



Examination of the Basingstoke and Deane Local Plan (2011 to 2029)

STATEMENT OF COMMON GROUND

between

Basingstoke Golf Club (Boyer) and

Basingstoke and Deane Borough Council

and Hampshire County Council Highways
(Local Highways Authority) and Hampshire County
Council Children's Services (Local Education
Authority)

Local Plan Policy: SS3.11

August 2015

Appendices

- Appendix 1: Illustrative masterplan for Basingstoke Golf Course (Boyer Planning, August 2015)
- Appendix 2: Draft Inset Map for South-West Basingstoke (Basingstoke Golf Club, Hounscome Fields and Kennel Farm)
- Appendix 3: Constraints map for South-West Basingstoke (Basingstoke Golf Club, Hounscome Fields and Kennel Farm)
- Appendix 4: Land use parameter plan for Kennel Farm (BDB/77382)
- Appendix 5: Council's preferred distribution of on-site infrastructure (BDBC, August 2015)
- Appendix 6: Landscape and Visual Assessment (Aspect Landscape Planning, August 2012 – provided by Basingstoke Golf Club)
- Appendix 7: Highways Study for Basingstoke Golf Club and Hounscome Fields, provided by iTransport and Stuart Michael Associates, August 2015 – provided by Basingstoke Golf Club)
- Appendix 8: Flood Risk & Drainage Report provided by Basingstoke Golf Club (Stuart Michael Associates, August 2012 – provided by Basingstoke Golf Club)
- Appendix 9: Noise Assessment provided by Basingstoke Golf Club (Stuart Michael Associates, August 2012 – provided by Basingstoke Golf Club)

1. Introduction

- 1.1 The purpose of this Statement of Common Ground is to identify key areas of agreement and disagreement between Basingstoke Golf Club and the Local Planning Authority (LPA) in advance of the Local Plan being considered at an Examination in Public. The key areas of agreement/disagreement are highlighted in the boxes after each section. The statement also provides information on the rationale behind the proposed inset maps, the overall vision for development in south west Basingstoke, and demonstrate how the criteria in the policies can deliver high quality, sustainable development.
- 1.2 Where relevant, Hampshire County Council Highways (Local Highway Authority – LHA) and Hampshire County Council Children’s Services (Local Education Authority – LEA) have entered into parts of this agreement. The sections of this document that they are signed up to are recorded in the conclusion.
- 1.3 Through this document a number of changes are proposed to the emerging Local Plan policy and the supporting text. Where changes are proposed, the new text is underlined and the old text is ~~struck through~~.

2. Availability of site and timetable for delivery and phasing

- 2.1 In order to provide clarity on the availability and deliverability of the site, this section addresses the following matters:
- justification for the loss of the golf course and alternative provision;
 - Basingstoke Golf Club’s constitutional arrangements and its mandate for the sale of the Golf Course Site; and
 - the timetable for delivery;

Justification for the loss of the Golf Course

- 2.2 Paragraph 74 of the NPPF states: *‘existing open space, sports and recreational buildings and land, including playfields, should not be built on unless: an assessment has been undertaken which has clearly shown the open spaces, buildings or land to be surplus to requirements; or the loss resulting from the proposed development would be replaced by equivalent or better provision in terms of quantity and quality in a suitable location; or the development is for alternative sports and recreational provision, the needs for which clearly outweigh loss’.*
- 2.3 The Council’s emerging Local Plan Policy CN8 also seeks to retain leisure facilities (including golf courses) except where:

- e) *The facility is no longer needed for any of the functions that it can perform; or*
- f) *It is demonstrated that it is no longer practical, desirable or viable to retain them; or*
- g) *Any proposed replacement or improved facilities will be equivalent or better in terms of quality, quantity and accessibility and there will be no overall reduction in the level of facilities in the area in which the existing development is located; or*
- h) *The proposal will clearly provide sufficient community benefit to outweigh the loss of the existing facility, meeting evidence of a local need.*

- 2.4 In recognition of these requirements, it is necessary to provide a justification for the loss of the golf course.

Basingstoke and Deane Borough Council's Leisure and Recreational Needs Assessment (2008)

- 2.5 The council's most recent information about the need for golf courses is set out in '*The Borough of Basingstoke and Deane Leisure & Recreation Needs Assessment*', Kit Campbell Associates (KCA), published September 2008 (Examination Library REC/01). Section 13 of the report specifically relates to golf courses and sets out the provision, demand and supply, accessibility, trends, quality standards and spatial objectives (including implementation advice), correct at that time.
- 2.6 When the report was published in September 2008, there were 17 golf course units within the borough (each unit being the equivalent of nine holes). The figure will shortly become 18 with the addition of nine extra holes at Weybrook which is nearing completion.
- 2.7 The KCA report identifies that each golf course unit is capable of providing c. 25,000 rounds per year, and that by 2026, there would be demand in the borough for c. 400,000 rounds per year. This would therefore result in a requirement for 16 units of golf provision in 2026.
- 2.8 As Basingstoke Golf Club has 18 holes it provides the equivalent of two units. With the loss of these units (taking into account the extra provision at Weybrook), 16 units would be available in the borough, which would be sufficient to meet the identified future need.
- 2.9 From a spatial perspective, the area around Basingstoke is particularly well served by golf clubs. The distance from Basingstoke town centre for each golf club is listed as follows:
- Basingstoke Golf Centre - 2 miles (by-road)
 - Bishopwood Golf Club - 8 miles (by road)
 - Dummer Golf Club - 5.5 miles (by road)
 - Sandford Springs Golf Club - 8 miles (by road)

- Sherfield Golf Club - 6 miles (by road)
- Test Valley Golf Club - 10.7 miles (by road)
- Weybrook Park Golf Club - 2.7 miles (by road)

2.10 Given the age of this study, and the fact that the plan period runs up to 2029 (beyond the period of the KCA study), it is helpful to review these findings in light of more up-to-date information about golf participation.

Trends in golf participation

2.11 As the KCA report was published in 2008, it does not fully assess the economic impacts of the last recession on the leisure and recreation industry within the borough. Although the wider UK economy has now returned to economic growth, the decline within the golf-industry continues. This is illustrated by the participation rates identified in Sport England's Active People Survey (APS). The APS measures trends in Golf participation from October 2007/08 to April 2011/12. The findings show that across almost all age groups there has been a marked decline in participation rates within Golf related activities. Overall this amounts to a decline in membership of 6.8% over this five year period. In terms of geographic spread, there has been decline across all regions apart from the South West. The APS states it is likely that this trend of declining participation will continue for the foreseeable future.

2.12 Further evidence of the decline in participation can be seen locally. In recent years joining fees have all-but-disappeared locally as clubs compete to attract new members (the landowner's research has indicated that no other clubs within the Basingstoke area are now able to charge a joining fee). These clubs also all have vacancies. Prior to the recession golf clubs like Basingstoke Golf Club had a waiting list for membership and new members had to join as five-day members until a vacancy came up for a seven-day membership. That is no longer the case and new members can join any club within Basingstoke as full members.

2.13 Clubs have therefore been forced to offer reduced course fees or promotions in order to attract new players. Golf clubs have also increasingly turned to 'pay and play' to supplement their income, although this is widely acknowledged not to be a sustainable / long-term solution to the problem of the declining popularity of golf.

2.14 Golf courses in Basingstoke and Deane also face competition from other clubs close to the borough boundary (which were not included in the KCA study). In particular, the 18-hole-course at Tylney Park Golf Club near to Rotherwick is located within Hart District but is only 6.5 miles by road from the centre of Basingstoke. There are also clubs in Crondall (Oak Park Golf Club) and Alresford, both of which are used by golfers within the Basingstoke area.

2.15 As set out below, the Golf Club is looking into options for relocating the club elsewhere within the Basingstoke area. Options include developing a

new course on agricultural land (which would result in no net loss of provision), or purchasing an existing golf course on the open-market (in which case, the club would invest in and upgrade the facility).

- 2.16 For the reasons set out above, it is therefore considered that there is no policy reason to require the retention of the golf course on this site.

Basingstoke Golf Club's constitutional arrangements and its mandate for the sale of the site

Constitution relating to Management/Decision Making

- 2.17 Basingstoke Golf Club Ltd is a not-for-profit-company limited by guarantee and has been established for over 108 years. The company is run by a board of directors herein called the board.
- 2.18 The board is elected by the members of the golf club and the board has directorial legal powers and statutory responsibilities. The board acts in accordance with company law and adheres to its published articles of association which are agreed by the members of the golf club.
- 2.19 Members own the club but are not shareholders, so no member owns a specific part of the company or its assets.
- 2.20 Notwithstanding its legal autonomy, the board has considered it important to consult the membership and to obtain their endorsement in relation to the sale of the Golf Course Site and relocation of the club. To that end the board convened two general meetings of the voting membership to establish the overall level of support for the proposals (with a requirement to achieve 50.1% of the vote to pass the resolutions).

Member resolutions

- 2.21 The first meeting was held on 29 November 2011 and the resolution submitted by the board for member approval was in two parts:
- That members support the inclusion of the land owned by the company in the local plan; and
 - That members support the proposal to make such land available for development and to identify suitable land for relocation.
- 2.22 514 votes were cast and 77% voted in support of the resolution. In accordance with the resolutions supported by club members, the board appointed a team of consultants and legal advisors to provide the supporting information required by the local plan process and to ensure the advice and information given to members was factual and accurate.
- 2.23 The second meeting took place on 28 October 2014 and the resolution submitted by the board for member approval was in two parts:

- To agree that the Golf Course Site be placed on the market for sale; and
- To confirm that Basingstoke Golf Club will continue after the sale and acquire a relevant site to fulfill that purpose.

2.24 534 votes were cast and 65% voted in support of the resolution.

2.25 On this basis it is understood that the board has a clear endorsement to sell the Golf Course site for housing development.

Delivery

2.26 Once the Golf Course Site has been allocated within the adopted development plan it will be promptly marketed by Basingstoke Golf Club. There is likely to be significant demand from purchasers given that:

- the site is highly desirability in terms of its location and setting;
- it is easy to commence given the limited level of new infrastructure that is required to service the development;
- the site can be delivered in phases reducing the risk for the developer; and
- the site is not reliant on any land assembly or complex access issues.

2.27 Within the sales-contract for the Golf Course site the selected purchaser will be contractually obliged to submit an early planning application and to deliver the housing as soon as reasonably possible.

2.28 Basingstoke Golf Club is in advanced discussions with a number of potential-vendors with a view to purchasing a replacement site for the club.

2.29 In light of this, Basingstoke Golf Club considers the timetable for the delivery of the Golf Course Site will be as follows:

- Sell site to a housing developer - Expected 2016/17
- Secure outline planning consent/S106 - Expected mid 2018
- Secure reserved matters - Expected mid 2019
- Discharge all relevant conditions - Expected late 2019
- Commence site construction - 2020

- 2.30 The LPA and Basingstoke Golf Club considers the Golf Course Site will deliver homes in the following time period:

50 units	2020/21
100 units	2021/22
150	2022/23
150	2023/24
150	2024/25
150	2025/26
150	2026/27
100	2027/28

- It is common ground between the LPA and Basingstoke Golf Club that there is no planning policy requirement to retain the golf course.
- It is common ground between the LPA and Basingstoke Golf Club that the site will be made available for development.
- It is common ground between Basingstoke Golf Club and BDBC that approximately 1000 dwellings will be delivered within the plan period.

3. Capacity of the site for housing and infrastructure

- 3.1 The LPA's site assessments (Examination Library HO/05 Volume 1) and illustrative masterplanning work undertaken by Basingstoke Golf Club has identified that approximately 1000 dwellings can be accommodated on the site with the necessary on-site infrastructure. The landowner's illustrative master plan is attached as **Appendix 1**.
- 3.2 Without prejudice to any future planning application, it is common ground that this work has made reasonable assumptions about the opportunities and constraints for development on the site, and that approximately 1000 dwellings can be accommodated in an acceptable manner.
- 3.3 The illustrative masterplan identifies approximately 1000 dwellings at a site-wide density of approximately 35 dwellings per hectare (with a higher density within the local centre) as well as space for on-site infrastructure. This takes into account: appropriate buffers to the SINC (and candidate SINC) and areas of woodland; likely restrictions to development from noise and flooding; and is based around the location of the principal access agreed in principle by the Local Highways Authority. These issues are considered in greater detail in parts 6 and 7 of this Statement.

- It is common ground between Basingstoke Golf Club and BDBC that the site could accommodate approximately 1000 dwellings in an acceptable manner.

4. Vision for development in south west Basingstoke

- 4.1 It is important to have a clear vision to guide the development in south-west Basingstoke and coordinate the individual sites to create a well-planned place. The following vision is agreed by both the landowners of Basingstoke Golf Club and the Promoter of Hounscome Fields.

Basingstoke and Deane Borough Council and Basingstoke Golf Club share the vision of creating a high quality, comprehensively planned new development in south-west Basingstoke.

The sites will deliver approximately 2060 new homes up to 2029 (with Hounscome Fields coming forward early in the plan period), which will enable the delivery of new community infrastructure and services to serve both new and existing residents.

The new developments will be comprehensively masterplanned in terms of access, linkages and infrastructure delivery. A principal centre on Hounscome Fields will accommodate a primary school and enhanced community facilities with further amenities on the Golf Course Site. Although the sites sit either side of the A30, through the creation of safe, legible crossing points reflecting desire lines, the sites will be interlinked to build a strong community with a clear shared identity.

The sites will include integrated and accessible transport systems that cater for all modes including public transport and safe routes for pedestrians and cyclists, both within the allocations and with particular reference to sustainable routes to the town centre.

The new homes will be of a high quality of design and demonstrate good practice in sustainable design, and include a mix of size and tenure to create a mixed, thriving new community. Their layout and design will take account of the opportunities and constraints presented by the greenfield sites, and in particular ensure that they respond to, and build upon, the landscape sensitivities, ecological significance, and existing green infrastructure to deliver a high quality place and provide a new gateway into Basingstoke from the south west.

- 4.2 The vision will be enhanced and refined through the community engagement that Basingstoke Golf Club will undertake prior to the submission of any planning application.
- 4.3 Based upon the vision, the Council and Basingstoke Golf Club agree that the following text be inserted in the Local Plan alongside the inset map to provide an introduction to the sites in south-west Basingstoke (also agreed with Hounscome Fields' Promoter).

(Insert before Policies SS3.11 and SS3.12)

‘Approximately 2060 new homes will be brought forward in south-west Basingstoke as part of a high quality, comprehensively planned, infrastructure-rich development. The sites will respect, respond to and enhance their landscape and biodiversity context and build upon the local green infrastructure assets to provide a high quality new gateway to the town’.

- The vision for development in south west Basingstoke is common ground between the Basingstoke Golf Club, the LPA, the LHA and the LEA.
- The proposed additional supporting text is common ground between Basingstoke Golf Club and the LPA.

5. Inset Map

- 5.1 At the exploratory meeting in December 2014, the Inspector indicated that he would like to see further detail on the strategic sites, and suggested that an inset map should be agreed through the hearings.
- 5.2 To assist the Inspector at the examination, a draft inset map for the sites in south-west Basingstoke (see **Appendix 2**) has been agreed through discussion between Basingstoke Golf Club, Hounsme Fields, the LPA (and internal consultees), the LHA and the LEA. To provide a comprehensive picture of development in the area, the inset map also includes the adjacent site at Kennel Farm (Policy SS3.2, currently benefitting from outline consent Ref. BDB/77382 - land use parameter plan in **Appendix 4**)
- 5.3 Whilst recognising that further information will become available through the detailed design process, the indicative inset map identifies the general location of the principal access and key infrastructure on the site.
- 5.4 The key features shown for the area include:
 - Single principal access to/from A30 comprehensively planned between the Golf Course Site and Hounsme Fields;
 - Centres (including community facilities) on both sites;
 - A primary school on Hounsme Fields; and
 - Pedestrian/cycling connections to the town centre.
- 5.5 The part of the inset map specifically relating to the Golf Course Site identifies:
 - Secondary access in north-east of the site
 - Centre in southern part of site. The location indicatively shown on the inset map would provide separation from centres at Beggarwood and Hounsme Fields to support viability, and include existing houses in southern Beggarwood as part of its catchment.
- 5.6 A constraints map (**Appendix 3**) has also been agreed showing the following:
 - Peak Copse SINC and the Coachroad Belt (candidate) SINC

- Noise from the M3; and
- Area of land in flood zone 2

5.7 Although it is recognised that there are other constraints that will need to be taken into account when detailing the proposals, these would have less of an impact upon the high level master plan (for example, protection of individual trees). These matters are covered by policies in the emerging local plan, and the detailed design response will be considered through the Development Management process.

- The draft inset map and the constraints map are common ground between Basingstoke Golf Club, the LPA, the LHA and the LEA.

6. Text of Policy SS3.11

6.1 This section focuses on those Policy SS3.11 criteria where further explanation is available to demonstrate how the policy criteria would be satisfied (including issues which have been raised during the consultations) or where there is a difference of views between the golf club and Councils that cannot be resolved by further dialogue. This section refers to a number of technical studies that Basingstoke Golf Club has undertaken, some of which are new and some of which have been submitted to previous rounds of consultation. For completeness, these are all attached as appendices to this document.

Gypsies and Travellers (criterion b)

- 6.2 Criterion b is not agreed.
- 6.3 The Council considers that this approach provides a flexible framework to meet the Council's needs through the Development Management process, taking account of the needs identified at that time.
- 6.4 Basingstoke Golf Club considers gypsy and traveller sites/pitches should not be provided as part of the development proposals as it will reduce the site's overall development capacity and make the site less viable. Instead, Basingstoke Golf Club considers gypsy and traveller sites should be concentrated on larger sites within the borough, particularly on land that is either owned or controlled by BDBC.

- The requirement for gypsy and traveller sites in criterion b) is not common ground between the landowner and the LPA.
- Other elements of the criterion relating to the mix of units and the provision of self-build properties are common ground between the landowner and the LPA.

On-site infrastructure and comprehensive development (criteria c and o)

- 6.5 The LPA and Basingstoke Golf Club understand the importance of planning and delivering infrastructure in a comprehensive manner. It is noted, however, that the provisions of this section, and particularly the extent of residual S106 requirements, as set out below, are dependent upon the final content of the Council's Regulation 123 list.
- 6.6 The Local Planning Authority has liaised with internal stakeholders and the LEA with regards to on-site infrastructure requirements. The LPA, the LEA and the landowners agree that a piecemeal approach to infrastructure delivery (with each site 'consuming its own smoke') would undermine the opportunity to comprehensively plan the area and result in inefficiencies in the facilities' future management. This includes issues associated with the delivery of single form entry primary schools which the LEA do not view as desirable, and the division of sports pitches which would result in management issues.
- 6.7 It is agreed that in the context of the Golf Course Site this would require:
- Financial contribution towards 3 form entry primary school on Hounscome Fields;
 - Satellite community centre provided on site with financial contribution to extend principal facility on Hounscome Fields;
 - Outdoor sports provision (playing pitches and tennis courts) for both sites to be accommodated on the golf club (potentially within noise affected area); and
 - Neighbourhood park (as part of multi-functional green space)
- 6.8 To reflect this approach, the LPA and the landowner are in agreement that the relevant criteria in each policy should be redrafted to be more specific about the infrastructure sought on each site and to require the submission of an Infrastructure Delivery Plan (IDP) with each outline planning application to justify what is being provided (as explained below).
- 6.9 In the case of Policy SS3.11 relating to the Golf Course Site:
- 'c) Include the provision of social and physical infrastructure, including the provision of a community centre, local shopping facilities, and sports facilities including playing pitches, with adequate land to meet the outdoor sports needs of both this site and the development on Hounscome Fields with an Infrastructure Delivery Plan to demonstrate that the needs of the development sites in south-west Basingstoke have been comprehensively planned and will be met.'
- 6.10 Furthermore, it is agreed that criterion o) be strengthened to refer to joint infrastructure delivery.
- 'o) Ensure through joint masterplanning and joint infrastructure planning, that it provides a comprehensive development with Kennel Farm (policy SS3.2) and Hounscome Fields (policy SS3.12) allocations.'

- 6.11 The landowner has indicated that this approach is achievable. It is anticipated that Hounsme Fields will be started first, in which case the Council could secure provision of the outdoor sports facilities through a financial contribution, which would allow comprehensive provision on the golf course site. Should the Golf Course Site be delivered first, the policy would ensure that sufficient space for pitches was reserved. The principle of this approach has also been agreed with Hounsme Fields' promoter through their statement of common ground.

What would the Infrastructure Delivery Plan include?

- 6.12 It is agreed that each outline planning application should be provided with an Infrastructure Delivery Plan (IDP) for both Hounsme Fields and the Golf Course Site to ensure the vision is achieved and to avoid a piecemeal approach. The IDP will set an overarching framework for the S106 agreement in each case, reflect the Council's Regulation 123 List, and provide the suitable assurances that infrastructure is being jointly and comprehensively planned.
- 6.13 It is agreed that the IDP should demonstrate that the development in question would:
- contribute towards a comprehensive infrastructure plan for the wider area;
 - mitigate its own impacts (in accordance with the tests in CIL Reg 122); and
 - not prejudice and, in fact, facilitate the delivery of future development in the allocated sites.
- 6.14 The document should include:
- A list of the area-wide infrastructure requirements (in the absence of any adopted document detailing the infrastructure required, this should include those identified in the Borough-wide Infrastructure Delivery Plan);
 - Details of how (and broadly where) that infrastructure would be delivered or funded (including costs, levels of funding and timings); and
 - A high-level infrastructure phasing strategy.
- 6.15 The IDP will cover those elements of infrastructure:
- to be provided solely by one development site to meet their own needs (for example, on-site amenity open space);
 - to be delivered on one site but serve the entire development area or a wider area (for example, outdoor sports pitches);
 - to be delivered on site but to be funded by an alternative means (for example, CIL);
 - to be delivered off site (for example, off-site highway improvements);
 - included on the Reg 123 list, that may be delivered off-site by CIL.

- It is common ground between the LPA, the LEA and the landowner that infrastructure in south west Basingstoke should be comprehensively planned.

- It is common ground between the LPA, the LEA and the landowner that criteria c) and o) of Policy SS3.11 should be amended to provide more detail about the infrastructure required, and to include reference to the requirement for an infrastructure delivery plan.

Landscape character, urban design and ecology (criteria d and e)

- 6.16 These criteria provide a policy framework to ensure that the development will respond to landscape and ecological considerations. The site has notable landscape and ecological constraints (SINCs and woodland) that will influence the site layout. The detailed consideration of these matters can be addressed at the Development Management stage.
- 6.17 A Landscape Assessment has been prepared by Basingstoke Golf Club to support the site submission (see **Appendix 6** – the detail of which has not been agreed by the Council), however it is agreed that a more detailed Landscape and Visual Impact Assessment will be required with any future planning application to demonstrate how the proposals would respond to the special characteristics and sensitivities of the landscape.
- 6.18 In particular, the height and intensity of development will need to respond to the levels of the site to reduce any visual impacts. A soft edge to the development will provide a green transition to the surrounding countryside and mitigate any impact upon the adjacent rights of way that border the site.
- 6.19 An Arboricultural Impact Assessment will inform the retention of some of the existing trees and groups of trees within the site, and inform a landscaping structure that would include green corridors. An ecological assessment will highlight biodiversity issues, such as areas of ecological potential and importance, buffers, along with links with the wider green infrastructure beyond the site. Each of these assessments will help to inform a framework that defines the green infrastructure for the site.

- It is common ground between Basingstoke Golf Club and BDBC that criteria d) and e) provide an acceptable framework to protect the natural environment.

Highways

A30 corridor

- 6.20 The promoter of Hounsome Fields and the landowner of Basingstoke Golf Club have jointly provided a highways statement dealing with access issues and broader sustainability considerations (**Appendix 7** – this is a statement between the two landowners which has not been agreed by the LHA or the LPA).

- 6.21 In its role as local highway authority, Hampshire County Council (HCC) has considered initial transport and highways matters relating to the proposed allocation of Basingstoke Golf Course (ref: Policy SS3.11) and Hounsme Fields (ref: Policy SS3.12) in BDBC's 'Proposed Main Modifications to the Submission Local Plan'. This has included a review of high level data and associated commentary within the 'Agreed Transport Statement', (which for the avoidance of doubt is an agreed statement between the promoters of the two sites).
- 6.22 In terms of the principal vehicular access to the sites, both sites include very long frontages with the A30 and therefore there are numerous options to achieve safe and suitable vehicular access.
- 6.23 The LHA has considered the opportunity to provide access via both a signalised junction option and a roundabout. The concept access options are noted as being viable propositions for the quantum of development set out in the local plan.
- 6.24 The final type of junction will be refined as detailed studies are undertaken to support planning applications.

Other highways issues

- 6.25 Any planning application will be supported by a detailed Transport Assessment including Travel Plans. As part of this, it will enable safe, healthy and sustainable routes to the school for all, and should in turn result in minimal car alone journeys and reduced congestion within the school vicinity.

It is common ground between the landowner, the LHA and the LPA that:

- The concept of at-grade pedestrian/cyclist crossing facilities within the new junctions on the A30 is supported.
- It is agreed that an appropriate land envelope can and will be safeguarded on the A30 to allow the site access junction to accommodate possible future development to the north as required by Policy SS3.12.
- The wider traffic impact of the proposed local plan allocations is set out in the strategic level Transport Assessment (TA) produced by Parsons Brinckerhoff which is agreed by HCC with the exception of a specific concern explained within its representations on Policy SS3.10.
- HCC is satisfied that the development on land covered by Policy SS3.11 and SS3.12 has potential to be acceptable in transport sustainability terms. As matters progress, the LHA will expect to see the detail of how the sites will build upon existing walking, cycling and public transport provision to provide connectivity to local facilities and services and those further afield. Access strategies will need to allow for (and capitalise upon) improvements that may or may not be brought forward by others. At this stage, the LHA consider that the

sites have potential to opportunities for sustainable travel in a reasonable and realistic way.

Sewerage, Drainage and Flooding (criteria j and k)

- 6.26 The Council's Water Cycle Study and subsequent discussions with the Environment Agency (Examination Library: PS/02/28) demonstrate that there is sufficient capacity at the Basingstoke Sewage Treatment Works to accommodate all the development proposed in the plan period, including the 1,000 dwellings on the Golf Course Site and the 750 dwellings on Hounsme Fields. It is therefore common ground that sewerage capacity does not provide a constraint to development.
- 6.27 A full Utilities Assessment will be provided with the planning applications to identify the other improvements required to the drainage network. The LPA will work with Thames Water to ensure these are provided, and it would not be unusual for planning consent to be granted subject to a Grampian condition on this issue.
- 6.28 The Council's Flood Risk Ranking and Sequential Test Updated (2014) identifies that only a very minor part of the site is within Flood Zone 2 and that small areas would be susceptible to surface water flooding.
- 6.29 Basingstoke Golf Club has prepared a flood risk assessment to support the site submission (see **Appendix 8**) which identifies that the site is at a low risk of flooding and that the site is on chalk so would be able to accommodate infiltration SuDS. This document has not been agreed with BDBC or the Environment Agency.
- 6.30 It is common ground that flood risk will need to be attenuated in accordance with the requirements of emerging Local Plan policy EM7 (Managing Flood Risk) and the National Planning Policy Framework and National Planning Practice Guidance, but that flooding will not be a significant constraint to development on the site.

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|---|
| <ul style="list-style-type: none">• It is common ground between Basingstoke Golf Club and BDBC that sewerage capacity is not a constraint.• It is common ground between Basingstoke Golf Club and BDBC that flood risk will need to be attenuated in accordance with the requirements of local and national policy, but that flooding will not be a significant constraint to development on the site. |
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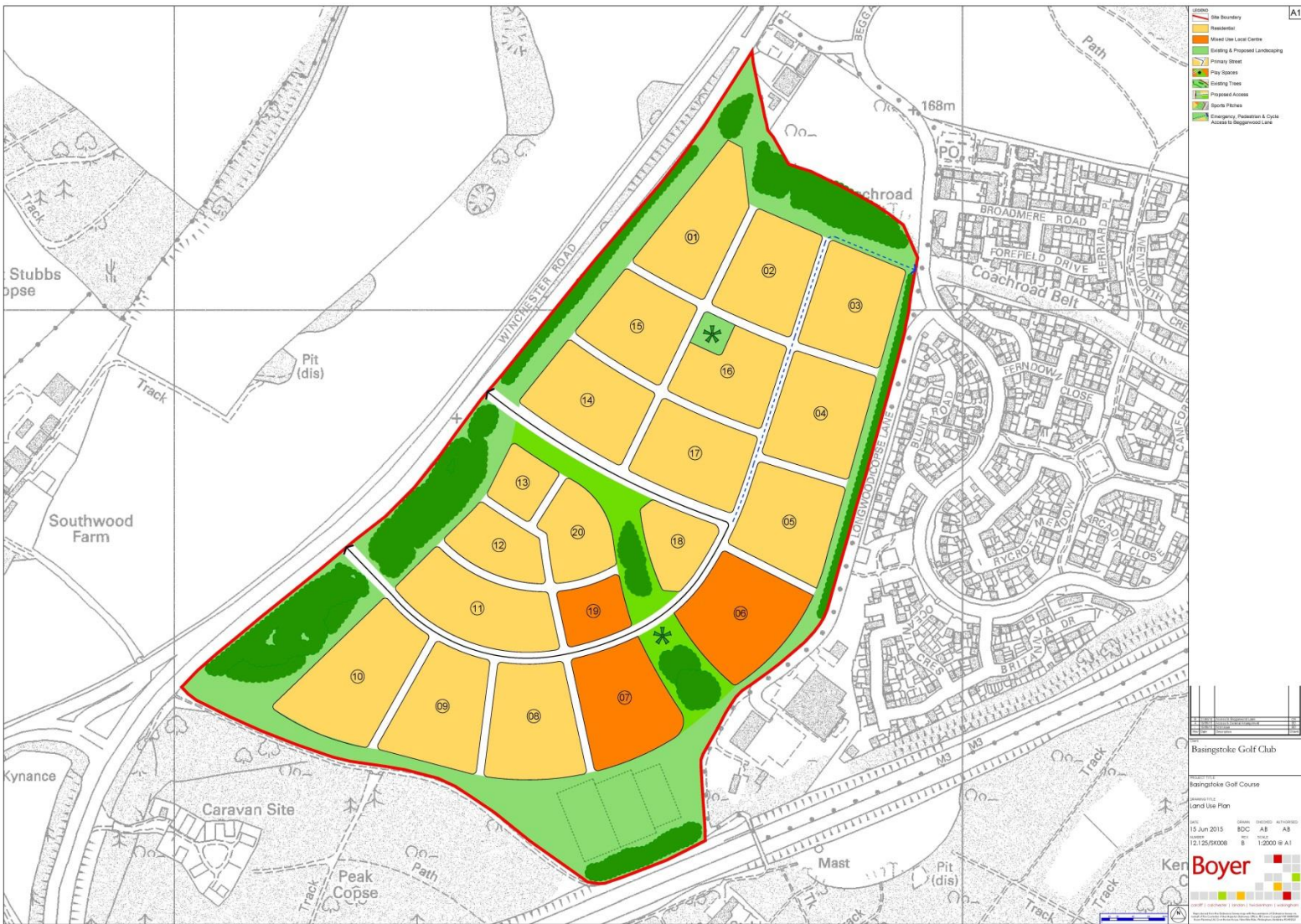
Noise (criterion m)

- 6.31 It is common ground between Basingstoke Golf Club and BDBC that mitigation will be required in the south-eastern corner of the site adjacent to the M3 and along the A30 frontage.

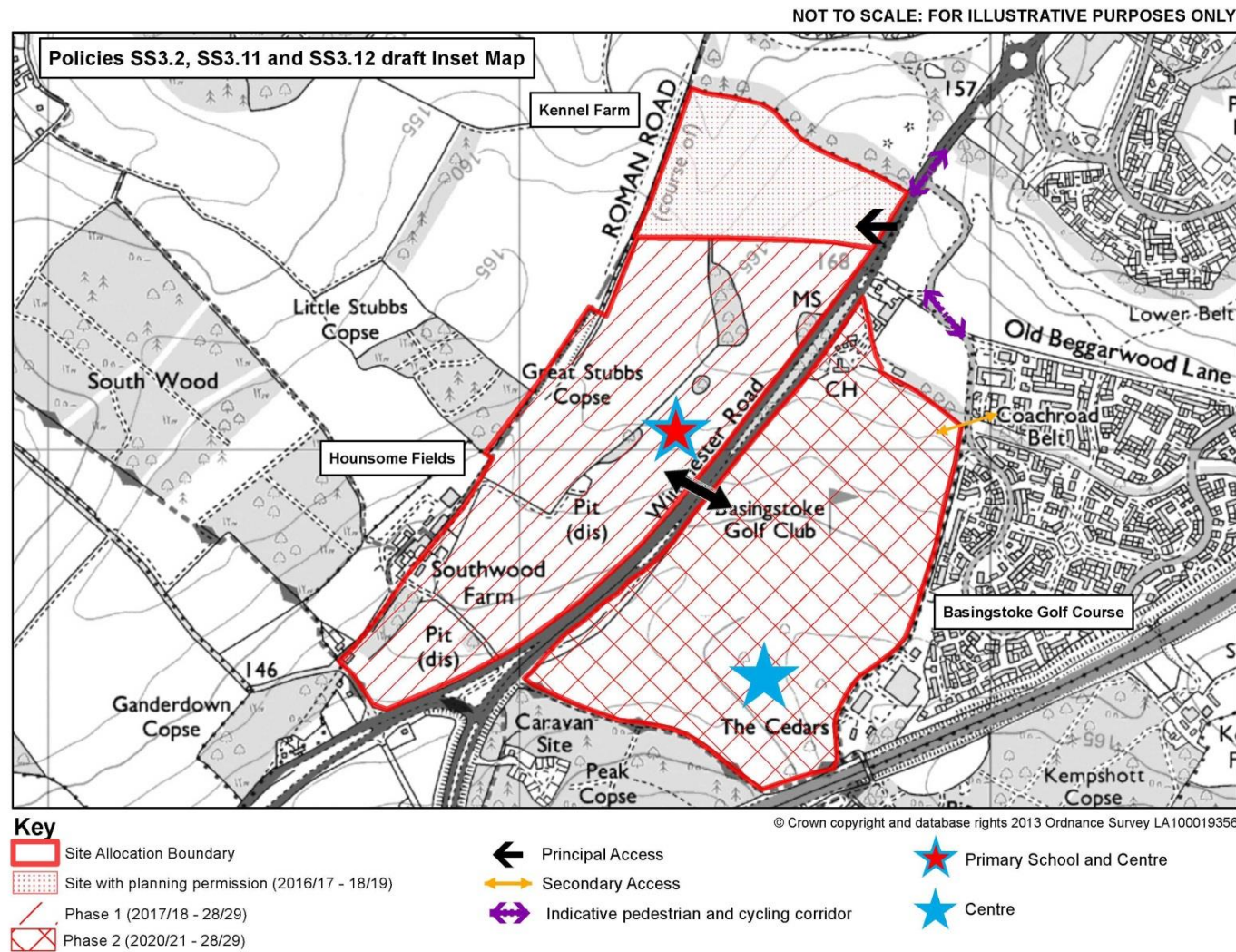
- 6.32 It is agreed that the precise details for mitigation shall be considered at the detailed design stage (with the benefit of a topographical survey) to select the most appropriate noise attenuation measures. In common with other developments alongside the M3, there will also be scope to ensure internal and external noise levels can comply with WHO standards.
- 6.33 A preliminary assessment undertaken by the landowner in 2012 (**Appendix 9**) (not agreed by the LPA) has identified options for mitigation. There is also scope to reinforce the noise attenuation by juxtaposing buildings to create a barrier /shielding effect. Community buildings and other buildings in the centre can for example provide a barrier and complement the other mitigation measures.
- 6.34 In summary, the illustrative masterplan contained within **Appendix 1** demonstrates that suitable buffer areas can be provided and would exceed that provided elsewhere along the M3.

- It is common ground that acceptable noise and air quality standards will be met within homes and amenity areas through suitable design, noise and air quality mitigation measures in light of the proximity of the site to the M3 and A30.

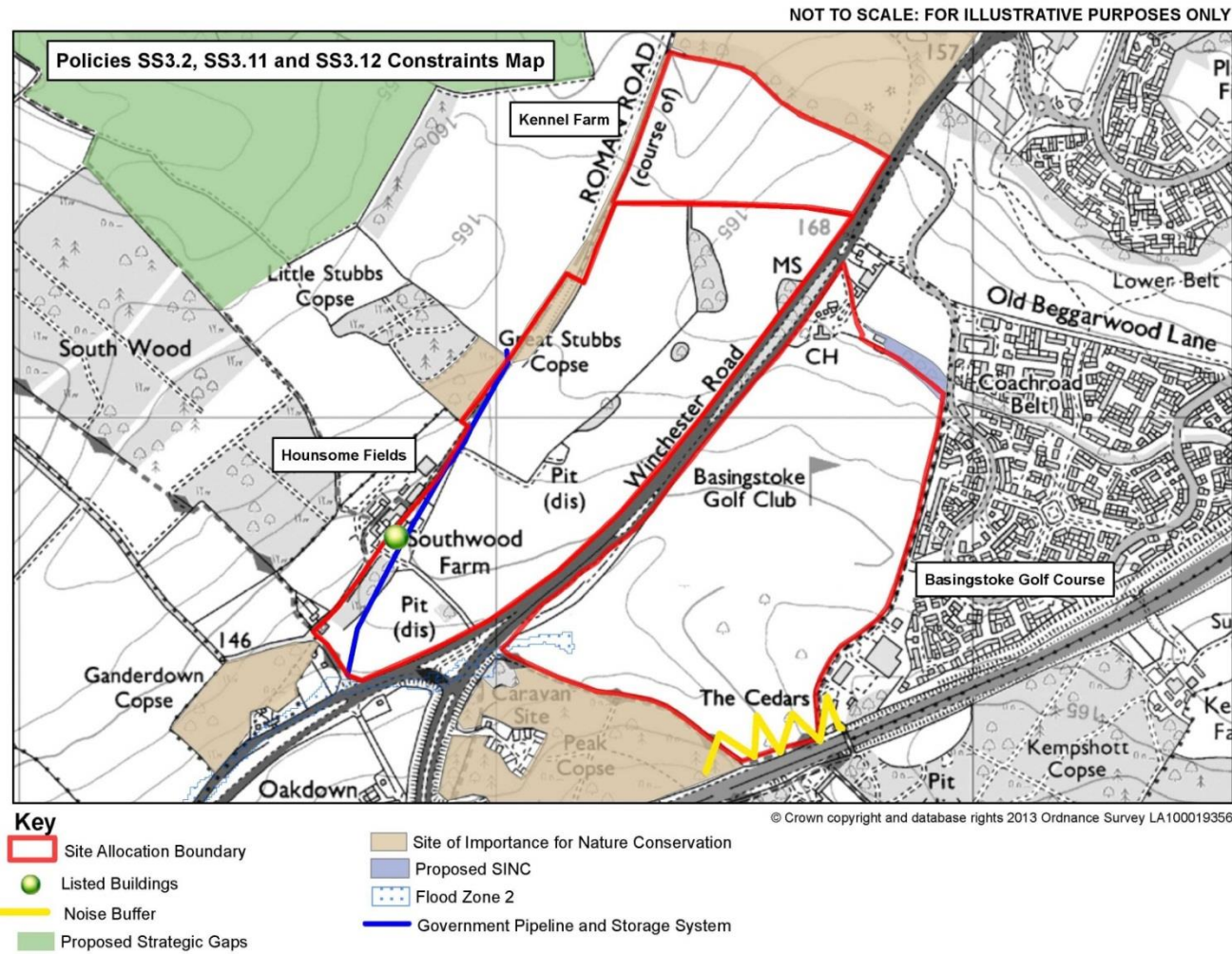
Appendix 1: Illustrative Masterplan for Basingstoke Golf Course (Boyer Planning, August 2015)



Appendix 2: Draft Inset Map



Appendix 3: Constraints Map



Appendix 4: Plan of development permitted at Kennel Farm BDB/77382.

Outline planning application for the erection of up to 310 residential units comprising 1, 2, 3, 4 and 5 bedroom units (including affordable housing); new access from Winchester Road (A30); a new pedestrian link from Winchester Road; internal access roads; with open space and landscaping



Centre on Hounsme Fields to provide community hub and to include:

- 3FE Primary school (2.8ha)
- Principal community centre (to include part of requirement from HF) (750m²)
- Indoor sports facilities (4 badminton court hall)
- Land for a private children's nursery (to be marketed by the developers)
- Local shopping facilities (if viable – flexibly designed units)
- Multi functional green space including neighbourhood park, play areas and allotments

Centre on Basingstoke Golf Club to include:

- Sports pitches and tennis courts (to serve development on both allocated sites)
- Satellite community centre (375m²), to provide changing facilities for outdoor sports and meet local needs. To also include space for early years.
- Local shopping facilities (if viable – flexibly designed units)
- Multi functional green space including neighbourhood park, play areas and allotments

**Appendix 6: Landscape Assessment provided by Basingstoke Golf Club
(Aspect, August 2012)**

LOCAL PLAN ALLOCATION,
WINCHESTER ROAD, BASINGSTOKE

Landscape & Visual Assessment

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ASPECT PLANS

PLAN ASP1 LANDSCAPE CHARACTER AREAS
PLAN ASP2 WIDER CHARACTER ANALYSIS
PLAN ASP3 SITE ANALYSIS

LANDSCAPE & VISUAL ASSESSMENT

1. INTRODUCTION

- 1.1. Aspect Landscape Planning Ltd have been appointed by Basingstoke Golf Club to provide a landscape and visual appraisal of the site for the allocation of residential development on the site of the Golf Club at Winchester Road, Basingstoke. The site is located to the south western end of the town, and would form an infill development between the existing urban edge to the east and Winchester Road to the west.
- 1.2. This assessment will comprise a desk-top study of the site and its setting, to analyse the landscape character and visual environment of the local area and its potential to introduce the principle of development, and what constraints are present which would need consideration if this site were to be allocated in the LDF process.

2. LANDSCAPE RELATED PLANNING POLICY

Basingstoke & Deane Borough Adopted Local Plan

- 2.1. The Adopted Local Plan (1996-2011) is the Council's development plan for the Borough and is used as the basis for all planning decisions taken within the Borough. It contains a series of detailed policies against which development proposals can be assessed, and was adopted on 17 July 2006.
- 2.2. The site and its setting is not constrained by any landscape or heritage designations, except for a small number of Listed buildings, namely Kempshott House Stable Cottages on the opposite side of M3, clearly influenced by the proximity of the major road corridor. Peak Copse to the southwest of the site is a Site of Importance for Nature Conservation (SINC). In the wider context, the North Wessex Downs AONB lies to the northwest approximately 5km away.
- 2.3. The key policy is Landscape Character Policy E6 which states:

Planning permission will only be granted where it is demonstrated that the proposals will be sympathetic to the landscape character and quality of the area concerned.

Development proposals should contribute to the regeneration, restoration, repair or conservation of any landscape likely to be affected. In particular they should respect, and improve the following:

- i. the particular qualities of the relevant Landscape Character Area as defined in the Basingstoke and Deane Landscape Assessment; and***
- ii. visual amenity and scenic quality; and***
- iii. the setting of a settlement, including important views to, across and out of settlements; and***
- iv. the local character of buildings and settlements, including important open areas; and***
- v. trees, hedgerows, water features and other landscape elements and features; and***

vi. historic landscapes, features and elements

Consideration will also be given to the impact that development would have on sense of place, sense of remoteness or tranquillity, and the quiet enjoyment of the landscape from public rights of way.

The designation of the North Wessex Downs AONB reflects the national importance of that landscape. In addition to the other requirements of this Policy, applications for development in the AONB will be determined in accordance with the policy in PPS7 also having regard to the setting of the AONB.

- 2.4. A comprehensive landscape assessment of the Borough was undertaken in 2001, and this has been adopted as SPG. This document describes the landscape, classifying it into 20 distinct Character Areas, summarising the key characteristics, qualities and issues associated with each area. The Basingstoke Golf Club lies within character area 16. Basingstoke Down, and adjacent to 14. Oakley/Steventon Down to the northwest, and 17. Dummer and Popham Down to the southwest. The urban area of Basingstoke has been excluded from the character assessment (refer to Plan ASP1 for areas). A full appraisal of this assessment is carried out below.

Emerging Local Plan (Local Development Framework)

- 2.5. As a result of a High Court judgement against Basingstoke & Deane Borough Council on the site selection process for allocated sites for housing, the draft Pre-Submission Core Strategy document is not currently valid, although the work carried out up to this point would remain relevant in determining what direction emerging policy would take.
- 2.6. The draft Core Strategy proposals maps did include the provision for housing on the site, with a draft allocation SS2.6 for approximately 1,050 homes. The detailed policy stated that any development on this site should ***“respond positively to the special characteristics and sensitivities which respect its location and provide for integration with nearby residential areas”***.

- 2.7. It went on to state with regard to the SINC, to ***“limit the direct and indirect impacts on local species and habitats, including the adjacent Peak Copse Site of Importance for Nature Conservation and ensure that there is a positive improvement in the conservation status of these species within the designation, providing an appropriate buffer and ensuring the retention of key woodland areas and less managed grasslands”***.
- 2.8. The purpose of this report is to provide further justification for the allocation of housing on this site from a landscape and visual perspective, and a more detailed appraisal is set out below.

3. LANDSCAPE CHARACTER OF THE SITE & SETTING

- 3.1. A landscape assessment of the local area is necessary to identify broadly homogenous zones that can be categorised in terms of quality and character, which will highlight the potential impact that change will have on a particular landscape.
- 3.2. At a national level the Countryside Agency have produced the 'Countryside Character' series of England. The site lies in character area 130 Hampshire Downs. This assessment defines broadly homogenous zones in the national context, and is useful at a strategic level, but is somewhat broad to apply to the site itself.
- 3.3. A comprehensive landscape assessment of the Borough was undertaken in 2001 by Landscape Design Associates, setting out the various landscape types and character areas of the Borough. The landscape assessment identifies 20 different areas of the Borough, within which the site lies in character area 16 'Basingstoke Down'. The landscape character areas are further divided into landscape types describing the nature of the land use and landscape, for which the site is categorised as M3 'Amenity Landscapes'.
- 3.4. The site is located at the southwestern tip of the Basingstoke urban area, and at the intersection with two other character areas, 14 'Oakley/Steventon Down' to the northwest, and 17 'Dummer and Popham Down' to the southwest. The key characteristics of area 16 'Basingstoke Down' are relevant to the wider area, but the other two areas will also be relevant to the comprehensive character appraisal of the site and setting, and its ability to accommodate development.
- 3.5. The key characteristics of Basingstoke Down are:
 - *rolling landform to the north, becoming more undulating and northward sloping to the south;*
 - *predominantly large-scale farmland, lacking a distinctive sense of place;*

- *provides landscape setting for the western and southern parts of Basingstoke, whilst the western third of the area lies within the North Wessex Downs AONB. Urban influences affect much of the area, with hospital and golf course development north of Basingstoke, further golf courses south-west of Basingstoke, and significant noise intrusion from M3 and A-roads;*
- *open character formed by large-scale, arable fields, the mix of track-bound fields, large wavy-edged fields and parliamentary fields reflecting enclosure from post-medieval to 19th century times;*
- *low, well-cut hedgerows and very few woodland blocks, although shelter belt planting exists north of Basingstoke, and very occasional remnants of ancient semi-natural woodland exists, especially concentrated in the south of the area;*
- *high intervisibility within the area due to the lack of woodland or strong hedgerow structure, enabling views of Basingstoke from many parts of the character area;*
- *limited settlement outside Basingstoke, with scattered isolated farmsteads and small villages/hamlets, linked by relatively small, narrow roads, contrasting with effective but intrusive road network linking Basingstoke with surrounding areas via the M3 and A-roads. Roman road defines the abrupt, straight, western built edge to Basingstoke, and the M3 corridor marks a similar sharp edge on the southern side;*
- *various Scheduled Ancient Monuments, including Woodgarston ring motte, and a Roman site north-west of Woodgarston Farm.*

3.6. Although the site lies within this wider area, it does not share the same characteristics as the rest of the character area, being an artificial landscape and heavily constrained by road corridors and existing development.

3.7. Oakley/ Steventon Down lies to the northwest, and this large area forms a distinct swathe of relatively enclosed landscape which contrasts and defines its boundaries with the more open character of adjacent areas. There is a *“generally low to moderate intervisibility within the area, with frequent woodland blocks and strong hedgerow structure minimising long or panoramic views”*. The overall description states:

This diverse but balanced landscape comprises a patchwork of medium to large-scale arable fields, interspersed with frequent broadleaf woodland blocks and managed parkland. The relatively enclosed nature created by the woodland distinguishes this area from the surrounding more open character areas.

- 3.8. Dummer & Popham Down lies to the northwest, and is described as follows:

This is a varied landscape of open arable farmland, a more enclosed part around the road network and North Waltham, and an area of semi-enclosed arable fields, given coherence by the well-defined dry valley that runs through the area. The predominant large arable fields are bounded by low, trimmed hedgerows and infrequent woodland blocks, creating a feeling of relative openness. In contrast, the complexity of roads around the M3 and A30/A303, especially at Junction 8, creates small pockets of land, with enclosure provided by the significantly greater percentage of woodland blocks..... The major road corridors of the M3 and A30/A303 significantly disturb the tranquillity of the landscape in adjoining areas.

- 3.9. In summary, the site lies within an area where urban influences affect much of the area, with golf course development south-west of Basingstoke (including the site), and significant noise intrusion from M3 and A-roads. To the northwest, the character becomes more rural and remote, with frequent woodland blocks and parkland creating a more enclosed, intimate landscape and limited intervisibility within the area. Land to the southeast beyond the M3 remains in the Basingstoke Down character area, and except for a second golf course to the west of this area, displays more of the wider character of undulating landform northward facing enabling views of Basingstoke, and a high concentration of woodland for the area.
- 3.10. The wider area of the Dummer & Popham Down to the southwest is a varied landscape of open arable farmland, and a more enclosed part around the road network of the M3 and A30/A303 which significantly

disturbs the tranquillity of the landscape in adjoining areas. Whilst the site lies within the Basingstoke Down character area, it shares little of the wider characteristics of the landscape.

Landscape Capacity Study 2010

- 3.11. In 2010 the Council commissioned a detailed Landscape Capacity Study of the Borough, examining sites in more detail than a similar study in 2008, whilst giving a capacity scoring from low to high. This will help determine the most suitable location for future development in the borough, and was intended to form part of the LDF evidence base.
- 3.12. Landscape capacity is the ability, or otherwise, of the site options to accommodate a certain amount of development. The landscape capacity is determined by combining the overall landscape sensitivity with the landscape value as assessed in the study. The Basingstoke Golf Club site is BAS 132, identified as having a medium capacity for development.

Medium capacity - *The landscape character area could be able to accommodate areas of new development in some parts, providing it has regard to the setting and form of existing settlement and the character and sensitivity of adjacent landscape character areas. There are landscape constraints and therefore the key landscape and visual characteristics must be retained and enhanced.*

- 3.13. The study contains a useful description of the site:

BAS 132 is a golf course with undulating topography and artificial landform features throughout. A large number of tree belts and specimen trees have been established across the site and the boundaries comprise mature trees which form a very strong screen with some gaps allowing glimpsed views in. The site previously formed part of the 18th Century Kempshott Park estate prior to the demolition of Kempshott House upon construction of the M3.

- 3.14. In terms of the stages of assessment that have been carried out, the study states that there is a low visual sensitivity for the site, due to the following:
- *Site seems very enclosed, views mainly internal;*
 - *Views from long distance footpath [Wayfarer's Walk] have greater sensitivity, but offset by low intervisibility and other intrusive influences (A30, M3);*
 - *Low level of receptors but moderate to high sensitivity tempered by intrusive influences;*
 - *Good opportunities for mitigation by exploiting existing tree belts, with no impacts on the wider landscape;*
- 3.15. Clearly, the use of the site as an existing golf course is an influencing factor in the potential for this site to support residential development, through the presence of shelter belts of trees and hedgerows to the boundaries, and a strong influence of the urban edge of Basingstoke and major road corridors giving it an urban fringe character with defining barriers. It *"shares no characteristics of the wider landscape"*, as stated under the wider landscape sensitivity. Overall Landscape Sensitivity was therefore considered Medium/Low.
- 3.16. Landscape Value considers the designations and/or recreation routes in and around the site, of which the Regional scale of the Wayfarer's Walk along the southern boundary of the site provides a medium/high Landscape Value. As a result, the site is identified as having a **medium capacity** for development. The recommendations for the site therefore have emphasised that *"good visual separation currently exists between the site and the rest of Basingstoke, although physical links are strong, so new development would already be well screened"*.
- 3.17. In summary, site BAS 132 has been given the following values:

	STAGE 2 Landscape Sensitivity	STAGE 4 Wider Landscape Sensitivity	STAGE 6 Landscape Value
	<i>Medium</i>	<i>Low</i>	<i>Medium/ High</i>
STAGE 1 Visual Sensitivity	1+2=STAGE 3 Landscape Character Sensitivity	3+4=STAGE 5 Overall Landscape Sensitivity	5+6=STAGE 7 Landscape Capacity
<i>Low</i>	<i>Medium/ Low</i>	<i>Medium/ Low</i>	<i>Medium</i>

3.18. Therefore, due to the significant influences of the existing urban environment and major road networks, the site is somewhat isolated from the wider landscape character, and compartmentalised to such an extent that the potential for positive intervention through development would be appropriate in this location, without compromising the qualities of surrounding landscape character areas.

4. THE VISUAL ENVIRONMENT

- 4.1. The Landscape Capacity Study provides some useful desk-top information regarding the landscape character, value, sensitivity and potential visual receptors. The Record Sheet for BAS 132 provides further assistance, where it was recorded that there may be glimpses and occasional open views from the public right of way (PRoW), part of Wayfarer's Walk, adjacent to southern boundary. Referring to the OS Explorer map (refer Plan ASP2), the PRoW bounds the southern edge of the site, and links across the M3 via a footbridge and continues along the southern edge of the motorway. Whilst this is considered a higher sensitivity user being a National footpath, this higher sensitivity is tempered by the low level of intervisibility, good potential for mitigation and presence of other intrusive influences such as the M3.
- 4.2. There are likely to be glimpses from local roads and houses to east within the existing residential development, and the footpath/ track that flanks the eastern boundary of the site (Longwoodcopse Lane). Views are likely to be more open in winter. Occasional glimpses from the A30 to the west, largely filtered by the mature trees which form a very strong screen with some gaps allowing glimpsed views in.
- 4.3. From the wider landscape setting, views are likely to be limited by the level of containment formed by the topography and the frequent woodland blocks in the vicinity. The undulating topography is quite marked to the southeast, on the edge of the Ellisfield Clay Plateau with likely views northwards to Basingstoke urban area. A second golf course is located directly to the south of the site, and would be visible in views from Dummer. To the northwest, a localised ridgeline lies parallel to the M3, and whilst a relatively open plateau would allow potential views of the site, longer distance views are enclosed and protect the more intimate, remote landscape of the Oakley/Steventon Down beyond. The AONB lies some distance away to the northwest, and would not form a relevant receptor for this appraisal.

4.4. Therefore, from the information provided in the Landscape Capacity Study, and OS data, it is considered that the potential visual receptors within 2km of site boundaries include:

- PRoW – Wayfarer’s Walk adjacent to Peak Copse
- PRoW – the wider Wayfarer’s Walk
- PRoW – Longwoodcopse Lane to eastern edge of site
- PRoW – Roman Road (Course of) to northwest of site
- PRoW – footpath to northeast edge of South Wood
- PRoW – footpath to southwest edge of Kempshott Copse
- A30 Winchester Road
- Farleigh Lane to southeast of site on ridgeline
- Properties to east of site in Beggarwood.
- Properties at Kempshott Stable Cottages to the south of M3
- Settlement of Dummer

4.5. Although this is not an exhaustive list, it provides a representative pool of likely visual receptors that would need to be assessed against the potential for development within this site, as part of the next stage of assessment.

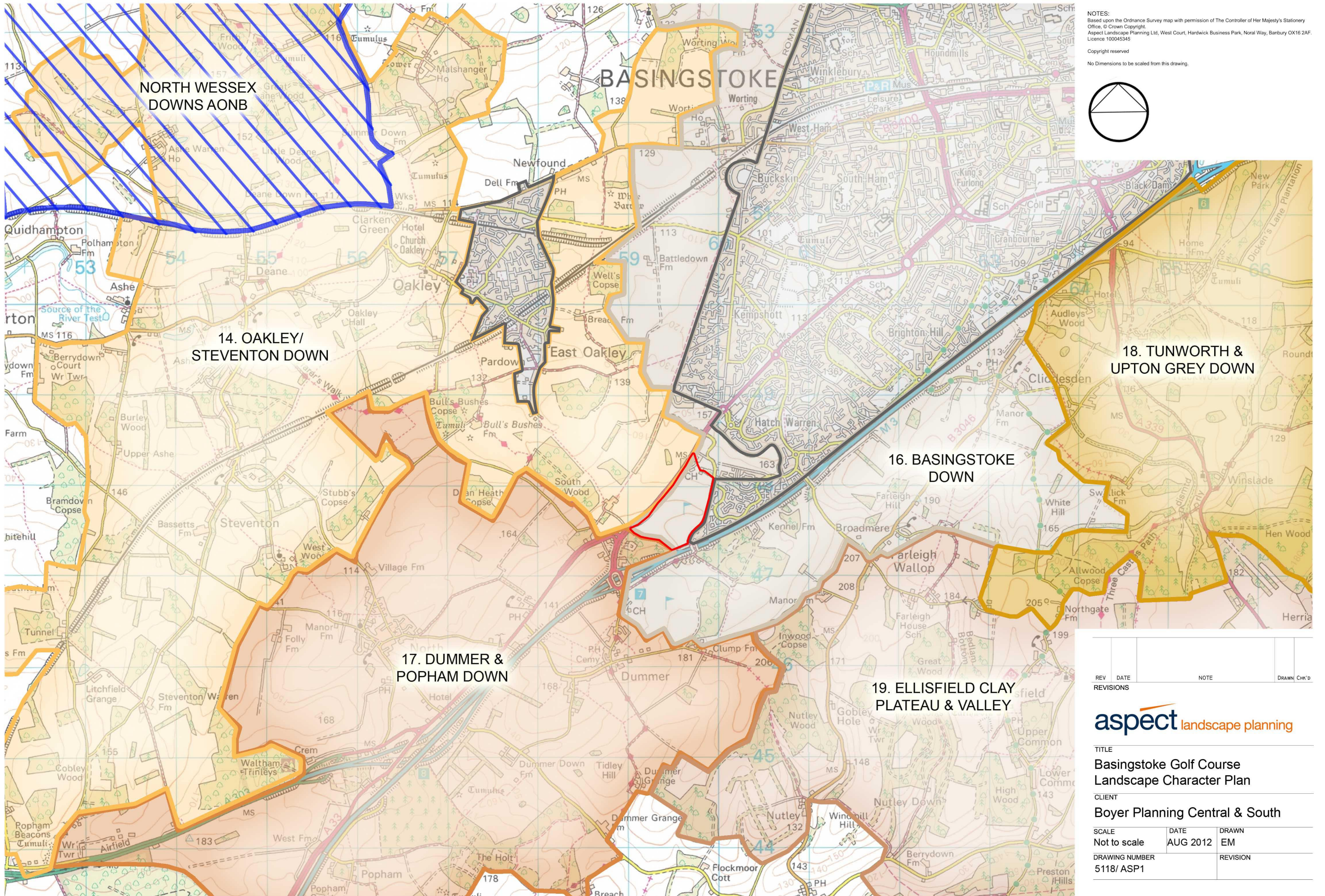
5. OPPORTUNITIES & CONSTRAINTS

- 5.1. Through this desk top study, it is apparent that there are constraints that will need consideration in establishing the principle of development through the planning process. The site is relatively well contained from the wider landscape, with low intervisibility and a low level of potential visual receptors. The presence of a large number of tree belts and specimen trees form strong screens to the boundaries with some gaps allowing glimpsed views in. Internally, groups of individual native and exotic trees within the golf course provide a largely artificial and managed landscape, although the significance of some of the trees could form features within a new development.
- 5.2. The Landscape Capacity Study provided a statement on the opportunities for mitigation and landscape compatibility of mitigation, stating it was Good. Existing trees within site, in groups around golf course could be extended to subdivide the site and to create linear belts. Boundary vegetation could be strengthened with further tree planting to close the gaps, and provide meadow areas to enhance the boundaries and create biodiversity links through the green infrastructure. The context of Peak Copse as a SINC provides a wooded setting to the site, although its conservation status is somewhat compromised by the presence of the caravan park. The Wayfarer's Walk lies to the edge of this woodland, and its status as a National route requires attention in assessing impact on PRow's and views.
- 5.3. The local topography of the site is gently rolling with a low point generally in the centre, and minor ridges to the north and south/southwest which due to their more elevated nature, may provide an interface with the wider countryside, and would need consideration in a more detailed site appraisal. Further boundary screening to the north may be appropriate in this regard, although this would likely form the main site access from Winchester Road in the vicinity of the golf club house.
- 5.4. The site is clearly constrained physically by the major road corridor of the M3 to the south, and the elevated A30 Winchester Road to the

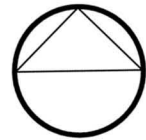
northwest. Development would need to avoid these constrained noise sensitive areas for housing, providing suitable offsets through new buffer planting and careful layout.

- 5.5. In conclusion, the site is an appropriate location where it could accommodate areas of new development in the majority of the areas, providing it has regard to the higher parts of the site, and considers the character and sensitivity of adjacent landscape character areas through retention and enhancement of tree belts and landscape features.
- 5.6. In terms of Local Plan Policy, Landscape Character Policy E6 states that *“planning permission will only be granted where it is demonstrated that the proposals will be sympathetic to the landscape character and quality of the area concerned”*. The Basingstoke Golf Club provides an opportunity for improving the quality of the area through creating a sense of place and a high quality development, whilst having the potential to avoid adverse impact on the landscape character or visual amenity. Landscape features such as tree belts, hedgerows, and individual/ groups of trees within the site can be retained, thereby maintaining their sense of enclosure and existing tree cover to integrate the development into the setting.
- 5.7. Therefore it is considered that the allocation for housing at Basingstoke Golf Club would have the potential to comply with Policy E6 of the adopted Local Plan, and respect the local character as defined in the Basingstoke and Deane Landscape Assessment 2001.
- 5.8. The Landscape Capacity Study 2010 concluded that the site had a medium capacity to accommodate new development, providing it has regard to the setting and form of existing settlement and the character and sensitivity of adjacent landscape character areas. It also stated that it *“shares no characteristics of the wider landscape”*, being a golf course of ‘artificial’ character. Therefore, it is considered that the site is an enclosed parcel of land within the complexity of roads around junction 7 of the M3, causing a high degree of disruption to the landscape character.

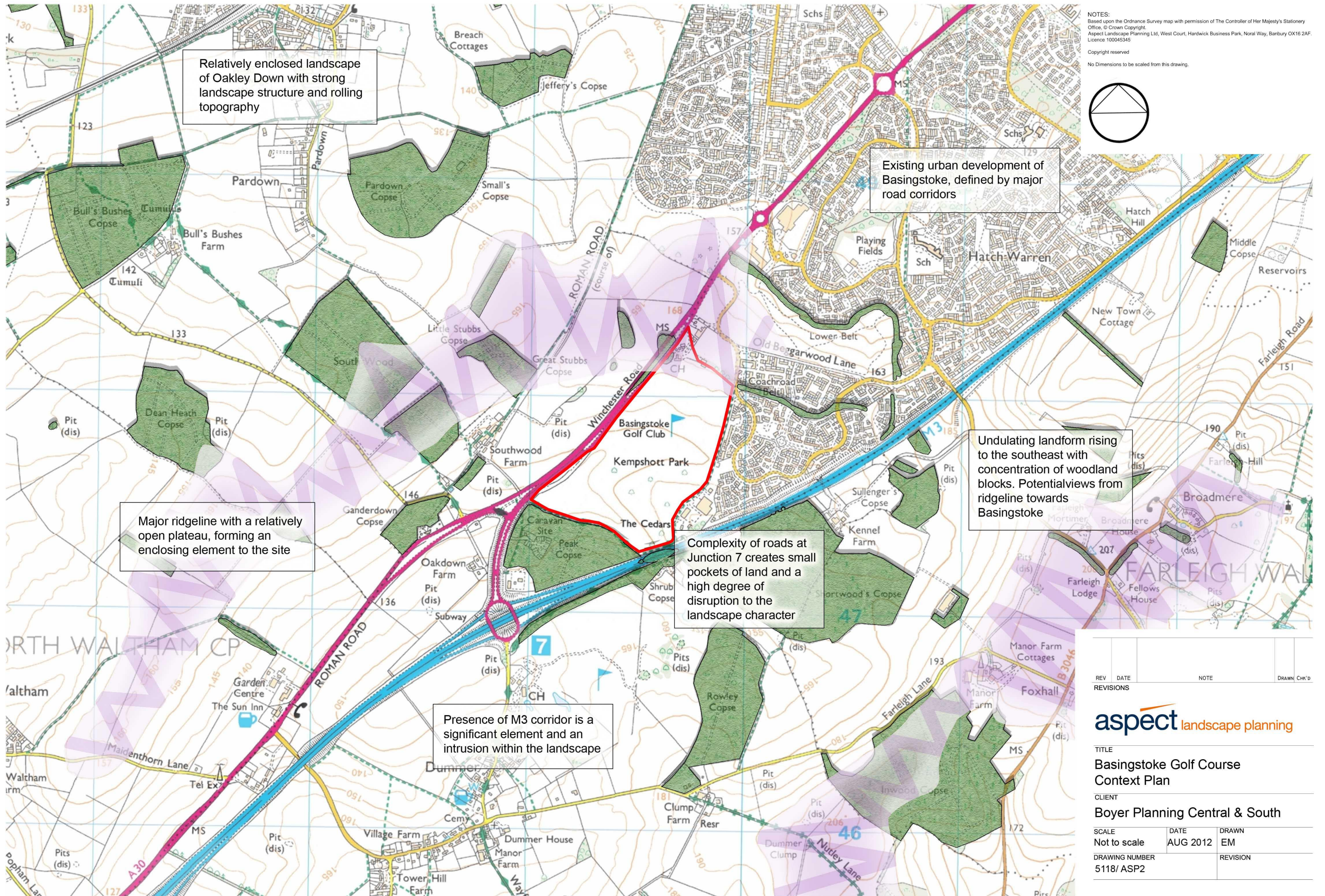
ASPECT PLANS



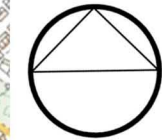
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REV	DATE	NOTE	DRAWN	CHK'D
REVISIONS				
				
TITLE				
Basingstoke Golf Course Landscape Character Plan				
CLIENT				
Boyer Planning Central & South				
SCALE	DATE	DRAWN		
Not to scale	AUG 2012	EM		
DRAWING NUMBER			REVISION	
5118/ ASP1				



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TITLE

Basingstoke Golf Course
Context Plan

CLIENT

Boyer Planning Central & South

SCALE	DATE	DRAWN
Not to scale	AUG 2012	EM

DRAWING NUMBER	REVISION
5118/ ASP2	

KEY:


Public footway

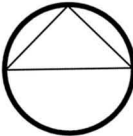

National Route

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TITLE
**Basingstoke Golf Course
Site Analysis**

CLIENT
Boyer Planning Central & South

SCALE Not to scale	DATE AUG 2012	DRAWN EM
DRAWING NUMBER 5118/ ASP3		REVISION

landscape planning • ecology • arboriculture


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**Appendix 7: Highways Study for Basingstoke Golf Club and Hounsome Fields,
provided by iTransport and Stuart Michael Associates, August 2015)**

TECHNICAL NOTE

Project No: ITB11069
Project Title: Golf Course and Hounsme Fields, Basingstoke
Title: Agreed Transport Statement
Ref: JCB/JDW/AH/ITB11069-002A TN
Date: 21 August 2015

SECTION 1 INTRODUCTION

1.1 Introduction

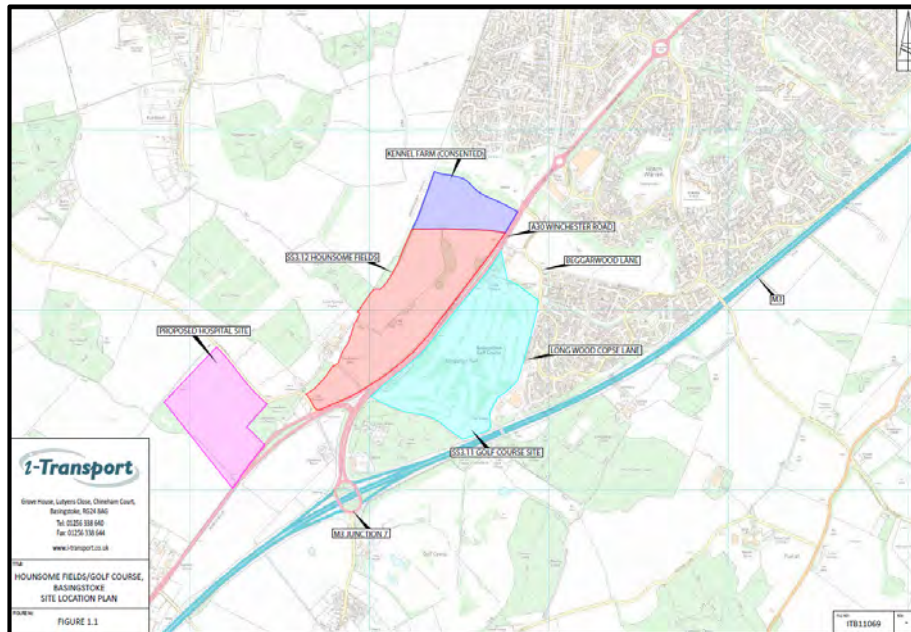
1.1.1 This Agreed Transport Statement (ATS) has been prepared by:

- i-Transport LLP on behalf of Wates Developments (promoters of the Hounsme Fields site); and
- Stuart Michael Associates on behalf of Basingstoke Golf Course.

1.1.2 The ATS has been prepared in close consultation with Basingstoke and Deane Borough Council (BDBC) as local planning authority, and Hampshire County Council (HCC) as local highway authority. The ATS sets a proposed outline vehicular and sustainable access strategy for the following proposed allocation in the 'Proposed Main Modifications to the Submission Local Plan':

- Basingstoke Golf Course – 1,000 dwellings and a community centre with local shopping facilities (*ref: Policy SS3.11*); and
- Hounsme Fields – 750 dwellings plus a primary school and a local centre (*ref: Policy SS3.12*).

Figure 1.1: Site Location Plan



Note: Reproduced in Full at end of report

1.2 Policy Tests

1.2.1 In particular this ATS provides an appraisal of the proposed allocations against the three key transport tests set out in paragraph 32 of the National Planning Policy Framework (NPPF):

- **Can the opportunities for sustainable travel be taken up in a reasonable and realistic way?** Section 2 of the ATS sets out the provision of facilities and services in the local area, which will be enhanced by development of the two sites, as well as the existing good level of provision for walking, cycling and public transport use. Section 3 of the ATS provides an outline sustainable transport strategy to illustrate how the opportunities for sustainable travel can be realistically taken up.
- **Will safe and suitable access be achieved for all people?** The proposed pedestrian, cyclist and public transport strategy for the two sites is set out in Section 3 of the ATS. Section 3 also includes the proposed vehicular access arrangements to comprehensively serve the two proposed allocations.

- **Will the residual impact be severe?** Section 4 of the ATS provides a capacity appraisal of the proposed site access arrangements, including identifying how the arrangements will be able to provide for future flexibility in the event that a new 'Western Link Road' is provided between the A339, B3400 and A30 in the next local plan period. Section 4 also provides an overview of how the wider traffic impact of the proposal can be mitigated.

1.3 Committed and planned developments

1.3.1 The analysis within the ATS takes account of committed and planned developments nearby:

- **Kennel Farm** – Planning consent was granted for up to 310 new homes on land to the north of the A30, immediately northeast of the Hounsme Fields site. Access is to be taken from the A30 via a new signalised junction, creating a staggered junction with Beggarwood Lane (*application reference: BDB/77382/FUL*);
- **Kempshott Park** – A development of some 57 dwellings located on land previously known as Kempshott Industrial Park, at the end of Long Wood Copse Lane, due east of the Golf Course (*application reference: 13/00155*);
- **Site N** – A permitted scheme for the erection of 96 dwellings on land west of Beggarwood Lane and north of the Golf Course site with access taken from Beggarwood Lane (*application reference: 14/02752/FUL*); and
- **Critical Treatment Hospital** - An application is currently under consideration (*application reference: 15/01225/OUT*) for a new hospital on land on the northern side of the A30 Roman Road and adjacent to the Oakley Road, adjacent to the existing garden centre. This scheme includes a new roundabout access onto the A30, with a secondary access vehicular access from the Oakley Road.

SECTION 2 ACCESSIBILITY

2.1 Introduction

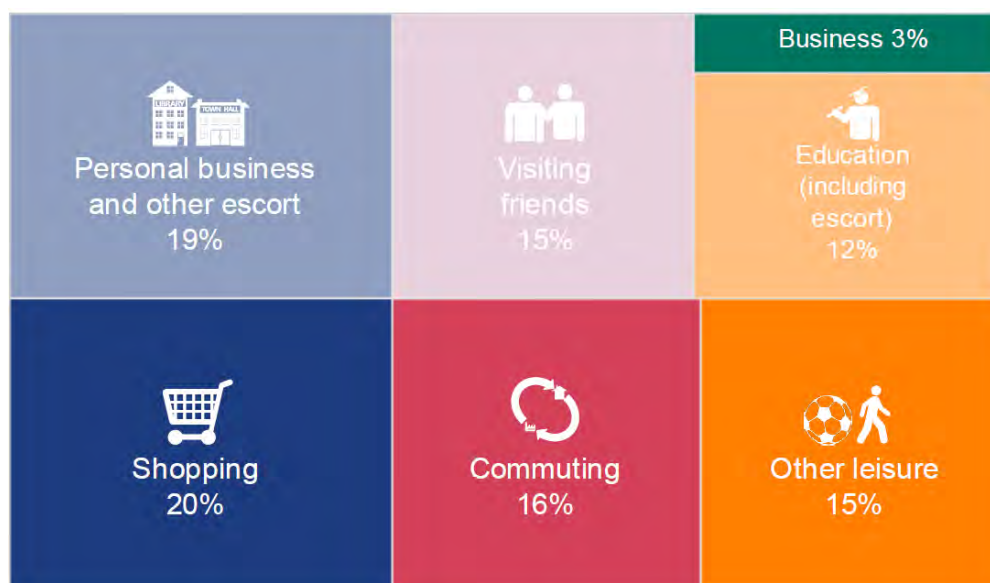
2.1.1 This section of the note demonstrates that the sites are in an acceptably sustainable location in transport terms, and identifies how the opportunities to use sustainable mods of travel can be realistically ‘taken up’.

2.1.2 The principle of residential development in this area has been established through the Kennel Farm, Area N and Kempshott Park schemes, including Kennel Farm which was considered by an inspector and found to be acceptable at appeal. It is also noted that development of Hounsme Fields and the Golf Course will bring forward their own local centres and a new school, which will enhance the transport sustainability of the area.

2.2 Key Local Destinations

2.2.1 The National Travel Survey identifies the main reasons for making a journey:

Table 2.1: Proportion of Trips per Year by Journey Purpose



(Source: Table NTS0401 of Transport Statistics Great Britain – 2013 Edition)

2.2.1 The main reasons for travelling are leisure, shopping, commuting/business and education/escort education trips. Together these account for over 80% of the reasons for making a journey.

2.3 Walking and Cycling Catchments

Walking

2.3.1 Paragraph 4.4.1 of the Manual for Streets states:

“Walkable neighbourhoods are typically characterised by having a range of facilities within 10 minutes’ (up to about 800 m) walking distance of residential areas which residents may access comfortably on foot. However, this is not an upper limit and PPG13¹ states that walking offers the greatest potential to replace short car trips, particularly those under 2km. MfS encourages a reduction in the need to travel by car through the creation of mixed-use neighbourhoods with interconnected street patterns, where daily needs are within walking distance of most residents.”

2.3.2 On this basis, 800m is considered to be a ‘comfortable’ walk distance, but this is by no means an upper limit. A walking distance of 2km offers the greatest potential to replace cars trips and therefore this is consider to be a ‘reasonable’ walking distance. It is important to note that 2km is not a maximum walking distance - paragraph 2.3 of the Design Manual for Roads and Bridges TD91/05 “Provision for Non-Motorised Users” states:

“Walking is used to access a wide variety of destinations including educational facilities, shops, and places of work, normally within a range of up to 2 miles. Walking and rambling can also be undertaken as a leisure activity, often over longer distances”.

2.3.3 On this basis, it is reasonable to consider 2 mile/3.2km as a ‘maximum’ walking distance for most day-to-day journeys.

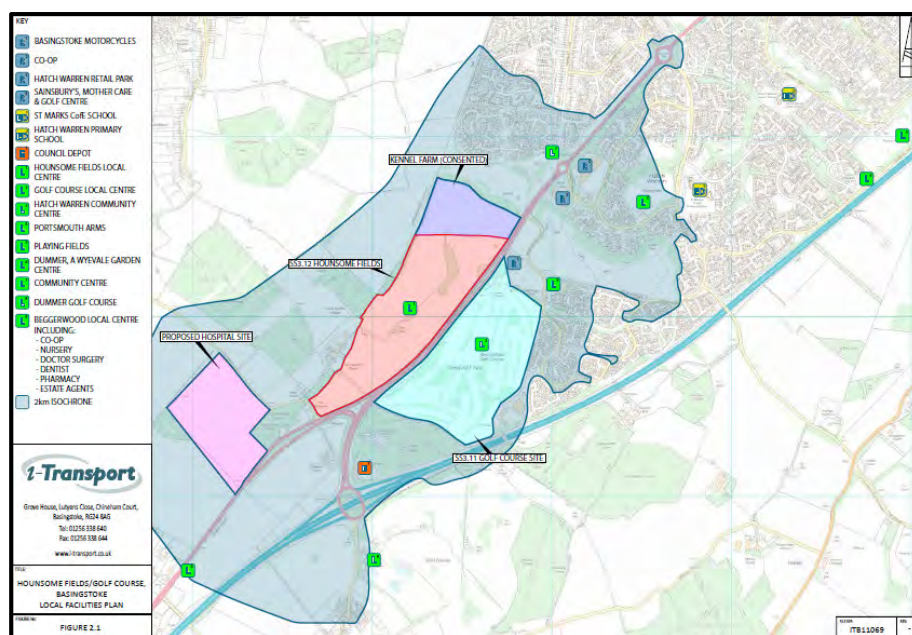
2.3.4 Against this background, the following distances are considered to be useful for assessing the likelihood of walking journeys to and from the south west sites:

- 800m – comfortable walking distance;
- 2km – reasonable walking distance; and
- 3.2km – maximum walking distance.

¹ Whilst PPG13 has been superseded by the NPPF, the NPPF does not include any reference to walking distances. Given that the most recent version of PPG13 was published in January 2011 it is reasonable to assume that the guidance regarding the 2km distance remains valid, i.e. we are not aware of anything that would have changed people’s propensity to walk since then.

2.3.5 Figure 2.1 illustrates the facilities and services that are within a comfortable and reasonable walk journey from the south west Basingstoke sites.

Figure 2.1: Local Facilities Plan



Note: Reproduced in Full at end of report

Cycling

2.3.6 In terms of cycling journeys, the National Travel Survey sets out that the average journey distance by bike is some 4.4km, with the current average length of an employment and leisure cycle trips some 5.2km (*ref: Table NTS0306 of the National Travel Survey 2012*). Local Transport Note 02/08 'Cycle Infrastructure Design' (*Department for Transport, 2008*) (*ref: CD5.9*) sets out typical cycle trip distances at paragraph 1.5.1:

“Urban networks are primarily for local journeys. In common with other modes, many utility cycle journeys are under three miles (ECF, 1998), although, for commuter journeys, a trip distance of over five miles is not uncommon. Novice and occasional leisure cyclists will cycle longer distances where the cycle ride is the primary purpose of their journey. A round trip on a way-marked leisure route could easily involve distances of 20 to 30 miles. Experienced cyclists will often be prepared to cycle longer distances for whatever journey purpose.”

2.3.7 Therefore, whilst the average 'commuter' trip is circa 5.2km, cycling distances for such journeys of more than 5 miles (circa 8km) is not uncommon.

- 2.3.8 From the primary access point to the two sites onto the A30 Winchester Road: Basingstoke rail station is some 6.6km away; the 'edge of the town centre is some 5.9km away; the Brighton Hill retail park is 4km away; and Hatch Warren Retail Park is 1km away. A good range of further facilities and services are therefore within a reasonable cycle distance of the sites.
- 2.3.9 The draft policy proposes that Hounsme Fields will include a primary school and a local centre (e.g. day to day facilities including a convenience store); and the Golf Course site will also provide an additional local centre. The provision of on-site facilities will help reduce external traffic generation and traffic impacts on the local highway network.
- 2.3.10 Local amenities located within a reasonable walking and/or cycling distance of the sites are listed in Table 2.1 below and illustrated in Figure 2.1.

Table 2.1: Local Services and Facilities

Journey Purpose	Destination	Distance (m)	Walking Time (minutes)	Cycling Time (minutes)
Education	St Mark's Primary School	2,310	28	9
	Kempshott Junior and Infant School	2,890	34	11
	Hatch Warren Junior School	3,130	-	12
	Brighton Hill Community College	3,750	-	14
	Aldworth Science College	4,310	-	16
	Bishop Challenor Catholic Secondary School	4,630	-	17
	Cranbourne Business and Enterprise College	5,290	-	20
Employment	Kempshott Park Industrial Estate	2,000	24	8
	Viabes Industrial Estate	5,380	-	20
	Hatch Warren Industrial Estate	4,850	-	18
	Brighton Hill/South Ham Industrial Estate	5,020	-	19
Leisure	Basingstoke Golf Course	700	8	3
	Old Down and Beggarwood Wildlife Park	1,000	12	4
	Hatch Warren Community Centre	1,980	24	7
	Hatch Warren Football Pitches	3,750	-	14
	Stratton Park and Playing Fields	3,560	-	13
	Beechdown Health and Fitness Club	3,180	-	12
Retail	Co-op/Boots	1,330	16	5
	Sainsbury's	1,560	19	6
	Hatch Warren Retail Park	1,420	17	5

Journey Purpose	Destination	Distance (m)	Walking Time (minutes)	Cycling Time (minutes)
	Tesco Express	2,430	29	9
Health	The Beggarwood Surgery	1,380	16	5
	Gillies Health Centre, Brighton Hill	3,810	-	14

Source: Consultants Estimates

Note: Walk journey time assume a walk speed of 1.4m/s (Guidelines for Providing for Journeys on Foot, IHT). Cycle journey time assumes an average cycling speed of 16km/h (MfS 2). Journey times are approximate and measured via the shortest practicable route from the centre of the site

2.3.11 The sites are located within close proximity to a good range of local services and facilities. With the addition of further on-site facilities, future residents will have genuine opportunities to make local journeys for the main reasons for travelling.

2.4 Provision for Walking and Cycling

2.4.1 The primary desire lines for pedestrians and cyclists from the sites will be to the north and north-east; i.e. towards the local facilities and services and the town centre. The sites are well located to take advantage of the existing, committed and proposed walking and cycling infrastructure, including:

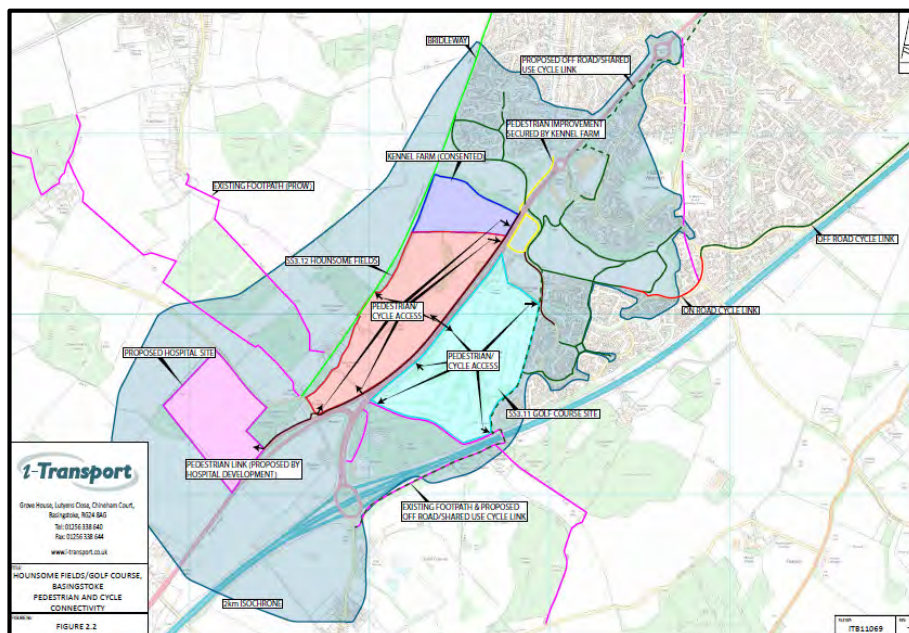
- A new 3m footway/cycleway along the A30 between the proposed Critical Treatment Hospital Site and the A30/Beggarwood Lane signal junction (which forms part of the proposals for the proposed Critical Treatment Hospital site);
- Improvements secured by the Kennel Farm permission, including:
 - I. A new footway/cycleway along the Winchester Road site frontage connecting with the existing Toucan crossing on the northern side of the Beggarwood Lane traffic signals, and the existing pedestrian/cycle route across Old Down Woodland Park;
 - II. A Toucan crossing of Winchester Road to the south of the proposed Kennel Farm site access;
 - III. Improvements to the existing A30 Toucan crossing to bring it in line with current design guidance; and
 - IV. New footway provision along the south eastern side of the A30 between Short Wood Copse and Beggarwood Lane.

- The footpath through the Old Down Woodland Park which provides access to Kempshott Lane and northwards to the Roman Road providing a link eastwards to Kempshott;
- A shared pedestrian/cycleway that leads along the eastern side of Beggarwood Lane to Beggarwood (a residential area with retail facilities);
- A pedestrian/cycleway leading across Beggarwood Park towards Sainsbury's; and
- The Roman Road Public Right of Way along the western boundary of Hounsome Fields.

2.4.2 The pedestrian and cycle infrastructure in Beggarwood and through Old Down Woodland Park form part of a wider network of pedestrian/cycleways leading to destinations in Kempshott, Hatch Warren and onwards to Brighton Hill and the centre of Basingstoke.

2.4.3 Local walking and cycling routes are shown on Figure 2.2, while the Basingstoke cycle map in Appendix A identifies current and proposed cycle routes across Basingstoke.

Figure 2.2: Local Walking and Cycling Routes



Note: Reproduced in Full at end of report

2.5 Provision for Public Transport

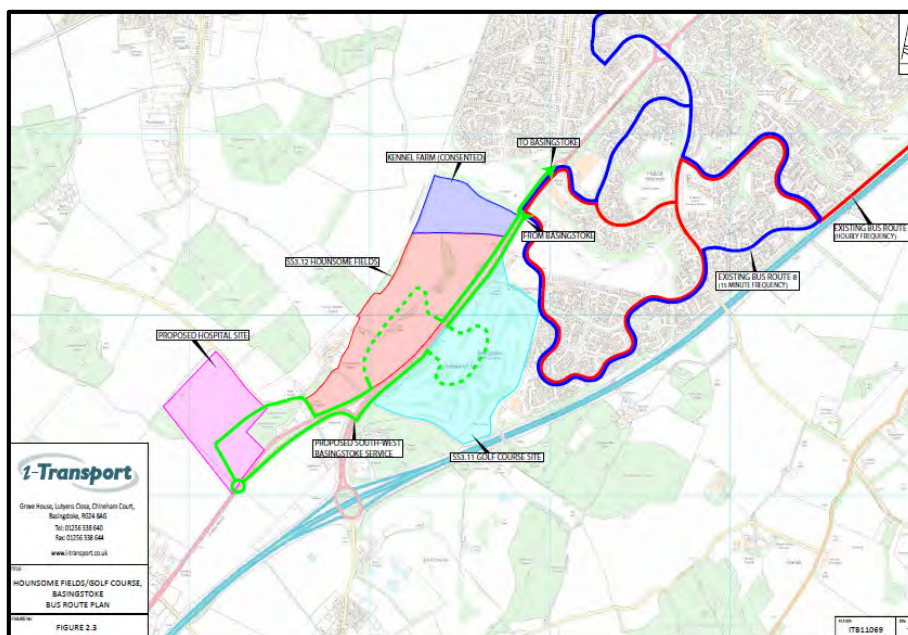
- 2.5.1 Currently the closest bus stops to the site are the Shortwood Copse Lane bus stops located on Beggarwood Lane. These bus stops are well served by buses Service 8 and Service 12, respectively providing a 15 minute and an hourly frequency service from Beggarwood to the town centre, typically with a 22 to 25 minute journey time.
- 2.5.2 Details of local bus services are provided in Table 2.2 below and a plan of these routes is shown in Figure 2.3.

Table 2.2: Bus Services and Frequencies

Service	Route	Typical Daytime Frequency		
		Mon-Fri	Sat	Sun
8 (loop service)	Basingstoke – Hatch Warren – Kempshott Park - Hatch Warren – Kempshott – Basingstoke	Every 15 minutes (first depart 0528, last return 2255)	Every 15 minutes (first depart 0645, last return 2255)	Hourly (first depart 0905, last return 2040)
12	Hatch Warren – Kempshott - Basingstoke	Hourly (first depart 0654, last return 1915)	Hourly (first depart 0735, last return 1915)	No Service

Source: Traveline South East

Figure 2.3: Local Bus Services



Note: Reproduced in Full at end of report

2.5.3 The planning application for the proposed Critical Treatment Hospital includes proposals to improve Service 8 with a planned diversion of the route to run along the A30 Winchester Road and serve a new bus stop at the hospital. This provides an opportunity to serve the sites (see Section 3), as well as the opportunity for additional patronage to assist with financial viability to secure the service in the long term and/or enable increased service frequency.

2.5.4 Basingstoke Railway Station is located some 6.6km south of the sites, adjacent to the town centre. The station provides frequent rail services to destinations including London Waterloo, Reading, Salisbury and Southampton. Table 2.3 provides a summary of the key destinations served and the typical frequency and journey times of services:

Table 2.3: Rail Services – Basingstoke Station

Destination	Typical Frequency (weekdays)	Typical Journey Time (approx.)
Winchester	6 services per hour	15 minutes
Fleet/Farnborough	4 services per hour	10-20 minutes
Woking	4 services per hour	20-30 minutes
Reading	4 services per hour	17-30 minutes
London Waterloo	6 services per hour	40 minutes
Salisbury	2 service per hour	40 minutes
Southampton Central	4 services per hour	42 minutes

Source: South West Trains and Cross Country

2.5.5 Bus Services 8 and 12 serve the station, which is also within an acceptable cycle distance from the sites.

2.6 Summary

2.6.1 The sites are well located to existing facilities and services, and will improve the provision in the local area through two new local centres and a new primary school. It is noted that the acceptability of residential development in this area is well established by recent planning permissions including Kennel Farm, which was considered acceptable by an inspector.

- 2.6.2 There is an existing good quality network of footway and cycle routes in the adjacent urban area. These will be extended and improved by the recently permitted schemes, as well as the proposal for a new Critical Treatment Hospital to the south west. The hospital scheme proposes a continuous footway/cycleway along the A30 past the sites on the Hounsome Fields frontage.
- 2.6.3 Frequent existing bus services are also available within the local area and these are also proposed to be improved/extended past the sites by the new hospital scheme.
- 2.6.4 Against this background, the sites are well located to 'take up' the opportunity for travel by sustainable modes. The outline sustainable transport strategy is set out in Section 3 of this note.

SECTION 3 ACCESS STRATEGY

3.1 Introduction

3.1.1 This section of the note considers whether safe and suitable access can be provided to the sites for all people. The access strategy, which has been formulated so as to facilitate movement between the two sites and its local environment is discussed in detail below, and is summarised as follows:

- A four arm junction on the A30 providing access to both sites – three options have been considered at this stage: a roundabout, a staggered signal junction arrangement and a signalised crossroads;
- A left-in/left-out access to the Golf Course to the southwest of the signal junction;
- A vehicular access to Hounsome Fields from the southern end of the site, with scope for this to be either bus only or provide restricted / limited access within the site;
- Pedestrian/cyclists connections:
 - The chosen junction option will include controlled at-grade pedestrian crossing facilities of the A30 to allow movement between the two sites;
 - Pedestrian and cyclist access from the Golf Club to Beggarwood Lane;
 - Connections from Hounsome Fields to the new footway/cycleway on the A30 at several points including the north-western corner of the site; and
 - Connections from Hounsome Fields to the public bridleway along its western boundary.

3.2 Sustainable Access Strategy

Opportunity

- 3.2.1 As set out in Section 2, the sites are well located to take up the opportunity for sustainable travel in a reasonable and realistic way. The main objectives of the sustainable access strategy for the sites will be to a) seek to minimise the number of external trips; and b) to maximise walking, cycling and public transport use for these trips that cannot be contained on site.
- 3.2.2 The provision of on-site facilities and services (including a primary school) will help to minimise off-site journeys. It is however accepted that many journeys will be made off-site and it will be important to encourage and facilitate walking, cycling and public transport use.

Walking/Cycling

- 3.2.3 In terms of walking and cycling, new links will be provided to connect with the good level of existing provision in the adjacent urban area, as well as the new facilities provided by committed development. These facilities may include a new footway/cycleway along the A30 provided by the proposed Critical Health Hospital. Development of the two sites provides the opportunity to deliver that link in the event that the hospital does not come forward.
- 3.2.4 An audit of pedestrian and cycle routes to key destinations, including the Town Centre will be undertaken to identify any missing links and crossing facilities. Improvements can then be made to strengthen these routes to allow a greater take up of walking and cycling trips for future and existing residents.
- 3.2.5 The proposed walking/cycling strategy is illustrated in Figure 2.2.

Public Transport

- 3.2.6 At this stage, two options to serve the sites have been discussed with Stagecoach and have merit:
- The extension of services 8 and/or 12 to serve the sites – as noted in Section 2, the Critical Treatment Hospital proposes an extension of the number 8 service and making a small diversion to serve both sites will improve financial viability and/or provide the opportunity to increase frequency; or

- A dedicated service between the town centre/rail station and the south west sites (and potentially the Critical Treatment Hospital).

3.2.7 The provision of an all moves junction serving both Hounsme Fields and the Golf Course, along with secondary connections on to the A30, will allow buses to loop through both sites. The aim will be to provide a 15 to 20 minute frequency service within at least 400m of all residents, with a travel time to central Basingstoke and the rail station of some 20 to 25 minutes.

3.2.8 The proposed bus strategy is illustrated on Figure 2.3.

Travel Plan

3.2.9 A robust travel plan will also be implemented for the two sites. This will encourage and facilitate travel by walking, cycling and public transport use through a range of measures. In particular, this will include provision of travel vouchers to new residents, which can be used for purchasing season tickets; as well as Personal Travel Planning (PTP).

3.2.10 PTP is a well-established method that encourages people to make more informed sustainable travel choices. It seeks to overcome the habitual use of the car, enabling more journeys to be made on foot, bike, bus, train or in shared cars. Modal shift is achieved through a package of measures including, providing information, incentives and motivation to individuals to identify where travel behaviour changes can be made so that they can voluntarily make more informed travel choices.

3.2.11 PTP forms an important part of UK national and local transport policy, contributing to the suite of tools promoted under the general heading of Smarter Choices, and is currently being implemented across six towns in Hampshire including Basingstoke, via the 'My Journey Campaign' supported through the Local Sustainable Transport Fund.

3.2.12 PTP is often offered through residential travel plans to help inform new residents of the proposed development of the travel choices available to them. Area wide PTP is typically delivered across large residential areas, to inform existing residents of their travel choices to ensure that they are aware of local walking and cycling routes the quality, service patterns and frequency of bus services and other sustainable travel options such as car sharing. Each person within the target population is encouraged to think about how they currently travel for each of the trips they make, and to consider how they might make those trips in more sustainable ways. This is backed up with incentives, such as vouchers for free bus travel.

3.2.13 Within the UK, PTP has been reported to typically reduce car driver trips by 11% (among the targeted population) and reduce the distance travelled by car by 12%.

3.2.14 As a result of (and in addition to) reduced car use, successful PTP projects can also deliver:

- A shift in attitude towards sustainable modes;
- Increased walking and cycling, with associated health benefits;
- Increased public transport use, making services more feasible and profitable;
- Increased viability of local shops and businesses;
- More sociable and 'liveable' neighbourhoods; and
- Improved local air quality and reductions in carbon emissions.

3.2.15 By applying PTP to a large number of households, the cumulative reductions in traffic from households participating in PTP could help off-set the additional traffic generation of the local plan sites on the highway network.

3.2.16 The My Journey programme has already undertaken some personalised travel planning visits in Hatch Warren and Brighton Hill, on the basis that these locations ***'offer good existing walking and cycling networks and links; they are well served by frequent high-quality bus routes connecting into the town centre; and many key workplace, school, retail and leisure destinations are all within easy walking and cycling distance.'*** Ref <http://myjourneyhampshire.com/personal-travel-planning-hampshire>

3.3 Vehicular Access Strategy

3.3.1 Three options for the main site access have been considered, with due regard to the existing topography of the A30; the need to comply with the design standards set-out in the Design Manual for Road and Bridges (DMRB); the need to provide adequate capacity; and seeking to minimise the impact on existing trees. These options are included in Appendix B and are as follows:

- A four arm roundabout junction, with an associated pedestrian / cycle crossing point;
- A staggered signal arrangement, which provides the best arrangement in terms of capacity whilst accommodating pedestrian movements internally; and
- A signalised crossroad arrangement with pedestrian / cycle facilities which minimises the footprint of the junction.

3.3.2 Both of the signalised junctions can be built as a standalone signalised junction, i.e. the site can be delivered comprehensively or independently.

3.3.3 In addition to the primary access point, a secondary left-in/left-out vehicular access to the Golf Course from the A30 is proposed.

3.3.4 A copy of the proposed junction arrangements are reproduced below:

Figure 3.1: Site Access Option – 4 Arm Roundabout

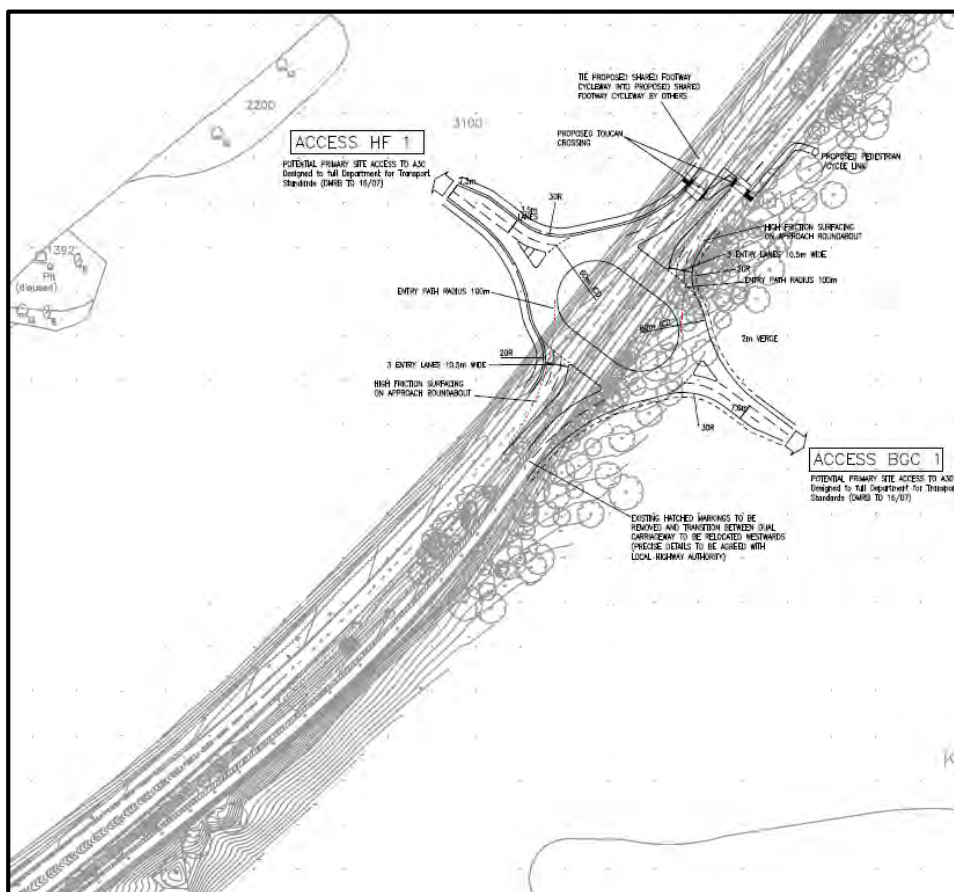


Figure 3.2: Site Access Option – Staggered Signal Junction

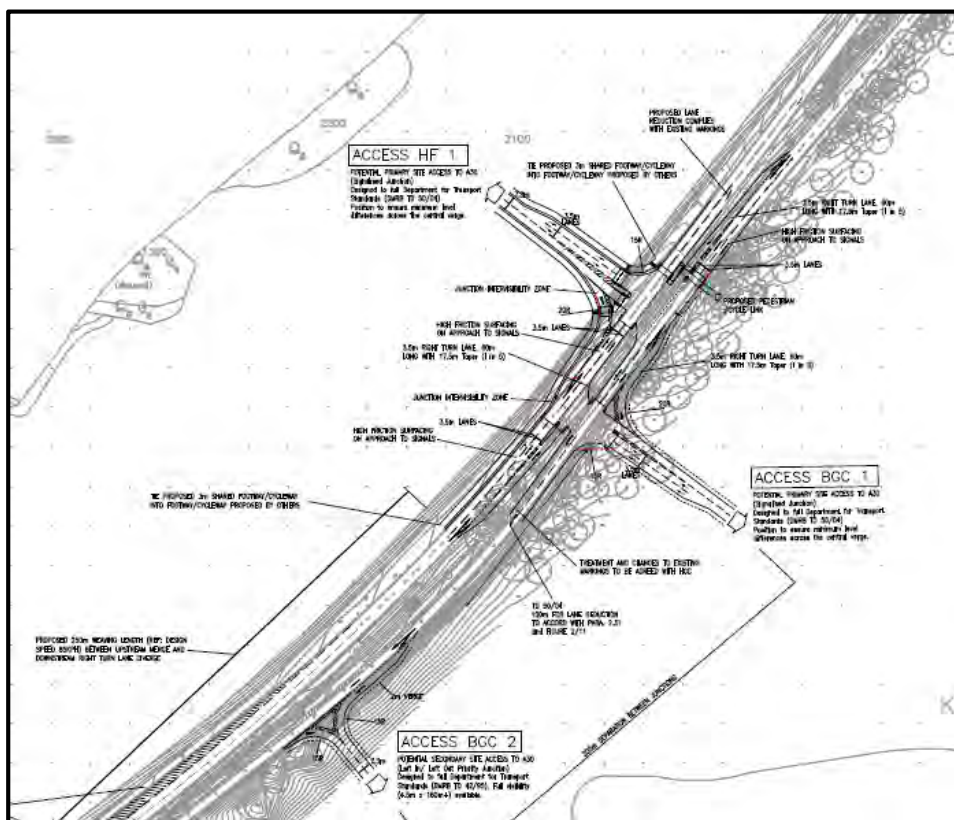
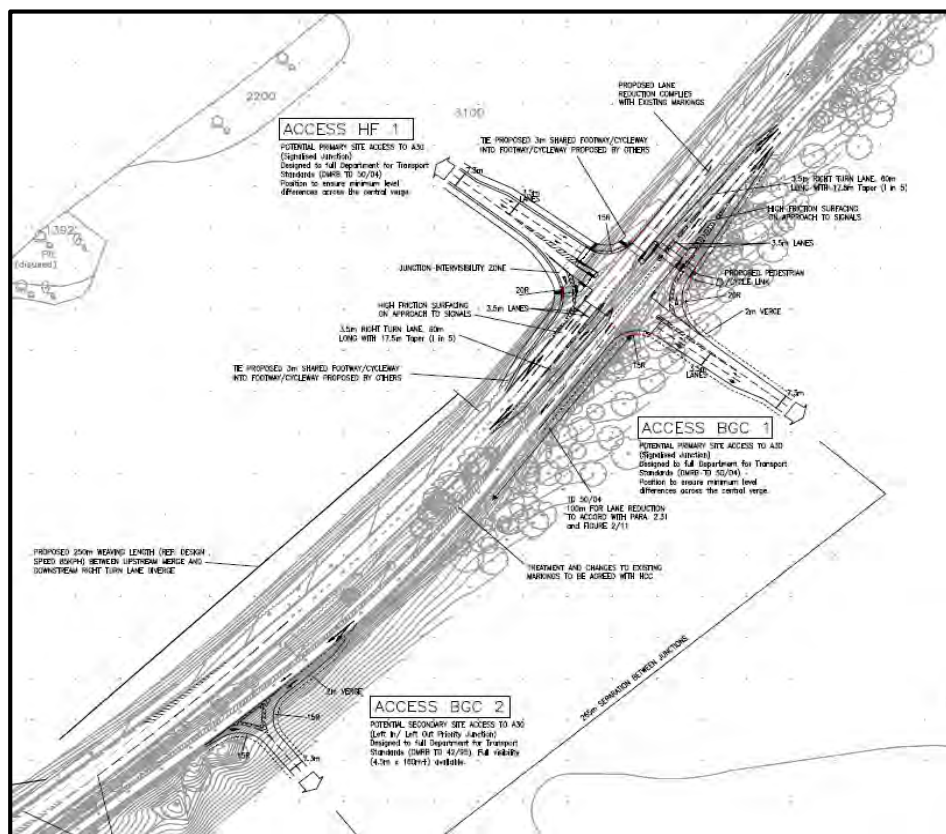


Figure 3.3: Site Access Option – Signalised crossroad Junction



3.3.5 The proposed junctions have been tested in terms of their future year capacity and operation, and this is discussed further in Section 4.

SECTION 4 TRAFFIC IMPACT

4.1 Background

4.1.1 This section of the note provides initial traffic impact analyses. It assesses the adequacy of the site access options; consider the future robustness of that junction in the event that a western link road comes forward; and also considers traffic impact issues on the main A30 corridor into the centre of Basingstoke.

4.2 Traffic Flows

4.2.1 In order to undertake a thorough and robust assessment of the operation of the site accesses, the following has been undertaken

- Baseline traffic flows for 2024 are consistent with those recently used to assess the Critical Treatment Hospital;
- These 2024 baseline flows include planned local plan growth (derived from the TEMPRO database) and have been factored to allow for traffic growth to 2029, i.e. the end of the emerging Local Plan period, without any discounting to allow for the proposed sites;
- Locally committed development (including Kennel Farm and the Long Wood Copse Lane scheme) plus traffic generated by the Critical Treatment Hospital have been separately allowed for;
- Traffic generation from Hounsme Fields and the Golf Course has been derived from appropriate survey data from the TRICS trip generation database, and verified against rates used and agreed for the recently permitted Kennel Farm site; and
- Development trips have then been assigned to the network using the same distribution methodology used for the approved Kennel Farm scheme

4.2.2 This future year 2029 assessment are considered robust because:

- The TEMPRO traffic growth rates have not been discounted to take account of the permitted and planned housing – i.e. there is double counting of the Golf Course and Kennel Farm traffic flows;

- It uses trip generation rates and distribution analysis previously, scrutinised and agreed for Kennel Farm;
- The trip rates are for private housing and make no allowance for affordable housing provision, which generally has lower peak hour trip generation rates;
- These trip generation rates make no allowance for the impacts of any travel plan;
- The identified trip rates are higher than those used within the Basingstoke Transport Assessment; and
- No allowance has been made for sustainable travel interventions such as Personalised Travel Planning on the western side of Basingstoke which is currently being implemented through the 'My Journey' programme.

Operational Assessment

4.2.3 The site access options have been assessed using the computer programmes Arcady and LINSIG. The assessment results are summarised in Table 4.1, 4.2 and 4.3 below.

Table 4.1: 4 Arm Roundabout

	Morning Peak (8:00 – 9:00)		Evening Peak (17:00 – 18:00)	
	Max RFC	Queue Length	Max RFC	Queue Length
2029 'With Development'				
A30 (East)	0.68	2	0.65	<1
Golf Course	0.42	<1	0.22	<1
A30 (West)	0.40	<1	0.66	<1
Hounsme Fields	0.34	<1	0.31	<1

Source: ARCADY

Table 4.2: Staggered Arrangement

Arm	2029 ‘With Development’			
	Morning Peak Hour		Evening Peak Hour	
	Degree of Saturation	Mean Max. Queue Length	Degree of Saturation	Mean Max. Queue Length
A30 (W) – Ahead	46%	8	72.6%	16
A30 (W) – Ahead + RT	49.3%	9	76.8%	18
Hounsme Fields - LT	83.9%	8	76.6%	5
Hounsme Fields - RT				
A30 (E) - Ahead	85.1%	23	74.4%	17
A30 (E) – Ahead + RT	80.6%	21	76.5%	15
Golf Course – LT + RT	67.6%	6	63.8%	4
Golf Course –RT				
Cycle Time	90		90	
Practical Reserve Capacity	5.8%		17.2%	

Source: LINSIG

Table 4.3: Crossroads Arrangement

Arm	2029 'With Development'			
	Morning Peak Hour		Morning Peak Hour	
	Degree of Saturation	Degree of Saturation	Degree of Saturation	Degree of Saturation
Golf Course – LT	90.2%	13	80.1%	6
Golf Course – Ahead + RT				
A30 (W) – Ahead + LT	53.5%	12	81.5%	19
A30 (W) – Ahead + RT	55.3%	13	83%	20
Hounsborne Fields - LT	90.5%	11	78.3%	5
Hounsborne Fields - Ahead + LT				
A30 (E) – Ahead + LT	89.8%	29	82%	18
A30 (E) – Ahead + RT	90.5%	31	81.9%	12
Cycle Time	120		90	
PRC	-0.6%		8.4%	

Source: LINSIG

4.3 Sensitivity test – Western Link Road

- 4.3.1 It is understood that there is a long term aspiration for a Western Link Road to be provided between the A30 and the A339 Newbury Road. This would serve an enlarged 'Manydown' site and would only come forward post 2029; i.e. in the next period local plan.
- 4.3.2 BDBC has advised that the Western Link Road is likely to be a high order residential street/local distributor single carriageway road. It would be designed to accommodate future year traffic volumes, whilst taking on board the guidance set-out in the Manual for Streets.
- 4.3.3 A sensitivity test of the proposed site access has been undertaken to understand how the proposed junction may operate in this post plan period the additional land that can be safeguarded to accommodate future traffic movements.
- 4.3.4 The assessment utilises the traffic forecasts identified above, but also includes additional traffic related to the Western Link road.
- 4.3.5 Data has been obtained from both the Basingstoke Transport Assessment model and the North Hants Transport Model (NHTM) to identify a future year flow on the Western Link Road. For robustness the data from the Hampshire Model has been used as this represents the worse case scenario.
- 4.3.6 HCC have confirmed that:
- The NHTM model year is 2031;
 - The 2031 model run currently includes the golf course, Kennel Farm and 7,900 dwellings at Manydown (3,400 for the first phase and 4,500 for the second phase in the next local plan period), but currently does not take account of Hounsme Fields.
 - The indicative flows from the model for the Western Link Road suggest that the flow will be circa 2,000 two way movements for both the morning and evening peak hours. The split for this is circa 60% or 1,200 vehicles heading south (i.e. onto the A30) and 40% or 800 vehicles heading north (i.e. from the A30) in the morning peak and a reverse of this in the evening peak.

- 4.3.7 The Western Link Road flows identified above have been added to the 2029 flows sets and a junction assessment run to determine what additional infrastructure may be required.

Operational Assessment

- 4.3.8 The analysis shows that the following amendments are likely to be needed to accommodate the additional traffic in the event that a Western Link Road comes forward.

Roundabout junction

- A two lane approach on the Western Link Road with a Flare.

Signal junction

- Providing a double right turn lane from the golf course, with the ahead movement from nearside lane; and/or
- Extending the right turn lane on the A30 east; and/or
- Providing extended and additional lanes at the Hounsme Fields entrance to allow double turning lanes for both left and right turns; and/or
- Increasing the signal cycle time.

- 4.3.9 The masterplan for the Hounsme Fields site will take account of the land required to deliver these amendments. This land can be secured as highway land, to allow the junction to be upgraded at such time as additional capacity may be required.

- 4.3.10 By way of an example, a plan showing the enlarged envelope of the roundabout and signal arrangement is included in Appendix B.

4.4 A30 Corridor

- 4.4.1 The Borough Council strategic level Transport Assessment (TA) has been produced to inform and guide both the draft Local Plan and the supporting Infrastructure Delivery Plan (IDP).

- 4.4.2 The Findings from the Basingstoke Transport Assessment Ninth Edition (February 2015) include both Hounsme Fields and the Golf Course and these findings have been endorsed by Hampshire County Council as the Local Highway Authority, as set out in the Position Statement on the Transport Assessment to Support the Draft Basingstoke and Deane Local Plan 2011 – 2029, which states that:

“Both the Borough Council and HCC recognise that the spreadsheet model can only represent a high level approach to assessing future traffic flows, and that this approach has its limitations. Nevertheless, the approach has been endorsed by HCC and was the best methodology available at the time. “

- 4.4.3 And that:

“... the authorities are content that this strategic model is sufficiently robust to assess the impact of development....”

- 4.4.4 The Basingstoke TA therefore includes a robust study of the local highway network and particularly the A30 corridor. The position statement goes on to set out that:

“The TA sets out a proposed package of measures, which is reflected in the Local Plan and IDP, to mitigate the impact of the additional traffic generated. The package concentrates on a number of key junctions in and around Basingstoke, where the Local Plan traffic levels are 10% above the reference case. Junctions which are already scheduled for improvement (including the A33 and A340 corridors and Black Dam, Brighton Hill, Thornycroft and Winchester Road roundabouts) were excluded on the basis that these schemes will provide adequate capacity for growth in the plan period. These junction/corridor improvements are jointly funded by the Enterprise M3 Local Enterprise Partnership (LEP), developer contributions and the Borough and County Councils. These major schemes are planned for phased implementation over the next five years.”

- 4.4.5 The position statement goes on to state that:

“This joint statement recognises, notwithstanding some specific concerns over elements of the methodology, that both local authorities consider that overall the TA is fit for purpose as a strategic assessment of the traffic impacts of the proposed Local Plan development. Both parties are broadly content with the findings and agree that the level and location of development proposed in the draft Local Plan can be accommodated at the strategic level with the required package of mitigation and that the development scenario is unlikely to result in severe cumulative impacts on traffic congestion on key routes.”

- 4.4.6 The Brighton Hill, Winchester Road and Thornycroft roundabouts are key junctions on the A30 corridor between the site and the Town centre, and as identified above improvement schemes which will provide adequate capacity for growth in the plan period have been identified and funding secured.
- 4.4.7 The TA also identifies mitigation measures to accommodate planned growth and Hounsme Fields and the Golf Course at the following A30 junctions:
- A30 / Wallop Drive Roundabout and
 - The A30 Kempshott Roundabout
- 4.4.8 With mitigation, both of these junctions are shown to have sufficient and even spare capacity in the future year 2029 assessment.
- 4.4.9 Table 4.3 summarises mitigation proposals which could be implemented along the A30 corridor, and which the proposed sites could contribute towards as part of their off site mitigation package.

Table 4.3: Mitigation of Impacts on the A30 Corridor

Location	Issues and Impact of Local Plan	Proposed Mitigation
A30 / Wallop Drive Roundabout	Operates well in the 2012 and 2029 Base scenarios. With the addition of Local Plan development traffic the A30 northbound and southbound arms are forecasted to be over capacity in the AM and PM peaks respectively.	Convert roundabout to a signalised Junction; Add or lengthen flares on all entries
A30 Kempshott roundabout approach		Widen 750m of A30 southbound carriageway up to Kempshott roundabout
A30 / Kempshott Roundabout	A30 northbound and southbound arms predicted to be over capacity in 2029 Reference Case scenario. The addition of Local Plan development causes further rise in the RFC for A30 northbound and southbound.	Signalise the roundabout Add or lengthen flares on all entries Widen the circulatory
Brighton Hill Roundabout	Significantly over-capacity in the 2029 Reference case. Without any improvements the roundabout cannot accommodate the demand in the Local Plan scenarios.	Amendments based on a signalised 'Hamburger' design provided by BDBC
Winchester Road Roundabout	The Winchester Road westbound approach operates over capacity in the 2029 reference case scenario. With the addition of the 2029 Local Plan traffic all arms operate over capacity in either the AM or PM peaks.	HCC Widening and Signalisation Scheme

Source: BDBC TA V9 and Hantsweb

4.4.10 In respect to M3 Junction 7, the Basingstoke TA(at Para 3.7.9) concludes that:

“The junction is shown to have sufficient reserve capacity to cope with the worst case scenario where all A30 traffic reroutes onto the M3. Therefore, it is not necessary for any mitigation measures to be proposed in this transport assessment for Junction 7.” (para 3.4.9)

SECTION 5 SUMMARY AND CONCLUSIONS

5.1 Summary

- 5.1.1 This note has been produced jointly by Stuart Michael Associates (on behalf of the Golf Course site) and i-Transport LLP (on behalf of Hounsome Fields) to provide a high level transport appraisal of the proposed residential-led development of both sites. The note demonstrates how both sites can come forward with a comprehensive and complementary transport strategy. The note also assesses the sites against the key transport tests set out in paragraph 32 of the NPPF.

Can the opportunities for sustainable travel be taken up in a reasonable and realistic way?

- 5.1.2 The simple answer to this is yes. The in-principle acceptability of residential development in this area is well established, and the sites are well located to existing facilities and services and will bring forward additional facilities – two local centres and a new primary school – that will improve the transport sustainability of the local area.
- 5.1.3 There is a good network of pedestrian and cycle routes in the existing urban area, and these will be improved by committed and proposed development. For example, the proposed Critical Treatment Hospital scheme will provide a new footway/cycleway along the A30 past the sites (noting that this can be delivered by development of the sites if the hospital does not come forward).
- 5.1.4 The walking and cycling strategy for the sites will appropriately ‘take up’ the opportunities. The sites will be connected to the walking/cycling network to facilitate sustainable local journeys. They will also be connected with each other – the design of the proposed site access has considered the need to provide at-grade pedestrian/cycle crossing facilities to allow walking and cycling between the two sites, especially to provide sustainable connections from the Golf Course to the primary school on the Hounsome Fields site.

5.1.5 There is a very good level of bus service in the existing urban area – a near ‘turn up and go’ level of frequency. The new hospital proposes to extend frequent buses along the A30 corridor past the sites. Either in conjunction or independently of this proposal, the access strategy for the sites will allow buses to make a short diversion to loop through the sites. The aim will be for new residents to be located within 400m for the bus services and for these serves to operate on a circa 15- to 20-minute headway.

5.1.6 In addition, comprehensive travel plans will be implemented and there is the opportunity for Personalised Travel Planning, which demonstrably reduces the amount of traffic generated by new housing. It is noted that the combined scale of development (1,750 dwellings) provides significant ‘economies of scale’ in Travel Planning terms.

Will safe and suitable access be achieved for all people?

5.1.7 The provision for walking, cycling and public transport connectivity is set out above – safe and suitable access will be achieved for those modes.

5.1.8 In terms of the principal vehicular access to the sites, both include very long frontages with the A30 and therefore there are numerous options to achieve safe and suitable vehicular access. At this stage, three options have been designed allowing for local constraints and in compliance with the relevant design guidance:

- A four arm roundabout;
- A staggered signalised arrangement incorporating at-grade pedestrian/cyclist crossings; and
- A crossroads arrangement, again incorporating at-grade pedestrian/cyclist crossings.

5.1.9 All options have been robustly tested and will provide an acceptable level of operation at the end of the local plan period.

5.1.10 On this basis, safe and acceptable vehicular access can also be realistically achieved.

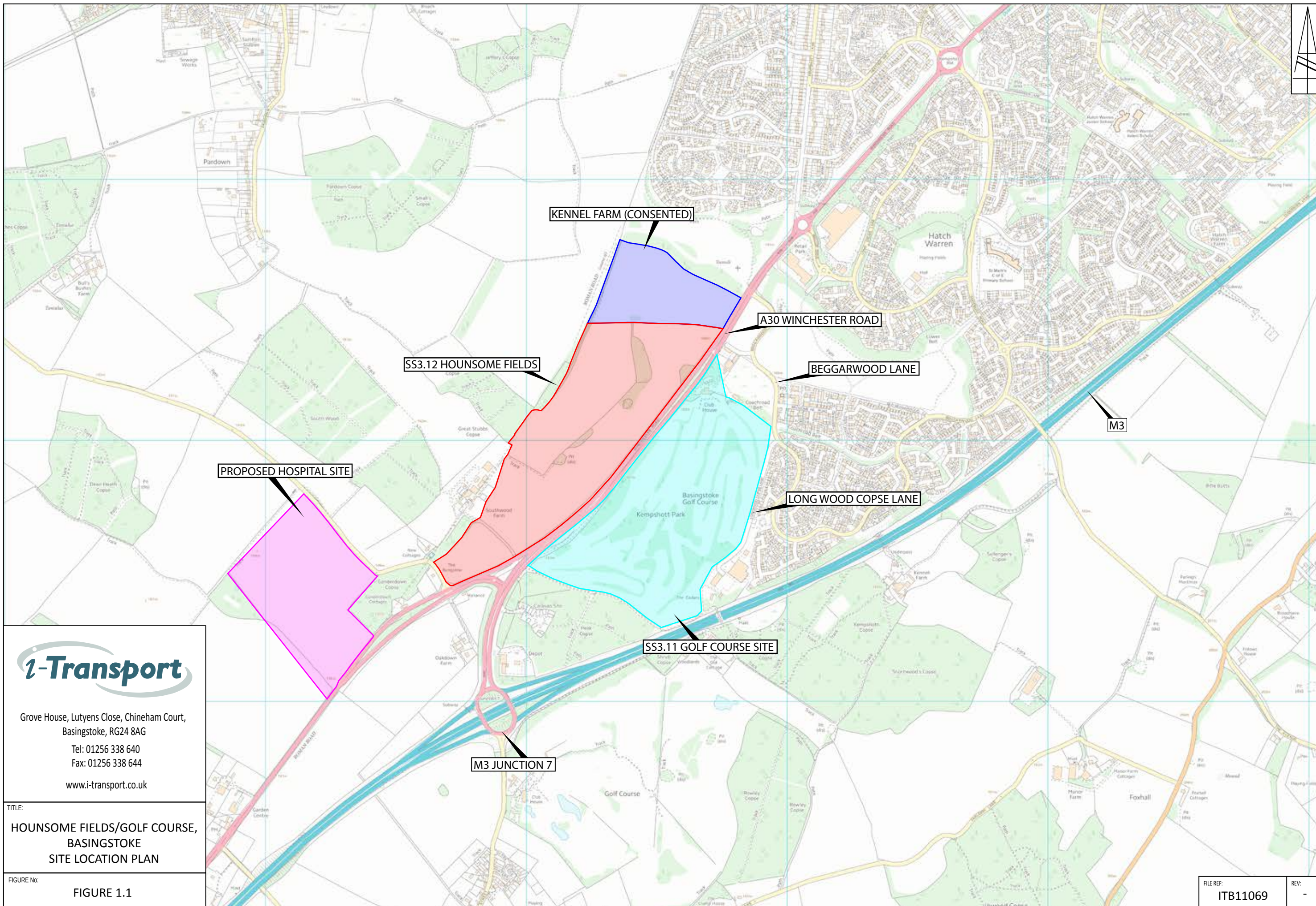
Will the residual impact be severe?

- 5.1.11 In terms of the site access arrangements, adequate capacity will be achieved at the site accesses. In addition, land can be safeguarded around the junction to allow for upgrading to cope with increased traffic demands resulting from the potential delivery of a Western Link Road connecting the A339 with the A30 via the Hounsborne Fields site in the next local plan period.
- 5.1.12 In terms of wider traffic impacts, the strategic Transport Assessment produced by Parsons Brinkerhoff identifies a series of interventions along the A30 corridor between M3 Junction 7 and the town centre. These set out how additional traffic demands of the local plan allocations can be mitigated. In addition, a comprehensive mitigation scheme has been identified by HCC and funding secured at the Brighton Hill roundabout, which is the main capacity constraint on the A30 corridor. Whilst it is accepted that further design and associated modelling work is needed – this is inevitable with a strategic level Transport Assessment – it is clear that suitable interventions are a) achievable and b) deliverable. Development of the sites provides the opportunity for the junction improvements on the A30 corridor to be realised.

5.2 Conclusion

- 5.2.1 Against this background, the Golf Course and Hounsborne Fields sites a) provide reasonable and realistic opportunities for sustainable travel to be taken up; b) can achieve safe and suitable access for all people; and c) will not have a severe residual impact.

FIGURES



i-Transport

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Fax: 01256 338 644
www.i-transport.co.uk

TITLE:
HOUNSOME FIELDS/GOLF COURSE,
BASINGSTOKE
SITE LOCATION PLAN

FIGURE No:
FIGURE 1.1

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FILE REF:	REV:
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KEY

R¹

BASINGSTOKE MOTORCYCLES

R²

CO-OP

R³

HATCH WARREN RETAIL PARK

R⁴

SAINSBURY'S, MOTHER CARE & GOLF CENTRE

ED

ST MARKS CoFe SCHOOL

ED²

HATCH WARREN PRIMARY SCHOOL

E

COUNCIL DEPOT

L¹

HOUNSOME FIELDS LOCAL CENTRE

L²

GOLF COURSE LOCAL CENTRE

L³

HATCH WARREN COMMUNITY CENTRE

L⁴

PORTSMOUTH ARMS

L⁵

PLAYING FIELDS

L⁶

DUMMER, A WYEVALE GARDEN CENTRE

L⁷

COMMUNITY CENTRE

L⁸

DUMMER GOLF COURSE

L⁹

BEGGERWOOD LOCAL CENTRE INCLUDING:
- CO-OP
- NURSERY
- DOCTOR SURGERY
- DENTIST
- PHARMACY
- ESTATE AGENTS

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TITLE:

HOUNSOME FIELDS/GOLF COURSE,
BASINGSTOKE
LOCAL FACILITIES PLAN

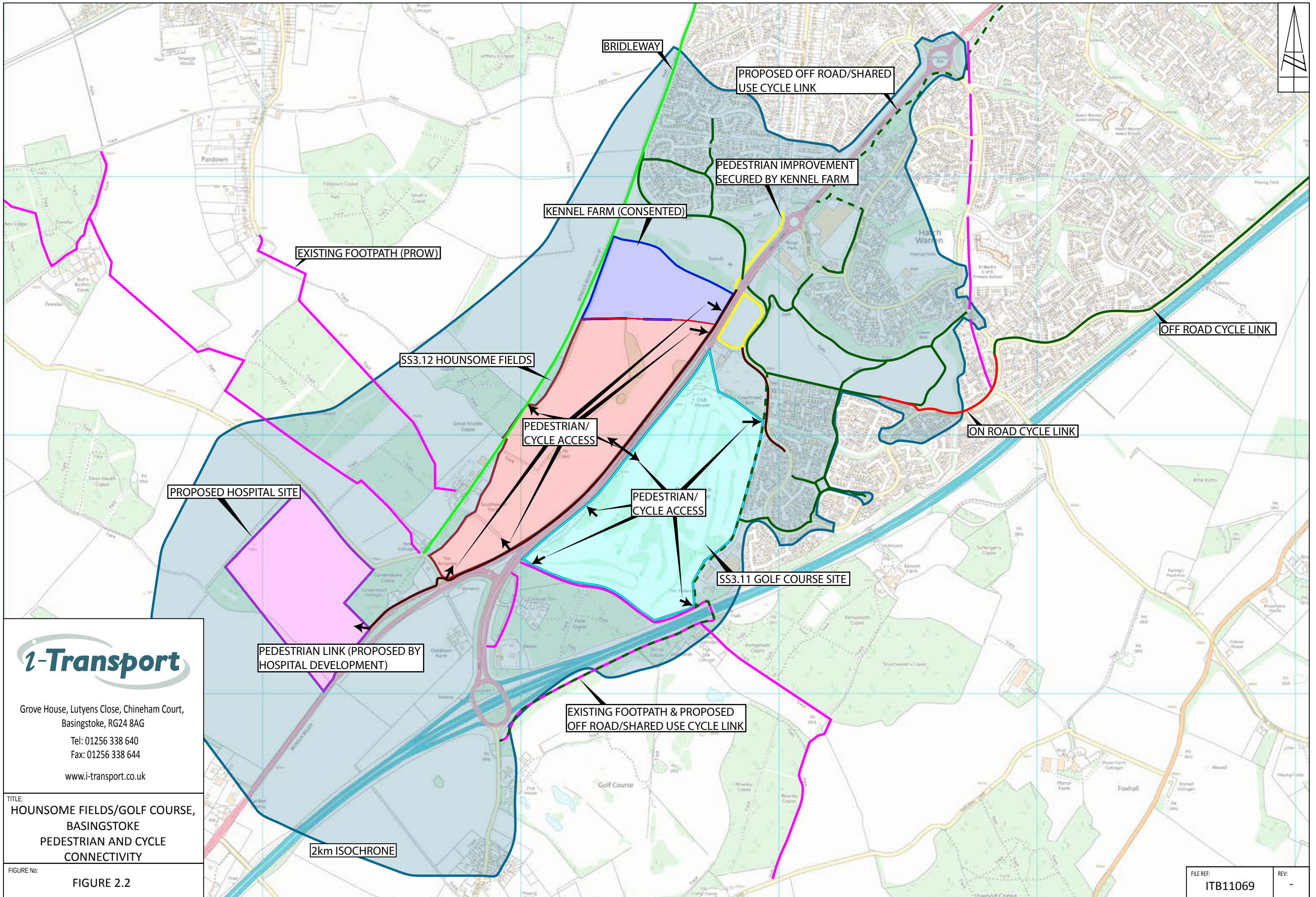
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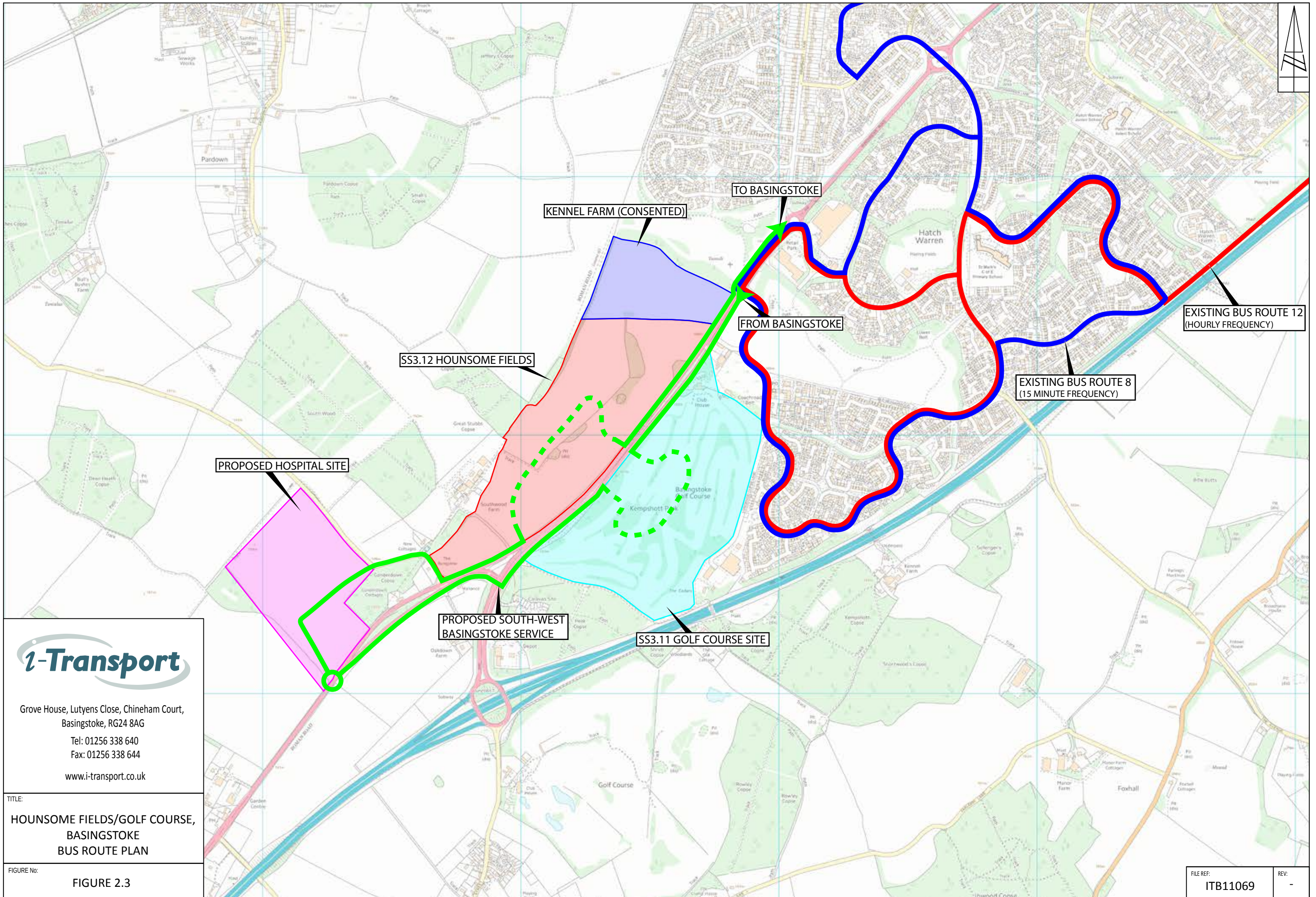
FIGURE 2.1

The map displays the Basingstoke area, highlighting two primary development sites: 'SS3.12 HOUNSOME FIELDS' (shaded in red) and 'SS3.11 GOLF COURSE SITE' (shaded in light blue). A large pink area to the west is labeled 'PROPOSED HOSPITAL SITE'. A blue-shaded region represents the '2km ISOCHRONE' from the sites. Various local facilities are marked with icons: retail parks (R¹, R², R³, R⁴), schools (ED, ED²), a council depot (E), and local centres (L¹ through L⁹). The map also shows the River Test, surrounding roads, and existing green spaces like Kempshott Park. A north arrow is located in the top right corner.

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TITLE:

HOUNSOME FIELDS/GOLF COURSE,
BASINGSTOKE
BUS ROUTE PLAN

FIGURE No:

FIGURE 2.3

APPENDIX A

Basingstoke Cycle Map

BASINGSTOKE CYCLE NETWORK

—

Off Road/Shared Use

—

Quiet/Traffic Calmed Links

—

On Road

Proposed Off Road / Shared Use

Proposed Quiet/Traffic Calmed Links

Proposed On Road

⌂

CONTROLLED CROSSING

★

CYCLE PARKING

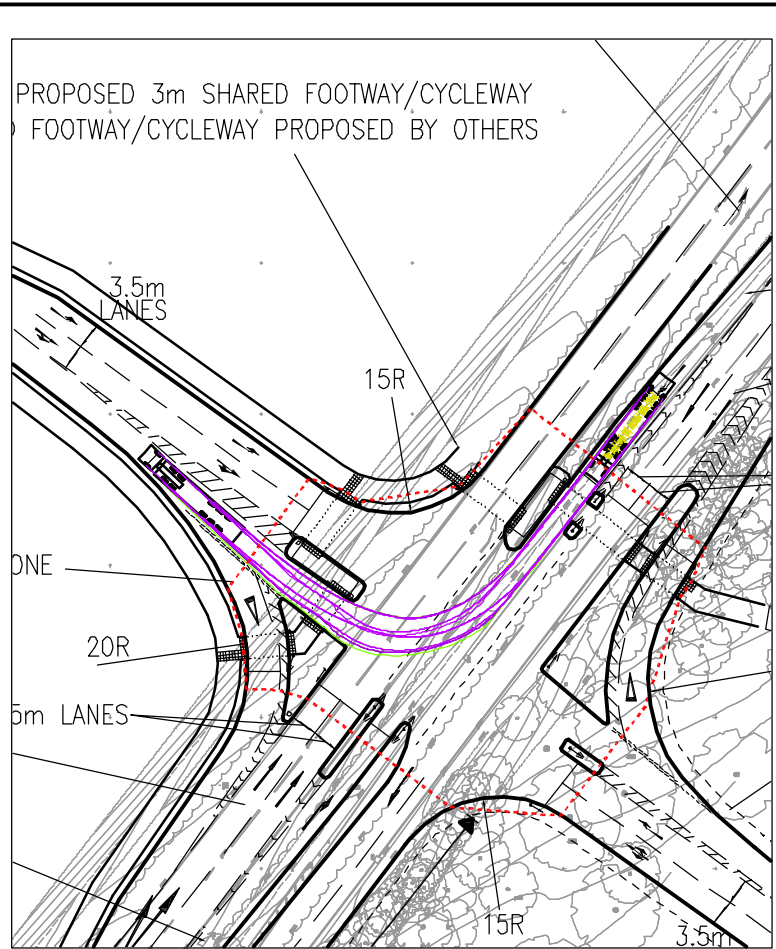
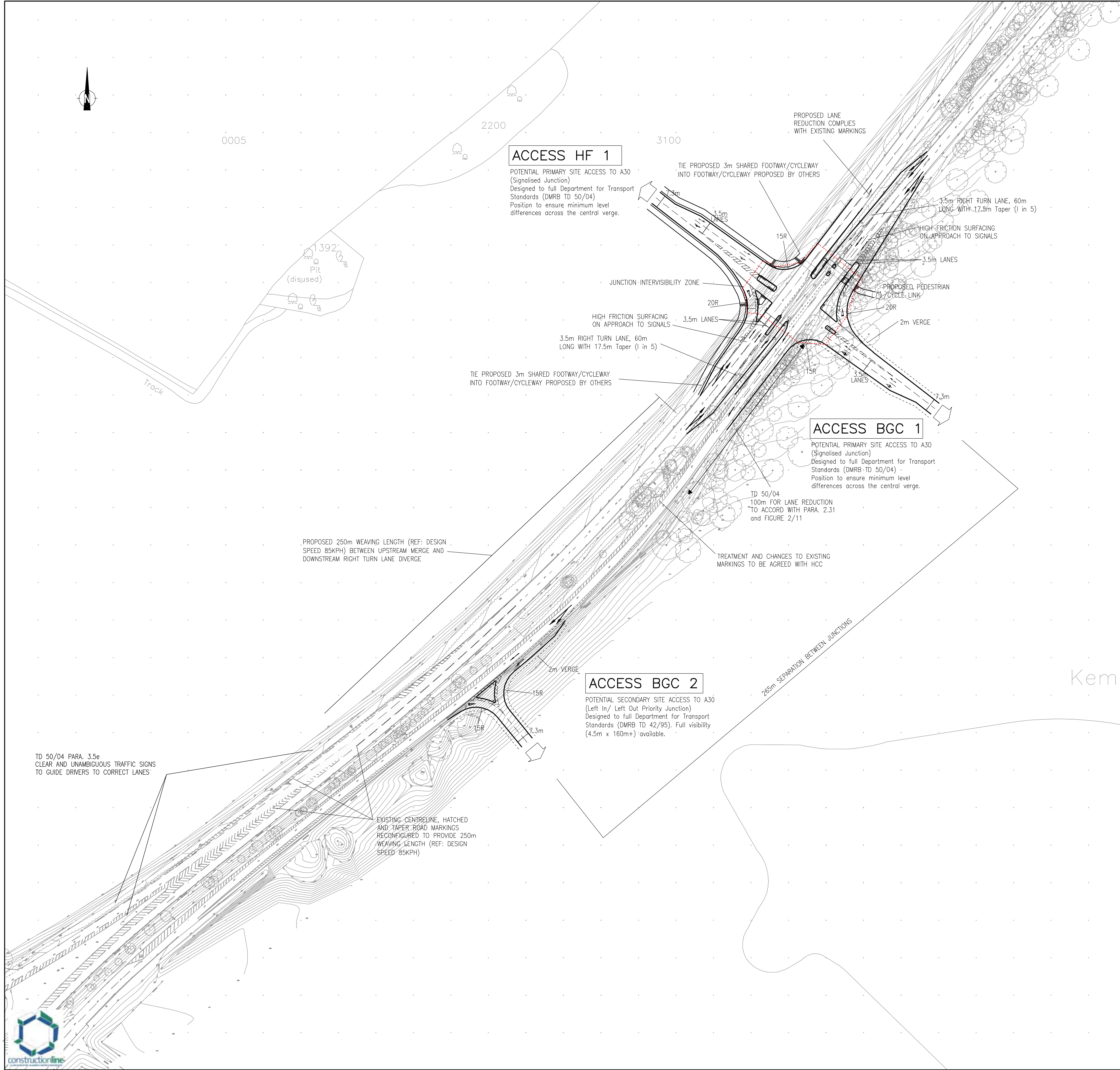
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LEISURE DESTINATION

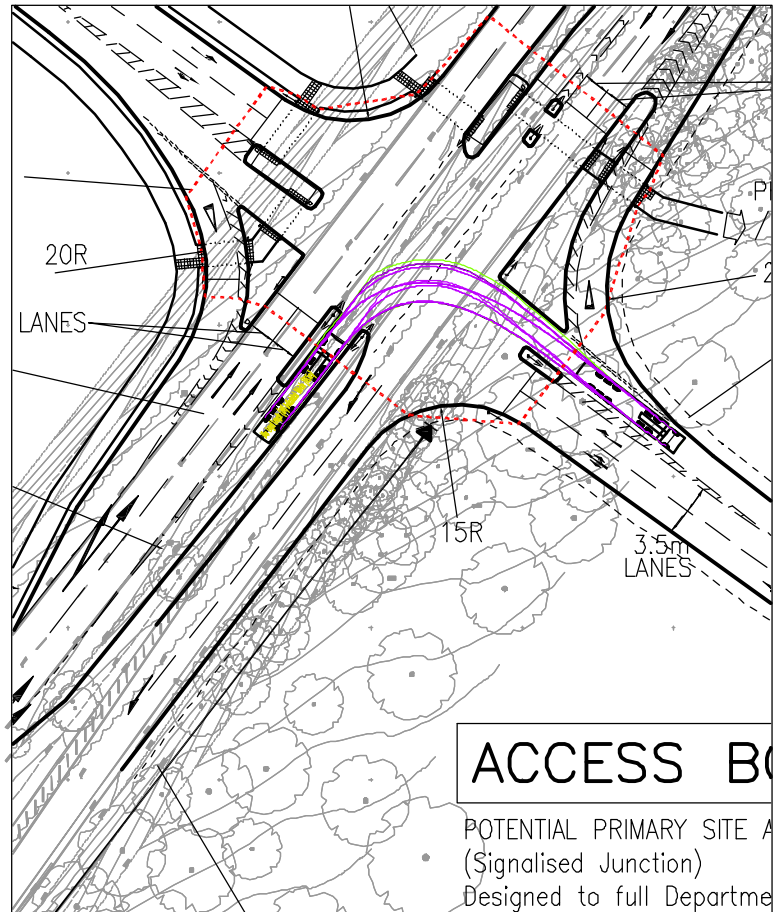


APPENDIX B

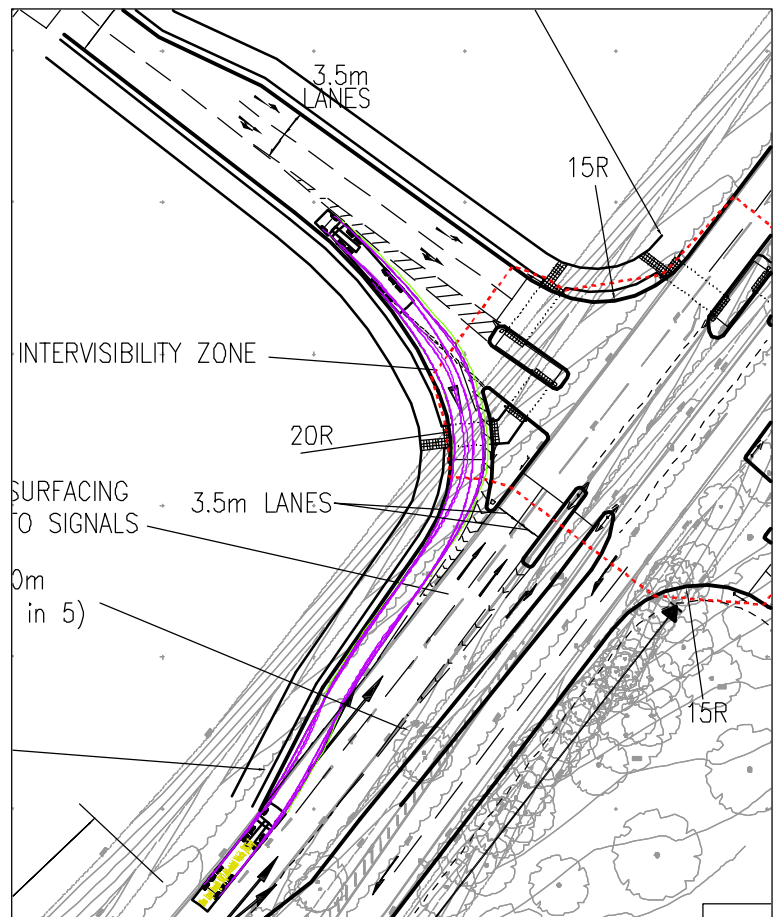
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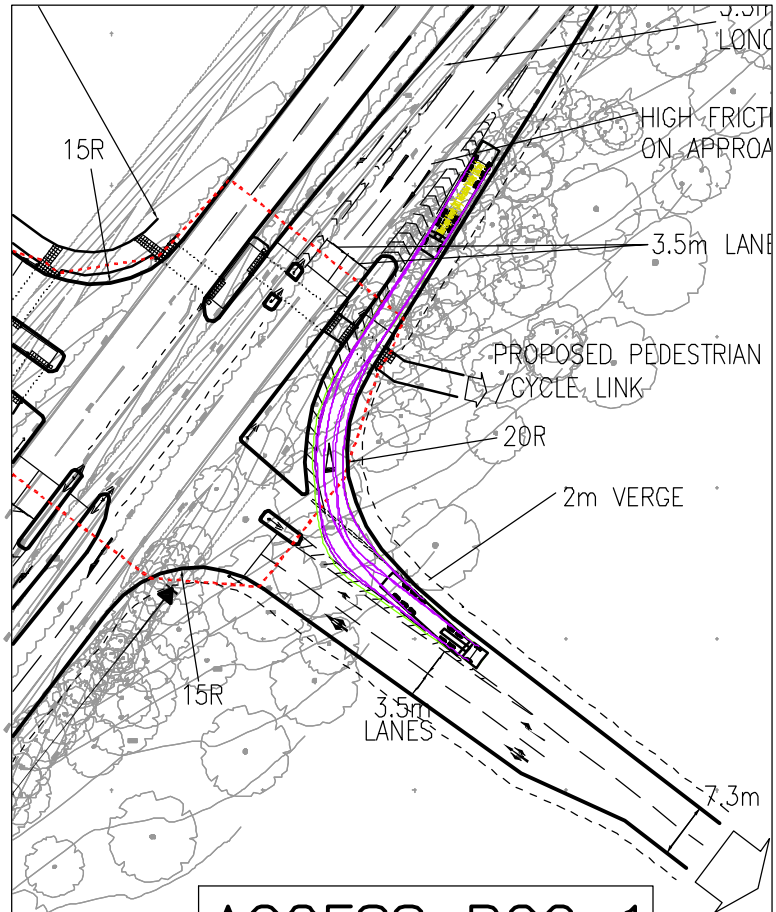
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(1) 16.5m ARTICULATED HGV – RIGHT TURN INTO BGC



(3) 16.5m ARTICULATED HGV – LEFT TURN INTO HF



(4) 16.5m ARTICULATED HGV – LEFT TURN INTO BGC

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REVISIONS				
Preliminary Issue	Submitted for S104			
Planning Issue	Issued for Tender			
Submitted for S38	Issued for Construction			
Submitted for S278	As Built			
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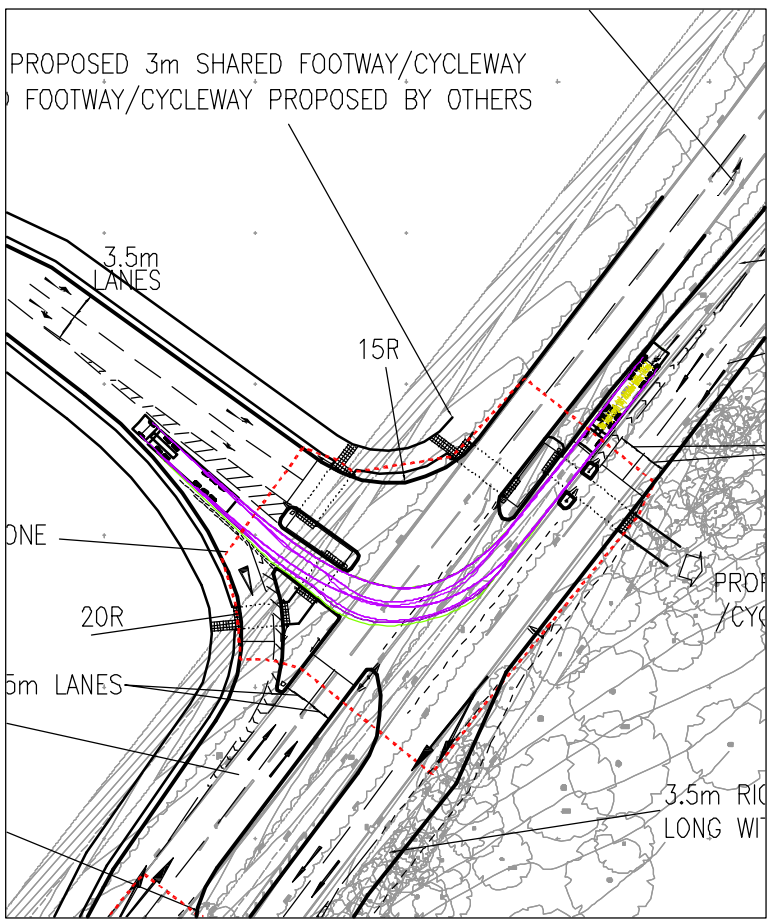
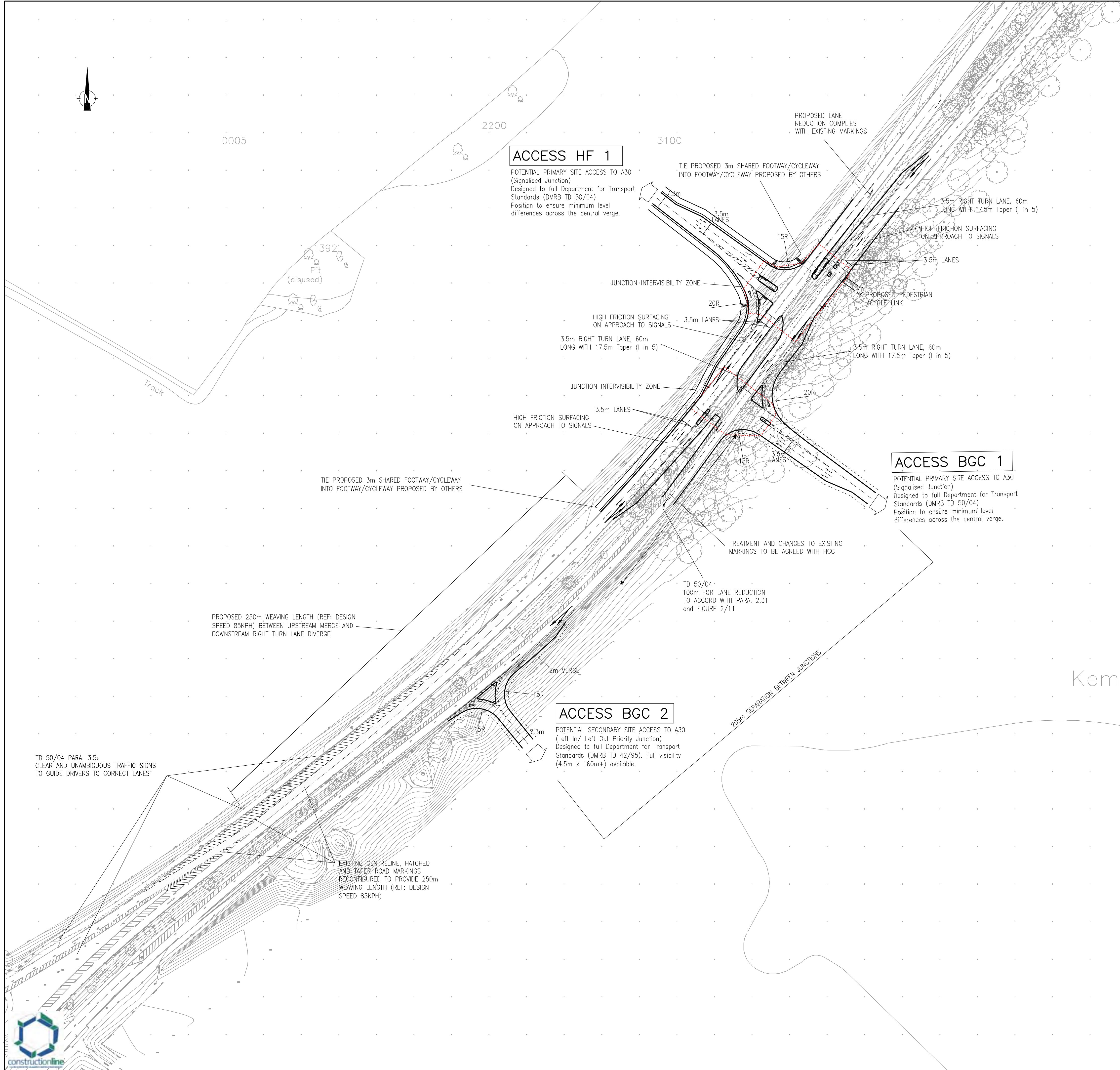
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BASINGSTOKE GOLF CLUB

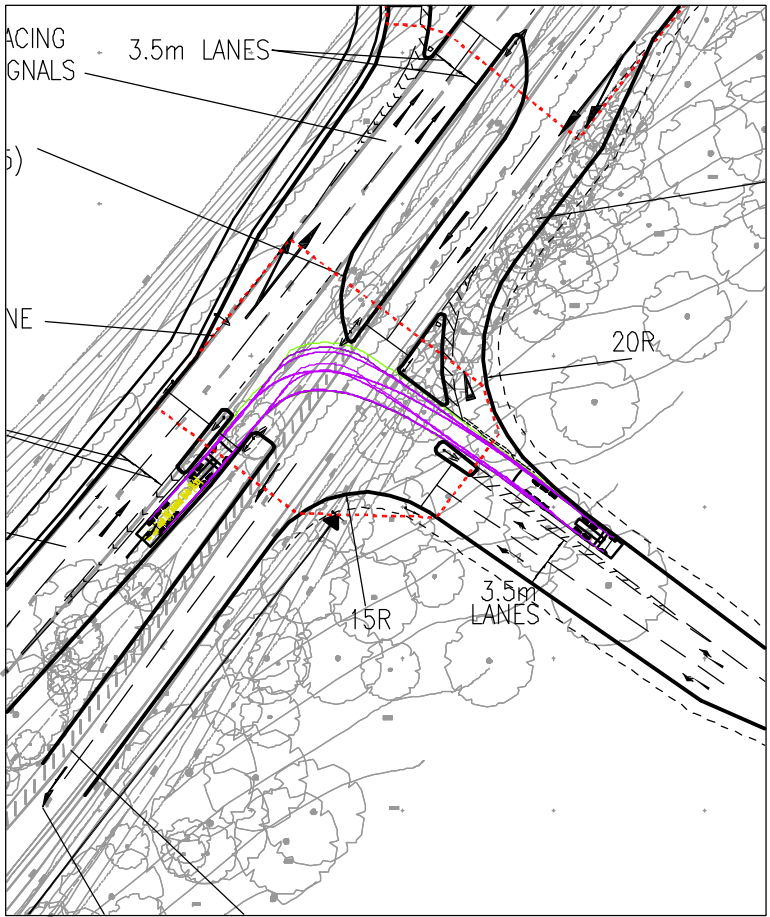
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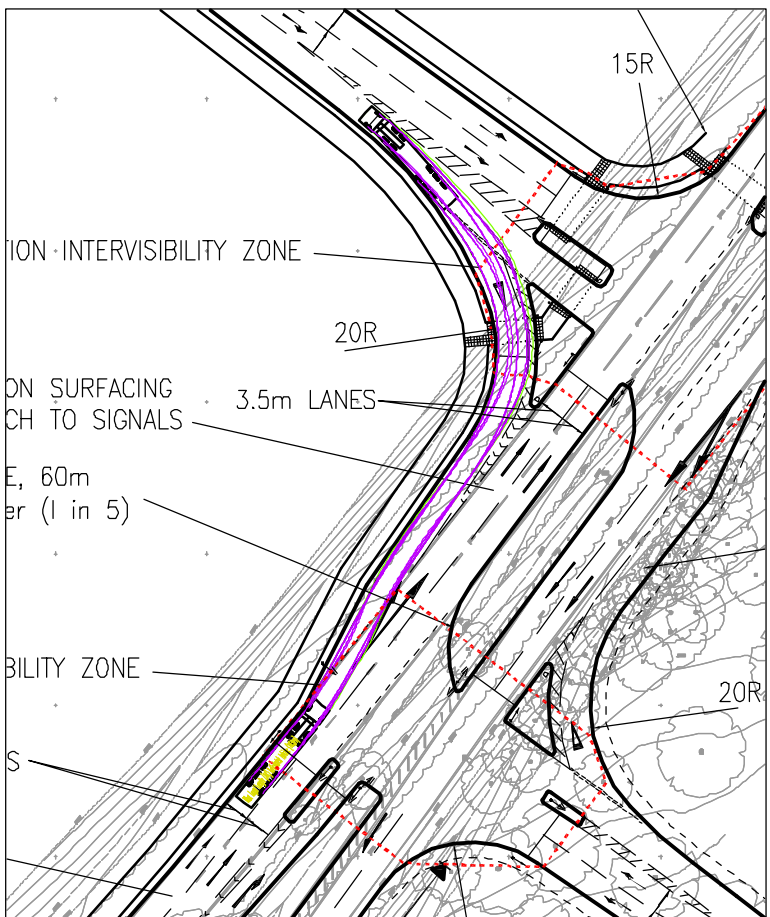
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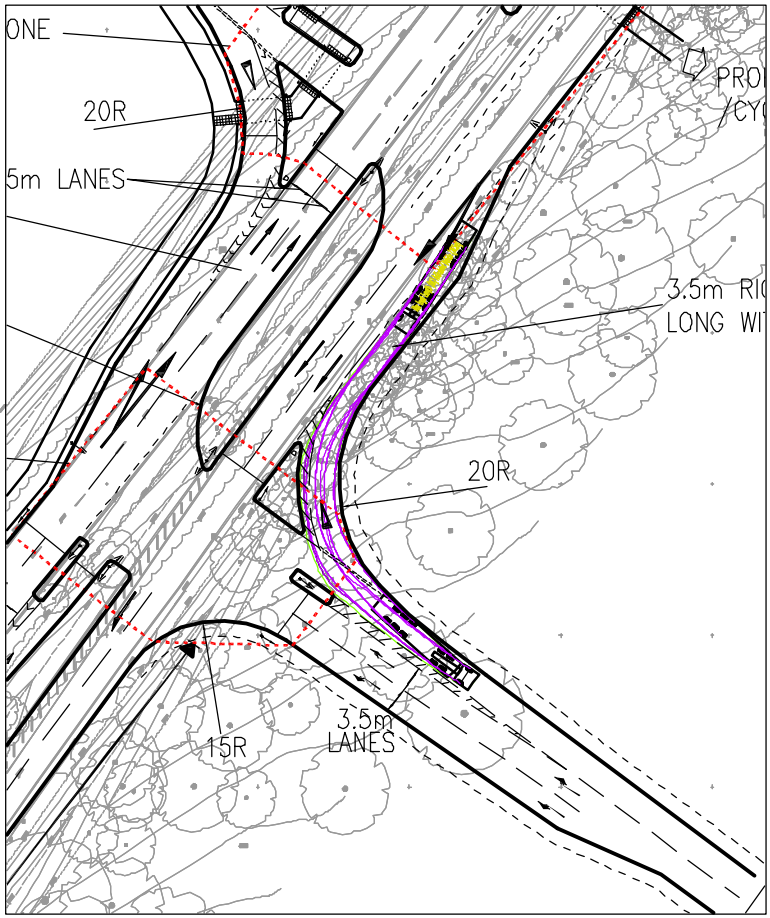
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(2) 16.5m ARTICULATED HGV – RIGHT TURN INTO BGC



(3) 16.5m ARTICULATED HGV – LEFT TURN INTO HF



(4) 16.5m ARTICULATED HGV – LEFT TURN INTO BGC

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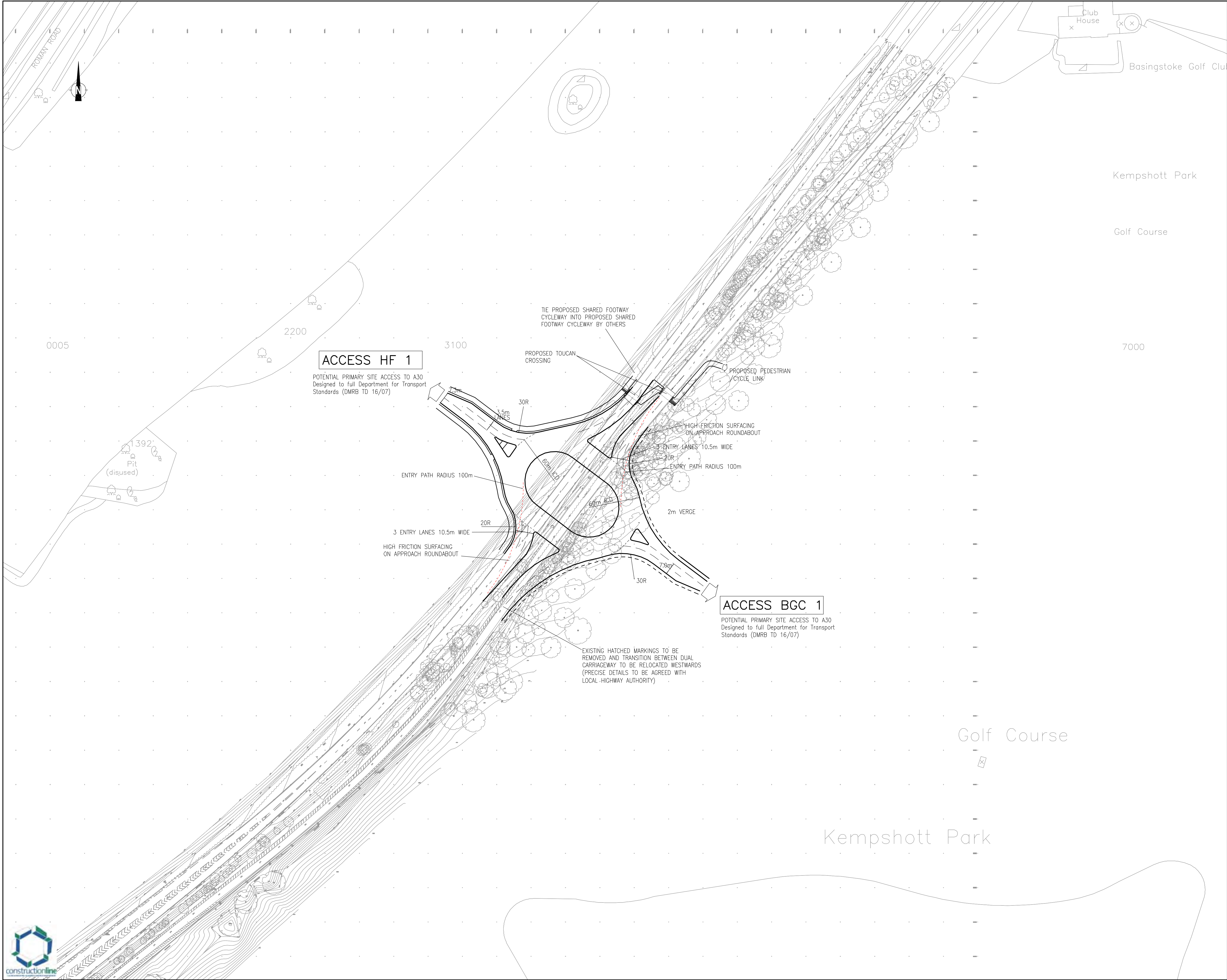
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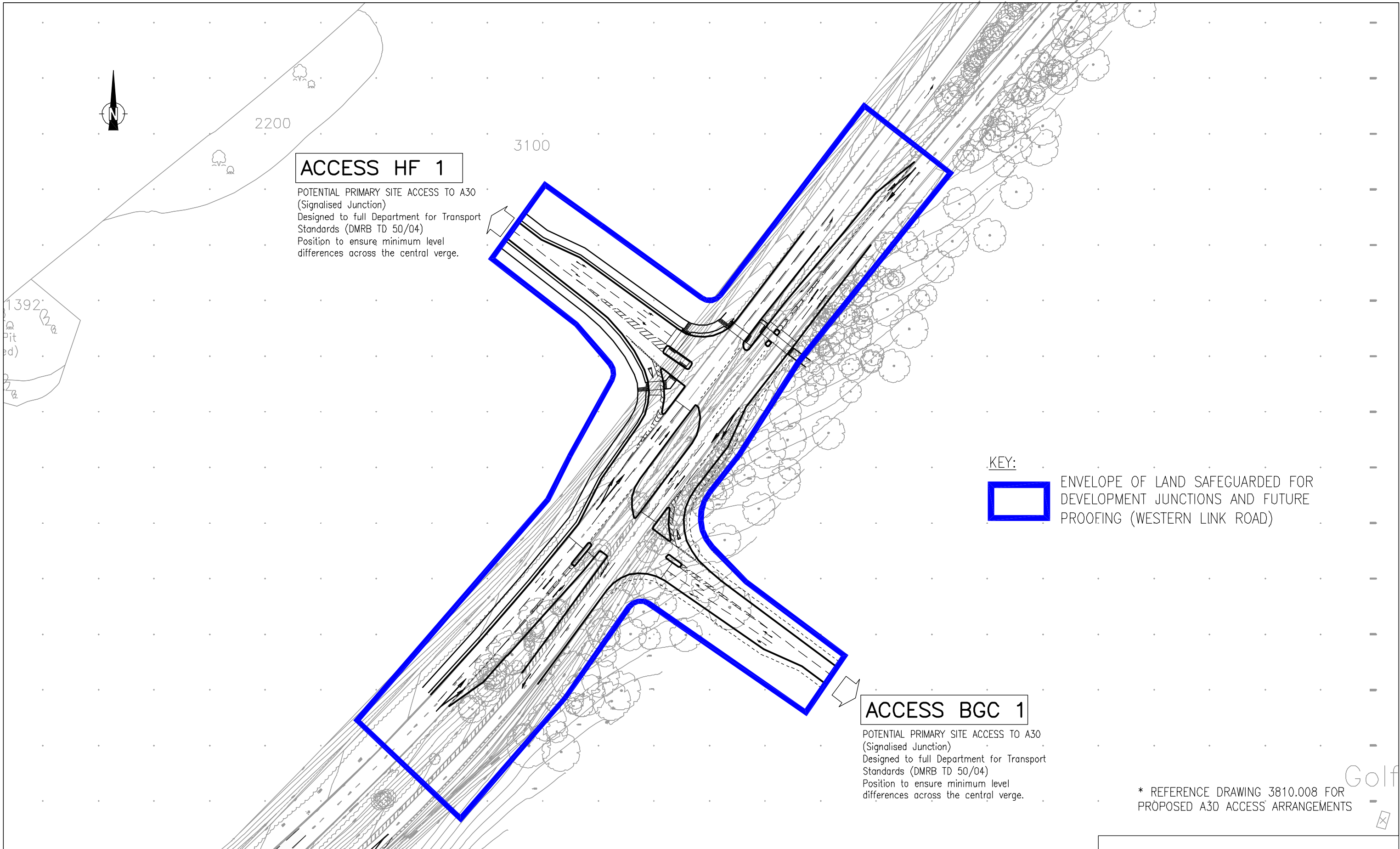
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**BASINGSTOKE GOLF CLUB
& HOUNSME FIELDS DEVELOPMENT**

DRAWING TITLE
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(ALTERNATIVE 4 ARM ROUNDABOUT**

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ACCESS HF 1

POTENTIAL PRIMARY SITE ACCESS TO A30
(Signalised Junction)
Designed to full Department for Transport
Standards (DMRB TD 50/04)
Position to ensure minimum level
differences across the central verge.

KEY:



ENVELOPE OF LAND SAFEGUARDED FOR
DEVELOPMENT JUNCTIONS AND FUTURE
PROOFING (WESTERN LINK ROAD)

ACCESS BGC 1

POTENTIAL PRIMARY SITE ACCESS TO A30
(Signalised Junction)
Designed to full Department for Transport
Standards (DMRB TD 50/04)
Position to ensure minimum level
differences across the central verge.

* REFERENCE DRAWING 3810.008 FOR
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**HOUNSOME FIELDS AND BASINGSTOKE GOLF CLUB
DEVELOPMENT SITES**

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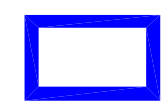
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ACCESS HF 1

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Position to ensure minimum level
differences across the central verge.

KEY:



ENVELOPE OF LAND SAFEGUARDED FOR
DEVELOPMENT JUNCTIONS AND FUTURE
PROOFING (WESTERN LINK ROAD)

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(Signalised Junction)
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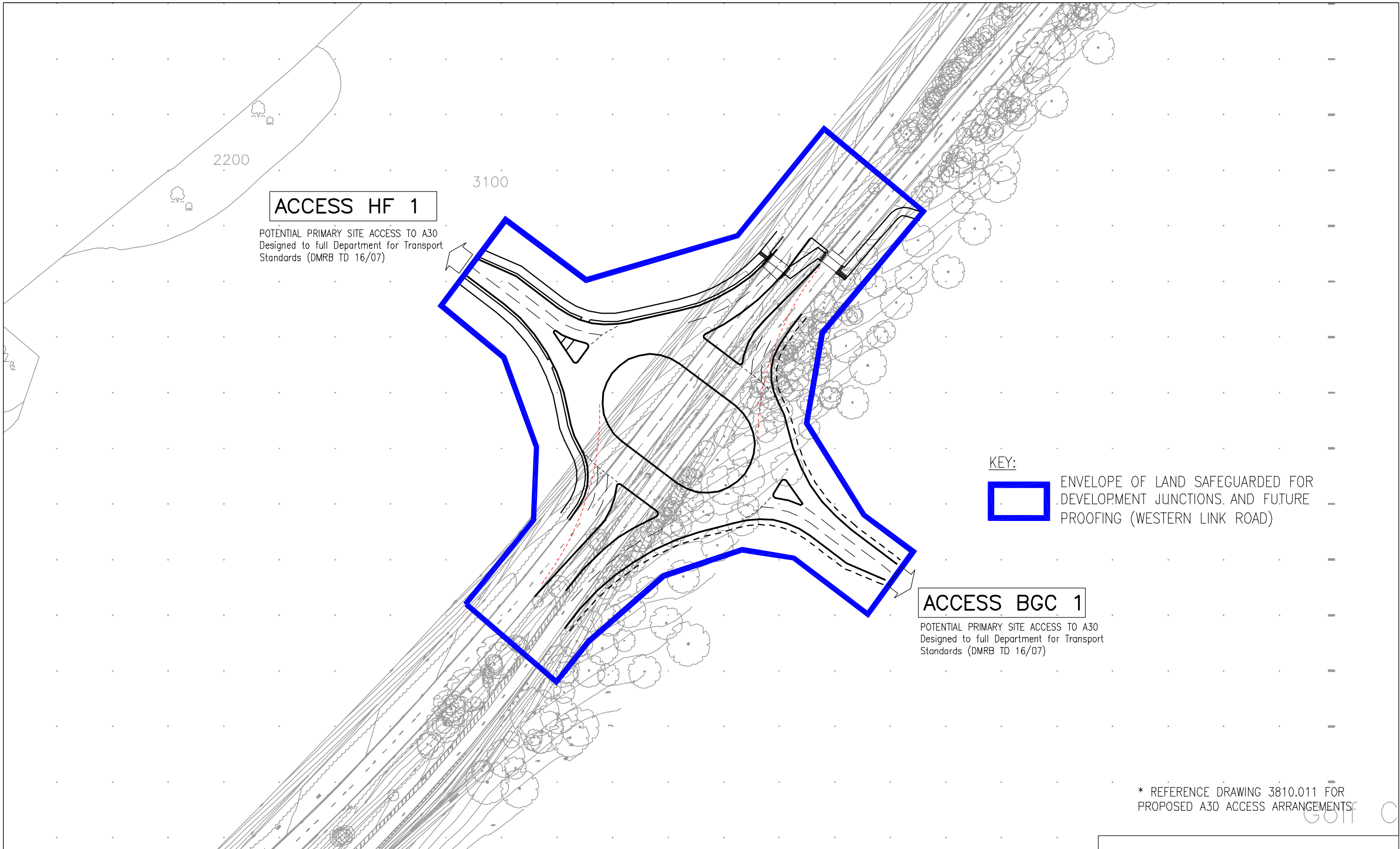


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DEVELOPMENT SITES**

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**Appendix 8: Flood Risk & Drainage Report provided by Basingstoke Golf Club
(Stuart Michael Associates, August 2012)**

**Flood Risk Assessment
(Level 1)
& Drainage Statement**

**Basingstoke Golf Club,
Basingstoke**

**Prepared for
Basingstoke Golf Club**

by

**Stuart Michael
Associates Limited**

August 2012



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SMA Ref: 3810/FRA&DS

Issue Status: 01

DOCUMENT CONTROL			
Project	Basingstoke Golf Club, Basingstoke		
Job No.	3810		
Document Title	Flood Risk Assessment (Level 1) & Drainage Statement		
File Location	N:\Admin Project\3800 to 3899\3810 - Promotion of Basingstoke Golf Club\Reports\3810 - Flood Risk Assessment - 15 August 2012.doc		
Prepared by	Timothy Wood	Date	13.08.2012
Reviewed by	Paul Underhay	Date	14.08.2012
Approved by	Stuart Atkinson	Date	14.08.2012
Document Issue	Description / Changes	Revised by	Date
First draft	Issue to Boyer Planning for comment		14.08.2012
01	Final Issue		15.08.2012



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2.0	THE SITE	2
3.0	DEVELOPMENT PROPOSALS	3
4.0	POTENTIAL SOURCES OF FLOODING	4
5.0	SURFACE WATER DRAINAGE STATEMENT	7
6.0	WASTEWATER DRAINAGE STATEMENT	11
7.0	SUMMARY & CONCLUSIONS	12

FIGURES

Figure 1	Location Plan
Figure 2	British Geological Survey Geological Mapping
Figure 3	Environment Agency Flood Map
Figure 4	Surface Water Drainage and Flooding Constraints Plan

APPENDICES

Appendix A	BDBC SFRA Historical Flooding Map
Appendix B	BDBC SFRA Potential Surface Water Flood Risk Maps

ACRONYMS AND ABBREVIATIONS

CIRIA	Construction Industry Research and Information Association
DEFRA	Department for Environment, Food and Rural Affairs
EA	Environment Agency
Ha	Hectares
m	Metres
QBAR	Mean Annual Flood (Report No. 124 Flood Estimation for Small Catchments)
SFRA	Strategic Flood Risk Assessment
SuDS	Sustainable Drainage Systems
TG	Technical Guidance to the National Planning Policy Framework
SW	Southern Water Services Limited
BGS	British Geological Survey
BDBC	Basingstoke and Deane Borough Council

1.0 INTRODUCTION

- 1.1 Stuart Michael Associates Limited, consulting engineers, has prepared this Level 1 Flood Risk Assessment and Drainage Statement, hereafter referred to as the 'Report', on the instructions of Basingstoke Golf Club.
- 1.2 The Report presents a qualitative assessment of the potential sources and effects of flooding at Basingstoke Golf Club, hereafter referred to as the 'Site'.
- 1.3 The Report presents an independent assessment of flood risk in accordance with the document 'Technical Guidance to the National Planning Policy Framework' (TG) issued by the Department of Communities and Local Government.
- 1.4 The TG provides guidance on how flood risk should be considered during planning and development processes. The requirement to protect both new and established development from increased risk of flooding forms an essential part of the guidance. Moreover, implementation of Sustainable Drainage Systems (SuDS) for new development is encouraged.
- 1.5 Basingstoke and Deane Borough Council (BDBC) is the local planning authority controlling flood risk and water environment issues through policies and guidance presented in the Basingstoke and Deane Strategic Flood Risk Assessment (SFRA).
- 1.6 A quantitative assessment would be the subject of a Stage 2/Stage 3 Flood Risk Assessment. This will require a topographical survey and intrusive geotechnical investigation in order to develop the options for drainage.

2.0 THE SITE

Location

- 2.1 The Site is located to the south west of Basingstoke and is bounded to the north west by the A30 Winchester Road, the Beggarwood residential area to the east, the M3 Motorway to the south. There is a wooded area to the west. Junction 7 of the M3 Motorway is to the south west of the wooded area.
- 2.2 Most of the Site is made up of the golf course with the clubhouse, car parking and greens keeper building situated in the northern part. The golf course is landscaped with mature trees and areas of 'rough' throughout.

Topography

- 2.3 Ordnance Survey mapping indicates that the Site slopes in a southerly direction with the clubhouse at the highest point and the 15th and 6th hole, 8th and 16th tee at the lowest point which runs along the south west boundary. A location plan is presented as **Figure 1**.

Geology and Hydrogeology

- 2.4 The 1:50,000 scale British Geological Survey mapping indicates that the bedrock geology description is Lewes Nodular Chalk Formation, Seaford Chalk Formation and Newhaven Chalk Formation. A copy of the published geology for the area is presented as **Figure 2**.
- 2.5 An intrusive ground investigation with soakage tests complying with BRE365 guidelines should be undertaken to accurately determine the underlying strata and the extent to which infiltration systems would be acceptable.
- 2.6 The Site is located within an Intermediate Groundwater Vulnerability Zone within the Chalk stratum which comprises a Major Aquifer beneath the Site.

Drains and Sewers

- 2.7 Sewer record information should be requested from Southern Water.

Watercourses

- 2.8 There are no watercourses or ponds within close proximity of the Site.

Environmentally Sensitive Areas

- 2.9 There are no environmentally sensitive areas located within or close to the Site.

3.0 DEVELOPMENT PROPOSALS

- 3.1 The Site is to be promoted for residential development through the BDBC Development Plan process.
- 3.2 The advice, recommendations and requirements contained in this Report will inform the master planning and preliminary design processes.

4.0 POTENTIAL SOURCES OF FLOODING

Coastal Flooding

- 4.1 This Site is located inland at an elevation in excess of 140 m AOD and is not at risk from coastal flooding.

Fluvial Flooding

- 4.2 Flood Zones shown on the EA's Flood Map are the main constraints used to inform local planning authorities when to consult the EA on flood risk in development control decisions. The EA advises that Flood Zones should only be used for planning consultation purposes.
- 4.3 The Flood Zones, as described in the TG, indicate the probability of flooding without the presence of manmade structures such as flood defences, bridges, culverts, rail and motorway embankments. In addition, Flood Zones show areas that may be at risk from flooding and where further investigation in the form of a Flood Risk Assessment should be used to ascertain the probable risk of flooding on Site.
- 4.4 Flood Zones provide the main constraint map underpinning the EA's Standing Advice on Development and Flood Risk. An extract from the EA's Flood Map is present as **Figure 3**.
- 4.5 The Flood Map indicates that most of the Site is located within Flood Zone 1 (Low Risk). A small portion of the Site, the south west corner, is located within Flood Zone 3 (High Risk).
- 4.6 The EA Flood Zone in this location has been produced using a flood model known as JFLOW and has been used to produce the 1% (1 in 100-year) and 0.1% (1 in 1000-year) flood outlines. The EA acknowledges that the JFLOW method is generalised and does not take manmade structures such as road/railway embankments and flood defences into consideration. As such, the flood outlines produced by JFLOW can only be taken as a rough guide, showing where more detailed flood risk assessments are required.
- 4.7 The proposed development is considered to be at low risk of fluvial flooding.

Historical Flooding

- 4.8 SFRA mapping indicates that there is no historical evidence to indicate flooding on the Site. A copy of the BDBC SFRA Historic Flood Map is presented as **Appendix A**.

Groundwater Flooding

- 4.9 The permeable Chalk formation underlying the Site store and transport groundwater flow. Therefore, infrequent seasonal groundwater flooding may occur within the valleys across the Site.

Overland Flow

- 4.10 Pluvial flooding occurs when rainfall exceeds ground infiltration. The risk of surface water flooding is greater in locations that are situated adjacent to sloping land, within natural valleys and/or are within local depressions.
- 4.11 The BDBC SFRA Potential Surface Water Flood Risk Maps, presented as **Appendix B**, indicate that there is a potential for surface water flooding during higher order return period rainfall events.

Flooding from Watercourses

- 4.12 There are no watercourses within close proximity of the Site.

Flooding from Artificial Drainage Systems

- 4.13 There are no surface water sewers within close proximity to the Site; therefore the risk of flooding from artificial drainage systems is low.

Flooding from Infrastructure Failure

- 4.14 There are no records indicating flooding due to infrastructure failure on the Site.

Flooding from Reservoirs

- 4.15 The EA map 'Risk of Flooding from Reservoirs' shows that the Site is not located in an area at risk of flooding.

Climate Change Uncertainty

- 4.16 TG – Flood Risk sets out precautionary sensitivity ranges for peak rainfall and contingency allowances for net sea level rise. It states that:

“In making an assessment of the impacts of climate change on flooding from the land, rivers and sea as part of a flood risk assessment, the sensitivity ranges in Tables 5 may provide an appropriate precautionary response to the uncertainty about climate change impacts on rainfall intensities, river flow, wave height and wind speed”.

- 4.17 Table 5 of the TG indicates that for the period up to 2115, peak rainfall intensities could increase up to 30% and peak river flows might increase by 20%.

5.0 SURFACE WATER DRAINAGE STATEMENT

Sustainable Drainage Systems

- 5.1 Most development presents an opportunity to incorporate sustainable surface water drainage systems. These might include infiltration techniques or attenuation of flows to protect receiving sewers or watercourses. The choice of method is dependent upon ground conditions and the availability of suitable areas within the particular scheme layout.
- 5.2 It is proposed that the development proposals shall incorporate sustainable drainage solutions to dispose of surface water runoff. The guidance given in the CIRIA report C697 'The SUDS Manual' will be followed during the design of the proposed sustainable drainage measures. Runoff will be managed both at source and throughout the Site as a whole.
- 5.3 Requirement H3 Part 3 of the Building Regulations Approved Document H (2002 Edition) states:
- (3) Rainwater from a system provided pursuant to sub-paragraphs (1) and (2) should discharge to one of the following listed in order of priority:
 - (a) an adequate soakaway or some adequate infiltration system; or, where this is not reasonably practicable,
 - (b) a watercourse; or, where that is not reasonably practicable,
 - (c) a sewer
- 5.4 BGS mapping indicates that the Site is located over Chalk formations. Therefore, subject to the confirmation of intrusive ground investigations and soakage testing (in accordance with BRE365), surface water runoff from the development will drain via infiltration systems to the underlying stratum.
- 5.5 An infiltration rate of $1.0 \times 10^{-5} \text{m/s}$ has been assumed at this stage. This represents a conservative estimate but has been used to demonstrate that infiltration drainage can be utilised to attenuate and discharge surface water runoff for all storms up to and including the 1 in 100-yr climate change (+30%) event.

Surface Water Management

- 5.6 In accordance with CIRIA Report C697: 'The SUDS Manual', a "SuDS Management Train" process will be undertaken to assure that the proposed drainage strategy mimics the natural catchment of the Site as closely as possible.
- 5.7 Source control techniques will be incorporated into the drainage strategy to ensure that surface water runoff is managed as close to source as possible.
- 5.8 A plan showing a preliminary surface water drainage strategy for the proposed development is presented as **Figure 4**.

Source Control (Water Butts)

- 5.9 Using water-butts is a simple water conservation technique that contributes to sustainable water management for developed areas. They are small, off-line storage devices that will be designed to capture and store roof-water runoff at source. Use of water butts will be considered for all properties on the proposed development and installed as appropriate.

Source Control (Soakaways and Infiltration Trenches)

- 5.10 Soakaways are one of the most commonly used infiltration devices. They store rapid runoff and enable efficient infiltration into the surrounding soil. All roof water runoff from any proposed residential dwellings will be discharged via individual soakaways situated in the rear gardens. All soakaways will be designed in accordance with the recommendations and guidance given in BRE365.

Source Control (Porous Car-Parks/Permeable surfaces)

- 5.11 Porous car parks with permeable surfaces are structures that enable rainwater to infiltrate through the surface layer and into the underlying sub-structure where water will be temporarily stored before being discharged into the drainage network at controlled rates. As runoff percolates through the sub-layers, pollutants and contaminants are filtered out by the surfacing layer and biological process in the sub-base.

5.12 CIRIA C697 promotes the use of these structures and lists amongst their advantages:

- Effective in removing urban runoff pollutants
- Significant reductions in volumes and rates of surface water runoff
- Suitable for installation within high density developments
- Low maintenance

5.13 Furthermore, CIRIA C697 advises that these structures improve water quality and reduce loadings of pollutant, suspended solids, nutrients and heavy metals.

5.14 The Site is located within a groundwater protection zone. Therefore, porous pavement construction could be used to improve water quality before infiltration to the underlying strata.

5.15 The private drive and/or community parking areas within the proposed development could be constructed using permeable surfaces. These structures, would be designed with sufficient capacity to accommodate all runoff generated by the 100-year plus climate change rainfall event and will discharge via infiltration to the underlying strata.

Site Control (Conveyance Swale)

5.16 Swales are linear vegetated drainage channels in which surface water is stored or conveyed. The swale at this Site would be sized to attenuate runoff arising from all rainfall events up to and including the 1 in 30-year return period event. The swale would be designed to allow the stored water to be discharged via infiltration. However, should infiltration be constrained by the presence of seasonally high groundwater levels, the swale will act as a conveyance channel between infiltration basins.

5.17 Swales utilise low flow velocities to allow much of the suspended particulate load within the runoff to settle out, thus providing effective water quality control.

Attenuation/Retention/Infiltration Basins

5.18 The attenuation/retention/infiltration basin could, for example, have a permanent body of water, designed to support emergent and submerged aquatic vegetation along the water edge. The retention time promotes pollutant removal through sedimentation and the opportunity for biological uptake mechanisms to reduce nutrient concentrations.

- 5.19 A weir set above the permanent water level would allow runoff from larger rainfall events (>1 in 30-year event) to overflow into the long-term-storage basin where it will be disposed of by infiltration.
- 5.20 The required storage volume required to attenuate runoff from a proposed residential development has been estimated using a conservative soakage rate of 1×10^{-5} m/s.
- 5.21 The required storage volume to attenuate surface water runoff from a residential development for the 1 in 100-year climate change event has been estimated to be in the region of 8000m³. This is a preliminary figure based on an assumed impermeable area and assumed infiltration rate and has been provided to allow sufficient area to be set aside for SuDS in the master planning process.

6.0 WASTEWATER DRAINAGE STATEMENT

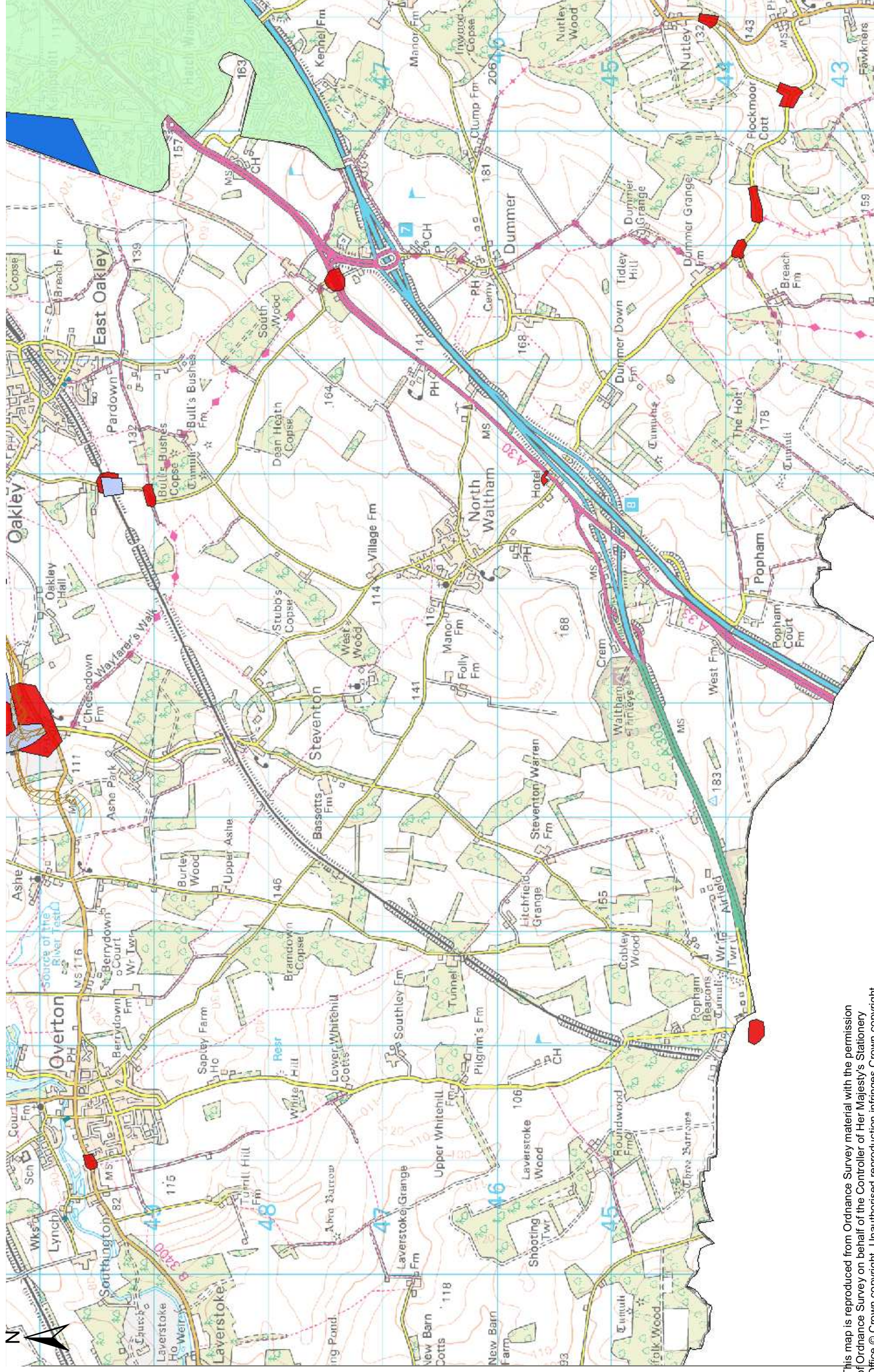
- 6.1 The BDBC Basingstoke Water Cycle Study (WCS) has identified that any major development to the south west of Basingstoke will need major new sewerage infrastructure to convey sewage effluent to the STW. This is because of insufficient capacity in the existing network. Even minor development may cause an increase in flood risk in the drainage system through Basingstoke.
- 6.2 Although the Site is identified in the WCS as having planned infrastructure improvements, the infrastructure delivery programme is subject to change based on regional and local priorities.
- 6.3 Where there is no current capacity, site specific discussions will need to be held with sewerage providers. These are typical considerations for major development proposals and will be a common requirement for any development to the west and south west of Basingstoke Town Centre.

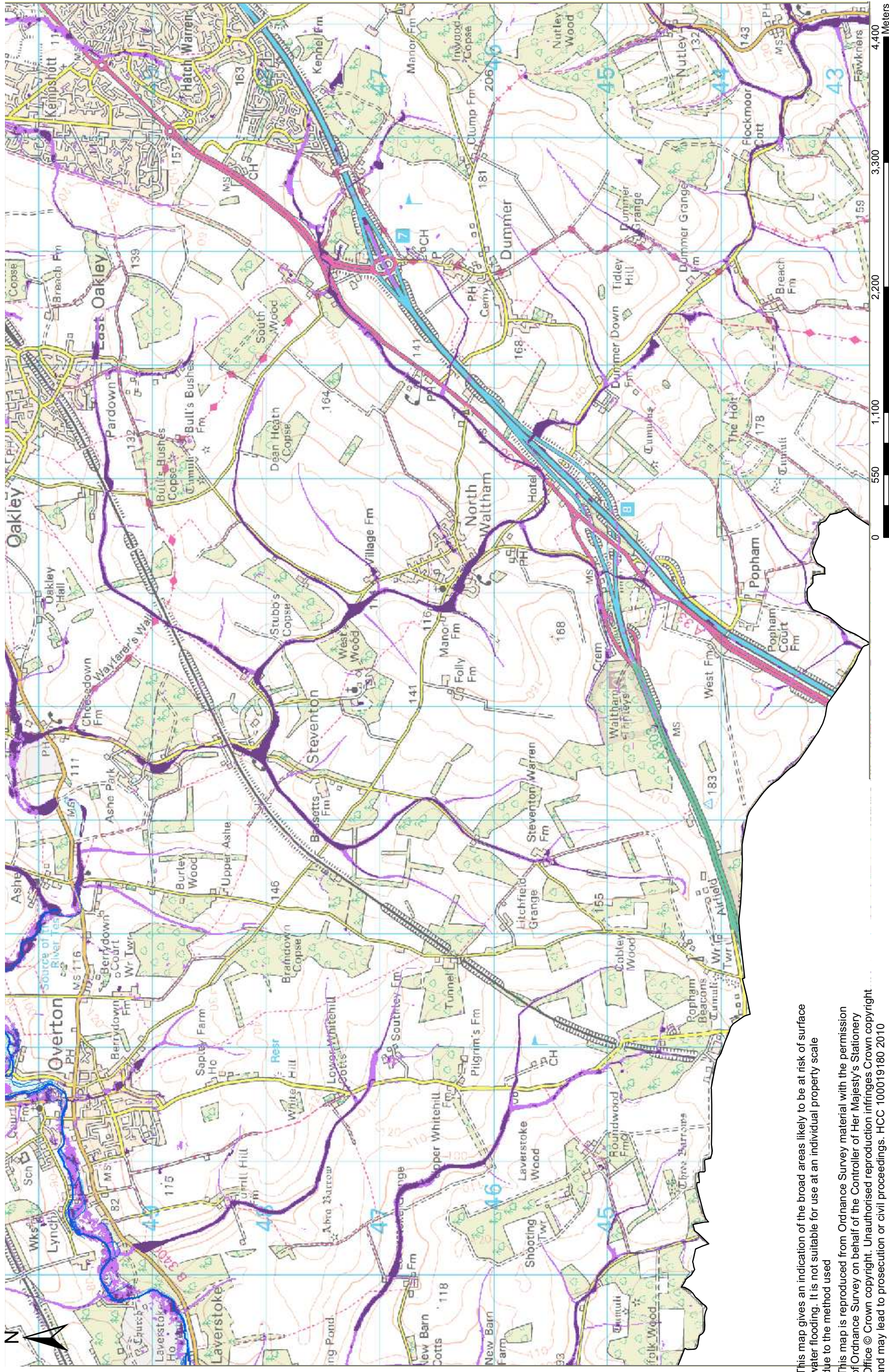
7.0 SUMMARY & CONCLUSIONS

- 7.1 This Report presents an independent assessment of flood risk in accordance with the guidelines set out in 'Technical Guidance to the National Planning Policy Frame Work' (TG).
- 7.2 There are no main rivers on or in close proximity to the Site.
- 7.3 The Site is located within an area at low risk of fluvial flooding, as indicated by Flood Zone 1 on the Flood Map.
- 7.4 SuDS source control measures (water butts, soakaways and porous pavements) can be employed throughout the development to reduce and control surface water runoff.
- 7.5 The possible permeable nature of the underlying strata, lack of public surface water sewers and watercourses indicates that the use of infiltration devices and techniques is likely to be the most appropriate and effective method for the disposal of surface water from the proposed development.
- 7.6 Soakage testing to BRE365 should be undertaken to provide an accurate assessment of infiltration across the Site and to inform the site layout design and associated infrastructure provisions.
- 7.7 This Report concludes that flood risk to the development is low and that the proposed development will not increase risk of flooding elsewhere.

Figure 1

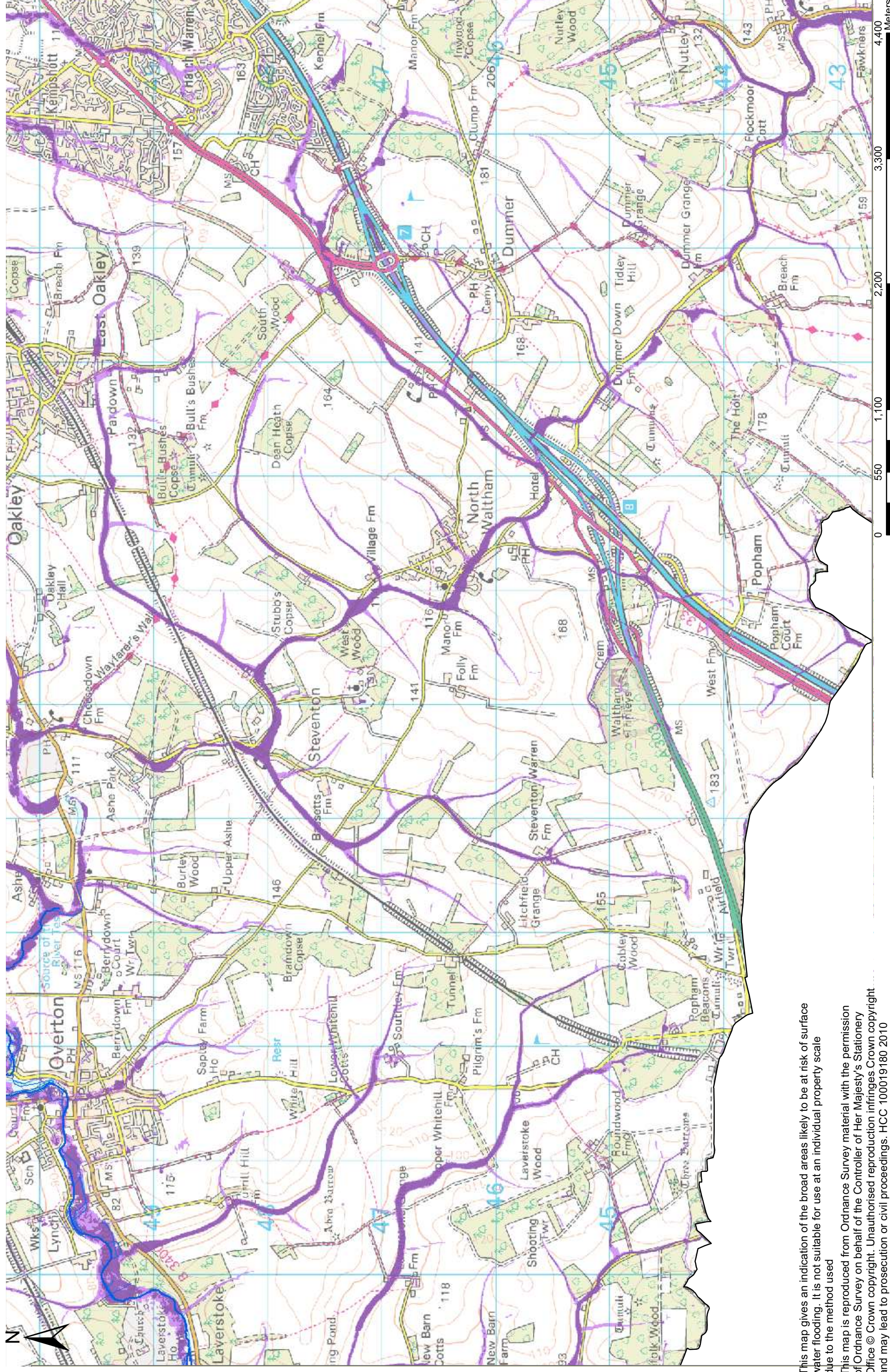
Location Plan





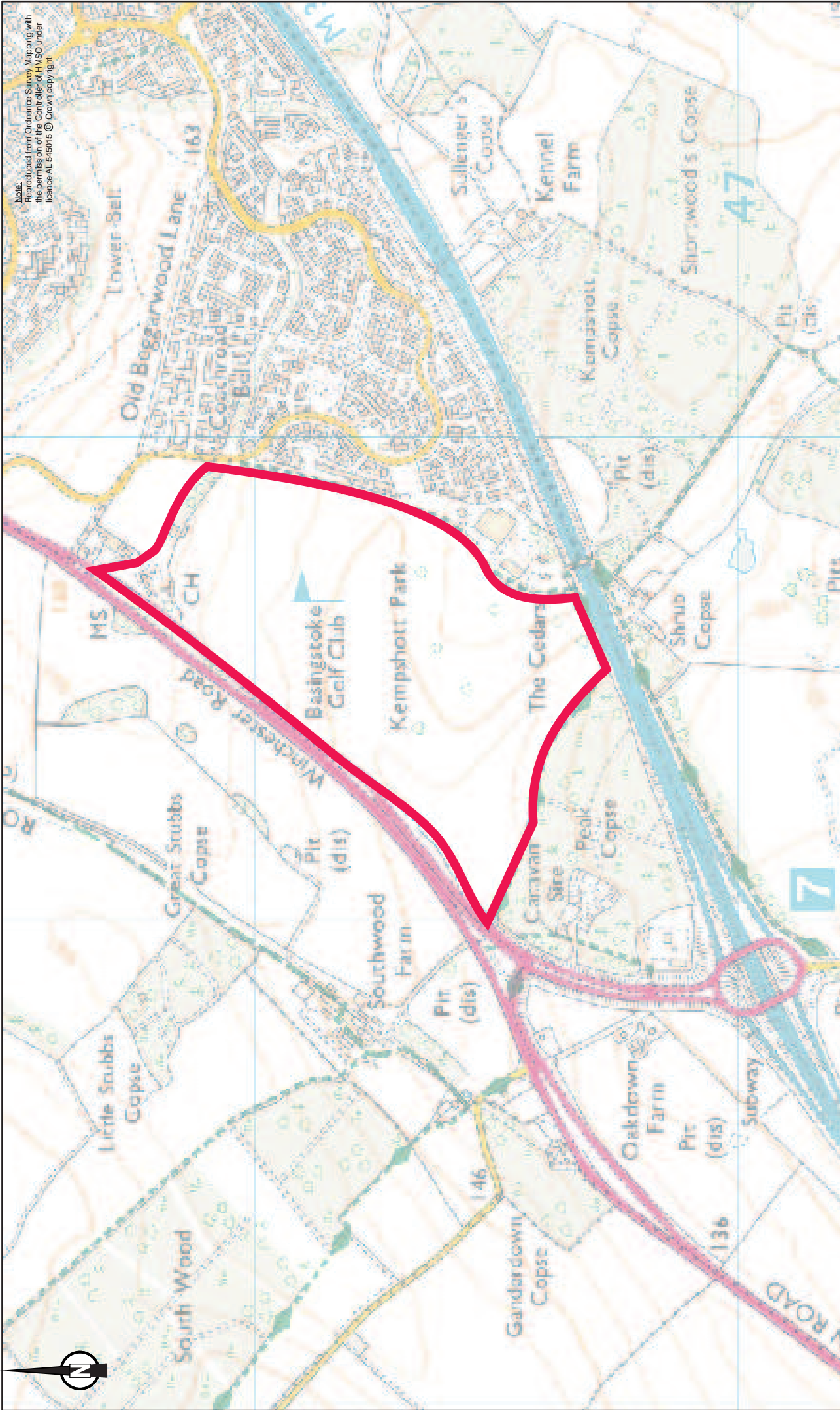
This map gives an indication of the broad areas likely to be at risk of surface water flooding. It is not suitable for use at an individual property scale due to the method used

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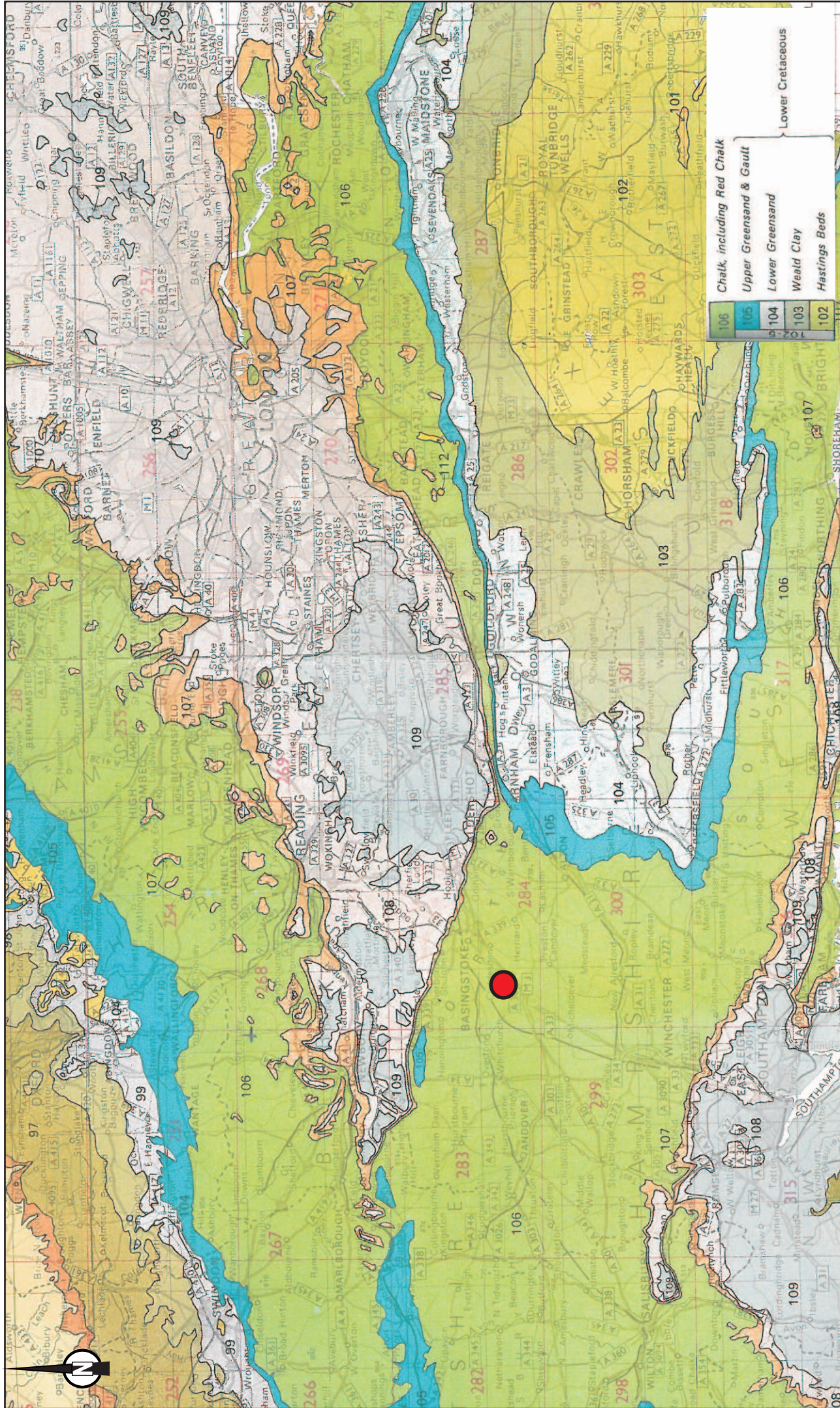


This map gives an indication of the broad areas likely to be at risk of surface water flooding. It is not suitable for use at an individual property scale due to the method used

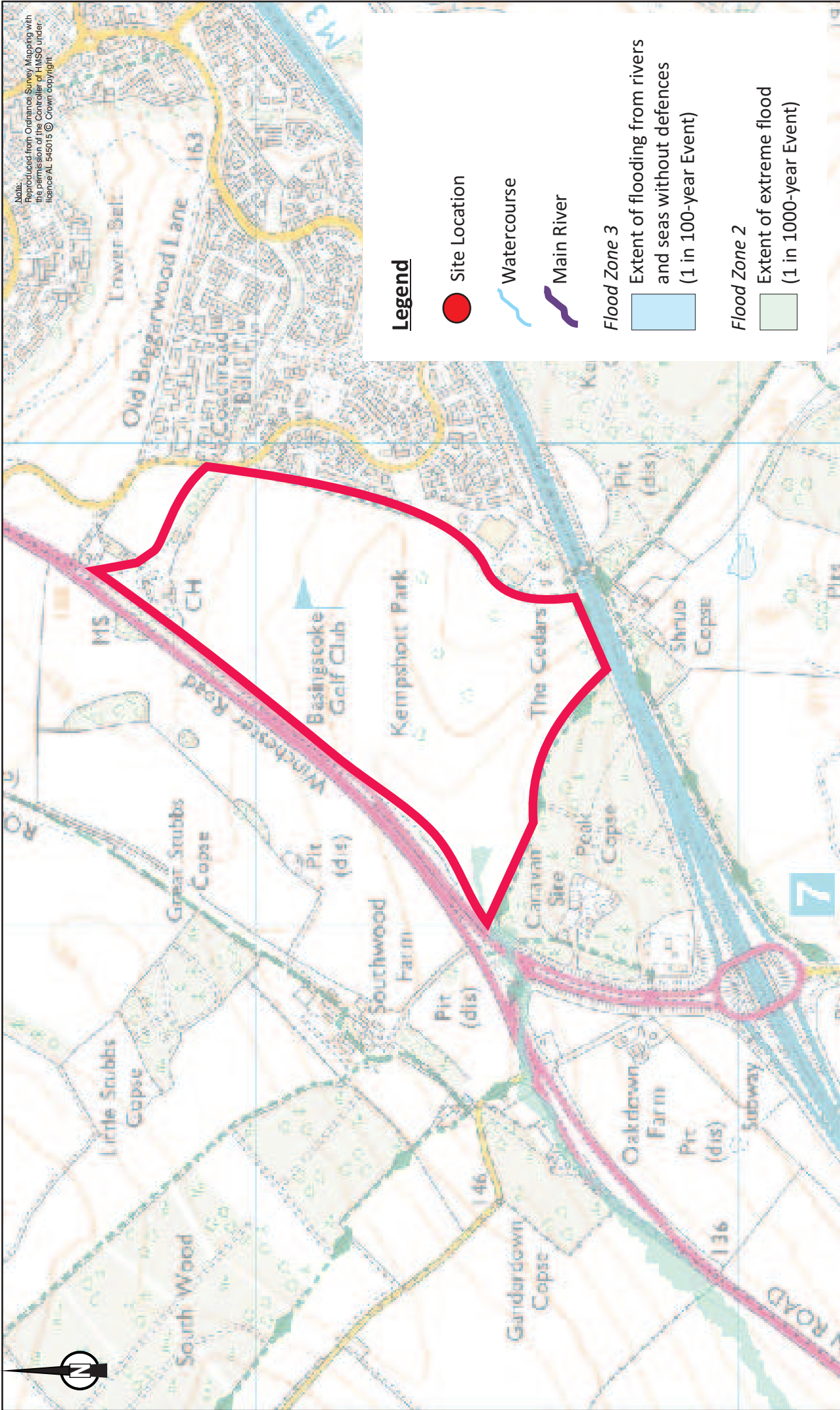
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SCALE: nts © This drawing is the copyright of Stuart Michael Associates Limited. It may not be reproduced or amended without the written approval of Stuart Michael Associates.			



 Stuart Michael Associates Ltd Coombe House, Coombe Square, Thatcham, Berkshire RG19 4JF T: 01635 867 711 E: mail@stuartmichael.co.uk W: www.stuartmichael.co.uk	Basingstoke Golf Club	British Geological Survey Geology Map	Figure 2
	JOB TITLE	DRAWING TITLE	FIGURE NO.
SCALE:			nts
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Legend

● Site Location

Watercourse

Main River

Flood Zone 3

Extent of flooding from rivers and seas without defences (1 in 100-year Event)

Flood Zone 2

Extent of extreme flood (1 in 1000-year Event)

FIGURE NO.

DRAWING TITLE

JOB TITLE

Environment Agency Flood Map

Figure 3

SCALE:

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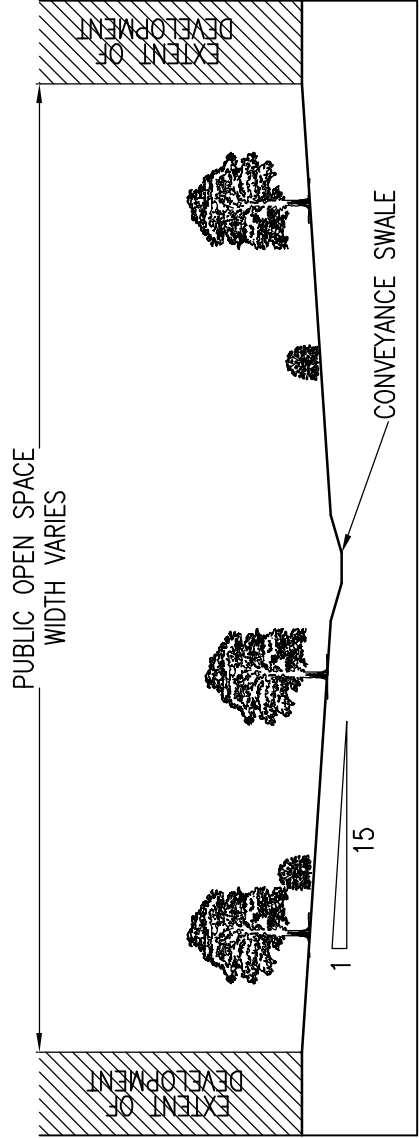
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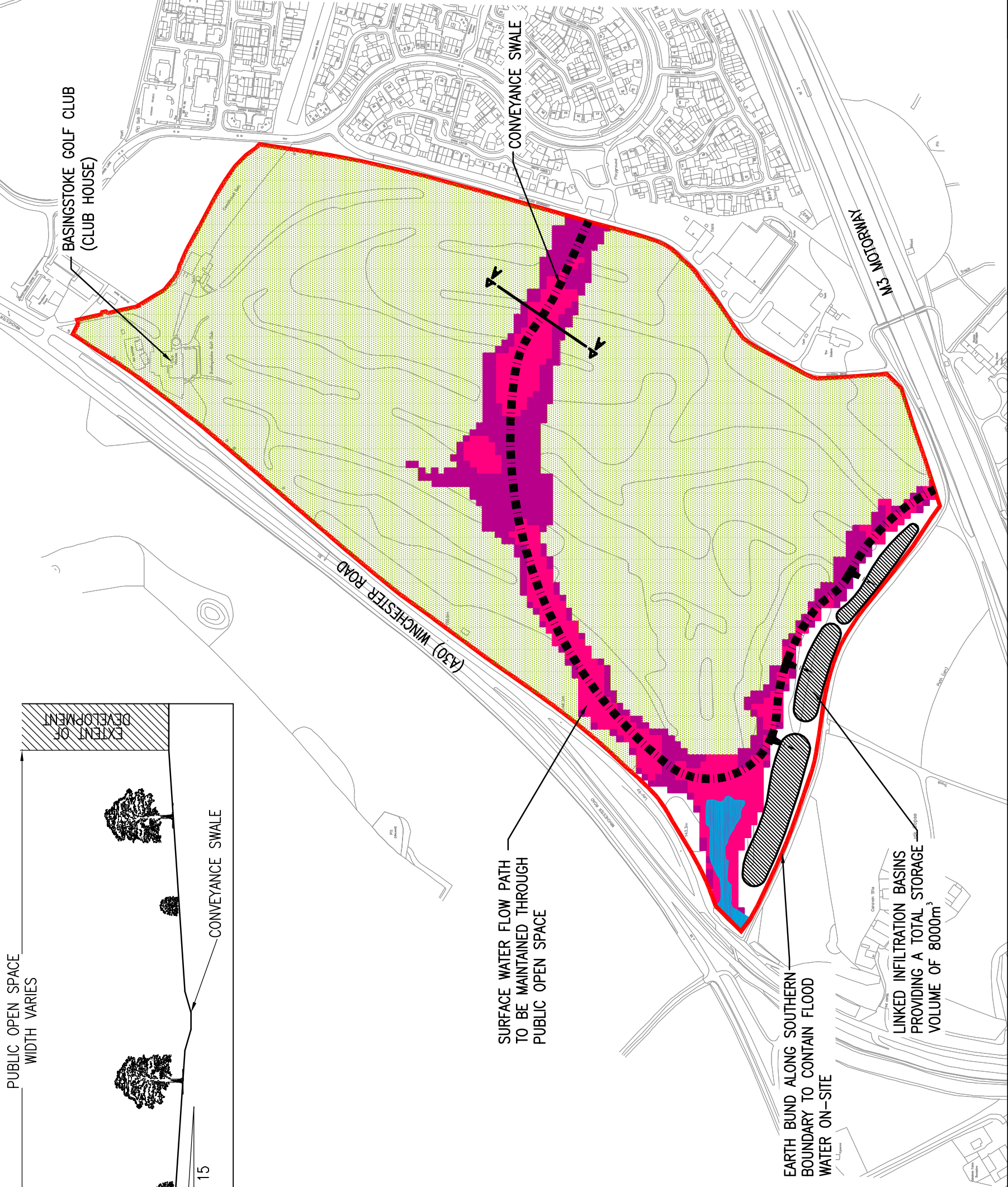
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Basingstoke Golf Club

Stuart Michael Associates Ltd



SECTION A-A
(1:500 SCALE)



NOTES:

1. THIS DRAWING IS BASED UPON ORDNANCE SURVEY MAPPING WITH THE PERMISSION OF THE CONTROLLER OF HMSO UNDER LICENCE AL 545015.
2. ALL DETAILS SHOWN WILL BE SUBJECT TO REVIEW FOLLOWING TOPOGRAPHICAL SURVEY AND INTRUSIVE SITE INVESTIGATION WITH BRE365 SOAKAGE TESTING.

KEY:

- SITE BOUNDARY
- DEVELOPABLE AREA (c.35Ha)
- SURFACE WATER FLOOD ROUTE (BDBC SFRA)
- J-FLOW 100-YR FLOOD EXTENT (ENVIRONMENT AGENCY FLOOD MAP)
- INFILTRATION BASIN
- INFILTRATION/CONVEYANCE SWALE



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BASINGSTOKE GOLF CLUB
SURFACE WATER DRAINAGE AND FLOODING
CONSTRAINTS PLAN

JOB TITLE		Description		Drn	Chk	Date
		REVISIONS				
Preliminary		Approval		Tender		Const.
		DRAWING STATUS				
		DRAWN				
		CHECKED				
		ISSUE CHECKBOX				
DATE		AUG 2012		TSW		
DRAWING No.		FIGURE 4		REV		SCALE
						1:5000
						@ A3

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Appendix 9: Noise Assessment provided by Basingstoke Golf Club (Stuart Michael Associates, August 2012)

**Basingstoke Golf Club,
Basingstoke**

**Prepared for
Basingstoke Golf Club**

by

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September 2012



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2.0	LEGISLATION AND POLICY	3
3.0	EXISTING NOISE PROFILE	5
4.0	NOISE ASSESSMENT	8
5.0	SUMMARY AND CONCLUSIONS	11

FIGURES

- Figure 1.1** **Site Location Plan**
Figure 1.2 **Sound Level Meter Location Plan**

APPENDICES

- Appendix 1** **Measurement Results**

ACRONYMS AND ABBREVIATIONS

SMA	Stuart Michael Associates Limited
WHO	World Health Organisation
BRE	Building Research Establishment
CIRIA	Construction Industry Research and Information Association
BS 8233	British Standard 8233 'Sound insulation and noise reduction for buildings – Code of practice' 1999
dB	Decibel – unit of measurement of sound
'A' weighted	The weighting that is applied to measured sound pressure levels so that the levels correspond more closely to the subjective response of the human ear - expressed as dB(A)
BDBC	Basingstoke and Deane Borough Council
NPPF	National Planning Policy Framework
$L_{Aeq,T}$	A weighted equivalent continuous noise level over a time period, T
$L_{A10,T}$	Noise level exceeded for 10% of the time period (T) expressed in decibels with an A weighting
L_{Amax}	A weighted maximum noise level
SLM	Sound Level Meter

1.0 INTRODUCTION

1.1 This Noise Assessment has been prepared by Stuart Michael Associates, consulting engineers, on behalf of Basingstoke Golf Club. This Noise Assessment has been produced to inform the client of the noise profile across the club and golf course (hereafter referred to as the 'Site'). Refer to **Figure 1.1** for the location of the site.

1.2 From on-site observations the dominant noise source in the area is from road traffic travelling along the M3 Motorway and the A30 Winchester Road. The motorway is located to the south east of the site and the A30 Winchester Road is to the north west of the site.

Scope of Assessment

1.3 The existing noise profile of the site has been measured at two locations using a logging sound level meter over consecutive 24 hour periods. The first location was close to the M3 Motorway and the second location was close to the A30 Winchester Road.

1.4 At the first location, measurements were undertaken for a 24 hour period starting on the 8th August 2012. At the second location, measurements were undertaken for a 24 hour period starting on the 9th August 2012. Noise levels were recorded for the daytime period (0700 to 2300) and the night time period (2300 to 0700). The daytime and night time periods are as defined in the World Health Organisation (WHO) guidelines and the British Standards. Refer to **Figure 1.2** for the locations of the sound level meter.

Site Description

1.5 Basingstoke Golf Club is located to the south east of Basingstoke. The site is bounded to the north west by the A30 Winchester Road, Beggarwood residential area to the east, the M3 Motorway to the south and a wooded area to the west. Junction 7 of the M3 Motorway is to the south west of the wooded area.

1.6 The majority of the site is made up of the golf course with the clubhouse, car parking and greens keeper building in the northern part of the site. The golf course is landscaped with mature trees and areas of 'rough' throughout the site. Generally, the site slopes in a southerly direction with the clubhouse at the highest point and the 15th and 6th hole, 8th and 16th tee at the lowest point which runs along the south west boundary.

The Nature, Measurement and Effect of Noise

- 1.7 Noise is often defined as sound that is undesired by the recipient. Whilst it is impossible to measure nuisance caused by noise directly, it is possible to measure the loudness of that noise. 'Loudness' is related to both sound pressure and frequency, both of which can be measured. The human ear is sensitive to a wide range of sound levels. The sound pressure level of the threshold of pain is over a million times that of the quietest audible sound. In order to reduce the relative magnitudes of the numbers involved, a logarithmic scale of decibels (dB) is normally used, based on a reference level of the lowest audible sound.
- 1.8 The response of the human ear is not constant over all frequencies. It is therefore usual to weight the measured frequencies to approximate the human response. The resulting 'A' weighted decibel, dB(A), has been shown to correlate closely to the subjective human response.
- 1.9 When related to changes in noise, a change of ten decibels from say 60 dB(A) to 70 dB(A) would represent a doubling in 'loudness'. Similarly, a decrease in noise from 70 dB(A) to 60 dB(A) would represent a halving in 'loudness'. A change of 3 dB(A) is generally considered to be just perceptible. **Table 1.1** details typical noise levels.

Approximate Noise Level dB(A)	Example
0	Limit of hearing
30	Rural area at night
40	Library
50	Quiet office
60	Normal conversation at 1 m
70	In a car
80	Household vacuum cleaner at 1 m
100	Pneumatic drill at 1 m
120	Threshold of pain

Table 1.1 – Typical Noise Levels

2.0 LEGISLATION AND POLICY

- 2.1 It is important to consider all the relevant legislation, policy and associated guidance in relation to noise effects on a proposed development.

WHO Guidelines and BS 8233

- 2.2 Guidance on absolute limits for noise inside buildings is provided in BS 8233:1999 'Sound insulation and noise reduction for buildings – Code of practice'. Similar guidance can also be found in the current World Health Organisation (WHO) "Guidelines on Community Noise" and "Night Noise Guidelines for Europe" and the BRE/CIRIA document "Sound control for homes". A summary of the noise criteria can be seen in **Table 2.2**.

Criterion	Typical situations	Good Level $L_{Aeq,T}$	Reasonable Level $L_{Aeq,T}$	Reasonable Peak L_{Amax}
BS 8233 Reasonable resting/sleeping conditions	Living rooms	30	40	-
	Bedrooms	30	35	45
WHO Onset of sleep disturbance	Bedrooms	30	-	45

Table 2.2 – Summary of Internal Noise Criteria: BS 8233 & WHO

- 2.3 Guidelines for external noise levels in public and private open space, such as gardens and parks, is available in the WHO guidelines. During the daytime ($L_{eq,16hr}$), a guideline level of 50 dB(A) is recommended before moderate annoyance is experienced and 55 dB(A) is recommended before serious annoyance is experienced and a level.
- 2.4 During the night time ($L_{eq,8hr}$), an interim target (IT) level of 55 dB(A) is recommended (from WHO Night Noise Guidelines for Europe – 2009). The 55 dB(A) is the lowest observed adverse effect level (LOAEL).
- 2.5 However, it should be noted that the WHO Guidelines for Community Noise – 1999 recommend an external noise level of 45 dB(A) ($L_{eq,8hr}$) in relation to the reduction in noise level through an open window to achieve an internal noise level in bedrooms of 30 dB.

Local Council Policy

- 2.6 Basingstoke and Deane Borough Council (BDBC) has produced a supplementary planning document “Noise assessments and reports for planning applications – Guidance note for developers and consultants”. Within the guidance note are references to internal and external noise criteria with reference to PPG24 (now replaced with the National Planning Policy Framework – NPPF), BS 8233, WHO guidelines and the BRE and CIRIA publication Sound Control for Homes.

3.0 EXISTING NOISE PROFILE

Methodology

- 3.1 To establish the noise profile of the site, the environmental noise measurement method detailed in British Standard 7445:1991 was used to record the 'A' weighted ambient ($L_{eq,T}$), maximum ($L_{max,T}$), background ($L_{90,T}$), 10th percentile ($L_{10,T}$) and for information the 50th percentile ($L_{50,T}$) noise levels. For this noise assessment the reference time period, T, were sixteen hours during the daytime and eight hours during the night time.
- 3.2 Noise levels were recorded for 24 hours on the 8th August 2012 at Location 1 and for 24 hours on the 9th August 2012 at Location 2.
- 3.3 The dominant noise source is from road traffic. The sound level meter (SLM) microphone was therefore mounted at grazing incidence 1.5 metres above ground level on a tripod. The SLM and battery were housed in an outdoor weatherproof box and connected to the microphone by a 10 metre long cable. The tripod and box were chained to immovable objects for the duration of the survey.
- 3.4 The SLM was set up as a logging meter and each log was two seconds. The SLM was calibrated before and after the measurement periods using an acoustic calibrator. The acoustic calibrator was set to 94 dB at a frequency of 1000 Hertz.
- 3.5 The local weather conditions were recorded at the start of the measurements and at regular interval throughout the measurement period. A description of the weather conditions are presented later on in this chapter.

Equipment Used

- 3.6 The equipment used during the field measurements on site are listed in **Table 3.1**. The SLM and acoustic calibrator have been calibrated at an UKAS accredited centre (certificates available on request).

Equipment	Type	Serial Number
Sound Level Meter	Brüel and Kjær Type 2238 Mediator	2381623
Microphone	Brüel and Kjær 4188	2372211
Outdoor microphone kit	Brüel and Kjær Type AU 1404	
Extension cable	Brüel and Kjær (10 metre)	
Calibrator	Brüel and Kjær Type 4321	2388830
Anemometer/thermometer	Kestrel 2000	449331
Tripod	Mirander – 1.5 metre	
Tape measure	10 metre	

Table 3.1 – Equipment used during the field measurements

Results from the Noise Monitoring

Noise Levels

3.7 On Wednesday 8th August, measurements commenced at 1628 and were completed at 1628 the following day. On the 9th August, measurements commenced at 1642 and were completed at 1636 the following day. Measurement results are presented in **Appendix A**.

3.8 A summary of the results from the measurements are presented in **Table 3.2**.

Date & Time	Ambient Noise Level ($L_{Aeq,T}$)	Maximum Noise Level ($L_{Amax,T}$)	10 th Percentile Noise Level ($L_{A10,T}$)	50 th Percentile Noise Level ($L_{A50,T}$)	Background Noise Level ($L_{A90, 1hr}$)
Wednesday 8th August 2012 – Location 1 (Close to M3)					
Day (16hr)	61.3	91.1	62.3	60.1	57.2
Night (8hr)	56.4	77.8	60.6	54.1	45.4
Thursday 9th August 2012 – Location 2 (Close to A30)					
Day (16hr)	57.4	84.4	59.7	55.5	50.2
Night (8hr)	52.8	79.0	56.4	47.8	41.3

Table 3.2 – Summary of recorded noise levels – August 2012

3.9 At Location 1 the daytime (0700 – 2300) ambient noise level measurement was 61.3 dB(A) $L_{eq,16h}$ and the night time (2300 – 0700) ambient noise level measurement was 56.4 dB(A) $L_{eq,8h}$.

3.10 At Location 2 the daytime (0700 – 2300) ambient noise level measurement was 57.4 dB(A) $L_{eq,16h}$ and the night time (2300 – 0700) ambient noise level measurement was 52.8 dB(A) $L_{eq,8h}$.

Weather Conditions

3.11 In accordance with BS7445 and the BDBC guidance note, the weather conditions during the two 24 hour measurement periods were recorded and are reproduced in **Table 3.3** below.

Date	Wind		Temperature (°C)				General Observations
	Speed	Direction	Day		Night		
	ms ⁻¹		High	Low	High	Low	
08/08/2012 afternoon	2.9	WNW to NNE	23	22	N/A	N/A	Wind at the start of the survey was to the west north west swinging round to north north east. Dry with light cloud. There was no fog.
08/08/2012 evening	1.7	West to East	23	13	N/A	N/A	Wind was to the west, swinging to the south and to the east at midnight. Dry with light cloud. There was no fog.
09/08/2012 night	1.5	WSW to East	N/A	N/A	10	14	The wind dropped after midnight, picked up during the morning swinging to the west south west then to the south and then to the east. Cloudy, with light rain after midnight. There was no fog.
09/08/2012 morning	1.5	NW to ENE	23	14	N/A	N/A	Wind was to the north west swinging to east north east at mid-day. Cloudy with no rain or fog.
09/08/2012 afternoon	2.1	NW to North	25	24	N/A	N/A	Wind was to the north west at mid-day and ended to the North at the end of the afternoon. Sunny with scattered cloud, with no rain or fog.
09/08/2012 evening	1.6	NNE to NW	22	14	N/A	N/A	Wind was to the north north east swinging to the north west at midnight. Sunny with scattered cloud, no rain or fog.
10/08/2012 night	0.6	SW to WSW	N/A	N/A	13	10	Wind swung to the south west after midnight, swinging to the north then back to the west south west. There was no rain but there was a light mist and dew on the grass.
10/08/2012 morning	1.1	NNE	23	11	N/A	N/A	Wind was to the north north east early in the morning, swinging to the north north west then back to the north north east at mid-day. Sunny with light cloud. There was no fog.
10/08/2012 afternoon	2.0	NW to North	25	23	N/A	N/A	Wind swung to the north west after mid-day, swinging back to the east north east and back to the North at the end of the survey. Sunny with light cloud and no rain. There was no fog.
KEY: Afternoon = 1200 to 1800, evening = 1800 to 2400, night = 0001 to 0600, morning = 0600 to 1200							

KEY: Afternoon = 1200 to 1800, evening = 1800 to 2400, night = 0001 to 0600, morning = 0600 to 1200

Table 3.3 – Summary of weather conditions – Dec 2011 and Feb 2012

4.0 NOISE ASSESSMENT

- 4.1 From Table 3.2 it can be seen that the ambient noise levels recorded adjacent to the M3 Motorway were 61.3 dB(A) during the daytime and 56.4 dB(A) during the night time. The Sound Level Meter (SLM) was approximately 135 metres from the northern carriageway edge.
- 4.2 It can also be seen from Table 3.2 that ambient noise levels recorded adjacent to the A30 Winchester Road were 57.4 dB(A) during the daytime and 52.8 dB(A) during the night time. The Sound Level Meter (SLM) was approximately 116 metres from the southern carriageway edge.
- 4.3 It should be noted that the above noise levels are free field and any potential dwellings will have a façade noise level which will be approximately 3 dB higher. Taking the 3 dB façade effect into account, façade noise levels at the position of SLM Location 1 would be approximately 64.3 dB during the daytime and 59.4 dB during the night time. Façade noise levels at the position of SLM Location 2 would be approximately 60.4 dB during the daytime and 55.8 dB during the night time.
- 4.4 Noise can enter a building, whether commercial or residential, through windows, ventilators, walls, roof and doors. In most cases, however, windows provide the main path for noise and it is important they be insulated properly. Section 8.4.7 of BS 8233 "Windows" Table 10, details the noise reduction of a thermal insulating window (6 – 12 – 6) is of the order of 33 dB(A) for a closed window and 10 dB(A) to 15 dB(A) for a partially open window.
- 4.5 At SLM Location 1, façade noise levels are predicted to be approximately 64.3 dB(A) during the daytime and 59.4 dB(A) during the night time. Applying a noise reduction of 33 dB (closed window) would result in an internal noise level of 31.3 dB during the daytime and 26.4 dB during the night time.
- 4.6 As detailed in Table 2.2 of this report, BS 8233 suggests that internal noise levels of 40 dB(A) and 35 dB(A) are reasonable design targets for living rooms and bedrooms. BDBC guidance note on noise also recommends an internal noise level of less than 35 dB during the night time in habitable rooms.

- 4.7 However, with an open window, the noise reduction of the façade is reduced to 15 dB and applying the reduction to the façade noise levels of 64.3 dB and 59.4 dB would result in an internal noise levels above the BS 8233 and BDBC recommended levels. Therefore another form of ventilation negating the need to open the windows and that complies with Building Regulations would be required.
- 4.8 Acoustically attenuated background/trickle vents are available with sound reduction properties equal to and greater than levels provided by windows and doors. For example, window mounted and wall mounted trickle vents are available with a sound reduction of approximately 42 dB and 38 dB respectively. Window trickle vents can be mounted in the window frame or above or below the window and provide adequate cross ventilation within the room or hallway.
- 4.9 Apartments with single façades will require a source of air extraction to provide adequate cross flow of air within the apartment.
- 4.10 Section 5.5.4 of BS 8233 (1999) "Obstructing the sound" gives examples of how sound can be enclosed or obstructed by a solid barrier such as a fence between the noise source and receiver. It should be noted that attenuation levels of around 10 dB are common; however, the benefits from ground absorption may be reduced.
- 4.11 Gardens with an unobstructed view of the M3 Motorway and/or the A30 Winchester Road will be affected by road traffic noise. The construction of a barrier, such as a wooden fence or brick wall, on the gardens boundary will help shield the gardens from road traffic noise and a reduction of approximately 10 dB to those private amenity areas is possible.
- 4.12 The Buildings Research Establishment (BRE) and Construction Industry Research and Information Association (CIRIA) publication 'Sound Control for Homes' 1993 presents practical advice on the control within dwellings of noise from outside sources and noise transmitted within and between dwellings. Part B: Scheme Design – Planning to control external noise, amongst other things, gives advice on the potential noise reduction from low-rise dwellings acting as a barrier block between the noise source and noise sensitive areas.

- 4.13 The first paragraph on page 24 of BRE and CIRIA publication Sound Control for Homes states that 'On an estate of low rise dwellings, those closest to a noise source can give some protection to the remainder of the site'. The order of reduction in noise levels behind these buildings can be in the order of 10 dB for the whole site, where the gaps between the dwellings not exceeding 30% of the site frontage.
- 4.14 Table 13 of the BRE and CIRIA publication Sound Control for Homes gives guidance on the 'design background noise levels arising from external sources' and suggests that an internal noise level of <50 dB for less sensitive areas such as the kitchen, bathroom utility room, WC and internal and communal circulation areas are acceptable.
- 4.15 The World Health Organisation (WHO): Guidelines for Community Noise report covers, amongst other things, recommended internal and external noise levels for residential dwellings. From "Table 6.1: Guideline values for community noise in specific environments", it can be seen that for outdoor living areas a guideline for serious and moderate annoyance for both daytime and evenings are 55 dB(A) and 50 dB(A) respectively.
- 4.16 In summary, the layout of the proposed development, the juxtaposition and the design of the proposed dwellings would provide the best means of mitigation against noise. Building a "barrier block" (that is the use of buildings as an effective acoustic barrier) between the M3 Motorway would reduce the amount of noise entering the development by circa 10 dB. A similar approach to noise attenuation would provide a reduction in noise levels on the western side of the development adjacent to the A30 Winchester Road.

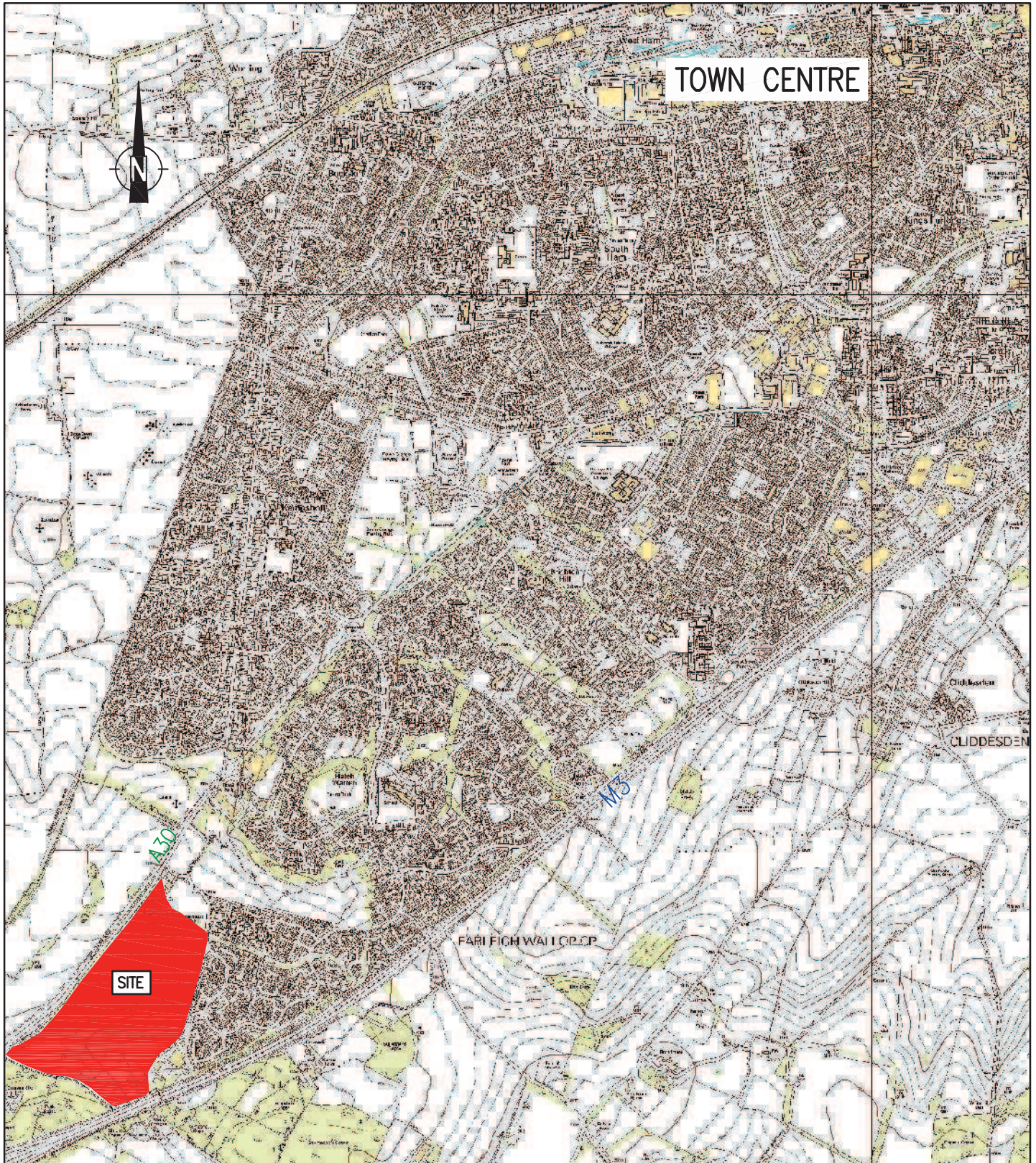
5.0 SUMMARY AND CONCLUSIONS

- 5.1 Stuart Michael Associates Limited (SMA) has been engaged by Basingstoke Golf Club to undertake a preliminary noise measurement survey and assessment at Basingstoke Golf Club.
- 5.2 The noise assessment has considered the constraints on the site from the dominant noise source in the area which is the M3 Motorway and A30 Winchester Road.
- 5.3 To determine the existing noise profile of the site, noise measurements have been undertaken within the site at two locations on different days. The first location was adjacent to the M3 Motorway (135 metres from carriageway edge) and the second location was adjacent to the A30 Winchester Road (116 metres from carriageway edge).
- 5.4 At the first location, noise levels were recorded for 24 hours from 1628 on the 8th August 2012. Daytime (0700 – 2300) ambient noise level measurement was 61.3 dB(A) $L_{eq,16h}$ and the night time (2300 – 0700) ambient noise level measurement was 56.4 dB(A) $L_{eq,8h}$.
- 5.5 At the second location, noise levels were recorded for 24 hours from 1642 on the 9th August 2012. Daytime (0700 – 2300) ambient noise level measurement was 57.4 dB(A) $L_{eq,16h}$ and the night time (2300 – 0700) ambient noise level measurement was 52.8 dB(A) $L_{eq,8h}$.
- 5.6 Adjacent to the M3 Motorway and A30 Winchester Road, free field noise levels in the proposed private gardens or public open space with an unobstructed view of the two roads would be above the WHO guideline level of 55 dB(A). It is therefore recommend that no private gardens or public open space be adjacent to or have unobstructed view of the M3 Motorway or the A30 Winchester Road.
- 5.7 Façade noise levels would be 3 dB higher than the recorded noise levels due to the façade effect. Therefore in the southern area of the site with an unobstructed view of the M3 Motorway façade noise levels will be approximately 64.3 dB during the daytime and 59.4 dB during the night time.
- 5.8 In the northern area of the site with an unobstructed view of the A30 Winchester Road façade noise levels will be approximately 60.4 dB during the daytime and 55.8 dB during the night time.

- 5.9 The layout of the proposed development and the design of the proposed dwellings would provide the best means of mitigation against noise. Building a “barrier block” between the M3 Motorway would reduce the amount of noise entering the development by circa 10 dB. A similar reduction in noise levels would be achievable on the western side of the development adjacent to the A30 Winchester Road.
- 5.10 Typical measures can be included, for example: mounding within a landscape buffer (creating a noise bund); acoustic fencing in proximity to the noise source (frequently used adjacent to heavily trafficked motorways, trunk roads and primary routes) and the juxtaposition of buildings to create a barrier block.
- 5.11 A combination of all the above attenuation measures could be considered along the site frontage to the A30. It would be prudent to restrict development within 100 metres of the A30 unless bunding or fencing (2m to 2.5m in height) is considered.
- 5.12 In respect of the exposed areas to the M3, it is considered that a residential development in the order of that previously allocated in the draft Core Strategy (February 2012) can satisfactorily be accommodated on the site. It is recommended that the principal form of attenuation shall be a suitable distance, to be informed at a later stage by a detailed topographical data, in combination with a “barrier block”.

Conclusion

- 5.13 It is concluded that the noise levels generated by traffic upon the M3 and A30 highways do not present insurmountable constraints to residential development. Appropriate attenuation can be provided in order to satisfy the internal and external standards recommended by Basingstoke and Deane Borough Council, British Standards and the World Health Organisation.



NOTE:

1. THIS DRAWING IS BASED UPON ORDNANCE SURVEY MAPPING WITH THE PERMISSION OF THE CONTROLLER OF HMSO UNDER LICENCE AL 545015.

Rev	Description	Drn	Chk	Date
REVISIONS				

JOB TITLE

BASINGSTOKE GOLF CLUB

DRAWING TITLE

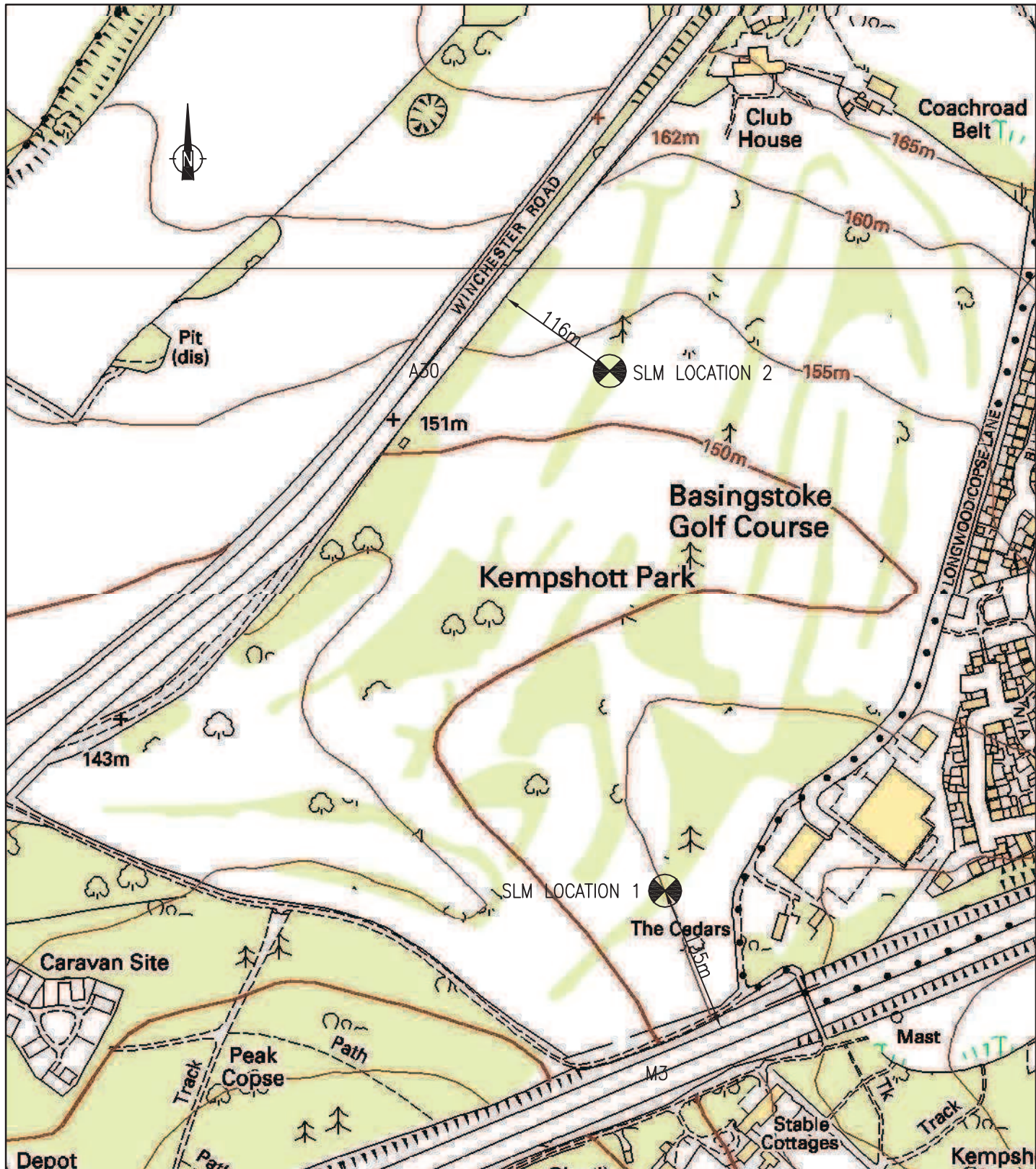
SITE LOCATION

DATE	AUGUST 2012	DRAWN	CT	CHECKED	SMA	ISSUE	CHECKBOX
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DRAWING No.	FIGURE1.1	REV.	.	SCALE	1:25000	©	A4
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Rev	Description	Drn	Chk	Date
REVISIONS				

JOB TITLE

BASINGSTOKE GOLF CLUB

DRAWING TITLE

SOUND LEVEL METER LOCATION PLAN

DATE

AUGUST 2012

DRAWN

CT

CHECKED

SMA

ISSUE CHECKBOX

DRAWING No.

FIGURE1.2

REV.

SCALE

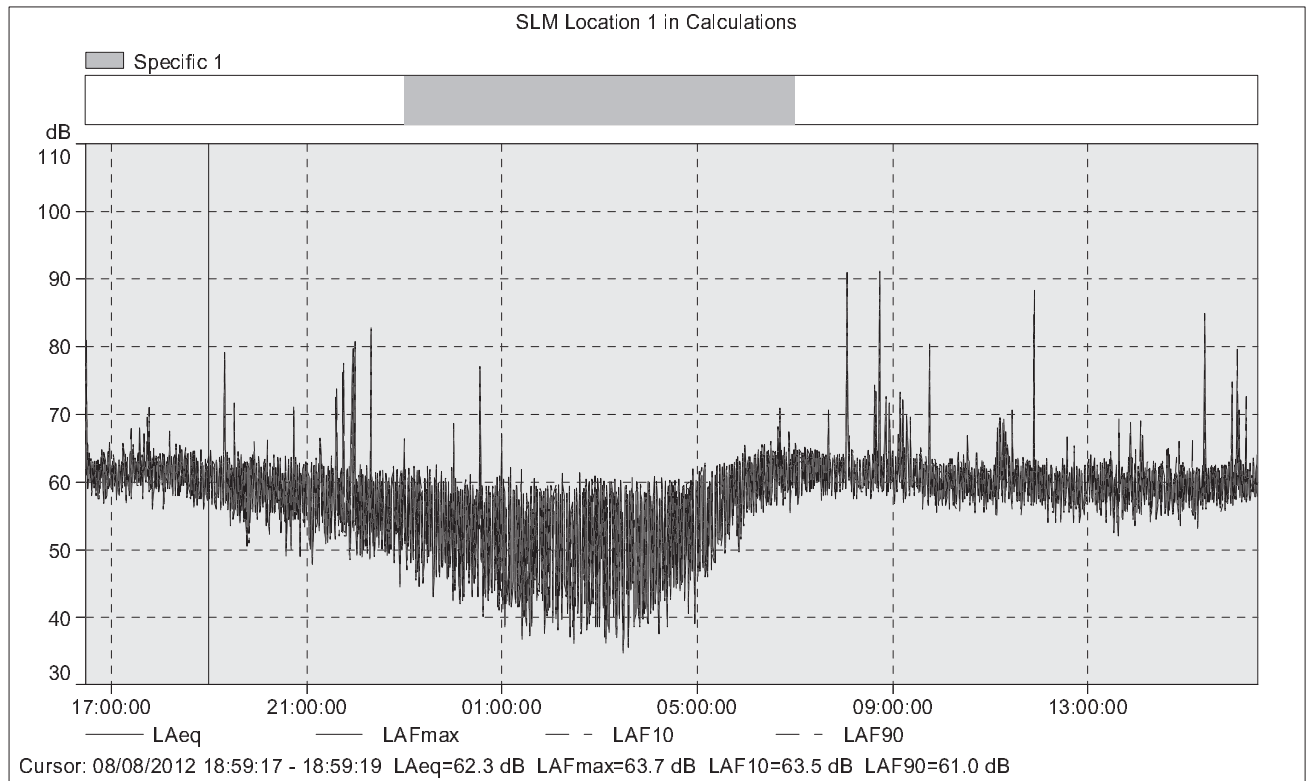
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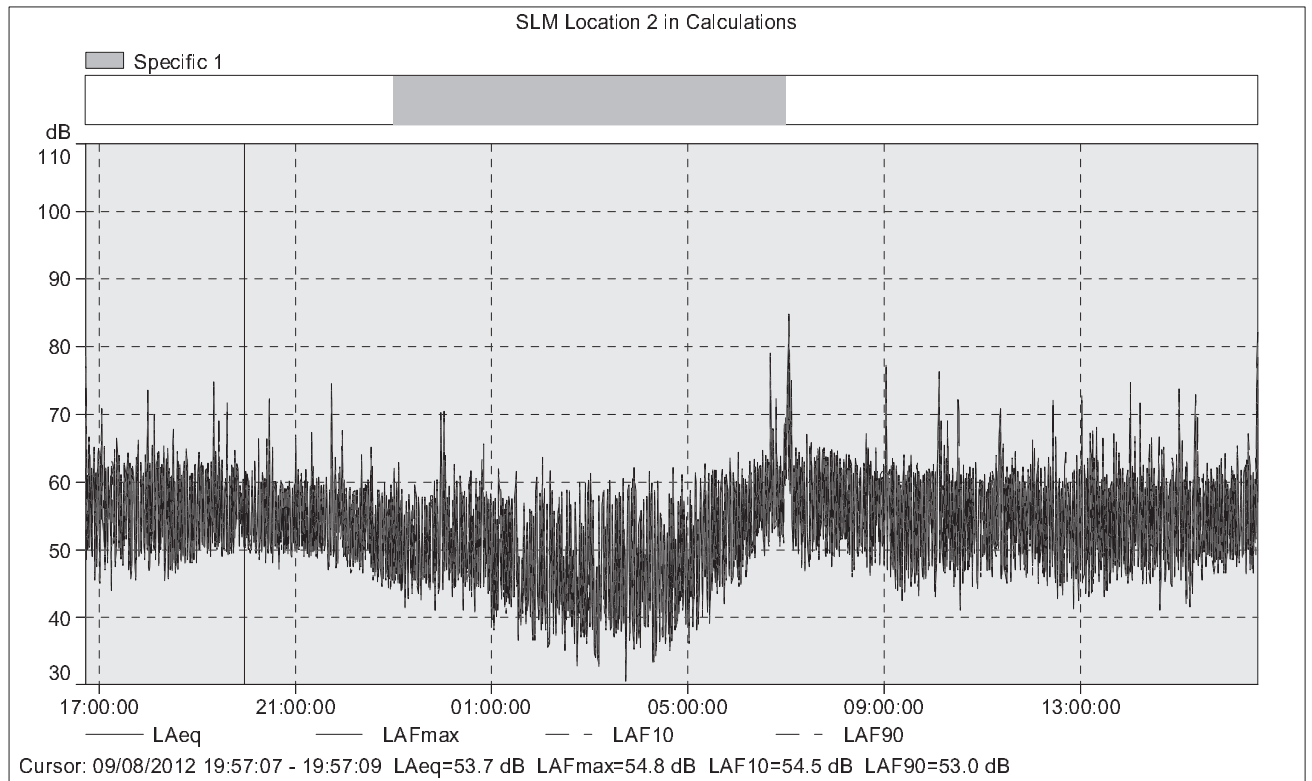
APPENDICES



SLM Location 1 in Calculations

Name	Start time	End time	Duration	LAFmax [dB]	LAFmin [dB]	LAeq [dB]	LA10 [dB]
Total	08/08/2012 16:28:13	09/08/2012 16:28:13	24:00:00	91.1	34.4	60.2	62.0
Unmarked	08/08/2012 16:28:13	09/08/2012 16:28:13	16:00:00	91.1	44.2	61.3	62.3
(All) Specific 1	08/08/2012 23:00:01	09/08/2012 07:00:01	8:00:00	77.8	34.4	56.4	60.6
Specific 1	08/08/2012 23:00:01	09/08/2012 07:00:01	8:00:00	77.8	34.4	56.4	60.6

Name	LA50 [dB]	LA90 [dB]
Total	59.2	51.0
Unmarked	60.1	57.2
(All) Specific 1	54.1	45.4
Specific 1	54.1	45.4



SLM Location 2 in Calculations

Name	Start time	End time	Duration	LAFmax [dB]	LAFmin [dB]	LAeq [dB]	LA10 [dB]
Total	09/08/2012 16:42:57	10/08/2012 16:36:29	23:53:32	84.8	---	56.3	59.2
Unmarked	09/08/2012 16:42:57	10/08/2012 16:36:29	15:53:32	84.8	40.4	57.4	59.7
(All) Specific 1	09/08/2012 23:00:01	10/08/2012 07:00:01	8:00:00	79.0	---	52.8	56.4
Specific 1	09/08/2012 23:00:01	10/08/2012 07:00:01	8:00:00	79.0	---	52.8	56.4

Name	LA50 [dB]	LA90 [dB]
Total	53.9	44.9
Unmarked	55.5	50.2
(All) Specific 1	47.8	41.3
Specific 1	47.8	41.3