter rain passes easily downwards through the soil and into the underlying chalk. Rooting depth is generally adequate and most soils with the association are only slightly droughty. With the ALC climatic data showing the number of Field Capacity Days (196 or 197) to be within the range 176-225 with a likely medium or heavy silty clay loam 0-25 cm topsoil texture the wetness grade would be respectively Grade 2 or Subgrade 3a for the Coome 1 association part of the land. The MAFF *post-1988* detailed ALC survey on the immediately adjacent land to the east recorded the area mapped as Coombe 1 soil association to be predominantly Grade 2 and subgrade 3a quality.

Carstens association soils can be very flinty. Table 2 below gives the grade according to stoniness:-

Table 2: Grade according to stoniness

Grade/Subgrade	Limiting percentages (volume) of hard stones in the top 25 cm of soil	
	Stones larger than 2 cm ¹	Stones larger than 6 cm ¹
1	5	5
2	10	5
3a	15	10
3b	35	20
4	50	35
5	>50	>35

¹ Stones retained on a 2 cm or 6 cm square mesh sieve, as appropriate

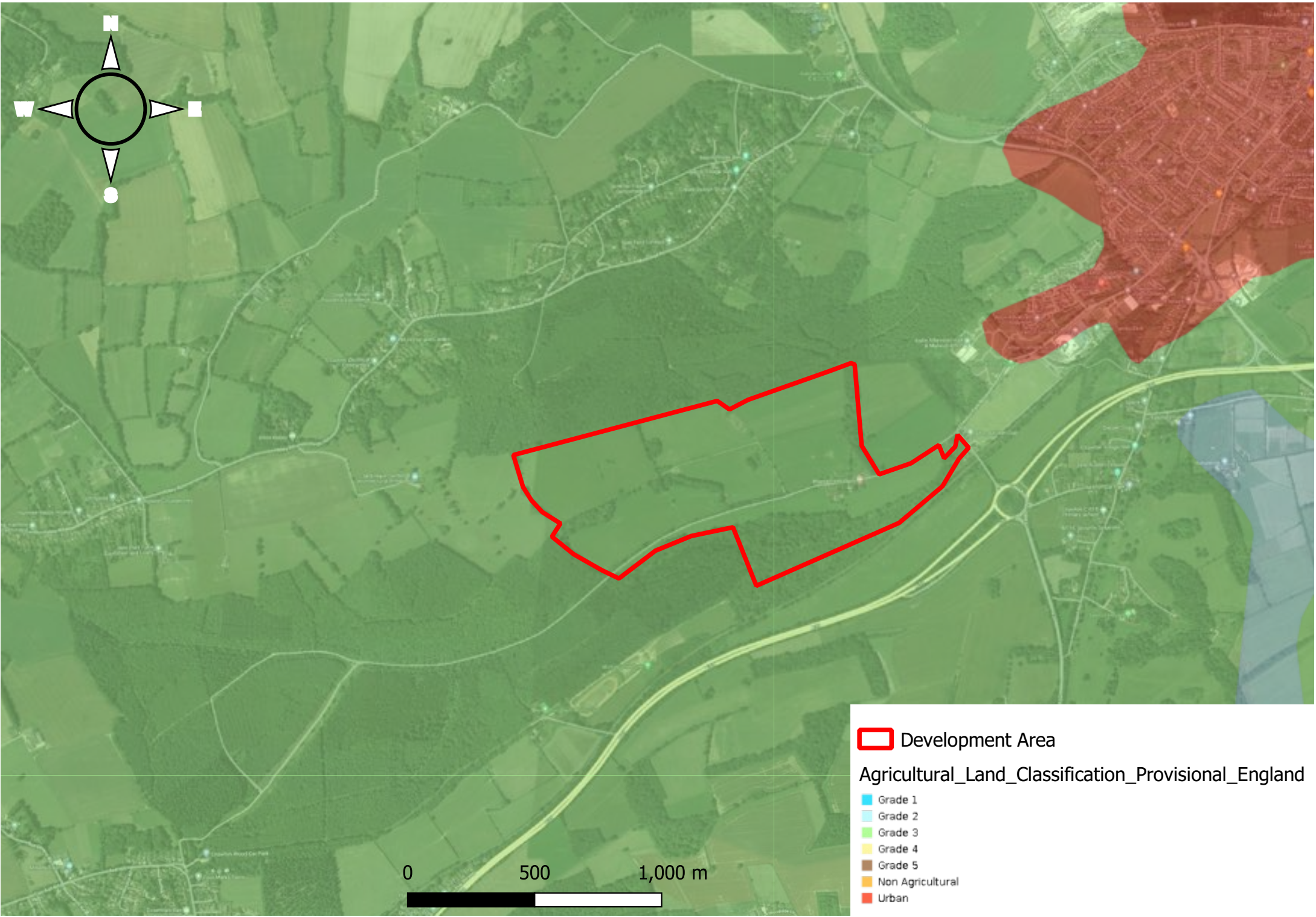
In summary the land proposed for the Chawton Park Garden Village is likely to be predominantly Subgrade 3b, the extent of which is reflected by the areas mapped as Carstens soil association. This area is therefore less likely to be Best and Most Versatile (BMV land). ALC Grade 2 or Subgrade 3a (BMV) are more likely to be present where the Combe 1 soil association is shown. Any areas that might have silty clay 0-25 cm topsoil would be downgraded to Subgrade 3b and some of the land could be downgraded to Subgrade 3b (and even a small area down to Grade 4) because of gradient. Top 25cm stone content could also downgrade the land from Grade 2/Subgrade 3a to non-BMV land but this could only be ascertained by on-site assessment of stone content.

Author: John Grylls *MSc, M.I. Soil Sci, C. Sci* (ADAS Senior Soil Scientist)

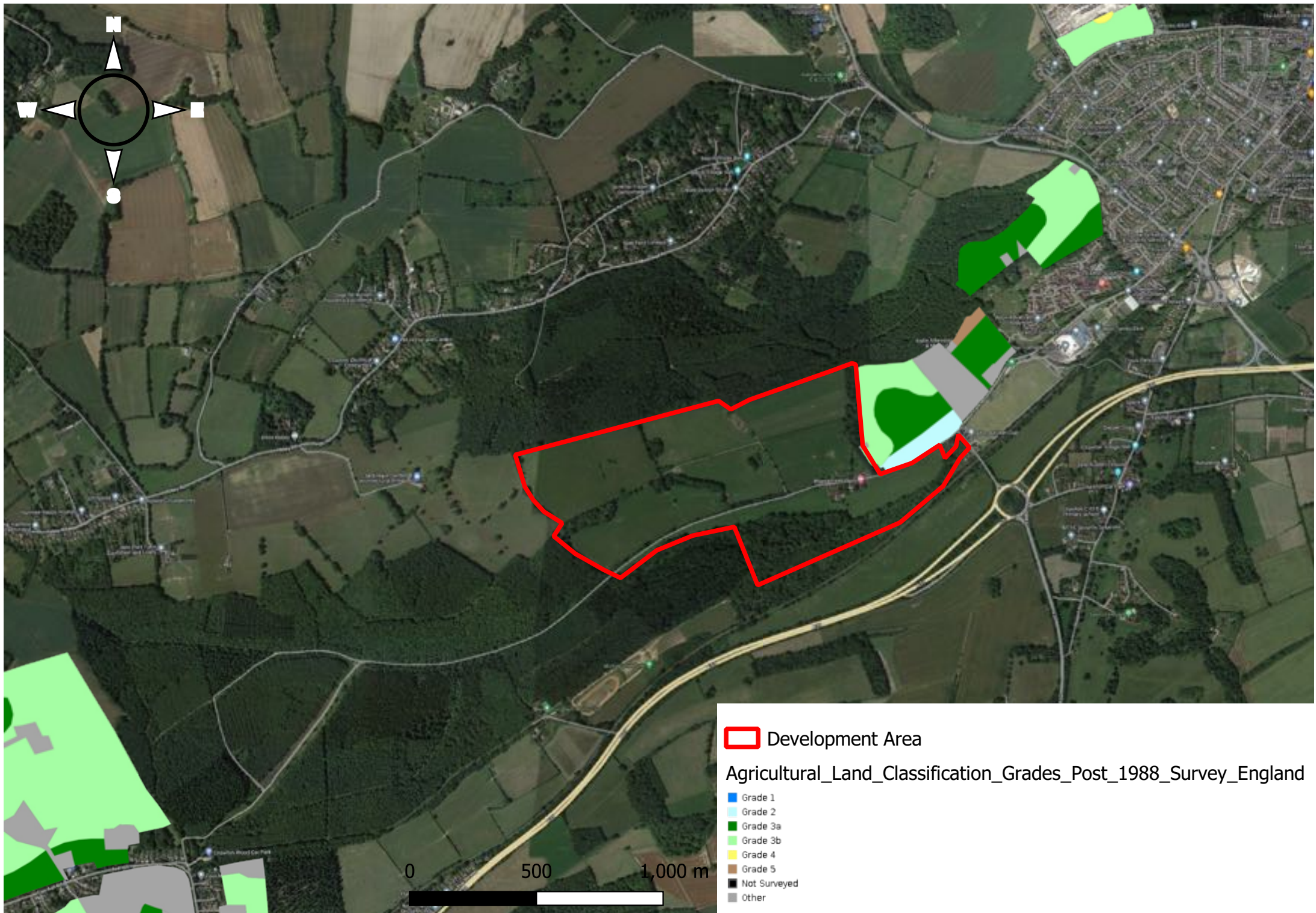
Reviewed by: Kirk Hill, *BSc, MI Soil Sci, MAgrE*, (Technical Director)

29th February 2024

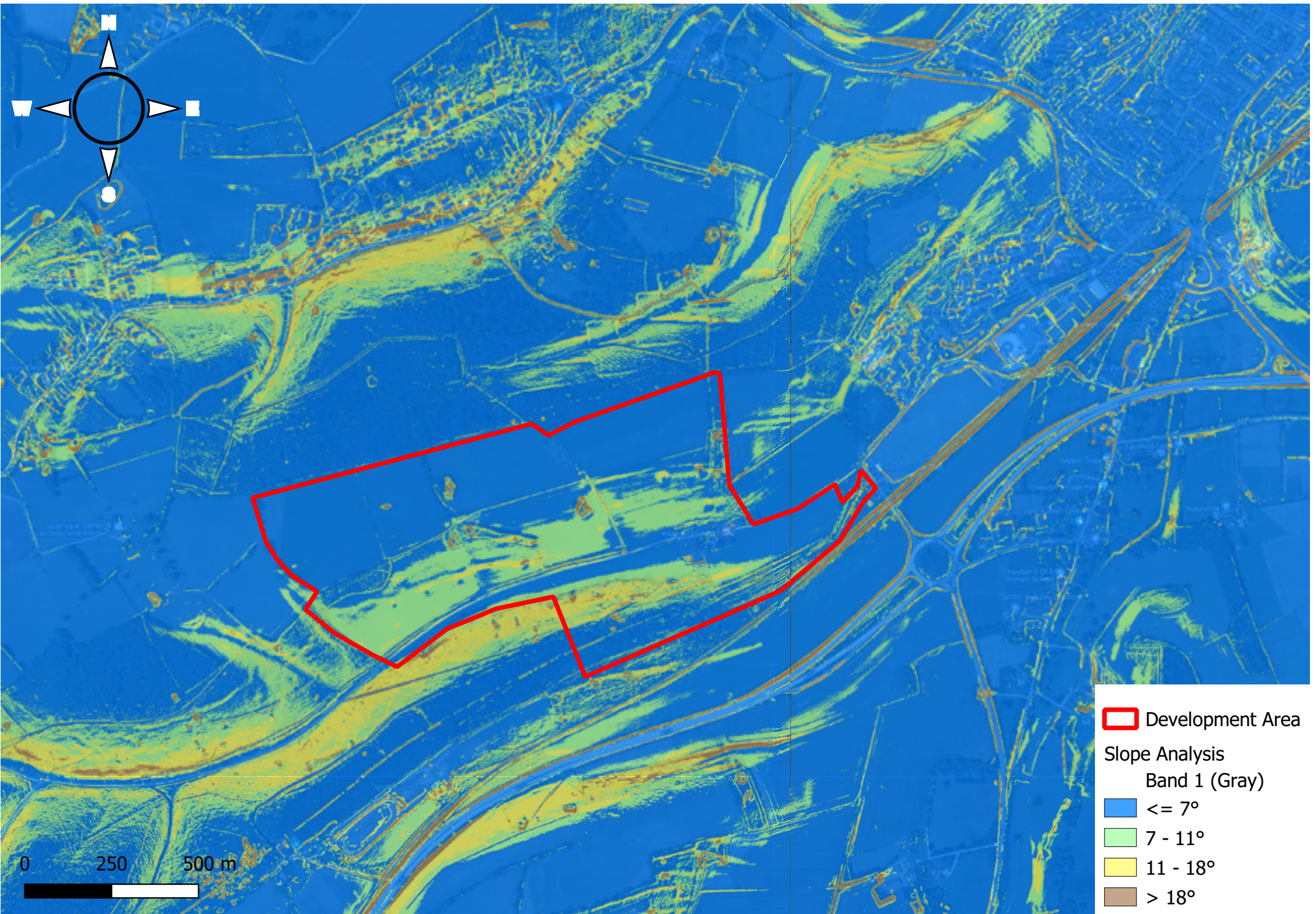
Appendix 1 – Provisional ALC Mapping



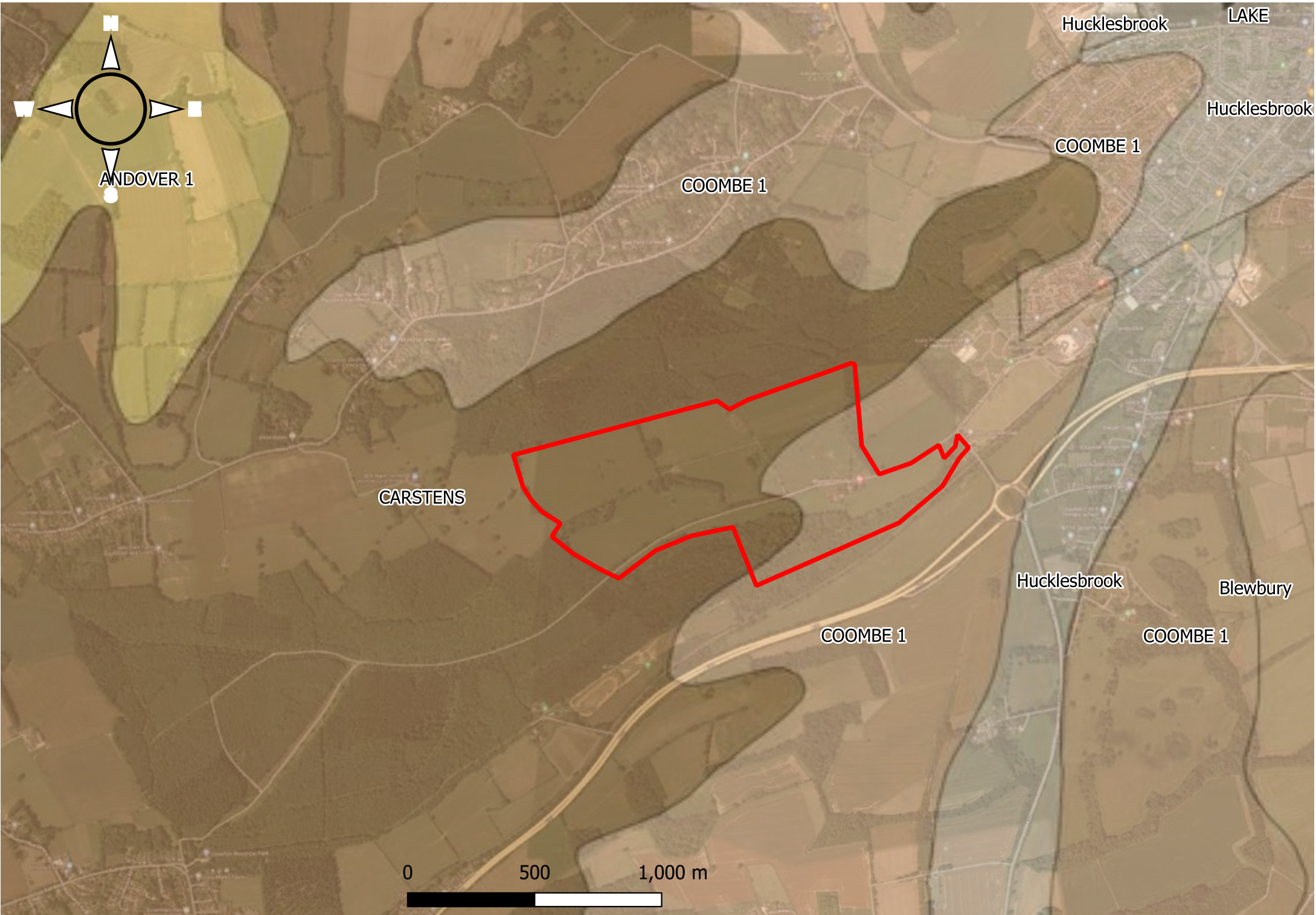
Appendix 2 – ALC Surveys Post 1988



Appendix 3 – Slope Analysis



Appendix 4 – National Soils Maps Extract



Appendix 5 – Description of ALC Grades

The ALC grades and subgrades are described below in terms of the types of limitation which can occur, typical cropping range and the expected level and consistency of yield. The ‘*best and most versatile agricultural land*’ falls into grades 1, 2 and subgrade 3a – which collectively comprises about one-third of the agricultural land in England and Wales. About half the land in England and Wales is either of moderate quality (subgrade 3b) or poor quality (grade 4). Although less significant on a national scale, such land can be locally valuable to agriculture and the rural economy where poorer farmland predominates. The remainder is very poor quality land in grade 5, which mostly occurs in the uplands.

Grade 1 – excellent quality agricultural land

Land with no or very minor limitations to agricultural use. A very wide range of agricultural and horticultural crops can be grown and commonly includes top fruit, soft fruit, salad crops and winter harvested vegetables. Yields are high and less variable than on land of lower quality.

Grade 2 – very good quality agricultural land

Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown but on some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.

Grade 3 – good to moderate quality land

Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. Where more demanding crops are grown yields are generally lower or more variable than on land in Grades 1 and 2.

Subgrade 3a – good quality agricultural land

Land capable of consistently producing moderate to high yields of a narrow range of arable crops, especially cereals, or moderate yields of a wide range of crops including cereals, grass, oilseed rape, potatoes, sugar beet and the less demanding horticultural crops.

Subgrade 3b – moderate quality agricultural land

Land capable of producing moderate yields of a narrow range of crops, principally cereals and grass or lower yields of a wider range of crops or high yields of grass which can be grazed or harvested over most of the year.

Grade 4 – poor quality agricultural land

Land with severe limitations which significantly restrict the range of crops and/or level of yields. It is mainly suited to grass with occasional arable crops (e.g. cereals and forage crops) the yields of which are variable. In moist climates, yields of grass may be moderate to high but there may be difficulties in utilisation. The grade also includes very droughty arable land.

Grade 5 – very poor quality agriculture land

Land with very severe limitations which restrict use to permanent pasture or rough grazing, except for occasional pioneer forage crops.

Land at Neatham Manor Farm, Alton, Hampshire ALC Desk Study

A desk study of publicly available information was carried out to assess the likely Agricultural Land Classification (ALC) grade of land proposed for development at Neatham Manor Farm, Alton, Hampshire development. The information assessed was:-

- Climatic data
- Geological information
- Previous ALC for the area
- Soil information
- Gradient

The information gathered is considered below.

Climate

The agricultural climate is an important factor in assessing the agricultural quality of land. The agricultural climate of the proposed Neatham Manor Farm development site has been calculated using the Climatological Data for Agricultural Land Classification¹. The relevant data for the site's lowest (105 m AOD), intermediate (115 m AOD) and highest (150 m AOD) elevations are given below.

Table 1: ALC agro-climatic data

Grid Reference	SU731389	SU736401	SU734393
Altitude	105 m	115 m	150 m
Average Annual Rainfall (AAR)	841 mm	826 mm	847 mm
January-June Accumulated Temperature (ATO)	1418 day °C	1406 day °C	1376 day °C
Field Capacity Days (FCD)	185	181	187
Field Capacity Period	October-March	October-March	October-March
Moisture Deficit Wheat (MDW)	96 mm	97 mm	90 mm
Moisture Deficit Potatoes (MWP)	86 mm	87 mm	77 mm
Climate (upper grade limit)	1	1	1

The site is located on lowland in the South East of England. There is no climatic limitation to the grade of this land.

¹ Meteorological Office, (1989). *Climatological Data for Agricultural Land Classification*.

Geology

1:50,000 scale British Geological Survey (BGS)² information records the bedrock geology of the site as mainly Zig Zag Chalk Formation with a small area of West Malling Modular Chalk Formation in the vicinity of the A31 roundabout. Except for a narrow strip of Head (clay, silt, sand and gravel) extending South East into the site from the A31 roundabout no superficial geology is recorded on the site.

Previous Agricultural Land Classification

The provisional ALC map, published at 1:250,000 scale^{3,4} records the land as being of Grade 3 quality (see Appendix 1). Note that the provisional ALC maps are intended for strategic use only and are not sufficiently accurate for use in the assessment of individual fields or sites. There is no detailed post-1988 agricultural land classification in the immediate vicinity of the site publicly (see Appendix 2). On the west side of Alton (the site is on the east side) there are five areas of post 1988 ALC that are publicly available. These ALC surveys showed predominantly Subgrade 3a and 3b land with a limited area for Grade 2 and some very small areas of Grade 4 and 5.

Soils

The national soils map⁵, published at 1:250,000 scale, records the soil association for the site as Coombe 1 association. Coombe 1 soils are described as well drained calcareous fine silty soils, deep in valley bottoms but shallow to chalk on valley sides in places with a slight risk of water erosion. These soils are developed in chalky drift over chalk. The soil associations mapped fit in with the geology mapped for the area.

Gradient

Gradients across the site were assessed using LIDAR (see Appendix 3). This showed areas, mainly across the south and a strip in the middle to the west side of the site, as having gradients of 7-11° and 11-18° which respectively limit the grade of the land to Subgrade 3b and Grade 4 in these areas. The remainder, and majority of the land, has a slope of <7° which does not pose a limitation to the grade of the land.

Agricultural Land Classification

The Agricultural Land Classification (ALC) system⁶ provides a framework for classifying land according to the extent to which its physical or chemical characteristics impose long-term limitations on agricultural use for food production. The limitations can operate in one or more of four principal ways; they may affect the range of crops which can be grown, the level of crop yield, the consistency of crop yield, and the cost of obtaining a crop.

² British Geological Survey, 2022. *Geology of Britain viewer*. Online resource: https://geologyviewer.bgs.ac.uk/?_ga=2.137937008.1567294961.1661416609-123387117.1661416609

³ Defra, 2020. *Interactive map of Great Britain*. Online resource: <https://magic.defra.gov.uk/MagicMap.aspx>

⁴ <http://publications.naturalengland.org.uk/publication/127056?category=5954148537204736>

⁵ Jarvis, M.G. et al.; 1984. Bulletin No. 15 *Soils and their use in South East England*. Soil Survey of England and Wales; Harpenden. Regional 1:250,000 scale soil map Sheet 6 South East England.

⁶ MAFF 1988. *Agricultural Land Classification of England and Wales, Revised guidelines and criteria for grading the quality of agricultural land*.

The classification system gives considerable weight to flexibility of cropping, whether actual or potential, however the ability of some land to produce consistently high yields of a narrower range of crops is also taken into account.

The Agricultural Land Classification (ALC) system classifies land into five grades numbered 1 to 5, with Grade 3 divided into two Subgrades (3a and 3b). The system was devised and introduced by the Ministry of Agriculture, Fisheries and Food (MAFF now Defra) in the 1960s and revised in 1988. A description of the grades used in the ALC system is attached to this report in the Appendix. Planning guidance states that development should avoid using land regarded as Best and Most Versatile (BMV) where possible. The ALC grades 1, 2 and subgrade 3a are regarded as BMV land.

Coombe 1 association soils are predominantly well drained (Wetness Class I) and surplus winter rain passes easily downwards through the soil and into the underlying chalk. Rooting depth is generally adequate and most soils with the association are only slightly droughty. With the ALC climatic data showing the number of Field Capacity Days (181, 185 or 187 depending on altitude) to be within the range 176-225 with a likely medium or heavy clay loam 0-25 cm topsoil texture the wetness grade would be respectively Grade 2 or Subgrade 3a for the Coome 1 association part of the land.

Top 25 cm stone content can limit the grade of land. Table 2 below gives the grade according to stoniness:-

Table 2: Grade according to stoniness

Grade/Subgrade	Limiting percentages (volume) of hard stones in the top 25 cm of soil	
	Stones larger than 2 cm ¹	Stones larger than 6 cm ¹
1	5	5
2	10	5
3a	15	10
3b	35	20
4	50	35
5	>50	>35

¹ Stones retained on a 2 cm or 6 cm square mesh sieve, as appropriate

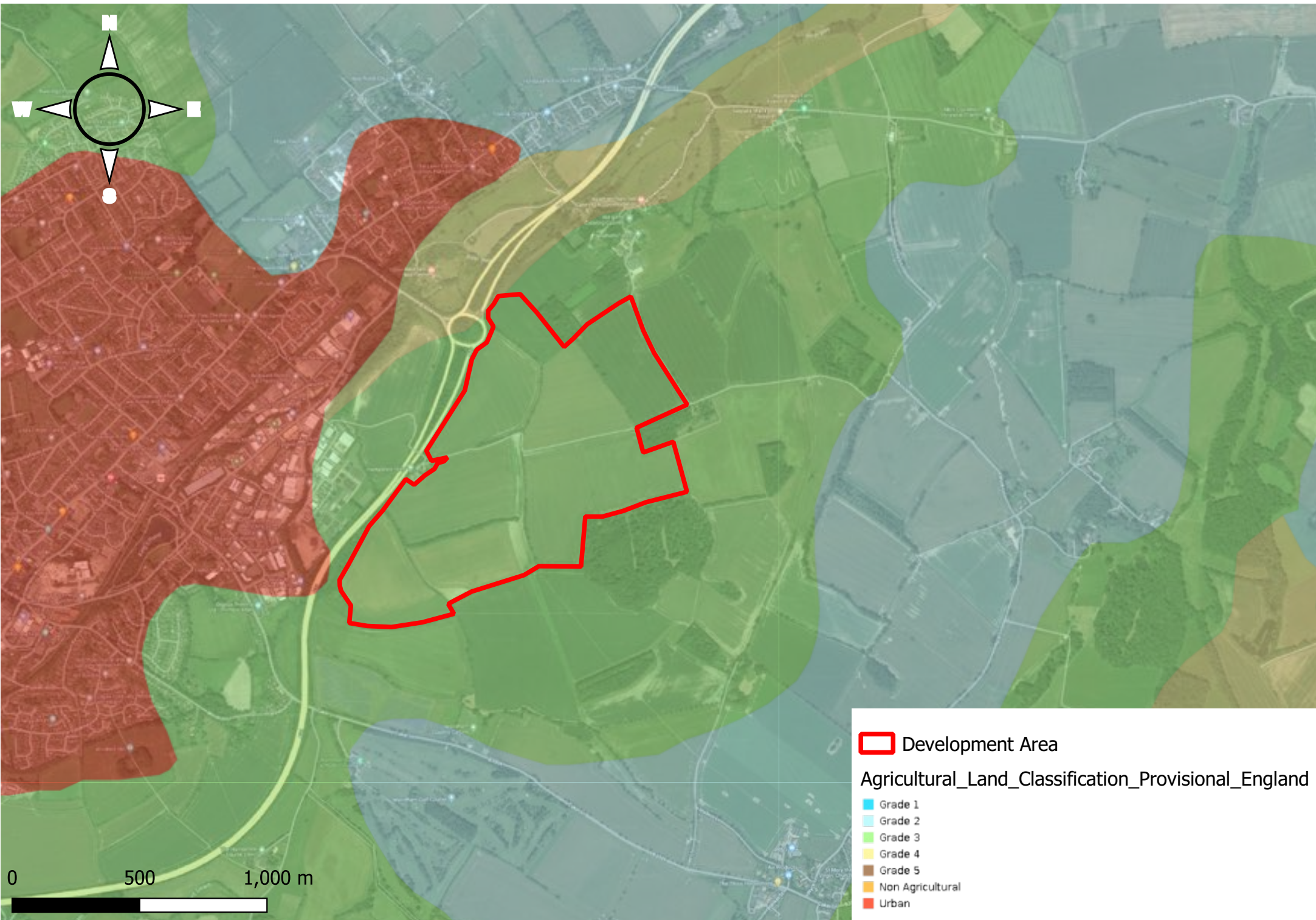
In summary the land proposed for the Neathan Manor Farm development is likely to be a mix of Grade 2 and Subgrade 3a i.e. Best and Most Versatile (BMV land) but limited areas of the land could be downgraded to Subgrade 3b or Grade 4 because of gradient. Top 25 cm stone content could also down grade the land from Grade 2/Subgrade 3a to non-BMV land but this could only be ascertained by on-site assessment of stone content.

John Grylls MSc, M.I. Soil Sci, C. Sci

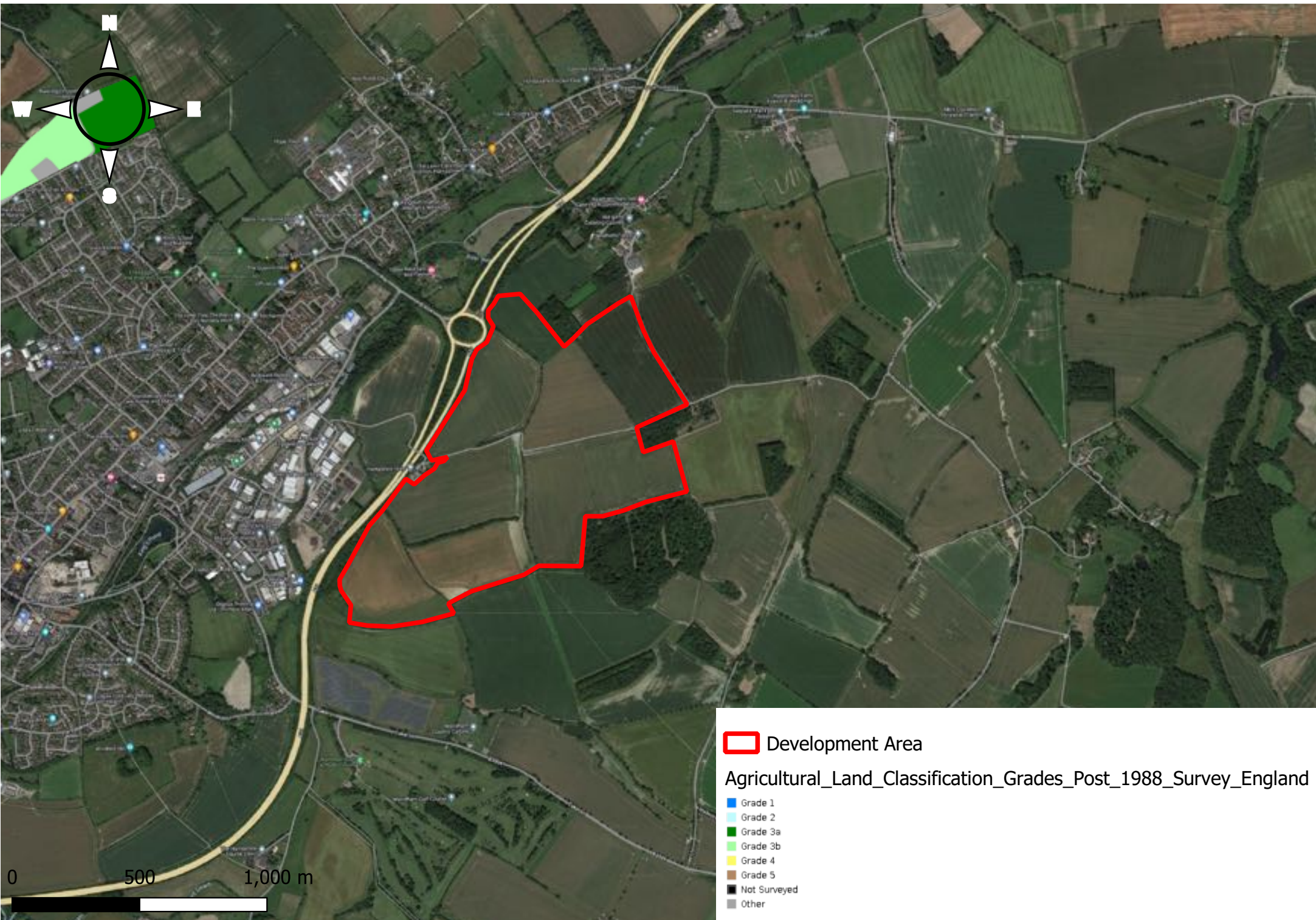
ADAS Senior Soil Scientist

29th February 2024

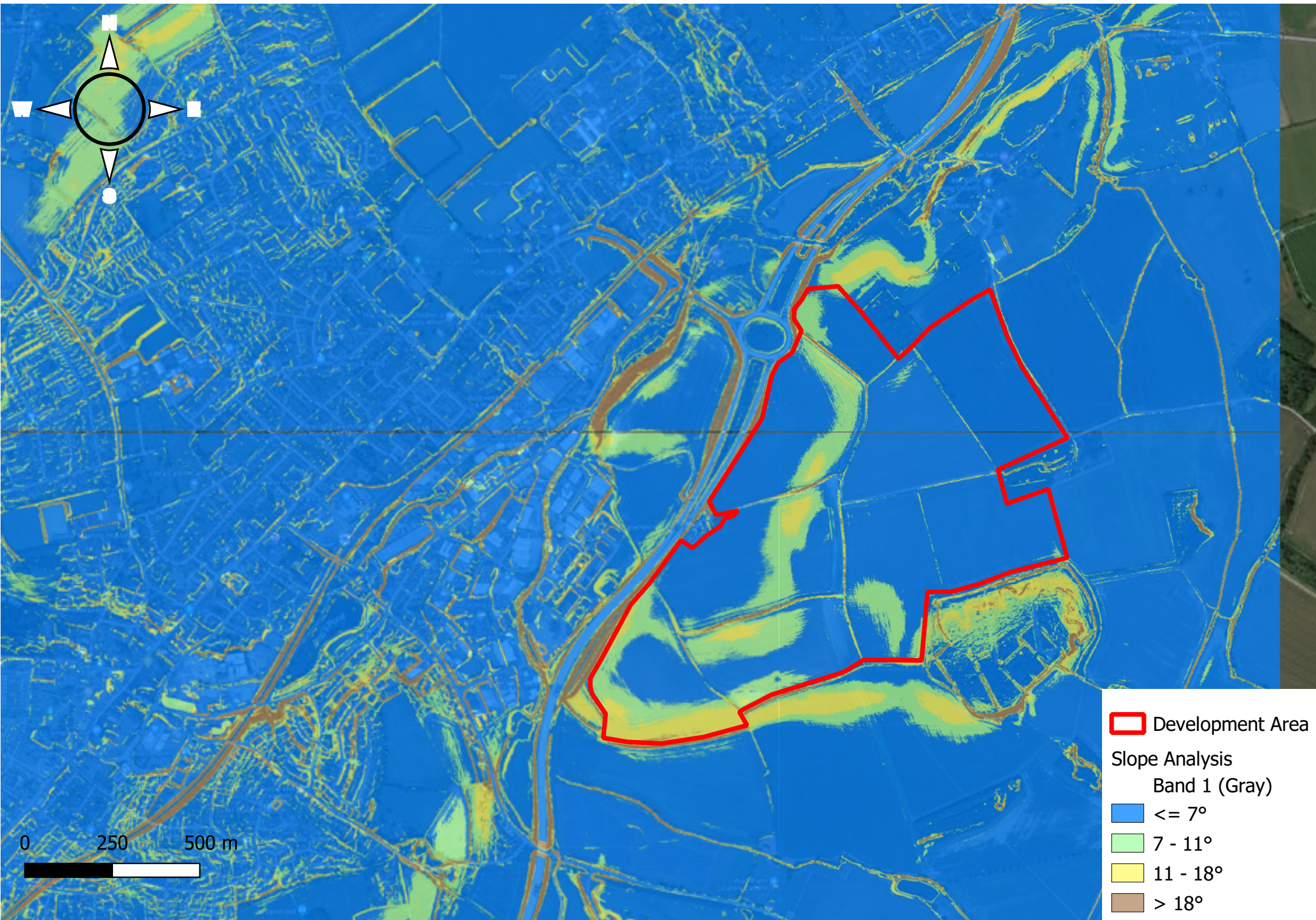
Appendix 1 – Provisional ALC Mapping



Appendix 2 – ALC Surveys Post 1988




Appendix 3 – Slope Analysis





 Development Area

Slope Analysis

Band 1 (Gray)

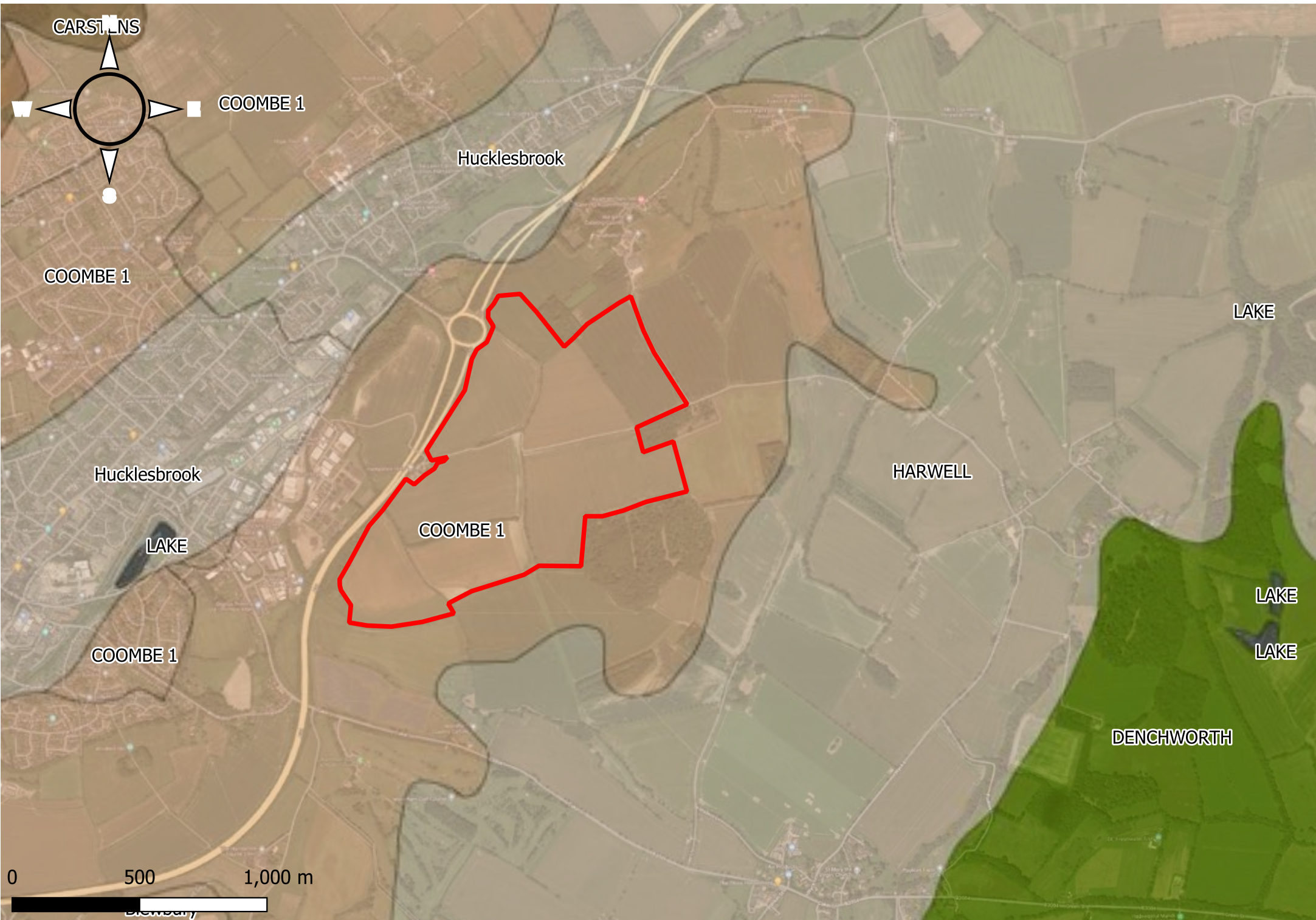
 $\leq 7^\circ$

 $7 - 11^\circ$

 $11 - 18^\circ$

 $> 18^\circ$

Appendix 4 – National Soils Maps Extract



Appendix 5 – Description of ALC Grades

The ALC grades and subgrades are described below in terms of the types of limitation which can occur, typical cropping range and the expected level and consistency of yield. The ‘*best and most versatile agricultural land*’ falls into grades 1, 2 and subgrade 3a – which collectively comprises about one-third of the agricultural land in England and Wales. About half the land in England and Wales is either of moderate quality (subgrade 3b) or poor quality (grade 4). Although less significant on a national scale, such land can be locally valuable to agriculture and the rural economy where poorer farmland predominates. The remainder is very poor quality land in grade 5, which mostly occurs in the uplands.

Grade 1 – excellent quality agricultural land

Land with no or very minor limitations to agricultural use. A very wide range of agricultural and horticultural crops can be grown and commonly includes top fruit, soft fruit, salad crops and winter harvested vegetables. Yields are high and less variable than on land of lower quality.

Grade 2 – very good quality agricultural land

Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown but on some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.

Grade 3 – good to moderate quality land

Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. Where more demanding crops are grown yields are generally lower or more variable than on land in Grades 1 and 2.

Subgrade 3a – good quality agricultural land

Land capable of consistently producing moderate to high yields of a narrow range of arable crops, especially cereals, or moderate yields of a wide range of crops including cereals, grass, oilseed rape, potatoes, sugar beet and the less demanding horticultural crops.

Subgrade 3b – moderate quality agricultural land

Land capable of producing moderate yields of a narrow range of crops, principally cereals and grass or lower yields of a wider range of crops or high yields of grass which can be grazed or harvested over most of the year.

Grade 4 – poor quality agricultural land

Land with severe limitations which significantly restrict the range of crops and/or level of yields. It is mainly suited to grass with occasional arable crops (e.g. cereals and forage crops) the yields of which are variable. In moist climates, yields of grass may be moderate to high but there may be difficulties in utilisation. The grade also includes very droughty arable land.

Grade 5 – very poor quality agriculture land

Land with very severe limitations which restrict use to permanent pasture or rough grazing, except for occasional pioneer forage crops.