	Surrey Heath Borough Council **Pre-Submission Surrey Heath Local Plan (2019 – 2038) : (Regulation 19)** Representation Form	**Ref:** **(For official use only)**

Please return to: planning.consultation@surreyheath.gov.uk
OR
Planning Policy and Conservation, Surrey Heath Borough Council,
Surrey Heath House, Knoll Road, Camberley, Surrey GU15 3HD.

By **12.00 noon 20th September 2024** NO LATE REPRESENTATIONS WILL BE ACCEPTED

This form has two parts:
Part A – Personal Details
Part B – Your representation(s). (Please be aware that this together with your name will be made publicly available)
Please fill in a separate sheet for each representation you wish to make.

Surrey Heath Borough Council's Privacy Statement is **here**.

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Part A

1. Personal Details*		2. Agent's Details (if applicable)
**If an agent is appointed, please complete only the Title, Name and Organisation boxes below but complete the full contact details of the agent in 2.*		
Title	Mr	Mr
First Name	Philip	Mark
Last Name	Marsden	Aylward
Job Title (where relevant)		Director
Organisation (where relevant)		ATP
Address Line 1		Unit 16
Line 2		Tamewater Court
Line 3		Dobcross
Post Code		OL3 5GD
Telephone Number		[redacted]
E-mail Address		[redacted]

Do you wish to be notified of when any of the following occurs? (place an X in the box to indicate which applies)

	Yes	No
• The Pre-Submission Local Plan has been submitted to the Secretary of State for independent examination?	X	
• The independent examiner's recommendations are published?	X	
• The Local Plan has been adopted?	X	

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Name or Organisation :	ATP on behalf of Mr Marsden

3. To which part of the Pre-Submission Local Plan does this representation relate?

Paragraph	1.22	Policy		Other, e.g. policies map, table, appendix	

4. Do you consider the Pre-Submission Local Plan is? (place an X in the box to indicate which applies)

	Yes		No	
4.(1) Legally compliant (please refer to guidance notes)	Yes	X	No	
4.(2) Sound (please refer to guidance notes)	Yes		No	X
4.(3) Complies with the Duty to Co-operate (please refer to guidance notes)	Yes	X	No	

5. Please give details of why you consider the Pre-Submission Local Plan is not legally compliant or does not meet the tests of soundness or fails to comply with the duty to co-operate. Please be as precise as possible.
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Paragraph 1.22 makes reference to the accompanying Sustainability Appraisal and states that Reasonable alternative policy options (where they exist) have been tested against a set of social, environmental and economic objectives. Whilst it is not express in this regard, there is an inference that this process has been carried out effectively.

We would disagree with that conclusion. In the context of Chobham, the SA (paragraphs 5.4.44-5.4.53 that the proposed allocations would represent the only reasonable opportunities to accommodate localised needs (other than a scenario where some localised needs are exported to a hew garden village).

In the context of SLAA site 548, the SA identifies that part of it would be capable of being used for residential development owing to the fact that it is partly developed and close to the Conservation Area. Whilst we concur with the statement that the Local Plan recommends that Chobham should be inset from the Green Belt but that the HA-17 site lies beyond that, it cannot be correct for the SA to state within para 5.4.48 that the allocation would not result in Green Belt release.

In paragraph 5.4.51, it is set out that wider development of site 548 was considered in 2022 and then ultimately rejected by reference to Green Belt sensitivity and flood risk. We have set out (and continue to do so) that these conclusions are flawed and that this should be properly tested as a reasonable alternative. We also note that it is stated that representations were not submitted in 2022 (to presumably be inferred that the site is not likely to be deliverable), this is simply not correct. Representations were submitted in May 2022 and the promoter continues to confirm its intent to develop and has committed resource to demonstrate deliverability.

As such, we consider the scope of the "reasonable growth scenarios" for Chobham (at paragraph 5.4.52) to be inadequate and that the consideration of other feasible scenarios (at paragraph 5.4.53) is at best incomplete. Whilst we agree that Chobham should be inset from the Green Belt, it must fundamentally be the case that all of the established built form (including the draft allocation site HA-17) should be robustly considered with a presumption for inclusion. The wider SLAA548 site should be reconsidered (especially the more enclosed Parcel C) and specifically identified as at least a feasible scenario.

It is also the case (more widely) that by the time that the Plan reaches Examination that the NPPF position in terms of suitable housing supply would be fundamentally different. If it was intended that this SA would be capable of being used at Examination, then it must be revisited to at least test the implications of how those requirements would be met.

Without doing so, any inference that the SA has been completed robustly would be unsound. That would then mean that paragraph 1.22 has to be rewritten to accept that conclusion.

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

6. Please set out what modification(s) you consider necessary to make the Pre-Submission Local Plan legally compliant and sound, having regard to the matters you have identified at 5 above.
(Please note that non-compliance with the duty to co-operate is incapable of modification at examination)
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Paragraph 1.22 should be rewritten to note that make reference to the fact that there is a current consultation on a revised NPPF and to highlight (here or within the SA) what changes would need to be adopted to the Plan if it was to remain compliant with the new NPPF.

We would recommend that the SA is fundamentally rewritten, and have also noted specific paragraph references that focus on Chobham where there are statements which are plainly incorrect and should be amended accordingly.

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

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

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

Please note - whilst this will provide an initial indication of your wish to participate in the examination, you may be asked at a later point to confirm your request to participate.

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

To assist the Inspector to draw out the Council's evidence and their analysis of the pertinent issues, as would be relevant at the point of Examination.

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First Name	Philip	Mark
Last Name	Marsden	Aylward
Job Title (where relevant)		Director
Organisation (where relevant)		ATP
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Telephone Number		[redacted]
E-mail Address		[redacted]

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	Yes	No
• The Pre-Submission Local Plan has been submitted to the Secretary of State for independent examination?	X	
• The independent examiner's recommendations are published?	X	
• The Local Plan has been adopted?	X	

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Name or Organisation :	ATP on behalf of Mr Marsden

3. To which part of the Pre-Submission Local Plan does this representation relate?

Paragraph	1.9	Policy		Other, e.g. policies map, table, appendix	

4. Do you consider the Pre-Submission Local Plan is? (place an X in the box to indicate which applies)

	Yes	No
4.(1) Legally compliant (please refer to guidance notes)	X	
4.(2) Sound (please refer to guidance notes)		X
4.(3) Complies with the Duty to Co-operate (please refer to guidance notes)	X	

5. Please give details of why you consider the Pre-Submission Local Plan is not legally compliant or does not meet the tests of soundness or fails to comply with the duty to co-operate. Please be as precise as possible.
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We note the closing sentence of paragraph 1.9 and concur with it. It clarifies that the **local plan must be in conformity with policies in the NPPF** (our emphasis). The Council will of course be aware that prior to commencing this Regulation 19 consultation process, the Government introduced its own consultation on a revised NPPF which includes (amongst other things) a much more positive approach in terms of seeking to ensure a stronger housing supply to genuinely meet identified needs, as well as a different methodological basis to arrive at those needs.

By way of context, the current methodological approach is based on household projections and has consideration of early delivery and reliance on neighbouring authorities (DTC) to affect requirements. In this instance, the household projections approach suggests an annualised requirement of 321 dwellings which is used to project the mooted 6111 dwelling requirement for the 2019-2038 Plan period.

This would be effectively reduced 2034 dwellings by virtue of early delivery (1501 dwellings) and DTC trading (533 dwellings). In addition, weight is given to commitment schemes which would deliver 1990 homes that would presumably all be delivered in the early part of the Plan period. The net effect of all of the above is that the residual requirement is for only 2087 dwellings for the whole district.

It is entirely feasible that the substantial majority of the commitments would be delivered by 2028 and therefore that the envisaged rate of delivery in the latter part of the Plan period (to 2038) would be only 200-220 homes per annum.

In contrast, the consultation NPPF proposes a stock-based approach and removes the use of DTC trading and reliance on early delivery to suppress post-adoption requirements. The stock-based requirement for Surrey Heath is 658 homes per annum and the draft NPPF would suggest that those requirements are not affected by early delivery and the DTC approach is abandoned.

If we were to project the Plan period (for ease of comparison) to 2040, the Reg 19 approach would identify a gross requirement of circa 6753 dwellings of which 2034 could be ignored because of trading effects thus leaving an effective requirement of 4721 dwellings. This would compare with a stock-based requirement of 9870 dwellings. This differential of more than 5000 homes is compelling and significant.

Whilst the draft NPPF does encourage transitional provisions to allow authorities to progress with their Local Plans, subject to the progress they have made by the point a new NPPF is adopted and the consistency of the Plan supply compared to the new requirement. In the event that the housing requirement is markedly different then it would be necessary to essentially replace the Plan and the threshold is set at 200 dwellings per annum. The two base figures for Surrey Heath are 321 dwellings vs 658 dwellings so that should clearly be recognised as representing a step-change differential especially when regard is had for the other factors we have identified.

In addition, the draft NPPF adopts a different approach as to the assessment of sites in the Green Belt and whether these should be capable of release where exceptional circumstance is demonstrated. This would be of material relevance to parcels which provide limited contribution to the Green Belt purposes and where a revised methodological approach resulted in a significant shortfall in housing supply.

Our view is that it is inevitable that by point of Examination there will be significant discord between Plan-led supply and housing requirements and that there will be a very strong set of exceptional circumstances to release more land to meet those requirements. We are of the view that there are suitable and deliverable candidate sites to contribute to those requirements (including locations close to Chobham especially Parcel C within site SLAA548).

If the Council continues to promote a Local Plan which fails to meet even half of the identified requirement (as per the approach proposed by the consultation NPPF) that will render the Plan fundamentally unsound. We are aware that there is a theoretical window by which the Council could seek to accelerate submission of a Local Plan to try and subvert their responsibilities to genuinely meet the needs of local residents, but would urge the Council to take that approach which would simply entrench chronic issues around affordability and trigger the need for an early review.

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

6. Please set out what modification(s) you consider necessary to make the Pre-Submission Local Plan legally compliant and sound, having regard to the matters you have identified at 5 above.
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Paragraph 1.9 should make reference to the fact that there is a current consultation on a revised NPPF and to highlight (here or within the SA) what changes would need to be adopted to the Plan if it was to remain compliant with the new NPPF.

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Name or Organisation :	ATP on behalf of Mr Marsden

3. To which part of the Pre-Submission Local Plan does this representation relate?

Paragraph	2.11	Policy		Other, e.g. policies map, table, appendix	

4. Do you consider the Pre-Submission Local Plan is? (place an X in the box to indicate which applies)

	Yes		No	
4.(1) Legally compliant (please refer to guidance notes)	Yes	X	No	
4.(2) Sound (please refer to guidance notes)	Yes		No	X
4.(3) Complies with the Duty to Co-operate (please refer to guidance notes)	Yes	X	No	

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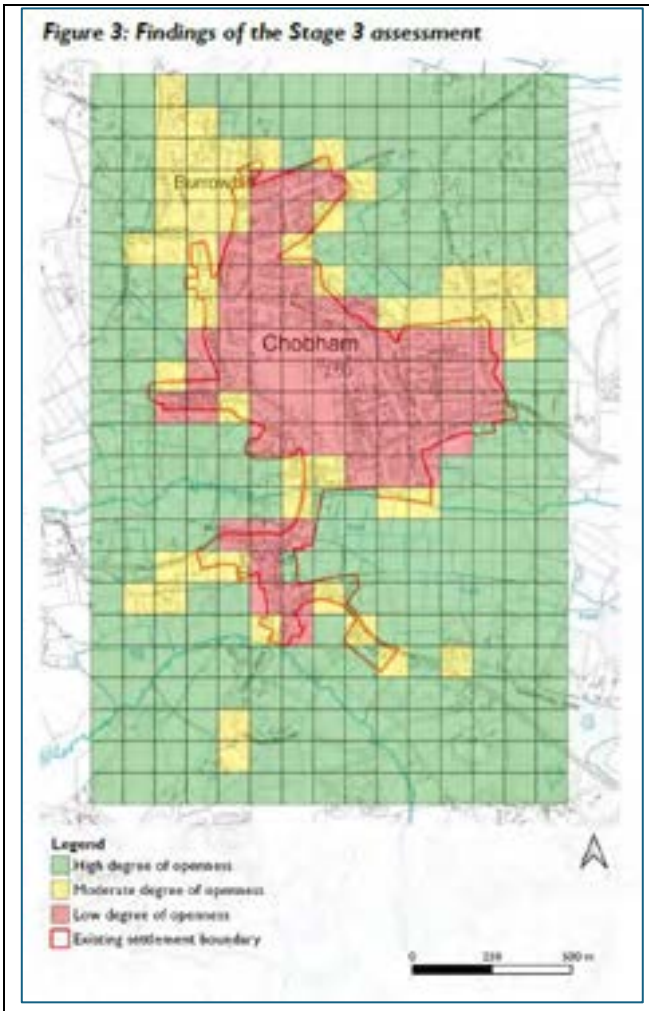
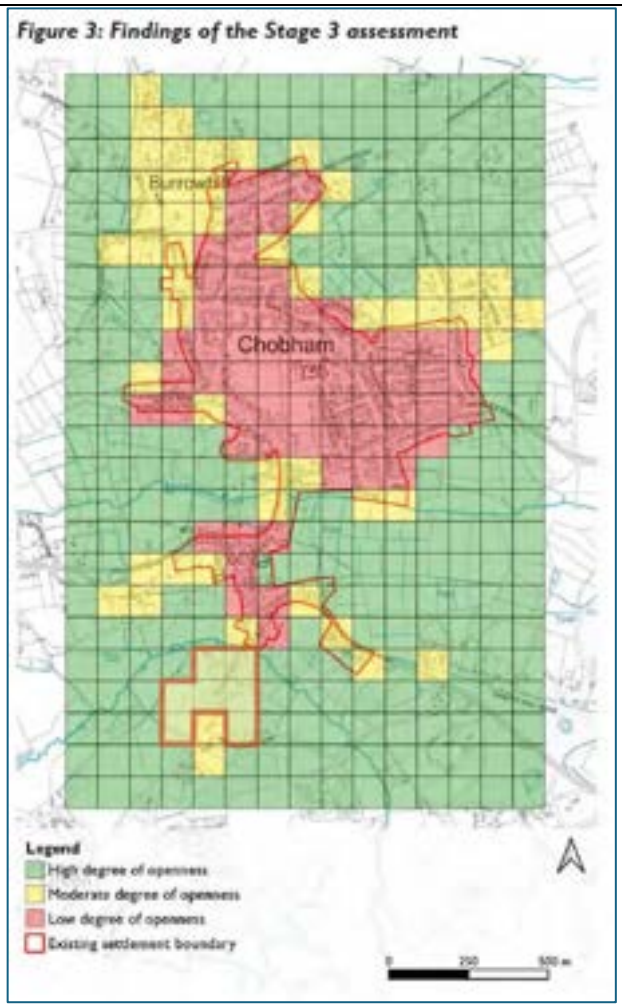
We note the comments and intent of paragraph 2.11 which sets out a clear viewpoint that the Council has found it challenging to accommodate the level of housing growth which was derived from the current standard methodology approach. The paragraph then goes on to state that *"a proactive approach to identifying opportunities for development in suitable locations has been undertaken. A robust SLAA has been prepared, based on calls for sites and targeted correspondence with landowners and provides detailed evidence on the supply of deliverable and developable sites."*

The Council's approach to the consideration of candidate sites has included background evidence in terms of matters such as Green Belt and countryside, infrastructure as well as representor responses in terms of deliverability. Based upon the consideration of the Chobham area, we do not agree that the Council has taken a proactive approach to identify opportunities for development in suitable locations and that this has served to reduce the scope for the Plan to deliver new homes to meet local needs and seek to arrest the pronounced and worsening affordability challenges.

Chobham is currently washed over by Green Belt and the Regulation 19 Plan encourages that part of the village should be inset from Green Belt. A key document in this respect is the January 2022 Chobham Village Green Belt Boundaries Study. This states at paragraph 6.3 that:
"…much of the settlement does not contribute significantly to the openness of the Green Belt, with vast areas of the settlement disconnected from the wider Green Belt environment."

We concur with this statement (in isolation), but fundamentally disagree with the Stage 3 assessment and the mapping which is provided at Figure 3. This is extracted overleaf (left) and to the right is a comparative image which we say is far more reflective of the contribution of specific quadrant parcels (to the south) to openness as a key Green Belt purpose.





The areas we have identified include considerable built form and are very well enclosed from any public views. As such they have very limited contribution to openness, and that it is not credible to define these areas as having a "high degree of openness. Some areas should be defined as "low degree" or "moderate degree" as absolute worst case.

We would accept that there are other parcels further to the south that provide greater contribution to openness and that urbanising development would result in more significant harm. The image below shows the clear change along Castle Grove Road, where boundary features south of Parcel C is weaker and the sense of openness is stronger.

We are strongly of the view that the SLAA has not taken a proactive approach to insetting or opportunities to identify land for housing. The long established built components of Parcel A should be included within the settlement boundary and the remainder of it and Parcel C should be found suitable for allocation for residential uses.

Whilst the exceptional circumstance test does have regard to shortfall of housing supply, it is very clear that the Government's consultation on a revised NPPF would adopt a new standard method employing a stock-based methodology and other revisions which would mean that the sources of supply identified through the Regulation 19

Plan would fall very far short of the Local Housing Need that would be identified by the new NPPF. At that point, the Council should be compelled to revisit their Plan in the prism of their opening statement at paragraph 2.5 which clarifies that **local plans [should] use the Government's standard method for calculating housing needs, as set out in national Planning Practice Guidance as the advisory starting point for calculating Local Housing Need, unless exceptional circumstances justify an alternative approach** (our emphasis). This very significant shortfall would exceed 5000 homes over the Plan period and be beyond the notional 200 homes/annum threshold identified in terms of transitional arrangements.

Our view is that the Council's approach to identifying opportunities for housing development has not been proactive, and that this has led to suitable candidate sites being discounted. This is important in any event given the pronounced issues in terms of affordability, but this is pivotal given that it is inevitable that by point of Examination there will be significant discord between Plan-led supply and housing requirements. That will result in a very strong set of exceptional circumstances to release more land to meet those requirements. We are of the view that there are suitable and deliverable candidate sites to contribute to those requirements (including locations close to Chobham).

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

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Paragraph 2.11 should be rewritten to acknowledge that it is solely the Council's view that it has taken a proactive approach to identify opportunities for new development. It should also acknowledge that when it refers to "the level of housing growth derived from the standard methodology" that this would need to be reconsidered in the light of the revised NPPF and to highlight what changes would need to be adopted to the Plan if it was to remain compliant with it.

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Name or Organisation :	ATP on behalf of Mr Marsden

3. To which part of the Pre-Submission Local Plan does this representation relate?

Paragraph	2.5	Policy		Other, e.g. policies map, table, appendix	

4. Do you consider the Pre-Submission Local Plan is? (place an X in the box to indicate which applies)

	Yes		No	
4.(1) Legally compliant (please refer to guidance notes)	Yes	X	No	
4.(2) Sound (please refer to guidance notes)	Yes		No	X
4.(3) Complies with the Duty to Co-operate (please refer to guidance notes)	Yes	X	No	

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We note the comments and intent of paragraph 2.5 and concur with it. It clarifies that **local plans [should] use the Government's standard method for calculating housing needs, as set out in national Planning Practice Guidance as the advisory starting point for calculating Local Housing Need, unless exceptional circumstances justify an alternative approach** (our emphasis). The Council will of course be aware that prior to commencing this Regulation 19 consultation process, the Government introduced its own consultation on a revised NPPF which includes (amongst other things) a much more positive approach in terms of seeking to ensure a stronger housing supply to genuinely meet identified needs, as well as a different methodological basis to arrive at those needs.

By way of context, the current methodological approach is based on household projections and has consideration of early delivery and reliance on neighbouring authorities (DTC) to affect requirements. The draft consultation NPPF adopts a stock-based approach and does not have regard for DTC trading or early delivery which can have substantive effects on practical supply requirements for an emerging Plan period. As we have outlined through other submissions (including those relating to paragraph 1.9), it is inevitable that by the point of Examination that the Local Housing Need consistent with the NPPF will be markedly different and that there will be a very significant shortfall that would exceed 5000 homes over the Plan period and be beyond the notional 200 homes/annum threshold identified in terms of transitional arrangements.

It is fundamentally necessary to at least have reference to the emerging changes to the NPPF and (if the Council were to seek to carry on with the limited housing supply provided through the Reg 19 Plan justify that alternative approach such that the very high threshold of exceptional circumstance is met.

Our view is that it is inevitable that by point of Examination there will be significant discord between Plan-led supply and housing requirements and that there will be a very strong set of exceptional circumstances to release more land to meet those requirements. We are of the view that there are suitable and deliverable candidate sites to contribute to those requirements (including locations close to Chobham, specifically Parcel C within SLAA548).

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

6. Please set out what modification(s) you consider necessary to make the Pre-Submission Local Plan legally compliant and sound, having regard to the matters you have identified at 5 above.
(Please note that non-compliance with the duty to co-operate is incapable of modification at examination)
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Paragraph 2.5 and the following text (to paragraph 2.12 and Table 3) should be rewritten to make reference to the fact that there is a current consultation on a revised NPPF and to highlight what changes would need to be adopted to the Plan if it was to remain compliant with the new NPPF.

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

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

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

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

To assist the Inspector to draw out the Council's evidence and their analysis of the pertinent issues, as would be relevant at the point of Examination.

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	Surrey Heath Borough Council **Pre-Submission Surrey Heath Local Plan (2019 – 2038) : (Regulation 19)** Representation Form	**Ref:** **(For official use only)**

Please return to: planning.consultation@surreyheath.gov.uk
OR
Planning Policy and Conservation, Surrey Heath Borough Council,
Surrey Heath House, Knoll Road, Camberley, Surrey GU15 3HD.

By **12.00 noon 20th September 2024** NO LATE REPRESENTATIONS WILL BE ACCEPTED

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Part A

1. Personal Details*		2. Agent's Details (if applicable)
**If an agent is appointed, please complete only the Title, Name and Organisation boxes below but complete the full contact details of the agent in 2.*		
Title	Mr	Mr
First Name	Philip	Mark
Last Name	Marsden	Aylward
Job Title (where relevant)		Director
Organisation (where relevant)		ATP
Address Line 1		Unit 16
Line 2		Tamewater Court
Line 3		Dobcross
Post Code		OL3 5GD
Telephone Number		[redacted]
E-mail Address		[redacted]

Do you wish to be notified of when any of the following occurs? (place an X in the box to indicate which applies)

	Yes	No
• The Pre-Submission Local Plan has been submitted to the Secretary of State for independent examination?	X	
• The independent examiner's recommendations are published?	X	
• The Local Plan has been adopted?	X	

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Part B – Please use a separate sheet for each representation

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Name or Organisation :	ATP on behalf of Mr Marsden

3. To which part of the Pre-Submission Local Plan does this representation relate?

Paragraph	3.136	Policy		Other, e.g. policies map, table, appendix	

4. Do you consider the Pre-Submission Local Plan is? (place an X in the box to indicate which applies)

	Yes		No	
4.(1) Legally compliant (please refer to guidance notes)	Yes	X	No	
4.(2) Sound (please refer to guidance notes)	Yes	X	No	
4.(3) Complies with the Duty to Co-operate (please refer to guidance notes)	Yes	X	No	

5. Please give details of why you consider the Pre-Submission Local Plan is not legally compliant or does not meet the tests of soundness or fails to comply with the duty to co-operate. Please be as precise as possible.
If you wish to support the legal compliance or soundness of the Pre-Submission Local Plan or its compliance with the duty to co-operate, please also use this box to set out your comments. You are advised to read our Representations Guidance note for more information on legal compliance and soundness.

We note and endorse the comments of paragraph 3.136 which sets out a clear viewpoint that the Council has found it challenging to accommodate the quantum of new traveller pitches needed, as derived by the established methodology. We make no comments as to how the pitch requirement is identified.

The paragraph states that *"Environmental constraints and land availability issues has made the identification of sites for allocation within the Local Plan very challenging; as such only one site has been brought forward as an allocation within the Plan. This site comprises a 5-pitch extension to an existing Gypsy and Traveller site at Swift Lane, and is allocated within Policy H12".*

The representor is aware that the Council did consider a wider suite of potential site allocations in a discrete exercise during September 2022. This included the proposed extension to the Swift Lane site as well as other sites including a potential new facility south of Broadford Lane near Chobham. This was subject to considerable public interest and representations were lodged which clarified how it was widely constrained and should be found unsuitable.

This consultation exercise is informed by an Appendix 5 which provides a summary of (and a response to) the representations made. This provides responses to individual representations split out by candidate sites which are too numerous to recite. In the context of the Broadford Lane site (as an example of the responses given), the Parish Council objections are responded to through:
"Comments noted. Following the close of the consultation on the Additional Site Allocations Paper, further feasibility work was undertaken in respect of constraints affecting Land South of Broadford Lane. These included the presence of protected species, access, odour and land ownership issues. As a result of this further feasibility work, the site is not being taken forward as an allocation in the Regulation 19 Local Plan."

The objection of the Chobham Society (in terms of Green Belt matters) was responded to through:

"…the Council recognises that exceptional circumstances for the removal of land from the Green Belt should be demonstrated at the local level also. The site was assessed in detail as part of the Surrey Heath Green Belt Review Addendum 2023. This identified that the site had a moderate high level of function against the purposes of the Green Belt and its release from the Green Belt would pose a high level of risk to the integrity of the wider Green Belt. In the case of Land south of Broadford Lane, the suitability of the site has been explored through the remainer of the Local Plan process and as a result of an accumulation of factors including access, odour and viability it has now been concluded that the site is not deliverable. Weighing this against the risk to the wider Green Belt in the case of the land being removed from the Green Belt, it is not considered that there are local level exceptional circumstances to warrant the removal of the site from the Green Belt."

We did submit representations to the 2022 exercise and highlighted clear objections on behalf of our client, citing the clear points of evidence which illustrated both the technical constraints and the overriding lack of suitability. Since that point, we have become aware of other technical constraints in regard to ownership and recorded pollution.

We would concur that the Council has sought to adopt a proactive approach to identifying opportunities to meet needs for traveller accommodation, but that in this instance the Broadford Lane site is hopelessly constrained and fundamentally flawed. We agree that this site should not be allocated for traveller accommodation owing to the technical constraints.

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

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We support paragraph 3.136 as written.

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

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

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Not applicable.

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Title	Mr	Mr
First Name	Philip	Mark
Last Name	Marsden	Aylward
Job Title (where relevant)		Director
Organisation (where relevant)		ATP
Address Line 1		Unit 16
Line 2		Tamewater Court
Line 3		Dobcross
Post Code		OL3 5GD
Telephone Number		[redacted]
E-mail Address		[redacted]

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Name or Organisation :	ATP on behalf of Mr Marsden

3. To which part of the Pre-Submission Local Plan does this representation relate?

Paragraph		Policy	HA1	Other, e.g. policies map, table, appendix	

4. Do you consider the Pre-Submission Local Plan is? (place an X in the box to indicate which applies)

	Yes		No	
4.(1) Legally compliant (please refer to guidance notes)	Yes	X	No	
4.(2) Sound (please refer to guidance notes)	Yes		No	X
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Policy HA1 identifies a number of sites which are concluded suitable for allocation and provides detailed site-specific considerations in terms of larger sites to establish a framework for future DM applications to render them acceptable.

It then goes on to identify a number of other sites which are proposed for allocation for lower yields (below 25 net new homes) in a section entitled Small Site Allocations. This includes site HA1/17 at Broadford to the south of Chobham.

We wholly agree that the proposed allocation site is suitable for housing development and should be allocated for that purpose and form part of the Council's housing trajectory.

However, we do feel that the wider site SLAA548 can provide additional land which is suitable for housing development and that this would take the yield to circa 55 homes. At that point, we would envisage that it would be subject to detailed site-specific considerations.

The Council will be aware that the promoter has prepared detailed evidence to demonstrate that both Parcel A (analogous with allocation HA-17) and Parcel C are eminently suitable and deliverable. Specifically, the representor's evidence highlights that the extent of Green Belt harm which would arise from the use of Parcel C is very limited (owing to the poor contribution to openness).

Whilst we note the Council's evidence that argues that Parcel C represents elevated flood risk, our evidence is that there is a clear approach whereby the site can be readied for housing use and represent lower flood risk.

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

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In the event that the Council does accept the need to reconsider housing requirements and the exceptional circumstance scenario, we would argue that site SLAA548 should be reviewed and that the extent of land for allocation (and its yield) would increase accordingly. This would result in the text for site HA-17 being reconsidered and be subject to site-specific considerations accordingly.

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

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A Planning Submission by

Mr Marsden

In respect of

Land West of Castle Grove Road, CHOBHAM

Transport Statement

May 2022

www.tpa.uk.com

Document Management

Document Review

	Status	Author	Checker	Approver	Date
01					
-	Issue	LM	JH	JH	15 | 05 | 2022

Issued by:

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1 Introduction

1.1 Transport Planning Associates has been instructed to provide transport planning consultancy services in respect of the promotion of a land parcel to the west of Castle Grove Road, Chobham for residential purposes.

1.2 Previous feasibility work that supported the initial promotion of this area for the 2019 SLAA determined that one land parcel (Parcel A) could accommodate up to 15 dwellings with an additional opportunity capable of be be accommodated on the second land parcel (Parcel C). This Statement considers the revised proposal delivering the same yield (15 dwellings) but has an improved layout. This approach to the delivery of Parcel A would secure the total potential contribution to supply of up to 15 residential dwellings which are well laid-out, together with associated development infrastructure.

1.3 This Transport Statement has been prepared to identify the site in the context of the local highway network and outlines the existing travel opportunities for pedestrians, cyclists and public transport users. The report also clarifies that the proposed layout and means of access is suitable from a design perspective and would be deliverable should this proposal be allocated and taken forward through the development management process in due course.

1.4 The proposed development and proposed means of access are summarised and a forecast is provided of the proposed vehicle trips that may be generated and a forecast distribution from the site access is presented.

Report Structure

1.5 The remainder of this report is structured as follows:

- Chapter 2: *Planning Policy*;
- Chapter 3: *Existing Highway Context*;
- Chapter 4: *Development Proposal*;
- Chapter 5: *Trip Generation and Distribution*; and
- Chapter 6: *Summary*.

2 Planning Policy

2.1 This chapter of the Transport Statement outlines the relevant planning policy insofar as they concern transport matters.

National Planning Policy Framework (2021)

2.2 The National Planning Policy Framework (NPPF) sets out the Government's policy which informs local authorities and developers regarding future development.

2.3 Specifically, within paragraph 111, the NPPF states in the context of decision making that:

> *"Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe."*

2.4 The NPPF outlines that local authorities should seek to provide infrastructure necessary to support sustainable economic growth. In respect of planning decisions, key considerations are ensuring that opportunities for travel by sustainable modes are taken up, safe and suitable access to the site can be achieved and measures to cater for the residual impacts can be undertaken, in order to limit the significant impacts of development.

2.5 In order to assist in achieving this, developments should seek to accommodate efficient delivery of goods and supplies, give priority to non-car modes of transport, create layouts which minimise conflict between traffic and cyclists or pedestrians, incorporate facilities for ultra-low emission vehicles and consider the needs of disabled people.

Surrey Heath Core Strategy (2012)

2.6 The Surrey Heath Core Strategy was adopted in 2012 and sets out the strategy and policies to address the future development of the Borough up to 2028.

2.7 The Core Strategy identifies within policy CP11 *Movement* that developments will be required to demonstrate that they appropriately located in relation to public transport and the highway network and comply with the Council's car parking standards.

Draft Local Plan (2018)

2.8 The Draft Local Plan will guide development within the Borough up to 2032 which is currently in the process of a pre-submission version of the document to be submitted.

2.9 Within the Draft Local Plan, Chobham is identified as a historic settlement which is currently served by limited public transport. The Preferred Local Area Policy Approach for Chobham identifies that proposed residential developments should ensure sites reflect the historic character of the area.

Parking Standards

2.10 The Vehicular and Cycle Parking Guidance document adopted by Surrey County Council (2012) outlines the parking standards for proposed developments across the County.

2.11 The residential parking standards for Suburban edge / village / rural locations are summarised in Table 2.1.

Table 2.1 Residential parking standards

Size of dwelling	Recommended residential vehicle parking	Minimum cycle parking standards
1 and 2 bed houses	1.5+ spaces per unit*	1 space per dwelling
3 bed houses	2+ spaces per unit*	2 spaces per dwelling
4+ more bed houses	2+ spaces per unit*	

** Where space permits, it may be appropriate to consider increased provision*

3 Existing Highway Context

3.1 This chapter of the Transport Statement identifies the site in the context of the local highway network and outlines the existing travel opportunities for pedestrians, cyclists and public transport users.

Site Location

3.2 The site is located to the south-west of the centre of Chobham, bound by Castle Grove Road to the east and open space to the northern, eastern and southern boundaries.

3.3 The site is currently occupied by a small number of residential dwellings, which will be retained as part of the proposed development, and a number of associated outbuildings.

3.4 The location of the site is presented in **Figure 3.1**.

Pedestrian and cycle accessibility

3.5 Along the site boundary, a footway is provided on the eastern side of the carriageway of Castle Grove Road, with a width of approximately 1.8 metres and extends south toward Castle Green.

3.6 From the site, the footway extends north on the eastern side of Castle Grove Road, with a footway also provided on the western side of the carriageway from the access junction to the Chobham Telephone Exchange. The footways on either side of Castle Grove Road extend to the mini-roundabout with High Street and Station Road, where crossings are provided on all arms of the junction.

3.7 From the mini-roundabout junction, footways are provided on either side of Station Road which extend east toward facilities such as Cobham Village Hall and Tesco Express, as well as the closest bus stops from the site.

3.8 Footways are also provided on either side of High Street which extend north from the mini-roundabout facilitating access toward a number of local services such as a number of local shops, the St Lawrence C of E Primary School. The footways extend along the extent of High Street and continue northbound along Windsor Road to facilitate access to Chobham & West End Medical Practice and continue eastbound along Chertsey Road toward the post office and Wishmore Cross Academy.

3.9 There is no formal cycle provision within the vicinity of the site, however the local topography and restricted speed limit ensures local routes are conducive to cycling.

Public transport

Bus

3.10 The nearest bus stops to the site are located on Castle Grove Road, just along from the southern point of access to the site. These bus stops have limited associated infrastructure.

3.11 Alternative bus stops are located approximately 400 metres north-east of the site on either side of Station Road. The bus stops on Station Road are identified by bus stop flags and timetable information boards, with the eastbound stop also benefitting from a shelter with associated seating.

3.12 There are further bus stops located approximately 550 metres north of the side on either side of High Street. These stops are identified by bus stop flags and timetable information boards.

3.13 A summary of the local services is presented in Table 3.1.

Table 3.1 Summary of local bus services

Service No. / Stop	Route	Mainline frequency		
		Monday – Friday	Saturday	Sunday
39A High Street	Chobham – Woking	Monday, Wednesday and Friday service 3 daily services First: 09:33 Last: 13:18	No service	No service
	Woking – Chobham	Monday, Wednesday and Friday service 2 daily services First: 11:04 Last: 13:14	No service	No service
73 Station Road	Chobham – Horsell - Woking	Hourly service First: 06:48 Last: 19:06	Hourly service First: 08:31 Last: 17:31	No service
	Woking – Horsell – Chobham	Hourly service First: 07:28 Last: 19:47	Hourly service First: 08:22 Last: 18:22	No service

3.14 The information presented in Table 3.1 indicate that regular bus services can be boarded during the week and on Saturday. The bus service number 73 provides a feasible opportunity to use public

transport for weekday commuting to main employment centres within the district and further afield via Woking railway station.

3.15 In addition to the services presented in Table 3.1, school bus service numbers 87 and 417 can be boarded from the stops on High Street to facilitate access toward the Collingwood College, Farnborough Sixth Form and Farnborough Park College.

Rail

3.16 There are a number of railway stations within proximity to the site, with Brookwood and Woking stations located 5.4 kilometres south-west and south-east of the site respectively. Alternatively, Longcross station is located approximately 5.5 kilometres north-east of the site.

3.17 Woking station is accessible within a 22 minute cycle journey, alternatively, access can be achieved via the 39A or 73 bus services.

3.18 Woking station is operated by South Western Railway with services between destinations such as London Waterloo, Portsmouth Harbour and Basingstoke. There are 10 hourly services toward Waterloo and Basingstoke, with journey times of 30 minutes and 40 minutes respectively, whereas journeys extending toward Portsmouth Harbour operate every 20 minutes with journey times of 90 minutes.

Local Services and Facilities

3.19 Within the centre of Chobham there are a number of key services and facilities which are accessible by non-car modes.

3.20 Table 3.2 summarises the local services and facilities and the journey times on foot and by cycle, based on speeds of 3mph and 12mph respectively.

Table 3.2 Summary of local services and facilities

Destination	Distance (metres)	Walk time (minutes)	Cycle time (minutes)
Chobham Village Hall	450	5	2
Tesco Express	450	6	2
The White Hart public house	450	6	2
St Lawrence C of E Primary School	550	7	3
Chobham & West End Medical Practice	900	11	3
Chobham Post Office	1000	13	5
Wishmore Cross Academy	1200	15	5

3.21 The information presented in Table 3.2 identifies a number of local services and facilities within Chobham which are accessible via either a 15 minute walk or 5 minute cycle journey.

3.22 The Site is an eminently sustainable location, very close to the settlement boundary and facilities (all within 800m) including a children's play area, primary school, local shops and bus stops. There are also opportunities for new residents to complete journeys for work and shopping by non-car modes. The village centre provides a range of shops and services whereas the bus service number 73 provides links to main urban centres and the rail network suitable for commuting.

3.23 We conclude that the walking distance between the subject site and these village facilities will be acceptable. We give strong weight to the recommendations of WYG empirical research in the context of what would represent an acceptable pedestrian journey. This WYG research cites the National Travel Survey underpinned by empirical survey data (Wakenshaw, 2015, How far do People Walk?).

3.24 The WYG Paper gives analyses including acceptable walking distances to a train station. It clarifies that the preferable metric is the 85% figure stating:

> *"When assessing the accessibility of a new development on foot we suggest that the 85th percentile distance should be used to estimate the distance upto which people are prepared to walk."*

3.25 The mean and 85th percentile speeds have been obtained from the report and are summarised in Table 3.3.

Table 3.3 Walking distances for public transport services obtained from the *How far do People Walk* report

Location	Mean distance (metres)	85th Percentile distance (metres)
Walk – as main mode of travel		
UK (Excluding London)	1150	1190
London	1000	1600
Walk to a bus stop		
UK (Excluding London)	580	800
London	490	800
Walk to a railway station		
UK (Excluding London)	1010	1610
London	740	1290

3.26 In addition, the WYG 85th percentile threshold for shopping journeys in this location is 1600 metres, as presented in Table 3.4, further demonstrating the suitability of the proposed development given that the site is within closer proximity to the centre of Chobham than the 85th percentile distance recommended.

Table 3.4 Walking distances by journey purpose obtained from the *How far do People Walk* report

Journey purpose	Weighted sample size	Proportion	Mean distance (metres)	85th Percentile distance (metres)
Commuting	2166	7.1%	1250	2100
Business	290	1.0%	-	-
Education / Escort	5609	18.5%	1000	1600
Shopping	5958	19.6%	1000	1600
Other Escort	1392	4.6%	1100	1600
Personal Business	2730	9.0%	1000	1600
Leisure	5539	18.2%	1150	1950
Other (including just walk)	6698	22.0%	1450	2400
All	30382	100%	1150	1950

Local Highway Network

3.27 The site is currently accessed via two priority junctions on the western side of Castle Grove Road.

3.28 Along the site boundary, Castle Grove Road is a single carriageway road which is subject to a 40 mph speed limit. This speed limit however decreases to 30mph approximately 50 metres north of the existing northern site access junction.

3.29 From the site, Castle Grove Road extends south toward the junction with Scotts Grove Road, which extends eastbound toward West End and the A322. The A322 facilitates access toward the M3 motorway, which provides a route eastbound toward the M25 and westbound toward Farnborough.

3.30 From the junction with Scotts Grove Road, Castle Grove Road becomes Guildford Road and extends southbound toward the priority junction with Carthouse Lane with Chobham Road, which in turn facilitate access toward Knaphill and the outskirts of Woking respectively.

3.31 From the site, Grove Hill Road extends north toward the mini-roundabout with High Street and Station Road. Station Road extends eastbound from the mini-roundabout, facilitating access toward Mimbridge and Woking. High Street extends north from the junction and facilitates access toward Burrow Hill and continued northbound movements along Windsor Road enables access toward destinations such as Bracknell and Reading.

Highway Safety

3.32 A review of Crashmap has been undertaken to determine whether any Personal Injury Accidents (PIAs) have occurred within the vicinity of the site during the most recently available 5 year period.

3.33 The review of Crashmap has identified that no accidents were recorded along the site boundary at either of the existing site access junctions.

3.34 To the south of the site, a slight accident was recorded at the priority junction of Castle Grove Road with Broadford Lane which involved a collision between a car and motorcycle.

3.35 To the north of the site, there were no identified clusters of accidents which would identify any deficiencies on the local highway network.

Existing Travel Characteristics

3.36 To understand the existing travel characteristics of those residing locally, 2011 Census information has been obtained. Data has been obtained for the 'Surrey Heath 001' mid super output area (MSOA) which extends over Cobham and Windlesham to the north-west. The modal share characteristics of journeys to work are summarised in Table 3.5.

Table 3.5 2011 Census modal share characteristics

Mode	Proportion
Rail*	10.3%
Bus, minibus or coach	0.6%
Driving a car or van	76.7%
Passenger in a car or van	3.4%
Cycle	1.6%
On foot	5.8%
Other	1.6%

3.37 The information presented in Table 3.5 identifies that the largest proportion of journeys to work are made by private car (76.7%) which is reflective of the semi-rural nature of the local area. A significant proportion of journeys are also made by the rail network (10.8%) whereas more marginal proportions are made by active modes of transport (7.4%).

3.38 Car ownership values have also been obtained from the 2011 Census for the 'Surrey Heath 001' MSOA, as summarised in Table 3.6.

Table 3.6 2011 Census car ownership per household

Car ownership per household	Proportion
No cars or vans	7.9%
1 car or van	29.1%
2 cars or vans	44.0%
3 cars or vans	12.5%
4 or more cars or vans	6.5%

3.39 The information presented in Table 3.6 indicates that the largest proportion of households within the area own 2 vehicles (44.0%). Overall, a total of 81.0% of households within the area own a maximum of 2 vehicles.

4 Development Proposal

4.1 This chapter of the Transport Statement outlines the proposed development and proposed means of access.

Proposed development

4.2 The proposed development seeks the construction of up to 15 residential dwellings within parcel A. This excludes parcel C.

4.3 The preliminary site Masterplan is contained in **Appendix A**.

Access

4.4 Access is proposed to be retained via the existing southern site access junction on the western side of Castle Grove Road.

4.5 The proposed site access arrangement has been designed as a minor shared use access that if necessary can be improved to a more standard access design complete with a footway to the northern carriageway edge. An uncontrolled crossing provided to the north of the access junction will enable a continuous link between the site and the existing footway on the eastern side of Castle Grove Road.

4.6 The proposed site access arrangement is presented in drawing number 1804-33 PL01, contained in **Appendix B**.

4.7 Visibility splays appropriate to the current 40mph speed limit are presented on the site access drawing, which can be accommodated across existing highway land and land under the control of the landowner.

4.8 The visibility splays are presented in drawing number 1804-33 PL02, contained in **Appendix C** and included on this plan is an indication of likely tree loss and management required to facilitate the required visibility splays.

Parking, refuse and servicing

4.9 Parking will be provided in accordance with the parking standards adopted by Surrey County Council.

4.10 The proposed access arrangement and preliminary site layout has been designed to ensure vehicles associated with refuse and delivery can enter the site, turn around and safely egress the site in a forward gear.

5 Trip Generation and Distribution

5.1 This chapter of the Transport Statement identifies the quantum of trips that may be generated by the proposed development and identifies the forecast distribution of trips along the local highway network from the site access junction.

Trip Generation

5.2 The site is currently occupied by 4 existing dwellings, which will be retained as part of the development proposals. The trips associated with the existing residential dwellings have therefore not been considered as they will not be impacted as a result of the proposed development.

5.3 To understand the quantum of vehicle trips that may be generated by the proposed dwellings, the TRICS database has been interrogated under land use code 03 – *Residential*, sub-category A – *Houses privately owned*, to derive trip rates for a sample of sites considered representative of the proposed development.

5.4 The following selection criteria was applied:

- Multi-modal surveys;
- Weekday surveys only;
- Sites in Greater London and Ireland omitted;
- Sites in Town Centre and Edge of Town Centre sites omitted; and
- Sites with dwelling numbers between 10 and 80.

5.5 The TRICS output report is contained in **Appendix D**.

5.6 Table 5.1 summarises the vehicle trip rates during the traditional morning and evening peak hour periods of 0800-0900 and 1700-1800 respectively and across the day (0700-1900). The trip rates have been applied to the proposed development schedule for Parcel A (up to 15 dwellings) only.

Table 5.1 TRICS vehicle trip rates and forecast vehicle trips

	Morning peak (0800-0900)		Evening peak (1700-1800)		Daily (0700-1900)	
	Arrive	**Depart**	**Arrive**	**Depart**	**Arrive**	**Depart**
Vehicle trip rate per dwelling	0.144	0.381	0.303	0.147	2.208	2.369
Parcel A						
Forecast vehicle trips	2	6	5	2	33	35

5.7 The results presented in Table 5.1 indicate that Parcel A is forecast to generate 8 two-way vehicle trips during the morning peak hour and during the evening peak hour 7 two-way vehicle trips are forecast to occur.

5.8 This vehicle trip generation would result in an average of 1 vehicle movement at the site access junction every 7-8 minutes across each peak hour period. Across the day, the development of Parcel A is forecast to generate 68 two-way vehicle trips.

Trip Distribution

5.9 To understand the likely vehicle trips distribution from the site at the site access junction, workplace origin and destination data from the 2011 Census has been obtained. This data incorporates the location of usual residential and place of work by method of travel.

5.10 Data has been obtained for the 'Surrey Heath 001' MSOA and journeys for car drivers from the MSOA to all local authority districts have been assessed, in addition, journeys to local authority districts Surrey Heath and Woking have been disseminated into smaller output areas to identify local workplace destinations in more detail.

5.11 A summary of the distribution of vehicle trips to main local authority districts is presented in Table 5.2.

Table 5.2 2011 Census distribution of work place trips from the 'Surrey Heath 001' MSOA

Destination	Number of drivers	Proportion
Surrey Heath	405	18.0%
Runnymede	274	12.2%
Woking	260	11.5%
Windsor and Maidenhead	207	9.2%
Guildford	146	6.5%
Hillingdon	132	5.9%
Others	830	36.7%

5.12 The results presented in Table 5.2 indicates that the largest proportion of trips remain within the Surrey Heath district (18.0%). Significant proportions of trips from the site travel to Runnymede (12.2%) and Woking (11.5%) districts identifying a range of employment opportunities within the local area.

5.13 The other districts accounting for a combined total of 36.7% were to destinations within Bracknell Forest and Hounslow districts, each individually counting for fewer than 4.5%.

5.14 The likely vehicular route from the site to each district and smaller local output areas have been assigned to assess the likely distribution from the site access junction. A summary of the route assignment from the site access is contained in Table 5.3.

Table 5.3 Forecast distribution of trips from the site access

Direction	Proportion
Northbound	72.6%
Southbound	27.4%

5.15 The results presented in Table 5.3 indicate that the largest proportion of trips will travel northbound (72.6%) along from the site along Castle Grove Road whereas the remaining 27.4% will travel southbound.

6 Summary

6.1 Transport Planning Associates has been instructed to provide transport planning consultancy services in respect of the promotion of land west of Castle Grove Road, Chobham for residential purposes.

6.2 The site being proposed for allocation comprises of Parcel A, which could accommodate the construction of circa 15 dwellings.

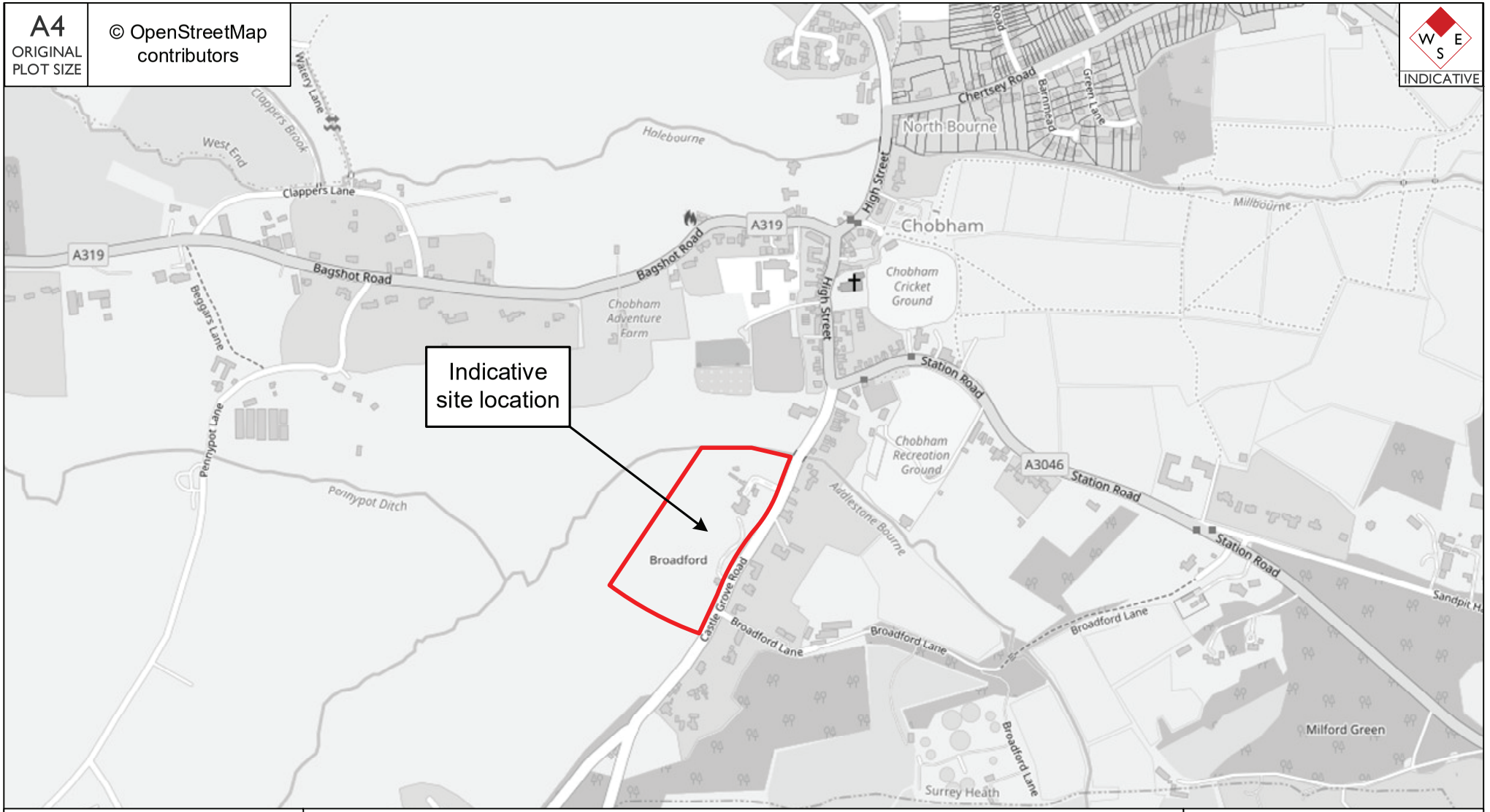
6.3 The site has been identified to be within close proximity to a range of local services and facilities, as well as local public transport infrastructure. The site exhibits strong accessibility characteristics with opportunity to utilise a range of local services by walking and other non-car modes of transport.

6.4 The proposed access arrangement has been designed to comply with relevant design standard for the scale of development under consideration.

6.5 The development is forecast to result in a low volume of vehicle trips across the local highway network and therefore will not result in a detrimental impact.

Figures

A4
ORIGINAL
PLOT SIZE



Bristol
Cambridge
London
Manchester
Oxford
Welwyn Garden City

The Stables
7 Chesterton Mill
French's Road
Cambridge
CB4 3NP
01223 455385
www.tpa.uk.com

Land west of Castle Grove Road, Chobham

Site location

Mr Marsden

STATUS: INFORMATION

SCALE:	PREPARED BY:	CHECKED BY:	APPROVED BY:
NTS	LM	TH	JH

JOB NO:	FIGURE NO:	DATE:
1804-33	3.1	JAN '21

APPENDIX A

LEGEND

denotes tree to be removed

flood compensation area

line of developable area

existing trees retained

visibility splay for access junction

Existing Buildings

Proposed Buildings

flood compensation area

development line

10 3b5p

11 3b5p

12 3b5p

13 3b5p

14 4b7p

15 4b7p

9 3b5p

8 3b5p

7 3b5p

5&6 2b4p

3&4 1b2p

1&2 2b4p

Garages

Piggeries

Wisteria Cottage

Broadford

Courtyard Cottage

Lodge

CASTLE GROVE ROAD

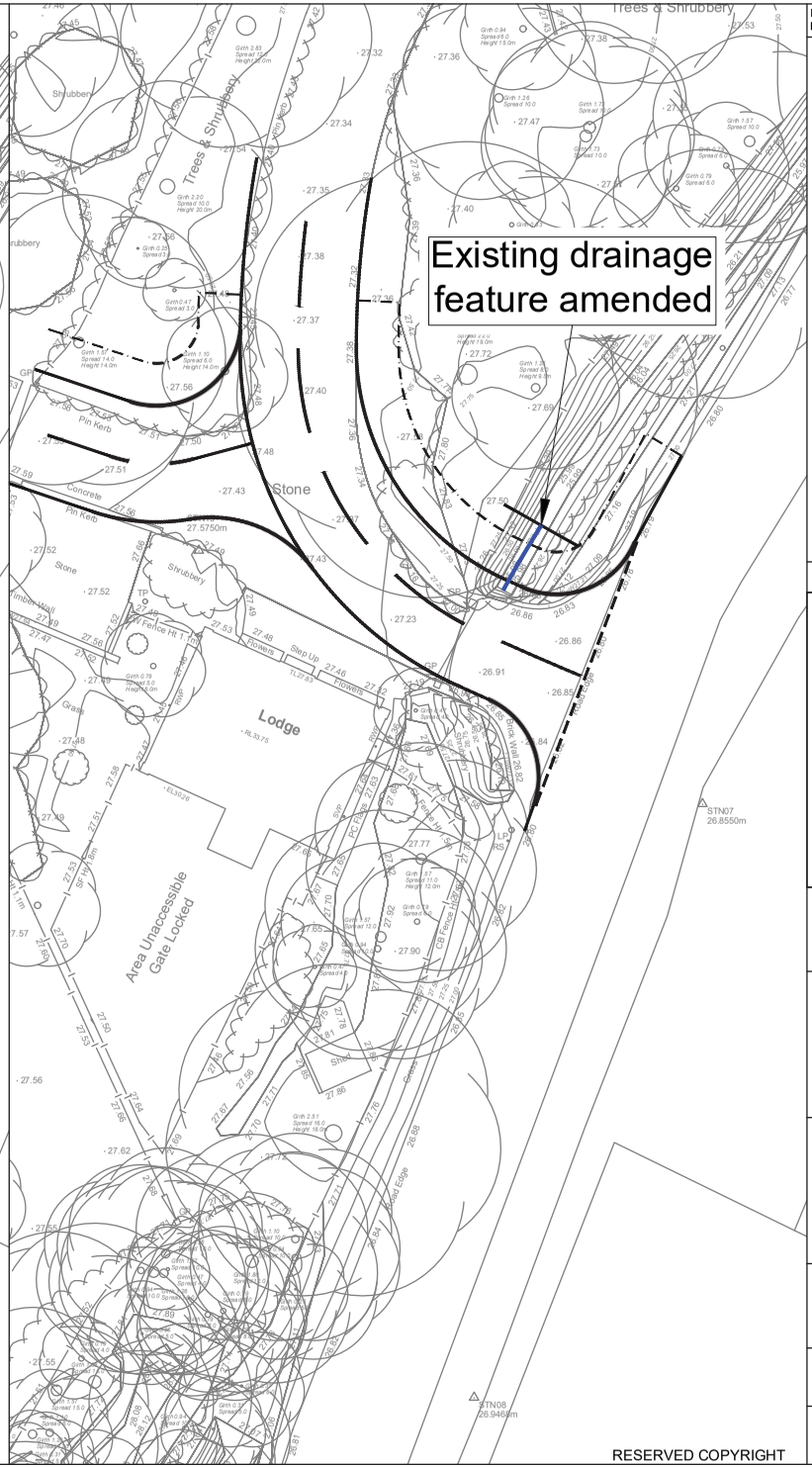
CASTLE GROVE ROAD

CASTLE GROVE ROAD

26.8m

APPENDIX B

A3
ORIGINAL
PLOT SIZE



W E S

INDICATIVE

Rev	Date	Details	Drawn by	Checked by	Approved by
-	-	-	-	-	-

Bristol
Cambridge
London
Manchester
Oxford
Welwyn Garden City

Transport Planning Associates

The Stables
7 Chesterton Mill
French's Road
Cambridge
CB4 3NP
01223 455385
www.tpa.uk.com

CLIENT:

PROJECT:
Broadford,
Castle Grove Road,
CHOBHAM

TITLE:
Proposed Site Access Arrangement
Parcel A + Parcel A & C

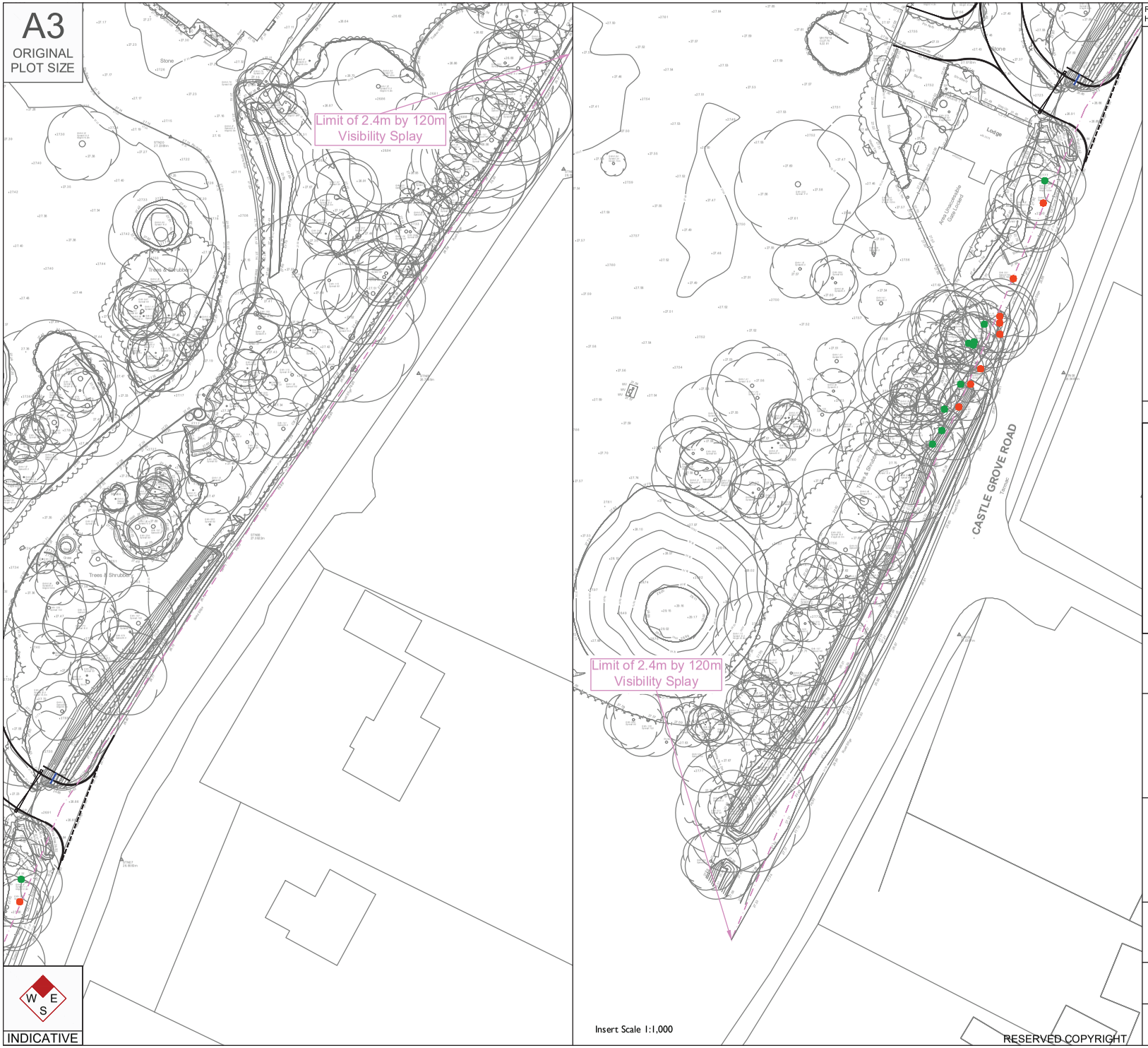
STATUS:
FOR INFORMATION

SCALE:	DATE:	DRAWN:	CHECKED:	APPROVED:
1:250	14.01.21	JH	LM	JH

JOB NO:	DRAWING NO:	REVISION:
1804-33	PL01	-

APPENDIX C

A3
ORIGINAL
PLOT SIZE



W E S

INDICATIVE

Insert Scale 1:1,000

KEY

- Visibility splay - DMRB requirements for 40mph speed limit.
- Tree removal to provide clear visibility splay.
- Tree management to provide clear visibility splay.

Rev	Date	Details	Drawn by	Checked by	Approved by
-	-	-	-	-	-

Bristol
Cambridge
London
Manchester
Oxford
Welwyn Garden City

tpa Transport Planning Associates

The Stables
7 Chesterton Mill
French's Road
Cambridge
CB4 3NP
01223 455385
www.tpa.uk.com

CLIENT:

PROJECT:
Broadford,
Castle Grove Road,
CHOBHAM

TITLE:
Proposed Site Access Arrangement
Visibility Splays

STATUS:
FOR INFORMATION

SCALE:	DATE:	DRAWN:	CHECKED:	APPROVED:
1:250	14.01.21	JH	LM	JH

JOB NO:	DRAWING NO:	REVISION:
1804-33	PL02	-

APPENDIX D

Calculation Reference: AUDIT-219603-210113-0110

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

03	**SOUTH WEST**		
	SM	SOMERSET	1 days
	WL	WILTSHIRE	1 days
04	**EAST ANGLIA**		
	CA	CAMBRIDGESHIRE	1 days
	NF	NORFOLK	1 days
	SF	SUFFOLK	2 days
05	**EAST MIDLANDS**		
	LN	LINCOLNSHIRE	1 days
06	**WEST MIDLANDS**		
	WK	WARWICKSHIRE	1 days
07	**YORKSHIRE & NORTH LINCOLNSHIRE**		
	SY	SOUTH YORKSHIRE	1 days
08	**NORTH WEST**		
	CH	CHESHIRE	2 days
	MS	MERSEYSIDE	1 days
09	**NORTH**		
	DH	DURHAM	1 days
	TW	TYNE & WEAR	1 days
10	**WALES**		
	PS	POWYS	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: No of Dwellings
Actual Range: 10 to 54 (units:)
Range Selected by User: 10 to 80 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/12 to 19/11/19

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	3 days
Tuesday	3 days
Wednesday	3 days
Thursday	3 days
Friday	3 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	15 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	10
Edge of Town	4
Neighbourhood Centre (PPS6 Local Centre)	1

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

C3	15 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,000 or Less	1 days
5,001 to 10,000	6 days
10,001 to 15,000	3 days
15,001 to 20,000	1 days
20,001 to 25,000	2 days
25,001 to 50,000	2 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000	1 days
25,001 to 50,000	2 days
50,001 to 75,000	3 days
75,001 to 100,000	2 days
100,001 to 125,000	1 days
125,001 to 250,000	2 days
250,001 to 500,000	4 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	6 days
1.1 to 1.5	9 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes	1 days
No	14 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	15 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 **CA-03-A-05** **DETACHED HOUSES** **CAMBRIDGESHIRE**
EASTFIELD ROAD
PETERBOROUGH

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 28
Survey date: MONDAY *17/10/16* *Survey Type: MANUAL*

2 **CH-03-A-08** **DETACHED** **CHESHIRE**
WHITCHURCH ROAD
CHESTER
BOUGHTON HEATH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 11
Survey date: TUESDAY *22/05/12* *Survey Type: MANUAL*

3 **CH-03-A-11** **TOWN HOUSES** **CHESHIRE**
LONDON ROAD
NORTHWICH
LEFTWICH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 24
Survey date: THURSDAY *06/06/19* *Survey Type: MANUAL*

4 **DH-03-A-01** **SEMI DETACHED** **DURHAM**
GREENFIELDS ROAD
BISHOP AUCKLAND

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 50
Survey date: TUESDAY *28/03/17* *Survey Type: MANUAL*

5 **LN-03-A-03** **SEMI DETACHED** **LINCOLNSHIRE**
ROOKERY LANE
LINCOLN
BOULTHAM
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 22
Survey date: TUESDAY *18/09/12* *Survey Type: MANUAL*

6 **MS-03-A-03** **DETACHED** **MERSEYSIDE**
BEMPTON ROAD
LIVERPOOL
OTTERSPOOL
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 15
Survey date: FRIDAY *21/06/13* *Survey Type: MANUAL*

7 **NF-03-A-03** **DETACHED HOUSES** **NORFOLK**
HALING WAY
THETFORD

Edge of Town
Residential Zone
Total No of Dwellings: 10
Survey date: WEDNESDAY *16/09/15* *Survey Type: MANUAL*

8 **PS-03-A-02** **DETACHED/SEMI-DETACHED** **POWYS**
GUNROG ROAD
WELSHPOOL

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 28
Survey date: MONDAY *11/05/15* *Survey Type: MANUAL*

9 **SF-03-A-05** **DETACHED HOUSES** **SUFFOLK**
VALE LANE
BURY ST EDMUNDS

Edge of Town
Residential Zone
Total No of Dwellings: 18
Survey date: WEDNESDAY *09/09/15* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

10 **SF-03-A-06** **DETACHED & SEMI-DETACHED** **SUFFOLK**
BURY ROAD
KENTFORD

Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 38
Survey date: FRIDAY *22/09/17* *Survey Type: MANUAL*

11 **SM-03-A-01** **DETACHED & SEMI** **SOMERSET**
WEMBDON ROAD
BRIDGWATER
NORTHFIELD
Edge of Town
Residential Zone
Total No of Dwellings: 33
Survey date: THURSDAY *24/09/15* *Survey Type: MANUAL*

12 **SY-03-A-01** **SEMI DETACHED HOUSES** **SOUTH YORKSHIRE**
A19 BENTLEY ROAD
DONCASTER
BENTLEY RISE
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 54
Survey date: WEDNESDAY *18/09/13* *Survey Type: MANUAL*

13 **TW-03-A-02** **SEMI-DETACHED** **TYNE & WEAR**
WEST PARK ROAD
GATESHEAD

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 16
Survey date: MONDAY *07/10/13* *Survey Type: MANUAL*

14 **WK-03-A-04** **DETACHED HOUSES** **WARWICKSHIRE**
DALEHOUSE LANE
KENILWORTH

Edge of Town
Residential Zone
Total No of Dwellings: 49
Survey date: FRIDAY *27/09/19* *Survey Type: MANUAL*

15 **WL-03-A-02** **SEMI DETACHED** **WILTSHIRE**
HEADLANDS GROVE
SWINDON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 27
Survey date: THURSDAY *22/09/16* *Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
CH-03-A-09	Housing type
CH-03-A-10	Housing type
DC-03-A-08	Housing type
DH-03-A-03	Housing type
DV-03-A-01	Housing type
DV-03-A-03	Housing type
FA-03-A-01	Housing type
HC-03-A-21	Housing type
HC-03-A-22	Housing type
HC-03-A-23	Housing type
HI-03-A-14	Housing type
KC-03-A-03	Housing type
NF-03-A-01	Housing type
NF-03-A-04	Housing type
NF-03-A-05	Housing type
NY-03-A-08	Housing type
NY-03-A-09	Housing type
NY-03-A-10	Housing type
NY-03-A-11	Housing type
SC-03-A-04	Housing type

MANUALLY DESELECTED SITES (Cont.)

Site Ref	Reason for Deselection
SF-03-A-07	Housing type
SH-03-A-05	Housing type
SH-03-A-06	Housing type
SM-03-A-02	Housing type
SM-03-A-03	Housing type
VG-03-A-01	Housing type
WK-03-A-02	Housing type
WM-03-A-04	Housing type
WS-03-A-05	Housing type
WS-03-A-07	Housing type
WS-03-A-10	Housing type

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL TOTAL VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	15	28	0.050	15	28	0.260	15	28	0.310
08:00 - 09:00	15	28	0.144	**15**	**28**	**0.381**	15	28	0.525
09:00 - 10:00	15	28	0.132	15	28	0.175	15	28	0.307
10:00 - 11:00	15	28	0.165	15	28	0.170	15	28	0.335
11:00 - 12:00	15	28	0.147	15	28	0.149	15	28	0.296
12:00 - 13:00	15	28	0.177	15	28	0.189	15	28	0.366
13:00 - 14:00	15	28	0.137	15	28	0.151	15	28	0.288
14:00 - 15:00	15	28	0.147	15	28	0.196	15	28	0.343
15:00 - 16:00	**15**	**28**	**0.307**	15	28	0.234	**15**	**28**	**0.541**
16:00 - 17:00	15	28	0.265	15	28	0.170	15	28	0.435
17:00 - 18:00	15	28	0.303	15	28	0.147	15	28	0.450
18:00 - 19:00	15	28	0.234	15	28	0.147	15	28	0.381
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.208			2.369			4.577

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Parameter summary

Trip rate parameter range selected:	10 - 54 (units:)
Survey date date range:	01/01/12 - 19/11/19
Number of weekdays (Monday-Friday):	15
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	5
Surveys manually removed from selection:	31

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	15	28	0.090	15	28	0.435	15	28	0.525
08:00 - 09:00	15	28	0.225	**15**	**28**	**0.766**	**15**	**28**	**0.991**
09:00 - 10:00	15	28	0.199	15	28	0.303	15	28	0.502
10:00 - 11:00	15	28	0.262	15	28	0.343	15	28	0.605
11:00 - 12:00	15	28	0.234	15	28	0.232	15	28	0.466
12:00 - 13:00	15	28	0.314	15	28	0.322	15	28	0.636
13:00 - 14:00	15	28	0.215	15	28	0.239	15	28	0.454
14:00 - 15:00	15	28	0.274	15	28	0.303	15	28	0.577
15:00 - 16:00	**15**	**28**	**0.605**	15	28	0.374	15	28	0.979
16:00 - 17:00	15	28	0.473	15	28	0.281	15	28	0.754
17:00 - 18:00	15	28	0.496	15	28	0.258	15	28	0.754
18:00 - 19:00	15	28	0.395	15	28	0.213	15	28	0.608
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.782			4.069			7.851

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

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Ecological Constraints Assessment: Broadford, Castle Grove Road, Chobham, Surrey

Technical Note

Project:	21.007	**Ref**:	BMD.21.007.RPE/TN.801.EcoConstraints
Subject:	Ecological Constraints	**Date:**	14th January 2021
Status:	FOR PLANNING	**Rev:**	-

Originated	**Technical reviewed**	**Approved**
JW	JP	JP

SUMMARY

This Technical Note has been produced to identify the potential ecological constraints associated with a housing allocation site situated off Castle Grove Road, Chobham, Surrey. The Site, hereafter referred to as 'the Site', is approximately centred on national grid reference: SU971614. A plan depicting the Site's location and survey area is provided in the Appendix.

In order to inform constraints associated with developing the Site, a walkover, review of current imagery and professional judgement has been undertaken to provide up to date baseline data with respect to impacts. A web-based desk study has been undertaken and is appended to this report. The assessment identified the following potential constraints to developing the Site:

- Nesting birds, with some potential for hedgehog, reptile badger and bat.

The following are recommended to progress the project:

- Detailed surveys would be required at planning stage to verify the site findings and assess potential of features such as trees/properties for specie such as bats if they cannot be retained.
- Ecological supervision during site clearance works would be recommended with regard to low risk of hedgehog, reptile, invertebrate, badger and bat presence and to ensure measures for nesting birds are implemented appropriately
- Ecological supervision during a phased clearance of the site with implementation of mitigation measures with regard to retaining key habitats features.

Declaration of compliance with professional code of ethics or conduct
The information which we have prepared and provided is true and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bonafide opinions.

Every reasonable attempt has been made to comply with the relevant best practice guidelines and BS42020:2013 (Biodiversity: Code of practice for planning and development).

UK leaving the EU
Until the UK has formally completed the transition phase of leaving the EU and until the Environment Bill 2020 comes into force it is assumed that all legislation pertaining to wildlife will remain as it was prior to the transition.

1. CONTEXT

1.1 Landscape

Historic

1.1.1 Historic maps indicate that the Site contained residential dwellings and was set in a rural-agricultural context as a series of open agricultural field parcels since at least 1885 until present day. The residential dwellings began to increase in number and span from as early as 1888 until 1913. Within this time, tree boundaries were also present.

1.1.2 The Site has been occupied by agricultural fields and residential dwellings since the 1800's and has changed very little until present day, aside from the maturing of landscape features and general management.

Present

1.1.3 The Site is located off Castle Grove Road, to the southwest of Chobham, a village and civil parish in the Borough of Surrey Heath, Surrey. A small part of its northern boundary directly adjoins the Chobham Conservation Area (but not the settlement area). The Site is made up Parcel A to the north having a site area of 2.33 ha but this excludes the 2 hectare parcel C to the south (see Site Plan in the Appendix). Parcel A has its own access off Castle Grove Road, which are both currently in use. The Site is bound by Castle Grove Road to the east and other greenfield land owned by the developer in all other directions.

1.1.4 The Site comprises a semi-rural area of land on the outskirts of Chobham. The Site is largely tree-lined and has historic management with some residential buildings being present. To the north lies the river Bourne in a wider rural landscape with the village of Chobham beyond that. To the west is an agricultural landscape and residential properties. To the South is a semi-rural landscape; Castle Grove Road adjoins the Site in the south with agricultural fields, woodland and residential properties beyond. To the east are residential properties with agricultural fields and woodland beyond.

1.1.5 The Site is bound by dense hedgerows and mature trees to the north and south and along Castle Grove Road, which provides enclosure and substantial screening from the road. The western boundary is formed by a partially gravelled track lined with trees.

1.1.6 On the Site itself, there are a number of established buildings (all within parcel A) which are all identified within the Green Belt. These include four residential properties, associated hardstanding and residential curtilage.

1.2 Ecological

1.2.1 A review of the Surrey Heath planning portal identified a recent bat assessment was conducted 14/02/2018 by Arbeco in the locality. A garage at Chestnut cottage (GU24 8EF) which adjacent to the Site to the east was assessed as having moderate bat roosting potential owing to: lifted roof tiles on east and

west roof pitches, gaps under roof tiles on the south pitch, and the presence of a roof void. No evidence of bats was found during the survey, further emergence surveys were recommended (but no other report mentioned for either application). Nesting bird concerns were also highlighted – the standard mitigation was recommended such as avoid works during the bird nesting season.

1.3 Development

1.3.1 It is understood by BMD that the Site is to be redeveloped into residential houses with associated infrastructure offering approximately 15 dwellings. An indicative layout plan is provided in the Appendix.

2. DESK STUDY: KEY POINTS

2.1.1 The full results of the web-based desk study are provided in the Appendix A; a summary of the key outcomes is present here. Supporting plans are provided in the Appendix.

2.1 Statutory Designated Sites

2.1.1 The Site lies within 2 km of five statutory designated sites of nature conservation importance.

2.1.2 Chobham Common, a 519 ha NNR, lies approximately 1.7 km northeast of the Site with partial connectivity via an agricultural landscape, woodland strips and residential gardens. This NNR is designated for its biological value supporting a historic lowland heath.

2.1.3 The site also lies within 2km of Thursley, Ash, Pirbright and Chobham special area of conservation (SAC), a 5154.5 ha SAC which underpins many of the designated sites in the area such as Chobham common. The Site is designated for its habitat features.

2.1.4 Chobham Common SSSI, a 655 ha SSSI, lies approximately 1.7km northeast of the Site with partial connectivity via an agricultural landscape, woodland strips and residential gardens. The SSSI is designated for its biological value and is an extensive area of open land which supports dry and wet heathland, bog, scrub and woodland.

2.1.5 Horsell Common SSSI, a 151 ha SSSI, lies approximately 1.8km to the southeast of the Site with partial connectivity to the Site via an agricultural landscape and along the river Bourne corridor. The SSSI is designated for its biological value and consists of a rich mosaic of heathland habitats, ranging from open heath and acidic grassland to bog, heathland pools, and secondary woodland and scrub. It supports a variety of characteristic heathland plants and animals.

2.1.6 The Site also lies within 2km of the Thames Basin Heaths SPA which underpins many of the designated sites in the area, such as those listed above. The Thames Basin SPA covers over 8000 ha and is designated for its biological features including the Dartford warbler, nightjar and woodlark. The Site is not within the 400 m buffer zone from areas of the SPA protection.

2.1.7 The Site lies within the Impact Risk Zone (IRZ) of Thames Basin SPA, Chobham Common SSSI, Horsell Common SSSI, Thursley, Ash, Pirbright and Chobham SAC and Colony Bog and Bagshot Heath SSSI (2-3 km). The following have been identified as potential risks and causes of risk to these designated sites if such development takes place within the area under assessment:

- ***Infrastructure:*** Pipelines, pylons and overhead cables. Any transport proposal including road, rail and by water (excluding routine maintenance). Airports, helipads and other aviation proposals.
- ***Wind & Solar Energy:*** Solar schemes with footprint > 0.5ha, all wind turbines.
- Minerals, Oil & Gas: Planning applications for quarries, including: new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil & gas exploration/extraction.
- ***Rural Non-Residential:*** Large non-residential developments outside existing settlements/urban areas where footprint exceeds 1ha.

- ***Residential:*** Any residential developments with a total net gain in residential units.
- ***Rural Residential:*** Any residential developments outside of existing settlements/urban areas with a total net gain in residential units.
- ***Air Pollution:*** Any industrial/agricultural development that could cause AIR POLLUTION (incl: industrial processes, livestock & poultry units with floorspace > 500m², slurry lagoons > 200m² & manure stores > 250t).
- **Combustion:** General combustion processes >20MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion.
- **Waste:** Landfill, Including inert landfill, non-hazardous landfill, hazardous landfill.
- **Composting:** Any composting proposal with more than 75000 tonnes maximum annual operational throughput. Incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management.
- **Water Supply:** Large infrastructure such as warehousing / industry where total net additional gross internal floorspace following development is 1,000m² or more.

2.2 Non-Statutory Designated Sites

2.2.1 There are no known non-statutory designated sites of nature conservation within 2 km of the Site.

2.3 Priority and Notable Habitats

2.3.1 The Site itself does not support any priority or notable habitat features. Four UK Priority Habitats occur (as depicted on MAGIC) within 1 km of the Site:

- Traditional Orchards - Three blocks of 4 parcels, the nearest of which is located approximately 250 m northwest of the Site;
- Deciduous Woodland - Sixteen blocks of 44 parcels, the nearest of which is located immediately to the north of the Site;
- Ancient Semi-Natural Woodland - One block of 0.2 ha of ancient woodland is located approximately 700 m east of the Site; and
- Wood Pasture and Parkland BAP Priority Habitat - Two parcels, the nearest of which is located approximately 400 m south of the Site.

2.3.2 Notable Habitats also occur (as depicted on Magic) within 1km of the Site, including three blocks of 3 parcels of 'No main habitat but additional habitat exists', the nearest of which is located approximately 150 m east of the Site.

2.4 Protected and notable species

Great crested newt

2.4.1 One European protected Species application was returned within 1 km of the Site, permitting the licenced activity of damage and destruction of a resting place for great crested newt between August 2017 and December 2022. Three records of great crested newts/licence applications were returned from a search of development licence applications, survey class licence returns and eDNA pond surveys within 1 km of the Site as depicted on *MAGIC*. The survey licence and protected species licences are associated with the same site which is approximately 700 m east of the Site. There is limited connectivity between the record location and the Site. Furthermore, there are no ponds within 250 m of the Site boundary based on OS map data.

Bats

2.4.2 Twenty-one records of bat licence applications were returned from a search of development licence applications within 5 km of the Site. The species for the application licences included common pipistrelle, soprano pipistrelle and brown long-eared bat. The nearest licence return is approximately 750 m east of the Site and provides the licenced activity of destruction to a breeding site and destruction of a resting place for common pipistrelle, soprano pipistrelle and brown long-eared bat from June 2010 to June 2012. The remaining bat surveys are summarised in Appendix A.

2.4.3 No statutory designated sites of nature conservation were designated for bats within 5 km of the Site.

Other Fauna

2.4.4 There are no hedgehog records on the Site itself, however three hedgehog records are located within 1 km of the Site. The nearest record is situated approximately 150 m north east of the Site with good connectivity via residential gardens, woodland strips and hedgerows.

2.4.5 There is an arable farmland bird assemblage of a maximum of three species within 1 km of the Site. Species include lapwing, turtle dove and yellow wagtail. Lapwing and turtle dove overlap with the Site itself, therefore there is potential that such species may occur on or use the Site if suitable habitat is present.

2.4.6 No other priority or notable species were found within 1 km of the Site.

3. SURVEY

3.1.1 A walkover survey was undertaken on Site on the 13th January 2021 to assess the area affected by the proposed works (covering the parcel A and neighbouring Parcel C) for the following:

- Badger – focusing on setts within 30 m;
- Bats – focusing on potential roosts;
- Great crested newts – focusing on terrestrial habitat affected within 250 m of known ponds;
- Nesting birds – focusing on trees/scrub/hedgerows/buildings within the Site itself;
- Reptile – focusing on potential features on and adjacent to the Site;
- Other notable species – e.g. features that could support hedgehog within and adjacent to the Site.

4. RESULTS

4.1.1 The results of the Ecological Constraints Assessment are set out below with supporting photographs appended to this report.

4.1 General

4.1.1 The Site is a large estate, with numerous residential buildings associated gardens, large areas of open pasture and tree lined boundary features of native and exotic ornamental species. The site is divided into parcel A with neighbouring Parcel C shown on the Site Plan in the Appendix.

4.1.2 Parcel A is serviced by two existing points of vehicular access from Castle Grove Road which take the form of verge crossover style priority junctions. A further informal access to Parcel C is located on the south west corner, and takes the form of a partially gravelled track lined with trees. The central access point is the main site access linking the Lodge with the main house and associated buildings.

4.1.3 Parcel C is referred to for completeness and is located to the west and south of the Site. The western boundary is a post and wire fence along a wet drain adjoining agricultural fields. The southern boundary is a post and wire fence adjoined to agricultural fields along a part gravelled track lined with trees. The eastern boundary is a tree lined embankment along Castle Grove Road. The northern boundary is the interface with Parcel A which occurs over a wet ditch with reeds. Parcel C habitats include:

- Parcel C is dominated by a central area of improved grassland as an open pasture. The open grassland is selectively mowed (Photograph 1). The open grassland is species-poor. The species featured in this area is largely spear thistle, perennial rye grass and yorkshire fog with occasional areas of bracken around the site peripheries. These species are largely reflected around all of the Sites open grassland areas. Within the area of improved grassland there are three trees with mature features two of the trees are giant sequoia and the other species is Cedar. The mature trees are surrounded by estate rail fencing (Photograph 2).
- The eastern portion of Parcel C is an area of tree planting along the boundary of the estate which include horse chestnut, cherry laurel, red alder, poplar species, paper birch, common chokecherry, oak, oak species, laurel species and common holly. The trees were mature and there was also an understory of bracken, English ivy and bramble were also present particularly around a mound area in the south west corner of Parcel C (Photograph 3).
- The southern portion of Parcel C is a tree lined boundary, along a partially gravelled track lined with trees. running the length of Parcel C's southern boundary and associated tree species (Photograph 4). In the southern corner of Parcel C there is a gate which provides access to the gravelled path. Between the gravelled path and open pasture there is an estate rail fence and numerous native and exotic trees. Species in this area include laurel species, common holly, pacific yew, cherry laurel, paper birch, oak, poplar species, hawthorn, pacific rhododendron, yew species and oak species. The trees were mature and an understory was mainly lacking due to shading however there were ephemeral species including cleavers, bramble and nettle.

- The western portion of Parcel C is a tree lined boundary along a post and barbed wire fence adjacent to a wet drain feature. The species along the western periphery include common holly, elder, blackberry, dogrose, sweet gum, common gorse, ash, English oak, and a linear row of poplar species (Photograph 5). The trees are mature and there is little understory other than sporadic areas of bramble and ivy. In the north west corner of Parcel C there is an open building used in the storage of green materials.

4.1.4 Parcel A is the key Site- forming the north and eastern portion of the land ownership. Parcel A is largely made up of a residential dwelling and the associated garden features including amenity grass lawns, a swimming pool, gravel drives, and ornamental shrub/plants. The western boundary is a cypress species hedgerow associated with the residential garden. The northern boundary is a tree lined embankment along the river Bourne. The eastern boundary is a tree lined embankment and fence along Castle grove road. There are two wooden access gates to Site along the eastern boundary of Parcel A. The southern boundary is the interface with Parcel C which occurs over a wet ditch with emergent plants such as soft rush (Photograph 5). Parcel A habitats include:

- Parcel A is mainly dominated by residential buildings (photograph 6) and areas of amenity lawns which are mown. The open grassland is improved and species poor. The species include yorkshire fog and perennial rye grass. the central section of Parcel A also supports various ornamental planting of species including sweet gum, poplar species, weeping willow, white mulberry and other introduced garden variants.
- The eastern portion of Parcel A is an area of tree planting along a gravel driveway, a residential house and further tree planting associated with the eastern boundary of the Site (Photograph 7). The species in the eastern section of Parcel C include red maple, common hazel, scots pine, pacific rhododendron, laurel species, Oregon grape, Chinese privet, cedar species, paper birch, horse chestnut, common holly and arrow bamboo. There is also an area of hardstanding where the gravel road leads up to the main area of residential housing.
- In the western section of Parcel A there are areas of amenity grassland consistent with the rest of the Site. There is also a wet drain which enters the Site in the south eastern corner of Parcel A. The wet ditch is unvegetated (Photograph 8). Ornamental planting is sporadic in areas within the northern section of Parcel A. There is also a cypress hedgerow along the eastern boundary.
- In the southern area of Parcel A there is a wet ditch boundary with associated rushes which is the interface between Parcel C and Parcel A. The eastern area of Parcel A also includes manged grassland and a small block of mature pine trees (Photograph 9).
- The northern portion of Parcel A is associated with sporadic ornamental tree species within lawns. There is a tree lined boundary along the river Bourne (Photograph 10) which runs along the western boundary of Parcel A and the Site. The species in this area include pine, yew, cedar s, poplar species, oak, cherry laurel, red alder, elder, paper birch, common holly, European beach, arrow bamboo, rhododendron species, plum species, maple species and oak species (Photograph 11).

4.2 Badger

4.2.1 No evidence of badgers was encountered during the Site walkover with regard to setts or signs of foraging or general activity. The areas of woodlands on site as well as the adjacent woodland areas and hedgerow margins around the site peripheries are considered likely to provide some foraging opportunities for badgers.

4.2.2 The Site itself could support foraging badgers, however it is unlikely to support any badger setts. The Site peripheries in particular provide woodland habitat which is more favourable for badger. Adjacent habitats which have mosaics of grassland, hedgerows and woodlands provide more suitable habitat. Overall, the Site is of low value to badgers given presence of peripheral limited suitable habitat and open character.

4.3 Bats

Roosting

4.3.1 Trees: Within the Site there were numerous trees which support some coverings of ivy, were mature and had notable bat roosting features which could provide roosting opportunities for bats year-round. The ivy coverings may conceal features of potential higher value to bats. There were also mature trees displaying potential bat roosting features.

4.3.2 Buildings: There are numerous buildings on site which have potential to support roosting bats. There are no heritage buildings on site, however some of the dwellings have potential bat features such as roof voids and potential crevices.

4.3.3 No signs of bat were identified during the survey and however features on site were considered to offer roosting potential.

4.3.4 Due to roosting potential features including mature trees and buildings, limited disturbance and limited light pollution the Site is considered to be of moderate value bat roosting.

Foraging and commuting

4.3.5 Brown long-eared, common pipistrelle and soprano pipistrelle have been recorded locally and adjacent woodlands to the Site may also provide foraging and commuting routes for bats as will the river corridor.

4.3.6 The established and mature woodland areas as well as the mosaic of habitats and water features in combination with buildings and limited disturbance are considered as providing opportunities for foraging and commuting bats in the Site.

4.4 Amphibians

4.4.1 The desk study identified no ponds within 250 m of the Site. There is one pond on Site, however the pond is small and considered unlikely to support great crested newts during their breeding phase. The habitat

on Site largely consisted of managed grasslands, periphery planting and ornamental garden planting which has limited potential to support newts during their terrestrial phase due to a lack of structure (e.g. tussocky grass) and hibernacula features.

4.4.2 The Site is considered unlikely to support great crested newt.

4.4.3 Some of the woodland areas offers terrestrial habitat on Site with regard to foraging and shelter opportunities for common amphibians. Lack of significant favourable water bodies, poorly connected terrestrial habitat and disturbance on Site would limit the potential for the Site to support significant amphibian populations. However, it is considered likely that the Site may support a small number of common amphibians such as common toad and common frog.

4.5 Invertebrates

4.5.1 The Site has areas which could support invertebrates such as dense tree cover, dead wood, ornamental planting areas and watercourses. Decaying wood and aquatic features in certain areas of the Site could provide good habitat for invertebrates. In the eastern area of the Site the mosaic of habitat features could be used by a range of invertebrates. The Site is also considered to support a diversity of plant species and conditions which could support assemblages of invertebrates and notable species. Generally, the Site is dominated by species-poor managed grasslands and as such areas of value tend to be along the peripheries of the Site.

4.6 Otter/Water Vole

4.6.1 The Bourne present on the boundary of the Site is considered unlikely to supply abundant food for otters. Furthermore, the river is small and lacks features which would allow otters to forage, breed or rest. The Site has limited favourable habitat for otter and is considered unlikely to support otter. Otter may commute along the river between more favourable habitat areas in the locality.

4.6.2 The watercourses on Site lacked significant marginal areas suitable for water vole and as such the presence of water vole on Site is considered unlikely.

4.7 Birds

4.7.1 There are numerous mature trees which are due to be retained on Site which are likely to provide nesting opportunities for a range of common species present in the locality. The Site also has proximity to surrounding areas which support arable farmland bird assemblages.

4.7.2 Species which were observed on the day were:

- Goldfinch
- House sparrow
- Red kite
- Redwing

- Robin
- Song thrush
- Wood pigeon.

4.7.3 The Site is located within a wider rural agricultural setting and the presence of mature trees in a less disturbed setting in close proximity to water features and adjacent fen and grass land areas means the Site may provide habitat for more notable bird species. The Site does have potential to support rare or notable breeding species due to size, presence of mature trees and varying habitat conditions present on Site as well as regular human disturbance through residents and management.

4.7.4 More favourable habitat is present in the adjacent agricultural fields which include dense hedgerows, woodlands, marsh and rough grassland. Red Kite were observed in the adjacent agricultural fields to the west of the Site.

4.7.5 Signs of bird nesting (redundant nests) were observed during the Site survey.

4.8 Reptiles

4.8.1 The areas of woodland and edge habitats could provide habitat for reptiles with further reptile habitats present in the adjacent parcels including the land to the north of the Site which is connected via woodland and a stream. Features present on the peripheries of the site include sheltered areas for basking, wet ditches, a pond, some refugia features and mosaics of habitat for foraging/shelter.

4.8.2 The Site does have some potential to support reptile species due to size, presence of some suitable habitat and varying habitat conditions present on Site. However, the majority of the Site is of open character and unfavourable for reptiles. Furthermore, the suitable habitat areas are poorly connected and exposed to some disturbance and management. Therefore, the Site is not considered to support significant numbers of reptiles.

4.8.3 There are favourable habitats within 1 km of the Site including woodlands and open mosaic habitat which may support reptiles.

4.9 Notable Species

4.9.1 The woodland areas on Site could provide shelter and foraging habitat for hedgehog. Three hedgehog records are located within 1 km of the Site with one record with good connectivity via residential gardens, woodland strips and hedgerows. The Site is considered likely to support hedgehog due to suitable habitat and size.

4.9.2 The Site also supported other fauna including, rabbit and deer species. Tracks and droppings of deer and rabbit were present on Site amongst the areas of vegetation and area of bare ground.

5. MITIGATION & ENHANCEMENT

5.1 General

5.1.1 Necessary and appropriate mitigation is detailed below for each ecological constraint identified during this assessment with consideration of the Site proposals presented in the Appendix.

5.1.2 Due to the habitat being unsuitable and no signs of presence on Site, the following species were scoped out of the mitigation section:

- great crested newt and amphibians
- otter/water vole

5.2 Statutory Sites

5.2.1 There are no statutory sites in close proximity to the Site.

5.2.2 The Site falls within an Impact Risk Zones of an SPA, SAC and 3 SSSIs and the proposed development is included on the list of developments that are considered likely to cause a risk to these statutory sites. Therefore, an area has been identified for use as Suitable Alternative Natural Greenspace (SANG) subject to requirements of the local planning policy.

5.2.3 The Site has a proposed net gain in residential units which has been identified as a potential risk and causes of risk to these designated sites as detailed in the Impact Risk Zone information. To compensate for this, the Scheme has identified an area of land to provide SANG. This is in accordance with the Thames Basin Heath SPA Avoidance Strategy Supplementary Planning Document. This document advises that it will usually be possible for developments of fewer than 136 net dwellings to take up capacity at Council-provided SANGs, subject to availability so an alternative option is available if required.

5.2.4 BMD understands that the allocated SANG area can be provided in accordance with minimum requirements for compensation (which is approximately 0.30 hectares on the basis of 15 dwellings) and could be extended to provide greater provision if required through design development (see SANG Area plan in Appendix). The proposed area is existing grazing land so public access to these areas could be managed with no impacts on sensitive habitats/species anticipated at this stage. Further details of SANG area would be provided at the detailed planning stages.

5.2.5 As such, at this stage no direct or indirect impacts are anticipated to any statutory sites

5.3 Habitats

5.3.1 The Site is situated adjacent to priority deciduous woodland along the northern boundary.

5.3.2 No direct impact on Priority Woodland habitat to the north is anticipated due to clear boundary lines including a natural buffer of retained habitat and the river Bourne.

5.3.3 Mature trees are present on site; however, these are due to be retained and no direct impacts are anticipated.

5.3.4 The development proposals currently impact on lower value habitat of managed grassland and garden areas, avoiding the mature trees (to be retained within the proposals) and buffer areas of woodland/shrubs maintained along the boundaries of the Site, notable the northern boundary.

5.3.5 Retained habitat areas are to be illustrated on the Overall Landscape General Arrangement plan at the detailed planning stage. Key areas requiring protection include retained trees within the Site.

5.3.6 In order to minimise indirect effects on nearby woodland areas, watercourses and retained habitat standard industry best practices in relation to construction sites and dust production/pollution must be adhered to. Measures to include:

- Dust dampening measures; and
- Protection fencing along the peripheries of the works area to prevent egress into adjacent habitat areas.

5.3.7 Trees/shrubs:

- Tree and shrub root protection zones to be clearly marked with fencing throughout the development works, e.g. Heras fencing. Fencing to follow British Standard BS5837:2012 Trees in relation to design, demolition and construction.
- No spoil to be deposited or works to take place within the root protection zones of retained trees and shrubs.

5.3.8 Air and waterborne pollution:

- Standard industry best practice in relation to construction sites and dust production/water pollution will minimise impacts to retained/adjacent habitats.

5.3.9 With regard to compensation and enhancement, the trees should be retained where feasible to do so and any losses should be replaced within the Site or elsewhere within the wider site ownership.

5.3.10 It is recommended that new landscape areas include native/wildlife friendly trees and shrubs where feasible and include a range of biodiversity features such as log piles, wildlife boxes and hibernacula.

5.4 Badgers

5.4.1 No evidence of badger presence was encountered during a Site walkover.

5.4.2 The Site is surrounded by agricultural land with woodland areas which may support badger. The. Prior to works commencing the area will be checked by an Ecological Clerk of Works (ECoW) for the presence of badgers to ensure no signs of recent badger activity. Search area to extend 30 - 50 m beyond the works footprint. General protection measures during construction shall include:

- Any trenches and excavations are to be covered at night and when construction staff are not on Site and/or a means of escape provided for any animals that may fall in. Escape ramps should be no greater than an angle of 45°. Covering trenches and excavations is preferable as harm may come to some animals if they fall in; risk of harm is greater with trenches/excavations over 1 m deep and if water collects. Trenches to be checked for trapped animals at the start of each day.
- Pipes to be capped or covered at night and when construction staff are not on Site to prevent badgers (and other fauna) entering and becoming trapped.
- Conditions not to be created that may be utilised by badger, e.g. piles of soft earth. If such features are unavoidable, they should be appropriately fenced to prevent badgers gaining access.

5.5 Bats

5.5.1 Based on the Site inspection, no direct impacts on bats are currently anticipated as mature trees and the existing properties are being retained.

5.5.2 The mature trees within the Site are considered to provide low roosting potential for bats due to some trees supporting features such as ivy and cracks. The peripheral mature trees and mature trees are proposed to be retained.

5.5.3 However, as a precaution the following approach is recommended at construction stage:

- Pre-works (regardless of timing of year) any trees/buildings to be impacted upon should be re-inspected to confirm no change of value to bats and no bats are utilising such features. If the baseline has changed further bat surveys may be necessary. At the present time the higher potential features such as mature trees and buildings are being retained.
- Erection of a general-purpose bat box on a suitable tree (this is likely to have to be off site). This is to ensure that should a bat be found there is a safe/secure location for it to be placed if required.
- Further to the pre-works check, any features of interest will be soft stripped under appropriate ecological supervision. This is to ensure that no bats are present. If bats or evidence of bats are found at any stage:
    - All works MUST stop and not re-commence until advice has been received from an appropriately qualified ecologist.
    - Liaison with Nature England may be necessary.
    - A European Protected Species Licence may be necessary before works can re-commence.

5.5.4 The woodland areas may provide foraging opportunities for bats so any works that require artificial lighting will need to ensure no light throw onto adjacent woodland areas to the around the peripheries of the Site during the operational stage of the development. Should artificial lighting be required during the construction period then further advice from an ecologist should be sought.

5.6 Birds

5.6.1 Works in close proximity to retained trees during the core nesting season (March to August inclusive):

- Immediately prior vegetation clearance works commencing (within 48 hours) an inspection by the Ecological Clerk of Works to check for any evidence of nesting or nest building birds. If evidence is found, works may be delayed.

5.6.2 If nesting birds are found at any stage during construction works:

- All works that are likely to cause disturbance and/or within the zone of influence of the birds, MUST stop and not re-commence until advice has been received from the Ecological Clerk of Works.

5.6.3 Depending on the species, situation, stage of nesting and works in immediate vicinity it is likely that an exclusion zone will be put up around the nest and works will be stopped or restricted within the exclusion zone.

5.6.4 Although no specific mitigation requirements have been identified for nesting birds, ecological enhancements could include installation of bird boxes on retained trees/within shrub areas to provide additional nesting and shelter opportunities for birds post development

5.7 Reptiles

5.7.1 As a precaution, best practice to be followed in relation to reptiles during any Site management/construction works such as:

- Phased clearance of vegetation to ensure any reptiles can disperse to adjacent retained areas.
- Changing the timing of the work if this corresponds to less disturbance to reptiles such as avoiding autumn and extreme weather periods.
- Retaining some areas of favourable reptile habitat.
- If reptiles are encountered that are heavily gravid or hibernating works MUST stop and a suitably qualified ecologist will assess the situation and advise accordingly.

5.8 Invertebrates

5.8.1 Best practice to be followed in relation to invertebrate during Site management works. This will be dependent of timings of works but likely to include the following measures:

- Reduce the scale of the impact by minimising the footprint of the works.
- Displace invertebrates from sensitive areas by changing the habitat in a phasing system to provide habitat continuity.
- Maintain sufficient suitable habitat to support the species in the local area.

5.9 Other Fauna (including amphibians and hedgehog)

5.9.1 Best practice to be followed in relation to hedgehog and fauna in general. This will be dependent of timings of works but likely to include the following measures:

- Hedgehog:

- Phased clearance of shrub areas to ensure any hedgehog or other species can disperse to adjacent retained areas.
- If active hedgehogs are encountered works that are likely to cause disturbance and/or within the zone of influence of the hedgehog MUST stop and not re-commence until advice has been received from a suitably qualified ecologist.
- If required, a suitably qualified ecologist will carefully move the hedgehog by hand from the construction area to nearby retained habitat features away from construction works.

- If a hibernating hedgehog is encountered (i.e. during the months of November to February) works MUST stop and a suitably qualified ecologist will assess the situation and advise accordingly.

5.9.2 Throughout construction period:

- Creation of habitat that fauna (including small mammals and common amphibians) may use for refuge, e.g. piles of construction material or loose-packed spoil, to be avoided.
- If evidence of specifically protected species comes to light during the construction stage then works that are likely to cause disturbances to the animals should stop until advice has been sought from a suitably qualified ecologist.

5.10 Invasive species

5.10.1 Rhododendron variants (listed in Schedule 9 Part 2 of the Wildlife and Countryside Act 1981) is known to be present within the ornamental planting sections of the Site. Rhododendron variants are an established non-native invasive species within the UK. They were identified during the walkover and as such as a precaution measures should be employed during any shrub clearance works to minimises the risk of spreading variants.

6. REFERENCES AND BIBLIOGRAPHY

British Standards Institute (BSI) (2013). BS42020 - Biodiversity Code of Practice for Planning and Development. BSI, London.

CIEEM (2017). Guidelines on Ecological Report Writing (2nd edn). Winchester: CIEEM.

Collins, J. (ed) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines*. (3rd ed) Bat Conservation Trust. London.

Environment Agency (2012). Working at Construction and Demolition Sites: PPG6 Pollution Prevention Guidelines (2nd edn). Bristol: Environment Agency.

Harris S, Cresswell P and Jefferies D (1989). Surveying Badgers. Mammal Society.

HM Government (1981). Wildlife and Countryside Act 1981 (as amended).

HM Government (2000). Countryside and Rights of Way Act, 2000.

HM Government (2005) ODPM Circular 06/05 Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System.

HM Government (2006). Natural Environment and Rural Communities Act 2006.

HM Government (2010). Conservation of Habitats and Species Regulations 2017.

HM Government (2019) National Planning Policy Framework. Department for Communities and Local Government.

Maddock, A (ed.) (2008). UK Biodiversity Action Plan; Priority Habitat Descriptions (Updated Dec 2011).

Mitchell-Jones, A.J. & McLeish (2004). *Bat Workers' Manual*, 3rd edition, JNCC, Devon.

Natural England (2009). Guidance on 'Current Use' in the definition of a badger sett (WML-G17). Natural England, Peterborough.

Natural England (2009). Interpretation of 'Disturbance' in relation to badgers occupying a sett (WML-G16). Natural England.

Natural England (2010). Higher Level Stewardship Farm Environment Plan Manual (3rd ed).

Natural England (2015). https://www.gov.uk/guidance/reptiles-protection-surveys-and-licences [Accessed 27/06/2018]

PTES (2020) https://bighedgehogmap.org/ [Accessed 11/01/2021]

Scottish Natural Heritage (2003). Best Practice Guidance - Badger Surveys. Inverness Badger Survey 2003. Commissioned Report No. 096

Surrey Heath Planning Search (2021) Simple Search (surreyheath.gov.uk) [Accessed 13/01/2021]

The Bat Conservation Trust (2014). *The State of the UK's Bats 2014*.

The Conservation of Habitats and Species Regulations 2017, as amended.

7. GLOSSARY

7.1 Scientific Terms and Acronyms

Badger sett An underground complex of tunnels utilised by badger as a den and accessed by one or more entrances at ground surface level.

CIEEM Chartered Institute of Ecology and Environmental Management, the professional organisation and provider of professional codes of conduct for ecological consultancy.

EPS European Protected Species For the purposes of this report EPS are species that require particular licences to allow certain works to go ahead. Species falling within the following situations are not considered as EPS within this report:

Level of protection – 'EU' Protected under the Conservation of Habitats and Species Regulations (2017).

Level of protection – 'UK' Protected under the Wildlife and Countryside Act 1981 (as amended).

LNR Local Nature Reserve. Statutory designation.

NNR National Nature Reserve. Statutory designation.

Non-native invasive species For the purposes of this report: species listed on Schedule 9 of the wildlife and Countryside Act 1981 (as amended). Widely naturalised species, such as grey squirrel, are excluded.

Notable species A species which is listed as a UK Priority Species, carries an unfavourable conservation status (e.g. scarce, rare, threatened, Red-listed), is invasive or is otherwise worthy of note from an ecological perspective.

PRF Potential Roost Feature. A feature on a building or tree that has potential to support roosting bats.

Protected species A species protected under specific UK or European legislation, including Habitats Directive, Wildlife and Countryside Act.

SAC Special Area of Conservation. Designated under European Union Habitat Directive (92/43/EEC) to protect species and habitat of European interest.

SPA Special Protection Area. A site designated under the European Union Directive on the Conservation of Wild Birds.

SSSI Site of Species Scientific Interest. Statutory designation of biological or geological importance.

UK Priority Habitat and species A habitat or species identified as a priority for conservation in accordance with Section 41 of the Natural Environment and Rural Communities Act (2006). Section 40 of the Act places a duty on public authorities to have regard for the conservation objectives of these habitats and species. (Also known as Section 41 (S41) habitats/species).

7.2 Scientific Names

7.2.1 Scientific names of species mentioned in this report are outlined in Table 7.1. This table excludes species recorded on Site; see Appendix C.

Table 7.1 Scientific names of species mentioned within this report

English Name	Scientific Name
Amphibians & Reptiles	
Common frog	*Rana temporaria*
Common toad	*Bufo bufo*
Great crested newt	*Triturus cristatus*
Bats	
Bats	Chiroptera sp.
Brown long-eared	*Plecotus auritus*
Common pipistrelle	*Pipistrellus pipistrellus*
Soprano pipistrelle	*Pipistrellus pygmaeus*
Birds	
Dartford warbler	*Sylvia undata*
Lapwing	*Vanellus vanellus*
Nightjar	*Caprimulgus europaeus*
Turtle dove	*Streptopelia turtur*
Yellow wagtail	*Motacilla flava*
Woodlark	*Lullula arborea*
Mammals	
Badger	*Meles meles*
Hedgehog	*Erinaceus europaeus*
Otter	*Lutra lutra*
Water vole	*Arvicola amphibius*
Plants	
Tussock grass	*Poaceae sp.*

APPENDIX

Site Location Plan

Site Proposals Plan

SANG Location Plan

Magic Map Extracts – January 2021

NOTES

CONSULTANTS
- Refer to highways consultant's drawings for details
- Refer to landscape consultant's drawingsfor details
- Landscaping layoutis indicativeonly

AREAS
- Refer to area schedule

Rev	Notes	dd.mm.yy	By	Auth

N

0

KING & CO
PROPERTY DEVELOPMENT & INVESTMENT
EST. 1920

Marquis House, 68 Great North Road, Hatfield, AL9 5ER
www.kingandcompany.co.uk

Date:	Jan 2021
Drawn by:	TA
Checked by:	JC
Scale @A1:	1:1250
Scale @A3:	1:2500
CAD File No:	

BROADFORD
Castle Grove Road, Chobham
LOCATION PLAN - PARCEL A

PLANNING
1408 P1-102

NOTES

CONSULTANTS
- Refer to highways consultant's drawings for details
- Refer to landscape consultant's drawings for details
- Landscaping layout is indicative only

AREAS
- Refer to area schedule

Rev	Notes	dd.mm.	B	Auth

N

5m 10m 15m 20m 25m 50m

KING & CO
PROPERTY DEVELOPMENT & INVESTMENT
EST. 1920
Marcuis House, 68 Great North Road, Hatfield, AL9 5ER
www.kingandcompany.co.uk

Date Jan 2021
Drawn by: TA
Checked by: JC
Scale @A1: 1:500
Scale @A3: 1:1000
CAD File No:

BROADFORD
Castle Grove Road, Chobham
PROPOSED LAYOUT - PARCEL A

PLANNING
1408 P1-106

3.0 Site and Context

1. Existing site entrance

2. Existing site entrance

3. Broadford

4. Ballyhandy Cottage

5. Wisteria Cottage (under extyension)

5A. Garage

6. Piggeries, Stables and garden garage

7. Swimming Pool

8. Garages in flood Zone 3

9. The Lodge

10. Pond House - Grade II Listed

11. Hazledene House - Locally Listed

12. Castle Grove House - Grade II listed

13. Existing further access point

14. Existing access off Castle Grove Road into Parcel C with partially gravelled track

Ownership boundary

Site boundary

River Bourne

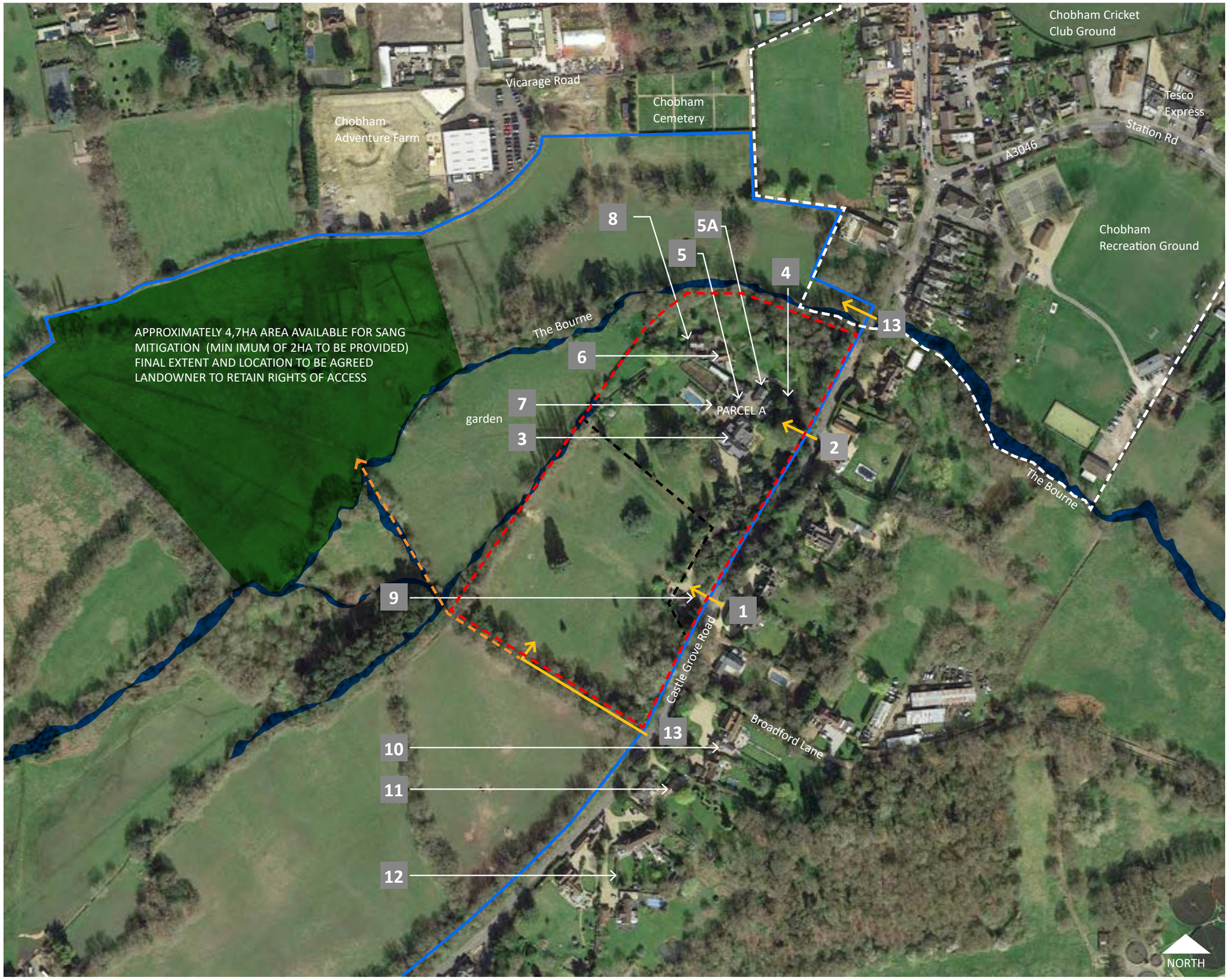
Conservation Area

Parcel Boundary

SANG mitigation area (land owner to retain rights of access and provide rights of way as necessary)

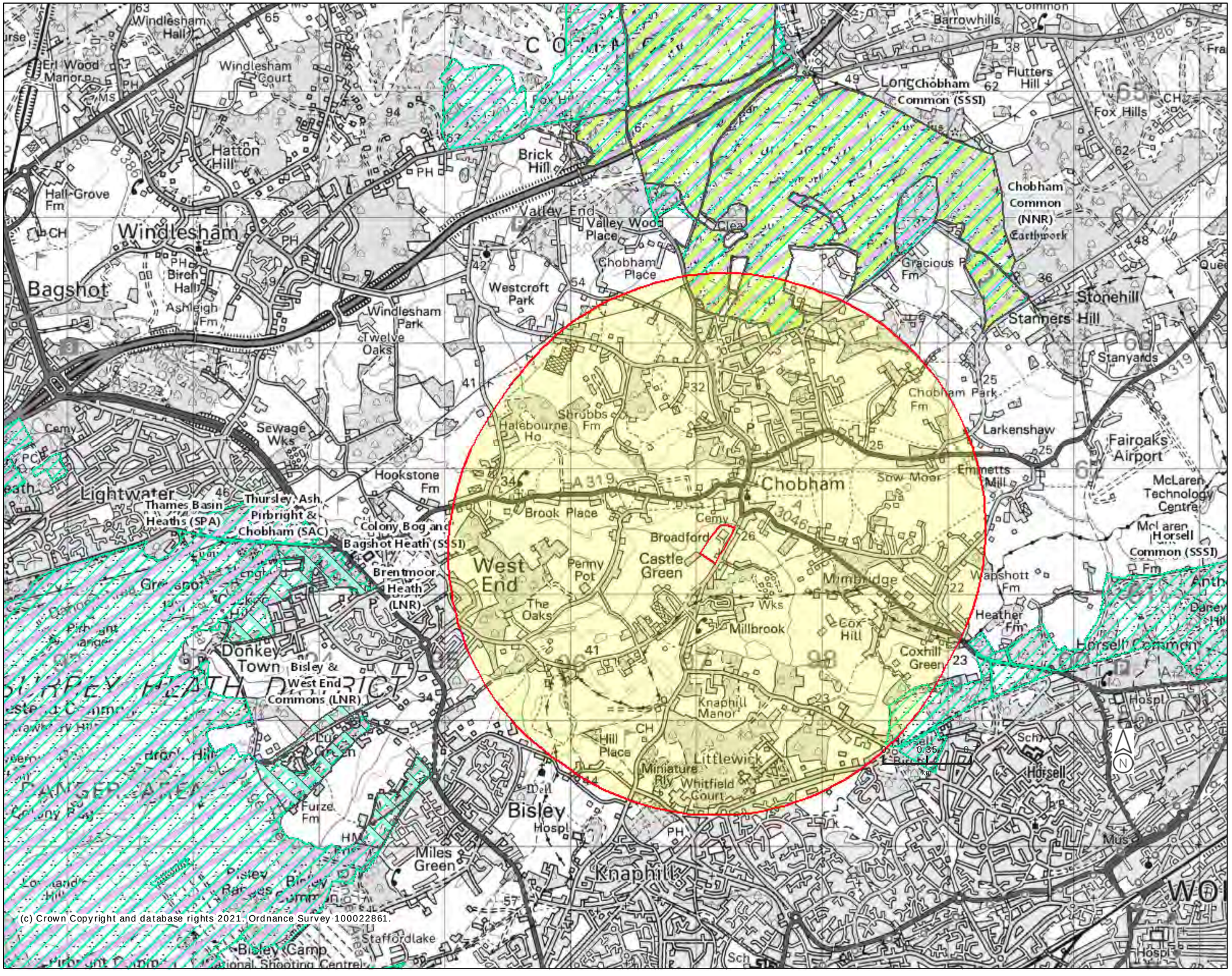
Existing points of access

Potential future pedestrian links



MAGiC

Broadford, Chobham



Legend

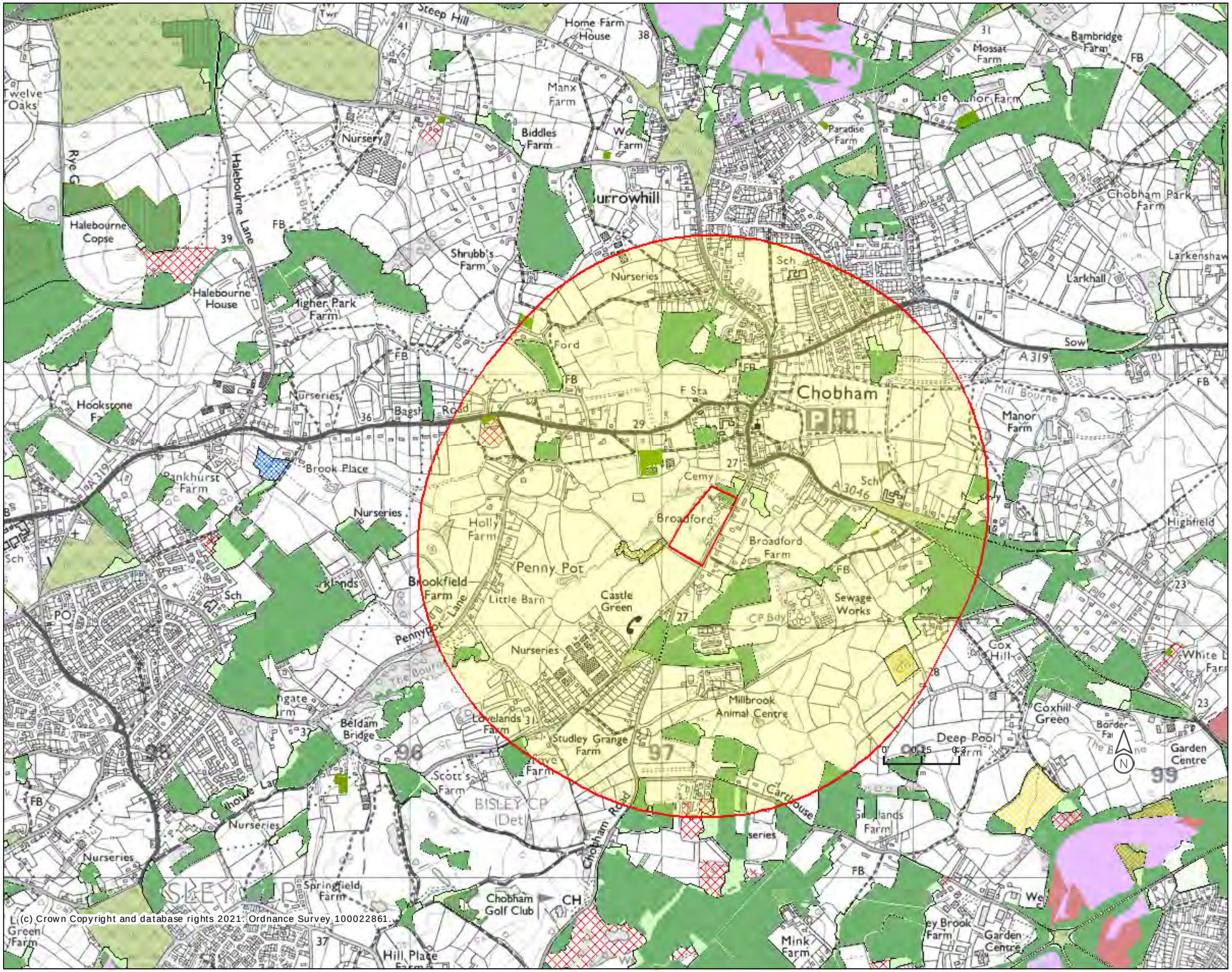
- Local Nature Reserves (England)
- National Nature Reserves (England)
- Ramsar Sites (England)
- Sites of Special Scientific Interest (England)
- Special Areas of Conservation (England)
- Special Protection Areas (England)

Projection = OSGB36
xmin = 489900
ymin = 159300
xmax = 502800
ymax = 164500

0 0.6 1.2
km

MAGIC

Broadford, Chobham



Legend

- Priority Habitat Inventory - Coastal Saltmarsh (England)
- Priority Habitat Inventory - Coastal Sand Dunes (England)
- Priority Habitat Inventory - Coastal Vegetated Shingle (England)
- Priority Habitat Inventory - Maritime Cliffs and Slopes (England)
- Priority Habitat Inventory - Mudflats (England)
- Priority Habitat Inventory - Saline Lagoons (England)
- Saline Lagoons (Wales)
- Saltmarsh (Wales)
- Sand Dunes (Wales)
- Priority Habitat Inventory - Calaminarian Grassland (England)
- Priority Habitat Inventory - Coastal and Floodplain Grazing Marsh (England)
- Priority Habitat Inventory - Good quality semi-improved grassland (Non Priority) (England)
- Priority Habitat Inventory - Lowland Calcareous Grassland (England)
- Priority Habitat Inventory - Lowland Dry Acid Grassland (England)
- Priority Habitat Inventory - Lowland Meadows (England)
- Priority Habitat Inventory - Purple Moor Grass and Rush Pasture (England)
- Priority Habitat Inventory - Upland Calcareous Grassland (England)
- Priority Habitat Inventory - Upland Hay Meadows (England)
- Priority Habitat Inventory - Lowland Heathland (England)
- Priority Habitat Inventory - Mountain Heaths and Willow Scrub (England)
- Priority Habitat Inventory - Upland Heathland (England)
- Priority Habitat Inventory - Limestone Pavements (England)

Projection = OSGB36
xmin = 493600
ymin = 160300
xmax = 500000
ymax = 162900

0 0.3 0.6 km

Map produced by MAGIC on 15 January, 2021.

Site photographs

Photograph 1: Open character mown lawns of Parcel C

Photograph 2: Mature trees with estate rail fencing

Photograph 3: Area of bracken and boundary trees along the southern boundary

Photograph 4: Partially gravelled track lined with trees along the western boundary

Photograph 5: Row of poplar trees in the north east corner of Parcel C and wet ditch feature between Parcel C and Parcel A

Photograph 6: Main residential dwelling on Parcel A

Photograph 7: Driveway and hard standing along southern boundary of Parcel A

Photograph 8: Wet ditch

Photograph 9: Pine trees present on site along western boundary of Parcel A

Photograph 10: The Bourne

Photograph 11: Ornamental planting

A. WEB-BASED DESK STUDY

A.1.1 A data search on *MAGIC* and other web-based data sources was completed on 11th January 2021. A summary of features checked is provided in Sections A.1 to A.3.

A.1 Statutory Designated Sites

A.1.2 Tables A1.1 summaries statutory designated sites of nature conservations within 2 km of the Site as depicted on *MAGIC* (11/01/2021).

Table A1.1 Statutory designated nature conservation sites within 2 km of the Site

Site designation	Number of sites			
	Total	On Site	0-1 km	1-2 km
AONB	0	0	0	0
LNR	1	0	0	1
NNR	0	0	0	0
National Park	0	0	0	0
Ramsar	0	0	0	0
SSSI	2	0	0	2
SAC	1	0	0	1
SPA	1	0	0	1
Impact Risk Zone	Yes - Chobham Common SSSI, Horsell Common SSSI and Colony Bog and Bagshot Heath SSSI, Thames Basin SPA, Thursley, Ash, Pirbright and Chobham SAC			

A.1.3 No statutory designated sites of nature conservation were designated for bats within 5 km of the Site.

A.2 Habitats

A.2.1 At the time of assessment, a review of the Woodland Trust Ancient Tree Inventory to highlight and known ancient, veteran or notable trees within 1 km of the Site was not possible due to a technical error with the website.

A.2.2 Table A2.1 summarises Priority and notable habitats within 1 km of the Site, as depicted on *MAGIC* (11/01/2021).

Table A2.1 Priority (and notable) habitats within 1 km of the Site

Broad category	Priority Habitat Inventory	Other habitats	On Site	0-1 km
Coastal	Saltmarsh		0	0
	Sand Dunes		0	0
	Vegetated Shingle		0	0
	Maritime Cliffs and Slopes		0	0
	Mudflats		0	0
	Saline Lagoons		0	0
Grassland	Calaminarian Grassland		0	0
	Coastal and Floodplain Grazing Marsh		0	0
		Good quality semi-improved grassland (non-priority)	0	0
	Lowland Calcareous Grassland		0	0
	Lowland Dry Acid Grassland		0	0
	Lowland Meadows		0	0
	Purple Moor Grass and Rush Pasture		0	0
	Upland Calcareous Grassland		0	0
	Upland Hay Meadows		0	0
Heath	Lowland Heathland		0	0
	Mountain Heaths and Willow Scrub		0	0
	Upland Heathland		0	0
Limestone pavements	Limestone Pavements		0	0
Marine	Intertidal Substrate Foreshore		0	0
Wetland	Blanket Bog		0	0
	Lowland Fens		0	0
	Lowland Raised Bog		0	0
	Reedbeds		0	0
	Upland Flushes, Fens and Swamps		0	0
Woodland		Ancient: Semi-natural	0	1 parcel
		Ancient: Replanted	0	0
	Deciduous Woodland		0	16 blocks of 44 parcels
		National Inventory of Woodland & Trees[1]	0	18 blocks of 20 parcels
	Traditional Orchards		0	3 blocks of 4 parcels
	Wood pasture and Parkland BAP Priority Habitat		0	2 parcels
Trees[2]		Ancient, veteran or notable trees	0	0
Other		Fragmented heath (Non Priority)	0	0
		Grass Moorland (Non Priority)	0	0
		No main habitat but additional habitat exists	0	3 blocks of 3 parcels

Broad category	Priority Habitat Inventory	Other habitats	On Site	0-1 km
	Open Mosaic Habitat		0	0
Notes 1. Not notable habitats but provide information to guide mitigation 2. Woodland Trust Ancient Tree Inventory				

A.3 Species

A.3.1 No statutory designated sites of nature conservation within 5 km of the Site are designated for bats. No records of bat licence applications were returned from a search of development licence applications within 5 km of the Site.

A.3.2 Table A3.1 summarises protected and notable species within 1 km of the Site, as depicted on various online data sources (see Table A3.1 footnotes for details).

Table A3.1 Notable fauna in relation to the Site

Species	On Site	0-1 km
Farmland bird assemblages[1]		
Arable (max number of species)	0	3
Grassland (max number of species)	0	0
Black grouse		
Cirl bunting		
Corn bunting		
Curlew		
Grey partridge		
Lapwing	✓	✓
Redshank		
Snipe		
Stone curlew		
Tree sparrow	✓	✓
Turtle dove	✓	✓
Twite		
Yellow wagtail		
Mammals		
European hedgehog[2]	0	3
Notes 1. As depicted on *MAGIC (2021).* 2. Aa depicted on the Big Hedgehog Map (PTES, 2021).		

Table A3.2 European Protected Species license applications within 1 km and (5 km for bats) of the Site. NB excluding GCN, see Table A3.3.

Protected species licence applications[1]	Number of applications Total	On Site	0-1 km	1-2 km	2-5 km
Bat	21		1	5	15
Species covered by the bat licences					
Alcathoe bat					

Protected species licence applications[1]	Number of applications Total	On Site	0-1 km	1-2 km	2-5 km
Barbastelle					
Bechstein's bat					
Brandt's bat					
Brown long-eared bat	11		✓	✓	✓
Common pipistrelle	17		✓	✓	✓
Daubenton's bat					
Greater horseshoe bat					
Grey long-eared bat					
Leisler's bat					
Lesser horseshoe bat					
Nathusius pipistrelle					
Natterer's bat					
Noctule					
Pipistrelle sp.					
Serotine					
Soprano pipistrelle	3		✓	✓	✓
Whiskered bat					

Notes
1. As depicted on *MAGIC 2021*

Table A3.3 Great crested newt data within 1 km of the Site

Data source	Number of records		
	Total	On Site	0-1 km
NE Great Crested Newt Class Survey Licence Returns[1]	3	0	3
NE country-wide survey data[1]	0	0	0
Granted European Protected Species Application licenses[1]	1	0	1

Notes
1. As depicted on *MAGIC 2021*

B. METADATA, SURVEY CONDITIONS AND LIMITATIONS

B.1 Metadata

Factor	Detail
Data	Ecological constraints
Reason for collection	To identify ecological constraints and to inform appropriate mitigation in relation to proposed works.
Location	Broadford, Chobham, Surrey approximately centred on national grid reference: SU971614
Date	13/01/2021
Method of collection	Ecological constraints assessment
Who collected	Jonathan Wood ACIEEM

B.2 Survey Conditions

Date	Start Time	Preceding days	Cloud (%)	Sun	Temp. (°C)	Precipitation	Wind (Beaufort scale)
13/01/2021	10:30	Wet and cold	100	N/A	8	Light rain	1

B.3 Limitations Review

Consideration	Comment
Survey & data	
Personal competence, i.e. qualifications, training, skills, understanding, experience	All survey works were undertaken by or directly supervised by personnel experienced in ecological surveying (see meta data). Jonathan Wood ACIEEM has over 6 years' experience in ecological consultancy, including an experience of performing and coordinating the survey work and assessments undertaken at Site. James Patmore CEcol CEnv MCIEEM has over 18 years of experience in ecological consultancy, including an extensive amount of experience performing and directing ecological survey work and assessments
Resources (equipment and/or personnel)	Appropriate resources and suitably qualified personnel were used.
Time spent surveying	Sufficient time was spent on site to undertake all surveys. No surveys were 'cut short'.
Data (e.g. arising from incomplete or inappropriate surveys)	The data collected were sufficient for the purpose of the works.
Lack of statistical robustness and higher uncertainties	Statistical analysis of data was not deemed necessary for the purpose of the current works.
Old and out of date data	The data used to complete this Ecological Constraints Assessments were current and up to date.
Timing or seasonal constraints and suboptimal survey periods	The survey was conducted in January 2021, although outside of the core habitat survey season, based on the habitat types present no significant limitations were identified.
Partial use of and/or departures from good practice guidelines	All surveys accorded with the relevant best practice guidelines.
Site conditions & other factors	
Adverse weather conditions	No significantly adverse weather conditions were encountered during the survey work undertaken at the Site that would be considered to have significantly adversely impacted the reliability and accuracy of data collected.

Consideration	Comment
Restricted access to site or part of site	Access was not restricted to the main areas of the Site. However, access was restricted inside residential dwellings.
Unrealistic deadlines	No restrictions on survey data collected or analysed to date are as a result or unrealistic deadlines.
Unproven or untested measures for mitigation and compensation	N/A
Evaluation of conservation value and impacts	The evaluation of the conservation value of habitats and species associated (or potentially associated) with the site and impacts of the development, are based on the current information available. This evaluation will need to be reviewed and updated as necessary should a considerable period of time (24 months) elapse and/or more data from other survey work (on and within 1 km of the site) becomes available.

C. DETAILED SURVEY RESULTS

C.1 Species Recorded on Site

English Name	Scientific Name
Birds	
House sparrow	*Passer domesticus*
Red kite	*Milvus milvus*
Redwing	*Turdus iliacus*
Robin	*Erithacus rubecula*
Song thrush	*Turdus philomelos*
Wood pigeon	*Columba palumbus*
Mammals	
Deer	*Cervidae* sp.
Rabbit	*Oryctolagus cuniculus*
Plants	
Arrow bamboo	*Pseudosasa japonica*
Bracken	*Pteridium aquilinum*
blackberry	*Rubus fruticosus*
Bramble	*Rubus fruticosus*
Bristly oxtongue	*Helminthotheca echioides*
Cedar sp.	*Cedrus sp.*
Cherry	*Prunus avium*
Cherry laurel	*Prunus laurocerasus*
Chinese privet	*Ligustrum sinense*
Cleavers	*Galium aparine*
Creeping thistle	*Cirsium arvense*
Cypress sp.	*Cupressaceae sp.*
Dock	*Rumex* sp.
Dog rose	*Rosa canina*
Elder	*Sambucus nigra*
Giant sequoia	*Sequoiadendron giganteum*
Gorse	*Ulex europaeus*
Hawthorn	*Crataegus monogyna*
Hazel	*Corylus avellana*
Holly	*Ilex aquifolium*
Horse chestnut	*Aesculus hippocastanum*
Ivy	*Hedera helix*
Laurel sp.	*Laurus sp.*
Mulberry	*Morus sp.*
Nettle	*Urtica diocia*
Oak	*Quercus robur*
Oak sp.	*Quercus sp.*
Oregon grape	*Mahonia aquifolium*
Pacific yew	*Taxus brevifolia*
Pacific rhododendron	*Rhododendron macrophyllum*
Paper birch	*Betula papyrifera*
Perennial ryegrass	*Lolium perenne*
Pine sp.	*Pinus sp.*
Poplar sp.	*Populus sp.*

English Name	Scientific Name
Privet spp.	*Ligustrum spp.*
Red alder	*Alnus rubra*
Red maple	*Acer rubrum*
Rhododendron sp.	*Rhododendron sp.*
Scots Pine	*Pinus sylvestris*
Soft rush	*Juncus effusus*
Spear thistle	*Cirsium vulgare*
Sweet gum	*Liquidambar styraciflua*
Weeping willow	*Salix babylonica*
Yew sp.	*Taxus sp.*
Yorkshire fog	*Holcus lanatus*

WYG Group

part of the **WYG** group

Mr Marsden

Broadford, Chobham

Flood Risk Assessment and Drainage Strategy

June 2017

5th Floor, Longcross Court, 47 Newport Road, Cardiff, CF24 0AD

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Document Control

Project: Broadford Chobham

Client: Mr Marsden

Job Number: A096537

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Prepared by:	Paul Graham	Signed:	[redacted]
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Verified by:	David Forward	Signed:	

Issue	Date	Status
1	06.06.17	First Issue
2		
3		
4		

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Figures

Appendix Contents

1.0 Introduction

1.1 Brief

1.1.1 WYG have been commissioned by Mr Marsden to produce a Flood Risk Assessment (FRA) in support of a site feasibility assessment for a site off Castle Grove Road, Chobham. The client owns a wider site area and divided the site into two areas and wishes to assess whether development will be appropriate in either location based on the flood risk and drainage constraints.

1.1.2 This report has been produced to identify, and where appropriate recommend mitigation to, any flooding issues associated with the proposed development, following the requirements of the Environment Agency (EA), Surrey County Council and Thames Water.

1.1.3 The purpose of this report is to demonstrate how the development complies with planning policy on flood risk – National Planning Policy Framework (NPPF) and supporting Planning Practice Guidance (PPG).

1.2 Report Structure

1.2.1 The structure of this report is summarised as follows:

- Section 2: Describes existing conditions with respect to flooding and drainage; along with design proposals;
- Section 3: Provides a commentary on how flood risk from a range of potential sources may or may not constrain development proposals;
- Section 4: Describes how surface water from the development area can be drained in a sustainable manner, without increasing the risk of flooding elsewhere;
- Section 5: Describes how foul drainage from the new development may be discharged;
- Section 6: Presents a summary of the report and identifies the main conclusions that can be drawn.

2.0 Site Conditions and Planning Policy

2.1 Existing Conditions

2.1.1 The wider site is located west of Castle Grove Road, Chobham. Refer to Figure 1.

2.1.2 The landowner currently owns all of the land encompassed within the blue boundary provided in Figure 2. At this stage, the site owner wishes to investigate the feasibility of development at both parcel A and parcel C. However, the site owner is only seeking to secure allocation of Parcel A.

2.1.3 Parcel A is 2.23ha and Parcel C is 2.05ha. Refer to Figure 2.

2.1.4 Parcel A is currently occupied by existing residential development and Parcel C is currently greenfield.

2.1.5 The area for the proposed site (Parcel A only) to be taken forward is 2.23ha.

2.1.6 The Greenfield run-off rate for the site as a whole has been calculated, as well as individual rates for Parcel A and Parcel C. Respectively, these rates are 14.6l/s, 7.6l/s and 7.0l/s. This equates to 3.5l/s/ha. All calculations can be seen in Appendix B.

2.1.7 Parcel C is bounded by Parcel A to the north and vice versa. Both sites are bounded by Castle Grove Road to the east and other greenfield land owned by the developer in all other directions.

2.2 Topography

2.2.1 The wider site falls from south to north with levels varying from 28mAOD in the south to 24mAOD in the north.

2.3 Hydrology

2.3.1 There is a small drainage ditch that flows south west within the western boundary of the wider site. This ditch then flows west into The Bourne. The Bourne is also located at the northern end of the application boundary.

2.4 Hydrogeology

2.4.1 Geological mapping highlights that the site is underlain with Bagshot Formation – Sand with Alluvium deposits towards the north of the application site (within close proximity of the watercourse). This can be seen in Figure 7.

2.4.2 The soakaway testing carried our by WYG in March 2017 indicate that the geological mapping data from BGS in fairly accurate at the site.

2.5 Groundwater

2.5.1 The site is not located within a groundwater source protection zone and is not located within an aquifer.

2.5.2 Soakaway testing carried out by WYG in March 2017 indicates that groundwater is at a level of between 1.3m and 1.45m below ground level.

2.6 Proposed Development

2.6.1 At this stage there are no development proposals, the developer wishes to assess the feasibility of the site for residential development.

2.7 Policy Context

2.7.1 The National Planning Policy Framework (NPPF) currently sets out the Government's planning policies for England.

2.7.2 The Planning Policy Guidance (supporting the NPPF) is shown in the table below.

Table 3: Flood risk vulnerability and flood zone 'compatibility'

Flood risk vulnerability classification (see table 2)		Essential infrastructure	Water compatible	Highly vulnerable	More vulnerable	Less vulnerable
Flood zone (see table 1)	Zone 1	✓	✓	✓	✓	✓
	Zone 2	✓	✓	Exception Test required	✓	✓
	Zone 3a	Exception Test required	✓	×	Exception Test required	✓
	Zone 3b functional floodplain	Exception Test required	✓	×	×	×

Key: ✓ Development is appropriate.
× Development should not be permitted.

Table 1 – Table 3 from Planning Policy Guidance (Flood Risk and Coastal Change) 06 03 2014

2.7.3 Under the NPPF, residential developments are classified as "More Vulnerable".

2.7.4 Parts of the site are located in all 4 areas of Flood Zone. From the table, it can be seen that residential development will be appropriate in Flood Zone 1 and 2.

2.7.5 Areas of the site within Flood Zone 3a can be used following the successful application of the sequential and exception test. However all of the Flood Zone 3 within this application is predominantly Flood Zone 3b.

2.7.6 Areas within Flood Zone 3b or "functional floodplain" are not appropriate for development.

3.0 Flooding

3.1 Introduction

3.1.1 There are a wide range of potential mechanisms which can cause flooding. Each potential source of flooding is discussed individually below:

3.2 Tidal or Main River Flooding

3.2.1 The location of the site in relation to possible sources of flood risk is shown in Figure 4.

3.2.2 The Bourne is located along the western and northern boundary of the application site. This watercourse is designated as a main river by the Environment Agency.

3.2.3 The site is at risk of flooding from this source. The product 4 information provided by the Environment Agency confirms that the modelled Q100 + CC flood levels adjacent to the site vary from 26.64mAOD to 26.18mAOD. Plotted against the topographical survey, these levels follow closely the area indicated by Flood Zone 3 on the flood zone map indicating there is no large discrepancy between LiDAR and topographical information.

3.2.4 The parcels comprise of the following areas approximately:

Parcel	Flood Zone 1	Flood Zone 2	Flood Zone 3
A	1.298ha	0.244ha	0.688ha
C	0.032ha	2.018ha	0ha

3.2.5 Areas in Flood Zone 1 can be used for residential development providing the finished floor levels are 600mm above the flood level of 26.64mAOD. Areas within Flood Zone 2 can be used for residential development providing the Floor Levels are 600mm above the flood level of 26.64mAOD and compensatory storage is provided for any floodplain which is lost by constructing the buildings.

3.2.6 Based on Flood Zone 1 having a 10% requirement for attenuation and Flood Zone 2 requiring 10% for attenuation and 25% for compensatory storage area, the total developable areas for Parcel A

and C are 1.327ha and 1.341ha respectively. These are estimates and storage requirements and compensatory cut and fill details will need calculating following the conception of a layout.

3.3 Surface Water Flooding

3.3.1 Surface water flooding can occur during high intensity rainfall events as sheet run off from fields or hard paved areas. The site has areas at high, medium and low risk of surface water flooding (on the Government's Long Term Flood Risk from Surface Water map).

3.3.2 The Government surface water flood risk map is shown in Figure 5.

3.3.3 Surface water flooding will continue to be managed going forward by the implementation of the Surface Water Drainage Strategy set out in Section 4.

3.4 Sewer Flooding

3.4.1 The Strategic Flood Risk Assessment (SFRA) for the area carried out by Capita on behalf of Surrey Heath Council indicates that there are no recorded incidences of sewer flooding within the Chobham area.

3.4.2 The sewer flooding history provided by Thames Water (Appendix A) indicates that there is no recorded incidences of sewer flooding within the vicinity of the site.

3.5 Groundwater Flooding

3.5.1 The SFRA indicates that there is a risk of groundwater flooding, particularly at locations closer to the watercourse. It is advised that groundwater monitoring is carried out to ensure that the groundwater level does not increase the risk of flooding.

3.6 Flood Risk from other sources

3.6.1 On rare occasions a development may be subject to flood risk from upstream features such as reservoirs, where there is a theoretical risk of failure. At this development it has been identified that there is no flood risk from other sources.

4.0 Surface Water Drainage Strategy

4.1.1 As well as to ensure that the users of the site are not at risk, another key objective is to ensure that the development does not increase the potential of flooding elsewhere, and if the opportunity arises, to reduce the potential for flooding off site. This objective can be achieved by designing a drainage strategy for the development which will set the strict framework to be followed during the detailed drainage design.

4.1.2 The surface water drainage strategy will be delivered in accordance with prevailing local and national planning policy. Currently, the most significant factors influencing the design of the drainage strategy are the Flood and Water Management Act 2010, Surrey Heath's Strategic Flood Risk Assessment, the National Planning Policy Framework (NPPF) and relevant chapters of the Planning Practice Guidance (PPG). This drainage strategy sets the guidelines for future detailed design, but more importantly, it demonstrates that a sustainable drainage solution is deliverable at this site, complying with all relevant planning and legislative criteria. The most important function of this drainage strategy is to demonstrate that the development will not increase flood risk elsewhere.

4.1.3 In addition to ensuring flood risk is not increased, mitigation to existing flooding will be considered wherever possible.

4.1.4 All calculations have been based on a range of rainfall return events up to and including the 1% AEP (1 in 100 year) event plus 40% climate change allowance.

4.1.5 The method of discharge of surface water is critical to ensuring that flood risk will not be increased elsewhere. Planning Practice Guidance and Building Regulations dictate the hierarchy for discharge options. In order of preference these are:

- To the ground (infiltration);
- To a surface water body;
- To a surface water sewer, highway drain or another drainage system;
- To a combined sewer;

4.1.6 Infiltration testing carried out by WYG in March 2017 would not fully drain the sample site in 24 hours; therefore, the interpolated infiltration rates make discharge via this option unviable.

4.1.7 Also, for a soakaway to be viable, 1m of clearance is required under the soakaway to the highest recorded level of groundwater. Given that this is 1.3m in some locations, soakaway drainage will be unsuitable.

4.1.8 The Bourne is located to the north of the application site, and this is the location to which the site would naturally drain in Greenfield conditions. Prior to connecting to this watercourse an environmental permit (formerly flood defence consent) to discharge to the watercourse will be required.

4.1.9 The Greenfield and run off rates for the site are set out below:

	Magnitude	Q1	Qbar	Q30	Q100	
	Total Site	12.4	14.6	33.0	46.5	
	Parcel A	6.4	7.6	17.2	24.2	
	Parcel C	5.9	7.0	15.8	22.2	

4.1.10 Discharge will be limited to the Greenfield Qbar rate for all storms up to the Q100+40% CC event.

4.1.11 The maintenance, management and responsibility of the drainage system, will lie with the site owner.

5.0 Foul Drainage Strategy

5.1 Local Public Sewers

5.1.1 There is a 150mm foul sewer crossing the site from west to east and a foul rising main in the south of the application site. Both of these features will require diversion or easement.

5.1.2 The foul sewer which crosses the application site has an approximate depth of 4.5m and an invert level of 22.82mAOD to the east of the application site. Due to its depth a gravity connection to this asset should be possible.

5.1.3 Once a layout has been finalised a foul loading can be calculated using British Flows and Loads 4 and capacity confirmed with Thames Water.

6.0 Summary and Conclusion

6.1 Summary

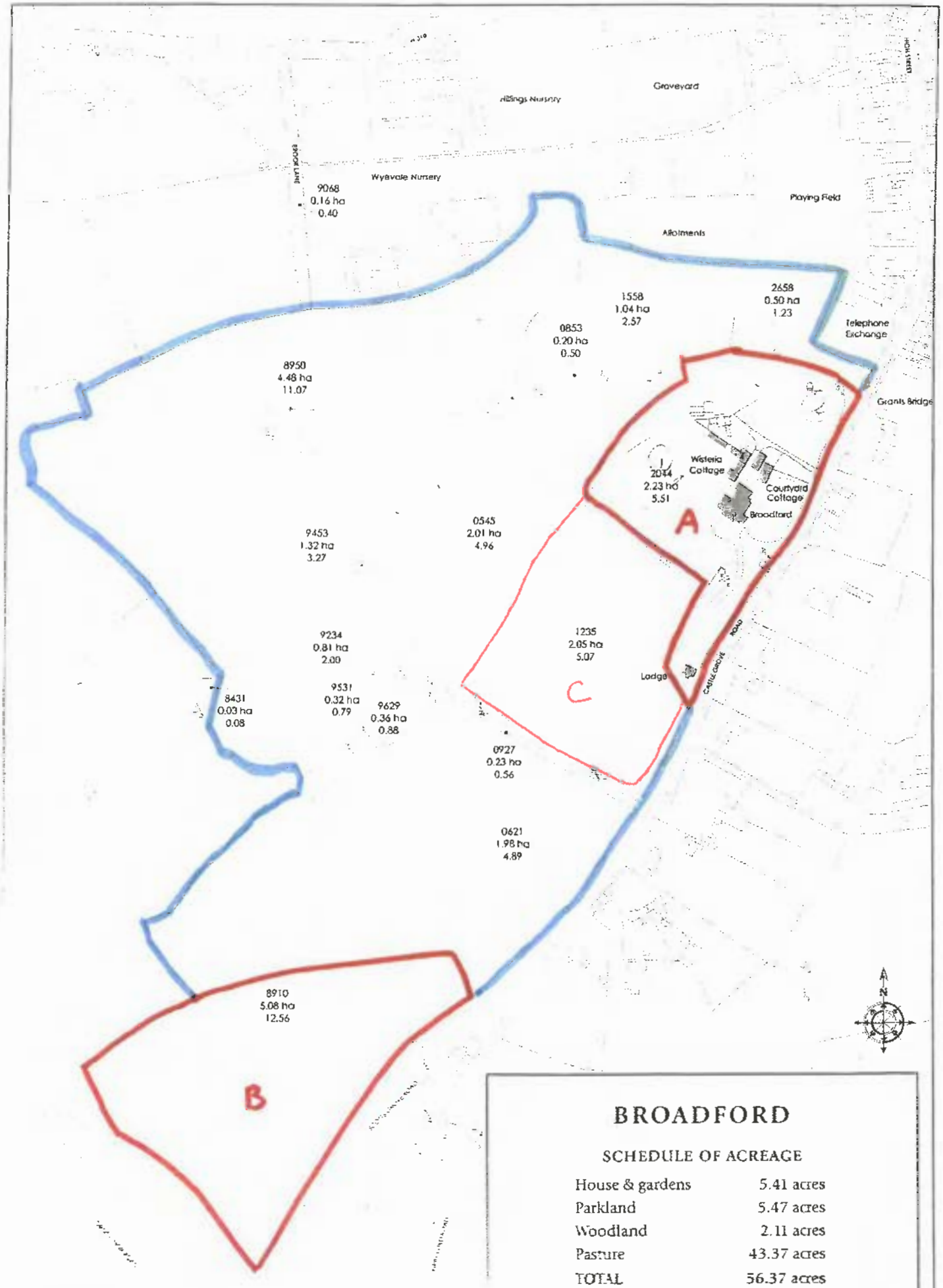
6.1.1 WYG were commissioned by Mr Marsden to produce a Flood Risk Assessment (FRA) and Drainage Strategy to accompany a site feasibility off Castle Grove Road, Chobham.

6.2 Conclusions

6.2.1 The conclusions of this Flood Risk Assessment (FRA) and Drainage Strategy are as follows:

- There are two development parcels to be considered with a combined area of 4.28ha.
- The area of development will be restricted back to Greenfield rates in order to provide betterment downstream.
- Areas in Flood Zone 1 can be developed providing the finished floor level is set 600mm above the Q100 + CC flood level of 26.64mAOD. Areas in Flood Zone 2 can be developed if the finished floor levels exceed the above flood level and sufficient compensatory storage is provided.
- The total developable areas for the site have been estimated as 1.327ha for Parcel A and 1.341ha for Parcel C.
- The surface water will discharge to The Bourne to the north.
- Groundwater monitoring is required to ensure that the site is not at risk of groundwater flooding.
- This FRA demonstrates that the site will not increase the risk of flooding elsewhere.

Figures



BROADFORD

SCHEDULE OF ACREAGE

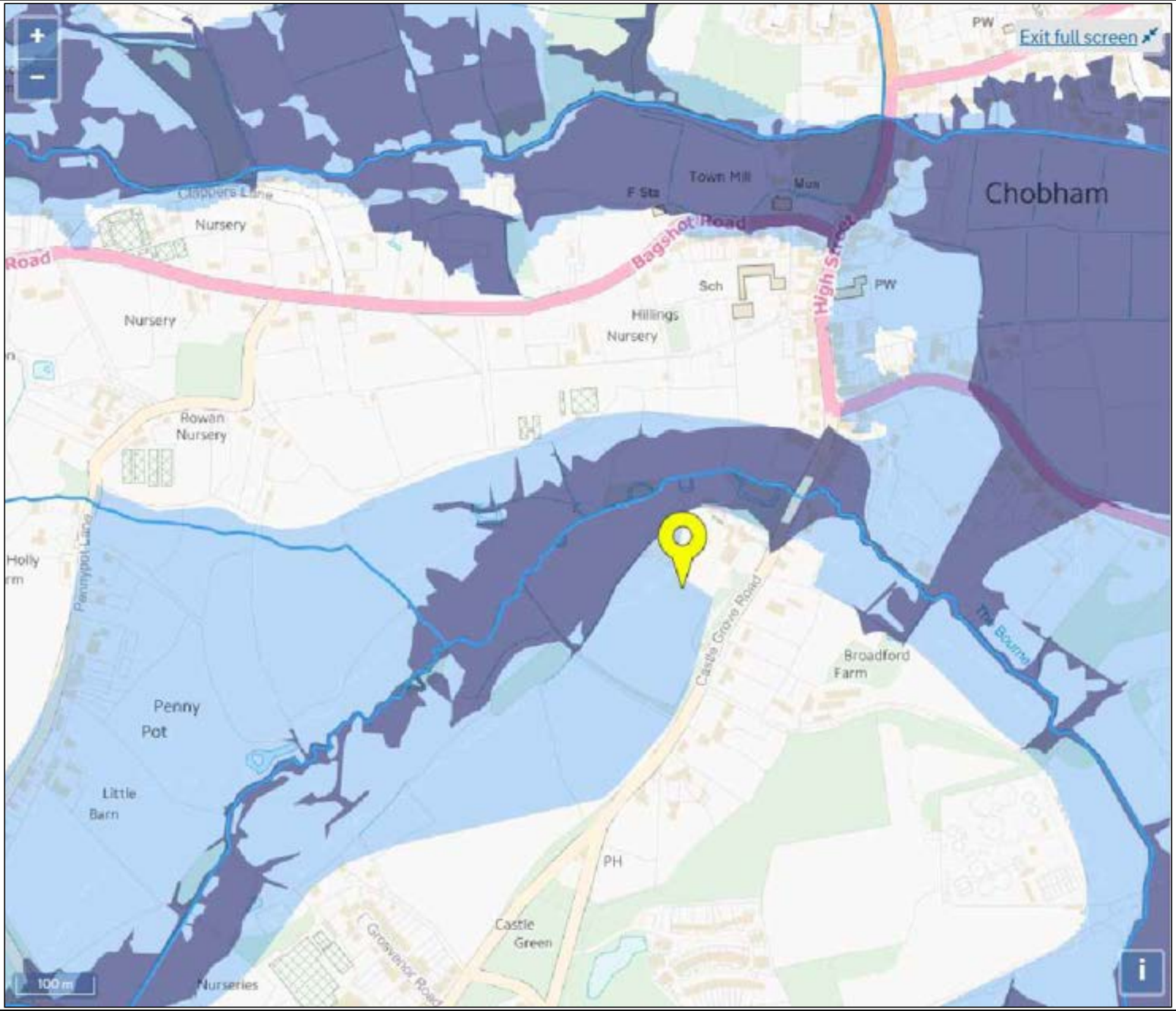
House & gardens	5.41 acres
Parkland	5.47 acres
Woodland	2.11 acres
Pasture	43.37 acres
TOTAL	56.37 acres

STRUTT & PARKER

Project Id:	A096537	Title:	Site Plan
Project Title:	Broadford FRA	Scale:	1:2000
Location:	Broadford	Engineer:	
Client:	Marsden	Contractor:	WYG

Legend Key

- Locations By Type - Empty
- Locations By Type - TP



REV	DETAILS	DRAWN	CHECKED	DATE

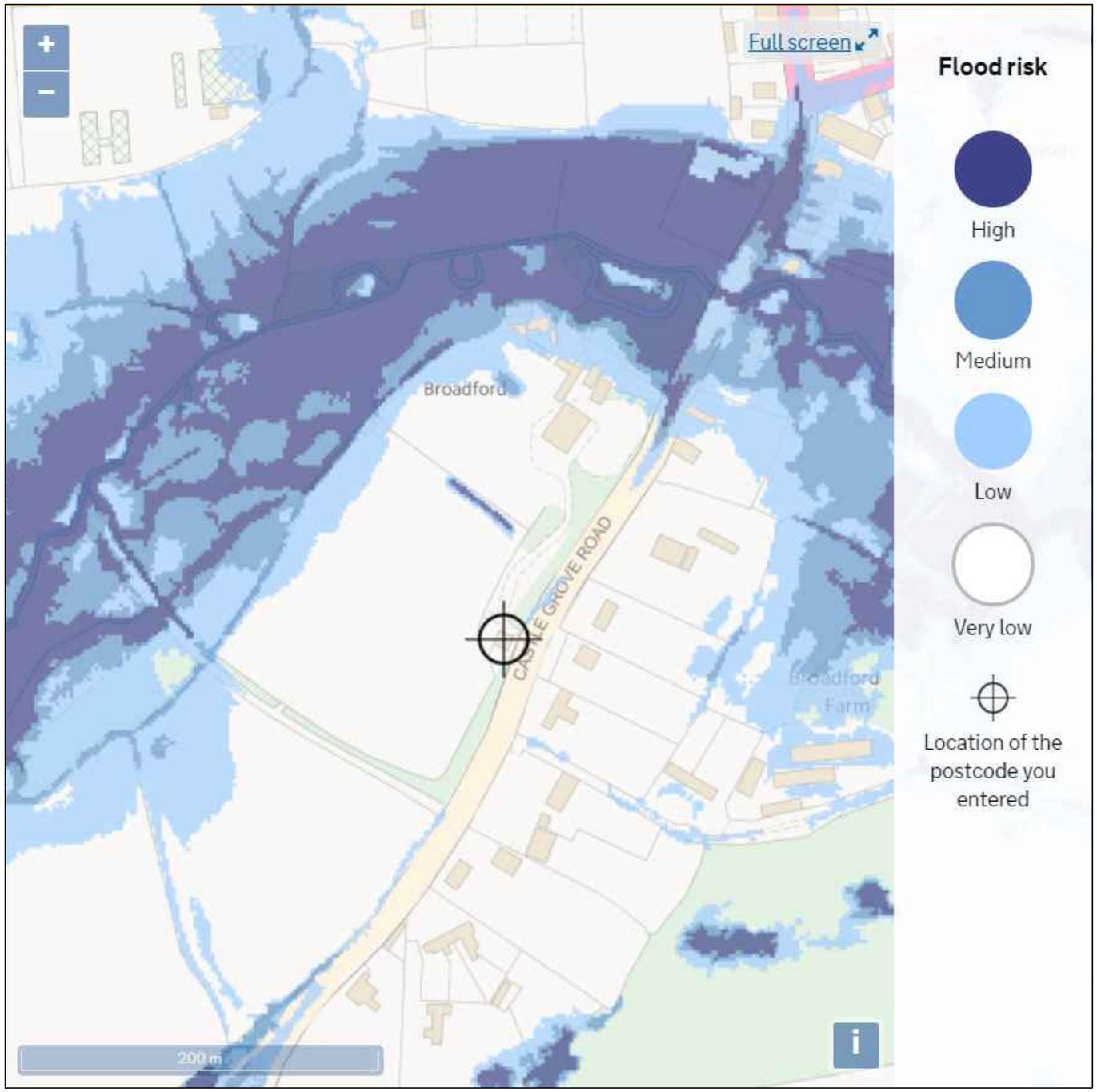
PROJECT: Broadford, Chobham

CLIENT:

DRAWING TITLE: Flood Map for Planning

WYG Transport
part of WYG group
5th Floor, Longcross Court
47 Newport Road, Cardiff, CF24 0AD
t: 029 2082 9200 f: 029 2045 5321 e: transport.cardiff@wyg.com

DRAWN:	CHECKED:	DATE:	SCALES:	SHEET SIZE:	DRAWING NUMBER:	REVISION:
PG	MM	05.06.17	NTS	A3	FIGURE 4	-



REV	DETAILS	DRAWN	CHECKED	DATE

PROJECT: Broadford, Chobham

CLIENT:

DRAWING TITLE: Surface Water Flood Map

WYG Transport
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5th Floor, Longcross Court
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DRAWN:	CHECKED:	DATE:	SCALES:	SHEET SIZE:	DRAWING NUMBER:	REVISION:
PG	MM	05.06.17	NTS	A3	FIGURE 5	-

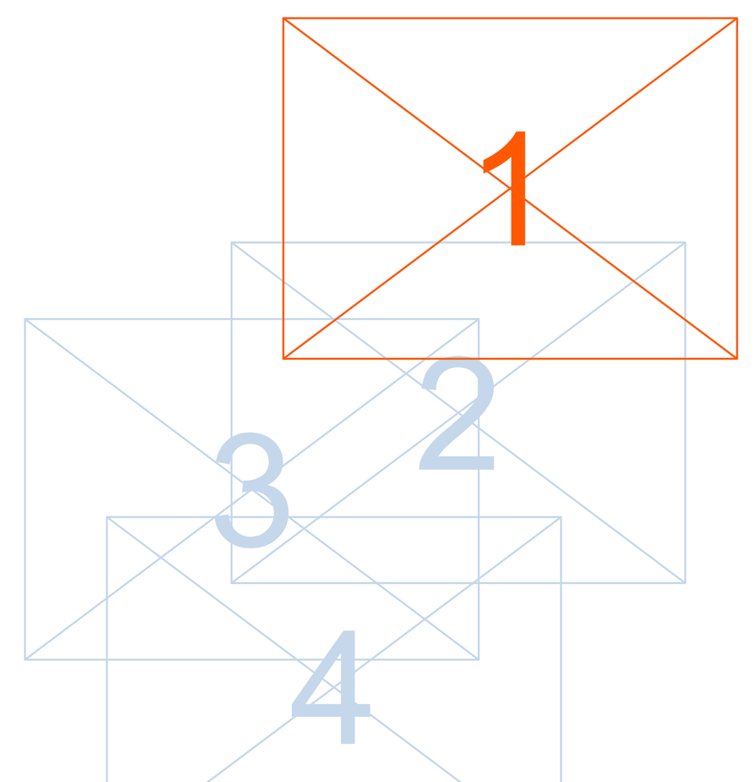
Notes

1. Surveyed April 2017.
2. Survey related to Ordnance Survey "OS Net" at control point STN03, using realtime correction received via Trimble Navigations "VRS Now" service. Survey plotted to flat plane metric grid with no local scale factor applied, i.e. LSF 1.00.
3. Levels related to GPS Orthometric height, converted to MSL (Newlyn) by OSGM15.

Permanent Control

STN	East	North	Level	Type
STN01	497299.073	161493.265	26.058	Nail
STN02	497291.216	161473.944	26.034	Nail
STN03	497269.405	161484.054	26.177	Nail
STN04	497268.451	161425.394	26.596	Nail
STN05	497249.228	161398.330	26.797	Nail
STN06	497224.662	161377.205	27.092	Nail
STN07	497209.870	161333.915	26.855	Nail
STN08	497199.066	161305.845	26.947	Nail
STN09	497185.223	161271.167	27.040	Nail
STN15	497186.046	161345.898	27.575	Nail
STN16	497166.859	161355.875	27.646	Nail
STN18	497181.456	161384.483	27.489	Nail
STN19	497191.428	161411.949	27.551	Nail
STN20	497216.370	161429.659	27.240	Nail
STN25	497217.703	161468.433	27.169	Nail
STN27	497205.718	161471.937	26.983	Nail
STN36	497163.368	161490.738	26.437	Nail
STN37	497186.467	161553.444	25.682	Nail
STN38	497210.690	161531.872	25.884	Nail
STN39	497218.721	161543.145	25.736	Nail
STN40	497240.265	161515.290	26.105	Nail

Sheet Layout



General

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Legend

Top / Bottom of Bank
Building / Overhead Canopy
Wall
Solid Surface Feature / Road Edge
Hard / Soft Surface Change
Kerb / Dropped Kerb
Combined Kerb & Drainage System
Drainage Channel
Road Traffic Sensors
Fence Line -

BW	Barbed Wire	HR	Hand Rail	PR	Post & Rail
CB	Close Boarded	IR	Iron Railings	SB	Safety Barrier
ChNut	Chestnut	Mtl PR	Metal Post & Rail	SF	Security Fence
CL	Chain Link	OB	Open Boarded	TF	Temporary Fence
CP	Concrete Panel	PA	Paling Fence	WM	Wire Mesh
(D)	Dilapidated	PC	Post & Chain		

Hedge Line — Bush
Tree / Scrub Canopy Line — Tree-Deciduous
O/H Telephone / Electric Cable(s) — Tree-Evergreen
Rock Face
Pipe Line (Above Ground)

T.PIT 22.5 Trial Pit (with level) — Survey Station — Gate — Electric Pylon
BH 26.5 Borehole (with level) — 10.1 Spot Level — Level Datum — Marsh Land
Woodland Area (Deciduous) — Woodland Area (Coniferous)

Feature Abbreviations

ACU	Air Conditioning Unit	FH	Fire Hydrant	NP	Name Plate	SVP	Soil Vent Pipe
BB	Belisha Beacon	FP	Fence Post	PB	Post Box	TAP	Stand Pipe
BO	Bollard	FL	Flood Light	PM	Parking Meter	TCB	Telephone Box
BO(L)	Bollard (Lit)	G	Gully (with Level)	RBB	Rodent Bait Box	TEL	Telecom's Cover
BP	Boundary Post	GP	Gate Post	RE	Rodding Eye	TL	Traffic Light
BS	Bus Stop	GAS	Gas Cover	RS	Road Sign	TP	Telephone Pole
CATV	Cable TV Cover	KO	Kerb Offlet	RS(L)	Road Sign (Lit)	TS	Traffic Signal Cover
CCTV	Close Circuit TV	LB	Lighting Beacon	RWP	Rain Water Pipe	VP	Vent Pipe
COL	Column	LBIN	Litter Bin	SNR	Sensor	WM	Water Meter
CP	Concrete Post	LP	Lamp Post	SP	Sign Post	WO	Wash Out
DWB	Dog Waste Bin	ME	Meter	SP(L)	Sign Post (Lit)	WV	Water Valve
EL	Electric Cover	MH	Manhole	SPDC	Speed Camera	UC?	Unknown Cover
EP	Electricity Pole	MP	Marker Post	STAY	Cable Stay	UTL	Unable to Lift
ER	Earth Rod	MEP	Metal Post	SV	Stop Valve	Ø	Diameter

Description Abbreviations

Asmd Rt	Assumed Route	Flw Bd	Flower Bed	O/H	Overhead
BkDrp	Back Drop	FW	Foul Water	OSBM	Ordnance Survey Bench Mark
Bk	Brick	GTrp	Grease Trap		
BusStKb	Bus Stop Kerb	Ht	Height	RetWall	Retaining Wall
Bldg	Building	Hg	Hedge	Rd Edg	Road Edge
CDrnKbS	Combined Drainage & Kerb System	Intcpr	Interceptor	Spd Rtr	Speed Retarder
		Lvl	Level	St	Stone
Conc	Concrete	m	Metres	STN	Station
CPit	Catch Pit	mm	Millimetres	SW	Surface Water
DrpKB	Drop Kerb	MSL	Mean Sea Level	Tac	Tactile Paving
Drn Chnl	Drainage Channel	No.	Number	Tmc	Tarmac

Level Prefix

AL	Arch Level	RL	Roof / Ridge Level	ToS	Top of Steel Level	FFL	Finished Floor Level
CL	Cover Level	SL	Soffit Level	ToW	Top of Wall Level	1st.FFL	1st Finished Floor Level
DPC	Damp Proof Course	SprL	Springing Level	SILL	Sill Level		
EL	Eaves Level	TL	Threshold Level	WL	Water Level (inc.date & Time)		
IL	Invert Level	ToC	Top of Concrete Level				
PL	Parapet Level	ToP	Top of Pipe Level				

Digital File 4175_10_2D.dwg — Original Size A0

No.	Description	Date	Signed

Revisions

Drawing Status: FINAL

Surveyed WM	Date 07/04/17	Scale 1:200
Drawn WM	Sheet 1 of 4	Approved AF

Client: Mr P. Marsden

Title: Topographical Survey

Project: Broadford, Castle Grove Road, Chobham, GU24 8EF

Drawing No. 4175/20/001 — Rev. -

Clugston Survey Services
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Normanby Road
Scunthorpe
North Lincolnshire
DN15 8QT

Tel: 01724 748170
Fax: 01724 748171
survey@clugston.co.uk
www.clugstonsurvey.co.uk

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BusStKb	Bus Stop Kerb	Ht	Height	RetWall	Retaining Wall
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CDrnKbS	Combined Drainage & Kerb System	Intcpr	Interceptor	Spd Rtr	Speed Retarder
		Lvl	Level	St	Stone
Conc	Concrete	m	Metres	STN	Station
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EL	Eaves Level	TL	Threshold Level	WL	Water Level (inc.date & Time)		
IL	Invert Level	ToC	Top of Concrete Level				
PL	Parapet Level	ToP	Top of Pipe Level				

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No.	Description	Date	Signed

Revisions

Drawing Status
FINAL

Surveyed WM	Date 07/04/17	Scale 1:200
Drawn WM	Sheet 2 of 4	Approved AF

Client Mr P. Marsden

Title Topographical Survey

Project
Broadford
Castle Grove Road
Chobham, GU24 8EF

Drawing No. 4175/20/002 Rev. -

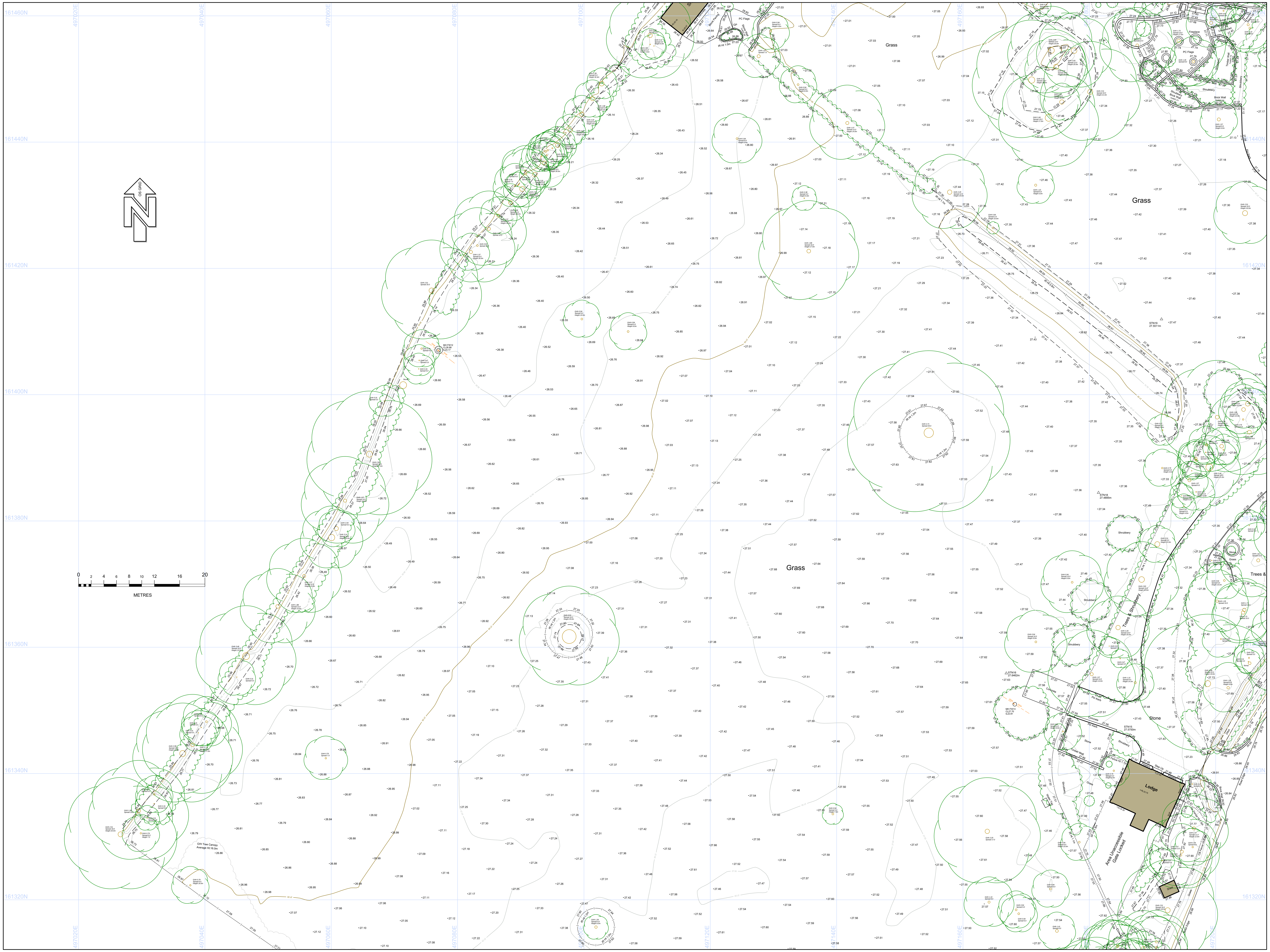
Clugston

Clugston Survey Services
St Vincent House
Normanby Road
Scunthorpe
North Lincolnshire
DN15 8QT

Tel: 01724 748170
Fax: 01724 748171
survey@clugston.co.uk
www.clugstonsurvey.co.uk

Regional Office in Leeds
Clugston Survey Services is a business name of Clugston Construction Limited Registered in England No. 681537
Registerd Office, St Vincent House, Normanby Road, Scunthorpe North Lincolnshire, DN15 8QT

ISO 9001



Notes

1. Surveyed April 2017.
2. Survey related to Ordnance Survey "OS Net" at control point STN03, using realtime correction received via Trimble Navigations "VRS Now" service. Survey plotted to flat plane metric grid with no local scale factor applied, i.e. LSF 1.00.
3. Levels related to GPS Orthometric height, converted to MSL (Newlyn) by OSGM15.

Permanent Control

STN	East	North	Level	Type
STN01	497299.073	161493.265	26.058	Nail
STN02	497291.216	161473.944	26.034	Nail
STN03	497269.405	161484.054	26.177	Nail
STN04	497268.451	161425.394	26.596	Nail
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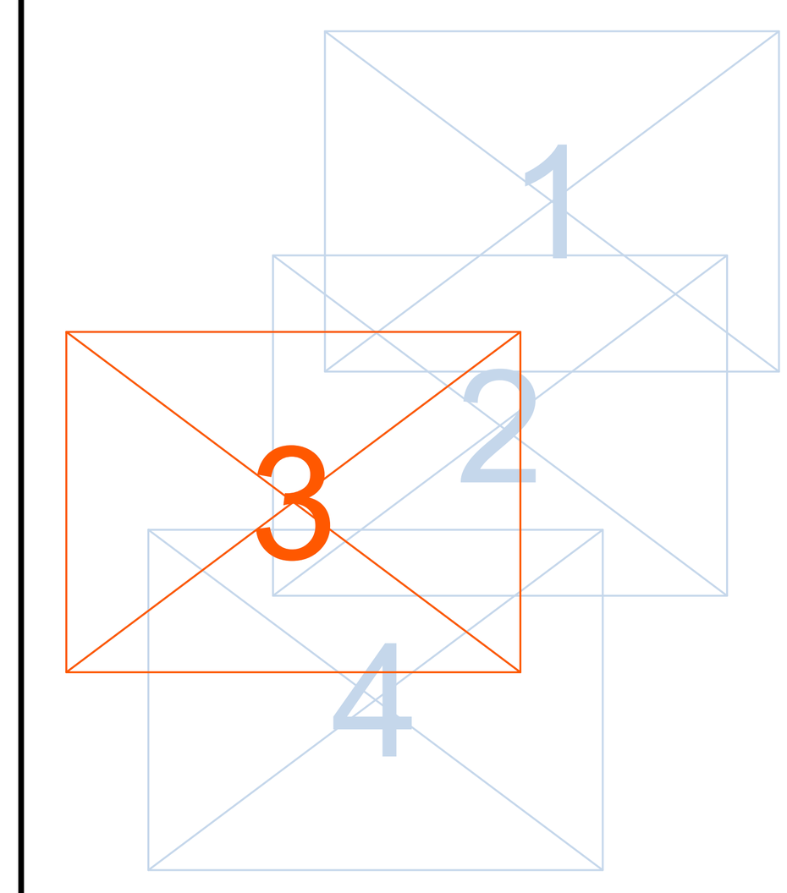

General

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- Visible features in the vicinity of the site extents, as detailed on this survey, may not represent the legally conveyed ownership boundaries.

Legend

Top / Bottom of Bank
Building / Overhead Canopy
Wall
Solid Surface Feature / Road Edge
Hard / Soft Surface Change
Kerb / Dropped Kerb
Combined Kerb & Drainage System
Drainage Channel
Road Traffic Sensors
Fence Line -

BW	Barbed Wire	HR	Hand Rail	PR	Post & Rail
CB	Close Boarded	IR	Iron Railings	SB	Safety Barrier
ChNut	Chestnut	Mtl PR	Metal Post & Rail	SF	Security Fence
CL	Chain Link	OB	Open Boarded	TF	Temporary Fence
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(D)	Dilapidated	PC	Post & Chain		

Hedge Line
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O/H Telephone / Electric Cable(s)
Rock Face
Pipe Line (Above Ground)
Bush
Tree-Deciduous
Tree-Evergreen

T.PIT 22.5 Trial Pit (with level)
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Survey Station
10.1 Spot Level
Woodland Area (Deciduous)
Gate
Level Datum
Woodland Area (Coniferous)
Electric Pylon
Marsh Land

Feature Abbreviations

ACU	Air Conditioning Unit	FH	Fire Hydrant	NP	Name Plate	SVP	Soil Vent Pipe
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CATV	Cable TV Cover	KO	Kerb Offlet	RS(L)	Road Sign (Lit)	TS	Traffic Signal Cover
CCTV	Close Circuit TV	LB	Lighting Beacon	RWP	Rain Water Pipe	VP	Vent Pipe
COL	Column	LBIN	Litter Bin	SNR	Sensor	WM	Water Meter
CP	Concrete Post	LP	Lamp Post	SP	Sign Post	WO	Wash Out
DWB	Dog Waste Bin	ME	Meter	SP(L)	Sign Post (Lit)	WV	Water Valve
EL	Electric Cover	MH	Manhole	SPDC	Speed Camera	UC?	Unknown Cover
EP	Electricity Pole	MP	Marker Post	STAY	Cable Stay	UTL	Unable to Lift
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Asmd Rt	Assumed Route	Flw Bd	Flower Bed	O/H	Overhead
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No.	Description	Date	Signed

Revisions

Drawing Status: FINAL

Surveyed WM	Date 07/04/17	Scale 1:200
Drawn WM	Sheet 3 of 4	Approved AF

Client: Mr P. Marsden

Title: Topographical Survey

Project: Broadford, Castle Grove Road, Chobham, GU24 8EF

Drawing No. 4175/20/003 Rev. -

Clugston Survey Services
St Vincent House
Normanby Road
Scunthorpe
North Lincolnshire
DN15 8QT

Tel: 01724 748170
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survey@clugston.co.uk
www.clugstonsurvey.co.uk

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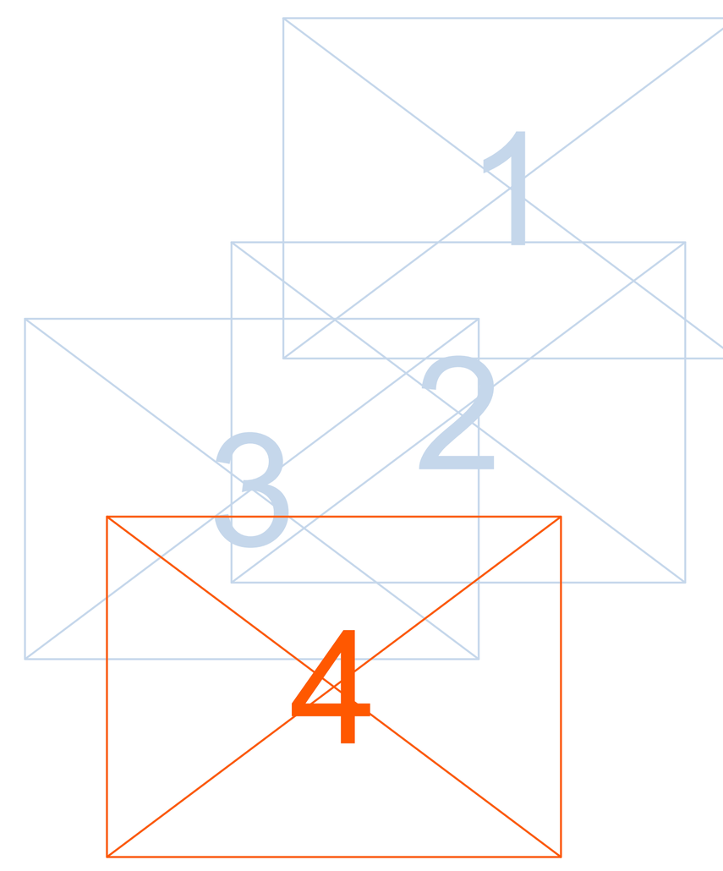

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No.	Description	Date	Signed

Revisions

Drawing Status: FINAL

Surveyed	Date	Scale
WM	07/04/17	1:200
Drawn	**Sheet**	**Approved**
WM	4 of 4	AF

Client: Mr P. Marsden

Title: Topographical Survey

Project: Broadford
Castle Grove Road
Chobham, GU24 8EF

Drawing No. 4175/20/004 — Rev. -

Clugston Survey Services
St Vincent House
Normanby Road
Scunthorpe
North Lincolnshire
DN15 8QT

Tel: 01724 748170
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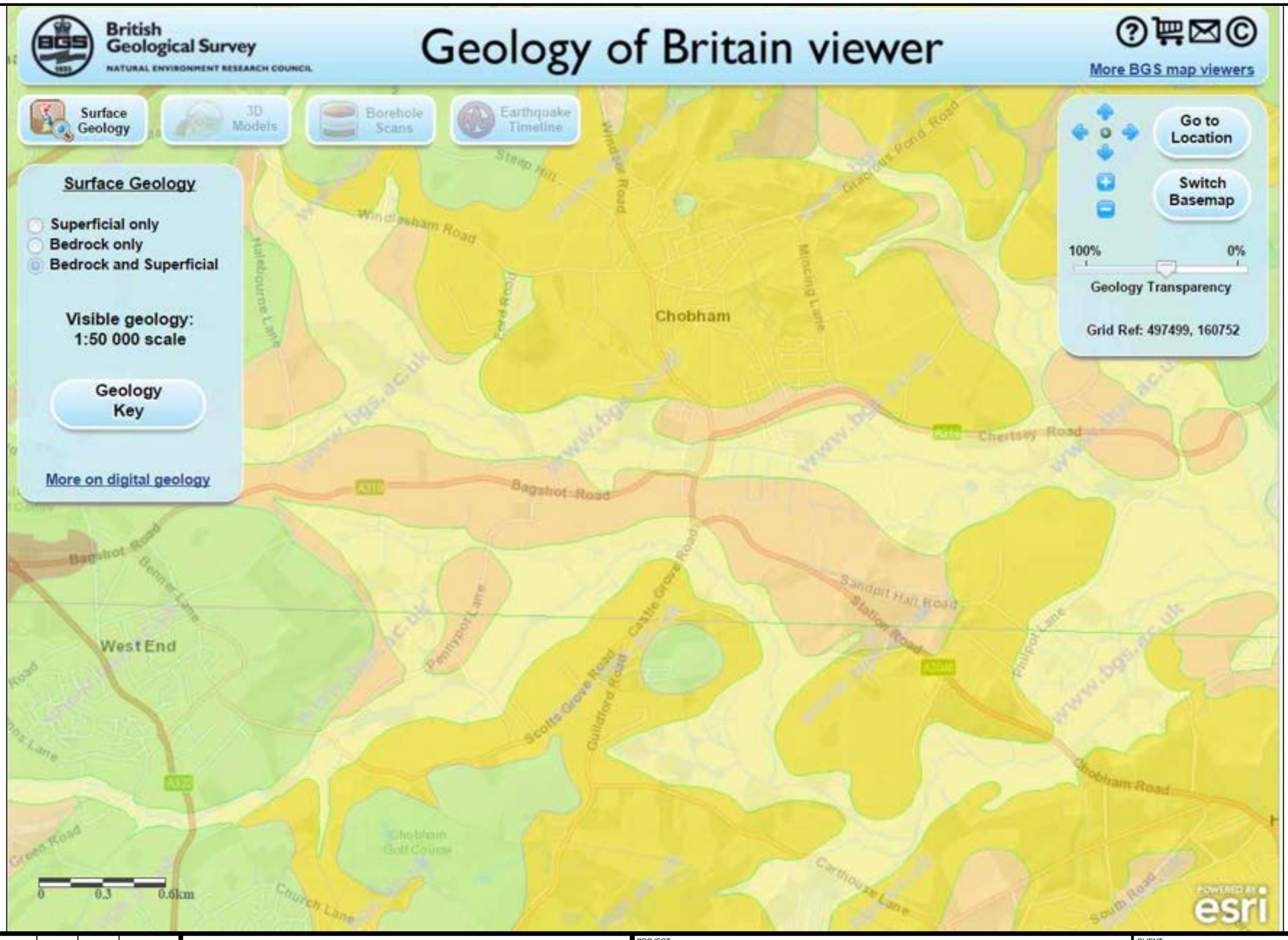


REV	DETAILS	DRAWN	CHECKED	DATE

PROJECT: Broadford, Chobham

CLIENT:

DRAWING TITLE: British Geological Survey Bedrock Geology Map

WYG Transport
part of WYG group
5th Floor, Longcross Court
47 Newport Road, Cardiff, CF24 0AD
t: 029 2082 9200 f: 029 2045 5321 e: transport.cardiff@wyg.com

DRAWN:	CHECKED:	DATE:	SCALES:	SHEET SIZE:	DRAWING NUMBER:	REVISION:
PG	MM	05.06.17	NTS	A3	FIGURE 7	-

Appendices

Appendix A – Asset Maps

Asset location search

Property Searches

WYG Environment
5th Floor,Longcross Court,47 Longcross Court

CARDIFF
CF24 0AD

Search address supplied Broadford Lodge
Castle Grove Road
Chobham
Woking
GU24 8EF

Your reference A086573

Our reference ALS/ALS Standard/2017_3562512

Search date 5 May 2017

Notification of Price Changes…
From **1 September 2016** Thames Water Property Searches will be increasing the prices of its Asset Location Searches. This will be the first price rise in three years and is in line with the RPI at 1.84%. The increase follows significant capital investment in improving our systems and infrastructure.

Enquiries received with a higher payment prior to 1 September 2016 will be non-refundable. For further details on the price increase please visit our website at
www.thameswater-propertysearches.co.uk

Thames Water Utilities Ltd
Property Searches, PO Box 3189, Slough SL1 4WW
DX 151280 Slough 13

searches@thameswater.co.uk
www.thameswater-propertysearches.co.uk

0845 070 9148

Asset location search

Search address supplied: Broadford Lodge, Castle Grove Road, Chobham, Woking, GU24 8EF

Dear Sir / Madam

An Asset Location Search is recommended when undertaking a site development. It is essential to obtain information on the size and location of clean water and sewerage assets to safeguard against expensive damage and allow cost-effective service design.

The following records were searched in compiling this report: - the map of public sewers & the map of waterworks. Thames Water Utilities Ltd (TWUL) holds all of these.

This searchprovides maps showing the position, size of Thames Water assets close to the proposed development and also manhole cover and invert levels, where available.

Please note that none of the charges made for this report relate to the provision of Ordnance Survey mapping information. The replies contained in this letter are given following inspection of the public service records available to this company. No responsibility can be accepted for any error or omission in the replies.

You should be aware that the information contained on these plans is current only on the day that the plans are issued. The plans should only be used for the duration of the work that is being carried out at the present time. Under no circumstances should this data be copied or transmitted to parties other than those for whom the current work is being carried out.

Thames Water do update these service plans on a regular basis and failure to observe the above conditions could lead to damage arising to new or diverted services at a later date.

Contact Us

If you have any further queries regarding this enquiry please feel free to contact a member of the team on 0845 070 9148, or use the address below:

Thames Water Utilities Ltd
Property Searches
PO Box 3189
Slough
SL1 4WW

Email: searches@thameswater.co.uk
Web: www.thameswater-propertysearches.co.uk

Asset location search

Waste Water Services

Please provide a copy extract from the public sewer map.

Enclosed is a map showing the approximate lines of our sewers. Our plans do not show sewer connections from individual properties or any sewers not owned by Thames Water unless specifically annotated otherwise. Records such as "private" pipework are in some cases available from the Building Control Department of the relevant Local Authority.

Where the Local Authority does not hold such plans it might be advisable to consult the property deeds for the site or contact neighbouring landowners.

This report relates only to sewerage apparatus of Thames Water Utilities Ltd, it does not disclose details of cables and or communications equipment that may be running through or around such apparatus.

The sewer level information contained in this response represents all of the level data available in our existing records. Should you require any further Information, please refer to the relevant section within the 'Further Contacts' page found later in this document.

For your guidance:

- The Company is not generally responsible for rivers, watercourses, ponds, culverts or highway drains. If any of these are shown on the copy extract they are shown for information only.
- Any private sewers or lateral drains which are indicated on the extract of the public sewer map as being subject to an agreement under Section 104 of the Water Industry Act 1991 are not an ‘as constructed’ record. It is recommended these details be checked with the developer.

Clean Water Services

Please provide a copy extract from the public water main map.

With regard to the fresh water supply, this site falls within the boundary of another water company. For more information, please redirect your enquiry to the following address:

Affinity Water Ltd
Tamblin Way
Hatfield
AL10 9EZ
Tel: 0845 7823333

For your guidance:

- Assets other than vested water mains may be shown on the plan, for information only.
- If an extract of the public water main record is enclosed, this will show known public water mains in the vicinity of the property. It should be possible to estimate the likely length and route of any private water supply pipe connecting the property to the public water network.

Payment for this Search

A charge will be added to your suppliers account.

Further contacts:

Waste Water queries

Should you require verification of the invert levels of public sewers, by site measurement, you will need to approach the relevant Thames Water Area Network Office for permission to lift the appropriate covers. This permission will usually involve you completing a TWOSA form. For further information please contact our Customer Centre on Tel: 0845 920 0800. Alternatively, a survey can be arranged, for a fee, through our Customer Centre on the above number.

If you have any questions regarding sewer connections, budget estimates, diversions, building over issues or any other questions regarding operational issues please direct them to our service desk. Which can be contacted by writing to:

Developer Services (Waste Water)
Thames Water
Clearwater Court
Vastern Road
Reading
RG1 8DB

Tel: 0845 850 2777
Email: developer.services@thameswater.co.uk

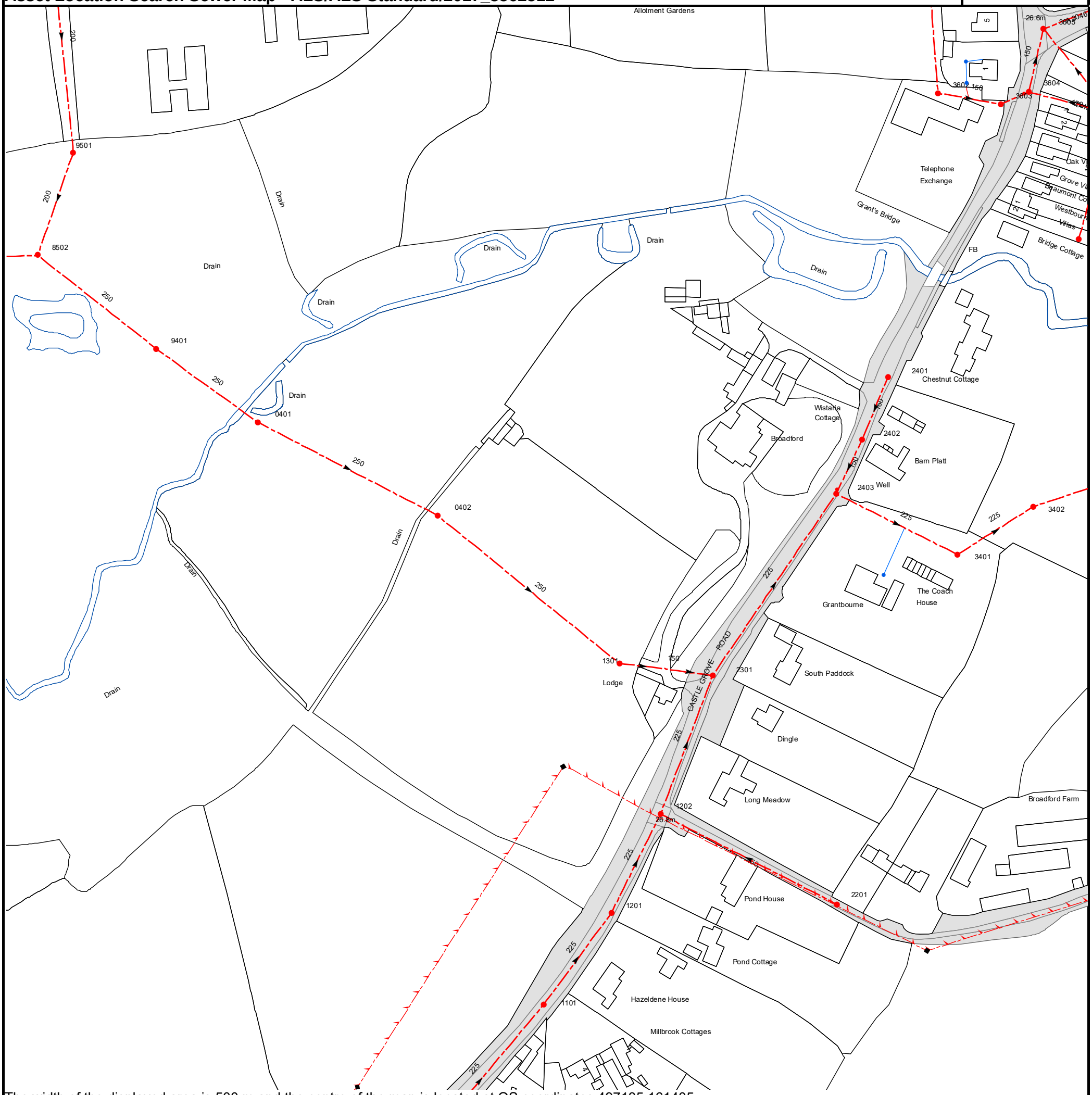
Clean Water queries

Should you require any advice concerning clean water operational issues or clean water connections, please contact:

Developer Services (Clean Water)
Thames Water
Clearwater Court
Vastern Road
Reading
RG1 8DB

Tel: 0845 850 2777
Email: developer.services@thameswater.co.uk

Asset Location Search Sewer Map - ALS/ALS Standard/2017_3562512



The width of the displayed area is 500 m and the centre of the map is located at OS coordinates 497135,161405

The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.

Based on the Ordnance Survey Map with the Sanction of the controller of H.M. Stationery Office, License no. 100019345 Crown Copyright Reserved.

NB. Levels quoted in metres Ordnance Newlyn Datum. The value -9999.00 indicates that no survey information is available

Manhole Reference	Manhole Cover Level	Manhole Invert Level
1101	27.69	23.4
1201	27.21	23.14
2201	26.51	24.68
1202	26.88	23.03
2301	26.78	22.68
1301	27.42	22.82
231A	n/a	n/a
3401	26.1	22.12
3402	25.75	21.89
2403	26.53	22.29
2402	26.11	23.69
2401	25.98	24.25
3501	25.65	24.83
3603	26.2	24.31
3602	26.27	25.05
3604	25.9	23.62
361B	n/a	n/a
361A	n/a	n/a
3605	26.51	23.37
0402	26.87	23.18
0401	27.46	23.49
9401	27.41	23.73
8502	27.68	23.92
9501	27.1	24.65

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ALS Sewer Map Key

Public Sewer Types (Operated & Maintained by Thames Water)

Foul: A sewer designed to convey waste water from domestic and industrial sources to a treatment works.

Surface Water: A sewer designed to convey surface water (e.g. rain water from roofs, yards and car parks) to rivers or watercourses.

Combined: A sewer designed to convey both waste water and surface water from domestic and industrial sources to a treatment works.

Trunk Surface Water

Trunk Foul

Storm Relief

Trunk Combined

Vent Pipe

Bio-solids (Sludge)

Proposed Thames Surface Water Sewer

Proposed Thames Water Foul Sewer

Gallery

Foul Rising Main

Surface Water Rising Main

Combined Rising Main

Sludge Rising Main

Proposed Thames Water Rising Main

Vacuum

Sewer Fittings

A feature in a sewer that does not affect the flow in the pipe. Example: a vent is a fitting as the function of a vent is to release excess gas.

Air Valve

Dam Chase

Fitting

Meter

Vent Column

Operational Controls

A feature in a sewer that changes or diverts the flow in the sewer. Example: A hydrobrake limits the flow passing downstream.

Control Valve

Drop Pipe

Ancillary

Weir

End Items

End symbols appear at the start or end of a sewer pipe. Examples: an Undefined End at the start of a sewer indicates that Thames Water has no knowledge of the position of the sewer upstream of that symbol, Outfall on a surface water sewer indicates that the pipe discharges into a stream or river.

Outfall

Undefined End

Inlet

Other Symbols

Symbols used on maps which do not fall under other general categories

Public/Private Pumping Station

Change of characteristic indicator (C.O.C.I.)

Invert Level

Summit

Areas

Lines denoting areas of underground surveys, etc.

Agreement

Operational Site

Chamber

Tunnel

Conduit Bridge

Other Sewer Types (Not Operated or Maintained by Thames Water)

Foul Sewer

Surface Water Sewer

Combined Sewer

Gulley

Culverted Watercourse

Proposed

Abandoned Sewer

Notes:

1) All levels associated with the plans are to Ordnance Datum Newlyn.

2) All measurements on the plans are metric.

3) Arrows (on gravity fed sewers) or flecks (on rising mains) indicate direction of flow.

4) Most private pipes are not shown on our plans, as in the past, this information has not been recorded.

5) 'na' or '0' on a manhole level indicates that data is unavailable.

6) The text appearing alongside a sewer line indicates the internal diameter of the pipe in milimetres. Text next to a manhole indicates the manhole reference number and should not be taken as a measurement. If you are unsure about any text or symbology present on the plan, please contact a member of Property Insight on 0845 070 9148.

Terms and Conditions

All sales are made in accordance with Thames Water Utilities Limited (TWUL) standard terms and conditions unless previously agreed in writing.

1. All goods remain in the property of Thames Water Utilities Ltd until full payment is received.
2. Provision of service will be in accordance with all legal requirements and published TWUL policies.
3. All invoices are strictly due for payment 14 days from due date of the invoice. Any other terms must be accepted/agreed in writing prior to provision of goods or service, or will be held to be invalid.
4. Thames Water does not accept post-dated cheques-any cheques received will be processed for payment on date of receipt.
5. In case of dispute TWUL`s terms and conditions shall apply.
6. Penalty interest may be invoked by TWUL in the event of unjustifiable payment delay. Interest charges will be in line with UK Statute Law 'The Late Payment of Commercial Debts (Interest) Act 1998'.
7. Interest will be charged in line with current Court Interest Charges, if legal action is taken.
8. A charge may be made at the discretion of the company for increased administration costs.

A copy of Thames Water's standard terms and conditions are available from the Commercial Billing Team (cashoperations@thameswater.co.uk).

We publish several Codes of Practice including a guaranteed standards scheme. You can obtain copies of these leaflets by calling us on 0800 316 9800

If you are unhappy with our service you can speak to your original goods or customer service provider. If you are not satisfied with the response, your complaint will be reviewed by the Customer Services Director. You can write to him at: Thames Water Utilities Ltd. PO Box 492, Swindon, SN38 8TU.

If the Goods or Services covered by this invoice falls under the regulation of the 1991 Water Industry Act, and you remain dissatisfied you can refer your complaint to Consumer Council for Water on 0121 345 1000 or write to them at Consumer Council for Water, 1st Floor, Victoria Square House, Victoria Square, Birmingham, B2 4AJ.

Ways to pay your bill

Credit Card	**BACS Payment**	**Telephone Banking**	**Cheque**
Call **0845 070 9148** quoting your invoice number starting CBA or ADS.	Account number **90478703** Sort code **60-00-01** A remittance advice must be sent to: **Thames Water Utilities Ltd., PO Box 3189, Slough SL1 4WW.** or email **ps.billing@thameswater.co.uk**	By calling your bank and quoting: Account number **90478703** Sort code **60-00-01** and your invoice number	Made payable to '**Thames Water Utilities Ltd**' Write your Thames Water account number on the back. Send to: **Thames Water Utilities Ltd., PO Box 3189, Slough SL1 4WW** or by DX to **151280 Slough 13**

Search Code

IMPORTANT CONSUMER PROTECTION INFORMATION

This search has been produced by Thames Water Property Searches, Clearwater Court, Vastern Road, Reading RG1 8DB, which is registered with the Property Codes Compliance Board (PCCB) as a subscriber to the Search Code. The PCCB independently monitors how registered search firms maintain compliance with the Code.

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- sets out minimum standards which firms compiling and selling search reports have to meet
- promotes the best practise and quality standards within the industry for the benefit of consumers and property professionals
- enables consumers and property professionals to have confidence in firms which subscribe to the code, their products and services.

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- display the Search Code logo prominently on their search reports
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- ensure that products and services comply with industry registration rules and standards and relevant laws
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If you have a query or complaint about your search, you should raise it directly with the search firm, and if appropriate ask for any complaint to be considered under their formal internal complaints procedure. If you remain dissatisfied with the firm's final response, after your complaint has been formally considered, or if the firm has exceeded the response timescales, you may refer your complaint for consideration under The Property Ombudsman scheme (TPOs). The Ombudsman can award compensation of up to £5,000 to you if he finds that you have suffered actual loss as a result of your search provider failing to keep to the Code.

Please note that all queries or complaints regarding your search should be directed to your search provider in the first instance, not to TPOs or to the PCCB.

TPOs Contact Details

The Property Ombudsman scheme
Milford House
43-55 Milford Street
Salisbury
Wiltshire SP1 2BP
Tel: 01722 333306
Fax: 01722 332296
Email: admin@tpos.co.uk

You can get more information about the PCCB from www.propertycodes.org.uk

PLEASE ASK YOUR SEARCH PROVIDER IF YOU WOULD LIKE A COPY OF THE SEARCH CODE

Sewer Flooding
History Enquiry

Property Searches

WYG Environment

Search address supplied	Broadford Lodge Castle Grove Road Chobham Woking GU24 8EF
Your reference	A086573
Our reference	SFH/SFH Standard/2017_3562514
Received date	**5 May 2017**
Search date	**5 May 2017**

Thames Water Utilities Ltd
Property Searches, PO Box 3189, Slough SL1 4WW
DX 151280 Slough 13

searches@thameswater.co.uk
www.thameswater-propertysearches.co.uk

0845 070 9148

Sewer Flooding
History Enquiry

Property Searches

Search address supplied: Broadford Lodge,Castle Grove Road,Chobham,Woking,GU24 8EF

This search is recommended to check for any sewer flooding in a specific address or area

TWUL, trading as Property Searches, are responsible in respect of the following:-

(i) any negligent or incorrect entry in the records searched;

(ii) any negligent or incorrect interpretation of the records searched;

(iii) and any negligent or incorrect recording of that interpretation in the search report

(iv) compensation payments

Thames Water Utilities Ltd
Property Searches, PO Box 3189, Slough SL1 4WW
DX 151280 Slough 13

searches@thameswater.co.uk
www.thameswater-propertysearches.co.uk

0845 070 9148

Sewer Flooding
History Enquiry

Property Searches

History of Sewer Flooding

Is the requested address or area at risk of flooding due to overloaded public sewers?

The flooding records held by Thames Water indicate that there have been no incidents of flooding in the requested area as a result of surcharging public sewers.

For your guidance:

- A sewer is “overloaded” when the flow from a storm is unable to pass through it due to a permanent problem (e.g. flat gradient, small diameter). Flooding as a result of temporary problems such as blockages, siltation, collapses and equipment or operational failures are excluded.
- “Internal flooding” from public sewers is defined as flooding, which enters a building or passes below a suspended floor. For reporting purposes, buildings are restricted to those normally occupied and used for residential, public, commercial, business or industrial purposes.
- “At Risk” properties are those that the water company is required to include in the Regulatory Register that is presented annually to the Director General of Water Services. These are defined as properties that have suffered, or are likely to suffer, internal flooding from public foul, combined or surface water sewers due to overloading of the sewerage system more frequently than the relevant reference period (either once or twice in ten years) as determined by the Company’s reporting procedure.
- Flooding as a result of storm events proven to be exceptional and beyond the reference period of one in ten years are not included on the At Risk Register.
- Properties may be at risk of flooding but not included on the Register where flooding incidents have not been reported to the Company.
- Public Sewers are defined as those for which the Company holds statutory responsibility under the Water Industry Act 1991.
- It should be noted that flooding can occur from private sewers and drains which are not the responsibility of the Company. This report excludes flooding from private sewers and drains and the Company makes no comment upon this matter.
- For further information please contact Thames Water on Tel: 0800 316 9800 or website www.thameswater.co.uk

Thames Water Utilities Ltd
Property Searches, PO Box 3189, Slough SL1 4WW
DX 151280 Slough 13

searches@thameswater.co.uk
www.thameswater-propertysearches.co.uk

0845 070 9148

Appendix B – Calculations

ICP SUDS Mean Annual Flood

Input

Return Period (years) 100 SAAR (mm) 700 Urban 0.000
Area (ha) 2.230 Soil 0.400 Region Number Region 6

Results l/s

QBAR Rural 7.6
QBAR Urban 7.6

Q100 years 24.2

Q1 year 6.4
Q30 years 17.2
Q100 years 24.2

ICP SUDS Mean Annual Flood

Input

Return Period (years) 100 SAAR (mm) 700 Urban 0.000
Area (ha) 2.050 Soil 0.400 Region Number Region 6

Results l/s

QBAR Rural 7.0
QBAR Urban 7.0

Q100 years 22.2

Q1 year 5.9
Q30 years 15.8
Q100 years 22.2

ICP SUDS Mean Annual Flood

Input

Return Period (years) 100 SAAR (mm) 700 Urban 0.000
Area (ha) 4.280 Soil 0.400 Region Number Region 6

Results l/s

QBAR Rural 14.6
QBAR Urban 14.6

Q100 years 46.5

Q1 year 12.4
Q30 years 33.0
Q100 years 46.5

Appendix C – Correspondence

Product 4 (Detailed Flood Risk) for Broadford, Chobham
Our Ref: THM47022

Product 4 is designed for developers where Flood Risk Standing Advice FRA (Flood Risk Assessment) Guidance Note 3 Applies. This is:

i) "all applications in Flood Zone 3, other than non-domestic extensions less than 250 sq metres; and all domestic extensions", and

ii) "all applications with a site area greater than 1 ha" in Flood Zone 2.

Product 4 includes the following information:

Ordnance Survey 1:25k colour raster base mapping;
Flood Zone 2 and Flood Zone 3;
Relevant model node locations and unique identifiers (for cross referencing to the water levels, depths and flows table);
Model extents showing *defended* scenarios;
FRA site boundary (where a suitable GIS layer is supplied);
Flood defence locations (where available/relevant) and unique identifiers; (supplied separately)
Flood Map areas benefiting from defences (where available/relevant);
Flood Map flood storage areas (where available/relevant);
Historic flood events outlines (where available/relevant, not the Historic Flood Map) and unique identifiers;
Statutory (Sealed) Main River (where available within map extents);

A table showing:

i) Model node X/Y coordinate locations, unique identifiers, and levels and flows for *defended* scenarios.

ii) Flood defence locations unique identifiers and attributes; (supplied seperately)

iii) Historic flood events outlines unique identifiers and attributes; and

iv) Local flood history data (where available/relevant).

Please note:

If you will be carrying out computer modelling as part of your Flood Risk Assessment, please request our guidance which sets out the requirements and best practice for computer river modelling.

This information is based on that currently available as of the date of this letter. You may feel it is appropriate to contact our office at regular intervals, to check whether any amendments/ improvements have been made. Should you re-contact us after a period of time, please quote the above reference in order to help us deal with your query.

This information is provided subject to the enclosed notice which you should read.

This letter is not a Flood Risk Assessment. The information supplied can be used to form part of your Flood Risk Assessment. Further advice and guidance regarding Flood Risk Assessments can be found on our website at:

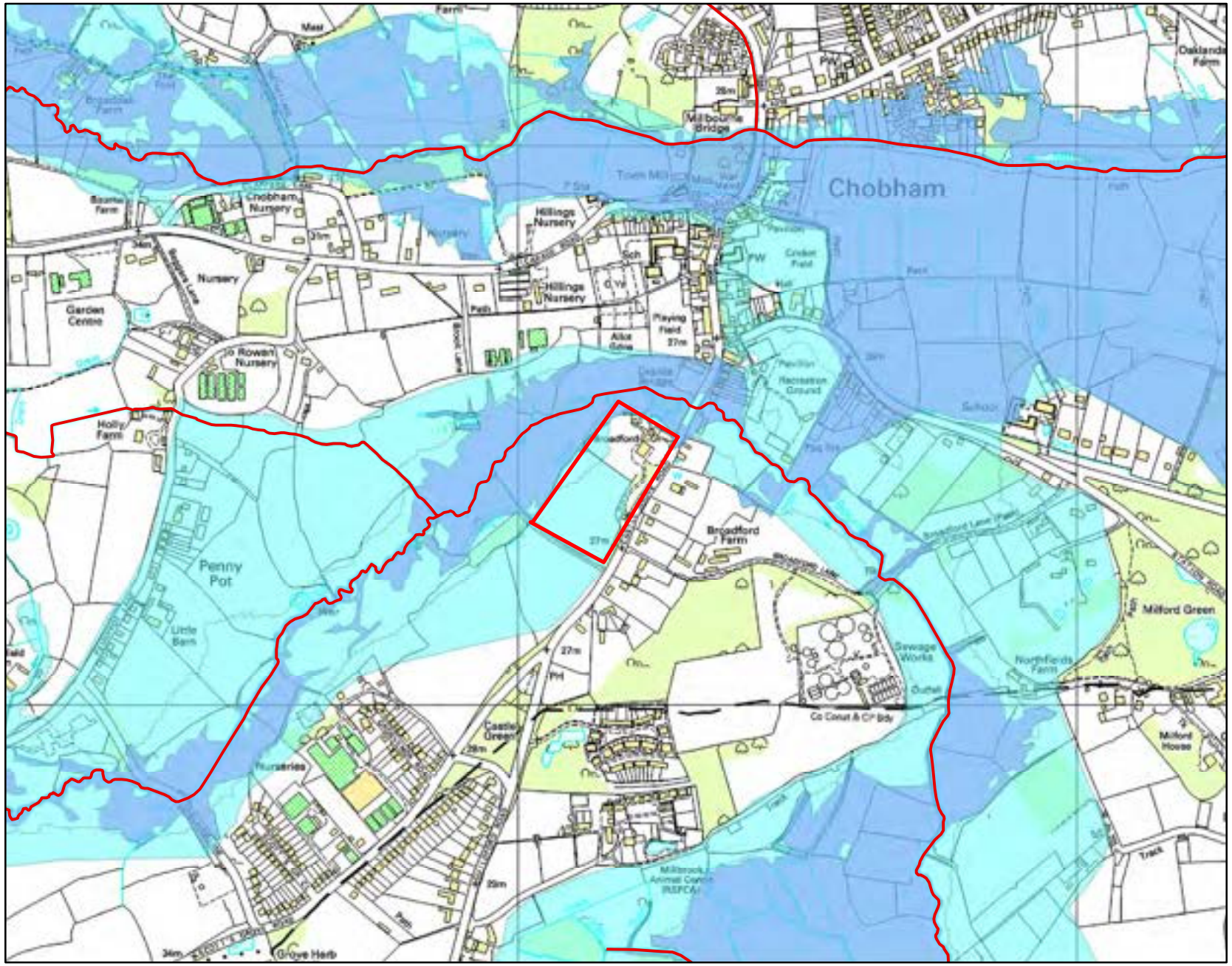
https://www.gov.uk/guidance/flood-risk-assessment-local-planning-authorities

If you would like advice from us regarding your development proposals you can complete our pre application enquiry form which can be found at:

https://www.gov.uk/government/publications/pre-planning-application-enquiry-form-preliminary-opinion

Red Kite House, Howbery Park, Wallingford, Oxon OX10 8BD
Customer services line: 08708 506 506
Email: WTenquiries@environment-agency.gov.uk

Flood Map for Planning centred on Broadford, Chobham
Created on 15/05/17 REF: THM47022



Environment Agency

Kilometres

0 0.25 0.5

Legend

- Main River
- Flood defences
- Areas benefiting from flood defences
- Flooding from rivers or sea (FZ3)
- Extent of extreme flood (FZ2)
- Flood Map - flood storage areas

Flooding from rivers or sea without defences (Flood Zone 3) shows the area that could be affected by flooding:
- from the sea with a 1 in 200 or greater chance of happening each year
- or from a river with a 1 in 100 or greater chance of happening each year.

The Extent of an extreme flood (Flood Zone 2) shows the extent of an extreme flood from rivers or the sea with up to a 1 in 1000 chance of occurring each year.

Contact Us: National Customer Contact Centre, PO Box 544, Rotherham, S60 1BY. Tel: 08708 506 506 (Mon-Fri 8-6). Email: enquiries@environment-agency.gov.uk

Defence information

THM47022

Defence Location:	No defences on Main River
Description:	This location is not currently protected by any formal defences and we do not currently have any flood alleviation works planned for the area. However we continue to maintain certain watercourses and the schedule of these can be found on our internet pages.

Model information

THM47022

Model: Addlestone Bourne 2007

Description: The information provided is taken from the Addlestone/Hale Bourne Detailed Flood Risk Mapping Study completed in July 2007. The Addlestone/Hale Bourne catchments were modelled using ISIS 1D.

Accuracy of the final model in the Lightwater area (at node points L1.007 – L1.011) is less, due to simplification of the model in this area, but the topography at this location means that this increase (or decrease) in level will not significantly affect the flood extent.

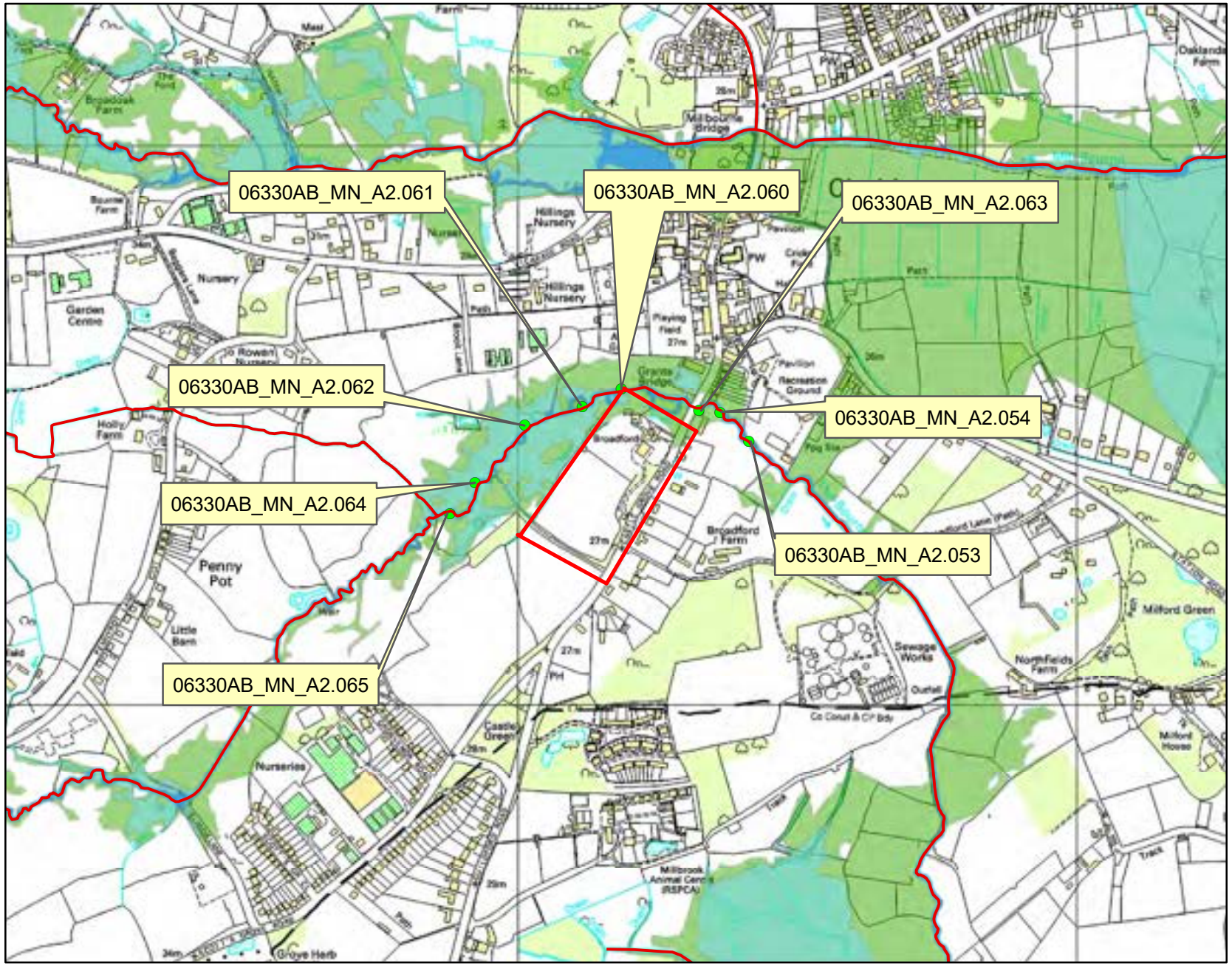
Woburn Park Stream: There are larger inaccuracies in Woburn Park Stream, downstream of the Addlestone Gauging Station. The modelled Chertsey Bourne 100-year flood levels at this location are higher than those achieved in this study, as a precaution, the levels for this reach should be taken from the Chertsey model.

Model design runs:
1 in 5 / 20% Annual Exceedance Probability (AEP); 1 in 20 / 5% AEP; 1 in 50 / 2% AEP; 1 in 100 / 1% AEP; and 1 in 100+20% / 1% AEP plus 20% increase in flows

Mapped outputs:
1 in 5 / 20% AEP; 1 in 20 / 5% AEP; 1 in 100 / 1% AEP

Model accuracy:
Levels ± 250mm (generally)
Levels ± 500mm (Lightwater area only see above)

Detailed FRA centred on Broadford, Chobham
Created on 15/05/17 REF: THM47022



Environment Agency

Kilometres

0 0.25 0.5

Legend

- Main River
- Model Nodes
- 20% AEP flood extent
- 5% AEP flood extent
- 1% AEP flood extent

AEP = Annual Exceedance Probability
The probability of a flood of a particular magnitude, or greater, occuring in any given year

Contact Us: National Customer Contact Centre, PO Box 544, Rotherham, S60 1BY. Tel: 08708 506 506 (Mon-Fri 8-6). Email: enquiries@environment-agency.gov.uk

Modelled in-channel flood flows and levels

THM47022

The modelled flood levels and flows for the closest most appropriate model node points for your site that are within the river channel are provided below:

				Flood Levels (mAOD)							
Node label	Model	Easting	Northing	20% AEP	5% AEP	1% AEP	1% AEP (+20% increase in flows)	1% AEP (+25% increase in flows)	1% AEP (+35% increase in flows)	1% AEP (+70% increase in flows)	0.1% AEP
06330AB_MN_A2.065	Addlestone Bourne 2007	496878	161342	26.23	26.53	26.61	26.64	0.00	0.00	0.00	0.00
06330AB_MN_A2.064	Addlestone Bourne 2007	496923	161397	26.00	26.28	26.37	26.42	0.00	0.00	0.00	0.00
06330AB_MN_A2.062	Addlestone Bourne 2007	497012	161500	25.71	26.03	26.16	26.24	0.00	0.00	0.00	0.00
06330AB_MN_A2.061	Addlestone Bourne 2007	497115	161534	25.53	25.85	26.10	26.20	0.00	0.00	0.00	0.00
06330AB_MN_A2.060	Addlestone Bourne 2007	497184	161565	25.41	25.71	26.07	26.18	0.00	0.00	0.00	0.00
06330AB_MN_A2.063	Addlestone Bourne 2007	497323	161527	25.83	26.12	26.22	26.28	0.00	0.00	0.00	0.00
06330AB_MN_A2.054	Addlestone Bourne 2007	497361	161523	24.74	25.04	25.40	25.51	0.00	0.00	0.00	0.00
06330AB_MN_A2.053	Addlestone Bourne 2007	497413	161471	24.58	24.87	25.24	25.33	0.00	0.00	0.00	0.00

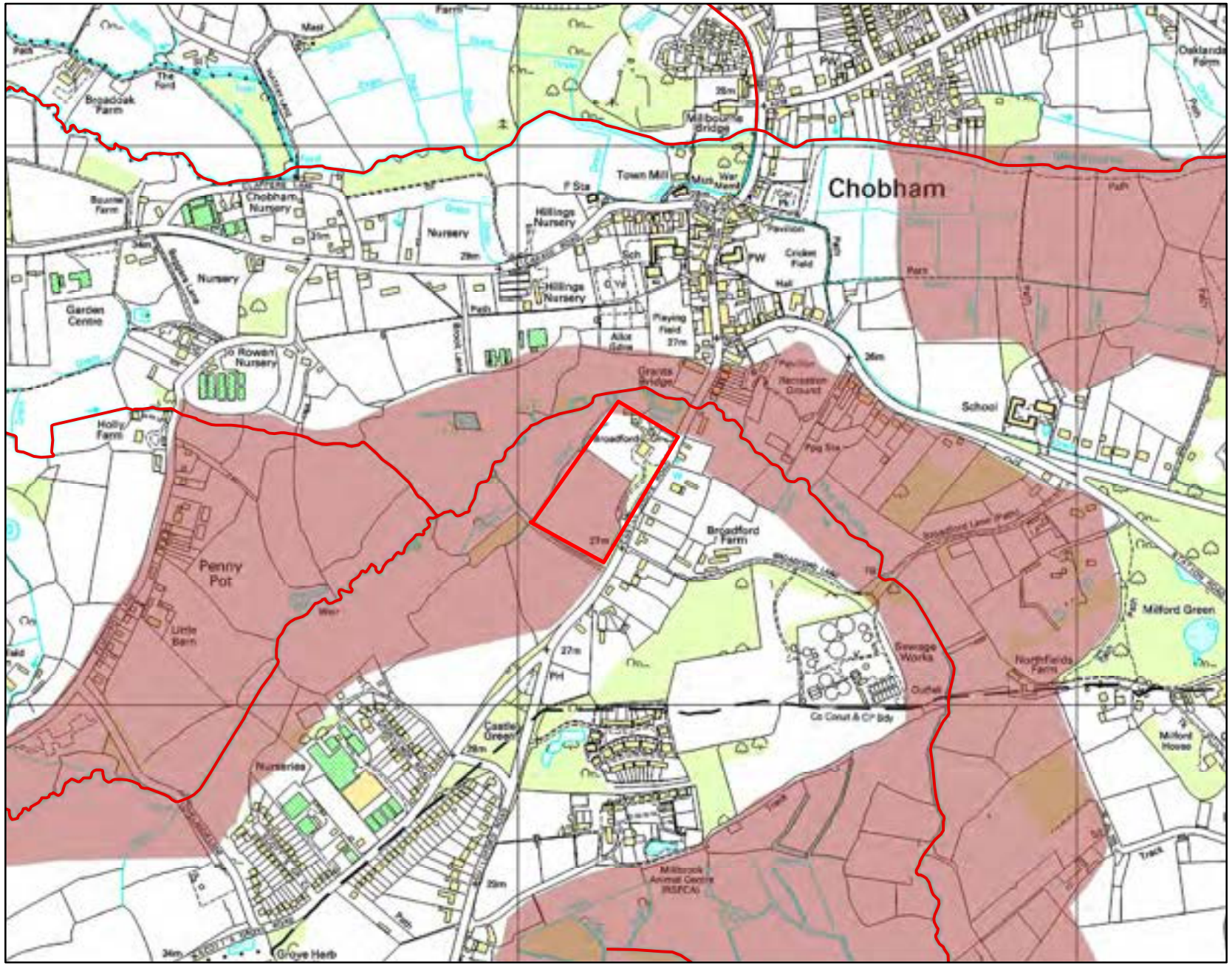
				Flood Flows (m3/s)							
Node label	Model	Easting	Northing	20% AEP	5% AEP	1% AEP	1% AEP (+20% increase in flows)	1% AEP (+25% increase in flows)	1% AEP (+35% increase in flows)	1% AEP (+70% increase in flows)	0.1% AEP
06330AB_MN_A2.065	Addlestone Bourne 2007	496878	161342	1.61	2.79	4.84	5.84	0.00	0.00	0.00	0.00
06330AB_MN_A2.064	Addlestone Bourne 2007	496923	161397	1.80	3.12	5.41	6.54	0.00	0.00	0.00	0.00
06330AB_MN_A2.062	Addlestone Bourne 2007	497012	161500	1.80	3.11	5.39	6.50	0.00	0.00	0.00	0.00
06330AB_MN_A2.061	Addlestone Bourne 2007	497115	161534	1.80	3.11	5.33	6.49	0.00	0.00	0.00	0.00
06330AB_MN_A2.060	Addlestone Bourne 2007	497184	161565	1.80	3.10	5.28	6.48	0.00	0.00	0.00	0.00
06330AB_MN_A2.063	Addlestone Bourne 2007	497323	161527	1.80	3.12	5.41	6.52	0.00	0.00	0.00	0.00
06330AB_MN_A2.054	Addlestone Bourne 2007	497361	161523	1.80	3.10	5.23	6.47	0.00	0.00	0.00	0.00
06330AB_MN_A2.053	Addlestone Bourne 2007	497413	161471	1.80	3.10	5.23	6.46	0.00	0.00	0.00	0.00

Note:

Due to changes in guidance on the allowances for climate change, the 20% increase in river flows should no longer to be used for development design purposes. The data included in this Product can be used for interpolation of levels as part of an intermediate level assessment.

For further advice on the new allowances please visit
https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances

Historic Flood Map centred on Broadford, Chobham
Created on 15/05/17 REF: THM47022



Environment Agency

Kilometres

0 0.25 0.5

Legend

Main River

year

1968

Flooding from rivers or sea without defences (Flood Zone 3) shows the area that could be affected by flooding:
- from the sea with a 1 in 200 or greater chance of happening each year
- or from a river with a 1 in 100 or greater chance of happening each year.

The Extent of an extreme flood (Flood Zone 2) shows the extent of an extreme flood from rivers or the sea with up to a 1 in 1000 chance of occurring each year.

Contact Us: National Customer Contact Centre, PO Box 544, Rotherham, S60 1BY. Tel: 08708 506 506 (Mon-Fri 8-6). Email: enquiries@environment-agency.gov.uk

Historic flood data

THM47022

Our records show that the area of your site has been affected by flooding.
Information on the floods that have affected your site is provided in the table below:

Flood Event Code	Flood Event Name	Start Date	End Date	Source of Flooding	Cause of Flooding
EA0619680900594	06SeptemberAutumn1968	01/01/1968	12/12/1968	main river	channel capacity exceeded (no raised defences)

Please note the Environment Agency maps flooding to land not individual properties. Floodplain extents are an indication of the geographical extent of a historic flood. They do not provide information regarding levels of individual properties, nor do they imply that a property has flooded internally.

Start and End Dates shown above may represent a wider range where the exact dates are not available.

Our Ref: A096537 - Broadford FRA\Report\A096537BroadfordSoakawayReport.docx

23rd March 2017:

Mr and Mrs Marsden
Broadford
Chobham

Dear Mr and Mrs Marsden,

RE – Soakaway Testing Broadford, Chobham.

1.0 Brief

WYG Environment Planning Transport Ltd (WYG) was instructed by Mr and Mrs Marsden to undertake soil infiltration testing on land at Broadford, Chobham, in order to assess the potential feasibility of soakaway drainage.

2.0 Site Information

The site consists of private land with a main residential building and associated outbuildings, landscaped gardens, open fields and surrounding pasture land.

The geology of the site area is covered by British Geological Survey 1:50,000 Map (Number 285 - Guildford) and on line mapping service, GeoIndex. This indicates that the site is underlain by bedrock of the Bagshot Formation overlain by superficial deposits within the northern portion of the site of alluvium which are defined as clay, silt, sand and gravel.

3.0 Scope of Investigation

Site investigation works were undertaken on the 15th to 16th March 2017. The investigation comprised the following;

- Three machine excavated trial pits (SA1 to SA3) to depths ranging from 1.30m bgl to 1.45m bgl. The locations of the trial pits are shown on Figure 1.
- Soil infiltration testing (in general accordance with BRE 365 where possible) was undertaken within the trial pits.

All factual information relating to the works are appended to this report.

4.0 Encountered Ground Conditions

Encountered ground conditions comprised the following vertical succession of soil types:-

- Topsoil
- Made Ground (within SA01)
- Alluvium
- Bagshot Formation

Topsoil was encountered in all positions to a maximum proven depth of 0.25m. This was generally described as dark brown sandy slightly clayey SILT. With fine to medium and subangular sand. Frequent roots and rootlets were encountered within SA1.

Made Ground was encountered in SA1 to a maximum proven depth of 0.70m. The made ground was described as dark brown sandy SILT with intact brick and angular cobbles of concrete tile and slate. Sand was fine to medium and subangular.

Alluvial deposits were encountered in SA1 (0.70 - 1.30m bgl) SA2 (0.15 - 1.35m bgl) and SA3 (0.25 - 1.00m bgl). They were described as light brown sandy silty very clayey GRAVEL. With gravel of fine to medium subrounded chert and fine to medium subangular sand in SA2 and SA3. Within SA2 a bed of firm clay from 0.40 - 1.00m bgl was recorded. Alluvial deposits within SA1 were described as light brown clayey very silty SAND. Sand was fine to medium and subrounded with lenses of grey soft clay.

Bagshot Formation was encountered in SA3 from 1.00 - 1.45m bgl. This was described as light grey mottled orangish brown slightly clayey very silty SAND. Sand was fine and subangular to subrounded.

Groundwater was encountered at the base of trial pits SA2 and SA3.

The exploratory logs of the encountered conditions are presented in Appendix A.

5.0 Soil Infiltration - Test Results

The results of the soakaway tests are presented in the table below with the full results presented in Appendix A.

Test Location	Test Notes	Calculated Soil Infiltration Rate
SA1	No Groundwater encountered. Pit did not empty within 24 hours of first fill.	9.75×10^{-6} m/s
SA2	Groundwater encountered within base of pit, did not empty within 24 hours of first fill.	1.58×10^{-6} m/s
SA3	Groundwater encountered within base of pit, did not empty within 24 hours of first fill.	4.01×10^{-6} m/s

6.0 Summary

The infiltration testing was carried out at three locations in accordance with our proposal. Owing to low infiltration tests the site work extended into a second day. No soakaway pit fully emptied within 24 hours of the initial fill, however, and as such, the tests were ended at the engineer's discretion without repeat fills. Due to this, the tests do not conform to BRE 365 guidance. Using extrapolation of the available data soil infiltration rates were calculated and based on information presented in Carter and Bentley (1991)[1] these represent a low rate of permeability with the materials classified as having moderately poor drainage conditions.

Yours Sincerely

[redacted]

Jake Mumford
Graduate Geo-Environmental Consultant
For and on behalf of WYG

Figure 1 Approximate Trial Pit Location Plan

Appendix A Trial Pit Logs and Soakaway Results
Appendix B Report Conditions

[1] Carter, M. & Bentley, S. P. 1991. Correlations of Soil Properties. Pentech Press, London.

NOTES

1. Standards

All boring operations, sampling of soils, *in situ* testing and geotechnical laboratory testing have been carried out in accordance with the recommendations of the British Standards BS 5930 (1999)[1], BS 1377 (1990)[2] and BS10175 (2001)[3].
Soil and rock descriptions normally follow the recommendations of BS 5930 except that both the terms silt and clay content may sometimes be used in descriptions where this is considered helpful, and are not considered to be mutually exclusive.
Where descriptions or classifications are based on other documents (e.g. BS 8004 (1986) or CIRIA Project Report 11 (1993)), this is stated in the report text.

2. Site methods

Unless specifically stated otherwise, the following methods are used for exploratory holes.

- ≠ Holes described as cable percussive are bored using a light cable percussive rig. Standard penetration tests are carried out where appropriate, as shown in the logs. Disturbed and undisturbed samples are taken from the exploratory holes at the depths on the records.
- ≠ Holes described as rotary are progressed using either rotary coring or rotary open hole drilling, as described in the logs. Where Odex casing is used in conjunction with rotary open hole drilling, typically through superficial deposits, this is noted on the logs.
- ≠ Trial pits are usually machine dug using a JCB 3CX excavator.
- ≠ Window sampling generally uses the windowless sampling method, using a tracked Geotool.
- ≠ Dynamic probes are usually heavy dynamic probes, using the same tracked Geotool used for window sampling.
- ≠ Monitoring of the typical land gasses – methane, carbon dioxide and oxygen – where carried out, uses a GA 2000 gas analyser. Groundwater levels are also monitored during the same visits, using a single phase dip meter. A calibration certificates valid during the monitoring period, can be made available on request.
- ≠ Hydrocarbon screening, where performed, is carried out on bulk and small disturbed samples at the time of the investigation, using a miniRAE 2000 photo-ionisation detector (PID monitor) with a 10.6eV lamp, calibrated using isobutylene, which gives a similar ionisation potential to benzene. The meter will also detect other volatile organic compounds (VOCs) with a similar ionisation potential to benzene, but may also detect other compounds such as hydrogen sulphide. However, it may be used as an indication of the presence of VOCs. A calibration certificates valid during the monitoring period, can be made available on request.

3. Definitions and abbreviations

The following terms are used in the exploratory hole logs

Samples

U	Undisturbed 102mm dia. sample (NR – indicates no recovery)
B	Bulk sample
D	Small disturbed sample
W	Water sample
CBR	California Bearing Ratio test or CBR value obtained from Mexiprobe test

***In situ* tests**

S	Standard penetration test (SPT)
N	SPT N value (blows/300mm)
HP	Hand penetrometer – shear strength
SV	Hand shear vane – shear strength
VOC	Volatile organic compounds (ppm)
PID	Photo-ionisation detector – used to detect the presence of VOCs.

Core recovery and rock quality

TCR	Total core recovery (%)
SCR	Solid core recovery (%)
RQD	Rock quality designation (%)
FI	Fracture index
NR	No recovery
NI	Not intact

Rotary drilling sizes

	Nominal diameter (mm)	
Index letter	**Borehole**	**Core**
N	75	54
H	99	76
P	120	92
S	146	113

Water strikes

▽	Level of water strike
▼	Water level rose to this level (see Remarks at foot of log for details)

Depth means depth below existing ground level unless otherwise specified. Values specified in soil descriptions given in the exploratory hole logs are depths unless otherwise specified.

Figure 1.

Project Id:	A096537	Title:	Site Plan
Project Title:	Broadford FRA	Scale:	1:2000
Location:	Broadford	Engineer:	
Client:	Marsden	Contractor:	WYG

Legend Key

- Locations By Type - Empty
- Locations By Type - TP

APPENDIX A

Trial Pit Logs and Soakaway Calculations

Project: **Broadford FRA** Location: **Broadford** Client: **Marsden**	Location Details Easting: 497214.00 Northing: 161544.00 Level: Depth: 1.30m Logger: JM Type: TP	Status FINAL	Pit Number **SA1** Sheet 1 of 1

Hole Information		Groundwater				
Pit Dimensions	Orientation: °	Strike (m)	Rose To (m)	After (mins)	Remarks	Scale: 1:50
0.75m × 1.25m	Shoring:		0.00	0		Checked By: PV
	Stability: Stable					Approved By: IV
	Plant: Mini Excavator					Start Date: 15/03/2017
						Finish Date:

Strata Description	Legend	Depth (m)	Reduced Level (mAOD)	Water Level (m)	Backfill	Samples and Testing: Depth (m)	Ref	Tests / Results
Dark brown sandy slightly clayey SILT. Sand is fine to medium and subangular. (TOPSOIL)		0.25						
Dark brown sandy SILT with intact brick and angular cobbles of concrete, tile and slate. Sand is fine to medium and subangular. (MADE GROUND)		0.70						
Light brown clayey very silty SAND. Sand is fine to medium subrounded with lenses of soft grey clay. (ALLUVIUM)		1.30						
EOH at 1.30m - Reached target depth.								

Observations / Remarks

1. Soakaway test undertaken at base of pit. 2. Backfilled with arisings upon completion.

Project Number

A096537

Project: **Broadford FRA** Location: **Broadford** Client: **Marsden**	Location Details Easting: 497121.00 Northing: 161436.00 Level: Depth: 1.35m Logger: JM Type: TP	Status FINAL	Pit Number **SA2** Sheet 1 of 1

Hole Information		Groundwater				
Pit Dimensions	Orientation: °	Strike (m)	Rose To (m)	After (mins)	Remarks	Scale: 1:50
0.80m / 1.20m	Shoring:	1.35	0.00	0		Checked By: PV
	Stability: Stable					Approved By: IV
	Plant: Mini Excavator					Start Date: 15/03/2017
						Finish Date:

Strata Description	Legend	Depth (m)	Reduced Level (mAOD)	Water Level (m)	Backfill	Samples and Testing: Depth (m)	Ref	Tests / Results
Dark brown sandy slightly clayey SILT. Sand is fine to medium and subangular. (TOPSOIL)		0.15						
Light brown sandy silty very clayey GRAVEL. Gravel is fine to medium subrounded chert and sand is fine to medium and subangular. (ALLUVIUM)		0.40						
Grey firm CLAY. (ALLUVIUM)		1.00						
Light brown sandy silty very clayey GRAVEL. Gravel is fine to medium subrounded chert and sand is fine to medium and subangular. (ALLUVIUM)		1.35						
EOH at 1.35m - Reached target depth.								

Observations / Remarks

1. Soakaway test undertaken at base of pit. 2. Backfilled with arisings upon completion.

Project Number

A096537

Project: **Broadford FRA** Location: **Broadford** Client: **Marsden**	Location Details Easting: 497085.00 Northing: 161343.00 Level: Depth: 1.45m Logger: JM Type: TP	Status FINAL	Pit Number **SA3** Sheet 1 of 1

Hole Information		Groundwater				Scale: 1:50
Pit Dimensions	Orientation: °	Strike (m)	Rose To (m)	After (mins)	Remarks	Checked By: PV
0.75m / 1.20m	Shoring: None	1.45	0.00	0		Approved By: IV
	Stability: Stable					Start Date: 15/03/2017
	Plant: Mini Excavator					Finish Date:

Strata Description	Legend	Depth (m)	Reduced Level (mAOD)	Water Level (m)	Backfill	Samples and Testing: Depth (m)	Ref	Tests / Results
Dark grey very silty SAND with frequent roots and rootlets. Sand is fine to medium and subangular where visible. (TOPSOIL)		0.25						
Light brown sandy silty clayey GRAVEL. Gravel is fine to medium subangular to subrounded chert and sand is fine and subangular. (ALLUVIUM)		1.00						
Light grey mottled orangish brown slightly clayey very silty SAND. Sand is fine and subangular to subrounded. (BAGSHOT FORMATION)		1.45		▼				
EOH at 1.45m - Soakaway test failure.								

Observations / Remarks

1. Soakaway test undertaken at base of pit. 2. Backfilled with arisings upon completion.

Project Number

A096537

WYG Environment

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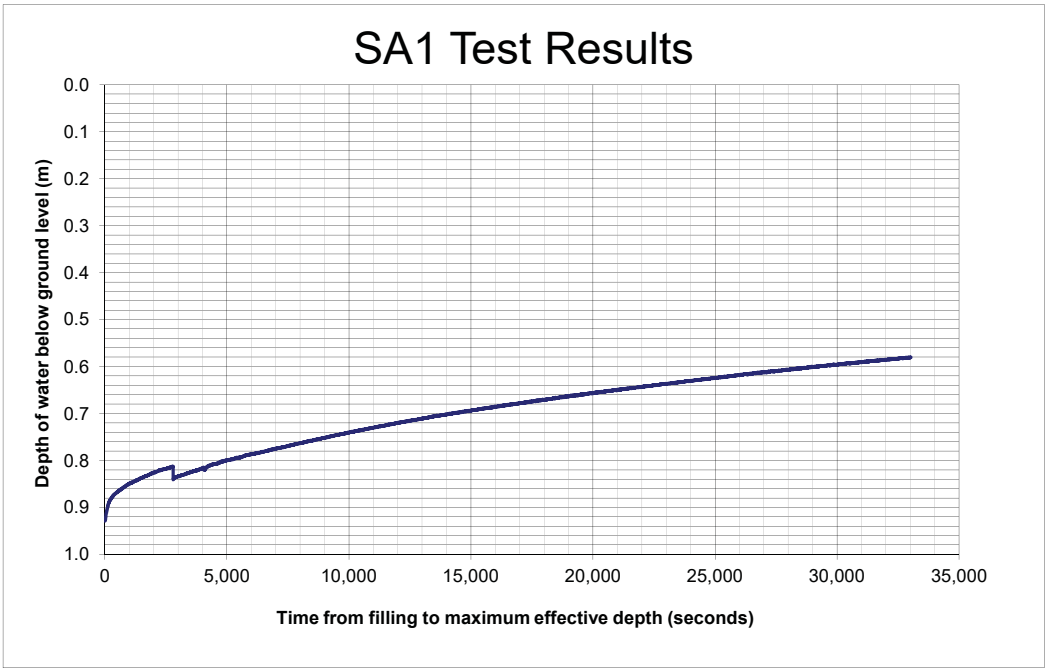
Fax: 02920 455321
Environmental Consultancy
Ground Engineering Services

PROJECT No.:	A096537
PROJECT NAME:	Broadford FRA
CLIENT:	Mr and Mrs. Marsden
FIGURE No.:	

SOAKAWAY TEST - SOIL INFILTRATION RATE/PERMEABILITY CALCULATION



Time Elapsed (s)	Time Elapsed (mins)	Depth of water below ground level (m)
0	00:00	0.929
5	00:05	0.929
10	00:10	0.927
15	00:15	0.927
20	00:20	0.926
25	00:25	0.924
30	00:30	0.922
35	00:35	0.921
40	00:40	0.919
45	00:45	0.918
50	00:50	0.915
55	00:55	0.914
60	01:00	0.913
65	01:05	0.911
70	01:10	0.910
75	01:15	0.908
80	01:20	0.907
85	01:25	0.907
90	01:30	0.904
95	01:35	0.904
100	01:40	0.904
105	01:45	0.901
110	01:50	0.900
Too many points to display		

TRIALPIT No.:	1		
TEST No.:	1		
DATE:	15/03/2017		
INPUT PARAMETERS:			
Effective depth of Pit		(m)	0.92
Depth of Pit		(m)	1.40
Length of Pit		(m)	1.25
Width of Pit		(m)	0.75
Total volume of pit		(m^3)	0.86
Total volume of Water		(m^3)	0.86
Level of water in pit at 75% effective depth (p_{75})		(m)	0.69
Level of water in pit at 25% effective depth (p_{25})		(m)	0.71
Surface area of pit up to 50% effective depth (A_{p50})		(m^2)	2.778
Extrapolated time at 75% effective depth (p_{75})		(s)	24
Extrapolated time at 25% effective depth (p_{25})		(s)	15954
Volume of outflow between 75% and 25% effective depth (V_{p75-25})		(m^3)	0.43
Time taken for the outflow between 75% and 25% effective depth (T_{p75-25})		(s)	15930
SOIL INFILTRATION RATE (f)	$\frac{V_{p75-25}}{A_{p50} \times T_{p75-25}}$	(m/s)	**9.75E-06**
WATER INPUT:	0.86m3 in 0.5 mins		

GEOLOGY OF TEST SECTION:
0.15 - 0.40m bgl and 1.00 - 1.35m bgl: Light brown sandy silty very clayey GRAVEL. Gravel is fine to medium subrounded chert and sand is fine to medium and subangular. 0.40 - 1.00m bgl grey firm CLAY.

Compiled by: JM
Checked by: PV

WYG Environment

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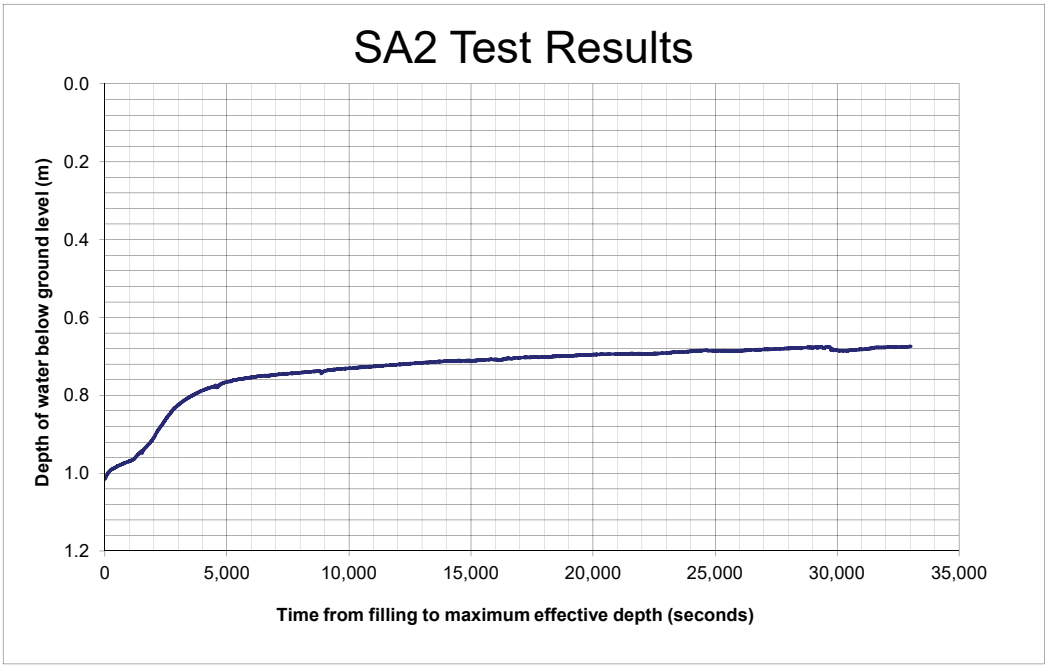
Fax: 02920 455321
Environmental Consultancy
Ground Engineering Services

PROJECT No.:	A096537
PROJECT NAME:	Broadford FRA
CLIENT:	Mr and Mrs. Marsden
FIGURE No.:	

SOAKAWAY TEST - SOIL INFILTRATION RATE/PERMEABILITY CALCULATION



Time Elapsed (s)	Time Elapsed (mins)	Depth of water below ground level (m)
0	00:00	1.016
5	00:05	1.016
10	00:10	1.015
15	00:15	1.014
20	00:20	1.013
25	00:25	1.012
30	00:30	1.012
35	00:35	1.011
40	00:40	1.011
45	00:45	1.009
50	00:50	1.009
55	00:55	1.008
60	01:00	1.007
65	01:05	1.007
70	01:10	1.006
75	01:15	1.005
80	01:20	1.004
85	01:25	1.004
90	01:30	1.003
95	01:35	1.002
100	01:40	1.002
105	01:45	1.001
110	01:50	1.003
Too many points to display		

TRIALPIT No.:	2		
TEST No.:	1		
DATE:	15/03/2017		
INPUT PARAMETERS:			
Effective depth of Pit		(m)	1.02
Depth of Pit		(m)	1.35
Length of Pit		(m)	1.20
Width of Pit		(m)	0.80
Total volume of pit		(m^3)	0.98
Total volume of Water		(m^3)	0.98
Level of water in pit at 75% effective depth (p_{75})		(m)	0.77
Level of water in pit at 25% effective depth (p_{25})		(m)	0.59
Surface area of pit up to 50% effective depth (A_{p50})		(m^2)	3.000
Extrapolated time at 75% effective depth (p_{75})		(s)	64
Extrapolated time at 25% effective depth (p_{25})		(s)	103552
Volume of outflow between 75% and 25% effective depth (V_{p75-25})		(m^3)	0.49
Time taken for the outflow between 75% and 25% effective depth (T_{p75-25})		(s)	103488
SOIL INFILTRATION RATE (f)	$\frac{V_{p75-25}}{A_{p50} \times T_{p75-25}}$	(m/s)	**1.58E-06**
WATER INPUT:	0.98m3 in 1 mins		

GEOLOGY OF TEST SECTION:

0.25 - 0.70m bgl dark brown fine sandy SILT with intact brick and angular cobbles of slate. Sand is fine to medium and subangular. 0.70 - 1.30m bgl light brown clayey very silty SAND. Sand is fine to medium subrounded with lenses of grey soft clay.

Compiled by: JM

Checked by: PV

WYG Environment

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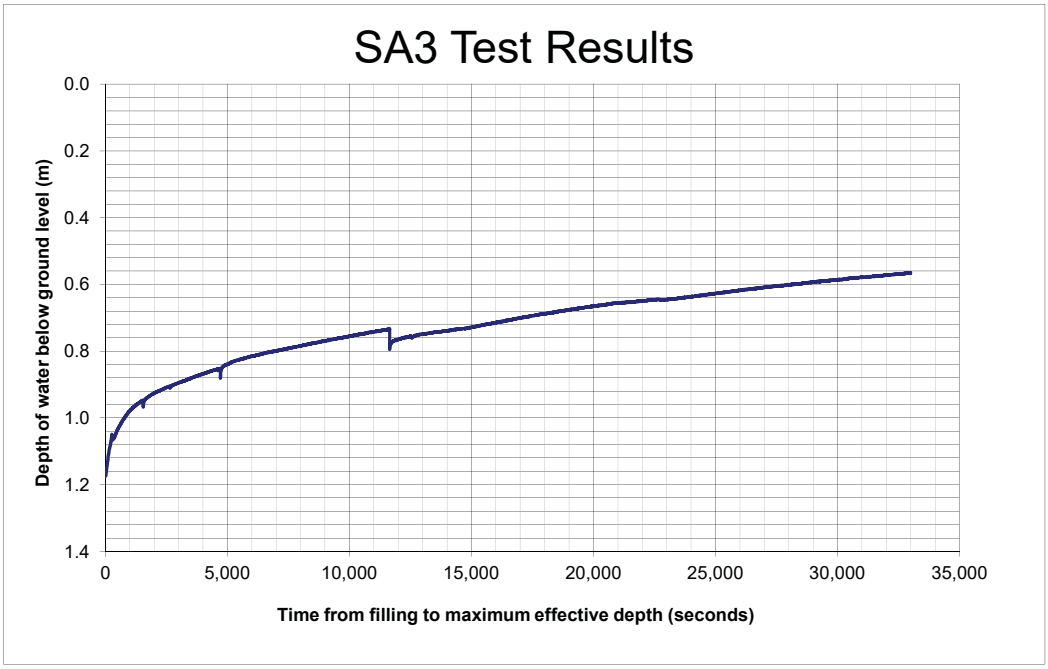
PROJECT No.:	A096537
PROJECT NAME:	Broadford FRA
CLIENT:	Mr and Mrs. Marsden
FIGURE No.:	

SOAKAWAY TEST - SOIL INFILTRATION RATE/PERMEABILITY CALCULATION



Time Elapsed (s)	Time Elapsed (mins)	Depth of water below ground level (m)
0	00:00	1.177
5	00:05	1.175
10	00:10	1.176
15	00:15	1.174
20	00:20	1.173
25	00:25	1.169
30	00:30	1.166
35	00:35	1.163
40	00:40	1.160
45	00:45	1.157
50	00:50	1.155
55	00:55	1.152
60	01:00	1.149
65	01:05	1.145
70	01:10	1.143
75	01:15	1.140
80	01:20	1.138
85	01:25	1.135
90	01:30	1.133
95	01:35	1.130
100	01:40	1.128
105	01:45	1.125
110	01:50	1.119
Too many points to display		

TRIALPIT No.:	3		
TEST No.:	1		
DATE:	15/03/2017		
INPUT PARAMETERS:			
Effective depth of Pit		(m)	1.18
Depth of Pit		(m)	1.45
Length of Pit		(m)	1.25
Width of Pit		(m)	0.70
Total volume of pit		(m^3)	1.03
Total volume of Water		(m^3)	1.03
Level of water in pit at 75% effective depth (p_{75})		(m)	0.89
Level of water in pit at 25% effective depth (p_{25})		(m)	0.57
Surface area of pit up to 50% effective depth (A_{p50})		(m^2)	3.176
Extrapolated time at 75% effective depth (p_{75})		(s)	325
Extrapolated time at 25% effective depth (p_{25})		(s)	40899
Volume of outflow between 75% and 25% effective depth (V_{p75-25})		(m^3)	0.52
Time taken for the outflow between 75% and 25% effective depth (T_{p75-25})		(s)	40574
SOIL INFILTRATION RATE (f)	$\frac{V_{p75-25}}{A_{p50} \times T_{p75-25}}$	(m/s)	**4.01E-06**
WATER INPUT:	1.03m3 in 0.80 mins		

GEOLOGY OF TEST SECTION:

0.25 - 1.00m bgl Light brown sandy silty clayey GRAVEL. Gravel is fine to medium subangular to subrounded chert and sand is fine and subangular. 1.00 - 1.45m bgl Light grey mottled orangish brown slightly clayey very silty SAND. Sand is fine and subangular to subrounded.

Compiled by: JM

Checked by: PV

Appendix B

Report Conditions

REPORT CONDITIONS

GROUND INVESTIGATION

This report is produced solely for the benefit of Mr and Mrs Marsden and no liability is accepted for any reliance placed on it by any other party unless specifically agreed in writing otherwise. This report refers, within the limitations stated, to the condition of the site at the time of the inspections. No warranty is given as to the possibility of future changes in the ground condition of the site as certain characteristics, particularly liquid and gaseous materials, can vary with time.

This report is based on readily available geological records, the recorded physical investigation, the strata observed in the works, together with the results of completed site and laboratory tests. Whilst skill and care has been taken to interpret these conditions likely between or below investigation points, the possibility of other characteristics not revealed cannot be discounted, for which no liability can be accepted. The impact of our assessment on other aspects of the development requires evaluation by other involved parties.

Whilst WYG are confident in the findings detailed within this report, the assessment of ground conditions is not an exact science. Subject to risk analysis, we are unable to give categorical assurances that the findings of this report will be accepted by others, as they may have differing objectives. This report is prepared in line with the context of the agreed brief and should not be used in a different context without consultation with WYG. In the future improved practices or amended legislation may necessitate re-assessment of this report.

The opinions expressed cannot be absolute due to the limitations of time and resources within the context of the agreed brief, and the possibility of previous unrecorded ground activities. The ground conditions have been sampled or monitored in recorded locations and tested for common chemicals as highlighted in the client's instructions. Other concentrations or types of chemicals may exist.

PINNACLE
CONSULTING ENGINEERS

Flood Advice Note

Castle Grove Road, Chobham

24 July 2018

STRUCTURAL · CIVIL · DUE DILIGENCE · ENGINEERING MASTERPLANNING
FLOOD MANAGEMENT · INFRASTRUCTURE DESIGN
PRE-DEVELOPMENT ENGINEERING · BIM · TRANSPORTATION

PINNACLE
CONSULTING ENGINEERS

CONTACT DETAILS

Name	Position	Email	Telephone	Mobile
Andrew Quinn	Civil Engineer	[redacted]		-
Jawsy Jabbar	Principal Engineer	[redacted]		
David Meigh	Director	[redacted]		

APPROVALS

	Name	Signature	Position	Date
Prepared by	Andrew Quinn	[redacted]	Civil Engineer	24.07.18
Reviewed by	Jawsy Jabbar		Principal Engineer	24.07.18
Approved by	David Meigh		Director	24.07.18

VERSIONS

Number	By	Date	Context
1	Andrew Quinn	13.07.18	Draft for comment
2	Andrew Quinn	24.07.18	First issue

CONTENT

1 INTRODUCTION

Pinnacle Consulting Engineers Ltd have been commissioned by African Queen to prepare a Flood Advice Note for the proposed development of a site off Castle Grove Road, Chobham, Surrey GU24 8EF.

The Environment Agency flood map indicates the site to be predominantly within Flood Zone 2 and partially within Flood Zones 1 and 3. This report references the regulatory requirements that will be applied when considering any proposal in Flood Zone 2 and sets out the assumptions made in defining a developable land boundary, finished floor level and the required mitigation measures using readily available data.

The following data has been reviewed in preparing this technical note;

Topographical site survey

WYG Flood Risk Assessment Report dated June 2017

EA Product 4 Data

EA Flood Zone Mapping

Indicative site layout proposal

2 EXISTING SITE CONDITIONS

2.1 Site description

The proposed development is located at National Grid Reference (NGR) 161400mE, 497180mN adjacent Castle Grove Road, Chobham. We have considered an area which has an approximate total area of 4.28ha comprising 2 no. parcels referred to as Parcel A and Parcel C. Parcel A is an area of 2.23ha occupied by a residential property referred to as 'Broadford'. Parcel C is excluded and is a greenfield area located to the south west of parcel A. The overall site is bounded by Castle Grove Road to the east. Refer to Figure 2.1 below for an aerial view of the site.

Figure 2.1 – Aerial View of the existing development site (approximate site boundary edged red), Google Maps

2.2 Topography

The existing ground levels of Parcel C fall away from Castle Grove Road in a north-westerly direction. Existing levels along the boundary with Castle Grove Road vary from 27.700m to 27.500m AOD. Levels beside the western boundary vary between 26.800m and 26.200m AOD. The topographical survey notes several landscaped features within Parcel C, including a mound in the south east corner, some 1.500m in height at 29.150m AOD.

Parcel A contains an existing residential development referred to as 'Broadford' comprising a number of existing buildings including a house, cottage, associated garage, swimming pool and greenhouse. The site is accessed off Castle Grove Road in a number of locations. The topographic survey notes the

finished floor level of the main building as 27.480m AOD. As with the southern parcel, levels fall away from Castle Grove Road in a north-westerly direction, varying from 26.00m to 25.50m AOD along the boundary. An approximately 50 m long ditch runs parallel with the boundary, some 800mm deep.

Details of site levels are shown in Appendix A.

3 PROPOSED DEVELOPMENT

The proposed development is for a residential scheme with associated infrastructure.

Parcel A would be developed using the existing access serving Broadford from Castle Grove Road.

Parcel A would supplement the existing residential units with an additional 15 dwellings. The site will be used to provide flood compensation volume for the overall development proposal.

4 FLOOD RISK

4.1 Flooding from rivers (fluvial flooding) & sea (tidal flooding)

The assessment of flood risk in this report is based on the definitions in Table 1 of the Technical Guidance to the National Planning Policy Framework, which recognises the following Flood Zones:

- Flood Zone 1 - little or no risk, with annual probability of flooding from rivers and the sea of less than 0.1% (1 in 1000-year)
- Flood Zone 2 - low to medium risk, with annual probability of flooding between 0.1% and 1.0% from rivers and between 0.1% and 0.5% from the sea
- Flood Zone 3a - high risk of flooding with an annual probability of flooding of 1.0% or greater from rivers, and 0.5% or greater from the sea.
- Flood Zone 3b – the 'Functional Floodplain' with an annual probability of flooding of 5% or greater.

An extract from the Environment Agency's online flood map published on their website is shown in Figure 4.1 below. **The site is located within all three Flood Zones 1, 2 & 3. Predominantly the site lies within Flood Zone 2.**

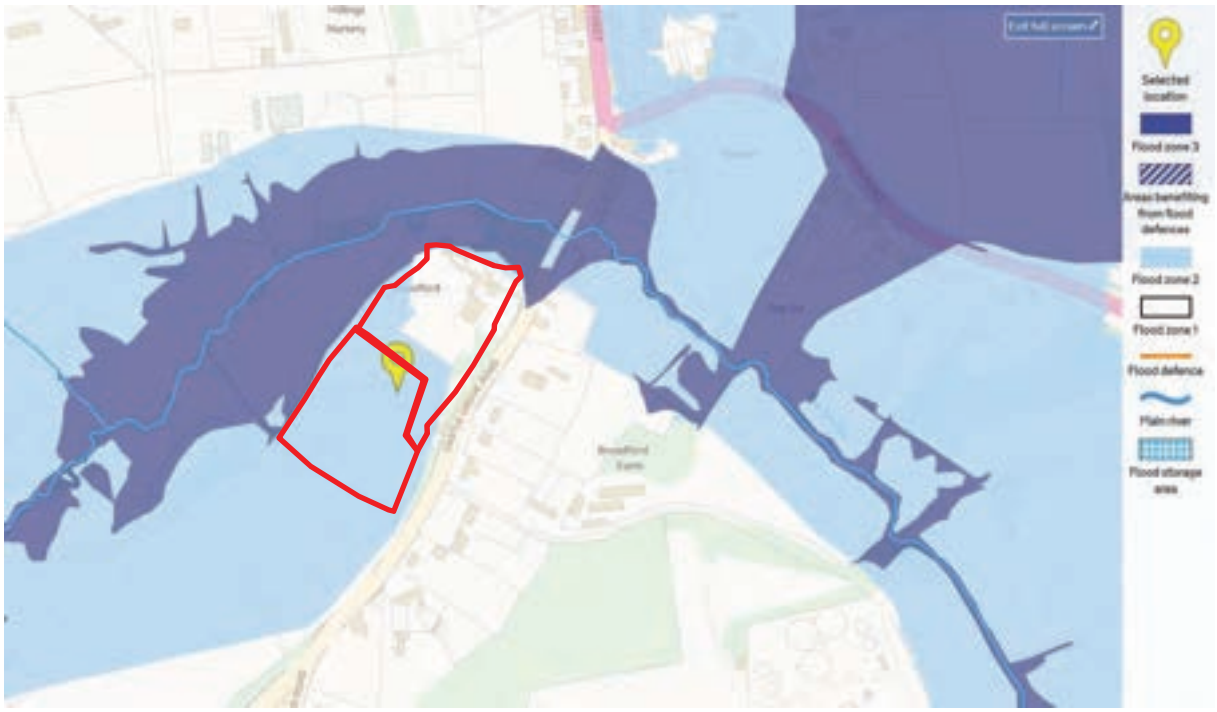


Figure 4.1 – Environment Agency Online Flood Map Extract (Approximate Site Extents Edged Red)

5 FLOOD COMPENSATION

The Environment Agency's standing advice for a development proposal within flood zone 2, requires finished floor levels to be at least at the predicted 1 in 100-year plus 20% Climate Change rainfall event flood level + 600mm freeboard to provide safe access and egress at times of flood. In addition, a flood evacuation strategy is required to set out management of the site in the event of an EA flood warning when occupants would be evacuated to a place of safety.

The proposed built form will require remodelling of site levels to relocate the associated loss of flood storage volume within the site. This report will demonstrate that levels remodelling will not result in detriment to predicted flood behaviour downstream of the site.

5.1 Environment Agency Product 4 Data

EA Product 4 flood data provides predicted flood levels in and around the site, refer to Appendix B for a full copy of the Product 4 data. While model nodes are not provided within the site, there are several located around the site boundary. The most relevant nodes are 06330AB_MN_A2.060, 06330AB_MN_A2.061, 06330AB_MN_A2.062, 06330AB_MN_A2.063, 06330AB_MN_A2.064 and 06330AB_MN_A2.065. Node ref. 06330AB_MN_A2.065 has the highest 1 in 100 year + 20% CC rainfall event flood level at 26.640m AOD as noted in the table extract below in Figure 5.1. The resulting minimum required FFL is 27.240m AOD i.e. 26.640 + 600mmm freeboard = 27.240 m.

	Flood Levels (mAOD)							
Node label	20% AEP	5% AEP	1% AEP	1% AEP (+20% increase in flows)	1% AEP (+25% increase in flows)	1% AEP (+35% increase in flows)	1% AEP (+70% increase in flows)	0.1% AEP
06330AB_MN_A2.065	26.23	26.53	26.61	26.64	0.00	0.00	0.00	0.00
06330AB_MN_A2.064	26.00	26.28	26.37	26.42	0.00	0.00	0.00	0.00
06330AB_MN_A2.062	25.71	26.03	26.16	26.24	0.00	0.00	0.00	0.00
06330AB_MN_A2.061	25.53	25.85	26.10	26.20	0.00	0.00	0.00	0.00
06330AB_MN_A2.060	25.41	25.71	26.07	26.18	0.00	0.00	0.00	0.00
06330AB_MN_A2.063	25.83	26.12	26.22	26.28	0.00	0.00	0.00	0.00
06330AB_MN_A2.054	24.74	25.04	25.40	25.51	0.00	0.00	0.00	0.00
06330AB_MN_A2.053	24.58	24.87	25.24	25.33	0.00	0.00	0.00	0.00

Figure 5.1 – Table Extracted from Environment Agency Product 4 Data

5.2 Existing Flood Extents

As noted in section 4.1, the site lies predominantly within Flood Zone 2, resulting in an annual probability of flooding of between 0.1% (1 in 1000 year) and 1.0% (1 in 100 year). As the acquired Product 4 data does not model a flood level for the 1 in 1000-year event, this report assumes an appropriate flood level along the Flood Zone 2 boundary, as the surveyed ground levels

5.3 Proposed Finished Floor Levels

As noted earlier, proposed finished floor levels of any development are required to be at a minimum level of 27.240m AOD to place them safely within Flood Zone 1 low risk i.e. less than a 1 in 1000-year annual probability of flooding.

The following compensation analysis identifies a raised developable plateau within FZ1 whilst lowering levels elsewhere to maintain the overall flood storage volume, by matching the flood compensation volume for the lost storage.

5.4 Flood Compensation

The proposed development will include relocated flood compensation storage volume for that lost as a result of locally raising levels for built form. As section 5.3, the design finished floor level is 27.240m AOD.

The fall in site levels from Castle Grove Road towards the Bourne River provides a significant area for flood storage. To balance the area created for residential use, a schematic level strategy has been developed.

5.5 Developable Plateau at 27.240mAOD

The following levels strategy assumes a 27.240m AOD 'Development Plateau' as the area of land to be developed. The first 5.0 m of the development rear gardens will fall away at a 1 in 50 gradient before stepping down with a log retaining wall some 0.550m height to 26.590m AOD, providing the required compensation volume. The remaining area of 'rear garden' will be graded down at a maximum fall of 1 in 15. The flood relief area beyond the gardens will then be graded back towards the Bourne River bank at a minimum fall of 1 in 300, maintaining gravity flow towards the river in the event of flood. Refer to the diagrammatic view below of the simplified level strategy.

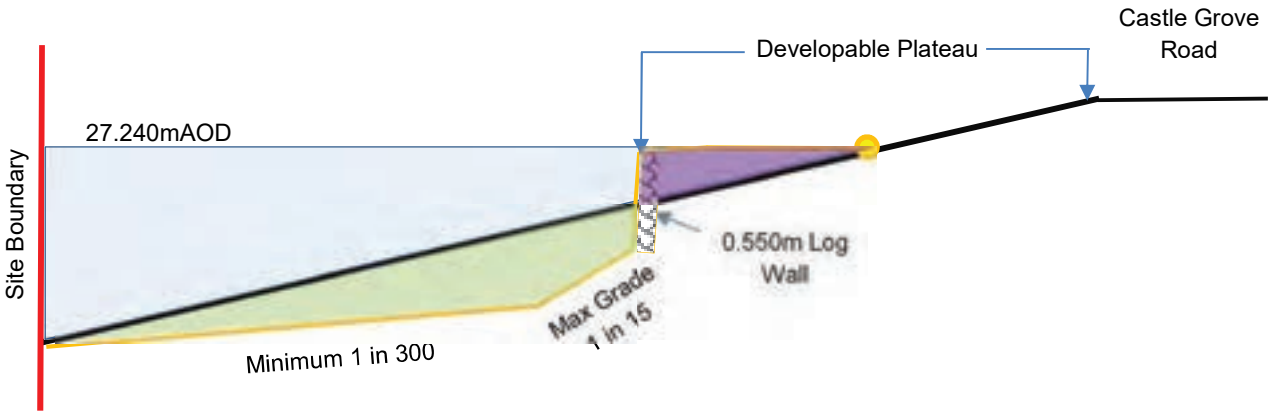


Figure 5.3 – diagrammatic of 27.240mAOD Plateau & flood compensation volume

Figure 5.3 shows the proposed development levels (orange line) and the resulting flood storage loss (purple hatch). Compensation for the lost storage is provided by dropping levels below the existing ground profile (green hatch), balanced with that lost by the proposed development. Appendix D shows the developable plateau and the required compensation volume. Appendix D notes the lost flood storage volume as 794m^3 and the compensation volume provided ass 836m^3 i.e. an approximate balance.

Flood compensation analysis confirms that Parcel C can be considered for residential development with associated flood storage compensation. The analysis demonstrates that a plateau of 27.240m AOD will provide flood alleviation resulting from residential development.

6 CONCLUSION

- Referring to the Environment Agency flood map, the development site is located partly within all three Flood Zones 1, 2 and 3, though predominantly within Flood Zone 2.

- The site falls in a north westerly direction with highest levels along the boundary with Castle Grove Road. Lowest levels are along the north west boundary, falling towards the Bourne River.

- As Environment Agency Product 4 data does not provide the 1 in 1000-year modelled flood levels for the reference nodes closest to the site, Flood Zone 2 boundary levels were matched to existing ground levels to provide a maximum flood level of 27.700m AOD.

- A developable plateau level of 27.240m AOD reduces site flood storage by 794m^3 which can be compensated for with a volume of 836m^3. Refer to Appendix D for associated areas.

- Parcel C can be considered for residential development subject to replacing lost flood storage volume resulting from the locally raising of levels. The report demonstrates that general remodelling of site levels provides a low flood risk developable plateau while also providing the required flood compensation volume elsewhere within the site.

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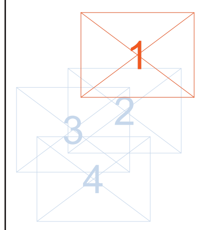
Sheet Layout



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Revisions

Drawing Status: FINAL

Surveyed WM	Date 07/04/17	Scale 1:200
Drawn WM	Sheet 1 of 4	Approved AF

Client: Mr P. Marsden

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Project: Broadford
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Drawing No. 4175/20/001 Rev. -

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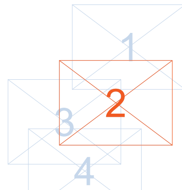

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Drawing Status: FINAL

Surveyed WM	Date 07/04/17	Scale 1:200
Drawn WM	Sheet 2 of 4	Approved AF

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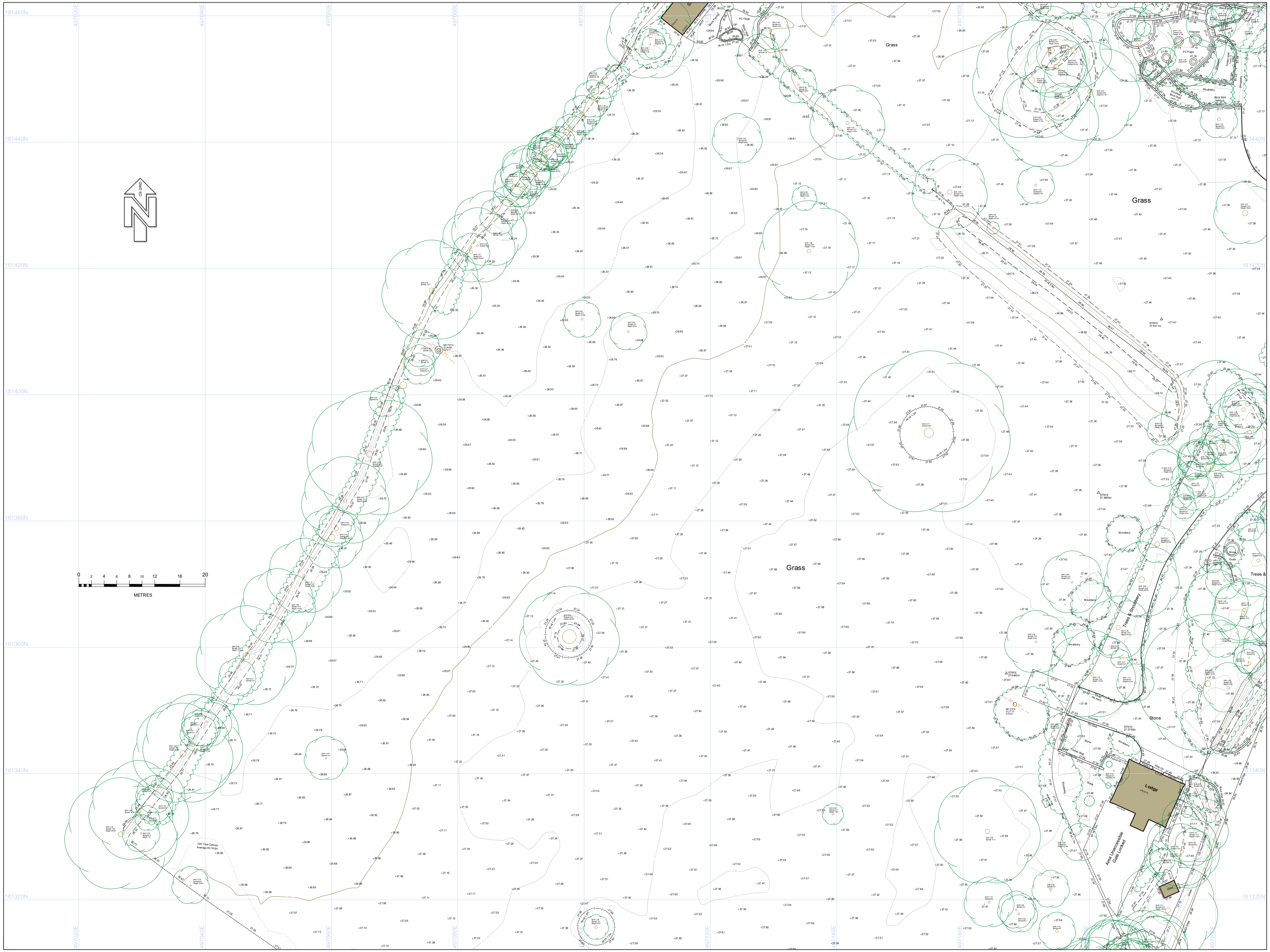

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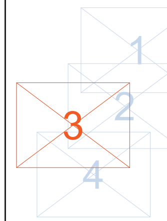

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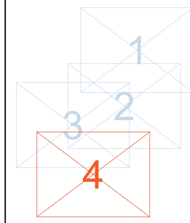

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ER	Earth Rod	MEP	Metal Post	SV	Stop Valve	Ø	Diameter

Description Abbreviations

Asmd Rt	Assumed Route	Flw Bd	Flower Bed	O/H	Overhead
BkDrp	Back Drop	FW	Foul Water	OSBM	Ordnance Survey Bench Mark
Bk	Brick	GTrp	Grease Trap		
BusStKb	Bus Stop Kerb	Ht	Height	RetWall	Retaining Wall
Bldg	Building	Hg	Hedge	Rd Edg	Road Edge
CDrnKbS	Combined Drainage & Kerb System	Intcpr	Interceptor	Spd Rtr	Speed Retarder
		Lvl	Level	St	Stone
Conc	Concrete	m	Metres	STN	Station
CPit	Catch Pit	mm	Millimetres	SW	Surface Water
DrpKB	Drop Kerb	MSL	Mean Sea Level	Tac	Tactile Paving
Drn Chnl	Drainage Channel	No.	Number	Tmc	Tarmac

Level Prefix

AL	Arch Level	RL	Roof / Ridge Level	ToS	Top of Steel Level	FFL	Finished Floor Level
CL	Cover Level	SL	Soffit Level	ToW	Top of Wall Level	1st.FFL	1st Finished Floor Level
DPC	Damp Proof Course	SprL	Springing Level	SILL	Sill Level		
EL	Eaves Level	TL	Threshold Level	WL	Water Level (inc.date & Time)		
IL	Invert Level	ToC	Top of Concrete Level				
PL	Parapet Level	ToP	Top of Pipe Level				

Digital File 4175_10_2D.dwg — Original Size A0

No.	Description	Date	Signed

Revisions

Drawing Status: FINAL

Surveyed WM	Date 07/04/17	Scale 1:200
Drawn WM	Sheet 4 of 4	Approved AF

Client: Mr P. Marsden

Title: Topographical Survey

Project: Broadford, Castle Grove Road, Chobham, GU24 8EF

Drawing No. 4175/20/004 — Rev. -

Clugston

Clugston Survey Services
St Vincent House
Normanby Road
Scunthorpe
North Lincolnshire
DN15 8QT

Tel: 01724 748170
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Appendix B – Environment Agency Product 4 Data

Product 4 (Detailed Flood Risk) for Broadford, Chobham
Our Ref: THM47022

Product 4 is designed for developers where Flood Risk Standing Advice FRA (Flood Risk Assessment) Guidance Note 3 Applies. This is:

i) "all applications in Flood Zone 3, other than non-domestic extensions less than 250 sq metres; and all domestic extensions", and

ii) "all applications with a site area greater than 1 ha" in Flood Zone 2.

Product 4 includes the following information:

Ordnance Survey 1:25k colour raster base mapping;

Flood Zone 2 and Flood Zone 3;

Relevant model node locations and unique identifiers (for cross referencing to the water levels, depths and flows table);

Model extents showing *defended* scenarios;

FRA site boundary (where a suitable GIS layer is supplied);

Flood defence locations (where available/relevant) and unique identifiers; (supplied separately)

Flood Map areas benefiting from defences (where available/relevant);

Flood Map flood storage areas (where available/relevant);

Historic flood events outlines (where available/relevant, not the Historic Flood Map) and unique identifiers;

Statutory (Sealed) Main River (where available within map extents);

A table showing:

i) Model node X/Y coordinate locations, unique identifiers, and levels and flows for *defended* scenarios.

ii) Flood defence locations unique identifiers and attributes; (supplied seperately)

iii) Historic flood events outlines unique identifiers and attributes; and

iv) Local flood history data (where available/relevant).

Please note:

If you will be carrying out computer modelling as part of your Flood Risk Assessment, please request our guidance which sets out the requirements and best practice for computer river modelling.

This information is based on that currently available as of the date of this letter. You may feel it is appropriate to contact our office at regular intervals, to check whether any amendments/ improvements have been made. Should you re-contact us after a period of time, please quote the above reference in order to help us deal with your query.

This information is provided subject to the enclosed notice which you should read.

This letter is not a Flood Risk Assessment. The information supplied can be used to form part of your Flood Risk Assessment. Further advice and guidance regarding Flood Risk Assessments can be found on our website at:

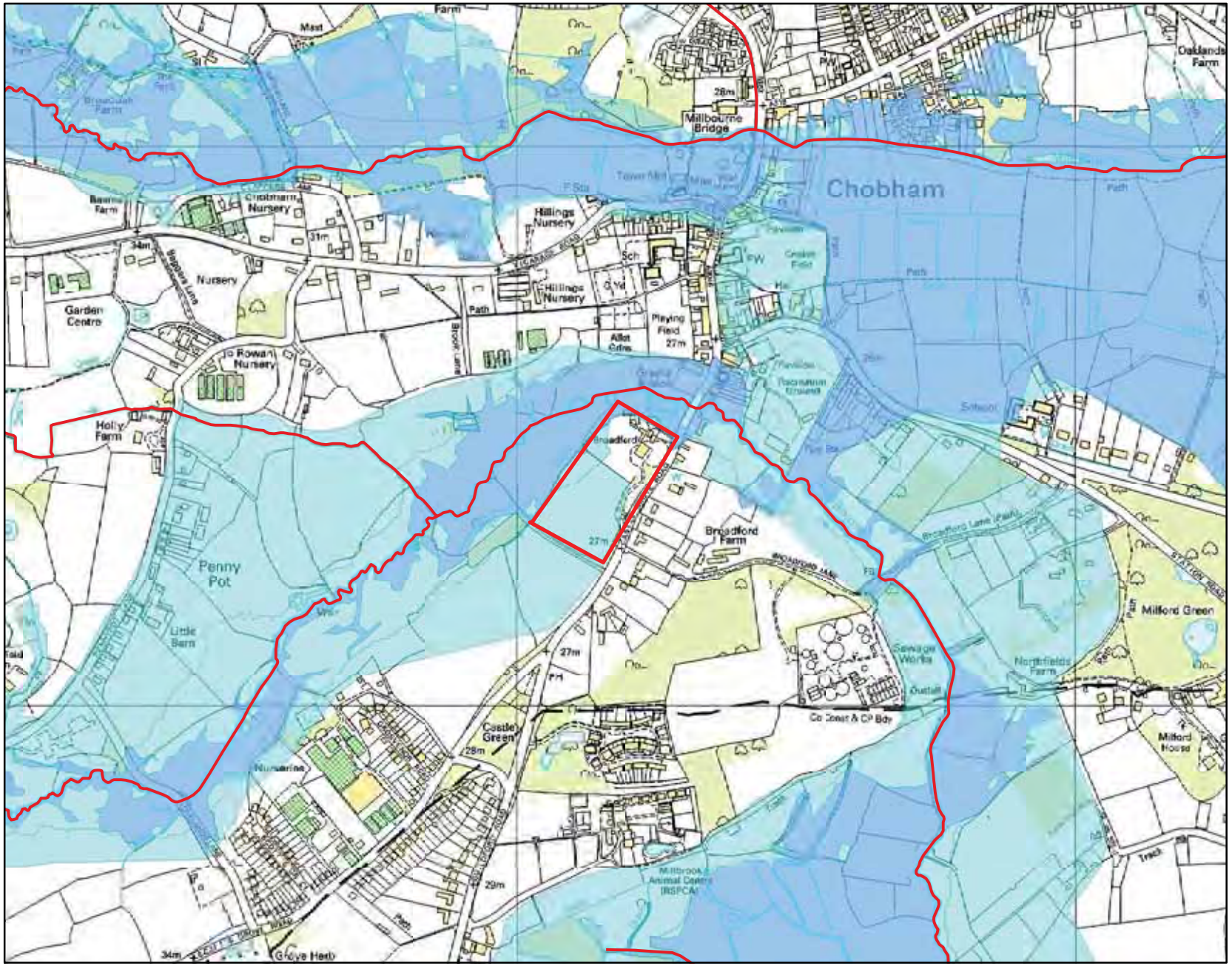
https://www.gov.uk/guidance/flood-risk-assessment-local-planning-authorities

If you would like advice from us regarding your development proposals you can complete our pre application enquiry form which can be found at:

https://www.gov.uk/government/publications/pre-planning-application-enquiry-form-preliminary-opinion

Red Kite House, Howbery Park, Wallingford, Oxon OX10 8BD
Customer services line: 08708 506 506
Email: WTenquiries@environment-agency.gov.uk

Flood Map for Planning centred on Broadford, Chobham
Created on 15/05/17 REF: THM47022



Environment Agency

Kilometres

0 0.25 0.5

Legend

- Main River
- Flood defences
- Areas benefiting from flood defences
- Flooding from rivers or sea (FZ3)
- Extent of extreme flood (FZ2)
- Flood Map - flood storage areas

Flooding from rivers or sea without defences (Flood Zone 3) shows the area that could be affected by flooding:
- from the sea with a 1 in 200 or greater chance of happening each year
- or from a river with a 1 in 100 or greater chance of happening each year.

The Extent of an extreme flood (Flood Zone 2) shows the extent of an extreme flood from rivers or the sea with up to a 1 in 1000 chance of occurring each year.

Contact Us: National Customer Contact Centre, PO Box 544, Rotherham, S60 1BY. Tel: 08708 506 506 (Mon-Fri 8-6). Email: enquiries@environment-agency.gov.uk

Defence information

THM47022

Defence Location:	**No defences on Main River**
Description:	**This location is not currently protected by any formal defences and we do not currently have any flood alleviation works planned for the area. However we continue to maintain certain watercourses and the schedule of these can be found on our internet pages.**

Model information

THM47022

Model: **Addlestone Bourne 2007**

Description: **The information provided is taken from the Addlestone/Hale Bourne Detailed Flood Risk Mapping Study completed in July 2007. The Addlestone/Hale Bourne catchments were modelled using ISIS 1D.**

Accuracy of the final model in the Lightwater area (at node points L1.007 – L1.011) is less, due to simplification of the model in this area, but the topography at **this location means that this increase (or decrease) in level will not significantly affect the flood extent.**

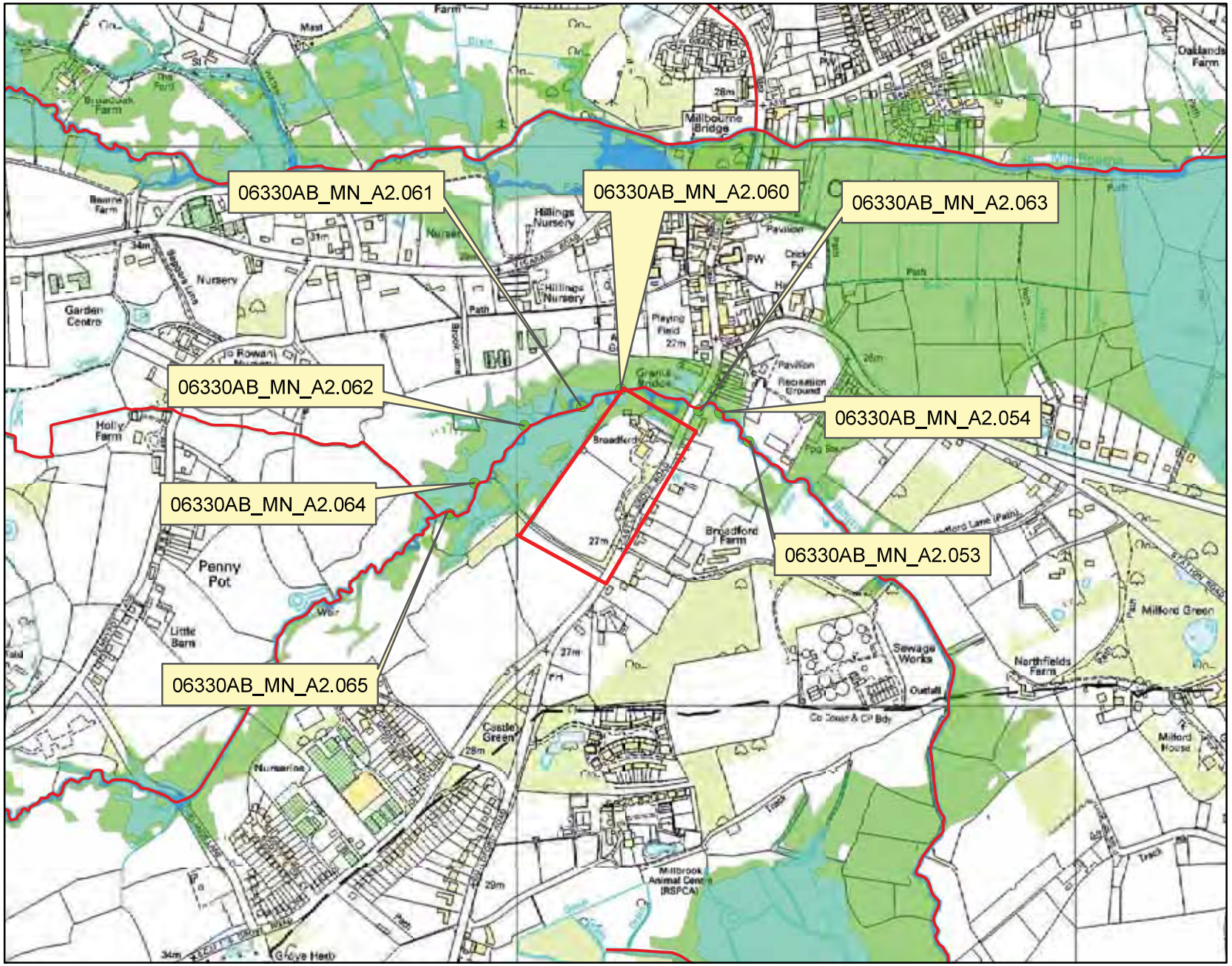
Woburn Park Stream: There are larger inaccuracies in Woburn Park Stream, downstream of the Addlestone Gauging Station. The modelled Chertsey Bourne 100-year flood levels at this location are higher than those achieved in this study, as a precaution, the levels for this reach should be taken from the Chertsey model.

Model design runs:
1 in 5 / 20% Annual Exceedance Probability (AEP); 1 in 20 / 5% AEP; 1 in 50 / 2% AEP; 1 in 100 / 1% AEP; and 1 in 100+20% / 1% AEP plus 20% increase in flows

Mapped outputs:
1 in 5 / 20% AEP; 1 in 20 / 5% AEP; 1 in 100 / 1% AEP

Model accuracy:
Levels ± 250mm (generally)
Levels ± 500mm (Lightwater area only see above)

Detailed FRA centred on Broadford, Chobham
Created on 15/05/17 REF: THM47022



Environment Agency

Kilometres

0 0.25 0.5

Legend

- Main River
- Model Nodes
- 20% AEP flood extent
- 5% AEP flood extent
- 1% AEP flood extent

AEP = Annual Exceedance Probability
The probability of a flood of a particular magnitude, or greater, occuring in any given year

Contact Us: National Customer Contact Centre, PO Box 544, Rotherham, S60 1BY. Tel: 08708 506 506 (Mon-Fri 8-6). Email: enquiries@environment-agency.gov.uk

Modelled in-channel flood flows and levels

THM47022

The modelled flood levels and flows for the closest most appropriate model node points for your site that are within the river channel are provided below:

				Flood Levels (mAOD)							
Node label	Model	Easting	Northing	20% AEP	5% AEP	1% AEP	1% AEP (+20% increase in flows)	1% AEP (+25% increase in flows)	1% AEP (+35% increase in flows)	1% AEP (+70% increase in flows)	0.1% AEP
06330AB_MN_A2.065	Addlestone Bourne 2007	496878	161342	26.23	26.53	26.61	26.64	0.00	0.00	0.00	0.00
06330AB_MN_A2.064	Addlestone Bourne 2007	496923	161397	26.00	26.28	26.37	26.42	0.00	0.00	0.00	0.00
06330AB_MN_A2.062	Addlestone Bourne 2007	497012	161500	25.71	26.03	26.16	26.24	0.00	0.00	0.00	0.00
06330AB_MN_A2.061	Addlestone Bourne 2007	497115	161534	25.53	25.85	26.10	26.20	0.00	0.00	0.00	0.00
06330AB_MN_A2.060	Addlestone Bourne 2007	497184	161565	25.41	25.71	26.07	26.18	0.00	0.00	0.00	0.00
06330AB_MN_A2.063	Addlestone Bourne 2007	497323	161527	25.83	26.12	26.22	26.28	0.00	0.00	0.00	0.00
06330AB_MN_A2.054	Addlestone Bourne 2007	497361	161523	24.74	25.04	25.40	25.51	0.00	0.00	0.00	0.00
06330AB_MN_A2.053	Addlestone Bourne 2007	497413	161471	24.58	24.87	25.24	25.33	0.00	0.00	0.00	0.00

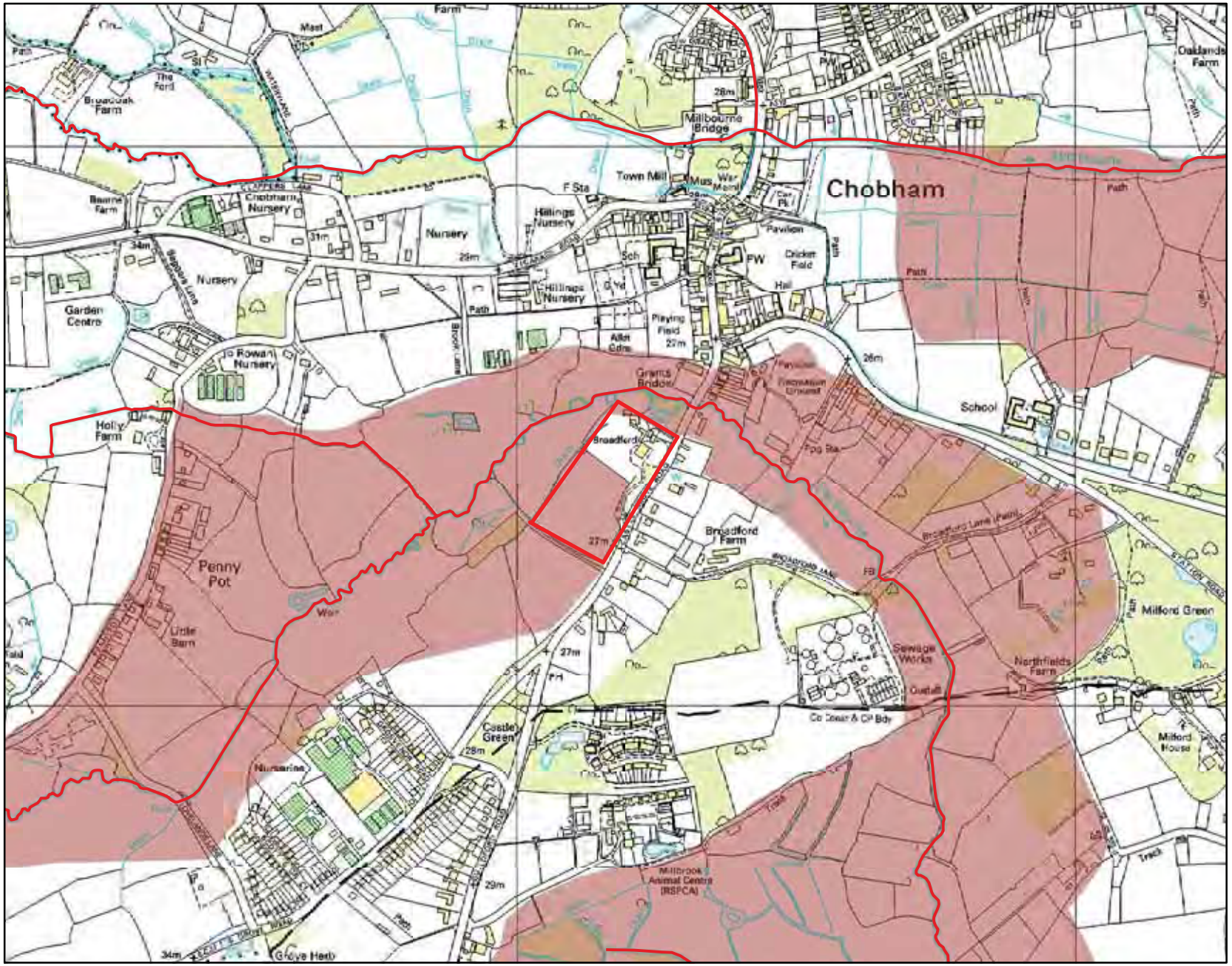
				Flood Flows (m3/s)							
Node label	Model	Easting	Northing	20% AEP	5% AEP	1% AEP	1% AEP (+20% increase in flows)	1% AEP (+25% increase in flows)	1% AEP (+35% increase in flows)	1% AEP (+70% increase in flows)	0.1% AEP
06330AB_MN_A2.065	Addlestone Bourne 2007	496878	161342	1.61	2.79	4.84	5.84	0.00	0.00	0.00	0.00
06330AB_MN_A2.064	Addlestone Bourne 2007	496923	161397	1.80	3.12	5.41	6.54	0.00	0.00	0.00	0.00
06330AB_MN_A2.062	Addlestone Bourne 2007	497012	161500	1.80	3.11	5.39	6.50	0.00	0.00	0.00	0.00
06330AB_MN_A2.061	Addlestone Bourne 2007	497115	161534	1.80	3.11	5.33	6.49	0.00	0.00	0.00	0.00
06330AB_MN_A2.060	Addlestone Bourne 2007	497184	161565	1.80	3.10	5.28	6.48	0.00	0.00	0.00	0.00
06330AB_MN_A2.063	Addlestone Bourne 2007	497323	161527	1.80	3.12	5.41	6.52	0.00	0.00	0.00	0.00
06330AB_MN_A2.054	Addlestone Bourne 2007	497361	161523	1.80	3.10	5.23	6.47	0.00	0.00	0.00	0.00
06330AB_MN_A2.053	Addlestone Bourne 2007	497413	161471	1.80	3.10	5.23	6.46	0.00	0.00	0.00	0.00

Note:

Due to changes in guidance on the allowances for climate change, the 20% increase in river flows should no longer to be used for development design purposes. The data included in this Product can be used for interpolation of levels as part of an intermediate level assessment.

For further advice on the new allowances please visit
https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances

Historic Flood Map centred on Broadford, Chobham
Created on 15/05/17 REF: THM47022



Environment Agency

Kilometres

0 0.25 0.5

Legend

Main River

year

1968

Flooding from rivers or sea without defences (Flood Zone 3) shows the area that could be affected by flooding:
- from the sea with a 1 in 200 or greater chance of happening each year
- or from a river with a 1 in 100 or greater chance of happening each year.

The Extent of an extreme flood (Flood Zone 2) shows the extent of an extreme flood from rivers or the sea with up to a 1 in 1000 chance of occurring each year.

Contact Us: National Customer Contact Centre, PO Box 544, Rotherham, S60 1BY. Tel: 08708 506 506 (Mon-Fri 8-6). Email: enquiries@environment-agency.gov.uk

Historic flood data

THM47022

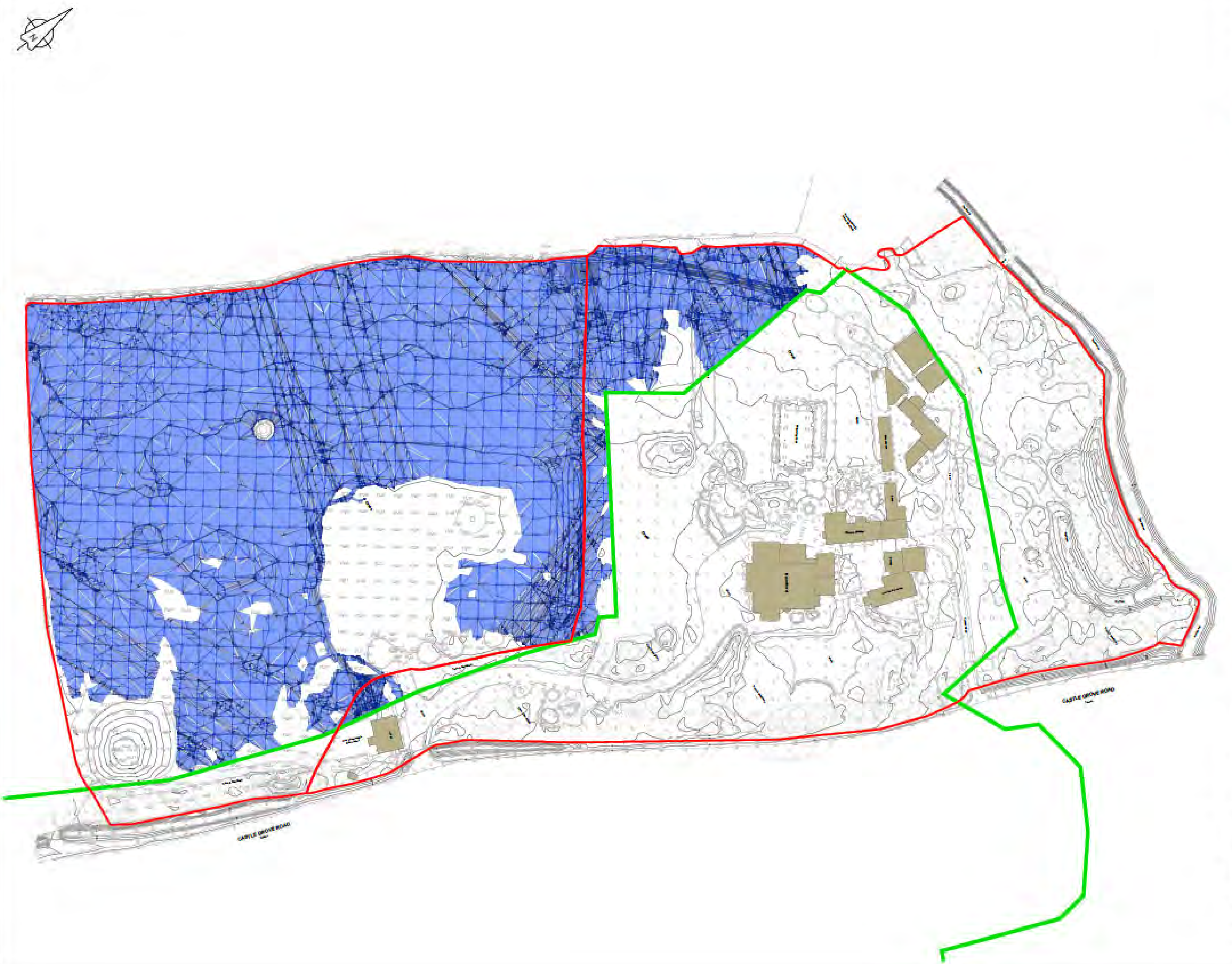
Our records show that the area of your site has been affected by flooding.
Information on the floods that have affected your site is provided in the table below:

Flood Event Code	Flood Event Name	Start Date	End Date	Source of Flooding	Cause of Flooding
EA0619680900594	06SeptemberAutumn1968	01/01/1968	12/12/1968	main river	channel capacity exceeded (no raised defences)

Please note the Environment Agency maps flooding to land not individual properties. Floodplain extents are an indication of the geographical extent of a historic flood. They do not provide information regarding levels of individual properties, nor do they imply that a property has flooded internally.

Start and End Dates shown above may represent a wider range where the exact dates are not available.

Appendix C – Existing Flood Extents



NOTES

DO NOT SCALE THIS DRAWING. WORK ONLY TO FIGURED DIMENSIONS.

FOR ALL RELEVANT NOTES, REFER TO STRUCTURAL AND CIVIL ENGINEERING PERFORMANCE SPECIFICATION.

ANY DISCREPANCIES ARE TO BE REPORTED TO PINNACLE CONSULTING ENGINEERS IMMEDIATELY.

THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ENGINEERS, ARCHITECTS AND SUB-CONTRACTORS DRAWINGS AND DETAILS.

LEGEND

SITE BOUNDARY

EXTENT OF FLOOD ZONE 2 BOUNDARY (PROVIDED BY ARCHITECT)

REV	DESCRIPTION	BY	CHK	DATE
P1	1st ISSUE	RW	AQ	

CLIENT
AFRICAN QUEEN

PROJECT
CHOBHAM
CASTLE GORVE ROAD

DRAWING TITLE
EXISTING FLOOD EXTENTS MAP

PINNACLE
CONSULTING ENGINEERS

NORWICH | LONDON | DUBLIN | THE HAGUE

DRAWING STATUS
INFORMATION

SCALE	DATE	DRAWN BY	CHECKED
1:500	JULY '18	RW	AQ

DRG NO.	REVISION	SHEET SIZE
CE18-216-201	P1	A1

Appendix D – 27.240mAOD Drawings

NOTES

DO NOT SCALE THIS DRAWING. WORK ONLY TO FIGURED DIMENSIONS.

FOR ALL RELEVANT NOTES, REFER TO STRUCTURAL AND CIVIL ENGINEERING PERFORMANCE SPECIFICATION.

ANY DISCREPANCIES ARE TO BE REPORTED TO PINNACLE CONSULTING ENGINEERS IMMEDIATELY.

THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ENGINEERS, ARCHITECTS AND SUB-CONTRACTORS DRAWINGS AND DETAILS.

LEGEND

- SITE BOUNDARY
- EXTENT OF FLOOD ZONE 2 BOUNDARY
- AVAILABLE DEVELOPMENT PLATEAU
- FLOOD COMPENSATION AREA
- FFL=27.240M PROPOSED FINISHED FLOOR LEVEL
- EXISTING BUILDING

REFER TO DRAWING No. CEI8-216-204 FOR SECTIONS

REV	DESCRIPTION	BY	CHK	DATE
P1	ISSUE FOR PLANNING	AQ	JJ	13.07.18
P2	2ND ISSUE	AQ	JJ	25.07.18

CLIENT
AFRICAN QUEEN

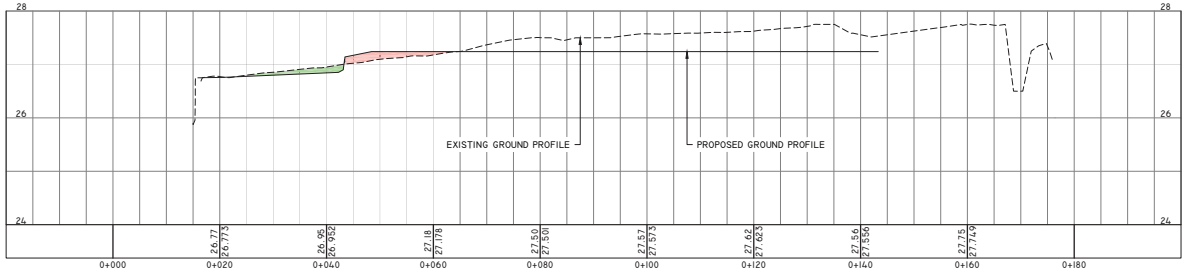
PROJECT
CHOBHAM
CASTLE GROVE ROAD

DRAWING TITLE
PROPOSED FLOOD COMPENSATION PLAN 27.240M FFL

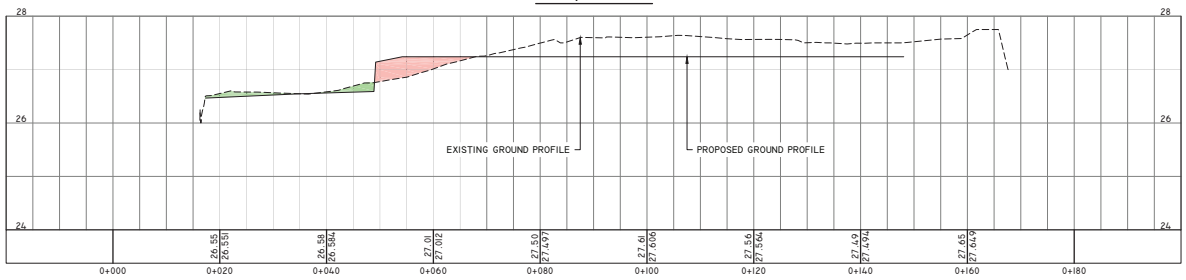
PINNACLE CONSULTING ENGINEERS

DRAWING STATUS	INFORMATION		
SCALE 1:500	DATE JULY '18	DRAWN BY AQ	CHECKED JJ
DWG NO CEI8-216-202	REVISION P2	SHEET SIZE A1	

SECTION A-A



SECTION B-B



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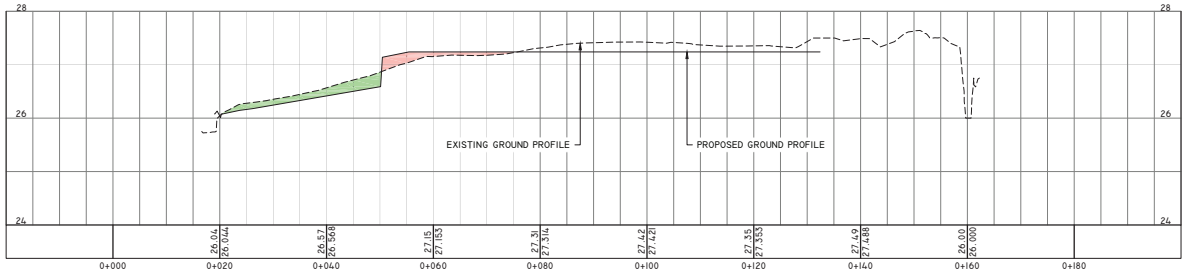
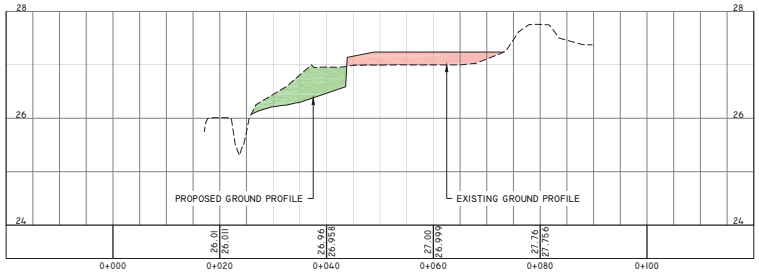


SECTION D-D



NOTES

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THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ENGINEERS, ARCHITECTS AND SUB-CONTRACTORS DRAWINGS AND DETAILS.

LEGEND

STORAGE VOLUME LOST

COMPENSATION VOLUME PROVIDED

REFER TO DRAWING No. CE18-216-02 FOR SECTION LOCATIONS

0 50MM ON A1 DWG. 50

REV	DESCRIPTION	BY	CHK	DATE
P1	1ST ISSUE	AQ	JJ	09.07.18

CLIENT
AFRICAN QUEEN

PROJECT
CHOBHAM
CASTLE GROVE ROAD

DRAWING TITLE
PROPOSED FLOOD COMPENSATION SECTIONS 27.240M FFL

PINNACLE CONSULTING ENGINEERS

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BESSEMER ROAD,
WELWYN GARDEN CITY,
HERTS,
AL7 1HE. TELEPHONE: 01707 527 630

NORWICH | LONDON | DUBLIN | THE HAGUE

DRAWING STATUS			
INFORMATION			
SCALE	DATE	DRAWN BY	CHECKED
1:500	JULY '18	AQ	JJ
DRG NO.	REVISION	SHEET SIZE	
CE18-216-204	P1	A1	

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Infrastructure Delivery Statement

Castle Grove Rd, Broadford, Chobham

PARCEL A

On behalf of:

Mr Marsden

In respect of:

Surrey Heath Local Plan

Date:

September 2024

Reference:

MA/MARSDEN/002-2/R001

Aylward Town Planning Ltd Company No: 08677630 Tel: 01457 872 240

1.0 Introduction

1.1 This Infrastructure Delivery Statement (IDS) is prepared and submitted by Aylward Town Planning (ATP) acting on behalf of Mr Marsden as landowner. Parcel A has a draft allocation for residential development in the emerging Local Plan which is now subject of tandem Regulation 19 consultation.

1.2 The draft allocation site (HA1-17) forms a sub-component of a wider parcel that has long been promoted and was identified under a previous SLAA as SLAA00548. The draft allocation site is consistent with what we had identified as Parcel A, with two other land parcels further to the south and fronting Castle Grove Road.

1.3 We have prepared separate representations in connection with the adjacent Parcel C, which we say should be recognised as a credible "reasonable alternative" that can be deliverable and would provide positive contribution towards the greater levels of housing requirement which have been identified by the new standard method.

1.4 This IDS responds to the recent opportunity to provide additional technical infrastructure and deliverability information to Surrey Heath Borough Council in respect of the HA1-17 draft allocation site. This includes evidence base material which was prepared to inform the Regulation 19 consultation and documents published prior to that which are retained on the Council's website.

1.5 This IDS shows there is a credible opportunity to sustainably deliver circa 15 net new dwellings over the 1-5 year Local Plan period provided that Parcel A is allocated. This would be in addition to the opportunity to deliver new homes on Parcel C (circa 40 residential units).

1.6 We have previously identified that the SLAA0548 ownership included a 4.7 hectare area which could be utilised for SANG land to meet the needs of the development and provide residual capacity to accommodate the SANG requirements of other new homes across the Plan area. However, we are aware of the arbitrary requirement for SANG land to provide a minimum walk distance which this 4.7 hectare parcel would not achieve. For the sake of clarity, we are not aware of any credible basis by which the adequacy of replacement habitat should be measured by the ability to deliver what is effectively a leisure route.

1.7 Notwithstanding this, we confirm that for the purposes of these representations we are not identifying land for SANG purposes given the framework that has been adopted by Surrey Heath Brough Council.

1.8 This IDS is guided by the Council's July 2024 Infrastructure Delivery Plan (IDP) which has been prepared for the Regulation 19 consultation exercise. For sake of ease, we utilise the

infrastructure topics outlined within the table at paragraph 2.2 as a framework. The three main topics are categorised as follows, with further sub-topics identified later:

- Physical Infrastructure
- Social Infrastructure; and
- Green and Blue Infrastructure

1.9 Parcel A includes existing buildings towards its eastern edge, these being unaffected by the proposal. The proposal would place new dwellings to their immediate west separated by a ditch and hedgerow boundary. Parcel A fronts Castle Grove Road to the west of the settlement core and opposite existing dwellings on the other side of Castle Grove Road. The parcel's northern boundary is formed by the River Bourne.

1.10 ATP is working with a single landowner willing to put this land into use for residential development. We can also confirm that Mr Marsden is working with a professional team to deliver a scheme within Parcel A, and that this can be readied for approval on or before adoption of the Plan. For the purpose of clarity, there is no legal impediment or development constraint that would prevent commencement immediately and completion within the first 5 years of the Plan period.

2.0 IDP Framework

Approach

2.1 The Regulation 19 IDP (July 2024) provides a comprehensive framework informed by settlement-by-settlement infrastructure evidence, through which site-specific infrastructure delivery can be assessed.

2.2 The Regulation 19 IDP builds upon earlier iterations (including the March 2022 interim IDP) and evidence base documents. The relevant evidence base is inclusive of the Infrastructure Needs Assessment Baseline Report 2017 (to be referred to as the 2017 INA). This groups infrastructure considerations into three key 'topics' which are sub-divided to facilitate a more granular understanding of existing infrastructure provision and future requirements. The following table demonstrates this approach:

PHYSICAL INFRASTRUCTURE		*Hard pieces of infrastructure that are required for many activities in order for communities to function.*				
Transport	Cycling	Pedestrian Facilities	Rail / bus	Roads	Parking	EV facilities
Utilities	Gas supply	Gas generation	Electricity supply	Electricity generation		
Water	Water supply	Waste water	Drainage	Flood Control		
Waste	Recycling	Waste minimisation	Waste collection	Waste disposal		
Communications	Digital Connectivity	Telecommunications				
SOCIAL INFRASTRUCTURE		*Infrastructure to thrive and establish*				
Education	Nursery	Primary	Secondary	Special Educational Needs	Further	
Health	Primary care	Secondary health sectors	Hospitals			
Community Facilities	Emergency services	Cemeteries	Arts / Culture	Community centres	Places of worship	Indoor Sport
GREEN/ BLUE INFRASTRUCTURE		*Infrastructure to provide areas with biodiversity, recreation and enjoyment*				
Green and blue Infrastructure	Parks	Open Spaces	Trees	Outdoor Sports and leisure	Public realm improvements	

2.3 The developer appreciates the multi-faceted nature of infrastructure; physical, social and environmental, and seek to ensure the same level of detail by arranging this Statement across these topics and sub-topics. This enables the developer to clarify the extent of existing infrastructure provision, identify any gaps in service, and recommend how these may be overcome through the Local Plan process.

2.4 The Site is an eminently sustainable location, close to the existing settlement boundary and facilities (all within 800m) which include a children's play area, primary school, local shops and bus stops. There are also opportunities for new residents to complete journeys for work and shopping by non-car modes. The village Centre provides a range of shops and services. The 73 bus service provides links to main urban centres and through to the train network.

2.5 The plan below is extracted from the draft Policies Map and identifies the subject site and designations including the Conservation Area and settlement boundary. This is an eminently sustainable location with a broad range of services available in the immediate locality.

2.6 We note that the emerging Local Plan seeks to inset Chobham from the Green Belt and the site lies close to the proposed settlement boundary. In reality, the site includes existing built form and there is a line of existing dwellings on the opposite side of Castle Grove Road. Given this and the draft allocation of the subject land, it would have been entirely credible to ensure that the proposed settlement boundary was reconsidered to include for this plan-led development and arguably the well-established homes nearby.

3.0 Physical Infrastructure

Vehicular Access

3.1 The developer has previously commissioned feasibility transport advice from Transport Planning Associates (TPA) which confirms that vehicular access to Parcel A can be achieved using the proposed access solution which will meet relevant design standards. This is still the case and supports the argument for development (initially through a Local Plan approach).

3.2 The site is currently accessed via two priority junctions on the western side of Castle Grove Road. This access strategy relies upon using the existing point of vehicular access to serve this parcel, and is seen within the extracted image below which shows the proposed site layout and the points of vehicular and pedestrian access within the site.

Cycling and Pedestrian Facilities

3.3 There is no formal cycle provision within the vicinity of the site, however the local topography and restricted speed limit ensures local routes are conducive to cycling. Connectivity to Castle Grove Road will be straightforward and of course can be improved where possible.

3.4 Along the site boundary, a footway is provided on the eastern side of the carriageway of Castle Grove Road, with a width of circa 1.8m and extends south toward Castle Green.

3.5 From the site, the footway extends north on the eastern side of Castle Grove Road, with a footway also provided on the western side of the carriageway from the access junction to the Chobham Telephone Exchange. The footways on either side of Castle Grove Road extend to the mini-roundabout with High Street and Station Road, where crossings are provided on all arms of the junction.

3.6 From the mini-roundabout junction, footways are provided on either side of Station Road which extend east toward facilities such as Chobham Village Hall and Tesco Express, as well as the closest bus stops from the site.

3.7 Footways are also provided on either side of High Street which extend north from the mini-roundabout facilitating access toward a number of local services such as a number of local shops, the St Lawrence C of E Primary School. The footways extend along the extent of High Street and continue northbound along Windsor Road to facilitate access to Chobham & West End Medical Practice and continue eastbound along Chertsey Road toward the post office and Wishmore Cross Academy.

3.8 Links between the proposed new homes and the facilities within the village core provide straightforward walkable route choices which improve opportunities to secure modal shift.

3.9 Pedestrian facilities are considered to be more than adequate, but will nevertheless be further improved where possible through the allocation of Parcel A.

Emergency Access

3.10 The proposed allocation (Parcel A) has an access point to Castle Grove Road which is distant from the River Bourne and located in Flood Zone 1. The flood zone mapping identifies that the new homes in Parcel A are located in flood zone 1 and mitigates residual risk by providing safe access and egress for all dwellings without entering areas of higher flood risk.

Rail and Bus

3.11 Mainline train services can be found to the south-east at Woking (circa 5.5km route by road) which provides connectivity to the national and local network.

3.12 Woking station is operated by South Western Railway with services between destinations such as London Waterloo, Portsmouth and Basingstoke. There are 10 hourly services toward Waterloo and Basingstoke, with journey times of 26 minutes (upward) and 18 minutes (upward) respectively.

3.13 In addition to Woking Station, two other stations (Brookwood and Longcross) are also available at a similar distance from the subject site.

3.14 The key service route (route 73) has bus stops located approximately 400 metres north-east of the site on either side of Station Road. The bus stops on Station Road are identified by bus stop flags and timetable information boards, with the eastbound stop also benefitting from a shelter with associated seating. The 73 provides an hourly bus service on a 6 day basis and passes between Woking and Chobham.

3.15 The nearest bus stops are located on Castle Grove Road to the south of the site access, with other stops located on High Street. Chobham is also served by three other bus services (39A, 87 and 417) which provide connectivity to:

- Woking
- Collingwood College;
- Farnborough Sixth Form; and
- Farnborough Park College.

3.16 The local public transport provision is considered to be sufficient to state that the site is accessible by public transport.

Roads

3.17 In terms of the local highway network the site abuts Castle Grove Road. This extends south toward the junction with Scotts Grove Road, which extends eastbound toward West End and the A322. The A322 facilitates access toward the M3 motorway, which provides a route eastbound toward the M25 and westbound toward Farnborough.

3.18 Along the site boundary, Castle Grove Road is a single carriageway road which is subject to a 40 mph speed limit. This speed limit however decreases to 30mph approximately 50 metres north of the existing northern site access junction.

3.19 Feasibility transport advice has been secured showing that vehicular access to the site can be achieved using the existing point of access to meet relevant design standards. The proposed site access has been designed as a minor shared use access that if necessary can be improved to a more standard access design complete with a footway to the northern carriageway edge. An uncontrolled crossing provided to the north of the access junction will enable a continuous link between the site and the existing footway on the eastern side of Castle Grove Road.

3.20 The proposed scheme will deliver 15 homes in Parcel A. This type of use will create some vehicular trip attraction but this is likely to be limited and unlikely to involve any substantive private or commercial traffic. The transport statement confirms (extract):

"The site has been identified to be within close proximity to a range of local services and facilities, as well as local public transport infrastructure. The site exhibits strong accessibility characteristics with opportunity to utilise a range of local services by walking and other non-car modes of transport.

The proposed access arrangement has been designed to comply with relevant design standard for the scale of development under consideration. The development is forecast to result in a low volume of vehicle trips across the local highway network and therefore will not result in a detrimental impact."

3.21 Any impact associated with this relatively minor increase in traffic movements is expected to be relatively modest and not detrimental to the operation of the local highway network.

Parking

3.22 The scheme will ensure that parking provision is compliant with Plan standards both in terms of quantum and composition. It is important that the correct balance be struck so as to ensure that parking facilities meet reasonable demand (to remove any prospect for parking beyond the site) but also to take the opportunity to encourage residents to choose transport modes other than the single-occupancy fossil fuel car.

Electric Vehicle Facilities

3.23 The developer is keen to explore opportunities to optimise resident participation in measures to reduce particulate emissions. In addition, the developer will seek to ensure the feasibility of providing each dwelling with an EV enabled parking space.

Utilities

Gas Supply

3.24 The developer will engage with British Gas in due course to ascertain whether there is an available connection to the gas network. If unfeasible, we would proceed on the basis of an "all electric" approach consistent with Building Regulations and CIBSE modelling.

Gas Generation

3.25 It is not considered likely that the site would be a candidate for gas generation given concerns with fracking in other parts of the country. We do not consider this point any further.

Electricity Supply

3.26 The developer will engage with UK Power Networks in due course to ascertain whether there is an available and adequate connection to the power network. Through detailed design we can consider whether a sub-station is necessary and to accommodate it sensitively.

Electricity Generation

3.27 The scheme can be designed to both reduce net carbon demand through construction and operation (reduction of wet trades and through energy efficiency measures) but also to consider opportunities to actively generate electricity where appropriate.

3.28 Opportunities for power generation and sustainable energy sources (such as PV panels and heat pumps) will be explored through detailed design. It is not considered likely that the scheme would accommodate wind turbines or other physically dominant power generation.

Water

Water Supply

3.29 The developer will engage with Thames Water in due course to ensure that there is capacity to provide drinking water to the site upon allocation for the scheme.

Waste Water

3.30 The developer will engage with Thames Water and/or Veolia in due course. It is our understanding that there should be an available connection to the foul system adjacent to the site. This will be investigated thoroughly prior to any planning application being lodged.

Drainage

3.31 The promoter has secured evidence to demonstrate that foul drainage is available for a gravity fed connection to the east of the site. A suitable allowance will be made for making the relevant connections as required.

3.32 Surface water disposal will be at greenfield run-off rate via a system of SUDS features/ treatment trains, relying on infiltration where possible and existing river bounding the site. The development will include surface attenuation in the form of swales or other features.

Flood Control

3.33 Following review of online material and obtained product 4 data it is clear that parts of Parcel A fall into areas of higher flood risk. Homes can be located outside those areas and provide appropriate works and mitigation measures, thus reducing risk of flooding.

Parcel A

3.34 By establishing the extent of the flood zone within Parcel A, the scheme design ensures that no homes will be located within flood zone 2 and safe routes of access and egress can be achieved. This approach means that the development of Parcel A can be delivered with limited engineering works and represents very low flood risk and ensures that there is no requirement to consider the sequential approach.

3.35 The promoter recognises the proximity of the River Bourne and existing EA flood modelling, so notwithstanding the above we understand and accept the need for an appropriate Flood Risk Assessment report in support of any future planning application.

Waste

3.36 The closest household waste centre is the Woking Community Recycling Centre at Martyrs

Lane in Woking. The road route to the recycling centre from the subject land is a circa 5km journey. The recycling centre is open 7 days per week and accepts household waste and limited DIY waste. Commercial waste is accepted on a chargeable basis.

3.37 Waste and recycling bins across the Borough are now emptied by Amey on behalf of Joint Waste Solutions. This company is managing waste and recycling services for Surrey Heath and three other local authorities in Surrey.

Recycling

3.38 At the present time, recycling presentation rates in Surrey Heath are at 59.3% which is markedly better than the national average (43.4%). It is also higher than the Surrey average of 54.0%.

3.39 Whilst the presentation rate is the highest in Surrey (during 2022/23) there is still room for improvement. With reference to the amount of waste collected per capita, Surrey Heath scores slightly below average. Improvements to this metric represents an achievable opportunity to ensure that both the percentage of waste sent to landfill and the overall amount of waste is as low as practicable.

3.40 New developments should ensure that suitable space is provided for the storage of bins to include all recycling choices. At a scheme level, the developer would intend to submit a Waste Management Plan that would provide details of the proposed storage accommodation for waste and recyclable material to then be specified and agreed.

3.41 The Waste Management Plan would also indicate:

- Size and location of waste and recycling stores, and how waste reaches these facilities.
- The size and quantity of containers for waste.
- Any proposed separate collection point, and method for transferring waste to it.

3.42 Opportunities for the use of alternative waste technologies shall be investigated, to test the viability of technology options for managing and treating waste on site.

Waste Minimisation

3.43 For Surrey Heath, residential collections follow a two weekly cycle. This seeks to both reduce the burden on the Council to deal with excessive waste but also to encourage residents (reinforced by awareness campaigns) to minimise waste.

3.44 At an institutional level, there are separate protocols and initiatives to reduce waste in food processing and other sectors. The vast majority of food retailers and non-food retailers are now signatories of industry-wide initiatives to reduce packaging and other forms of waste.

Waste Collection

3.45 Waste is separated as follows:

- Black bin- general waste
- Black bin with blue lid- recycling
- Black bin with brown lid- garden waste (for subscribers); and
- Green Bin- food waste.

3.46 Surrey Heath's protocol is that a boundary collection service is operated for all new dwellings, meaning that schemes need to be designed so that wheelie bins and boxes can straightforwardly be presented on the boundary between the property and the access road for the collection vehicle on the morning of collection.

3.47 In addition, the road layout should be designed so that waste collection vehicles are not required to reverse in from or out onto the public highway.

Communications

3.48 Surrey Heath produced an updated Economic Development Strategy dated March 2023. This also informs Policy IN3 of the emerging Plan that describes how providing infrastructure in the right places can boost earning power of people and places. This includes high speed digital connectivity including gigabit-capable broadband.

3.49 This should ensure access to full fibre broadband, 5G networks and smart technologies are essential for the industries of the future and will ensure the UK remains globally competitive.

Digital Connectivity

3.50 The development should seek to ensure full connectivity to the fibre network. It is our understanding that connections to BT Openreach's fibre network is now available in this area (Fibre to the Cabinet) and so the download speeds set out as "superfast" can be achieved.

3.51 In line with the objectives of Policy IN3, the development will also seek to ensure that it can provide new residents with FTTP capability and this will be demonstrated through the application process with a Site Connectivity Plan. Given the increasingly flexible nature of new employment and the need for well-connected home working this investment in digital infrastructure can provide economic benefits for Surrey Heath and potentially provide opportunities to reduce the reliance on travel to the more traditional workplace.

Telecommunications

3.52 In similar vein, the ability to communicate is a precursor to successful economic development and in the context of residential development it is relevant insofar that occupiers need the

flexibility for occasional homeworking or so that they can otherwise use local services.

3.53 We understand that the site already benefits from good 4G coverage on all of the main network, and also that 5G has been being rolled out by Vodafone in this area.

3.54 It does not appear to be the case that there would be any need for additional infrastructure to enhance digital connectivity or the telecommunications network.

4.0 Social Infrastructure

4.1 Whereas 'Physical' infrastructure is defined as 'hard', fixed, utilities-based infrastructure necessary for communities to function effectively, the promoter's understanding of 'social' infrastructure includes necessary education, health and community facilities which enable communities to thrive. For logical consistency, this section also includes reference to affordable housing, which the promoter identifies as a key component of social infrastructure.

4.2 In the context of social infrastructure it is important to recognise that the primary responsibility for service delivery sits with other public service providers as well as Surrey Heath Borough Council. Key agencies include Surrey County Council and the Diocese of Guildford in terms of education as well as the NHS Surrey Heath Clinical Commissioning Group in consideration of strategic healthcare.

4.3 Community facilities are typically operated the public sector and contracted out to the tertiary sector. The commissioning of services through the third sector is managed by Surrey Heath Borough Council and contracted through tailored Partnership Agreements.

4.4 Across all of these requirements, Surrey Heath Borough Council have any obligation as a local planning authority to plan for those needs over the Development Plan period and to provide a civic leadership function as required by the Local Government Act 2000 and reinforced by the Localism Act 2011.

Education

4.5 Education services are primarily a function where responsibility lie with the county council as opposed to the borough council in this two-tier authority structure.

Nursery provision

4.6 There is no nursery provision at St Lawrence's School. However, there are two privately operated nurseries based in the Chobham area, the closest of which is Pennypot Nursery.

Primary schooling

4.7 St Lawrence's C of E Primary School is located in Chobham and is easily walkable from the subject site. It provides school places from Reception through to Year 6. The school provides 30 Reception places per year (described as 1.00 FE) in accord with their admissions policy. The latest OFSTED report from November 2023 concludes that the school performs as "good".

4.8 Through reference to the Government online information regarding primary places planning, it is evident that the Published Admission Number for St Lawrence's for the 2024 school year

is largely aligned to capacity (overall capacity 210 places, 204 on roll).

4.9 The 2022-2032 Surrey School Organisation Plan projections do not appear to envisage any substantial concern in terms of any potential shortfall between supply and demand for the Surrey Heath area.

4.10 Primary school place planning analysis is largely driven by birth rates, and the Plan suggests that birth rates for the Surrey Heath area (at 2023) have declined by 7% since 2012. There was a spike in reception school place demand in 2021 (circa 960) which had fallen by 2023 (circa 830) and is projected to move towards 800 by 2032. By consequence, demand for school places has fallen and there are likely to be surplus spaces available.

4.11 With this in mind, we are not aware of any practical constraint to delivering additional homes in Chobham with respect to primary school places provision.

Secondary schooling

4.12 There is no secondary school provision in Chobham itself. The closest secondary schools are Gordon's School (2.1 miles to the west) and Woking High School (2.5 miles to south east).

4.13 Gordon's school is a fee-paying boarding school that (according to the OFSTED report) predominantly offer places to children with connections to the armed forces. The school provides places from year 7-year 11 as well as having a sixth form (years 12-13). The latest OFSTED report from January 2024 concludes that the school performs as "outstanding".

4.14 Woking High School is a state-run 6FE secondary school. The school provides places from year 7-year 11. The latest OFSTED report from January 2020 concludes that the school performs as "good".

4.15 The SCC secondary places planning portal shows that the Published Admission Number for Woking High School in 2023 was marginally above available capacity, albeit with an intent to fall back in line with PAN.

4.16 In terms of secondary provision, the peak demand at 2023 for the Surrey Heath area as a whole (circa 960 places) will fluctuate up to 2028 and then fall below 870 and plateau thereafter. The Plan states that vacant capacity should be used before any additional provision is sought or commissioned. With this in mind, there is no practical constraint to delivering additional homes in Chobham with respect to secondary school places provision.

Further and tertiary education

4.17 This includes sixth form colleges and vocationally driven education. In the locality this is dominated by Woking College (6th form and adult education) as well as provision at Gordon's

School. There is no practical constraint to delivering additional homes in Chobham re further and tertiary education provision.

Health

4.18 In keeping with patterns seen alongside lower levels of health deprivation, life expectancy in Surrey Heath is higher than the national figure; the male rate is currently 82.0 compared to 79.3 for England, and the female equivalent is 84.4 compared to 83.2 nationally.

Primary Care

4.19 Prescription pharmacy services are available in Chobham, with the Chobham Pharmacy on Windsor Rd being available six days per week. There is also an ophthalmic practice and two dental practices in Chobham. These provide services for private and NHS patients.

4.20 The provision for primary health care is reasonable, and represents no constraint to housing delivery at this site.

Secondary Health Sectors

4.21 The key local GP surgery (Chobham Medical Practice) is located in Chobham circa 800m north of the subject site. This offers a Monday-Friday service (8am-6.30pm on Monday and the other weekdays 8am until 1pm). Longer opening hours are available at the sister practice in West End which runs 8am-6.30pm on all week days.

Hospitals

4.22 There is no hospital in Chobham itself. The nearest hospital facility with an accident and emergency function is the St Peter's hospital in Chertsey. Other facilities for urgent care and specialist care are available (such as the Woking Community Hospital) at closer proximity.

Community Facilities

Emergency Services

4.23 There is a fire station in Chobham. There is an ambulance station located on the south side of Chertsey and an independent ambulance service based at Fairoaks Airport. The main police station is located at Woking. These services are sufficiently proximate to the subject site to ensure that emergency services provision represents no constraint to housing delivery.

Cemeteries

4.24 The closest cemetery facility is Chobham Cemetery, adjoining the Recreation Ground and located in Chobham itself. This is a non-denominational cemetery which is maintained as a

"lawned cemetery" and is provided to meet the needs of the residents of the parish of Chobham and West End and is not open for the burials of non-parishioners.

4.25 Whilst there may be pressure in other parts of the borough to identify additional land to meet future demands for burial space, it appears to be the case that there is considerable latent capacity in the Chobham Cemetery (for local parishioners) so therefore we are not aware of any such constraint in the Chobham area.

4.26 These services are sufficiently proximate to the subject site to ensure that cemetery provision represents no constraint to housing delivery at this site.

Arts/ Cultural Facilities

4.27 Chobham Village Hall is used as a venue for craft shows and a range of occasional indoor markets and carnivals. It is also used by a private sector provider to deliver arts classes. We also note that there are active groups in Chobham for participation-based interests. This comprises groups such as Rock Choir Chobham.

4.28 The provision for arts and culture is reasonable, and with the benefit of the local community centre there is an opportunity for service delivery to be expanded further (to perhaps target adults and older people).

Community Centres

4.29 Chobham Community Centre is located on MacMahon Close. It provides three rooms for hire (main hall, meeting room and a sofa room) and can host up to 100 people. The building is run by a community organisation.

4.30 Chobham Village Hall is located on Station Road and is used for private functions (children's parties and family celebrations), community events and classes. It provides four rooms for hire (main hall, two meeting rooms and committee room) and can host up to 110 people.

4.31 Chobham Parish Pavilion is located within the Recreation Ground and is managed and used by the Parish Council. The building (is in regular use and has full DDA access and kitchen facilities) is used for a range of third sector groups.

4.32 In addition it is used for private functions (children's parties and family celebrations) and accommodates local activities (club and society meetings; as well as being used for bridge, dance, scrabble sessions, lectures and workshops).

Places of Worship

4.33 St Lawrence's Church began construction in 1080 and was completed in phases through to

the early 16th century, then with a first floor installed during the 19th century. It is a Grade I listed building which is a local landmark. The walking distance between Parcel A and the Church is less than 400m and can be undertaken straightforwardly on flat paved routes.

Indoor Sport

4.34 Chobham Village Hall and the Parish Pavilion provides a straightforward opportunity for indoor sports facilities in the immediate area (such as table tennis, dance, fitness sessions, and martial arts) but this will be demand-led.

4.35 The developer would be keen to work with the Council's Sports Development team to ascertain whether there are opportunities to promote local participation.

Affordable Housing

4.36 Following recent case law, the Council has confirmed that it intends to seek on-site provision of affordable housing for all schemes generating 10 or more units. It is open to applicants to seek to justify lower contributions based upon viability evidence, but this would not contribute to the pressing need for affordable housing in the borough and would be a material consideration in the s38(6) planning balance exercise. For the emerging Plan, the text identifies a threshold of 10 units which aligns with national policy.

4.37 The Council's Core Strategy Policy CP5 sets differential targets based upon scale of development (30% for schemes 10-14 dwellings, 40% for larger schemes). The emerging New Local Plan includes a Policy H7 which is seeking 40% affordable housing.

4.38 The developer is committed to providing at least 40% affordable housing on site to meet emerging policy requirements, including First Homes. The developer is intending to commence discussions for this development opportunity with RPs which will undergird the opportunity to deliver upon local affordable housing requirements.

4.39 There is also a recognition that there is an opportunity to ensure that the mix provides a range of lower price housing products as well as pure affordable housing to facilitate easier access to the housing market for local people who are impeded by worsening affordability ratios.

5 Green and Blue Infrastructure

5.1 The IDP does not identify any specific sub-groups under green infrastructure but simply introduces the key component elements. This section of the Statement therefore directly considers the component elements as set out in the IDP. We also refer to opportunities for biodiversity net gain, which we identify as a key component of green infrastructure.

Parks and Open Spaces

5.2 The Council's website lists 35 Parks and Open Spaces, only one of which is in the Chobham area (Chobham Place Woods).

Chobham Place Woods

5.3 This is a mature broadleaf wood which once belonged to Chobham Place House. This area and Round Pond to the east are on the edge of Chobham Common. The wood provides pleasant woodland walks and it is proposed to improve access for disabled visitors and partially restore the original historical landscape.

Green Spaces

5.4 The Council's 2021 Green Space Background Assessment goes on to identify nine sites which are capable of being allocated as green space. Two of these have an existing allocation (Wishmore Cross Academy and Windsor Rd Recreation Ground) and there are 7 smaller plots that are proposed for allocation as part of the process through the insetting of the settlement.

Wishmore Cross Academy

5.5 The original school site included the grassed recreation ground and club house bordered by trees and residential dwellings associated with the Chobham Rugby Club, along with the Wishmore Cross School Playing field. This will be reduced in size by consequence of a prior planning application (leading to loss of green spaces) and as the Rugby Club is a proposed housing allocation in the draft Local Plan.

Windsor Rd Recreation Ground

5.6 The recreation ground provides a large open, green space in the heart of the village, used throughout the year for relaxation, sport and play. This is managed by the Parish Council and facilities include Parish Pavilion, the All-Weather Surface Court and Playground. The site is also used by Chobham Tennis Club, Chobham Scouts and Windlesham & Chobham United Football Club.

Chobham Meadows

5.7 The site includes grassed fields and wild flower meadows, incorporating strips of trees and hedgerows. The Mill Bourne flows through the sites, from east to west. The site is wholly within the Green Belt and contains an SNCI. The site adjoins a Conservation area and Chobham settlement area to the west. The site offers amenity value and informal recreational opportunities for the local areas.

Chobham Recreation Ground

5.8 This is a grassed recreation ground, play area, sports fields and ancillary buildings bordered by trees and residential dwellings. The site adjoins Station Road to the north, residential development to the west and east and is bounded by the Bourne to the south.

5.9 The site is proposed for designation for its amenity and recreational value. The Surrey Heath Open Space Assessment (2016) identified the site to be a high quality and value provision for children and young people.

Chobham Cemetery

5.10 Partially wooded, grassed cemetery. The site is wholly within the Green Belt, is proximal to an SNCI and adjoins a Conservation Area. The cemetery has recently been extended to the south following conversion of an allotment. The Surrey Heath Open Space Assessment (2016) identified the site to be a high quality and value cemetery site.

Chobham Cricket ground

5.11 This is a flat grassed area incorporating playing fields. The land is wholly within the Green Belt, within a Conservation Area and adjoins an area of high archaeological potential.

5.12 The site is proposed for designation because of its recreational and visual amenity value. The Surrey Heath Playing Pitch Strategy Assessment (2016) assessed the Cricket ground as having good quality.

Broom Lane allotments

5.13 Allotments situated in the Thames Basin Heath SPA 400m buffer zone and the Green Belt, and adjoins a National Nature Reserve (NNR) to the north. The Surrey Heath Open Space Assessment (2016) identified the site to be a high quality and value allotment.

Red Lion Allotments

5.14 Allotments situated in the Thames Basin Heath SPA 400m buffer and Green Belt, and adjoins

an NNR to the north and the SPA to the east. The Surrey Heath Open Space Assessment (2016) identified the site to be a high quality and value allotment.

Little Heath Nursery

5.15 The site is located west of Mincing Lane Nursery and incorporates Little Heath Common, and SNCI, as well as Little Heath Meadows. The site is located in entirely within the Green Belt and adjoins the settlement area of Chobham. The majority of the site's area is within the Thames Basin Heaths SPA 400m buffer.

Trees

5.16 There are a number of trees close to the site boundary which provide a valuable buffer and wildlife habitat. However, none of those trees have been concluded to warrant statutory protection. Through our review of online material, the nearest protected trees are located within the Bridge Cottage demise that backs onto the Play Area that is to the north, within the existing village core and inside the Conservation Area boundary.

Outdoor Sports and Leisure Facilities

5.17 Surrey Heath commissioned a Playing Pitch Strategy Full Assessment Report (authored by KKP) published in July 2023. This forms one component of local outdoor sports and leisure facilities and supersedes their earlier document dated December 2016. The Regulation 19 IDP identifies that there are 40 publicly accessible outdoor sports facilities in the borough, including several facilities in the Chobham area.

5.18 Playing pitch provision is typically referenced against facilities per head of population. As such, population density is a key consideration. Clearly proposals for new development would need to have regard for any existing or future issues in regard to sports pitch provision.

5.19 The borough is split up into two Analysis Areas and the Chobham locality falls within the wider "Rural Analysis Area". For this wider Analysis Area (which covers half of the district), the report includes tables (sport by sport) which provides quantitative headline findings that accounts for conditions and "overplay".

5.20 In most cases, it is a combination of poorer pitch standards and "overplay" which results in a shortfall. In the scenario, that the facility could be upgraded (from "poor" to "good for example) that would provide expanded capacity.

5.21 Capacity figures are provided in terms of match equivalent sessions, where (for example) a good quality adult football pitch could sustain 3 matches per week. These analyses are summarised as follows:

SPORT	PITCH TYPE	CURRENT DEMAND SHORTFALL (MATCH EQUIVALENT SESSIONS PER WEEK)	FUTURE DEMAND SHORTFALL ASSUMING NEW DEVT
Football	Grass Pitch	Shortfall 2 no. sessions for full size pitches Shortfall 8.5 sessions youth 11 v 11 pitches No shortfall youth 9 v 9 pitches No shortfall mini 7 v 7 pitch Shortfall 4 no. sessions mini 5 v 5 pitch	Shortfall 3 no. sessions for full size pitches Shortfall 10 sessions youth 11 v 11 pitches Shortfall 0.5 sessions youth 9 v 9 pitches Shortfall 1.0 sessions mini 7 v 7 pitch Shortfall 5.0 sessions mini 5 v 5 pitch
Football	3G	Shortfall of 0.75 no. full size pitches	Shortfall of 0.75 no. full size pitches
Cricket	Grass	No shortfall	No shortfall
Rugby U	Grass	Shortfall 5.0 match sessions	Shortfall 6.0 match sessions
Hockey	Sand	Sufficient supply to meet demand	Additional pitch needed if Camberley HC expands number of teams

5.22 Existing outdoor provision in the immediate area is understood to comprise of:

LOCATION	SPORT	FACILITY	QUALITY	AVAILABLE FOR COMMUNITY USE?
Chobham Recreation Ground	Football	1 no. adult pitch	Standard	YES
Chobham Recreation Ground	Tennis	3 no. floodlit tarmac courts	Good	YES. CHOBHAM LTC ALSO USE
Chobham Recreation Ground	Rugby	1 no. adult pitch	Poor	YES
Chobham Cricket Club	Cricket	1 no. grass pitch	Standard	NO
Chobham Rugby Club	Rugby	1 no. floodlit grass pitch 1 no. senior grass pitch	Good Standard	NO

5.23 Given that the development will yield less than 20 homes, the preferred approach would be to provide contributions as may be needed to enhance existing provision in the local area.

Public Realm Improvements

5.24 The Council has a public realm strategy which is predominantly focused upon improving the physical fabric of town centres and the experience they provide for those enjoying town centre shops and services. The developer would be keen to work with the Council to explore

how public realm opportunities can be secured by consequence of these development opportunities. There may be potential to improve the link routes between the subject site and key facilities such as the school, community centre and open spaces.

Opportunities for Biodiversity Net Gain

5.25 The developer has commissioned feasibility work in terms of ecology which includes desktop surveys. There is no evidence of any material biodiversity constraint in terms of the site's use for housing. The boundary treatments will represent net measurable gain in terms of biodiversity as encouraged expressly by the NPPF and follow the standard approach and meet the 10% gain now required by law.

5.26 We understand that the Council has adopted a protocol whereby SANG land must meet various criteria including the provision of a minimum walking distance around its boundary. As such, this pre-supposes that these SANG parcels will be large in size and also assumes that the delivery of improved habitat will go in hand with the creation of leisure routes.

5.27 We have set out in the past that the Marsden land holding could have provided a 4.7 hectare parcel of land to be managed for SANG purposes but this was rejected as it would not be large enough to adhere to the minimum walk distance criterion. On that basis, we will not be promoting that land again and will therefore be regrettably compelled to rely upon off-site contributions for any necessary SANG mitigation.

5.28 The scheme provides a number of obvious opportunities for biodiversity net gain which could include consideration of:

- Flood attenuation area for delivery of Parcel A adjacent to the River Bourne, designed to optimise biodiversity net gain;
- Introduction of other sustainable urban drainage features which seek to optimise the opportunity to enrich and diversify habitats;
- Retention of boundary trees and improved woodland management; or
- Contributions towards the maintenance and improvement of local habitat resources.

6.0 Conclusion

6.1 We note that there is no formal guidance as to how to write Infrastructure Deliverability Statements, and the promoter took the approach of framing this Statement around the Council's IDP Baseline Study for the benefit of a more comprehensive understanding and conception of 'infrastructure.'

6.2 We trust that these representations are clear, and that the deliverability criteria we have adopted are helpful to aid your review against relative compliance with published local material. We would be delighted to provide additional information in this respect or enter dialogue as may be thought useful and appropriate.

6.3 Mr Marsden is looking to promote land through dialogue with local stakeholders, with the ambition of delivering new homes directly that genuinely provide the new homes in a quality environment that meet local needs.

6.4 We can also confirm that Mr Marsden is working with a professional team to deliver a scheme within Parcel A, and that this can be readied for approval on or before adoption of the Plan.

6.5 We would be delighted to work with the Council to shape these proposals, and there is an inherent flexibility to adjust them in terms of both scale and approach to best reflect ambitions to deliver new homes in the early part of the Plan period.

6.6 We confirm that the development can commence upon planning consent being secured, and that it is feasible for the development to be completed within the first five years of the emerging Plan period.

Infrastructure Delivery Statement

Castle Grove Rd, Broadford, Chobham

PARCELS A and C

On behalf of:

Mr Marsden

In respect of:

Surrey Heath Local Plan

Date:

September 2024

Reference:

MA/MARSDEN/002-3/R001

Aylward Town Planning Ltd Company No: 08677630 Tel: 01457 872 240

1.0 Introduction

1.1 This Infrastructure Delivery Statement (IDS) is prepared and submitted by Aylward Town Planning (ATP) acting on behalf of Mr Marsden as landowner. ATP is working as part of a consultant team for the landowner to seek allocations through the New Local Plan for new housing, including the provision of much needed affordable housing.

1.2 This IDS responds to the opportunity to provide additional technical infrastructure and deliverability information to Surrey Heath Borough Council in respect of two sub-parcels which form part of the site identified as SLAA00548. This includes evidence base material which was prepared to inform the Regulation 19 consultation and documents published prior to that which are retained on the Council's website.

1.3 This IDS shows there is a credible opportunity to sustainably deliver circa 55 new dwellings over the 1-5 year Local Plan period provided that both Parcel A and Parcel C are allocated. This comprises 15 residential units on parcel A and (in addition) Parcel C delivering circa 40 residential units. Parcel A has the benefit of a draft allocation (HA1-17) in the Regulation 19 Local Plan subject of consultation, but parcel C is not identified for allocation.

1.4 We have previously identified that the SLAA0548 ownership included a 4.7 hectare area which could be utilised for SANG land to meet the needs of the development and provide residual capacity to accommodate the SANG requirements of other new homes across the Plan area. However, we are aware of the arbitrary requirement for SANG land to provide a minimum walk distance which this 4.7 hectare parcel would not achieve. For the sake of clarity, we are not aware of any credible basis by which the adequacy of replacement habitat should be measured by the ability to deliver what is effectively a leisure route.

1.5 Notwithstanding this, we confirm that for the purposes of these representations we are not identifying land for SANG purposes given the framework that has been adopted by Surrey Heath Brough Council.

1.6 This IDS is guided by the Council's July 2024 Infrastructure Delivery Plan (IDP) which has been prepared for the Regulation 19 consultation exercise. For sake of ease, we utilise the infrastructure topics outlined within the table at paragraph 2.2 as a framework. The three main topics are categorised as follows, with further sub-topics identified later:

- Physical Infrastructure
- Social Infrastructure; and
- Green and Blue Infrastructure

1.7 Parcel A includes existing buildings towards its eastern edge, these being unaffected by the

proposal. The proposal would place new dwellings to their immediate west. Parcel C is located west of this and separated by a ditch and hedgerow boundary.

1.8 Read in tandem, both parcels front Castle Grove Road to the west of the settlement core and opposite existing dwellings on the other side of Castle Grove Road. The parcel's northern boundary is formed by the River Bourne. The subject site forms part of a larger previously promoted area that has been identified as SLAA00548.

1.9 ATP is working with a single landowner who is willing to put this land into use for residential development. For the purpose of clarity, there is no legal impediment or development constraint that would prevent commencement immediately and completion within the first 5 years of the Plan period.

2.0 IDP Framework

Approach

2.1 The Regulation 19 IDP (July 2024) provides a comprehensive framework informed by settlement-by-settlement infrastructure evidence, through which site-specific infrastructure delivery can be assessed.

2.2 The Regulation 19 IDP builds upon earlier iterations (including March 2022 interim IDP) and evidence base documents. This evidence base includes the Infrastructure Needs Assessment Baseline Report (referred to as the 2017 INA). This groups infrastructure considerations into key 'topics' which are sub-divided to facilitate a granular understanding of existing infrastructure provision and future needs. The following table outlines this approach:

PHYSICAL INFRASTRUCTURE		*Hard pieces of infrastructure that are required for many activities in order for communities to function.*				
Transport	Cycling	Pedestrian Facilities	Rail / bus	Roads	Parking	EV facilities
Utilities	Gas supply	Gas generation	Electricity supply	Electricity generation		
Water	Water supply	Waste water	Drainage	Flood Control		
Waste	Recycling	Waste minimisation	Waste collection	Waste disposal		
Communications	Digital Connectivity	Telecommunications				
SOCIAL INFRASTRUCTURE		*Infrastructure to thrive and establish*				
Education	Nursery	Primary	Secondary	Special Educational Needs	Further	
Health	Primary care	Secondary health sectors	Hospitals			
Community Facilities	Emergency services	Cemeteries	Arts / Culture	Community centres	Places of worship	Indoor Sport
GREEN/ BLUE INFRASTRUCTURE		*Infrastructure to provide areas with biodiversity, recreation and enjoyment*				
Green and blue Infrastructure	Parks	Open Spaces	Trees	Outdoor Sports and leisure	Public realm improvements	

2.3 The developers appreciate the multi-faceted nature of infrastructure; physical, social and environmental, and seek to ensure the same level of detail by arranging this Statement across these topics and sub-topics. This enables the developer to clarify the extent of existing infrastructure provision, identify any gaps in service, and recommend how these may be overcome through the Local Plan process.

2.4 The Site is an eminently sustainable location, close to the existing settlement boundary and facilities (all within 800m) which include a children's play area, primary school, local shops and bus stops. There are also opportunities for new residents to complete journeys for work and shopping by non-car modes. The village Centre provides a range of shops and services. The 73 bus service provides links to main urban centres and through to the train network.

2.5 The plan below is extracted from the draft Policies Map and identifies Parcel A as an allocated housing site site and designations including the Conservation Area and settlement boundary.

2.6 We note that the emerging Local Plan seeks to inset Chobham from the Green Belt and the site lies close to the proposed settlement boundary. In reality, the site includes existing built form and there is a line of existing dwellings on the opposite side of Castle Grove Road. Given this and the draft allocation of Parcel A, it would have been entirely credible to ensure that the proposed settlement boundary was reconsidered to include for this plan-led development and arguably the well-established homes nearby.

2.7 In regard to Parcel C, whilst we note that it lies outside the settlement boundary and is not proposed for allocation it provides little genuine contribution to the Green Belt purposes. It will be adjacent (and therefore contiguous) with Parcel A that is substantially developed and will be allocated for housing use. In addition, the site boundaries are robust and through this enclosure its openness or contribution to long views is very limited.

2.8 Parcel C should be recognised as a credible "reasonable alternative" that can be deliverable and would provide positive contribution towards the greater levels of housing requirement which have been identified by the new standard method.

2.9 This is an eminently sustainable location with a broad range of services available in the immediate locality.

3.0 Physical Infrastructure

Vehicular Access

3.1 The developer has commissioned feasibility transport advice from Transport Planning Associates (TPA) which confirms that vehicular access to Parcels A and C can be achieved using the proposed access solution which will meet relevant design standards.

3.2 The site is currently accessed via two priority junctions on the western side of Castle Grove Road. This access strategy relies upon using the existing point of vehicular access to serve both parcels, and is seen within the extracted image below which shows the proposed site layout and the points of vehicular and pedestrian access within the site.

Cycling and Pedestrian Facilities

3.3 There is no formal cycle provision within the vicinity of the site, however the local topography and restricted speed limit ensures local routes are conducive to cycling. Connectivity to Castle Grove Road will be straightforward and of course can be improved where possible.

3.4 Along the site boundary, a footway is provided on the eastern side of the carriageway of Castle Grove Road, with a width of circa 1.8m and extends south toward Castle Green.

3.5 From the site, the footway extends north on the eastern side of Castle Grove Road, with a footway also provided on the western side of the carriageway from the access junction to the Chobham Telephone Exchange. The footways on either side of Castle Grove Road extend to the mini-roundabout with High Street and Station Road, where crossings are provided on all arms of the junction.

3.6 From the mini-roundabout junction, footways are provided on either side of Station Road which extend east toward facilities such as Chobham Village Hall and Tesco Express, as well as the closest bus stops from the site.

3.7 Footways are also provided on either side of High Street which extend north from the mini-roundabout facilitating access toward a number of local services such as a number of local shops, the St Lawrence C of E Primary School. The footways extend along the extent of High Street and continue northbound along Windsor Road to facilitate access to Chobham & West End Medical Practice and continue eastbound along Chertsey Road toward the post office and Wishmore Cross Academy.

3.8 Links between the proposed new homes and the facilities within the village core provide straightforward walkable route choices which improve opportunities to secure modal shift.

3.9 Pedestrian facilities are considered to be more than adequate, but will nevertheless be further improved where possible through the allocation of Parcels A and C.

Emergency Access

3.10 The proposed allocations (Parcel A and Parcel C) have a shared access point to Castle Grove Road which is distant from the River Bourne and located in Flood Zone 1. The flood zone mapping identifies that the new homes in Parcel A are located in flood zone 1 and that the route of access/egress to the adopted highway is unaffected by flood events.

3.11 The development of parcel C assumes engineering works to ensure that the new homes are placed on an elevated development plateau and use primary access routes that are also above the datum height needed to avoid risk in the extreme modelled flood event. This approach mitigates residual risk by providing safe access and egress for all dwellings without entering areas of higher flood risk.

Rail and Bus

3.12 Mainline train services can be found to the south-east at Woking (circa 5.5km route by road) which provides connectivity to the national and local network.

3.13 Woking station is operated by South Western Railway with services between destinations such as London Waterloo, Portsmouth and Basingstoke. There are 10 hourly services toward Waterloo and Basingstoke, with journey times of 26 minutes (upward) and 18 minutes (upward) respectively.

3.14 In addition to Woking Station, two other stations (Brookwood and Longcross) are also available at a similar distance from the subject site.

3.15 The key service route (route 73) has bus stops located approximately 400 metres north-east of the site on either side of Station Road. The bus stops on Station Road are identified by bus stop flags and timetable information boards, with the eastbound stop also benefitting from a shelter with associated seating. The 73 provides an hourly bus service on a 6 day basis and passes between Woking and Chobham.

3.16 The nearest bus stops are located on Castle Grove Road to the south of the site access, with other stops located on High Street. Chobham is also served by three other bus services (39A, 87 and 417) which provide connectivity to:

- Woking
- Collingwood College;
- Farnborough Sixth Form; and
- Farnborough Park College.

Roads

3.17 In terms of the local highway network the site abuts Castle Grove Road. This extends south toward the junction with Scotts Grove Road, which extends eastbound toward West End and the A322. The A322 facilitates access toward the M3 motorway, which provides a route eastbound toward the M25 and westbound toward Farnborough.

3.18 Along the site boundary, Castle Grove Road is a single carriageway road which is subject to a 40 mph speed limit. This speed limit however decreases to 30mph approximately 50 metres north of the existing northern site access junction.

3.19 Feasibility transport advice has been secured showing that vehicular access to the site can be achieved using the existing point of access to meet relevant design standards. The proposed site access has been designed as a minor shared use access that if necessary can be improved to a more standard access design complete with a footway to the northern carriageway edge. An uncontrolled crossing provided to the north of the access junction will enable a continuous link between the site and the existing footway on the eastern side of Castle Grove Road.

3.20 The proposed scheme will deliver 55 homes across both parcels. This type of use will create some vehicular trip attraction but this is likely to be limited and unlikely to involve any substantive private or commercial traffic. The transport statement confirms (extract):

"The site has been identified to be within close proximity to a range of local services and facilities, as well as local public transport infrastructure. The site exhibits strong accessibility characteristics with opportunity to utilise a range of local services by walking and other non-car modes of transport.

The proposed access arrangement has been designed to comply with relevant design standard for the scale of development under consideration.

The development is forecast to result in a low volume of vehicle trips across the local highway network and therefore will not result in a detrimental impact."

3.21 Any impact associated with this relatively minor increase in traffic movements is expected to be relatively modest and not detrimental to the operation of the local highway network.

Parking

3.22 The scheme will ensure that parking provision is compliant with Plan standards both in terms of quantum and composition. It is important that the correct balance be struck so as to ensure that parking facilities meet reasonable demand (to remove any prospect for parking beyond the site) but also to take the opportunity to encourage residents to choose transport modes other than the single-occupancy fossil fuel car.

Electric Vehicle Facilities

3.23 The developer is keen to explore opportunities to optimise resident participation in measures to reduce particulate emissions. In addition, the developer will seek to ensure the feasibility of providing each dwelling with an EV enabled parking space.

Utilities

Gas Supply

3.24 The developer will engage with British Gas in due course to ascertain whether there is an available connection to the gas network. In the event that this is not feasible, the development would proceed on the basis of an "all electric" approach which is consistent with the direction of travel for Building Regulations and CIBSE modelling.

Gas Generation

3.25 It is not considered likely that the site would be a candidate for gas generation given concerns with fracking in other parts of the country. We do not consider this point any further.

Electricity Supply

3.26 The developer will engage with UK Power Networks in due course to ascertain whether there is an available and adequate connection to the power network. Through detailed design we can consider whether a sub-station is necessary and to accommodate it sensitively.

Electricity Generation

3.27 The scheme can be designed to both reduce net carbon demand through construction and operation (reduction of wet trades and through energy efficiency measures) but also to

consider opportunities to actively generate electricity where appropriate.

3.28 Opportunities for power generation and sustainable energy sources (such as PV panels and heat pumps) will be explored through detailed design. It is not considered likely at this stage that the scheme would accommodate wind turbines or other more physically dominant forms of power generation.

Water

Water Supply

3.29 The developer will engage with Thames Water in due course to ensure that there is capacity to provide drinking water to the site upon allocation for the scheme.

Waste Water

3.30 The developer will engage with Thames Water and/or Veolia in due course. It is our understanding that there should be an available connection to the foul system adjacent to the site. This will be investigated thoroughly prior to any planning application being lodged.

Drainage

3.31 Surface water disposal will be at greenfield run-off rate via a system of SUDS features/ treatment trains, relying on infiltration where possible and making use of the existing river in the proximity bounding the site.

3.32 The promoter has secured advice from WYG which demonstrates the feasibility of a gravity fed connection to the foul sewer (due to the depth of the invert) to the east of the site. Foul drainage is therefore available and a suitable allowance will be made for securing any connections as may be required.

3.33 The development will include surface attenuation in the form of swales or other features which provide latent capacity but also the opportunity for biodiversity net gain.

Flood Control

3.34 Following review of online material and subsequently obtaining product 4 data it is clear that parts of Parcel A and Parcel C fall into areas of higher flood risk. If new homes were located in those areas without appropriate works and mitigation measures, then that could represent medium to high risk of flooding from rivers, streams or surface water.

Parcel A

3.35 By establishing the extent of the flood zone within Parcel A, the scheme design ensures that no homes will be located within flood zone 2 and safe routes of access and egress can be

achieved on to Castle Grove Road.

3.36 This approach means that the development of Parcel A can be delivered without significant engineering works and represents very low flood risk and ensures that there is no requirement to consider the sequential approach.

Parcel C

3.37 In the context of Parcel C, we note that the Council approach would suggest that it has elevated flood risk and therefore impedes the prospects for housing uses.

3.38 However, our review of flood data and topographic analysis comes to an entirely different conclusion. We have established that new homes can be delivered through engineering works which increases the datum height of the development plateau to an FFL of 27.240m AOD (thus above the 1 in 1000 year flood event).

3.39 The scheme also ensures that there is no net displacement of flood water beyond the site boundaries, by providing a flood compensation area towards the northern edge of Parcel C that provides more than adequate volume replacement. This is shown in the blue hatched area in the schematic plan above and would ensure that there are no habitable areas within areas of elevated flood risk.

3.40 Specifically, the feasibility layout directs residential building footprints and ancillary development (i.e. outbuildings or garden fencing) to be located outside the area of lower finished floor level which will be designed as a flood replacement zone. This zone would accommodate a naturalistic approach to integrate flood risk with bio-diversity measures.

3.41 The promoter recognises the proximity of the River Bourne and existing EA flood modelling, so notwithstanding the above we understand and accept the need for a detailed Flood Risk Assessment report in support of any future planning application.

3.42 This approach means that the development has been planned to ensure that any residential uses will be delivered above the 1 in 1000 year flood event height and that there will be appropriate means of emergency access and egress onto Castle Grove Road. This should ensure that there is limited residual risk and no likelihood of failing to "pass" the sequential approach requirements.

Waste

3.43 The closest household waste centre is the Woking Community Recycling Centre at Martyrs Lane in Woking. The road route to the recycling centre from the subject land is a circa 5km journey. The recycling centre is open 7 days per week and accepts household waste and limited DIY waste. Commercial waste is accepted on a chargeable basis.

3.44 Waste and recycling bins across the Borough are now emptied by Amey on behalf of Joint Waste Solutions. This company is managing waste and recycling services for Surrey Heath and three other local authorities in Surrey.

Recycling

3.45 At the present time, recycling presentation rates in Surrey Heath are at 59.3% which is markedly better than the national average (43.4%). It is also higher than the Surrey average of 54.0%.

3.46 Whilst the presentation rate is the highest in Surrey (during 2022/23) there is still room for improvement. With reference to the amount of waste collected per capita, Surrey Heath scores slightly below average. Improvements to this metric represents an achievable opportunity to ensure that both the percentage of waste sent to landfill and the overall amount of waste is as low as practicable.

3.47 New developments should ensure that suitable space is provided for the storage of bins to include all recycling choices. At a scheme level, the developer would intend to submit a Waste Management Plan that would provide details of the proposed storage accommodation for waste and recyclable material to then be specified and agreed.

3.48 The Waste Management Plan would also indicate:

- Size and location of waste and recycling stores, and how waste reaches these facilities.
- The size and quantity of containers for waste.

- Any proposed separate collection point, and method for transferring waste to it.

3.49 Opportunities for the use of alternative waste technologies shall be investigated, to test the viability of technology options for managing and treating waste on site.

Waste Minimisation

3.50 For Surrey Heath, residential collections follow a two weekly cycle. This seeks to both reduce the burden on the Council to deal with excessive waste but also to encourage residents (reinforced by awareness campaigns) to minimise waste.

3.51 At an institutional level, there are separate protocols and initiatives to reduce waste in food processing and other sectors. The vast majority of food retailers and non-food retailers are now signatories of industry-wide initiatives to reduce packaging and other forms of waste.

Waste Collection

3.52 Waste is separated as follows:

- Black bin- general waste
- Black bin with blue lid- recycling
- Black bin with brown lid- garden waste (for subscribers); and
- Green Bin- food waste.

3.53 Surrey Heath's protocol is that a boundary collection service is operated for all new dwellings, meaning that schemes need to be designed so that wheelie bins and boxes can straightforwardly be presented on the boundary between the property and the access road for the collection vehicle on the morning of collection.

3.54 In addition, the road layout should be designed so that waste collection vehicles are not required to reverse in from or out onto the public highway.

Communications

3.55 Surrey Heath produced an updated Economic Development Strategy dated March 2023. This also informs Policy IN3 of the emerging Plan that describes how providing infrastructure in the right places can boost earning power of people and places. This includes high speed digital connectivity including gigabit-capable broadband.

3.56 This should ensure access to full fibre broadband, 5G networks and smart technologies are essential for the industries of the future and will ensure the UK remains globally competitive.

Digital Connectivity

3.57 The development should seek to ensure full connectivity to the fibre network. It is our

understanding that connections to BT Openreach's fibre network is now available in this area (Fibre to the Cabinet) and so the download speeds set out as "superfast" can be achieved.

3.58 In line with the objectives of Policy IN3, the development will also seek to ensure that it can provide new residents with FTTP capability and this will be demonstrated through the application process with a Site Connectivity Plan. Given the increasingly flexible nature of new employment and the need for well-connected home working this investment in digital infrastructure can provide economic benefits for Surrey Heath and potentially provide opportunities to reduce the reliance on travel to the more traditional workplace.

Telecommunications

3.59 In similar vein, the ability to communicate is a precursor to successful economic development and in the context of residential development it is relevant insofar that occupiers need the flexibility for occasional homeworking or so that they can otherwise use local services.

3.60 We understand that the site already benefits from good 4G coverage on all of the main network, and also that 5G has been being rolled out by Vodafone in this area.

3.61 It does not appear to be the case that there would be any need for additional infrastructure to enhance digital connectivity or the telecommunications network.

4.0 Social Infrastructure

4.1 Whereas 'Physical' infrastructure is defined as 'hard', fixed, utilities-based infrastructure necessary for communities to function effectively, the promoter's understanding of 'social' infrastructure includes necessary education, health and community facilities which enable communities to thrive. For logical consistency, this section also includes reference to affordable housing, which the promoter identifies as a key component of social infrastructure.

4.2 In the context of social infrastructure it is important to recognise that the primary responsibility for service delivery sits with other public service providers as well as Surrey Heath Borough Council. Key agencies include Surrey County Council and the Diocese of Guildford in terms of education as well as the NHS Surrey Heath Clinical Commissioning Group in consideration of strategic healthcare.

4.3 Community facilities are typically operated the public sector and contracted out to the tertiary sector. The commissioning of services through the third sector is managed by Surrey Heath Borough Council and contracted through tailored Partnership Agreements.

4.4 Across all of these requirements, Surrey Heath Borough Council have any obligation as a local planning authority to plan for those needs over the Development Plan period and to provide a civic leadership function as required by the Local Government Act 2000 and reinforced by the Localism Act 2011.

Education

4.5 Education services are primarily a function where responsibility lie with the county council as opposed to the borough council in this two-tier authority structure.

Nursery provision

4.6 There is no nursery provision at St Lawrence's School. However, there are two privately operated nurseries based in the Chobham area, the closest of which is Pennypot Nursery.

Primary schooling

4.7 St Lawrence's C of E Primary School is located in Chobham and is easily walkable from the subject site. It provides school places from Reception through to Year 6. The school provides 30 Reception places per year (described as 1.00 FE) in accord with their admissions policy. The latest OFSTED report from November 2023 concludes that the school performs as "good".

4.8 Through reference to the Government online information regarding primary places planning, it is evident that the Published Admission Number for St Lawrence's for the 2024 school year

is largely aligned to capacity (overall capacity 210 places, 204 on roll).

4.9 The 2022-2032 Surrey School Organisation Plan projections do not appear to envisage any substantial concern in terms of any potential shortfall between supply and demand for the Surrey Heath area.

4.10 Primary school place planning analysis is largely driven by birth rates, and the Plan suggests that birth rates for the Surrey Heath area (at 2023) have declined by 7% since 2012. There was a spike in reception school place demand in 2021 (circa 960) which had fallen by 2023 (circa 830) and is projected to move towards 800 by 2032. By consequence, demand for school places has fallen and there are likely to be surplus spaces available.

4.11 With this in mind, we are not aware of any practical constraint to delivering additional homes in Chobham with respect to primary school places provision.

Secondary schooling

4.12 There is no secondary school provision in Chobham itself. The closest secondary schools are Gordon's School (2.1 miles to the west) and Woking High School (2.5 miles to south east).

4.13 Gordon's school is a fee-paying boarding school that (according to the OFSTED report) predominantly offer places to children with connections to the armed forces. The school provides places from year 7-year 11 as well as having a sixth form (years 12-13). The latest OFSTED report from January 2024 concludes that the school performs as "outstanding".

4.14 Woking High School is a state-run 6FE secondary school. The school provides places from year 7-year 11. The latest OFSTED report from January 2020 concludes that the school performs as "good".

4.15 The SCC secondary places planning portal shows that the Published Admission Number for Woking High School in 2023 was marginally above available capacity, albeit with an intent to fall back in line with PAN.

4.16 In terms of secondary provision, the peak demand at 2023 for the Surrey Heath area as a whole (circa 960 places) will fluctuate up to 2028 and then fall below 870 and plateau thereafter. The Plan states that vacant capacity should be used before any additional provision is sought or commissioned. With this in mind, there is no practical constraint to delivering additional homes in Chobham with respect to secondary school places provision.

Further and tertiary education

4.17 This includes sixth form colleges and vocationally driven education. In the locality this is dominated by Woking College (6th form and adult education) as well as provision at Gordon's

School. There is no practical constraint to delivering additional homes in Chobham re further and tertiary education provision.

Health

4.18 In keeping with patterns seen alongside lower levels of health deprivation, life expectancy in Surrey Heath is higher than the national figure; the male rate is currently 82.0 compared to 79.3 for England, and the female equivalent is 84.4 compared to 83.2 nationally.

Primary Care

4.19 Prescription pharmacy services are available in Chobham, with the Chobham Pharmacy on Windsor Rd being available six days per week. There is also an ophthalmic practice and two dental practices in Chobham. These provide services for private and NHS patients.

4.20 The provision for primary health care is reasonable, and represents no constraint to housing delivery at this site.

Secondary Health Sectors

4.21 The key local GP surgery (Chobham Medical Practice) is located in Chobham circa 800m north of the subject site. This offers a Monday-Friday service (8am-6.30pm on Monday and the other weekdays 8am until 1pm). Longer opening hours are available at the sister practice in West End which runs 8am-6.30pm on all week days.

Hospitals

4.22 There is no hospital in Chobham itself. The nearest hospital facility with an accident and emergency function is the St Peter's hospital in Chertsey. Other facilities for urgent care and specialist care are available (such as the Woking Community Hospital) at closer proximity.

Community Facilities

Emergency Services

4.23 There is a fire station in Chobham. There is an ambulance station located on the south side of Chertsey and an independent ambulance service based at Fairoaks Airport. The main police station is located at Woking. These services are sufficiently proximate to the subject site to ensure that emergency services provision represents no constraint to housing delivery.

Cemeteries

4.24 The closest cemetery facility is Chobham Cemetery, adjoining the Recreation Ground and located in Chobham itself. This is a non-denominational cemetery which is maintained as a

"lawned cemetery" and is provided to meet the needs of the residents of the parish of Chobham and West End and is not open for the burials of non-parishioners.

4.25 Whilst there may be pressure in other parts of the borough to identify additional land to meet future demands for burial space, it appears to be the case that there is considerable latent capacity in the Chobham Cemetery (for local parishioners) so therefore we are not aware of any such constraint in the Chobham area.

4.26 These services are sufficiently proximate to the subject site to ensure that cemetery provision represents no constraint to housing delivery at this site.

Arts/ Cultural Facilities

4.27 Chobham Village Hall is used as a venue for craft shows and a range of occasional indoor markets and carnivals. It is also used by a private sector provider to deliver arts classes. We also note that there are active groups in Chobham for participation-based interests. This comprises groups such as Rock Choir Chobham.

4.28 The provision for arts and culture is reasonable, and with the benefit of the local community centre there is an opportunity for service delivery to be expanded further (to perhaps target adults and older people).

Community Centres

4.29 Chobham Community Centre is located on MacMahon Close. It provides three rooms for hire (main hall, meeting room and a sofa room) and can host up to 100 people. The building is run by a community organisation.

4.30 Chobham Village Hall is located on Station Road and is used for private functions (children's parties and family celebrations), community events and classes. It provides four rooms for hire (main hall, two meeting rooms and committee room) and can host up to 110 people.

4.31 Chobham Parish Pavilion is located within the Recreation Ground and is managed and used by the Parish Council. The building (is in regular use and has full DDA access and kitchen facilities) is used for a range of third sector groups.

4.32 In addition it is used for private functions (children's parties and family celebrations) and accommodates local activities (club and society meetings; as well as being used for bridge, dance, scrabble sessions, lectures and workshops).

Places of Worship

4.33 St Lawrence's Church began construction in 1080 and was completed in phases through to

the early 16th century, then with a first floor installed during the 19th century. It is a Grade I listed building which is a local landmark. The walking distance between Parcel A and the Church is less than 400m and can be undertaken straightforwardly on flat paved routes.

Indoor Sport

4.34 Chobham Village Hall and the Parish Pavilion provides a straightforward opportunity for indoor sports facilities in the immediate area (such as table tennis, dance, fitness sessions, and martial arts) but this will be demand-led.

4.35 The developer would be keen to work with the Council's Sports Development team to ascertain whether there are opportunities to promote local participation.

Affordable Housing

4.36 Following recent case law, the Council has confirmed that it intends to seek on-site provision of affordable housing for all schemes generating 10 or more units. It is open to applicants to seek to justify lower contributions based upon viability evidence, but this would not contribute to the pressing need for affordable housing in the borough and would be a material consideration in the s38(6) planning balance exercise. For the emerging Plan, the text identifies a threshold of 10 units which aligns with national policy.

4.37 The Council's Core Strategy Policy CP5 sets differential targets based upon scale of development (30% for schemes 10-14 dwellings, 40% for larger schemes). The emerging New Local Plan includes a Policy H7 which is seeking 40% affordable housing.

4.38 The developer is committed to providing at least 40% affordable housing on site to meet emerging policy requirements, including First Homes. The developer is intending to commence discussions for this development opportunity with RPs which will undergird the opportunity to deliver upon local affordable housing requirements.

4.39 There is also a recognition that there is an opportunity to ensure that the mix provides a range of lower price housing products as well as pure affordable housing to facilitate easier access to the housing market for local people who are impeded by worsening affordability ratios.

5.0 Green and Blue Infrastructure

5.1 The IDP does not identify any specific sub-groups under green infrastructure but simply introduces the key component elements. This section of the Statement therefore directly considers the component elements as set out in the IDP. We also refer to opportunities for biodiversity net gain, which we identify as a key component of green infrastructure.

Parks and Open Spaces

5.2 The Council's website lists 35 Parks and Open Spaces, only one of which is in the Chobham area (Chobham Place Woods).

Chobham Place Woods

5.3 This is a mature broadleaf wood which once belonged to Chobham Place House. This area and Round Pond to the east are on the edge of Chobham Common. The wood provides pleasant woodland walks and it is proposed to improve access for disabled visitors and partially restore the original historical landscape.

Green Spaces

5.4 The Council's 2021 Green Space Background Assessment goes on to identify nine sites which are capable of being allocated as green space. Two of these have an existing allocation (Wishmore Cross Academy and Windsor Rd Recreation Ground) and there are 7 smaller plots that are proposed for allocation as part of the process through the insetting of the settlement.

Wishmore Cross Academy

5.5 The original site included the grassed recreation ground and club house bordered by trees and residential dwellings associated with the Chobham Rugby Club, along with the Wishmore Cross School Playing field. This will be reduced in size by consequence of a prior planning application (leading to loss of green spaces) and as the Rugby Club is a proposed housing allocation in the draft Local Plan.

Windsor Rd Recreation Ground

5.6 The recreation ground provides a large open, green space in the heart of the village, used throughout the year for relaxation, sport and play. This is managed by the Parish Council and facilities include Parish Pavilion, the All-Weather Surface Court and Playground. The site is also used by Chobham Tennis Club, Chobham Scouts and Windlesham & Chobham United Football Club.

Chobham Meadows

5.7 The site includes grassed fields and wild flower meadows, incorporating strips of trees and hedgerows. The Mill Bourne flows through the sites, from east to west. The site is wholly within the Green Belt and contains an SNCI. The site adjoins a Conservation area and Chobham settlement area to the west. The site offers amenity value and informal recreational opportunities for the local areas.

Chobham Recreation Ground

5.8 This is a grassed recreation ground, play area, sports fields and ancillary buildings bordered by trees and residential dwellings. The site adjoins Station Road to the north, residential development to the west and east and is bounded by the Bourne to the south.

5.9 The site is proposed for designation for its amenity and recreational value. The Surrey Heath Open Space Assessment (2016) identified the site to be a high quality and value provision for children and young people.

Chobham Cemetery

5.10 Partially wooded, grassed cemetery. The site is wholly within the Green Belt, is proximal to an SNCI and adjoins a Conservation Area. The cemetery has recently been extended to the south following conversion of an allotment. The Surrey Heath Open Space Assessment (2016) identified the site to be a high quality and value cemetery site.

Chobham Cricket ground

5.11 This is a flat grassed area incorporating playing fields. The land is wholly within the Green Belt, within a Conservation Area and adjoins an area of high archaeological potential.

5.12 The site is proposed for designation because of its recreational and visual amenity value. The Surrey Heath Playing Pitch Strategy Assessment (2016) assessed the Cricket ground as having good quality.

Broom Lane allotments

5.13 Allotments situated in the Thames Basin Heath SPA 400m buffer zone and the Green Belt, and adjoins a National Nature Reserve (NNR) to the north. The Surrey Heath Open Space Assessment (2016) identified the site to be a high quality and value allotment.

Red Lion Allotments

5.14 Allotments situated in the Thames Basin Heath SPA 400m buffer and Green Belt, and adjoins

an NNR to the north and the SPA to the east. The Surrey Heath Open Space Assessment (2016) identified the site to be a high quality and value allotment.

Little Heath Nursery

5.15 The site is located west of Mincing Lane Nursery and incorporates Little Heath Common, and SNCI, as well as Little Heath Meadows. The site is located in entirely within the Green Belt and adjoins the settlement area of Chobham. The majority of the site's area is within the Thames Basin Heaths SPA 400m buffer.

Trees

5.16 There are a number of trees close to the site boundary which provide a valuable buffer and wildlife habitat. However, none of those trees have been concluded to warrant statutory protection. Through our review of online material, the nearest protected trees are located within the Bridge Cottage demise that backs onto the Play Area that is to the north, within the existing village core and inside the Conservation Area boundary.

Outdoor Sports and Leisure Facilities

5.17 Surrey Heath commissioned a Playing Pitch Strategy Full Assessment Report (authored by KKP) published in July 2023. This forms one component of local outdoor sports and leisure facilities and supersedes their earlier document dated December 2016. The Regulation 19 IDP identifies that there are 40 publicly accessible outdoor sports facilities in the borough, including several facilities in the Chobham area.

5.18 Playing pitch provision is typically referenced against facilities per head of population. As such, population density is a key consideration. Clearly proposals for new development would need to have regard for any existing or future issues in regard to sports pitch provision.

5.19 The borough is split up into two Analysis Areas and the Chobham locality falls within the wider "Rural Analysis Area". For this wider Analysis Area (which covers half of the district), the report includes tables (sport by sport) which provides quantitative headline findings that accounts for conditions and "overplay".

5.20 In most cases, it is a combination of poorer pitch standards and "overplay" which results in a shortfall. In the scenario, that the facility could be upgraded (from "poor" to "good for example) that would provide expanded capacity.

5.21 Capacity figures are provided in terms of match equivalent sessions, where (for example) a good quality adult football pitch could sustain 3 matches per week. These analyses are summarised as follows:

SPORT	PITCH TYPE	CURRENT DEMAND SHORTFALL (MATCH EQUIVALENT SESSIONS PER WEEK)	FUTURE DEMAND SHORTFALL ASSUMING NEW DEVT
Football	Grass Pitch	Shortfall 2 no. sessions for full size pitches Shortfall 8.5 sessions youth 11 v 11 pitches No shortfall youth 9 v 9 pitches No shortfall mini 7 v 7 pitch Shortfall 4 no. sessions mini 5 v 5 pitch	Shortfall 3 no. sessions for full size pitches Shortfall 10 sessions youth 11 v 11 pitches Shortfall 0.5 sessions youth 9 v 9 pitches Shortfall 1.0 sessions mini 7 v 7 pitch Shortfall 5.0 sessions mini 5 v 5 pitch
Football	3G	Shortfall of 0.75 no. full size pitches	Shortfall of 0.75 no. full size pitches
Cricket	Grass	No shortfall	No shortfall
Rugby U	Grass	Shortfall 5.0 match sessions	Shortfall 6.0 match sessions
Hockey	Sand	Sufficient supply to meet demand	Additional pitch needed if Camberley HC expands number of teams

5.22 Existing outdoor provision in the immediate area is understood to comprise of:

LOCATION	SPORT	FACILITY	QUALITY	AVAILABLE FOR COMMUNITY USE?
Chobham Recreation Ground	Football	1 no. adult pitch	Standard	YES
Chobham Recreation Ground	Tennis	3 no. floodlit tarmac courts	Good	YES. CHOBHAM LTC ALSO USE
Chobham Recreation Ground	Rugby	1 no. adult pitch	Poor	YES
Chobham Cricket Club	Cricket	1 no. grass pitch	Standard	NO
Chobham Rugby Club	Rugby	1 no. floodlit grass pitch 1 no. senior grass pitch	Good Standard	NO

5.23 Given that the development will yield less than 60 homes, the preferred approach would be to provide contributions as may be needed to enhance existing provision in the local area.

Public Realm Improvements

5.24 The Council has a public realm strategy which is predominantly focused upon improving the physical fabric of town centres and the experience they provide for those enjoying town

centre shops and services. The developer would be keen to work with the Council to explore how public realm opportunities can be secured by consequence of these development opportunities. There may be potential to improve the link routes between the subject site and key facilities such as the school, community centre and open spaces.

Opportunities for Biodiversity Net Gain

5.25 The developer has commissioned feasibility work in terms of ecology which includes desktop surveys. There is no evidence of any material biodiversity constraint in terms of the site's use for housing. The boundary treatments will represent net measurable gain in terms of biodiversity as encouraged expressly by the NPPF and follow the standard approach and meet the 10% gain now required by law.

5.26 We understand that the Council has adopted a protocol whereby SANG land must meet various criteria including the provision of a minimum walking distance around its boundary. As such, this pre-supposes that these SANG parcels will be large in size and also assumes that the delivery of improved habitat will go in hand with the creation of leisure routes.

5.27 We have set out in the past that the Marsden land holding could have provided a 4.7 hectare parcel of land to be managed for SANG purposes but this was rejected as it would not be large enough to adhere to the minimum walk distance criterion. On that basis, we will not be promoting that land again and will therefore be regrettably compelled to rely upon off-site contributions for any necessary SANG mitigation.

5.28 The scheme provides a number of obvious opportunities for biodiversity net gain which could include consideration of:

- Flood attenuation area for delivery of Parcel A adjacent to the River Bourne, designed to optimise biodiversity net gain;
- Introduction of other sustainable urban drainage features which seek to optimise the opportunity to enrich and diversify habitats;
- Retention of boundary trees and improved woodland management; or
- Contributions towards the maintenance and improvement of local habitat resources.

6.0 Conclusion

6.1 In the absence of formal guidance in terms of Infrastructure Deliverability Statements, the promoter took the approach of framing this Statement around the Council's IDP Baseline Study for the benefit of a comprehensive understanding and conception of 'infrastructure.'

6.2 We trust that these representations are clear, and that the deliverability criteria we have adopted are helpful to aid your review against relative compliance with published local material. We would be delighted to provide additional information in this respect or enter dialogue as may be thought useful and appropriate.

6.3 Mr Marsden is looking to promote land through dialogue with local stakeholders, with the ambition of delivering new homes directly that genuinely provide the new homes in a quality environment that meet local needs.

6.4 In regard to Parcel C, whilst we note that it lies outside the settlement boundary and is not proposed for allocation it provides little genuine contribution to the Green Belt purposes. It will be adjacent (and therefore contiguous) with Parcel A that is substantially developed and will be allocated for housing use. In addition, the site boundaries are robust and through this enclosure its openness or contribution to long views is very limited.

6.5 Whilst we note that the Council's view is that Parcel C presents elevated flood risk and is not a preferred location for housing, our review of flood data and topographic analysis comes to a different conclusion. New homes can be delivered through engineering works providing a development plateau to an FFL of 27.240m AOD (thus above the 1 in 1000 year flood event).

6.6 The scheme provides a flood compensation area (so there is no net displacement of flood water beyond the site boundaries) which means that the feasibility layout would put residential building footprints and ancillary development (i.e. outbuildings or garden fencing) above the 1 in 1000 year flood level (and south of the flood replacement zone which would be designed to promote bio-diversity measures) with appropriate means of emergency egress.

6.7 Parcel C should be recognised as a credible "reasonable alternative" that can be deliverable and would provide positive contribution towards the greater levels of housing requirement which have been identified by the new standard method.

6.8 We would be delighted to work with the Council to shape these proposals, and there is an inherent flexibility to adjust them in terms of both scale and approach to best reflect ambitions to deliver new homes in the early part of the Plan period.

6.9 We confirm that the development can commence upon planning consent, and that it is feasible for the scheme to be completed in the first five years of the emerging Plan period.