

# Heritage Impact Assessment

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The Briggens Estate,  
Stansted Abbots,  
Hertfordshire –  
Preferred Area of  
Mineral Extraction

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# 1. Introduction

## Background

- 1.1** This heritage impact assessment has been prepared by Heritage Collective for Tarmac, as part of a staged process in understanding the historic environment around the Briggens Estate, Stanstead Abbots, Hertfordshire. The context of this assessment is Tarmac's promotion of land at the Briggens Estate as a preferred area of mineral extraction (henceforth referred to as the preferred area or PA) under the emerging Hertfordshire Minerals Local Plan.
- 1.2** This assessment is an updated and revised version of a baseline heritage assessment produced by Heritage Collective for Tarmac in February 2018. It expands on the earlier report, incorporating photographic images taken during recent site visits. The report identifies the principal heritage assets in the vicinity of the PA, and assesses their significance, including the contribution made by their setting. It also explains the relevant national policy framework applicable to planning decisions affecting heritage assets. The report also incorporates advice and suggestions made by Historic England, who have visited the site and been consulted during the preparation of the heritage impact assessment.
- 1.3** Please note that the PA boundary shown on maps and plans in the main body of the text is the boundary shown before the removal of phase 4 from the Tarmac Area of Interest (see Appendix 2 for the updated boundary).

## Introduction to the main heritage assets in and around the Briggens Estate

- 1.4** The majority of the PA falls within the ancient parish of Stanstead Abbots, which also contains two large designated heritage assets<sup>1</sup>: Stanstead Abbots Conservation

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<sup>1</sup> The glossary of the National Planning Policy Framework explains that designated heritage assets constitute "A World Heritage Site, Scheduled Monument, Listed Building, Protected Wreck Site, Registered Park and Garden, Registered Battlefield or Conservation Area designated under the relevant legislation."

Area and the grade II registered park and garden (RPG) known as Stanstead Bury, which lies to the south of the A414 (see General Overview in Figure 1). Part of the eastern side of the PA falls within the historic parish of Hunsdon, which also contains a substantial part of a second, grade II registered park and garden known as Briggsens. The parish also contains the Hunsdon Brook Fishponds, which were designated a scheduled monument (SM) after the compilation of the baseline heritage assessment, in July 2018. No part of the conservation area, the scheduled monument or the two registered parks falls within the PA.

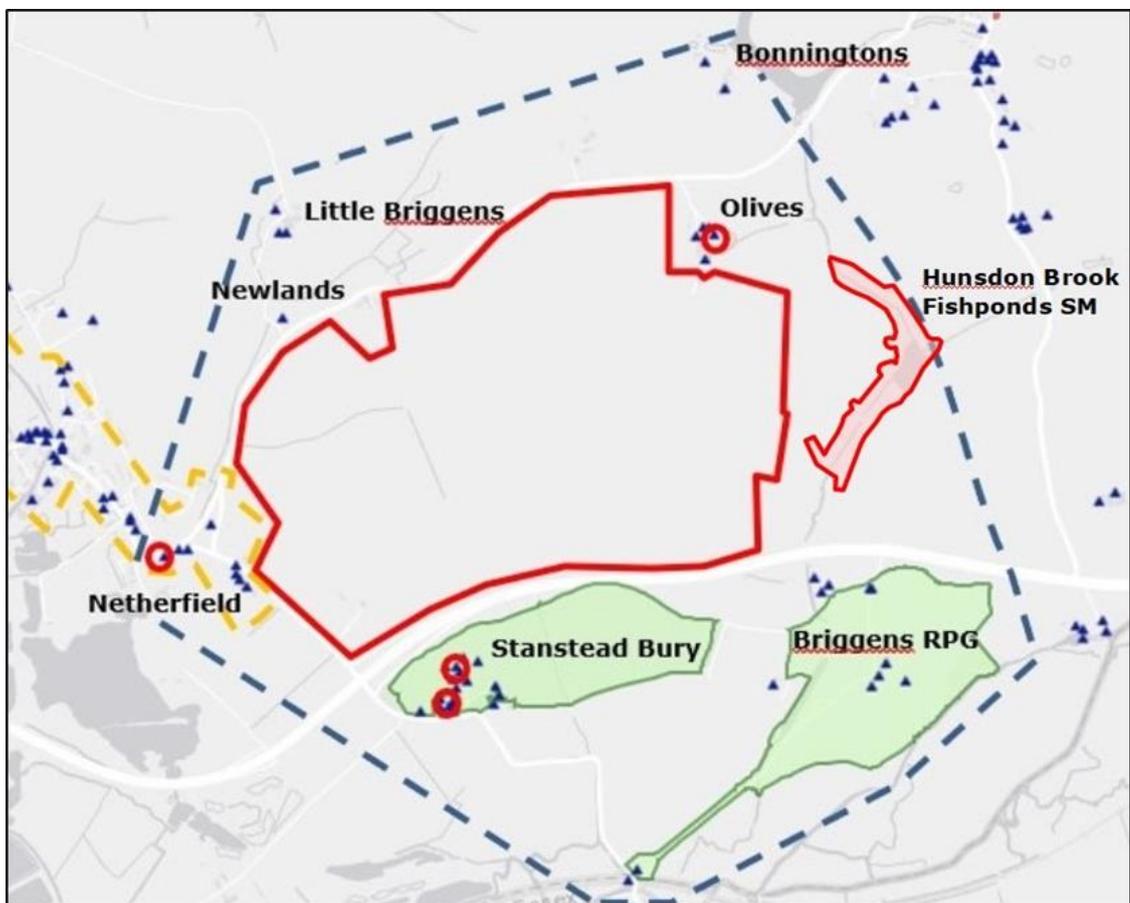


Figure 1: General overview of the main heritage assets relative to the PA (outlined in red). The boundary of the Stanstead Abbots Conservation Area is dashed yellow, listed buildings are represented by blue triangles, buildings listed grade I & II\* are ringed in red and the two RPGs are shaded green. The scheduled monument is shaded pink and the study area is bounded by a blue dashed line

## 1.5

Stanstead Abbots Conservation Area and Stanstead Bury have medieval origins, in and before the 15th century, whereas Briggsens was a rather later park first

landscaped in the 17th and 18th centuries. All three of these area-type designations contain listed buildings which have been identified and assessed in the context of the three areas below. There are also a number of “outlying” listed buildings which fall outside the conservation area and the registered parks and gardens. These listed buildings have been assessed individually or in groups, according to their location and disposition.

**1.6** Hunsdon Brook fishponds, which occupy the eastern part of Lords Wood and extend to the north and south along Hunsdon Brook, were created for Henry VIII between 1525 and 1534. As such, they have group value with nearby Hunsdon House and St Dunstan’s parish church, both of which are listed Grade I.

**1.7** The earliest map of the PA with sufficiently recognisable detail to be seen for this assessment is the 1766 Dury & Andrews map of Hertfordshire (Figure 2). This map shows the majority of the heritage assets discussed in this report (with the exception of Little Briggens).

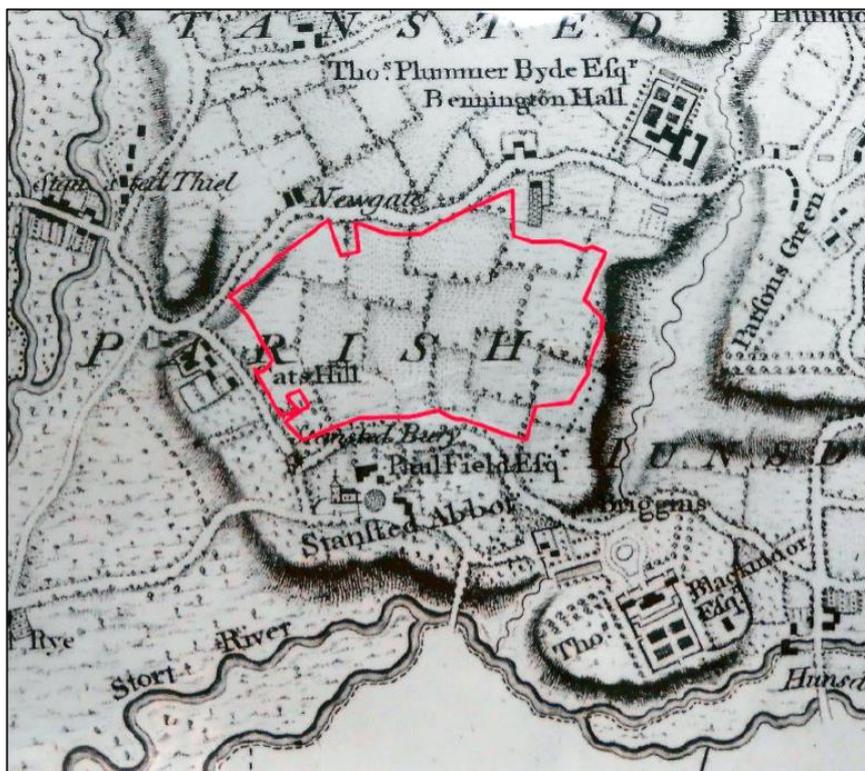


Figure 2: 1766 Dury & Andrews map of Hertfordshire (extract), with the boundary of the PA outlined in red

**1.8** The 1766 map demonstrates that little has changed over the last three centuries in the rural land use and character within the PA and its immediate environs, although there were a greater number of fields in the late 18<sup>th</sup> century than there are currently.

**1.9** The Tithe map of Stanstead Abbots dating from 1840 (Figure 3) shows that the number of land parcels in the PA has changed from c.50 in the early 19<sup>th</sup> century to c.19 today (as field boundaries have been removed to create larger plots). The associated apportionment list details of landowners such as Felix Calvert, with Olive’s Farm and its surrounding fields being occupied by Edmund Calvert, and the Executors of the late William Henry Fielde.

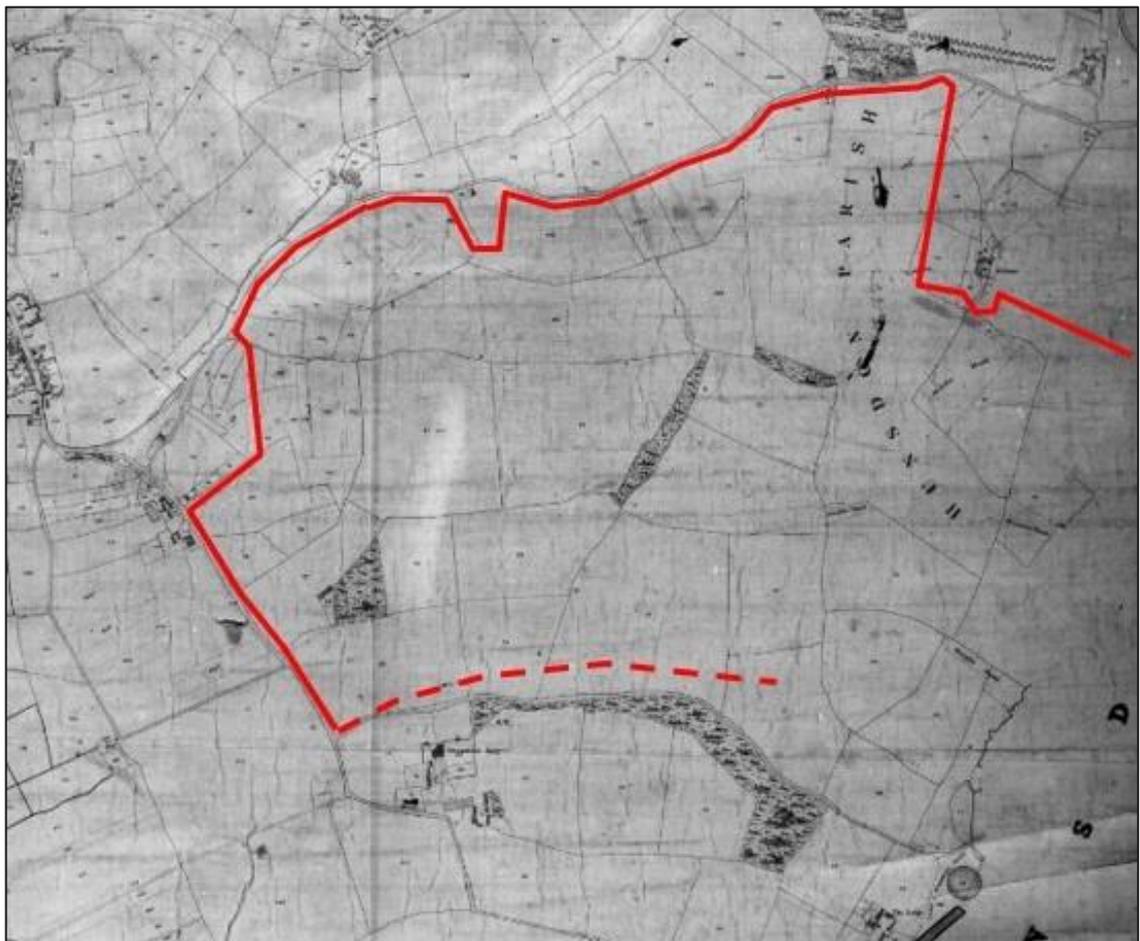


Figure 3: Extract from the 1840 Tithe map of Stanstead Abbots, showing part of the boundary of the PA in red

## Study Area

- 1.10** The study area has been chosen so as to include consideration of those heritage assets which are most likely to be affected by effects arising from mineral extraction on the Briggens Estate (see General Overview in Figure 1).
- 1.11** The study area includes the whole of Stanstead Bury RPG and Briggens RPG to the south of the A414, and also the Hunsdon Brook Fishponds scheduled monument. It also includes consideration of the whole of Stanstead Abbots Conservation Area, although in practical terms the strict line of the study area has been drawn across the southern extent of the conservation area nearest to the PA – an area identified by East Herts Council as Area C, described further below. Outlying listed buildings have been included within the study area at varying distances from the edge of the PA, using professional judgment as to their relevance. It is possible that there may be effects beyond the study area, but for all practical purposes those effects fall away sharply at longer distances and are unlikely to be significant.

## Other Notes

- 1.12** Site visits were undertaken to the Briggens Estate and the heritage assets described above in October and November 2018. Observations and photographs from those site visits are incorporated into this assessment.
- 1.13** This assessment has taken on board helpful comments and advice provided by Historic England. These have been taken into consideration in revising and determining the current mitigation measures discussed in section 8.



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## 2. Relevant Heritage Policy & Guidance

- 2.1** The decision maker is required by section 66(1) of the Planning (Listed Buildings and Conservation Areas) Act 1990 to have special regard to the desirability of preserving a listed building or its setting. The decision maker must also give considerable importance and weight to the desirability of preserving the listed building. There is a strong presumption against the grant of permission for development that would harm the special interest of the listed building, though the presumption can be overcome if the harm is mitigated or outweighed by public benefits, as is explained in the National Planning Policy Framework (NPPF).
- 2.2** No part of the PA is within a conservation area, and there are no listed buildings within the PA, so sections 16(2) and 72(1) of the Act are not engaged.
- 2.3** For the purposes of this assessment, preservation means to do no harm<sup>2</sup>. Harm is defined by Historic England as change which erodes the significance of a heritage asset<sup>3</sup>.
- 2.4** The relevant legislation concerning the treatment of scheduled monuments is the Ancient Monuments and Archaeological Areas Act 1979 (HMSO 1979).
- 2.5** This act details the designation, care and management of scheduled monuments, as well as detailing the procedures needed to obtain permission for works which would directly impact upon their preservation. The Act does not confer any statutory protection on the setting of scheduled monuments, with this considered as a policy matter in Paragraph 193 of the National Planning Policy Framework 2012 (NPPF).
- 2.6** The significance of a heritage asset is defined in the NPPF as being made up of four main constituents, architectural interest, historical interest, archaeological interest

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<sup>2</sup> South Lakeland District Council v Secretary of State for the Environment and Another, House of Lords 30 January 1992 [1992] 2 W.L.R. 204.

<sup>3</sup> Paragraph 84 of *Conservation Principles* 2008.

and artistic interest<sup>4</sup>. The setting of the heritage asset can also contribute to its significance. Setting is defined in the NPPF as follows:

*"The surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral".*

- 2.7** The assessments of heritage significance and impact are normally made with primary reference to the four main elements of significance identified in the NPPF.
- 2.8** The NPPF requires the impact on the significance of the heritage asset to be considered in terms of either "substantial harm" or "less than substantial harm" as described within paragraphs 193 to 196 of that document. National Planning Practice Guidance (NPPG) makes it clear that substantial harm is a high test, and recent case law describes substantial harm in terms of an effect that would vitiate or drain away much of the significance of a heritage asset<sup>5</sup>.
- 2.9** Paragraph 193 of the NPPF states that great weight should be given to the conservation of a designated heritage asset when considering applications that affect its significance.
- 2.10** The balancing exercise to be performed – between the harm arising from a proposal and the benefits which would accrue from its implementation – is then subsequently presented in Paragraphs 195 and 196 of the NPPF.
- 2.11** Planning Practice Guidance (PPG) issued by the Government, which contextualises the NPPF, has recently been updated (July 2019) and consulted for the purposes of this Assessment.
- 2.12** The table below has been created by Heritage Collective (2019) based on current policy and guidance. It is intended as simple and effective way to better define

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<sup>4</sup> Rather than laboriously describing the four constituent aspects of heritage significance in relation to each heritage asset, this assessment accepts that all the designated heritage assets discussed in this report are of at least special interest, and it then focuses on the most important characteristics and relationships so as to identify areas of particular sensitivity

<sup>5</sup> SSCLG v Nuon UK Limited, [2013] EWHC 4344 (Admin).

harm and its implications on heritage significance. It draws on various recent appeal decisions and reflects the increasing importance being put on the contribution of setting to significance and the need to create a greater level of clarity within the finding of less than substantial harm (see the NPPF, paragraph 194-196). This has been proving more and more necessary and the table below goes some way to reflect the most recent updates (2019) to the guidance set out within the NPPG.

Scale of Harm	
<b>Total Loss</b>	Total removal of the significance of the designated heritage asset.
<b>Substantial Harm</b>	Serious harm that would drain away or vitiate the significance of the designated heritage asset
<b>Less than Substantial Harm</b>	High level harm that could be serious, but not so serious as to vitiate or drain away the significance of the designated heritage asset.
	Medium level harm, not necessarily serious to the significance of the designated heritage asset, but enough to be described as significant, noticeable, or material.
	Low level harm that does not seriously affect the significance of the designated heritage asset.

**2.13** At a local authority level, the following policies contained within the East Herts District Council Local Plan, adopted in 2018 apply to the designated heritage assets described in this assessment:

**Policy HA1** *Designated Heritage Assets I. Development proposals should preserve and where appropriate enhance the historic environment of East Herts. II. Development proposals that would lead to substantial harm to the significance of a designated heritage asset will not be permitted unless it can be demonstrated that the harm or loss is necessary to achieve substantial public benefits that outweigh that harm or loss. Less than substantial harm should be weighed against the public benefits of the proposal. III. Where there is evidence of neglect of, or damage to, a heritage asset, the deteriorated state of the heritage asset will not be taken into*

*account in any decision. IV. The Council will, as part of a positive strategy, pursue opportunities for the conservation and enjoyment of the historic environment recognising its role and contribution in achieving sustainable development.*

**Policy HA8** *Historic Parks and Gardens I. Development proposals should protect the special historic character, appearance or setting of those sites listed on the Historic England 'Register of Historic Parks and Gardens'. The same level of protection will be afforded to other locally important sites. II. Where appropriate, the District Council will actively encourage proposals for the repair, restoration and management of historic parks and gardens*

**2.14** The advice of Historic England on the setting of heritage assets (Historic Environment Good Practice Advice Planning Note 3 [GPA3], revised in December 2017) has been taken into account in this assessment, although GPA3 does not prescribe a single methodological approach for assessments relating to the setting of heritage assets.

**2.15** This assessment is confined to the significance of the heritage assets and the impact of change on that significance. It does not address the planning balance in which public benefit is weighed against the degree of harm, if any.



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## 3. Stanstead Abbots Conservation Area

- 3.1** East Herts Council adopted an appraisal of Stanstead Abbots Conservation Area in July 2014. This relatively recent and helpful document analyses the character and appearance of the conservation area, and it is a starting point for understanding the sensitivity or otherwise of its surroundings.

### Historical Background of Stanstead Abbots

- 3.2** The Council's conservation area appraisal summarises the history of Stanstead Abbots as follows:

*"St James Church dates from the 12th century and the Church of St. Margaret's dates from the Norman period. The report originally proposing the Conservation Area designated in 1988 advises that when the monasteries were dissolved in 1542 the Crown seized the Manor from the Abbots at Waltham which in 1559 passed to Edward Baesh who was General Surveyor of Victuals for the Royal Navy during the reign of Henry VIII. Further detail from the same source advises that during the early 1600's construction of the New River was completed providing pure water from Amwell Springs to London. In about 1730 the Lee Navigation was cut increasing trade within the village".*

- 3.3** Stanstead Abbots is, in summary, an important local and regional heritage resource with ancient origins.

### Character and appearance of the conservation area

- 3.4** East Herts Council identifies four "distinct" character areas within Stanstead Abbots Conservation area, as follows:

*"Firstly there is the High Street and Station Road, a mixture of commercial and residential blocks with several key quality Listed Buildings and other unlisted 19th century buildings worthy of protection.*

*Secondly there is Cappell Lane, a linear road, open in nature with some quality open spaces and a scattering of Listed Buildings and other unlisted 19th century buildings worthy of protection.*

*Thirdly there is Roydon Road, Cats Hill and Hunsdon Road with a number of Listed Buildings, a smaller number of unlisted 19th century buildings worthy of protection and several quality walls and railings.*

*Fourthly there is Hoddesdon Road with two groupings of historical and architectural importance and other unlisted 19th century buildings worthy of protection.”*

### 3.5

The four areas identified by the Council do not appear to be formally delineated on a map, but it is clear that the nearest part of the conservation area to the PA is Area C – Roydon Road, Cats Hill and Hunsdon Road, and that this is regarded as being distinct from the other character areas (Figure 4).

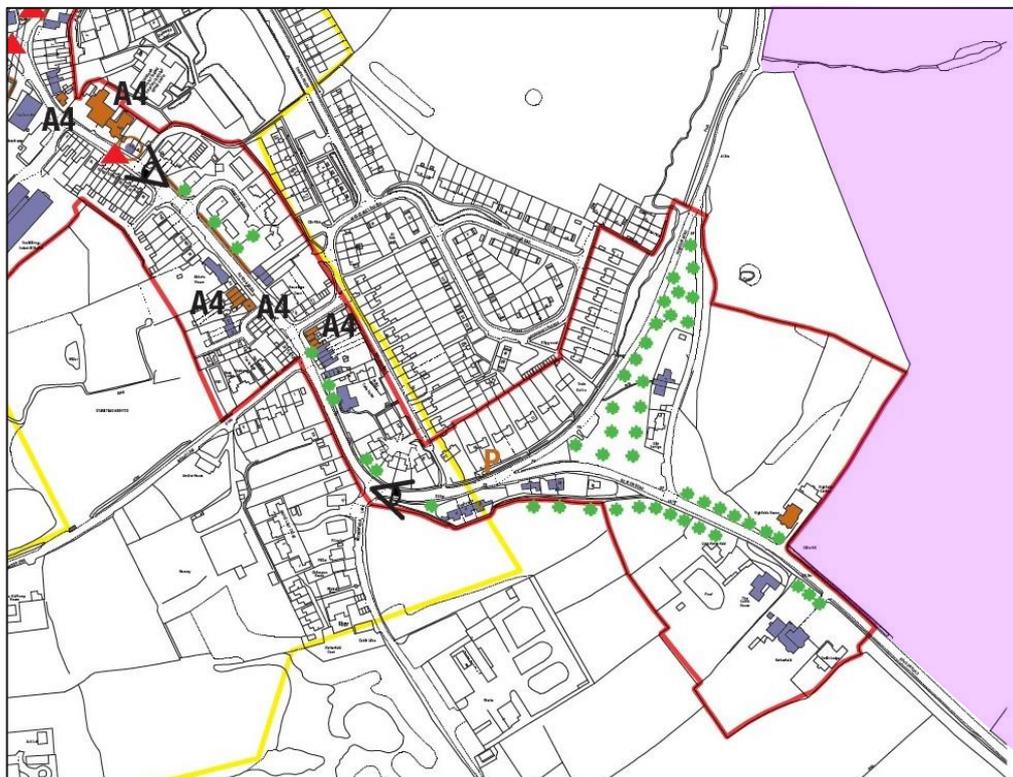


Figure 4: Extract from Stanstead Abbots Conservation Area Plan 2, showing Area C. The conservation area boundary is outlined in red, listed buildings are highlighted in purple, locally listed buildings in brown and the PA is shaded pink

## Listed Buildings within the Conservation Area

### 3.6 The conservation area appraisal summarises and dates the listed buildings within the conservation area as follows:

*"There are over 150 Listed Buildings in the three parishes as a whole, Stanstead Abbots (89); Stanstead St Margarets (14) and Great Amwell (49). Beyond the Conservation Area but in proximity are a number of outstanding buildings of considerable architectural quality and historic interest. These include the 'old' Church of St James, a grade I Listed Building dating from the 12th century described by the listing as being 'of outstanding interest as a medieval church with un-restored C18 interior'. Additionally there is the All Nations Christian College at Easneye, a grade II\* building dating from 1867- 68 by Alfred Waterhouse for Thomas Fowell Buxton described by the listing text as being 'Of outstanding interest as an unaltered example of Waterhouse's country-house work with complete contemporary interiors'. Thomas Fowell Buxton (1837-1915) was a Governor of South Australia, whose grandfather of the same name was notably for his campaign concerning the abolition of the slave trade."*

*Within the Conservation Area there are a total of 58 Listed Buildings; 1 dates from the 14th century; 1 from the 15th century; 4 from the 16th century; 15 from the 17th century (25%); 17 from the 18th century (30%) and 20 from the 19th century (35%). All are grade II except St Margaret's Church; St. Andrew's Church, Cappell Lane; the Red Lion PH; Stanstead Hall and The Clock House, Cappell Lane. The latter are all grade II\*."*

### 3.7 There are eight listed structures within Area 3 of the conservation area, that are all within 300m of the PA. Full list descriptions are provided in the Appendix but in summary, the nearest listed buildings to the PA can be considered as the Netherfield House group on the west side of Roydon Road (see Figure 5):

- Eventide House /Netherfield House<sup>6</sup>, Roydon Road, grade II, c.1860, in the style of E.M. Barry.

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<sup>6</sup> This was a residential home at the time of listing, but it now appears to be a private dwelling.

- Ornamental Dairy at Netherfield House<sup>7</sup>, grade II, c.1860.
- The Coach House<sup>8</sup>, formerly the stable to Netherfield House, grade II, c.1860.
- Gatescreen, piers and gates for Netherfield House, grade II, c.1896.

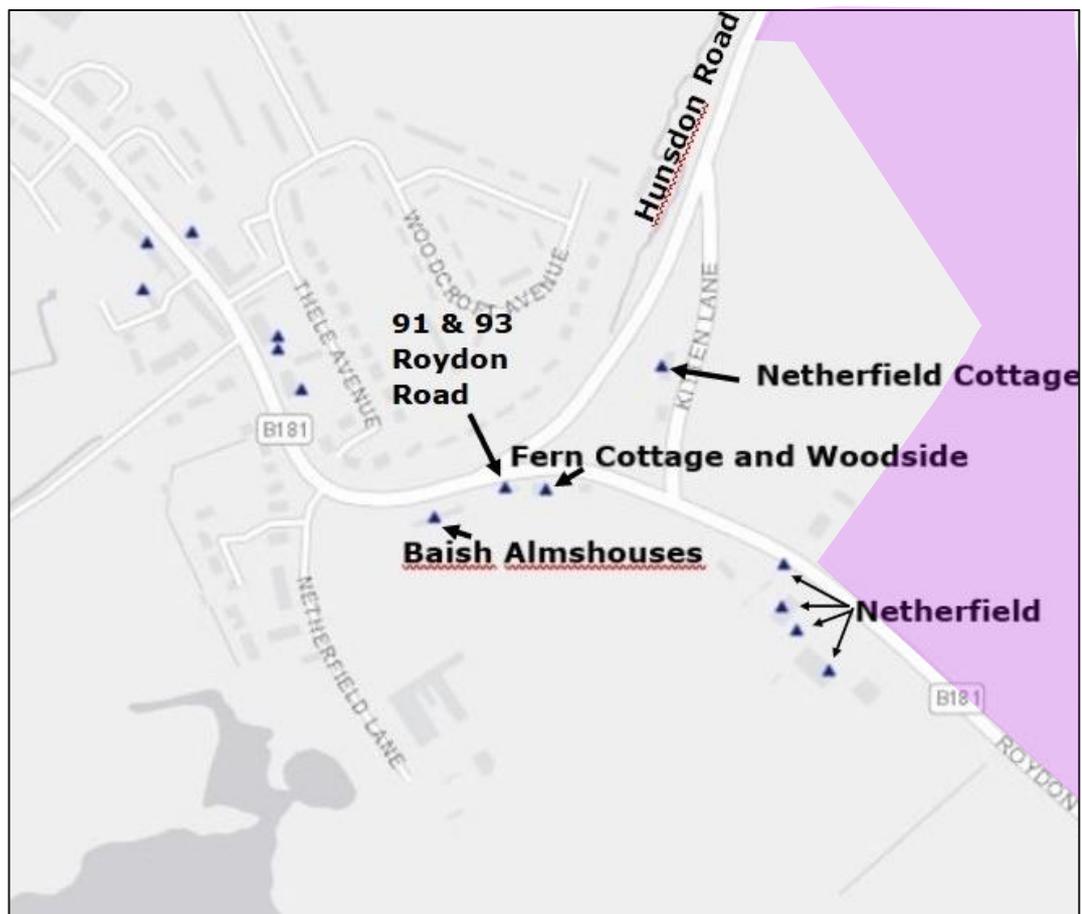


Figure 5: Map extract showing the nearest statutorily listed buildings to the site, with the PA shaded in pink

### 3.8

The location of the Netherfield House group is indicated in Figure 5 above. These mid- to late Victorian structures replaced earlier buildings, which were in different ownerships at the time of the Stanstead Abbots Tithe map c.1840 (Figure 6), two being owned by George Nicholson, one in the ownership of Daniel Hankin, and one

<sup>8</sup> Apparently converted since listing

in the ownership of the executors of the late William Henry Fielde. They were occupied by four different tenants.



Figure 6: Extract from the 1840 Tithe Map of Stanstead Abbots showing the buildings pre-dating the Netherfield House complex (ringed), with the PA superimposed in pink

### 3.9

A comparison of the 1840 Tithe map with an Ordnance Survey (OS) map from 1896 (Figure 7) depicts the changes to the west side of Roydon Road brought about by the construction of Netherfield House and its outbuildings.

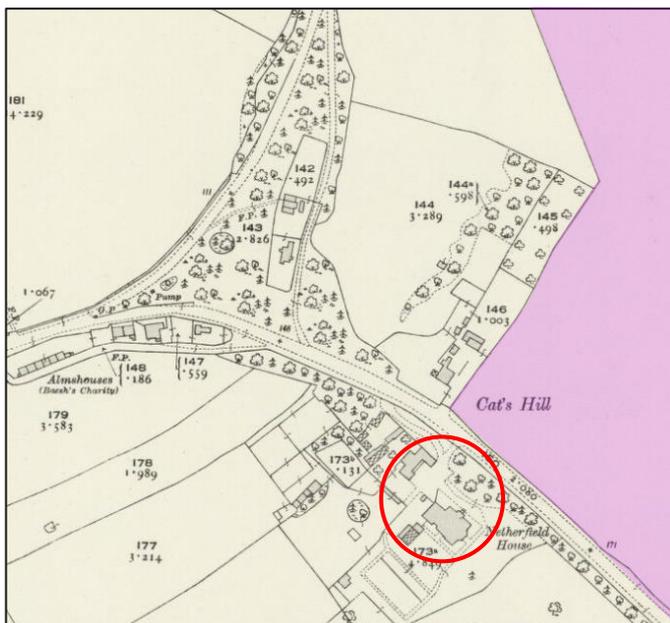


Figure 7: Netherfield House in the 1890s with the PA superimposed in pink

**3.10** A current aerial view of the Netherfield House building group (Figure 8) shows how little the building configuration has changed since the late Victorian period.



Figure 8: Current aerial view of Netherfield House

**3.11** There is no historically significant connection between the Netherfield House listed buildings and the PA. Figure 9 demonstrates that the latter forms part of the wider setting of the former, but the buildings (Figure 10) are mostly set back from the road behind strong boundaries defined by railings and mature tree cover. This provides Netherfield House and its outbuildings with partial seclusion, which reflects the limited associations they have with their wider surroundings, although they still contribute positively to the character and appearance of the conservation area.



Figure 9: Photograph looking south showing Netherfield House to the right and the PA to the left, on the opposite side of the road. The gate visible in the photograph is statutorily listed



Figure 10: Netherfield House, with its Italianate tower (bottom), and coach-house to the right of the path/track in the top image

**3.12** The other four listed buildings closest to the PA within Area 3, all of which appear on the Tithe map extract in Figure 6, are as follows:

- Netherfield Cottages, addressed as Nos. 1, 2 and 3 Roydon Road, although they are actually on Kitten Lane, grade II, probably early 19th century.
- Fern Cottage and Woodside, Nos. 97 and 95 Roydon Road, grade II, 18th and 19th century.
- No. 91 and 93 Roydon Road, grade II, 18th century.
- The Baish Almshouses and attached forecourt wall, Nos. 79-89 Roydon Road, grade II\*, 1653 for Sir Edward Baesh.

**3.13** The four listed buildings described above (Figures 11 to 14) have roadside settings at the southern end of Stanstead Abbots as the urban settlement transitions to more rural surroundings. They form a relatively coherent historical streetscene but their wider environs have already been altered, not least by the modern commercial unit on the east side of Netherfield Lane. They are all visually separated from the PA by intervening land, hedges, trees and boundaries.



Figure 11: The Baish Almshouses looking south along Roydon Road



Figure 12: View looking south along Roydon Road in the direction of the PA (not visible), showing Nos 91 & 93 (weatherboarded) with Woodside and Fern Cottage beyond. Hunsdon Road branches off to the left



Figure 13: View looking in the opposite direction along Roydon Road, to the north, away from the PA, showing Woodside, Fern Cottage and the weatherboarded Nos. 91 & 93 Roydon Road on the left



Figure 14: Netherfield Cottages, looking north along Kitten Lane - as can be seen, the cottages have a very localised semi-rural setting within the lane. The PA is separated from the cottages by the lane, a bank and dense tree cover on the other side, and a portion of the conservation area beyond that (on the right of the image)

## Significance of the conservation area

**3.14** The Council's appraisal of the conservation area is somewhat reserved when describing its significance at paragraph 5.2:

*"Despite less than satisfactory extensive modern 20th century developments such as Chapel Fields and Woodcroft Avenue beyond the Conservation Area in the east and other pockets elsewhere within it, the designated area has retained a sufficiently high degree of its architectural quality and historical identity to qualify as a Conservation Area."*

**3.15** There are also repeated references in the appraisal to the relatively late date of many of the listed buildings in the conservation area, but this does not necessarily reduce its significance or suggest that it is not of special architectural and historic interest.

## Setting of the conservation area

**3.16** In explaining the general designations and criteria used to identify important environmental features, the Council's conservation area appraisal states at paragraph 4.11 that:

*"The Conservation Area can include open land that has historical associations with the built form. This may particularly be the case if such open land is environmentally important and visually forms part of the Conservation Area's setting and is distinct from open farmland."*

**3.17** Paragraph 5.1 of the appraisal then goes on to describe the general surroundings of the conservation area thus:

*"In terms of its wider setting, the Landscape Character Assessment produced in 2007 as a Supplementary Planning Document, describes the general area of the Amwell Floodplain as being 'an area of man-made lakes and wetland vegetation with a 20th century character belied by the presence of the manicured surrounds of the New River on the south-western edge... There are no settlements or buildings within the river valley. All development is on the adjoining slopes, above the floodplain'."*

- 3.18** Taken together, these observations suggest that the Council considers the setting of the conservation area to be defined primarily in terms of the contemporary landscape rather than any particular associations with historically significant pieces of land, and that open farmland is unlikely to be regarded as significant to the setting of the conservation area unless there are specific reasons to the contrary. The PA does form part of the setting of the conservation area in as much as it physically abuts its boundary, and is partially visible from, Roydon Road, but it falls into the open farmland category described above. Moreover, there are no specific reasons why this farmland, which has existed since at least the 18<sup>th</sup> century, should carry any significance in terms of the setting of the conservation area. There is no historical evidence to suggest that the PA, which was in several different ownerships at the time of the tithe map c.1840, has strong associations with Stanstead Abbots Conservation Area, or that it forms a specifically important component of the setting or significance of the conservation area.
- 3.19** There is no reference to the farmland forming the PA in either the "*Important open land, open spaces and gaps*" or "*Important Views*" sections of the appraisal which cover Area C. Paragraph 6.99 of the appraisal states that the important views are those "*into the centre of the village and looking towards the Almshouses junction of Roydon/Hunsdon Roads*" as well as those "*along the Mill Stream*". None of these views require visual reference to the PA. The site visits undertaken for this assessment noted that the southern end of Area C, is, in large part, physically separated from the PA by dense tree cover. The only part of the PA visible from the conservation area is the section opposite Netherfield House, which again is partly concealed from Roydon Road by a roadside embankment
- 3.20** The present assessment by Heritage Collective concurs with the Council's broad assessment, and for that reason (with specific reference to the land under scrutiny here) concludes that the farmland to the south-east of the conservation area does not make an identifiable or specific contribution to the setting or significance of Stanstead Abbots Conservation Area.
- 3.21** Notwithstanding that assertion, the impact assessment set out in Section 8 below confirms a range of mitigation measures (including appropriate buffer zones) that

can be employed to further minimise the impact of the proposed mineral extraction on any perceived harm to the conservation area and the nearest listed buildings to the PA.



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## 4. Registered Parks & Gardens

### Introduction

**4.1** This chapter of the heritage impact assessment examines two registered parks and gardens (RPGs) to the south of the PA and south of the A414, Stanstead Bury and Briggens (see Figures 1 & 15). The full list descriptions for Stanstead Bury RPG and Briggens RPG are provided in Appendix 1.

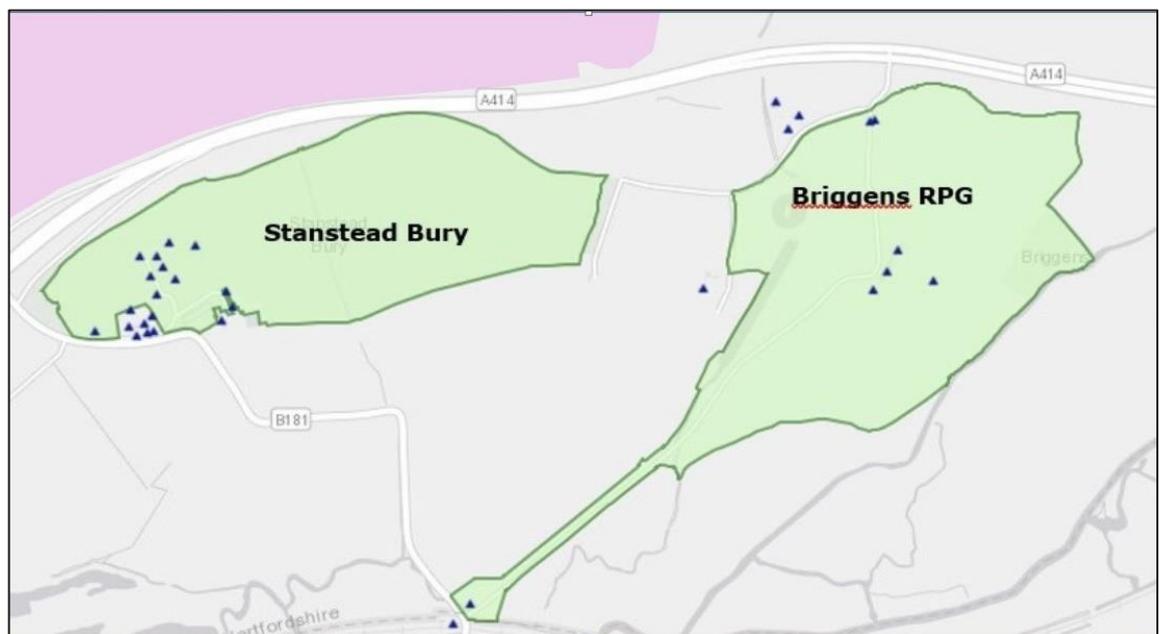


Figure 15: Extract from the Historic England website showing Stanstead Bury & Briggens RPGs shown relative to the PA (shaded pink). The statutorily listed buildings in and around the parks are represented by blue triangles

### Stanstead Bury

#### History & Development

**4.2** Stanstead Bury has at its heart a 15th century manor house and garden within a late 16th century park. The garden and park have been in continuous use since that time but have subject to a series of changes. The house was owned by the

Augustinian abbey of Waltham from the early 15th century until 1531, when it passed to the Crown. In 1559 Elizabeth I granted Stanstead Abbots, with the Bury estate, to Edward Baesh of London, who in 1577 had licence to impark 125 hectares of land there with a grant of free warren. A late C16 inquisition mentions a 6 hectare “circuit” of the house, probably including the house, yards, orchards and gardens. In 1678 the manor was sold into the Fielde family, being sold on in 1802 to Captain Robert Jocelyn, and then passing through the hands of several different owners. The estate remains in private ownership.

### 4.3

At the time of the Stanstead Abbots Tithe map, c.1840 (Figure 16), Stanstead Bury was largely in the ownership and occupation of Charles Phillips, although W.F. Dick seems to have rented the house itself. Two of the three large fields that make up the majority of the park were under grass, and the third was under arable cultivation, demonstrating that the agricultural use of the landholding has been predominant for a long time. No part of the landholding is described as a park in the tithe documentation.

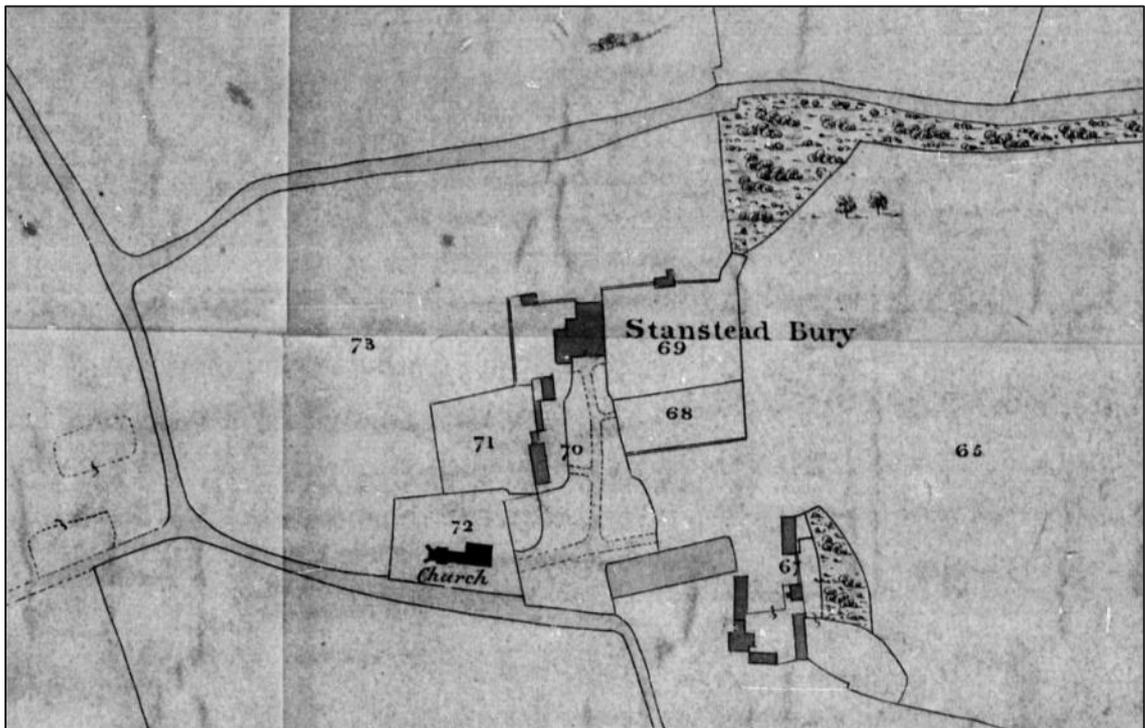


Figure 16: The western end of what is now the Stanstead Bury RPG, with its clusters of listed buildings, as shown on the 1840 Tithe map

**4.4** An 1895 OS map (Figure 17) shows very little change to the depiction of Stansted Bury on the Tithe map.

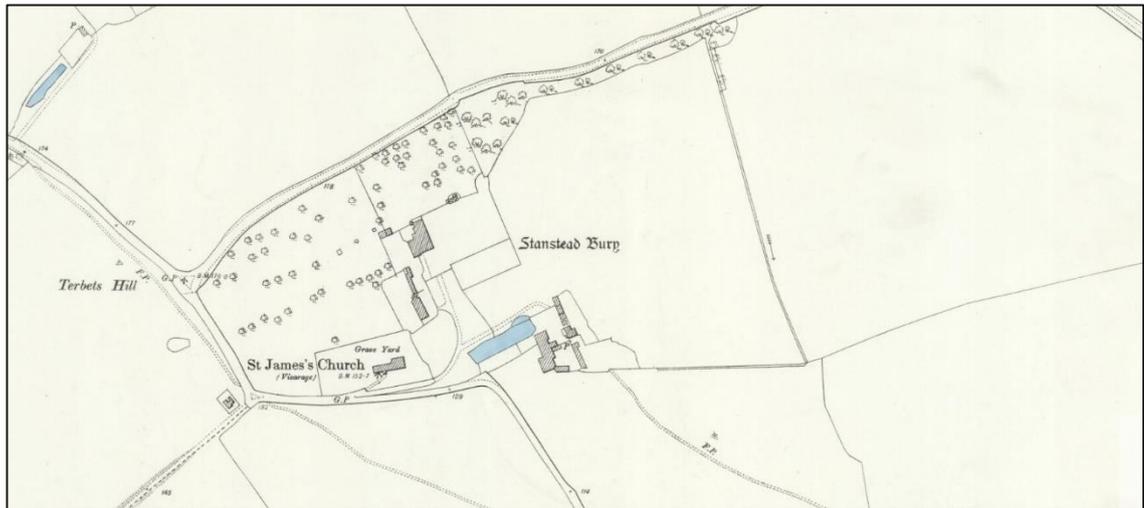


Figure 17: 1895 OS map depiction of the western end of what is now Stansted Bury RPG

**4.5** The current appearance of the western end of Stansted Bury RPG can be seen from the aerial photograph in Figure 18 below.



Figure 18: Current aerial view of the western end of Stansted Bury RPG showing the three foci of listed buildings: St James church (centre bottom), the manorial complex (centre top) and the outlying "farm" element (barn, stables and granary) far right bot

## Listed buildings in and around Stanstead Bury RPG

**4.6** There are 19 listed buildings in and around Stanstead Bury RPG, of which the Old Church of St James (listed grade I) and Stanstead Bury itself (listed grade II\*) are of outstanding and more than special interest (Figures 19 and 20). They form an important church-manor group with medieval origins, constituting the original parish church and the associated manor of the Abbey of Waltham. They are closely grouped with a number of other medieval and post-medieval structures, including walls and graveyard monuments, and a granary, barn, stable etc (Figure 21). This group is concentrated near the western end of the RPG, which is roughly oval in shape on plan.



Figure 19: Panoramic view of St James Church, looking north towards the PA



Figure 20: The Stanstead Bury manorial complex looking north towards the PA



Figure 21: Farm buildings attached to Stanstead Bury manor, looking east across the pond

## Heritage significance of Stanstead Bury RPG

- 4.7** The focus of Stanstead Bury RPG is the church-manor relationship in the group of listed buildings at the western end of the landholding, which is clearly of more than special architectural and historic interest.

## Setting of Stanstead Bury RPG

- 4.8** The setting of Stanstead Bury is analysed as follows in the list description:

*"Stanstead Bury lies 1km south-east of the village of Stanstead Abbots and 5km west of the centre of Harlow New Town. The c 25ha site is bounded to the north by the late C20 A414 dual carriageway, to the west by the B181 Stanstead Abbots to Roydon road, and on the other sides by agricultural land. The roughly rectangular site stretches from west to east across a gently south-sloping hillside. The setting is largely rural, with the dual carriageway immediately to the north, and Briggens landscape park lying almost adjacent to the east."*

- 4.9** The A414 dual carriageway is a noticeable change that has occurred in recent decades, and the list description confirms that the setting of Stanstead Bury is best preserved to the south and east of this major highway where there is a contextual relationship with Briggens RPG. There is certainly no reference in the list description to the PA forming part of the setting of the RPG, with the general aspect being southerly, away from the A414. The site visits confirmed that the most important element of the RPG, namely the church-manorial complex at its western end, has a partly-sheltered and secluded feel, with no visual or physical evidence of either the A414 or the PA beyond. This is largely due to the dense tree cover between the RPG and the road and the pronounced decline in slope from the latter to the former. There are also a significant number of trees within the RPG which filter views further, as do the buildings and garden boundary walls within the manorial complex. The listed buildings within the RPG are best experienced and appreciated from within its boundary and relative to each other. The manorial complex is not apparent from the Stansted Abbots to Roydon Road and the associated farm buildings (some of which are modern) which are within view from

this highway cannot be said to provide a particularly aesthetically appealing vista from that direction. The site visits also noted that there is no clear view of the interior of the RPG or its listed buildings from the PA.

- 4.10** The eastern half of the Stanstead Bury RPG contains more open parkland and fields, but as Figure 22 shows, the tree cover to the south of the A414 extends all the way along the northern edge of the RPG, heavily filtering views of the road and PA.



Figure 22: View of Stanstead RPG, looking north from the Stanstead Abbots to Roydon road, with the farm buildings attached to the manorial complex left of centre and the dense treeline running along the northern boundary visible to the right (with another tree-lined field boundary in front)

- 4.11** The original 125-hectare extent of the late 16<sup>th</sup> century Stanstead Bury park referred to in the statutory list description is likely to have included part of the land within the PA, as there would have been insufficient land available to the south. A park is shown at that location north of the Stanstead Bury-Eastwick road on John Sellar’s 1676 map of Hertfordshire. A number of field names within the PA which are recorded in the 1840 Stanstead Abbots Tithe apportionment, are also indicative of a former park function. However, the break-up of the Fielde estates in the late 18<sup>th</sup> century and subsequent sale of land effectively reduced the Stansted Bury estate to the area now covered by the RPG. The land north of the road within the PA was certainly under cultivation by this stage. At the time of the 1840 Tithe map, Stanstead Bury was an estate owned by Charles Phillips, whereas, as stated in 1.8

above, the PA was in numerous ownerships, the principal landowners being the executors of the late William Henry Fielde.

- 4.12** The RPG can therefore be seen as having a historically distant connection with the land to the north of the A414, but there is no longer a readily apparent tangible link between the two and there is no perception of the PA from the RPG. The RPG certainly does not “borrow” views of the landscape in that direction - the heavily wooded higher ground along its northern boundary provides a physical, topographical and visual barrier separating the RPG not only from the A414 but also from the PA beyond it. This belt of woodland was designed to shield the estate from the road, which preceded the A414, in the late 18<sup>th</sup> century, when the Stansted Bury estate was reduced in size. Prior to that, despite the existence of this public road, there would have been an understandable desire to visually connect the park to the manorial complex.

## Briggens RPG

### History & Development

- 4.13** Briggens is an essentially 18th century house surrounded by parkland which retains features designed by Charles Bridgeman c.1720. The extant pleasure gardens date principally from the Edwardian period and were designed by Lord Hunsdon c.1908. The house is currently a hotel and some of the surrounding park is in use as a golf course (Figure 23).
- 4.14** The origins and plan of the earlier 17th century house are not certain, but a substantial dwelling is indicated on Seller's 1676 map of Hertfordshire. The extent and form of the pre-C18 designed landscape is equally unknown. The estate passed to Robert Chester in 1706. It is likely that Chester, a director of the South Sea Company, either substantially reworked, or entirely rebuilt any earlier building on the site. Chester commissioned Charles Bridgeman in c.1720 to design the pleasure gardens and wider landscape.

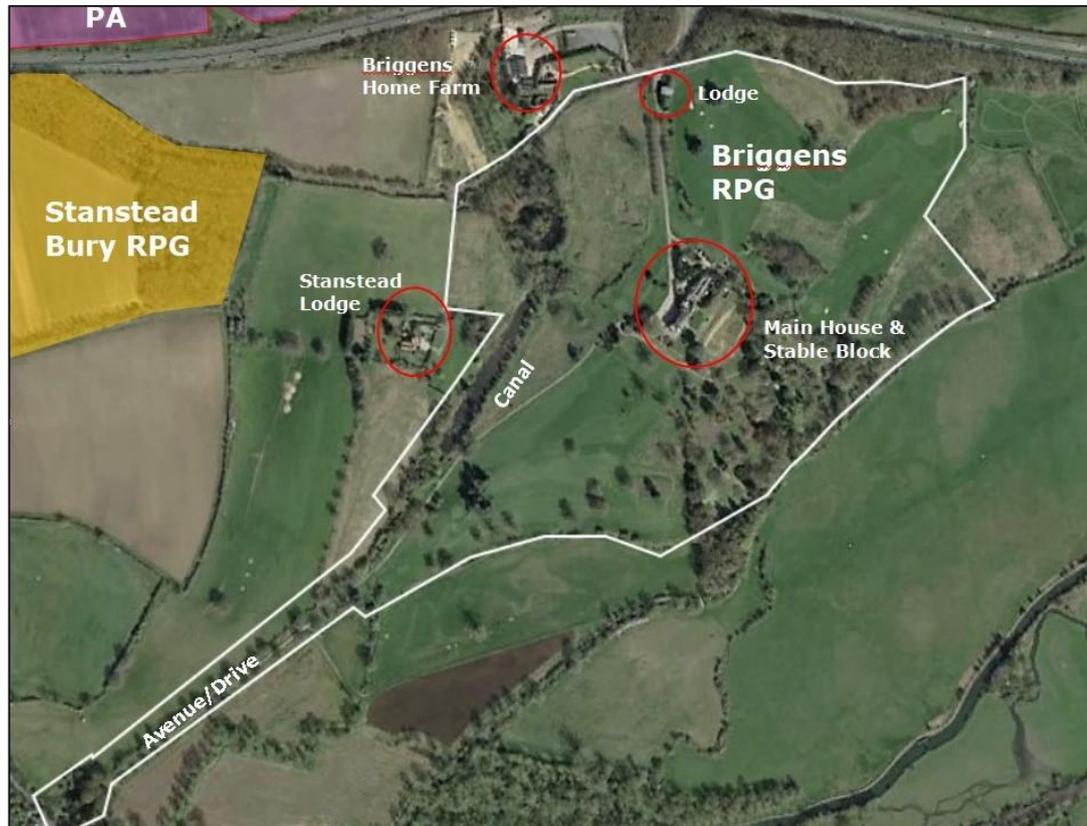


Figure 23: Aerial view of Briggens RPG (outlined in white) relative to the PA (shaded pink) Stansted Bury RPG (shaded orange) and nearby listed buildings

- 4.15** In 1723 the estate is described as having a walled kitchen garden and a large walled pleasure garden with a park beyond. In 1728 Nathaniel Salmon noted that the “avenue to it hath at the entrance a large basin, through which a small stream runs” and its features included “graceful plantations of trees with a variety of slopes adorned with statues”. Water features were also important elements of the scheme, the Juicy Brook being infilled to form a canal, engineered by Richard and William Cole, who installed a pumping house at the terminal of the canal containing the water engine which harnessed the water power from the stream and probably pumped water to other features.
- 4.16** The estate was owned by the Blackmore and Phelps family from 1740 until 1907. The last Sir Thomas Blackmore (d.1823) was probably responsible for remodelling the house and grounds, introducing softer more naturalised planting in the informal

fashion of the mid-18th century. Substantial parts of the formal avenues survived into the 19th century, but some were softened by additional and altered planting regimes. In 1855 Charles Phelps created an island in the circular lake.

- 4.17** In 1907 the house was sold to Herbert Gibbs, first Baron Hunsdon, who developed the grounds before 1914. Edwardian pleasure grounds were established to the south and west of the house, including a sunken garden, and a new drive with two lodges was constructed past the canal leading to Roydon station. Additional planting in the wider parkland included some specimen trees.
- 4.18** Since 1979 the house has been used as a hotel and conference centre. A golf course has been formed in the north-east portion of the park, but much of the earlier designed landscape remains.
- 4.19** Briggens RPG is currently on the Historic England Heritage at Risk Register which states that "*built structures are unoccupied and multiple key features are in very poor condition, including Bridgeman's formal water bodies, the arboretum, pleasure ground shrubberies, the C18 walled garden and the C19 and early C20 entrance lodges*". It should be noted that these are features within the RPG which are not likely to be materially affected by any potential changes within its wider setting (see section 8 for potential hydrological impacts).
- 4.20** Briggens RPG falls within the Essex parish of Roydon and the East Herts parish of Hunsdon and has no strong historical connection with the land within the PA, which was certainly in different ownership at the time of the tithe map c.1840.

#### Listed buildings within Briggens RPG

- 4.21** These are summarised as follows (see Appendix for full descriptions):
- Gates and gate lodges to North Lodge and south lodge of Briggens House Hotel, grade II, dated 1914, providing access to the RPG from Roydon
  - West Terrace walls, steps and seat at, Briggens House Hotel 20 metres S of house, grade II, dated 1908

- Briggens House Hotel (formerly listed as Briggens) and attached Upper Terrace and Tank at W, along a drive, 300 metres S. of the Lodge, grade II, dated 1719, with later additions and alterations
- Stable Block at Briggens House Hotel 15 metres N - of house, grade II, 18<sup>th</sup> century
- Kitchen Garden Walls central Sundial Pillar - and 2 Gates at Briggens House Hotel 100 metres E of house, grade II, 18<sup>th</sup> century
- Gates and Gate Piers at Briggens House - Hotel 300 metres N of house, grade II, 18<sup>th</sup> century
- The Lodge at Briggens House Hotel 300 metres - N of house, grade II, mid-19<sup>th</sup> century

## Heritage significance of Briggens RPG

**4.22** In the case of Briggens, the heritage significance of the RPG is stated in the list description to be as follows:

- It retains many features commissioned by Robert Chester in 1720.
- The design is attributed to Charles Bridgeman, a landscape gardener of national importance with many highly graded registered parks and gardens to his name, who became Royal Gardener between 1728 and 1738.
- It is an example of an evolved designed landscape with subsequent later 18<sup>th</sup> century and early 20<sup>th</sup> century phases of note.

**4.23** It is axiomatic that Briggens RPG is a designation of special architectural and historic interest, but it is interesting to note that the setting of the RPG is not included in the above list as a contributing factor to heritage significance.

## Setting of Briggens RPG

**4.24** Briggens RPG has a strong linear focus towards the entrance gates and lodges south-west, near Roydon Station, and, to a lesser extent towards the gates and lodge to the north of the main house. The RPG does not “borrow” as such from its external surroundings, which mainly comprise agricultural land, but is an evolved, designed landscape, with the agricultural land forming its setting. The PA, which is located to the northwest of the RPG, forms a visually very distant part of its wider setting and there are no historical ties between the two. Briggens has always been in different ownership and use, as well as in a different parish and county.

**4.25** There are four main elements which form the setting of the main building complex at Briggens:

1. A long straight approach to the house from the south-west along the formal tree-lined avenue or drive accessed via the lodge gates at Roydon; this gentle incline takes in the canal (heavily overgrown during the site visit), the landscaped grounds to the south and south-west of the house, and the house itself (although it is not always in view) ; the drive becomes more curvilinear as it approaches the house, clearly to reflect the landscaping/topography and to delay the final view of the principle façade of the building for as long as possible (Figure 24)



Figure 24: The approaches to the main house/hotel at Briggens from the direction of Royden, showing the landscaped parkland

2. The shorter, main, approach to the house from the north, which ascends a much steeper incline; there is a direct view of the house for the entire length of this approach, and as Figure 25 shows, it is visible from the entrance lodge; like the approach to the house from the south-west, this avenue is also tree-lined



Figure 25: The long view of Briggens House (ringed) from the north entrance lodge (left)

3. The settings of the historical landscape features located at lower ground levels within Briggens RPG feel relatively localised but the wider setting of the major listed buildings and RPG becomes more apparent as one reaches the high ground upon which the main house and former stable block stands; the view opens out considerably, taking in the undulating, mainly rural landscape facing the house to the north-west (Figures 26 & 27); this panoramic (and historical) view is marred, however, by the dominant presence of the A414 and pockets of aesthetically unappealing modern architecture, particularly within the immediate settings of nearby listed buildings
4. The modern golf course (no longer used), which dominates the land to the north and east of the main house

**4.26** The PA is visually distant from the elevated topographical position occupied by Briggens House and is not visible at all when approaching the house along either access avenue. As such it cannot be considered to form an integral part of the

setting of the RPG (which is equally difficult to discern when looking in the other direction, from the PA).



Figure 26: Panoramic view of Briggens House (left) and the wider landscape to the north-west (right)



Figure 27: View looking towards the visually distant PA (ringed) from the highest point of Briggens RPG



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## 5. Scheduled Monuments

### Hunsdon Brook fishponds

#### Introduction

- 5.1** The Hunsdon Brook fishponds are located east of the PA. They occupy the eastern half of Lords Wood and extend along Hunsdon Brook to the north-west and south. They were designated as a scheduled monument (1457907) in July 2018.

#### Description of Hunsdon Brook fishponds

- 5.2** A detailed list description of these fishponds is provided in the Appendix, but in summary they comprise the following:

*"the well-preserved remains of four Tudor fishponds consisting of four substantial earthen dams with the sides defined by varying degrees of excavation, along with the remains of an overflow leat on the western edge of the ponds. There are several associated features, including two well preserved quarries dating from the construction of the ponds to the west of the two uppermost dams, the remains of ridge and furrow in the southernmost pond, a rectangular building platform adjacent to eastern end of southernmost dam, and a well-preserved section of holloway adjacent to the southernmost dam".*

- 5.3** The fishponds were constructed in a 13th century park called 'Godmundeshyde' (later "Pond Park") between 1525-1534 (Figure 30). Their location is significant, as they were situated c.490m south-west of Hunsdon House, which formed part of a royal estate owned by Henry VIII. The fishponds were constructed along the course of the Hunsdon Brook and complemented the nearby deer park, where Henry VIII spent a lot of his time hunting.

#### Heritage Significance of Hunsdon Brook fishponds

- 5.4** The fishponds were listed as a scheduled monument for the following reasons:

*"\* Survival: as a very well preserved example of Tudor fishponds, created and used by Henry VIII for recreational fishing and/or as an expression of wealth and status over a period of 25-30 years; \* Rarity: as a very early example of fishponds built for aesthetic and/or recreational purposes; \* Potential: for the high level of archaeological potential in the waterlogged deposits, ideal for the preservation of organic remains, in the structural material and buried land surfaces beneath all four dams and in the building platform south of the southern dam; \* Diversity: for the diverse range of features including the dams, quarries, building platform, and holloway all of which contribute to our understanding of the use, construction, and evolution of the ponds and the place they held in the wider post medieval landscape; \* Historic Documentation: for the comprehensive references to the ponds in various historic documents, which record the creation, use, maintenance and the subsequent disuse of the ponds; \* Group value: for the significant group value with Hunsdon House and the Parish Church of St Dunstan both of which are listed at Grade I".*

## Setting of Hunsdon Brook Fishponds

**5.5** The landscape setting of the fishponds comprises two distinct elements. The main fishpond complex is located within Lords Wood (Figure 29) and the more linear stretches, extending along Hunsdon Brook to the north-west and south, are set within arable and pasture land, which rises gently in height towards the PA to the west. An east-west orientated vehicular track crosses the southern section of the scheduled monument (Figure 28). Historically, the fishponds formed part of the Hunsdon estate (and are located within the parish of the same name), and as such are more historically and geographically associated with lands to the east rather than to the PA.



Figure 28: The vehicular track crossing the southern end of the scheduled monument, looking towards the PA

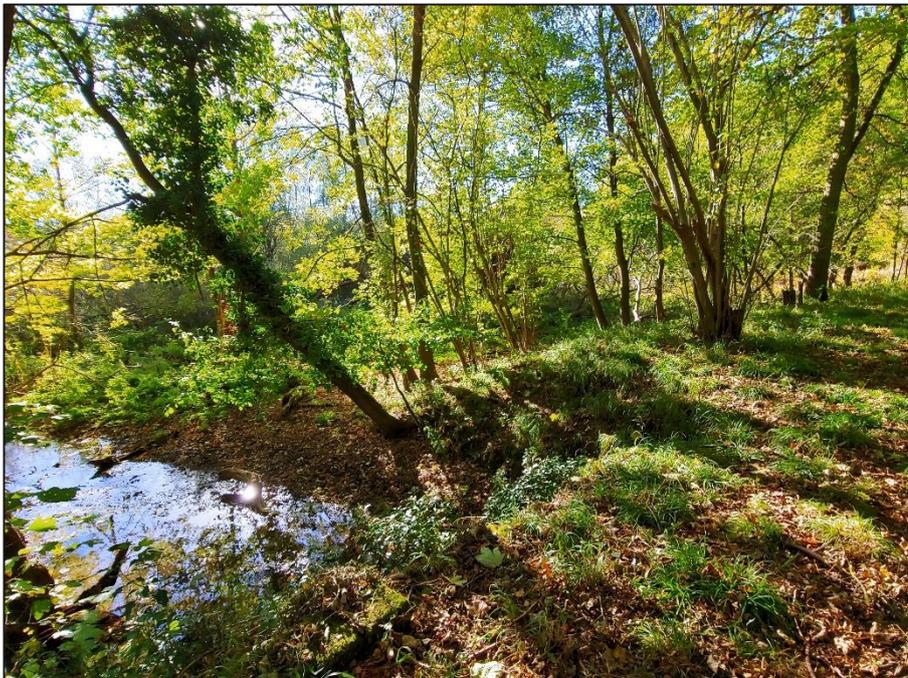


Figure 29: Earthworks and standing water defining the remains of the fishponds in Lords Wood

**5.6** This is evident from Figure 30, which shows a recently postulated interpretation of the extent of the three parks which formed the Tudor Hunsdon estate<sup>9</sup>. This assessment has been derived from an examination and interpretation of field names provided in the Tithe maps and apportionments for Hunsdon (1837) and Eastwick (1839/1845). The fishponds are clearly shown in the southwest corner of the Hunsdon estate, with Pond Park mainly occupying land to the east.

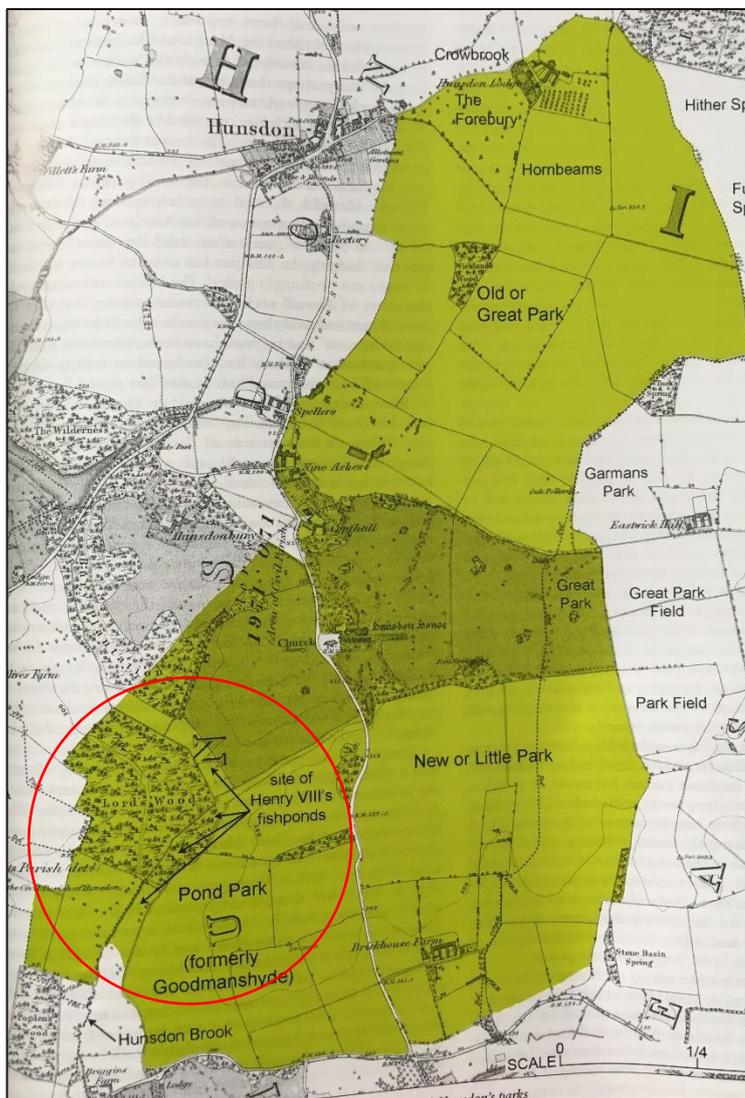


Figure 30: Putative extent of the Hunsdon Estate, showing the three main parks, including Pond Park, the focus of which was the fishponds (ringed)

<sup>9</sup> Rowe, 2019



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## 6. Outlying Listed Buildings

### Introduction

- 6.1** This chapter of the baseline assessment assesses the setting and significance of those “outlying” listed buildings that are not located within Stanstead Abbots Conservation Area, Stanstead Bury RPG, or Briggens RPG.

### Bonningtons

- 6.2** Bonningtons (Figures 31, 32 & 33) is a grade II listed building standing to the north of Hunsdon Road, approximately 400m to 600m from the irregular north-eastern edge of the PA. Dating from the 17<sup>th</sup> century, it was enlarged from an earlier building in 1687 by Ralph Byshe. A 16<sup>th</sup> century garden wall with gates and piers is also listed grade II. The 1840 Stanstead Abbots Tithe map indicates that Bonningtons was set within a landscaped park of some pretension, with an avenue of trees extending to the west. At the time of the tithe map, Bonningtons was owned by Felix Calvert (who also owned Olives Farm and Little Briggens) and occupied by Edmund Calvert.

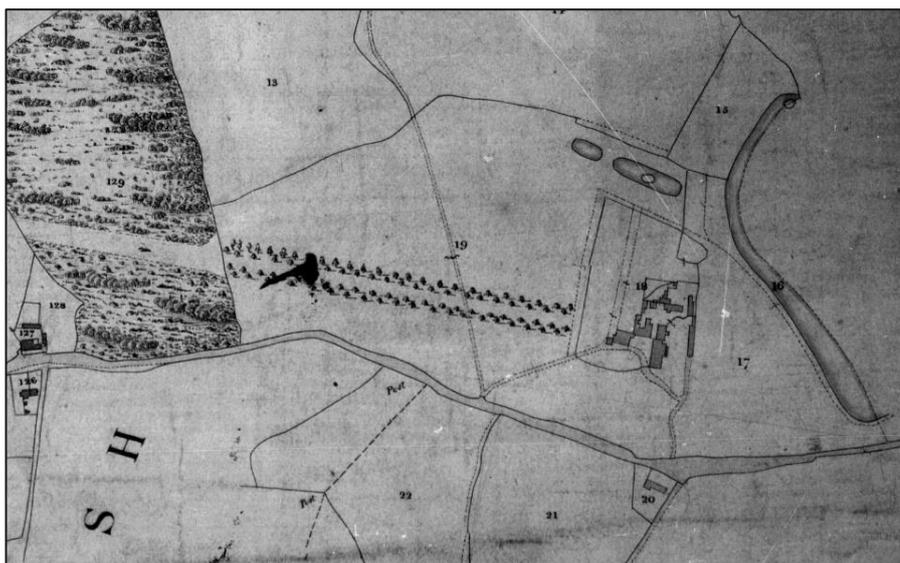


Figure 31: Bonningtons, as depicted on the 1840 Stanstead Abbots Tithe map

**6.3** A not dissimilar situation is visible on an 1896 OS map shown in Figure 32, although by this time there had been further changes to the building layout and the pond or lake to the east of Bonningtons had expanded in size.

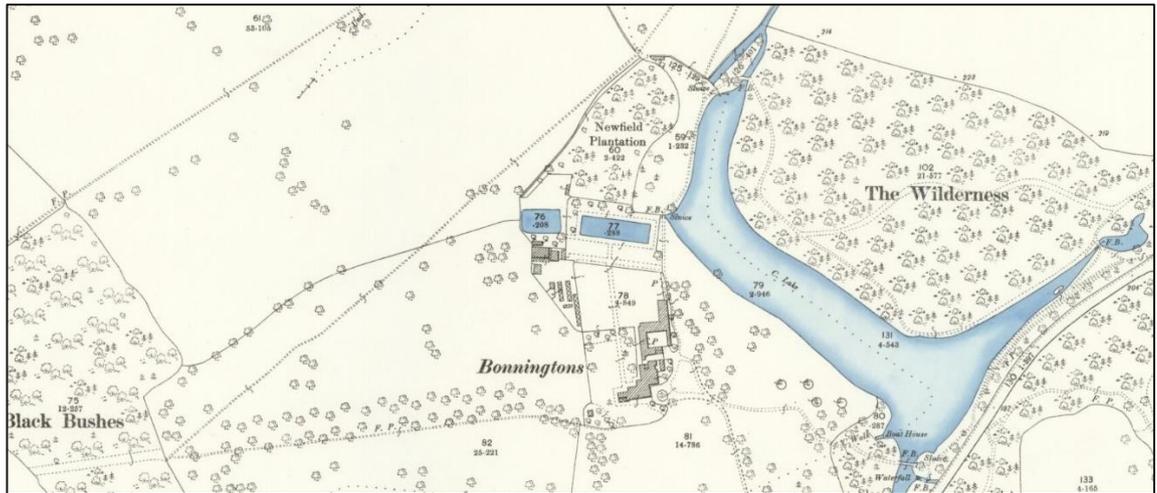


Figure 32: 1896 OS map extract, showing Bonningtons

**6.4** As can be seen from the current aerial photograph in Figure 33, the avenue of trees is now much-eroded and the former park is too altered to be considered for listing, although the main pond/lake and other features remain.



Figure 33: current aerial photograph of Bonningtons

**6.5** Bonningtons is clearly a building of special architectural and historic interest that formed the centrepiece of an estate associated with Olives Farm and Little Briggens. There is no strong visual relationship between Bonningtons and Little Briggens, but the elevated position of the former on the north side of Hunsdon Road means that it is visible from the PA and the environs of Olives Farm (Figure 34). However, the contextual and visual relationship between Bonningtons and Olives Farm is best experienced from beyond the boundary of the PA. Although there is a historical connection between Bonningtons and Olives Farm, the relationship between Bonningtons and the majority of the PA is not strong in terms of context and setting.



Figure 34: Bonningtons (ringed), seen in conjunction with Olives Farm (arrowed) from beyond the boundary of the PA (top) and from within it (bottom). The visual relationship is much clearer in the top photograph

## Olives Farm

**6.6** Olives Farm has the closest cluster of listed buildings to the PA (Figure 35). There are five listed buildings at Olives Farm (Figures 36, 37 and 38), of which the 15th

century farmhouse, listed grade II\*, is the principal structure. Standing on a moated site that is clearly of medieval origin, the timber framed farmhouse is closely associated with the other four listed buildings in the group which are:

- Stables and granary 20m north-west of the house, grade II, 19th century.
- Stables and attached granary 45m north-west of the house, grade II, 19th century.
- Barn 55m south-west of the house, grade II, 17th century (not identified during the site visits).
- The Old Bungalow, 90m south-south-west of the house, grade II, 19th century, although this is now a much altered and extended building.

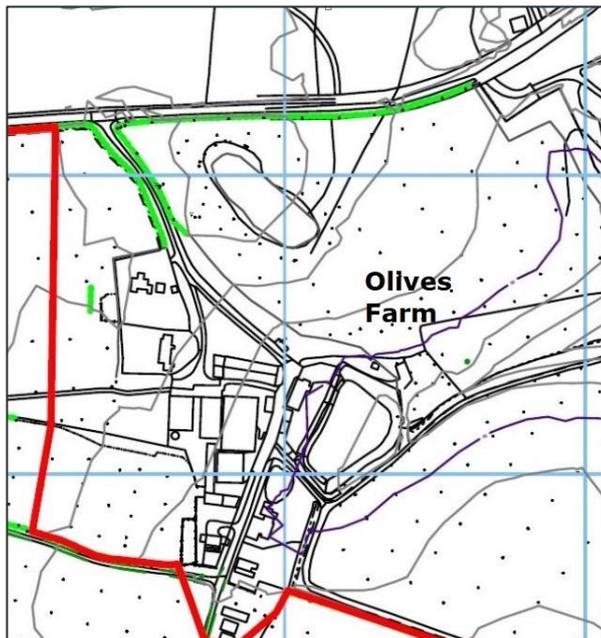


Figure 35: Map extract showing Olives Farm just outside the redline boundary of the PA

## 6.7

Olives Farm has been much altered by large modern agricultural buildings which have negatively affected the setting of the earlier listed buildings (Fig. 38). At the time of the 1840 Tithe map (Figure 36), Olives was owned by Felix Calvert (who also owned Bonningtons and Little Briggens) and occupied by Edmund Calvert (who

also occupied Bonningtons, probably as an estate farmer of some wealth). Felix Calvert also owned several large fields in the part of the PA around Olives Farm, on land that was partly within the adjoining parish of Hunsdon. Calvert also owned Long Wood, which was effectively his boundary with the land held by the executors of the late William Henry Fielde, the main landowners within the PA.

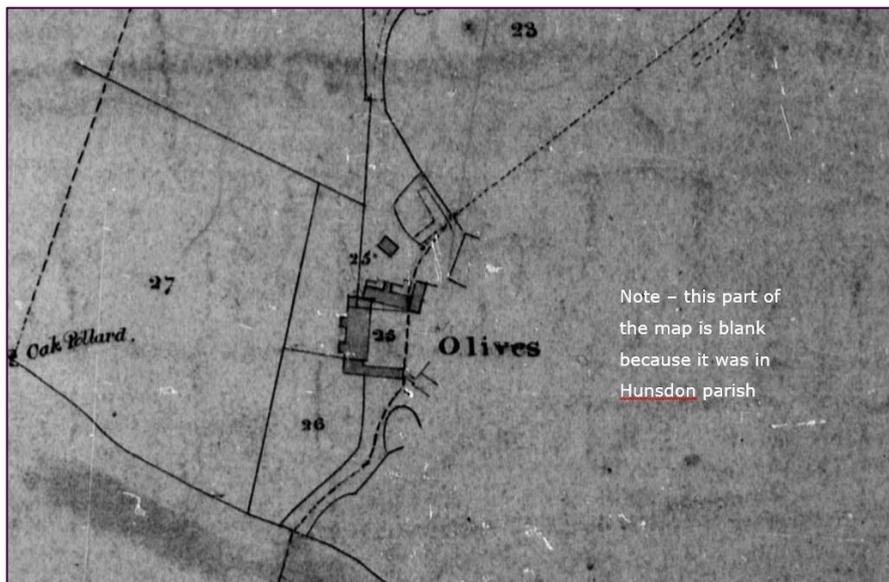


Figure 36: Olives Farm, as depicted on the 1840 Stanstead Abbots Tithe map

## 6.8

The 1896 OS map extract in Figure 37 depicts Olives Farm more recognisably as it is today and shows the buildings which have been statutorily listed.

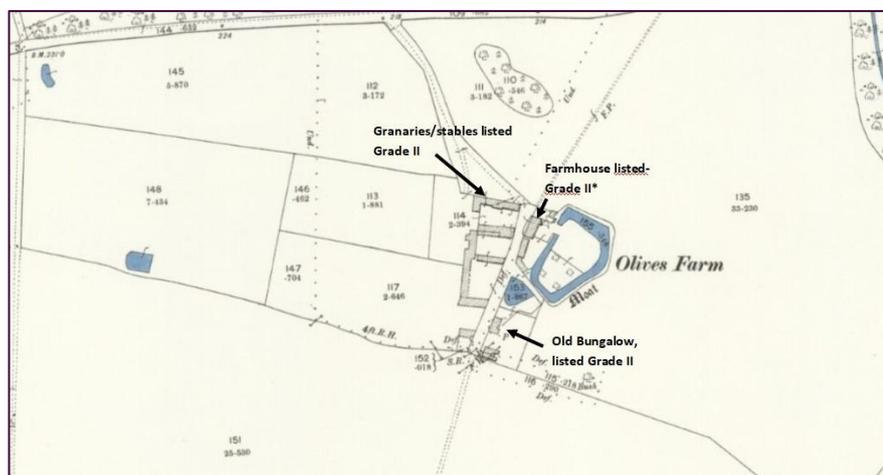


Figure 37: 1896 OS map extract showing Olives Farm



Figure 38: Current aerial photograph highlighting modern agricultural and residential buildings which contribute negatively to the setting of the listed buildings at Olives Farm

## 6.9

The site visits noted that Olives Farm sits in a shallow bowl or depression, with views towards it from the PA mainly taking in modern farm and residential buildings, rather than those which are listed (Figure 39 & 40).



Figure 39: Views taken of Olives Farm looking north from the PA, showing that it is primarily the non-listed buildings at the bottom of Figure 36 which are visible from this direction



Figure 40: Zoomed in view of Olives Farm from within the PA to the west, showing that it is modern farm buildings which are mainly visible. Only the chimneys of the grade I listed farmhouse (not shown) are visible from this direction

**6.10** The best perspective from which to experience and appreciate the historical, architectural and spatial relationship of the major listed buildings within the farm complex (Figure 41) is an internal one, looking east, away from the PA. This view shows the granary/stable block (grade II) relative to the farmhouse (grade II\*) in the background. Even here though, the view is blighted by the modern farm buildings to the right. The site visits also noted that, although the exterior of the granary/stable block is still preserved in part, its interior is very dilapidated.



Figure 41: View of Olives Farm from the west

**6.11** The reverse view to that shown in Figure 40 is depicted in Figure 42. The topography described in 6.9 means that the PA occupies rising ground extending away from the farm to the west. Therefore, not as much of the PA is as visible as if it had been flat. The same is true when looking south from the farm towards the PA.



Figure 42: View looking west from Olives Farm in the direction of the PA, with the listed stables/granary block to the right and modern farm buildings to the left

**6.12** To sum up then, Olives Farm is of more than special architectural and historic interest, and it forms part of an important group of historic buildings, albeit there are modern agricultural structures within its close surroundings. There is a historic association with the fields north-east of Long Wood, and the agricultural land here forms part of the setting of the group.

## Little Briggens

**6.13** The house now known as Little Briggens (Figures 43, 44 and 45) was built in 1895 for the financial director of Truman, by an architect named Gatsby. It is listed grade II and stands about 290m from the PA, within a setting much changed by modern agricultural buildings. There are two other grade II listed buildings in the same group, one of which is a coach house, also built in 1895, and Windmill Cottage, which dates from the late 18th century. At the time of the 1840 Tithe map of Stanstead Abbots, Little Briggens was owned by Felix Calvert (who also owned Bonningtons and Olives Farm) and occupied by Thomas Dean (Figure 43).



Figure 43: Little Briggins, as depicted on the 1840 Stanstead Abbots Tithe map. Of the three listed buildings, only Windmill Cottage (ringed) had been built by this time

**6.14** The 1919 OS map extract in Figure 44 shows all three of the listed buildings, and also demonstrates how the farm complex had expanded and extended to the south and south-west by the early 20<sup>th</sup> century.

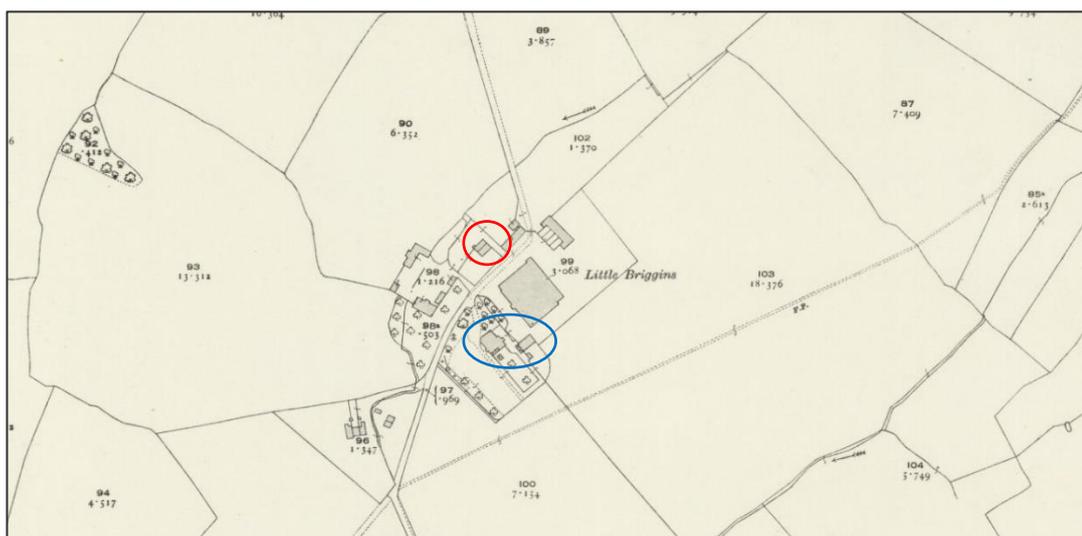


Figure 44: Little Briggins in 1919, with Windmill Cottage ringed in red and Little Briggins House and its coach-house ringed in blue

**6.15** The aerial photograph in Figure 45 shows how much has changed at Little Briggens since the early 20th century, with the removal of the original farm complex and the construction of further farm buildings north-east of the main house.



Figure 45: modern aerial view of Little Briggens, with the listed buildings highlighted as in Figure 44

**6.16** In terms of visual relationships, the elevated position of Little Briggens on high ground north of Hunsdon Road means that it is visible relative to Newlands and the PA, but, in respect of the latter, only at quite some distance (Figure 46).



Figure 46: Panoramic view of Little Briggens (ringed) from the west, showing Newlands (the white building centre right) and beyond that, to the right, the PA in the distance

**6.17** Moreover, the tree cover around the main house and coach-house visible on the 1919 OS map still provides partial seclusion today (Figure 47), which means that this visual relationship is not a particularly strong one.



Figure 47: Close-up view of Little Briggens House (ringed) from the north-west, showing it partially concealed by trees

**6.18** The site visit noted that there is also some limited inter-visibility between Little Briggens and Bonningtons (with which it is historically associated), although they are visually distant from each other.

**6.19** To sum up then, the three listed buildings at Little Briggens are of special architectural and historic interest, although their historical setting has been changed (and somewhat diminished) by demolition and modern development within their hinterland. The listed buildings are set some distance from the PA. There is no strong historic or visual relationship between Little Briggens and the PA.

## Newlands

**6.20** Newlands is a grade II listed building dating from the 16th century standing on the north side of Hunsdon Road about 30m to 40m from the PA. At the time of the 1840 Stanstead Abbots Tithe map (Figure 48), Newlands<sup>10</sup> was owned by Daniel

<sup>10</sup> The name Newlands does not appear on the tithe apportionment.

Hankin<sup>11</sup> and occupied by Nathaniel Soames. Hankin also owned the fields immediately to the south of Newlands, on the south side of Hunsdon Road, although the executors of the late William Henry Felde were by far the main landowners within what is now the PA.

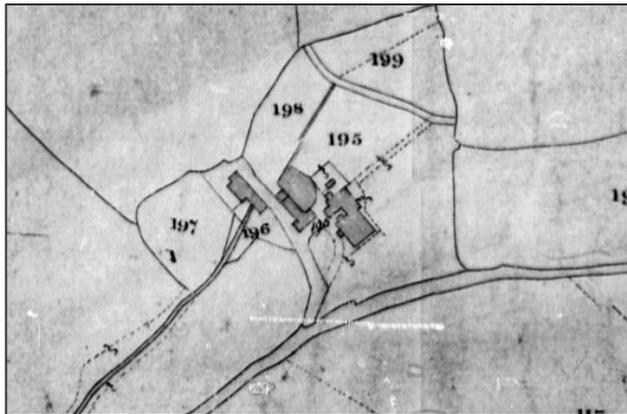


Figure 48: Newlands, as depicted on the 1840 Stanstead Abbots Tithe Map

**6.21** A current aerial photograph (Figure 49) shows very little change to the building layout depicted on the Tithe map.



Figure 49: current aerial view showing Newlands relative to the PA (shaded pink bottom right)

<sup>11</sup> Hankin also owned one of the four buildings on the west side of Roydon Road where the Netherfield group now stands.

**6.22** Newlands has a primarily roadside setting at the bottom of the access road to Little Briggens, although as the Tithe map shows, this access road did not exist in 1840. Hunsdon Road dips down to the west at this location and there are hedged and tree-lined boundaries on either side. This means that Newlands can be experienced and appreciated without direct visual reference to the PA, which is set some distance back from Hunsdon Road to the south (Figures 50, 51 and 52).



Figure 50: Newlands, looking north from Hunsdon Road



Figure 51: Panoramic view, looking east, showing Newlands (left) relative to Hunsdon Road and the banked and hedged buffer zone Separating it from the PA on the right

**6.23** However, the PA does form part of the wider setting of Newlands from further up the hill or ridge to the north of Hunsdon Road (Figures 4 & 51).



Figure 52: Newlands from the west, showing it relative to the PA on the other side of Hunsdon Road (ringed)

**6.24** To sum up then, Newlands is a building of special architectural and historic interest, the setting of which (in topographical, visual and historical terms) extends into the surrounding fields on either side of Hunsdon Road, including the northern part of the PA.

## Outlying listed buildings west and north-west of Briggens RPG

**6.25** There are four listed buildings lying west and north-west of Briggens RPG, south of the A414, as follows:

- Stanstead Lodge (also shown on old maps as The Lodge, and thought to have been Bugge's Farm originally), grade II, c.1720. Former lodge to Stanstead Bury RPG before the 18<sup>th</sup> century reduction in size of the estate; located within Stanstead Abbots parish
- Briggens Home Farm House, grade II, 16th century
- Stables and attached cart house 30m north-north-east of the house, grade II, 18th and 19th century
- Aisled cattle shed 50m north-north-west of house, grade II, 19th century).

**6.26** The four listed buildings described above are closely associated with the Briggens estate in the parish of Hunsdon (Figure 23), and their setting is better preserved to the south of the A414. They are of special architectural and historic interest. There

is no strong association with the PA, and the PA does not contribute materially to the significance of these outlying buildings.

- 6.27** The photographs of Stanstead Lodge shown in Figure 53 below are taken from a variety of viewpoints within Briggens RPG from which the listed building can be experienced and appreciated. The wooded backdrop to the Lodge is formed by Stanstead Bury RPG. The PA does not materially contribute to the setting of the Lodge from any of these viewpoints.



Figure 53: Views of Stanstead Lodge from within the RPG

**6.28** The listed buildings in the Briggens Home Farm complex are shown in Figure 54 below. The views are again taken from within the Briggens RPG, to show the farm complex in a wider setting. From this longer viewpoint, taken from the south, it is clear that the setting of the listed buildings has already been negatively impacted upon by the A414, which now forms part of their backdrop.



Figure 54: The listed buildings of the Briggens Home Farm complex from the south, with traffic on the A414 clearly visible behind



7.0

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## 7. Archaeological Considerations & Historical Land Characterisation

### 7.1 An archaeological desk-based assessment of the PA<sup>12</sup>, undertaken in February 2018, drew the following conclusions:

*"The Briggens Estate Preferred Area contains a few records of archaeological interest, being a possible Roman farmstead to the west of Olive's Farm, a scatter of Medieval pottery and various undated cropmarks appearing to relate to former field divisions, enclosures and trackways. In the wider surrounding landscape are archaeological records of all periods dating back to the Mesolithic".*

*Whilst archaeological sites are recorded for the Preferred Area, and others could potentially exist that are currently unknown, nothing presently appears to be of such significance so as to represent an issue with regard to minerals development. Indeed, the identified archaeology could be considered to represent 'minor issues capable of mitigation'. The Council's own site selection methodology recognises that a full understanding of a given site's archaeology cannot be considered at this strategic policy stage. It is agreed that further evaluation would be required at the point of application to substantiate views, but on the basis on the current assessment the Briggens Estate Site should, with regard to archaeology, score 'LOW' (in reference to the Hertfordshire Minerals Local Plan Site Selection Process), with no significant impacts that can't be mitigated being present. Land at Briggens Estate, Stanstead Abbots, Hert's PC273a*

*Any effects upon the archaeological resource could be adequately mitigated through an approved programme of archaeological works prepared in full consultation with the archaeological adviser to the Mineral Planning Authority. This represents best practice at nearly all minerals workings and has the*

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<sup>12</sup> *Briggens Estate Preferred Area MLPCS 010 Stanstead Abbots Hertfordshire – Archaeological Desk-based Assessment*, Phoenix Consulting, February 2018

*potential to provide valuable educational and professional knowledge into the future”*

**7.2** The removal of the former Phase 4 of the proposed mineral extraction works means that the site of the possible Roman farmstead to the west of Olive’s Farm has been taken out of the PA.

**7.3** A geophysical survey undertaken in later 2018 and reported on in January 2019<sup>13</sup> has produced findings which are generally consistent with the HER record, and which confirm the presence of a number of archaeological sites at locations previously identified.

**7.4** An aerial photographic survey is to be undertaken to further assess the potential survival of buried archaeological remains across the PA. This heritage impact assessment will therefore be kept as a live document that will be developed further in support of any planning application and will benefit from further investigations over time. Notwithstanding the information currently available, it is considered to be more than sufficient to make an informed judgement about matters such as setting and the scope for harm or impact

**7.5** In terms of Historic Land Characterisation (HLC), the archaeological desk-based assessment states the following:

*“The landscape of the Preferred Area comprises of arable farmland with interspersed woodland copses dating from later enclosure of the 18th and 19th centuries, with 20th century boundary loss. The woodland areas largely date to the 19th and 20th centuries. The Site is bordered by areas of ancient woodland (Lord’s Wood) and historic parks. This is a typical Hertfordshire landscape with dispersed settlement, historic parks and surviving ancient woodland”*

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<sup>13</sup> Land at Briggens Estate, Stanstead Abbots, Hertfordshire – Archaeological Geophysical Survey 2018, carried out by Bartlett-Clarke Consultancy for Phoenix Consulting Archaeology Ltd



8.0

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## 8. Assessment of Impacts

### Application Proposals

**8.1** The indicative proposals for the gravel extraction are shown in Figure 55 below:

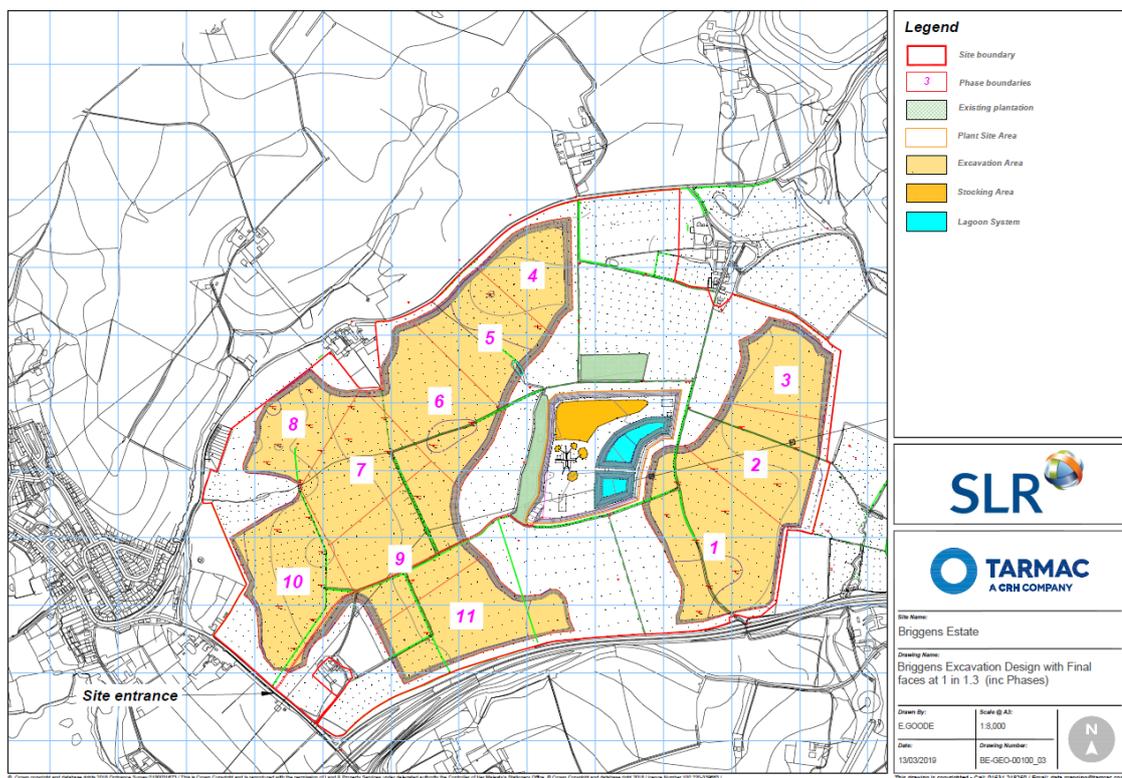


Figure 55: Indicative Gravel Extraction Phase & Layout Plan

**8.2** The numbered purple areas on the plan denote the phases of gravel extraction within the PA. The area at the centre of the PA has been set aside for the processing area, stocks and freshwater lagoon.

**8.3** In view of the findings of the desk-based archaeological assessment and geophysical recording exercise, it has been decided by Tarmac to remove the field immediately west of Olives Farm from the PA. This decision is beneficial not only in respect of helping to preserve the setting of the listed buildings within the farm

complex, but will also result in the preservation in-situ of suspected buried Roman archaeology within this land parcel.

## 8.4

The proposed areas of extraction identified in Figure 54 have been developed using stand-offs to sensitive neighbouring land uses (including heritage assets) as follows (see maps at Appendices 2 & 5):

- I. 100m to all residential development; (apart from Olives Farm where the stand-off has been increased to 150m in view of setting of the designated assets within the farm complex);
- II. Variable stand-off to the boundary of the Stanstead Briggens Conservation Area, but a minimum 100m stand-off from any listed buildings or other residential premises therein, with additional advance planting provided to supplement screening already provided by existing established woodland (refer to plans reproduced at Appendix 2);
- III. Variable stand-off to the boundary of the Hunsden Brook Scheduled monument, but a minimum 75m stand-off from the closest point of the extraction area relative to the boundary of this designated heritage asset, with additional advance planting provided to supplement screening already provided by existing established woodland (refer to plans reproduced at Appendix 1);
- IV. 30m to Lords Wood Ancient Woodland – with the intervening area accommodating a diverted public right of way for a temporary period, and soil bunds such that there will be no visibility of the extraction area from within the wood;
- V. 10m to all other non-designated woodland;
- VI. 10m from public highway; and
- VII. bespoke consideration of stand-offs relative to other heritage assets as required.

## 8.5

It should also be noted that proposed planting will include native species to blend it in better with current vegetation cover. Moreover, any works carried out in

proximity to trees will be subject to a detailed and robust arboricultural method statement

- 8.6** An assessment of the general impacts of the application proposals on the setting and significance of individual heritage assets is provided below, along with mitigation measures to minimise those impacts. Any reference to harm is in regard to Paragraph 196 of the NPPF.
- 8.7** There will also be ancillary operations to the gravel extraction, the main one being soils and overburden stocking at various locations across the PA. The important bunds relative to the heritage receptors in this assessment are those closest to Olives Farm, which are bunds 9 and D (see map at Appendix 4). These will be in place as a result of the soils and overburden strip from the plant site and Phase 1, and will remain in place certainly through until Phase 4 and potentially longer. Please note that the topsoil bund around the north of Phase 3 will probably be in place during Phase 2.

## Stanstead Abbots Conservation Area & its Listed Buildings

- 8.8** This assessment agrees with the Council conclusion that the farmland to the south-east of the conservation area does not make an identifiable or specific contribution to the setting or significance of Stanstead Abbots Conservation Area. In any case, intervening boundaries, banks, trees and hedgelines largely filter inter-visibility between the conservation area and the PA.
- 8.9** In more specific terms, it is only the wider rural setting of the Netherfield House group of listed buildings within Area 3 of the conservation area which has the potential be impacted upon by the proposals. However, the heritage significance of the semi-secluded Netherfield building group can be experienced and appreciated without visual or other reference to the nearest proposed area of mineral extraction. The existing bank and vegetation lining the eastern side of Roydon Road already limits perception of the area of the PA opposite Netherfield House and the proposed stand-off and planting measures described above would further reduce the scope for any potential impact or harm.

## Stansted Bury RPG

**8.10** Stanstead Bury RPG no longer has strong historical connections with the land to the north of the A414 within the PA, and does not “borrow” views of the landscape in that direction. The present RPG is relatively self-contained, with a localised setting which is effectively identified within the statutory list description as extending to the south and east of the A414. The dense woodland along its northern boundary, which has been present since at least the 18th century, presents a clear physical, topographical and visual barrier to not only the A414, but also the PA beyond. This woodland is likely to limit any noise, pollution and traffic impacts of the proposed mineral extraction works. The proposals for the PA would therefore not detrimentally affect the setting of this RPG or the listed buildings in and around it. Any potential hydrological or other impacts are discussed below.

## Briggens RPG

**8.11** There are no clear historical links between Briggens RPG and the PA, but the partly elevated position of the latter does mean that it forms part of the wider setting of the former. The proposals for the PA would effect a change in that setting. However, the PA is visually very distant from the RPG, so the change in setting would be minor and not enough to harm experience and appreciation of this designated heritage asset and the listed buildings within it. In terms of the potential for increased traffic and noise pollution caused by the proposed works, The A414 is already a prominent and busy highway within the landscape to the north and north-west of the RPG. Any potential hydrological or other impacts are discussed below.

## Hunsdon Brook fishponds Scheduled Monument

**8.12** The PA does form part of the setting of the scheduled monument. However, a significant part of the monument is concealed within the dense woodland of Lords Wood, some 200m at its closest point from the PA boundary. The more open rural setting of the monument to the south of the woodland does also contribute to its

significance and the proposals for the PA would change this setting sufficiently to introduce a degree of harm to that significance. The level of harm would, however, be at the lower end of the spectrum and would be relatively minor, particularly given that a vehicular track already crosses the southern end of the monument. There is already a proposed stand-off of 30m from Lords Wood and the harm will be mitigated further by the introduction of suitable planting to the south at the location shown in Appendix 2. This would allow the setting of the more exposed southern part of the scheduled monument to remain relatively well-preserved. Any potential hydrological or other impacts are discussed below

## Outlying Listed Buildings

### Bonningtons

**8.13** The proposals for the PA would effect a minor change in the wider rural landscape setting of this listed building but not sufficiently to cause any harm to its heritage significance. The undesignated historical former landscape attached to the house, which extended as far as Hunsdon Road, has been much eroded and reduced within the last century or so, providing the house and its grounds with a more localised setting than it would have had historically. The works proposed for the PA would also not affect experience and appreciation of the visual relationship between Bonningtons and Olives Farm, which otherwise appear today to only be linked by ties of historical ownership.

### Olives Farm

**8.14** The proposed PA workings are sufficiently close to Olives Farm for the proposals to effect change to the wider historical and agricultural setting of the listed buildings within the complex. However, the settings of these buildings have already been negatively impacted by later farm and residential buildings within their immediate environs. Moreover, the topography of the site at this location means that Olives Farm sits within a natural bowl or depression and therefore does not occupy a prominent position within the rural agrarian landscape with which it is integrated. Perception of this relationship, visually at least, is certainly restricted by limited

inter-visibility between the farm and the fields which are still attached to it. This factor alone helps to keep any level of perceived harm relatively low. The impact of the proposed workings would be reduced further by the proposed 150m & 300m buffer zones to the south and west of the site respectively and the proposed planting scheme shown in Appendix 2.

**8.15** The photomontage in Figure 56 shows how the advance planting will mature to also effectively screen bunds 9 & D from the listed building complex at Olives Farm, thereby reducing the scope for impact on these heritage receptors. As stated previously, there is minimal visual perception of the farm from the land to the south west (the location of the bunds).

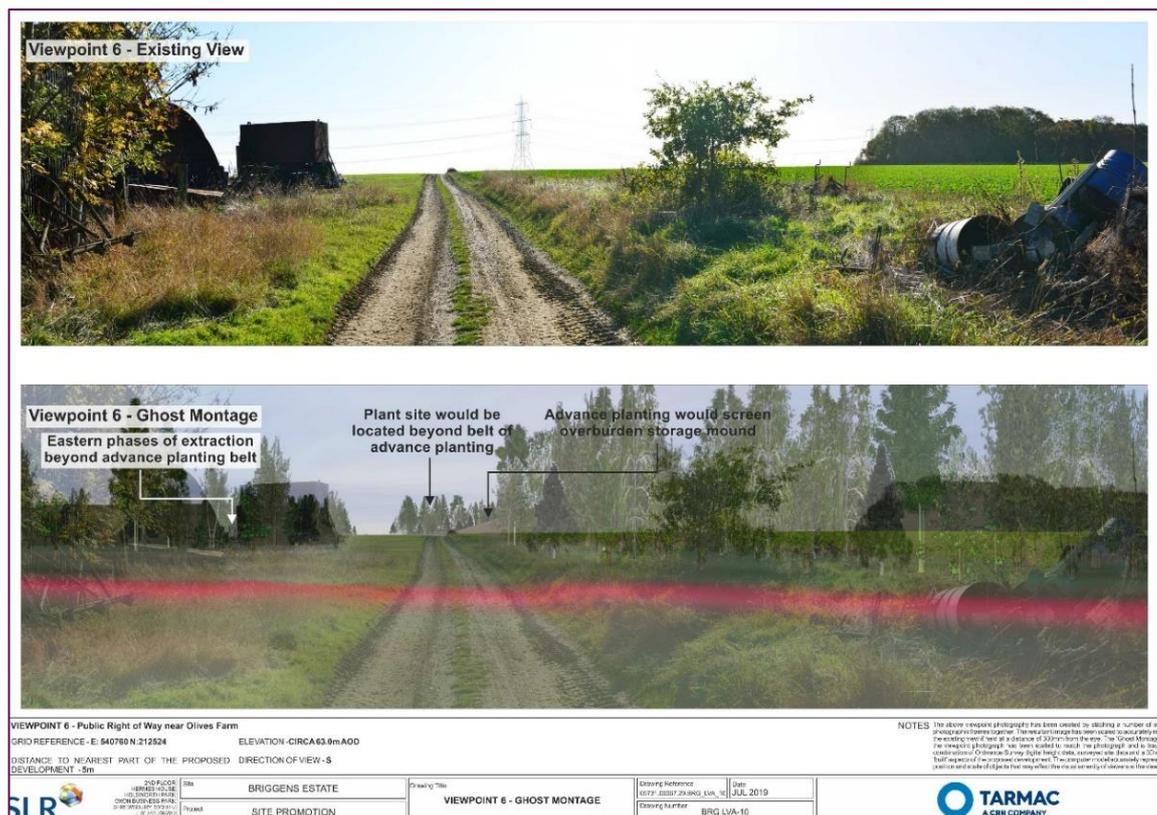


Figure 56: Photomontage of proposed bunds (9 & D) from Olives Farm

**8.16** Given that agricultural land forms the majority of the wider setting of Olives Farm, it should be emphasised that the effects of the mineral extraction proposals are reversible. The proposed works are for a temporary period and the land will ultimately be returned to its former use.

## Little Briggens

**8.17** The listed buildings at Little Briggens are set some distance from the PA. There is no strong historic or visual relationship between Little Briggens and the PA and so the proposals for the latter are not considered to have a harmful effect on the significance on the listed buildings of the former.

## Newlands

**8.18** The heritage significance of Newlands can be experienced and appreciated without direct visual reference to the PA but the latter, nonetheless, does form part of the wider historical and visual setting of the former. The proposals for the PA would change that setting, and in doing so, cause harm, albeit very minor, to the heritage significance of Newlands. The fact that the boundary of the PA opposite Newlands is set some distance back from Hunsdon Road would mitigate that harm.

## Stanstead Lodge & Briggens Home Farm

**8.19** Stanstead Lodge and the three listed buildings at Briggens Home Farm are closely associated with the Briggens estate in the parish of Hunsdon (Figure 23), and their setting is better preserved to the south of the A414 (although somewhat compromised by the latter). The proposals for the PA are not likely to negatively impact upon the setting of the listed buildings at either location, or cause harm to their heritage significance.

## 8.20

## Other Factors which may affect the Heritage Assets

### Noise

**8.21** Although no detailed work on noise impacts have been completed to date, an initial baseline assessment suggests the PA is already set within quite a noisy environment, particularly in respect of the noise generated by the density of traffic on the A414. As such, there isn't much of a sense of tranquillity. Monitoring at

Olives Farm suggests background noise levels at or around 44 dBA, and remain influenced by traffic on the A414. There would be no assessment of noise impact on the Hunsdon Brook SM as this has not been identified as a receptor in a noise context.

## Dust

- 8.22** See immediately above, although the scope for adverse impact generally comes out at less than minor in terms of significance.

## Light

- 8.23** Normal working hours will apply, and it is unlikely that this will be a factor which will affect the heritage assets.

## Slope Stability

- 8.24** The quarry will be subject to strict design consideration under the Quarries Regulations 1999 and the accompanying Codes of Practice. These have requirements (amongst other matters) on slope design and appropriate edge protection to ensure that there is no creep of the extraction void.

## Differential Settlement

- 8.25** The use of onsite materials supplemented by imported inert materials is usually subject to around 5% settlement over time, and as such the initial restoration landform takes this into account. The site will be subject to a long-term aftercare regime that will include measures to address any low spots or other features of differential settlement that may occur. In any event these are all constrained to the onsite landform, with no scope for transmission off site.

## Mining Subsidence

- 8.26** There is to be no mining by underground means, so this is not a factor.

## Hydrological Impacts

**8.27** From BGS mapping and site investigation data, it is known that the geology under the Tarmac site, the Briggens Estate south of the A414 and Lords Wood/Hunsdon Brook landform is similar to an extent.

**8.28** In the plan extract below (Figure 57) the light blue represents boulder clay (overburden on site), the darker pink glacial sand and gravel of the Kesgrave sub group (the mineral on site) and the lighter pink also glacial sand and gravels but undifferentiated (i.e. a bit mixed up) more commonly silt laden.

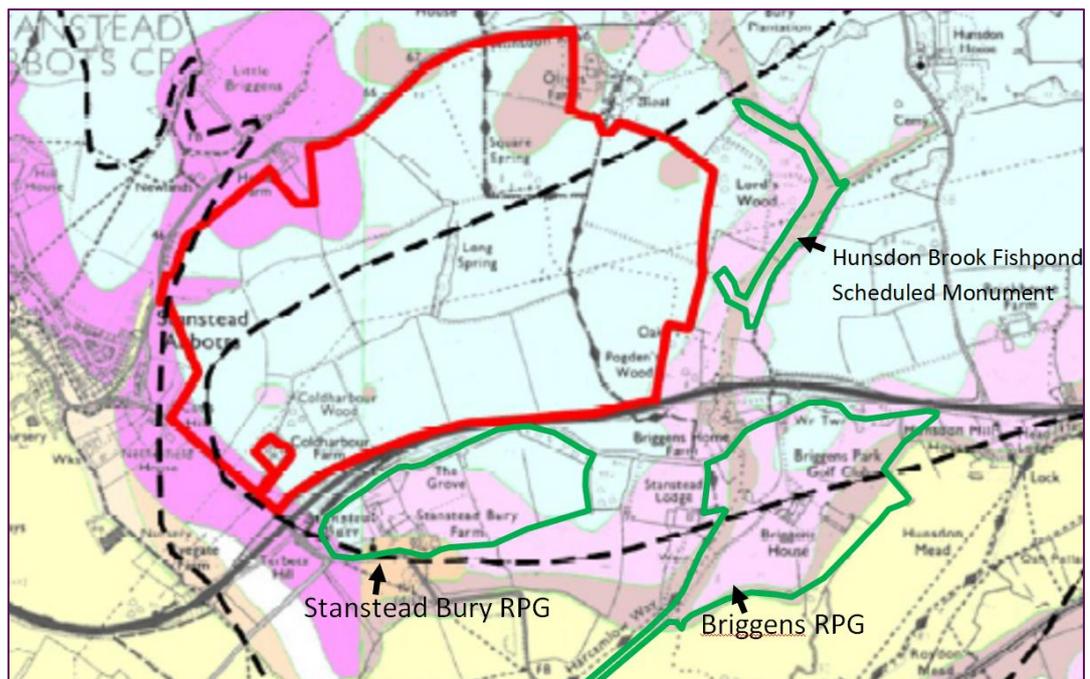


Figure 57: Site Geology map extract annotated with the RPGs and Scheduled monument

**8.29** The boulder clay which overlies the site and the London Clay underneath both do not include any water bearing strata or “aquifers”. The glacial sand and gravel is water bearing (Figure 57 above).

**8.30** As part of the site investigation work to date, Tarmac has installed groundwater monitoring boreholes. The data indicates that the groundwater, where it is present, is some 20m belowground level. Figure 58 below provides contours in this regard.



Figure 58: Groundwater Level Contours

**8.31** The data indicates that the majority of the sand and gravel isn't water-bound, with only the lower 1-2m typically saturated at any one time. This means that there will be minimal need to remove water from the sand and gravel to enable extraction to take place. In turn, this means there is minimal change of effecting groundwater levels.

**8.32** The data also indicates a groundwater flow direction from north to south.

*Hydrological Comments Specific to Hunsdon Brook Ponds.*

**8.33** The list description of the Scheduled Monument includes the following text:

*"the well-preserved remains of four Tudor fishponds consisting of four substantial earthen dams with the sides defined by varying degrees of excavation, along with the remains of an overflow leat on the western edge of the ponds. There are*

*several associated features, including two well preserved quarries dating from the construction of the ponds to the west of the two uppermost dams, the remains of ridge and furrow in the southernmost pond, a rectangular building platform adjacent to eastern end of southernmost dam, and a well-preserved section of holloway adjacent to the southernmost dam”.*

**8.34** These are shallow features established into the boulder clay or undifferentiated sand and gravel (not the same as that proposed to be extracted on site) and, as such, have limited hydrological continuity with the sand and gravel reserve at the site. It is clear that there will be limited scope for impact on flows (be it surface water or baseflow) into these features.

**8.35** The channel of the brook is understood to receive some baseflow (water passing through the geology) from the un-differentiated sand and gravel. However, as there is limited need to de-water the deposit on the proposed site to enable working, the scope for effects on these flows is considered to be limited.

**8.36** A recent initial hydrological assessment carried out by BCL Hydro for the PA and its surroundings (16th April 2020) is appended to this report as Appendix 6. This assessment contains the following suggestions for potentially required mitigation measures for the Hunsdon Brook Fishponds RPG:

*“Mitigation measures further to those inherent to the design and proposed operating methods to be employed upon implementation of the Proposed Development are not considered necessary at this time.*

*It is however considered that, prior to further assessment being undertaken in advance of future planning / permit applications, the gathering of baseline hydrometric monitoring data with regards to Hunsdon Brook Fishponds SM would further ensure identification and mitigation of any potential risk that may be posed to its supported water features”.*

*Hydrological Comments specific to the Registered Parks and Gardens South of the A414.*

**8.37** A review of BGS memoirs and Ordnance Survey mapping also confirms a number of spring features in the Briggens /Stanstead Bury Estate area (see Figure 59 below).



Figure 59: Mapping of Springs, with the boundaries of Stansted Bury RPG, Briggens RPG & Hunsdon Brook Fishponds RPG outlined in green

- 8.38** Comparison against BGS mapping suggests that the springs occur when the undifferentiated other sand and gravel deposits which are not present in the Tarmac site emerge from underneath the Boulder Clay. Features SK1, SK2, SP3 and SP6 may be representative of flow from the lower saturated level of sand and gravel on site. However, as there is limited need to de-water the deposit to enable working, the scope for effects on these resources is considered to be limited.
- 8.39** SP5 is topographically higher, and therefore, as the A414 cut removed much of the strata north of this location, it is likely that this feature has no connectivity with the site whatsoever.
- 8.40** Nonetheless observations will be maintained, and a more detailed assessment would be provided as part of any planning application, with mitigation measures included if required.

*Hydrological comments specific to Stansted Bury RPG*

**8.41** It is understood that there is an abstraction licence for a borehole at Stanstead Bury Farm. This is for the abstraction of water from the chalk aquifer. The proposed Tarmac scheme will have no effect whatsoever on this supply as the upper 30m plus of the borehole is understood to be cased and the groundwater in the chalk, if found at depth, is concealed by the London Clay and other geology.

**8.42** The BCL Hydro assessment contains the following hydrological description of, and suggestions for potentially required mitigation measures for Stansted Bury RPG:

*"Publicly available well records for the area show 2 no. wells in proximity to the House, as located at National Grid Reference (NGR): 539960 211150 (Well 1, 20m west of main house) and NGR: 540050 211250 (Well 2, 200m north east of house).*

*Wells 1 & 2 are recorded as being of 100m depth and completed within Chalk, with the full overlying geological sequence being metal cased. These wells are thus assumed to have groundwaters within the chalk as their sole source of supply.*

*Publicly available mapping shows the presence of 1 no. surface waterbody within the grounds of the House, in the form of a rectangular lake to the west of Stanstead Bury Farm, at NGR 540075 211088 (Lake 1). The construction of Lake 1 is not known, and must thus be assumed to be in continuity with groundwater within the Lower Aquifer.*

*A small ditch (The Southern Stream) is seen to rise upon the southern side of the A441, 300m to the north east of the House, which flows south to the River Stort. The flow regime and relative value of this feature is not known. It must thus also be assumed in continuity with groundwater within the Lower Aquifer for at least part of its course*

*Mitigation measures further to those inherent to the design and proposed operating methods to be employed upon implementation of the Proposed Development are not considered necessary at this time.*

*It is however considered that, prior to further assessment being undertaken in advance of future planning / permit applications, the gathering of baseline*

*hydrometric monitoring data with regards to Stanstead Bury RPG would further ensure identification and mitigation of any potential risk that may be posed to its supported water features.”*

*Hydrological comments specific to Briggens RPG*

**8.43** The BCL Hydro assessment contains the following hydrological description of, and suggestions for potentially required mitigation measures for Briggens RPG:

*"Publicly available well records for the area show 1 well adjacent to Briggens House, as located at National Grid Reference (NGR): 541420 211230 (Well 3). Well 3 is recorded as being of 78m depth and completed within Chalk, groundwaters within which form the assumed sole source of supply.*

*Publicly available mapping shows the presence of 1 no. surface waterbody within the RPG, in the form of a circular lake upon the course of the Hunsdon Brook (which flows southwards skirting the eastern Site boundary), at NGR 541201 211313 (The Circular Lake). The construction of the Circular Lake is not known. Though clearly artificial, it must thus be assumed to be in continuity with groundwater within the Lower Aquifer, with its level being partly sustained by upstream flows within the Hunsdon Brook.*

*Downstream of, and fed by, the Circular Lake, a section of the Hunsdon Brook that has been canalised, forming a waterbody of approximately 260m length and 25m width is present, approximately centred upon NGR 541148 211133 (The Hunsdon Canal). This feature is indicated to be regulated by a weir upon its southern limit.*

*Mitigation measures further to those inherent to the design and proposed operating methods to be employed upon implementation of the Proposed Development are not considered necessary at this time.*

*It is however considered that, prior to further assessment being undertaken in advance of future planning / permit applications, the gathering of baseline hydrometric monitoring data with regards to Briggens RPG would further ensure identification and mitigation of any potential risk that may be posed to its supported water features.*

*Hydrological Comments specific to Ancient Woodland*

- 8.44** Based on published research evidence, it is considered unlikely that any of the significant mature trees within the established ancient woodland have a tap-root that persists as a major woody root, as the dominance of the tap root diminishes very early in the development of the root system.
- 8.45** Only in a few tree species (Oak, Pine & Fir) is there an increased tendency to retain the tap root form in older trees. The diameter of any tap roots diminishes rapidly as secondary roots grow out from it, and at 0.5m depth it tends to be less than 50mm diameter.
- 8.46** It is unproven that tree roots can be found in significant quantities at substantial depths (greater than 3m). Numerous studies have indicated that typically, as much as 90% of roots will be found in the upper 1m of soil. The trees rely upon percolating rainfall for water uptake rather than groundwater.
- 8.47** The hydrological assessment has established a current groundwater depth of well 3m below soil level, it is therefore considered that the effects of reduction in groundwater, would be negligible.

*Hydrological Comments Specific to Other features*

- 8.48** It is noted that there are a number of small ponds across the landscape such as the pond near Olive Farm. These are generally within boulder clay deposits and, as such, have no hydrological continuity with the sand and gravel reserve at the site. Initial screening has identified 5 potential means by which existing groundwater resources, levels or flows may be affected by quarrying and restoration at the Site in the manner described by the current draft development proposals, namely:
- i) Modification of groundwater recharge by removal of low permeability overburdens/mineral extraction within the unsaturated zone;
  - ii) Evaporative losses from open water in continuity with groundwater within the base of mineral extraction;

- iii) Potentially adverse modification of the hydraulic gradient caused by sub-water table mineral extraction within the Superficial Aquifer;
- iv) Temporary and localised lowering of the watertable within the Superficial Aquifer by pumped dewatering, and;
- v) Licensed abstraction for initial fill and on-going top-up of water management system supplying mineral washing plant.

**8.49** Based upon the prevailing understanding of hydrogeological conditions and assuming application of straightforward ameliorative measures during operations, it is currently considered that none of these identified affects will occur, whether in isolation or combination, to a degree that will cause unacceptable primary or secondary impacts upon features such as the Hunsdon Brook SM that may be dependent upon groundwater resources or levels or flows.

**8.50** The site is in flood zone 1 and is therefore subject to the lowest degree of risk in this regard. No impacts will be generated off site.

#### *General Hydrological Conclusions*

**8.51** The BCL Hydro assessment concludes the following about the overall potential hydrological impacts of the proposed mineral extraction works on the heritage assets covered in this report:

*"Based on presently available information, preliminary assessment does not indicate any significant potential for impacts upon water features associated with identified local heritage assets that may result from the Proposed Development, that are not able to be adequately controlled through proposed Site working methods.*

*Further, extensive additional assessment is required prior to commencement of the Proposed Development at which point any potential impacts / features not addressed above will be assessed, and where necessary, mitigated.*

*Regular monitoring is already undertaken at the Site and extending this to cover features associated with local heritage assets prior to a planning application being made should be easily achievable (subject to agreement of access). This would*

*provide further data to ensure robust assessment at the time of application for further permissions / permits / licenses”.*

## **8.52**

A provisional conceptual model addressing the site geology and groundwater levels relative to the heritage assets has been provided by Tarmac, and is reproduced below:

*" 3.11.2 The glacial sands and gravels that constitute the Economic Mineral of the Site comprise a superficial aquifer that is truncated close to its boundaries by valleys to its west, south and east; the northwards extent of the Superficial Aquifer is effectively unbounded at the scale of interest.*

*3.11.3 Rainfall recharge from effective rainfall to the Superficial Aquifer is likely to be diminished by the presence of a really extensive and thick boulder clay cover.*

*3.11.4 The base of the Superficial Aquifer within the southern area of the Site is formed by underlying London Clay, the extremely limited hydraulic conductivity of which is likely to effectively prevent interaction with further aquifer units at depth.*

*3.11.5 In the north of the Site the Superficial Aquifer is underlain by strata of the Lambeth Group the sandy horizons of which convey a "Secondary A" aquifer designation to the strata.*

*3.11.6 However, the group is dominated by low permeability clays; clay being the dominant lithology attributable to the Lambeth Beds found during mineral evaluation drilling undertaken at the Site.*

*3.11.7 Therefore, vertical hydraulic connectivity between the ground water of the Superficial Aquifer and underlying bedrock aquifers (comprising the Lambeth Group itself and the underlying Chalk Aquifer) is likely to be limited.*

*3.11.8 A watertable is present towards the base of the Economic Mineral of the Superficial Aquifer (the "Lower Gravel") within the western and eastern areas of the Site, the saturated thickness of the sand and gravel resource here typically being c.1m to c2m.*

*3.11.9 This watertable appears to reside below the base of the Lower Gravel within a wide belt traversing through from north to south through the centre of the Site.*

*3.11.10 The direction of groundwater flow within the Lower Gravel is made broadly from north to south through the Site, suggesting discharge to the surface water system of the Stort valley to the south.*

*3.11.11 Within this overall direction of flow, components of eastward groundwater flow within the Lower gravels are also suggested by the data, indicating the likelihood of gravity discharge to the Hudson Brook to the east of the Site; groundwater discharge to surface water is also anticipated to occur within the Newlands Brook to the west.*

*3.11.12 A perched groundwater table appears to be present within the superficial sequence of the northern Site area (the Upper Gravels), the piezometric level of which is c.10m above that of the Lower Gravels with a saturated typical saturated thickness of c.2m to c3m.*

*3.11.13 Perched groundwater flow within the Upper Gravels is tentatively suggested to be made from west to east towards the valley of the Hunsdon Brook, possibly locally emerging at surface as bed-seepage and spring flow in the area of Pondcroft to the north east of the Site.*

## Aftercare/Afteruse

**8.53** Tarmac has developed an indicative restoration concept which is consistent with the NPPF and the objectives and policies of the RMLP, the aims and objectives of the concept are as follows (with the heritage aftercare highlighted in yellow):

- (i) to provide a long-term sustainable landform;
- (ii) to positively contribute to local landscape character objectives wherever possible;
- (iii) to ensure that all best and most versatile agricultural land is restored to arable cultivation to the same or higher standard at the earliest opportunity;
- (iv) to ensure an improvement in the nature conservation value of the site into the future;

(v) to ensure that the long-term setting or significance of adjacent and nearby heritage assets is affected as little as possible;

(vi) ensure best use of all on site materials to minimise the need for imported materials to achieve restoration;

(vii) to provide an enhanced network of public access routes to support recreational aspirations; and

viii) to ensure all water run-off is maintained on site and only

**8.54** In this regard, the indicative concept provides for a farmland reinstatement and nature conservation creation, supplemented by a network of permissive rights of way to improve connectivity across the landform, in particular east-west.

**8.55** The reinstated agricultural land will be subject to a five-year aftercare regime. Any nature conservation habitat will be subject to a longer fifteen-year regime. Where required the aftercare regime can incorporate elements of a cultural heritage management plan to provide long term objectives as required.

**8.56** An indicative restoration concept plan for the PA is shown in Appendix 3, with a more general concept plan appended as Appendix 5.

**8.57** A summary table of mitigation measures is provided below:

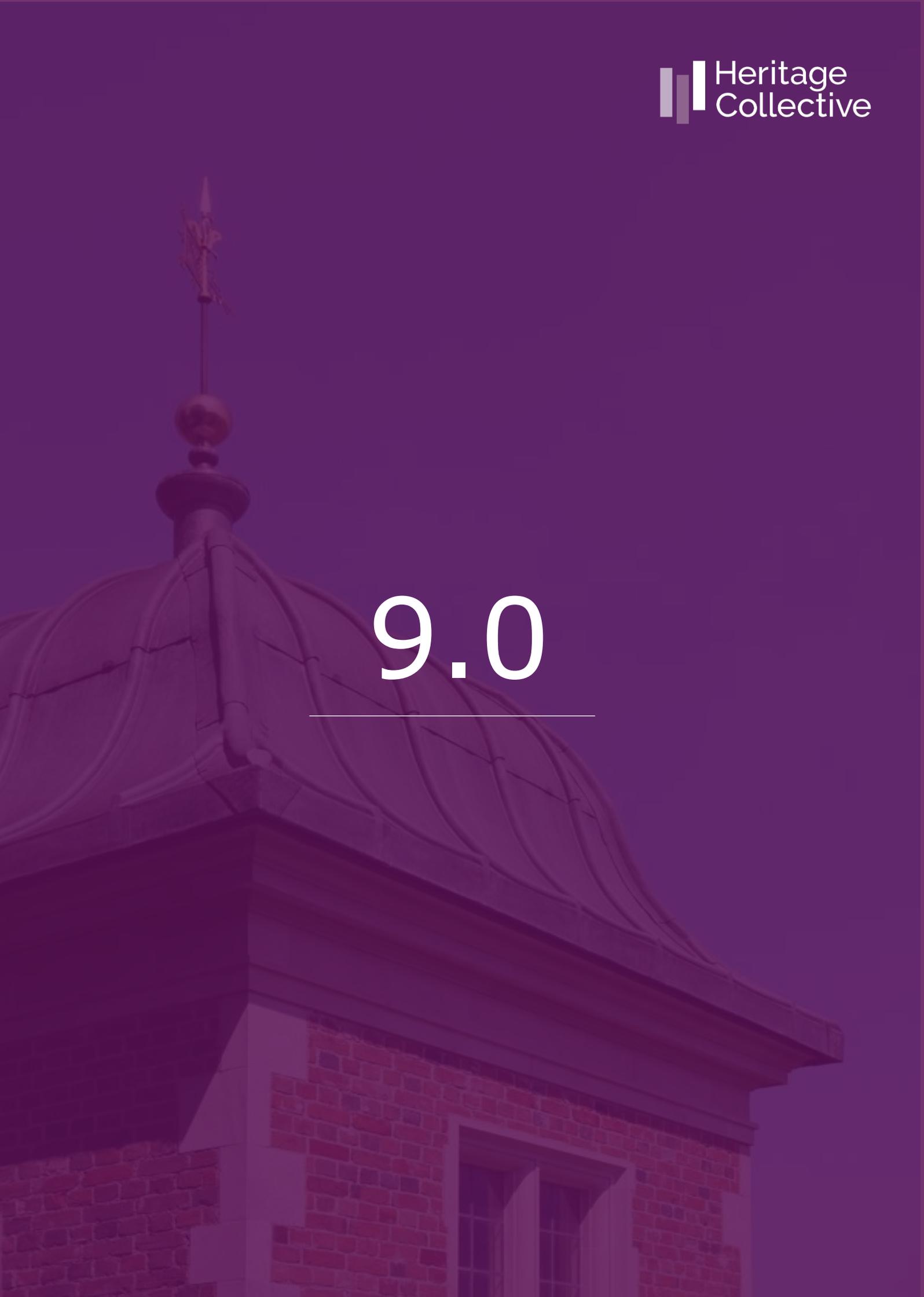
<b>Designated Heritage asset</b>	<b>Mitigation Measures</b>
Stanstead Abbots Conservation Area & relevant listed buildings within	Planting along PA boundary where it adjoins the CA, with buffer zone to rear
Stanstead Bury RPG	None proposed – PA and RPG separated by A414 dual carriageway and dense woodland along its southern side
Briggens RPG	None proposed due to distance between PA and the RPG
Hunsdon Brook SM	Northern part of the SM already separated from the PA by 200m plus of dense woodland – 30m stand-off from boundary of PA to mineral extraction

	<p>workings, with footpath and soil bunds between the two</p> <p>Additional planting along boundary of PA south of Lords Wood to help preserve open rural setting of SM</p>
Bonningtons	None proposed
Olives Farm	<p>Planting and 150m buffer zone south-east of farm at closest point to mineral extraction workings</p> <p>Additional planting to screen plant site from Olive's Farm</p> <p>Otherwise no mineral extraction within c. 300m of Olive's Farm</p>
Little Briggens	None proposed due to distance between PA and Little Briggens
Newlands	Buffer zone on south side of Hunsdon Road
Stansted Lodge & Briggens Home Farm	None proposed due to distance from the PA and the A414 in between
All heritage assets	Further, extensive hydrological and hydrogeological assessment (see paras. 8.27 to 8.51 above) will be undertaken prior to commencement of the proposed development at which point any potential impacts / features not already addressed will be assessed, and where necessary, mitigated.

	<p>Implementation of a Heritage Management Plan to explore ways to minimise any perceived harm to the heritage assets</p> <p>Tarmac has already developed an indicative restoration concept for the PA</p>
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## Archaeological Impacts

**8.58** These have been summarised in section 7 of this report, and covered in detail within the archaeological desk-based assessment and the geophysical survey reports.



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## 9. Conclusion

- 9.1** The Preferred area of Mineral Extraction does not contain any built heritage assets, conservation areas, scheduled monuments or registered parks and gardens but a number are located around its periphery.
- 9.2** Harm should be avoided in the first instance. Where harm is caused to the heritage significance of these assets by effecting a change in their setting, it is “less than substantial harm” as defined by paragraph 196 of the NPPF. The harm involved in question is at the lower end of the spectrum, and would be mitigated by currently proposed stand-offs and planting measures.
- 9.3** It is envisaged that should the site remain as a Preferred Area for mineral extraction, and satisfactory planning consent were to be obtained for the proposals, that any such consent would be predicated upon appropriate mitigation measures for the sensitive treatment of both buried archaeological remains and nearby designated heritage assets. The latter could include a Heritage Management Plan to explore ways to minimise harm which are consistent with Historic England guidelines on the setting of heritage assets (GPA3).
- 9.4** Based on the information available to date, it is considered that the proposed scheme would either result in no harm, or less than substantial harm to nearby heritage assets, with the level of less than substantial harm considered to be at a low level. These impacts can be effectively mitigated (in particular through the development and implementation of a heritage management plan). It is therefore concluded that the scheme is not inappropriate for this site and the allocation of the latter for minerals development is consistent with best practice guidance.
- 9.5** The proposed mineral extraction would be for a temporary period of twenty-five years. Therefore, any impacts on setting identified in this assessment would be countered in the long term by an approved restoration programme.

## Select Bibliography

Bartlett-Clark Consultancy (2018), *Land at Briggens Estate, Stanstead Abbots, Hertfordshire – Archaeological Geophysical Survey*

BCL Hydro, (Initial Assessment letter dated 16<sup>th</sup> April 2020), *Tarmac Trading Limited: Briggens Estate Prospect, Hertfordshire Draft Minerals Local Plan Consultation Submission Water Features Associated with Heritage Assets*

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Phoenix Consulting (February 2018), *Briggens Estate Preferred Area MLPCS 010 Stanstead Abbots Hertfordshire – Archaeological Desk-based Assessment* (unpublished client report)

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## APPENDIX 1: Statutory List Descriptions

### Stansted Abbots Conservation Area

#### Netherfield House Building Group

***Netherfield House/Eventide House (The Salvation Army) – 1203848 – listed grade II 30<sup>th</sup> Sept 1983***

*Large house now an eventide home. Circa 1860 for Sir Charles Booth (1806-96) 3rd and last baronet in the style of E M Barry. Grey brick and Bath Stone with slate roofs. 2-storeys Italianate large house with 3-storeys tower over entrance on N. Compact rectangular plan with large central stair and principal rooms looking over valley to S and E. Lower, 2-storeys and cellars, service wing on W in a plainer version of the same style. Grand Tuscan portico with entrance up steps between dies of 2 giant columns. Balustraded balcony over. Moulded stone string courses and large stone brackets at eaves. Round-headed large windows to ground floor, segmental arched windows above. Recessed casement windows. E front has 5-windows and a large single-storey canted bay window with balustraded top. Asymmetrical balanced S front similar with 2 + 2 windows. Arcaded matching brick screen wall on S, with stone arches, links to moulded stone plinth and stucco arcaded rear wall of former conservatory, with original outbuildings as lean-to behind*

***Ornamental Dairy at Netherfield House 5 metres W of house – 1078740 – listed grade II 30<sup>th</sup> Sept 1983***

*Dairy now a store. Circa 1860 as a contemporary outbuilding of Netherfield House (q.v.). Italianate. Grey brick with Bath Stone dressings under a pyramidal slate roof with scalloped bands and arched cupola surmounted by a pointed swept lead roof with quatrefoil finial. A small single-storey rectangular building with entrance on E. Half-glazed 4-panel door under a segmental gauged arch. Narrow round-headed windows flanking door have moulded stone arch and string course at impost level. Stone brackets to eaves cornice. One round headed narrow window on N*

***The Coach House – 1203861 - listed grade II 30<sup>th</sup> Sept 1983***

*Former stables to Netherfield House, now a separate residence. Circa 1860 for Sir Charles Booth as contemporary outbuilding to Netherfield House (q.v.). Grey brick with stone dressings. Slate roof with large slates. Tall single storey centre with 2 2-storey wings of unequal projection to E. Glazed coach house canopy on large openwork cast iron brackets on S side of N wing. Louvred cupola over centre with lead spire and fox windvane. Central 4-light transomed window under segmental gauged arch. N wing has overhanging verge to gable, toplight hamper on roof, stone string course, panelled brickwork, 2 upper round arched*

*windows on E wall linked by a stone dripmould. Clock face in bullseye over. Stone framed rectangular panel below. Included for group value*

***Gatescreen, piers and gates at The Coach House - 1078741 - listed grade II 30<sup>th</sup> Sept 1983***

*Gatescreen, piers and gates formerly serving Netherfield House (q.v.) which now has separate access. Circa 1896 for Mrs Prior. Wrought iron and ashlar stonework. Arts and Crafts style ornamental wrought iron double gates, standards and side rails (wicket in right hand railings) between 2 tall slender square stone piers with ball finials. The gate standards terminate in lights in the form of beacon braziers.*

**Nos. 79 to 89 (odd) The Baish Almshouses and attached forecourt wall (formerly listed as The Baish's Almshouses) – 1078739 - listed Grade II\* 4<sup>th</sup> December 1951**

*Almshouses. 1653 for Sir Edward Baesh. Red brick in English- bond with a long steep old red tiled roof. A single storey row of 3 handed pairs of almshouses facing NW. Each pair has 2 plank doors together, in a heavy chamfered wooden frame, a 3- light ovolo-moulded casement window with iron central opening light for each house, a gable over the door with a single small 2-light ovolo-moulded window with leaded lattice glazing, and a shared central chimney with a pair of diagonally set shafts. Toothed corbel course below the eaves and low plastered plinth. Modern single-storey small additions at rear and each end. Red brick wall around elongated forecourt garden, taller at ends, reduced at front but with heavy sloped brick coping reinstated. Square gatepiers with stone caps and C20 wrought iron gate. A landmark at a bend in the road at the S end of the village*

**Nos. 91 & 93, Roydon Road – 1203834 - listed grade II 30<sup>th</sup> Sept 1983**

*House, now 2 houses. C18 or earlier, raised to 2-storeys and extended to E in early C19 and later subdivided. Timberframed and white weatherboarded over a black plastered plinth. Plastered at rear. Red pantile roof. 3-unit, central chimney plan. E extension, with internal gable chimney in red brick. Irregularly spaced 2-light windows. 2-storeys with central lean- to weatherboarded shared porch. 2 Yorkshire sliding casement windows at each side (one on left of porch has been a doorway) and 3 similar windows to upper floor (middle and right hand windows replaced with small-paned opening casements). W end has bargeboard, 3-light upper casement and 6-panel, half-glazed door with 2-light casement to left. Projecting dripboard below upper window sills all round protects the change in wall construction where the upper floor was altered*

Nos. 95 (Woodside) and 97 (Fern Cottage) Roydon Road – 1341876 - listed grade II 30<sup>th</sup> September 1983

*House, now 2 houses. Each C18, extended and subdivided late C19. Red brick with steep old red tiled roof. Timberframed and plastered W gable and 2-storey rear wing. Central chimney 2-room plan with lobby entry and stair behind the stack off W room. Rear wing off E room. W extension with internal gable chimney. One and a half storeys and 3-windows with upper windows rising through eaves as gabled lucarnes. Originally a 3-window symmetrical N front with brick floorband and wide segmental arched windows each side of door. Narrower square upper windows under the eaves. Central blocked opening remaining over gabled doorhood on shaped brackets with boarded front. Half-glazed 4- panel door. Recessed sash window with vertical margin lights. Composite chimney rebuilt above ridge. Side-purlin roof*

Netherfield Cottages (Nos 1, 2 and 3) – 1341872 - listed grade II 30<sup>th</sup> September 1983

*Block of 3 houses. Early C19 (on 1840 Tithe Map). Black and white half-timbering with steep red tiled gabled roofs and red brick chimneys. Picturesque Gothick symmetrical composition 2-storeys facing W. Set on a steep hill with gabled wings stepping forward to lower central entrance block approached up the slope. Symmetrical projecting wings to rear (E) with elaborated central gable and hip-roofed recessed bays each side of it. 2-light cast-iron lattice casement windows. Scrolled edge bargeboards with finials.*

Stanstead Bury RPG – 1000316 – listed grade II 1<sup>st</sup> July 1988

#### *Details*

*A C15 manor house and garden with late C16 park. The garden and park have since been in continuous use and subject to a series of changes.*

#### *HISTORIC DEVELOPMENT*

*The house was owned by the Augustinian abbey of Waltham from the early C15 until 1531, when it passed to the Crown. In 1559 Elizabeth I granted Stanstead Abbots, with the Bury estate, to Edward Baesh of London (d 1587), who in 1577 had licence to impark 300 acres (125ha) of land there with a grant of free warren (VCH). A late C16 inquisition (PRO) mentions a 15 acre (c 6ha) 'circuit' of the house, probably including the house, plus yards, orchards and gardens. In 1678 the manor was sold into the Field family, being sold on in 1802 to Capt Robert Jocelyn, then passing through the hands of several different owners. An estate plan of 1781 (HRO) depicts the park and garden much as they remain today (1999). The estate remains in private ownership*

## DESCRIPTION

*LOCATION, AREA, BOUNDARIES, LANDFORM, SETTING* Stanstead Bury lies 1km south-east of the village of Stanstead Abbots and 5km west of the centre of Harlow New Town. The c 25ha site is bounded to the north by the late C20 A414 dual carriageway, to the west by the B181 Stanstead Abbots to Roydon road, and on the other sides by agricultural land. The roughly rectangular site stretches from west to east across a gently south-sloping hillside. The setting is largely rural, with the dual carriageway immediately to the north, and Briggens landscape park lying almost adjacent to the east.

*ENTRANCES AND APPROACHES* A short drive leads 170m north-east off the road from Stanstead Abbots to Roydon, crossing an area of parkland which contains the earthwork remains of the C16 gardens. The drive leads directly to the walled forecourt (C16 and later, listed grade II) on the west side of the manor house, the north-west corner of which is marked by the Bull House (late C17). This is now (1999) a garden pavilion, it being a single-storey square building of red brick, with a steep pyramidal roof. The entrance arrangements to the site were changed as a result of the widening of the A414 in the late 1980s.

The Drapentier engraving (1700) shows a double avenue approaching the house from the east, although there is no visible evidence of this now (1999). By the late C19 (OS) the house was approached from the south, past the east end of the churchyard, the drive leading to a forecourt on the south front. The present approach from the west was created in the early C20, and the former forecourt on the south front turned into a sunken garden, with brick terracing.

*PRINCIPAL BUILDING* Stanstead Bury manor house (late C15, listed grade II\*) has been altered many times during the course of the last five centuries. It stands towards the west end of the site, a large timber-framed and brick house of two storeys. The red-brick, two-storey stable block (late C17, listed grade II) and other outbuildings (C16, C17, C19, listed grade II) stand south of the house.

*GARDENS AND PLEASURE GROUNDS* The c C16 garden earthworks west of the house occupy an area of c 4ha and consist of a set of three terraces crossing most of the area from west to east, falling away to the south. The remains of what may have been a canal lie on the north side of the main, middle terrace (north of the drive), which is the same width as the house. In the south-east corner, west of the stables and north of the parish church, lies a tennis court on a terraced area known as the Bath Garden which may have had a raised walk around it (Inspector's Report).

The sloping land east of the house is also terraced. The east lawn was probably levelled when the east facade was remodelled as the principal front in 1689. It is bounded at its eastern edge by a red-brick ha-ha (C18, listed grade II), over which there are views across the area of the old park, now divided into fields, to the Great Wood.

*The terrace lies above the rectangular, walled kitchen garden and is separated from it by a brick retaining wall (C16/C17, listed grade II) lying 30m south-east of the house and topped by a yew hedge.*

*PARK The park extends east from the house and gardens. Laid largely to arable, a belt of trees, The Grove, runs along the north boundary to the Great Wood at the east end of the site. A small icehouse stands in the quarry at the west end of The Grove. The belt forms part of a circular ride which offers views out over Roydon to the south, returning via a track to Stanstead Bury Farm, then up past the church to the stables and house. The Farm lies at the west end of the park, c 120m south-east of the house.*

*The park, having been enclosed in 1577 by Edward Baesh, was laid out with six fields by the late C18 (estate map, 1781), at that time being planted with the remains of avenues and other park trees and partly enclosed by the circuit ride to the north.*

*KITCHEN GARDEN The kitchen garden lies 30m south-east of the house, below the east terrace. The red-brick walls (listed grade II) date from the C16, C17 and C18. Below the kitchen garden is a rectangular pond, perhaps originally a stew pond associated with the period during the C15 and early C16 when the manor was owned by Waltham Abbey. It lies to the west of Stanstead Bury Farm.*

#### REFERENCES

*H Chauncy, Historical antiquities of Hertfordshire (1700), p 195 Victoria History of the County of Hertfordshire 3, (1912), pp 368-70 B Cherry and N Pevsner, The Buildings of England: Hertfordshire (1977), p 342 Stanstead Bury: Inspector's Report, (English Heritage 1988)*

*Maps Dury and Andrews, A topographical Map of Hartford-shire, 1766 Estate plan, 1781 (Hertfordshire Record Office) A Bryant, The County of Hertford, 1822 Sale particulars, 1867 (137.a.13), (British Library maps)*

*OS Surveyor's Drawings, 1799-1805 OS 6" to 1 mile: 1st edition surveyed 1873 2nd edition published 1899 3rd edition published 1938 OS 25" to 1 mile: 2nd edition published 1898*

*Illustrations Drapentier engraving, published in Chauncy (1700)*

*Archival items Inquisition of Edward Baesh, c 1587 (C.142/215/269), (PRO)*

*Description written: April 1999 Amended: October 2000 Register Inspector: SR Edited: November 2000*

## Listed Buildings in and around Stanstead Bury RPG

Old Church of St James – 1078730 – listed grade I 24th January 1967

*Church, now vested in Redundant Churches Fund. Nave probably C12, chancel without structural division C13, W tower and S porch C15, large NE chapel in brick dated 1577 in relief panel on E gable. Uncoursed flint rubble incorporating Roman tiles, C16 brickwork in NE chapel and E end of chancel, stone dressings. Old red tiled roofs. Continuous roof over nave and chancel. Short leaded spire with tiled lower slopes. Timber-framed S-porch with cusped original bargeboards, 3-centred arched entrance and crown- post roof on cambered tie-beams. C13 S-door of 2 chamfered orders, next window on W C13 altered in C15, when 2 2-light traceried windows were also inserted to the E of the porch. No openings but blocked doorway in N wall of nave. C15 crown-post roof of 3 bays plastered under the collars, continues over 2-bay chancel without crown-post on the cambered tie beam. Lower part of C15 screen built into pews. Chancel has C15 3-light E window, 4-bay N arcade on octagonal piers (3 western bays of 1577: E bay later). 2 2-light C15 windows in S wall, and a C13 double piscina. NE chapel has plastered waggon roof, Perp E window of 3 4-centred lights under a 4-centred arch, 2 2-light N windows (straight-headed under hoodmoulds), and a small W door. Tall 2-stage embattled tower with diagonal buttresses and projecting polygonal SE stair turret carried above the parapet. Early C15 tower arch of 2 moulded orders with shafted jambs and moulded caps. Contemporary W door of 2 moulded orders, the outer square, 3-light window over door, and 2-light bell chamber openings with quartrefoil and hood mould over. Fittings include C13 circular font on octagonal C15 pedestal, C16 2-decker pulpit (inlaid tester now door in tower screen), heraldic stained glass in NE chapel dated 1573, Royal Arms and commandment boards on E wall, 3 hatchments and a Tortoise stove in the Nave, medieval S door, head of tower screen said to be C15 rood beam, wall monument to Sir Edward Baeshe 1587 on N wall of chapel and painted inscriptions on N and E walls, brasses in chancel and nave, 3 bells of 1605, 1617 and 1790, 2 wall monuments by the younger Bacon (Paul Fielde 1805 and Robert Jocelyn 1806), tablets in nave including Philip Booth 1818 by Bacon and Manning, H T Baucutt Nash 1825 by Kendrick, Mary Booth 1848, and Sir Felix Booth 1850 both by Manning. Whitewashed interior with box pews and nave pulpit on S wall preserves the C18 village character. On a conspicuous hilltop site overlooking the Lea marshes. Of outstanding interest as a medieval church with unrestored C18 interior. (RCHM (1911) 209-10, VCH (1912) 371-2, Pevsner (1977) 342).*

There are also seven individually designated monuments, all listed grade II, within the churchyard of the Old Church of St James, dating mainly to the 18<sup>th</sup> and 19<sup>th</sup> centuries.

## Manorial Complex

### **Stanstead Bury – 1051056 – listed grade II\* 4<sup>th</sup> December 1951**

*Manor house of Stanstead. Oldest part is SW wing, late C15 for Abbey of Waltham; 1563 additions to N and E of nucleus; mid C17 range to SW (demolished in early C19) 1689 E range remodelled for Edmund Field as principle front; after 1802 S front refaced for Robert Jocelyn; 1930-31 N wing built, entrance moved to W and accretions removed by E G Cole for Sir William Gosselin Trower (RCHM Typescript). Heraldic stained glass dated 1563 in chamber over W door. Timberframing, generally plastered but exposed on stair turret; C16 and later red brick largely plastered over, but exposed on W and N. Steep red tiled roof. A compact irregular large house of 2-storeys and attics presenting formal symmetrical fronts to E and S. SW wing is the original timberframed hall- range with crown-post roof, now cased in C18 red brick and with inserted floor and attics. C16 brick range, added to E of hall refaced and plastered in early C19 to form S front. Square C16 brick block added to NE of hall, with parlour and chamber over and semi-octagonal turnpike stair turret with decorative exposed timberframing. A 3rd storey added in C17 timberframing, and timber bellcote over roofs to S. The E range of 2-storeys, attics and cellar contains the principal rooms and central staircase. The present entrance is into an old gabled brick rear range on its E side which appears to have been unaltered in 1689 when the main range was altered and remodelled as a tall symmetrical brick building with steep tiled hipped roof, modillioned eaves cornice, advanced centre, 2, 3 and 2 tall windows (triangular pediment over lower central window formerly the main door) and 4 dormer windows in the roof slope with triangular and curved pediments, a b b a. C17 leaded casement cross windows to dormers and 1-window on N wall under a flat gauged arch. Elsewhere replaced by flush box sashes with 6/9 panes. S front of stucco symmetrical, 2 storeys and 3-windows, with advanced centre and steep hipped roof. Ground floor openings set in round arched recessed panels. Central half-glazed door with panelled fanlight. Recessed sash windows with 9/6 panes below and 6/6 above. Modillioned eaves and moulded cornice. Interior has c1690 stair hall with bolection moulded oak panelling, cornice, cut string oak stair with carved and fluted balusters, with group of 4 to wreath at bottom, stone floor with black marble dots, and similar bolection panelling and fine cornices in E range. Jacobean wooden Doric columns to support upper floor in dairy (former C16 parlour), turnpike stair with central pole in turret, moulded and stopped wooden opening on 1st floor over entrance hall, C18 cast iron firebasket with classical reliefs in 1st floor E room, and a marble fire surround with fluted coloured inlay in S range. Ground floor (which may have been introduced c1930). RCHM (1911) 210: VCH (1912) 369: RCHM Typescript)*

### **North Wall of East garden at Stanstead Bury extending E from NE corner of the bury – 1372260 – listed grade II 30<sup>th</sup> September 1983**

*Retaining wall to forecourt, now to an enclosed garden. C17, upper parts C18. Red brick wall retaining slope to N. About 3 metres high on S. Upper part rebuilt in C18 with sloped oversailing brick coping on toothed corbels. Central rectangular embayment elaborated in C19 with a small terrace and fountain. The wall enclosed the forecourt to the main entrance when the main approach to Stanstead Bury was from the E*

**Ha-Ha at Stanstead Bury 70 metres E of the bury – 1341874 - listed grade II 30<sup>th</sup> September 1983**

*Ha-Ha. C18. Red brick retaining wall W side of deep ditch along E side of garden on E side of the bury. Designed to unobtrusively protect the garden from straying cattle. The wall turns outwards to retain the ends of the ha-ha*

**Wall on E side of W court at Stanstead Bury running S from the bury – 1372257 - listed grade II 30<sup>th</sup> September 1983**

*Wall to courtyard. C16/C17, raised in C18. Red brick with brick-on-edge coping. About 2.5 metres high. Part of the outworks of the early brick house*

**Garden wall at Stanstead Bury 30 metres SE of the bury – 1052370 - listed grade II 30<sup>th</sup> September 1983**

*Garden wall. C16/C17. Red brick wall about 2.5 metres high around all sides of a terraced garden with entrance by gates in the W side near the N corner, and in the middle of the S side. About 60 metres x 30 metres. Buttresses reinforce the retaining wall along the N side which was formerly also the S wall of the E forecourt, now a garden*

**Stables at Stanstead Bury 55 metres S of house (Formerly listed as stables Stable and coach house block) – 1078728 – 24<sup>th</sup> January 1967.**

*Stable and coach house block. Circa 1689 for Edmund Field. 2- storeys red brick in Flemish bond with lighter red brick at openings, flat gauged arches and floor band. Steep hipped old red tiled roof with 3 slate courses at eaves. Facing E with 2 pair of boarded double doors to coach house in middle. 2-windows over 2-light wooden casements, one formed by bricking up the lower part of a 1st floor doorway. Symmetrical arrangement of 2 windows flanking a door, on each floor at S part. Upper door an altered window. Formerly similar at N part but upper low door in heavy frame remains, and lower door replaced by C19 double doors. Plain rear elevation with high floorband and small windows under the eaves at GV Stanstead Bury, W of house*

**Dairy, Outhouse and Boundary Wall at Stanstead Bury 30metres SW of the bury – 1078729 - listed grade II 30<sup>th</sup> September 1983**

*Dairy, and attached boundary wall with later lean-to outhouse on its E side. C16 wall, C17 dairy, late C19 outhouse and alterations to dairy. Red brick tall retaining wall forming boundary towards church. English-bond with chamfered plinth offset stepping up to suit the slope. Single storey dairy of red brick with blocked openings in N wall, 2-windows, and roof*

*altered to a slated lean-to. Red brick pantiled lean-to outhouse against E side of boundary wall. Pedimented E entrance into passage and gate in wall. Triangular pediment with plaque of galloping horse. Full entablature in wood on brick piers*

***The Bull House and Forecourt Wall at Stanstead Bury 30 metres NW of bury - 1341873 - listed grade II 30<sup>th</sup> September 1983***

*Bull house now a garden pavilion linked to house by forecourt N wall. Late C17 with later alterations at end of C16 wall pierced by C19 gateway. Probably c1689 for Edmund Field. Red brick in Flemish bond. A square single-storey building with steep pyramidal red tile roof, lead acorn finial, and wooden eaves cornice. Opening in each side without arches. 2-light small-paned flush casement on N, similar on S, boarded door on E and modern stable door on W. 18 inches thick walls. Butt-purlin roof on corner principals. Angle-ties across corners between wallplates. Gabled dormer on W lights upper part of same space. The old wall linking the building to the house is about 3 metres high and has C19 square brick piers flanking a central gateway*

Farm Buildings attached to the Manor

***Barn at Stanstead Bury Farm 30 metres SW of farmhouse – 1078735 - listed grade II 30<sup>th</sup> September 1983***

*Barn. C17, extended to rear in C19. Timberframed and weatherboarded with old red tile roof. a 5-bay barn facing E with a central projecting gabled porch. 4-bay rear aisle in plum brick added in C19 and studs removed from former rear wall. Unjowled posts with long curved braces to tie-beams. Butt-purlin roof with angle-strutted trusses. One purlin in each slope with morticed rafters. Purlins and mid-height rails in walls jointed in line. Tension bracing in walls each side of central bay and in end corners. Double doors off-centre to allow for wicket*

***Granary at Stanstead Bury Farm - 5 metres N of farmhouse – 1078734 – listed grade II 30<sup>th</sup> September 1983***

*Granary. Late C18 or early C19. Timberframed and black weatherboarded with pitched slate roof. Small rectangular single-storey building, raised on 9 red brick piers, facing W. Central plank door up steps, with gap-lathing to vent over door*

***Stables at Stanstead Bury Farm 20 metres N of farmhouse – 1149375 - listed grade II 30<sup>th</sup> September 1983***

*Barn converted to stable and carhouse in C17. C16 altered in early C17, later shortened at N end. The building appears in an engraving c1700 of Stansteadbury when it had an elaborate N gable and 5 dormers in the roof. A timberframed single-aisled barn now shortened to four and a quarter bays. Heavy jowled posts raised on individual wooden pads on short brick piers.*

*Straight braces to the arcade-plate (to W aisle) which has an edge-halved splice with bridled butts. Clasped-purlin roof with straight wind- braces. Angled queen-strut trusses with diminished principals but without collars. Steep-pitched roof now covered in slates. Iron vane on S gable. 2 bays at S converted to stable with inserted floor for loft. Stable pavior floor to stalls but old pitched floor of small pebbles to passage on W side. C17 brick walls to stable part interrupted by main posts. Similar walling on W side of N part but faced externally in C19 brickwork. N end truncated and clad in weatherboarding. E face at this end open as carhouse. Door and 2-windows to W side of stable*

## Briggens RPG – 1001705 – listed grade II 23<sup>rd</sup> March 2009

### Details

*Briggens is a C18 and later house surrounded by parkland which retains features designed by Charles Bridgeman in c.1720. The extant pleasure gardens date principally from the Edwardian period and were designed by Lord Hunsden in c1908. The house is currently a hotel and some of the surrounding park is in use as a golf course.*

*HISTORY In the C17, Sir Thomas Foster (d. 1616) lived at Briggens. The origins and configuration of his house is not certain, but a substantial dwelling is indicated on John Seller's map of Hertfordshire in 1676. The extent and form of the pre-C18 designed landscape is equally unknown, but it is said that two pollarded sweet chestnuts immediately to the south-west of the house may be part of an earlier park. Fosters son sold the land to the Crowley family and thence the estate passed to Robert Chester (1675-1732) in 1706. It is likely that Chester, a director of the South Sea Company, either substantially reworked, or entirely rebuilt any earlier building on the site. Chester commissioned Charles Bridgeman in c.1720 to design the pleasure gardens and wider landscape.*

*In 1723 the estate is described as having a walled kitchen garden of 2.5 acres and a large walled pleasure garden with a park beyond of some 60 acres. In 1728 Nathaniel Salmon noted that the `avenue to it hath at the entrance a large basin, through which a small stream runs' and its features included `graceful plantations of trees with a variety of slopes adorned with statues', (History of Hertfordshire). The `slopes' probably refer to turfed ramps and terraces which were familiar elements in Bridgeman's designs and the statues were probably the works of Andrew Carpenter who is documented as being paid over £70 for `vauzes'. Water features were also important elements of the scheme, the Juicy Brook being infilled to form a canal, engineered by Richard and William Cole, who installed a pumping house at the terminal of the canal containing the water engine which harnessed the water power from the stream and probably pumped water to other features.*

*After the death of Chester and his immediate heirs, the estate was owned by the Blackmore and Phelps family from 1740 until 1907. The last Sir Thomas Blackmore (d.1823) was probably responsible for remodelling the house and grounds in the late C18 or early C19, introducing softer more naturalised planting in the informal fashion of the mid C18. Elements*

*of the early C18 design remained however as illustrated in an estate plan of 1781, which indicates the principal late C18 changes including the de-formalisation of parkland and the introduction of the ha-ha to the front of the house. The formally planted terraces of the early C18 pleasure gardens had been largely removed and the walled kitchen garden remodelled. In the wider park, both the circular lake and canal remained, but at this point or later in the C19, the engine house was removed. Substantial parts of the formal avenues survived into the C19, but some were softened by additional and altered planting regimes. In 1855 Charles Phelps created an island in the circular lake.*

*In 1907 the house was sold to H. Gibbs (later Lord Hunsdon) who developed the grounds before 1914, leaving notes and sketches of the work he designed. Edwardian pleasure grounds were established to the south and west of the house, including a sunken garden, and a new drive with two lodges was constructed past the canal leading to Roydon station. Additional planting in the wider parkland included some specimen trees.*

*Since 1979 the house has been used as a hotel and conference centre. A golf course has been formed in the north-east portion of the park, but much of the early C18 designed landscape remains.*

*SITE DESCRIPTION LOCATION, SETTING, LANDFORM, BOUNDARIES AND AREA The house and designed landscape lies to the north-east of Roydon and west of Harlow new town. It is situated on a prominent slope overlooking the valley of the river Stort to the south and east, and the Juicy Brook to the west and north and covers an area of c 39 hectares.*

*ENTRANCES AND APPROACHES The principal entrance to the Briggens estate is from the north, where the mid C19 Tudor-style lodge and early C19 Neo-classical iron gate piers are both listed at Grade II and lead to a tree-lined drive of c.1720 date, largely replanted in the C20. In the Edwardian period, an additional drive lined mainly with sweet chestnuts was added leading from the mansion to the south-west to connect with Roydon station. Iron ornamental gates, brick-built piers adorned by vases flanked by classically styled brick lodges of 1914 mark this entrance and are all listed at Grade II.*

*PRINCIPAL BUILDING The mansion was built by Christopher Cass for Robert Chester in 1719 and extended by Thomas Blackmore in 1770, altered in 1899 and further remodelled by H Gibbs (Lord Hunsden) in 1908. The three-storey house is constructed of grey brick with stone dressings and has a hipped slate roof, but the interior is said to be thoroughly of the C19. It is listed at Grade II and is part of an immediate group of outbuildings, including the C18 two-storey grey brick stables with central cupola, and an element in the wider designed landscape.*

*ORNAMENTAL GROUNDS AND PLEASURE GROUNDS Bridgeman's pleasure gardens were levelled in the later C18. The designer of this later C18 scheme is unknown, but remaining elements include the shrubbery planting to north-east and south-east of the stables and the remains of the ha-ha between the stables and the kitchen garden. Much of the ha-ha was removed in the C20 reworking and although the Edwardian pleasure gardens are overgrown*

many of H Gibb's features remain to the south-west of the house including the listed west terrace, sunken garden, specimen trees and shrubs. These later structures are constructed in purple-red brick and the terrace, some 80m long, has a seat in the recess at the west end and two flights of semi-circular steps near to each end.

*PARK* Early C18 features designed by Bridgeman survive in the park including, to the west of the drive, the circular basin of 63m diameter with central island and canal to the south aligned north-east to south-west and measuring 280m long and 30m wide. The latter is substantially silted up and hidden behind overgrown trees. Extensive earthwork terraces lead from the basin up to the mansion and to the south of the mansion is a large riverside terrace with surviving chestnut trees. In the wider park, terracing and trees north-east of the kitchen garden, remnants of the original avenues, mature trees in the south-west of the park and earthworks which may be indicative of a park pale on the southern boundary are likely also to be part of Bridgeman's scheme.

*KITCHEN GARDEN* To the south-east of the house lies the now disused walled kitchen garden, measuring c 110m x 54m and listed at Grade II. The kitchen garden has C18 brick walls, curved on the west and a central sundial pillar. There are 2 wrought iron gates of 1908 and the remains of glasshouses on the west side. Although remodelled when the ha-ha was inserted in the later C18, it remains largely intact, although in need of repair.

*SOURCES* Andrew C Skelton, *The development of the Briggens estate, Hunsdon since 1720*, Hertfordshire Archaeology vol 12. 111-28 (1994-6) Anthony Wiggins, *Hertfordshire Gardens* (1970) Peter Willis, *Charles Bridgeman and the English Landscape Garden* (2002) Nathaniel Salmon, *History of Hertfordshire* (1728)

*REASONS FOR DESIGNATION* The designed landscape at Briggens is included on the Register of Parks and Gardens at Grade II for the following principal reasons: \* It retains many features commissioned by Robert Chester in 1720. \* The design is attributed to Charles Bridgeman, a landscape gardener of national importance with many highly graded registered parks and gardens to his name, who became Royal Gardener between 1728 and 1738. \* It is an example of an evolved designed landscape with subsequent later C18 and early C20 phases of note

## Listed Buildings within Briggens RPG

***Briggens House Hotel (formerly listed as Briggens) and attached Upper Terrace and Tank at W, along a drive, 300 metres S. of the Lodge – 1307983 -listed 24<sup>th</sup> January 1967***

Country House, now an hotel. Circa 1719 by the mason Christopher Cass (1678-1734) (Gunnis (1968) 88) for Robert Chester, a director of South Sea Company: 2-bay N and S blocks and 2nd floor added for Thomas Blackmore probably c1770 (name and date on stable bell): N end and W side extensions in 1899: alterations 1908 for H C Gibbs (RCHM Typescript). Former country house on hilltop site facing W in a landscaped park probably designed by Bridgeman.

*Grey brick with stone dressings, hipped slate roof, Portland stone upper terrace on S end overlooking a tank of York stone. 3 storeys above basement, 7 windows front. 3-window central portion breaks forward. Stone bands at each floor level and blocking course to stone cornice. 2-window, 2 storeys and mansard side wings rebuilt in C19, project and are linked by a single storey stone screen with 6 casement windows flanking door with open pediment. 3-window block on S end with upper terrace in Portland stone attached facing S. Balustrade of low square piers with stone rails between supported on stone balls. E front has large full height 3-window central bow and basement storey clad in stone. Recessed sash windows generally. A drawing exists for a chimneypiece for Briggens by James Thornhill dated 1720 but the interior is completely C19. A large C18 country house with later additions, in a prominent position on a hilltop. Part of an immediate group of outbuildings and part of a wider landscape composition. (VCH (1912) 325-6: Gibbs (1915) 23-6: Pevsner (1977) 343: HLHS (1979) 38: RCHM Typescript).*

**West Terrace walls, steps and seat at Briggens House Hotel 20 metres S of house – 1347689 – listed grade II 19<sup>th</sup> September 1984**

*Terrace walls and steps. Circa 1908 for H C Gibbs. Plum brick with recessed joints in walls, deeply chamfered stone copings, stone and moulded stucco seat, York stone paving. Formal lower terrace to S of house, 80 metres long with seat in recess at W end at upper level. 2 flights of 7 semicircular brick steps project southward, 1 near each end, flanked by low square brick piers with stone capping set in the long brick retaining wall with similar capping. Seat modelled in Florentine style with circular central achievement in the back with motto 'Tenax roposite'. Possibly part of the same terraced design with the Portland stone upper terrace and tank attached to the house. An impressive architectural feature, essential to the setting of the house*

**Stable Block at Briggens House Hotel 15 metres N of house – 1176287 – listed grade II 19<sup>th</sup> September 1984**

*Stable block. C18, probably 1770 (bell said to be inscribed '1770 Thomas Blackmore Briggins', in Gibbs (1915) 26) for the Blackmore family who enlarged the house, probably at the same time. Grey brick with stone impost band and hipped slate roof with fishscale slates on E side. 2 storeys, 6 windows, former stable block facing W, now part of hotel. Wooden cornice with paired brackets. Rectangular block with 2-window central projection on W with triangular pediment and clockface in tympanum. White wooden square cupola over, topped by low dome and windvane with a fox. Round-headed openings in each face, dentilled cornice and Tuscan columns recessed at each corner. Bell said to be cracked. Recessed sash windows with glazing bars. Gauged brick round arches to Ground floor on W, N and S with stone impost band continued across recesses on N and S ends with Diocletian windows in heads. Front arches now blocked and large sash windows inserted. Entrance now by centre arch of 5 in each end. Rear wall has 7 windows on each floor under gauged brick flat arches. Recessed sash windows with 8/8 panes to Ground floor, lower casement windows above. The 2 oak newel posts noted as reused in the stables (Gibbs (1915) 23) are good examples of Jacobean carving and have been retained. An C18 stable block of special architectural interest and part of a group at Briggens*

**Kitchen Garden Walls central Sundial Pillar and 2 Gates at Briggens House Hotel 100 metres E of house – 1101978 - listed grade II 19<sup>th</sup> September 1984**

*Kitchen garden walls, sundial and 2 gates. C18 and older red brick walls of garden, early C18 moulded Portland stone pillar, and 2 wrought iron gates with tall brick piers and large moulded stone caps with ball finials c1908. On sloping ground to the E of the house, a large rectangular red brick enclosure with straight sides to N, S and E but a 3-centred curved retaining wall at the W with central gate and steps down into the garden. A 3 metres high wall dividing off a narrow enclosure along the S side may itself be a remaining part of the formal walled garden at Briggens shown on Drury and Andrews' Map of Hertfordshire in 1766. It has a square pier at its S end some way short of the S wall of the kitchen garden. The lower part of the W wall is in C17 brick. The walls are mostly in Flemish bond red brick with wide joints and courses running down the slope. Wall top repaired in grey brick. Turned stone pillar like a large inverted baluster with circular sinking in top, and York stone base. Arts and Crafts style wrought iron gates on W and S with scrollwork in top third with parallel vertical bars below. Probably part of the extensive works at Briggens c1770 by the Blackmore family. Gates probably for H C Gibbs c1908. -An historic C18 walled garden. Part of the group of buildings at Briggens*

**Gates and Gatelodges to North Lodge, and South Lodge of Briggens House Hotel – 1149361 - listed grade II 30<sup>th</sup> September 1983**

*Gates and a pair of gatelodges 'HCG 1914' on approach bridge parapet. Plum brick with red brick dressings, steep Coniston slate roofs, carved limestone urns to gatepiers, wrought iron gates. A formal classical symmetrical arrangement approached by a converging parapetted bridge from Essex across a stream. Deep moulded brick capping and plum brick with short square piers to parapet wall, opening into small rectangular forecourt. Heavy wrought iron double gates with scrolled tops between tall brick piers with urn finials. Tall 1-storey and attics gate lodge on each side with steep hipped roofs, square central chimney and flat topped dormer with moulded cornice on each side. 2 flush box sash windows with 6/6 panes, each set in round arched panel with keystone. Moulded wooden eaves cornice. Parapetted flat roofed open porch links each lodge to a gatepier and each has an ornamental wrought iron gate in a round arched opening with stone impost and keystone. Circular opening with scrolled grill on canted face next gate. Matching brick extensions at rear of each lodge. The entrance frames a view of Briggens House along the avenue*

**Gates and Gate Piers at Briggens House Hotel 300 metres N of house – 1101977 - listed grade II 19<sup>th</sup> September 1984**

*Gates and gate piers. Early C19. Neo-classical cast iron gates and piers at entrance to North Drive at Briggens. A pair of gates with simple upright spears with heavy flanged heads set in a line and crossed bars in the lower part of each leaf. Tall openwork cast iron piers in the form of tapered square pylons on ball feet, a saltire with superimposed oval at top and bottom, stylized anthemion ornament up each face within a margin of rosettes, all topped by deep flat square caps. Similar side railings sweep down to lower terminal piers of cast iron of similar*

*design to the higher piers. Early C19 cast iron gates of a distinguished Neo-classical design. Part of the setting of the mansion and of the group of historic buildings about it*

**The Lodge at Briggens House Hotel 300 metres N of house – 1347688 - listed grade II 19<sup>th</sup> September 1984**

*Lodge. Mid C19. Single storey grey brick Tudor style gate house facing N at the entrance to the North Drive. Low pitched gabled roofs of large patent scalloped buff tiles. Main part N-S beside drive, minor wing set back on E with roof at right angles. Front gable has a plinth, 4-centred stone arched doorway with square-headed moulded label and moulded heads as terminals. Half-glazed door with small panes. Stone coat of arms over the door with motto 'Pro Ars et Focis' and a serpentine, pierced wooden bargeboard with finial to the roof overhang. Very wide eaves overhang carried on elaborate pierced openwork cusped wooden brackets with vigorously moulded corbel heads. W flank has toothed eaves course and 2 sunk panels each with a 2-light mullioned wooden window with cast iron lattice casements and moulded labels with foliate terminals. Tall brick central chimney with 2 square shafts. Similar details on lower gabled wing set back to E. A mid C19 ornamental gate lodge in Tudor style, little altered. Part of the group of historic buildings at Briggens*

**Hunsdon Brook Fishponds Scheduled Monument – 1457907 – listed 17th July 2018**

*Summary*

*A group of four Tudor fishponds, created for Henry VIII between 1525 and 1534. Defined by four large earthwork dams, with quarries, building platform and hollow way, they lie approximately 490m south-west of Hunsdon House.*

*Reasons for Designation*

*Hunsdon Brook fishponds, created for Henry VIII between 1525 and 1534, are scheduled for the following principal reasons:*

*\* Survival: as a very well preserved example of Tudor fishponds, created and used by Henry VIII for recreational fishing and/or as an expression of wealth and status over a period of 25-30 years; \* Rarity: as a very early example of fishponds built for aesthetic and/or recreational purposes; \* Potential: for the high level of archaeological potential in the waterlogged deposits, ideal for the preservation of organic remains, in the structural material and buried land surfaces beneath all four dams and in the building platform south of the southern dam; \* Diversity: for the diverse range of features including the dams, quarries, building platform, and holloway all of which contribute to our understanding of the use, construction, and evolution of the ponds and the place they held in the wider post medieval landscape; \* Historic Documentation: for the comprehensive references to the ponds in various historic documents,*

*which record the creation, use, maintenance and the subsequent disuse of the ponds; \*  
Group value: for the significant group value with Hunsdon House and the Parish Church of St Dunstan both of which are listed at Grade I.*

## *History*

*Fishponds were widely scattered throughout England with the majority found in central, eastern and southern parts, and in areas with heavy clay soils. Fewer fishponds are found in coastal areas and in those parts of the country where natural lakes and streams make freshwater fish readily available. Although C17 manuals suggest that areas of waste ground were suitable for fishponds, in practice it appears that most fishponds were located close to habitation or within parks where a watch could be kept to prevent poaching. There is considerable documentary evidence to suggest that some ponds also had a recreational use, and were possibly created for that purpose at least from C16. The earliest English essay on recreational fishing was published in 1496 but popularity in the sport grew in the C17 with many books and essays on the subject published after the Civil War.*

*Although around 2,000 examples of ponds are recorded nationally, this is thought to be only a small proportion of those in existence in medieval times. Despite being relatively common, fishponds are important for their associations with other classes of medieval and post-medieval monuments and in providing evidence of site economy, landscape design and recreation.*

*Whilst examples of Roman fishponds have been recorded, the majority date from the medieval period, and were associated with high status sites, particularly royal, monastic, and manorial contexts. This relationship with high status contexts continued into the post-medieval period although the creation of new ponds became less common after the C17, in part due to a reduced emphasis on fish in the diet, with the abolition of fish days, and also due to the greater focus on ornamental rather than utilitarian ponds in landscape design. It is interesting that the recreational sport of fishing expanded in the C17 but possibly making use of existing ponds or natural freshwater rivers and lakes.*

*The first emparkment at Hunsdon occurred after 1253 when Henry Engayne, lord of the manor of Hunsdon, received a grant of free warren in the demesne lands of the manor. In the C15, both the park and house at Hunsdon saw considerable expansion under the ownership of Richard Duke of York, who in 1445 was able to expand the park, and from 1447 began building a substantial embattled house. Hunsdon House and park were in the ownership of Henry VIII by 1525 when he began a substantial programme of works on the house and parks.*

*In 1529 there were three royal parks at Hunsdon: the 'old park' to the north of the house, the 'new park' and 'Goodmanneshyde', an area first noted with the fieldname 'Godmundeshyde' in the C13. It is in this latter park that the ponds were constructed, and by 1556 it was referred to as 'The Ponde Parke'. The Hunsdon building accounts show that the fishponds were constructed between 1525-1534, and were at least partially functional by September 1530, when privy purse expenses show payments to keepers for 'watchyng the fische'. Henry VIII appears to have used Hunsdon less frequently after 1536, when it became a principle home for Princess Mary. The final documentary reference to the ponds is in 1556, when the fishponds*

were noted in a survey of Hunsdon as being in 'greate decaie', with trees felled for their repair. Hunsdon House and Park was granted to Henry Carey along with the title of Lord Hunsdon by Elizabeth I in 1559, and it is possible that the fishponds fell out of use around this time. The parks were disparked by 1684, and the site of the fishponds became a mixture of meadowland and secondary woodland.

The Hunsdon Building accounts of 1525-1534 distinguish between the four 'greate pondis' and 'the lytell pondis'. It is likely that these other ponds are the pair of smaller ponds at NGR TL4156812824, which conform to C16 and C17 advice for servatoria or holding ponds, in being constructed within view of the house, and with a surrounding earthwork bank. The distinct geometric shape of this earthwork may suggest that it was reworked in the later C16 or C17, when similar geometric 'pond yards' were created elsewhere in Hertfordshire (for example at Gorhambury). The site appears to have been used as the site of a clump of trees in C18 parkland landscaping, and requires further survey work to confirm forms.

Clear evidence of park features created for aesthetic reasons starts to appear in Hertfordshire in the C16 at Theobolds, Cheshunt but it is possible that Henry VIII created an elaborate 'water garden' in the Pond Park close at Hunsdon some 40 years earlier. Covering 12 acres in 1556, the impressive scale, together with the high cost of their construction, suggests their purpose was more than simply functional and raises the possibility that the King wished to emulate Italian Renaissance gardens of the period (Rowe, forthcoming). It appears aesthetics and recreation went hand in hand at Hunsdon. Henry VIII is known to have enjoyed fishing and several accounts make reference to this; in October 1531 Henry was hunting in Waltham Forest and may well have visited Hunsdon because accounts record payments to the keeper of Hunsdon and to others who 'helped to fish there'. This suggests that the King had been fishing in one of Hunsdon's parks, something he also enjoyed at More Park, Rickmansworth where prior to a visit in 1534, the park pale had been repaired and, in preparation for his summer visit, the ponds were renovated with 'mowing and clensyng of gresse and weeds in and about the pownds and in the moote for the kyng's grace to fysche'.

#### Details

**PRINCIPAL ELEMENTS:** the well-preserved remains of four Tudor fishponds consisting of four substantial earthen dams with the sides defined by varying degrees of excavation, along with the remains of an overflow leat on the western edge of the ponds. There are several associated features, including two well preserved quarries dating from the construction of the ponds to the west of the two uppermost dams, the remains of ridge and furrow in the southernmost pond, a rectangular building platform adjacent to eastern end of southernmost dam, and a well preserved section of holloway adjacent to the southernmost dam.

**DESCRIPTION:** the southernmost dam is about 115m long and approximately 2.5m high, and is orientated west-north-west. The dam has historically been used as a track, and has had some gravel material introduced to create a road surface. The Hunsdon brook passes through a C19 or early C20 brick culvert in this dam.

*The lower three ponds all have steep eastern banks that appear to have been artificially profiled. Material removed from the banks in the southernmost pond is likely to have been used to construct the dam, accounting for the absence of construction quarries. In the interior of the pond are the remains of ridge and furrow ploughing parallel to the dam. Whilst this may post-date the abandonment of the fishponds, several C17 manuals (see sources, Taverner, 1600) recommend draining and ploughing fishponds at regular intervals to improve water quality, and these may therefore be coeval with the fishponds. The meadowland vegetation with clumps of rushes indicates that the soil here is partly waterlogged.*

*The second most southerly dam is 3-3.5m at its highest point, is 90m long and is orientated north-west. The top of this dam is narrower than the other three, and does not appear to have been used as a routeway at any point. It also has a C19 brick culvert. LiDAR imagery (see sources) shows the outline of a quarry apparently for construction material adjacent to the east terminus of the dam, but it has been severely eroded as a result of repeated ploughing. The interior of this pond shows evidence of clay rich soils on the western bank, which may be evidence of the clay lining noted in the Hunsdon building accounts. There are C20 attempts at drainage visible on LiDAR, a shallow channel, cut across the surface of the pond, serving as a field drain to the agricultural land to the east, can be seen. Also, the overflow leat in this pond appears to have been reworked as part of this, with a linear gully on the west bank of the pond, turning sharply against the bottom of the dam, returning to the brook next to the culvert. The soil remains waterlogged with some established secondary woodland.*

*The second most northerly dam is around 3m at its highest point and 110m long, and is oriented north-north-west. Adjacent to its western terminus is a substantial and well preserved oval-shaped quarry, measuring approximately 50m by 25m, that shows at least two phases of use. A small C20 dam, constructed of concrete rubble topped with brick, and with ceramic pipe outflow, occupies 10m gap in the dam. This first appears on the 1923 OS 1:10560 map, along with the re-flooding of the second northernmost pond, although the stream is now diverted immediately to the west of this structure. The pond remains waterlogged with some areas of standing water, and vegetation including willows. A narrow terrace has been recorded running along the east side of this pond although the vegetation growth meant this wasn't accessible at the time of the field visit (31 May 2018)*

*The northernmost dam is 2.5m-3m at its highest point, about 12m wide and is 100m long, and is oriented west-south-west. A track leads to this dam from the west, and this dam may have been used as a crossing point historically. It has a C19 brick culvert. Immediately adjacent to the western terminus of the dam is a sub-circular quarry of approximately 30m diameter, dating to the construction of the dam. A tree lined trackway extends for about 190m along the east bank of the pond, with large mature oaks on the defined edge of the pond. Where this meets Bury Plantation, the edges of the pond are less clearly defined. In similar examples of fishponds constructed by damming watercourses, (as at Harrington, Northamptonshire, List entry reference 1003875), the upper ponds tend to be of a triangular shape defined by the topography, and are often shallower. Roberts (1988) suggests that this part of valley pond systems may have been used for rearing beds.*

*The remains of the overflow leat on the western bank of the ponds are very clear on LiDAR images. These were common features of valley ponds, both to drain the valley during dam construction, but also to divert floodwaters from damaging dams or fish stocks. It appears to divert from the brook at NGR TL 41219 12540, suggesting a limit for the upper pond. It is unclear where it returns to the brook, although there is broad shallow gully immediately in front of the southernmost dam and parallel to it. Adjacent to the southernmost pond, the leat is somewhat eroded but is visible as a slight gully with a ridge against the pond.*

*Adjacent related features include a rectangular building platform that is perpendicular to the southernmost dam, and appears to be coeval to the ponds. It extends 20m by 12m, and rises up to 1.5m from the valley floor. The southern end of this platform has a slight ridge of less than 0.5m. This building may have served a utilitarian function, comparable to the smokehouse at Oldstead Grange, North Yorkshire, or else a domestic function comparable to the C16 fishing pavilion at Hatfield House, Hertfordshire (the Park and Garden is registered at Grade I). LiDAR imaging for the building platform and the east terminus of the dam show a bottleneck pattern of erosion consistent with livestock accessing the brook from the east.*

*The holloway leading north-north-west from the southernmost dam aligns with a field boundary and cropmark noted on aerial photographs, which forms the parish boundary and may therefore represent a pre-enclosure track contemporary with the park. The use of fishpond dams as trackways is fairly common in extant examples (for example at the sites of Harrington, and Aston le Walls, Northamptonshire.).*

*With regards to archaeological potential, each of the four ponds have waterlogged, rich organic soils that would allow for the preservation of environmental remains. Archaeological investigation of other fishponds suggest that they rarely contain fish bones or other data for fish stocks, presumably reflecting the fact they were regularly cleaned out as part of management (indeed, the Hunsdon building accounts show expenditure for 'two botis..for the clensing...of the great pondis'). However, fishponds have been used as good sources of wider environmental data. The Hunsdon fishponds therefore have the potential for good environmental data for a late medieval royal park landscape and its environs.*

*Each of the four ponds are waterlogged, providing an idea anaerobic environment for the preservation of organic remains. These have a very high archaeological potential for the retention of wider environmental data which, when analysed, could provide information on the contemporary physical landscape of the post-medieval royal park and the socio-economic context in which it functioned.*

*EXTENT OF SCHEDULING: the scheduling aims to protect the fishponds, dams, leats, quarries, building platform and a section of the hollow way leading from the southernmost dam. Along the north eastern and south eastern edge the constraint line follows a field boundary hedge, across the southern end the line follows the base of the southern slope on the southern dam and then continues on the south western edge of the hollow way before crossing it then turning south eastwards to the western edge of the pond and overflow leat. The line then follows the western edge of the leat, ponds, dams and quarries northwards curving to a point at the northern extent of the ponds. The line south of the southernmost dam, and that running*

up the west side of the monument includes a 3m buffer from the edge of the ponds and quarries, considered necessary for the support and preservation of the monument.

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Hunsdon Building Accounts TNA A 101/465/20

Nicholas, N, *The Privy Purse Expences of King Henry the Eighth from November MDXXIX, to December MDXXXII with introductory remarks and illustratory notes (1827)*, p72

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## Outlying Listed Buildings

### Olives Farm

**Olives Farm house (Formerly listed as Olives Farmhouse) along track 220 metres from road – 1101951 – listed grade II\* 4<sup>th</sup> December 1951**

House. C15 open hall house with sooted roof, floor and chimney inserted in early C17, kitchen wing added at NE in later C17, extended to rear in early C18, single storey and cellar extension on S end in early C19. Timberframed plastered house with steep pitched, old red tile, gabled roofs. Red brick low early C19 extension at S with hipped roof. 2 storeys, 4 windows house facing W. Double-pile plan produced by additions to C15 front range. Layout of continuous axial crown post roof suggests a 2 storeys parlour bay to N of a 2-bay hall (heavily soot blackened), a narrow bay for the cross passage with a wide service bay at S end, probably of 2 storeys. Open truss of hall mutilated and collar purlin cut for inserted C17 brick chimney in N bay of hall. This has no fireplace for the parlour which then became a dairy and the kitchen was subsequently built alongside in the later C17. This was extended southward to complete the double-pile plan in the early C18. W front is partly symmetrical - about the door with 1 window on each side. More irregular at N part, with windows not in line. Flush box sash

windows with louvred shutters and 3/6 panes on 1st floor. Triple sashes on Ground floor with 2/2:6/6:2/2 panes. Broad architrave to door early C18 moulded and carved. Flush panelled externally, the 6- panel door has ovolo mouldings with 2 fillets and heavy iron hinges inside. Rustic gabled porch. Repairs to N wall revealed close studding with tension bracing, and long straight down bracing from crown post to tie beam (photograph at farm). N wall of kitchen refaced in brick. 3-light leaded casement window on 1st floor. Similar Ground floor window with wooden casements. Rear door half-glazed with heavy ovolo moulded glazing bars and enriched moulded architrave. Heavy 8-panelled ovolo moulded inner door with raised and fielded panels on inner face. Hall fireplace partially blocked, and 2 cross beams to carry inserted floor. Part of E side wall cut away and cast iron column inserted. Axial beams in both end rooms. Upper room at N end has lower floor level, C17 axial ceiling beam with chamfered joists, and a blocked 3-light window on the front wall at the N end, with head mortices for diamond mullions. Signs of a corresponding window on rear wall in corner staircase. Plain tall square crown posts with deep curved braces to collar purlin only. Dovetail lap joints of collars to rafters on N side of each couple. Remains of timberframed smoke hood around upper part of brick chimney. John Olive obtained land in the parish in 1344. The first known owner of the house was John Shelley, a London mercer who died in 1486, who held it of Waltham Abbey. His wife's brass is in the church (HLHS (1979) 33 and additional information from Miss Palmer at Olives Farm). An important early timberframed house of exceptional interest for its crown post roof and for parlour, hall and service bay being arranged axially under a single gabled roof. (RCHM (1911) 128a: HLHS (1979) 33: RCHM Typescript).

**Stables at Olives Farm 20 metres lilt of house – 1176672 – listed grade II 19<sup>th</sup> September 1984**

Stables. Early C19 (on Tithe Map of 1842). Grey brick stable range with hipped red tile roof, facing S. 2 boarded stable doors with fanlights, flanked by small high-set windows, each under a yellow brick gauged arch. Each window has many panes in a wooden frame, 21 panes to each fanlight and 10/10 panes to each window. This imposing stable range forms the E wing of a symmetrical composition with a 2 storeys granary in the centre. The other parts are listed under Stanstead Abbots parish qv. Part of an historic group with Olives Farm house

**Stables and attached Granary at Olives Farm 45 metres NW of farmhouse -1203927 – listed grade II 30<sup>th</sup> September 1983**

Early C19 (but on Tithe Map of 1842). The larger western part of a symmetrical grey brick 1-storey stable range with central 2- storeys projecting brick granary, facing S. The eastern stable range is listed under Hunsdon parish. Red tiled hipped roofs. Central granary has gauged buff brick arches to 2 windows on ground and 1st floors. Recessed sash windows with 15/10 small panes. Double doors central leading to wide steep stair to upper floor. Lower stable range with 2 boarded stable doors with fanlights of 21 small panes flanked by high set sash windows of 10/10 panes. Later crosswing at W and with pitched roof hipped at S end. This imposing brick range forms part of a symmetrical composition. Part of an historic group with Olives Farm house

**Barn at Olives Farm 55 metres WSW of farmhouse – 1078743 – listed grade II 30<sup>th</sup> September 1983** (not located/identified during site visits)

*C17. Timber framed, weather boarded 6-bay barn on low brick plinth with steep gabled roof now covered in corrugated iron. Facing W with 2 gabled porches. Opposed doors in E wall. Jowled posts with long curved braces to tie-beams. Curved braces in walls with rails tenoned in line. Upper part of roof rebuilt. Face- halved bladed scarf joint in wall plate over each post. An historic timber framed barn, part of the picturesque group at Olives Farm*

**The Old Bungalow at Olives Farm 90 metres - SSW of house -1101952 – listed grade II 19<sup>th</sup> September 1984**

*House, early C19. Timberframed, part plastered and part weatherboarded, L-shaped farm cottage facing W with steep red tiled hipped roof. On right-hand plastered part, a symmetrical arrangement of door with a window each side. Rear wing at S end. 3-light small-paned flush wooden casement windows. Lefthand part weatherboarded under continuation of same roof. Plank door against house and high 2-light opening for ventilation. An interesting late timberframed single storey house. Part of a picturesque group with the farm house*

## Bonningtons

**Bonningtons – 1078722 – listed grade II 4<sup>th</sup> December 1951**

*Country house. C17 or earlier farm house enlarged as a country seat 1687 by Ralph Byshe, a much larger block added at SW corner; improvements c1725 for John Byshe (RCHM Typescript). Mid C19 billiard room added on W with single storey pavillion link. Rear wing to S range c1900, 2-storeys in matching style. Red brick and old red tiled roofs. Older E wing lower, 2-storeys and 3- windows with large central chimney. Parallel rear range with end chimney rather later. Door enters behind chimney. Gabled porch and casement windows in flush frames under segmental arches. Early C19 sash window on left. 2 old casements and one of C19 above. Brick band between storeys and moulded eaves courses. South block has elaboration around W entrance now obscured - some features of formal S front may be improvements of c1725. Double- pile plan with central passage to rear staircase and axial passage in rear half. S front of 2-storeys, cellars and attics. Brick band at floor level. 7-windows and 3 flattopped dormers. Central door panelled in moulded doorcase with triangular pediment on moulded brackets. Sash windows in flush moulded frames with sunblind cases and 6/6 panes. Early thick glazing bars at rear have been removed at front. Modillioned cornice to hipped roof. Projecting single-storey link on left (one window and hipped roof) to single-storey billiard room with truncated pyramid roof. A low porch on E side of house altered c1980. Large granite fountain bowl in front of house brought from elsewhere in C20*

**Garden wall, gates and gate piers at Bonningtons 100 metres N of house – 1341869  
– listed 30<sup>th</sup> September 1983**

*Garden wall with double-gates, standards, side rails, and gate- piers. C16 or early C17 walls, with central N gates probably c1725 for John Byshe. 3 metres high red brick wall. Tall red brick piers with moulded stone caps and carved urn finials. Wrought iron standards and side-rails with spears and double gates. The gates are said to have formed part of an axial approach to Bonningtons hall from N*

**Newlands - 1372872 – listed grade II 24<sup>th</sup> January 1967**

*House. Mid C16 NW range, S (front) range c1600, minor NE range late C17, altered and front Gothicised in early C19 (RCHM Typescript). Timberframed and plastered. Old red tile roofs, 2-storeys and attics, facing S. 2 distinct blocks probably for independant households. Older NW range, one and a half storeys, enlarged at E end beyond chimney stack. Hall probably the present kitchen; the cross-wing having a parlour and perhaps a service room. S range has formal front of 5-windows and central door flanked by Doric pilasters. Flat wooden porch with 2 Doric fluted columns. Triple sash window each side with Gothic tracery in moulded frames with sunblind cases. 5 sash windows above with similar frames and tracery, and 6/6 panes. Dormer in roof slope. 5-bay roof structure with butt-purlins and wind braces. Stopped chamfered beam in E room and axial beam at W end. NE block with clasped-purlin roof structure. Early C19 main stair comtemporary with Gothic windows. NE block built-stacks built as now. Clasped-purlin roof-present stair later infill Gothicised in early C19. New windows except old block (kitchen and service). Porch added and attics probably upgraded. Outhouse at SW (stable block) built then and main staircase. Conjunction of 2 houses in 1 site -suggests unit system like New Hall in Ware Rural parish q.v. (RCHM Typescript)*

**Little Briggens Group**

**Windmill Cottage – 1341868 – listed 30<sup>th</sup> September 1983**

*House. Late C18, extended to rear and subdivided in C19, now one house. 2-storeys and cellar red brick house painted white. Steep old red tile roofs with fancy ridge. Internal gable chimneys. South front has central door up 6 steps, projecting floorband and 3 sash windows to upper floor grouped together in middle. 2 windows to right of door, and double sash window to left. 2 windows to cellar set in plinth. Recessed sash windows with flat gauged red brick arches showing through paint. C19 stucco eared door surround and cornice to door into rear part on E side. Half glazed door with small panes up 4 steps with iron handrail*

**Little Briggens – 1078765 - listed 30<sup>th</sup> September 1983**

*House. Circa 1895 by Gatsby for Mr Reeve, financial director of Truman. Hanbury and Buxton. Red brick, 2-storeys and attic with hipped red tiled roof and tilehanging to upper part of one projecting gabled bay on S. A picturesque irregular house facing S and W with wide segmental arched windows, moulded brick band at sill level on both floors, 4 panelled door in a lean-to porch in the SW angle next an one-storey brick bay set diagonally across the corner. Tall square internal chimneys with corbelled top panelled on each face. Tilehung gablet by W chimney. 3-light and 4-light transomed casement windows with small panes in upper lights. Servants' stair-turret at back serving attics. Architect's perspective drawing kept in house*

**Coach house at Little Briggens – 1051103 - listed 30<sup>th</sup> September 1983**

*Coach-house. Circa 1895. Red brick, tilehanging and half timbering with a red pantiled roof. A wide shallow building, 2 storeys in centre with symmetrical lean-to sections each side. Tall centre marked off by brick pilasters has open ground floor, deep wooden beam, decorative tilehung upper part with central boarded door to hayloft, half-timbered gable, and wavy bargeboard with pierced pendant. Brick wings each have one window set in the red brick wall. Segmental arched head, moulded brick sill and small paned hopper windows to stables entered from central part. Listed for group value*

**Stanstead Lodge – 1356580 - listed 30<sup>th</sup> September 1983**

*Farmhouse now a private house. C18. Said to have been Bugges Farm formed out of 2 timberframed cottages c1720 to which Robert Chester retired when the bursting of the South Sea Bubble interrupted his building of Briggens nearby in Hunsdon parish (q.v.), and have been extended in 1926 by Sir Albert Richardson and 1965 by Charles Cunningham. 2-storeys, L-shaped roughcast house with old red tile hipped roof and central chimney to main range facing E. Semi-circular moulded porch on 2 columns protecting central 2-panel door in glazed screen. 5 flushbox sash windows, with 6/6 panes, has triple sash window over door, all renewed. Low plinth and box eaves. Garden front on S of 2- storeys and 5-windows with central half-glazed door and 6/6 flush box sashes. Upper floor windows with 3/6 panes and moulded architraves. Overhanging eaves. 2-light casement windows to rear. C20 outbuildings*

**Briggens Home Farm Complex**

**Briggens Home Farm house and attached wall at E – 1307985 – listed grade II 24<sup>TH</sup> January 1967**

*House and wall attached. Late C16, late C17 chimney probably replacing a timber one (RCHM Typescript), low C17 red brick garden wall attached at E, E room added and symmetrical 'Gothic' front applied as a landscape feature, probably when Robert Chester built Briggens*

*opposite c1719, with a landscaped park probably by Bridgeman. Symmetrical late C19 single storey rear wings added when house formed 2 cottages. Older part is a 3- unit, lobby-entry plan house facing S, with unheated service room at W end. Timber frame plastered and steep old red tile gabled roof. 2 storeys, 2 windows roughcast, false front on S rises above level of old eaves. All windows on front have ogee headed 2-light wooden windows with transoms and iron plate casements (painted imitation window at upper right). 2 3-sided 2 storeys bays with ogee headed blind recesses in sides. Central 4-panel flush beaded door in simple pilastered surround with flat hood on shaped brackets. Axial beams chamfered and stopped, on Ground floor. Stair rises to rear of massive central chimney. Exposed close studding and long curved tension braces on inside of W wall and similar bracing in partition in same upper room. Clasped purlin roof. Named Juicy Brook house in Tithe Award of 1842. An historic C16 timberframed house, modernised in the C17, later disguised as a Gothic 'eye-catcher' in the C18 and little-altered since. Picturesque element in the landscape and part of the group of historic structures around the country house of Briggens*

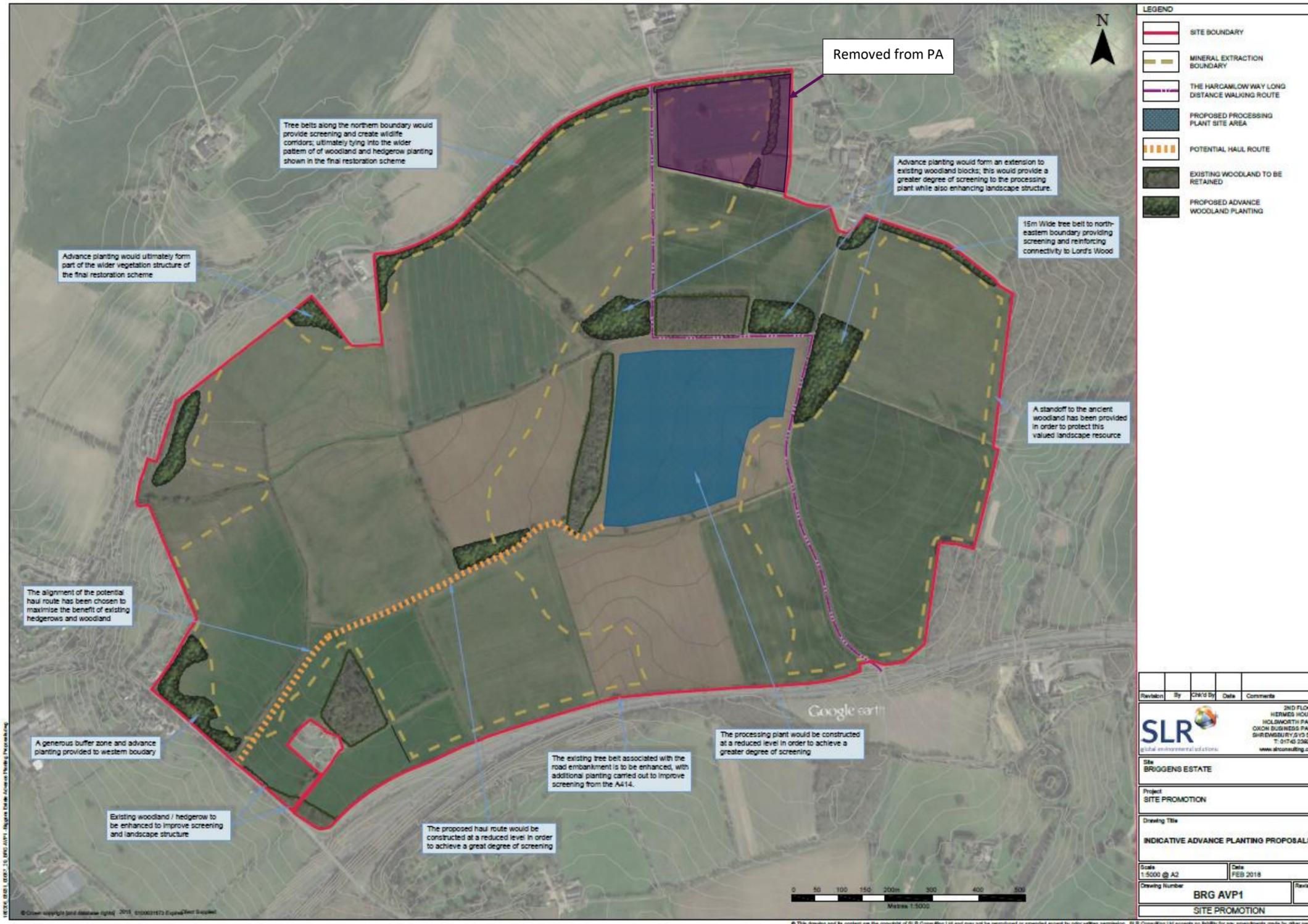
**Stables and attached Carhouse at Briggens Home Farm - 30 metres NNE of house - 1101976 – listed grade II 19<sup>th</sup> September 1984**

*Stables and carhouse. C18, single storey stable refronted in early C19 when 6-bay open fronted carhouse added at right angle at E end. Stable of pinkish brick in English bond, with grey brick front and steep old red tile hipped roof. Carhouse has timber arcade to open W front with decorative boarding over and roof now of asbestos cement. L-shaped group enclosing yard, next to gate to road'. The stable has 4 stable doors and 2-light windows under gauged brick flat arches. Clasped purlin roof construction and internal partition, timber frame and clad in weatherboarding. An historic L shaped group of farm buildings. Part of the farmyard group at the Home Farm*

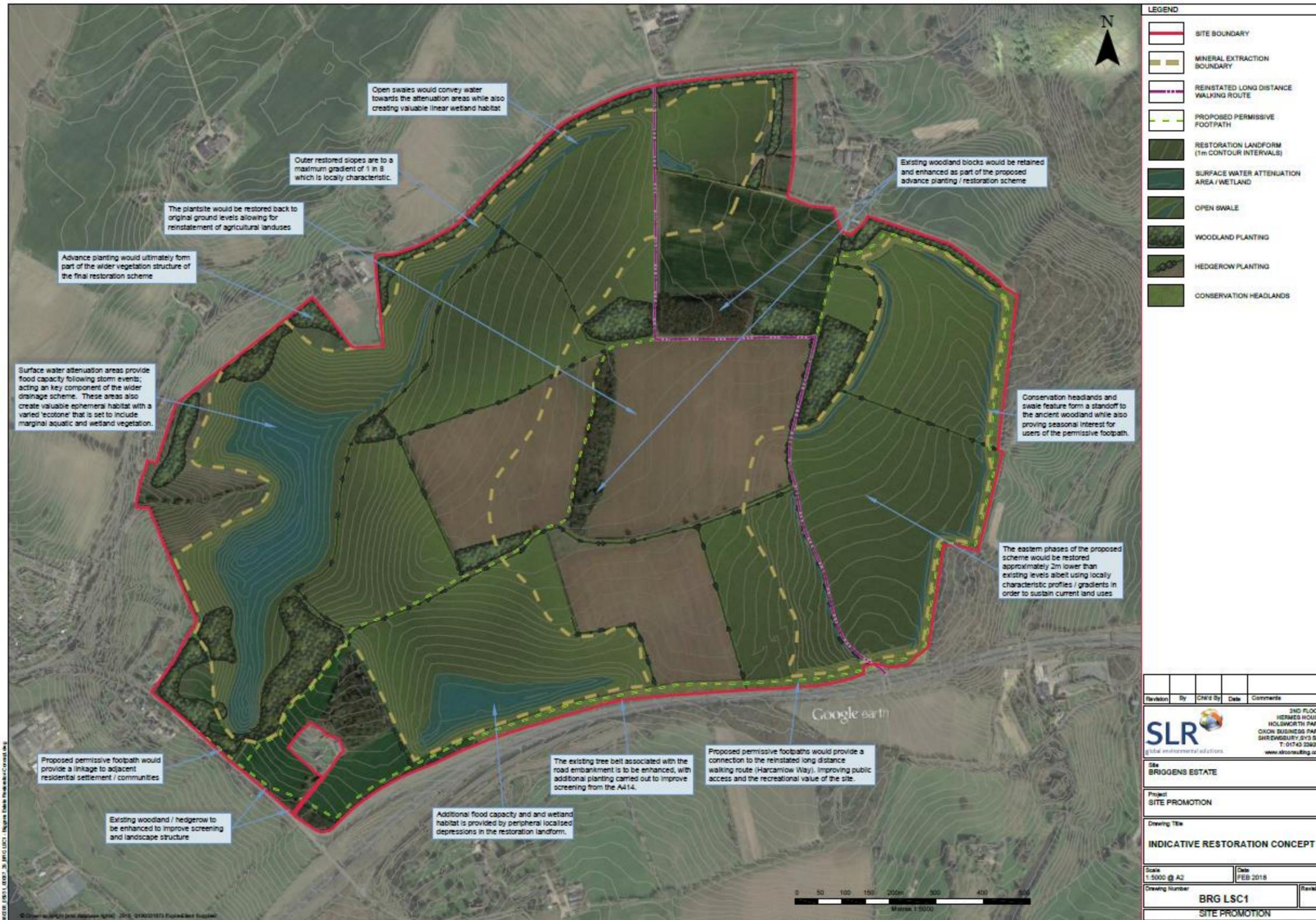
**Aisled Cattleshed at Briggens Home Farm - 50 metres NNW of house - 1176219 – listed grade II 19<sup>th</sup> September 1984**

*Aisled cattleshed. Later c19. Large square grey brick building with wide entrance in gable facing S. Low pitched gabled roof now covered in corrugated asbestos. Vertical boarding with arched, decorated, lower edge over entrance. 6-bay timber structure of open nave and wide aisles divided into bays, each with a 2-light window. The arcade posts have rebates to hold rails closing off each bay. Central circular window in N gable above larger (modern?) windows. Wide span king post roof structure and inclined strut from lower aisle tie supporting purlin of aisle roof. An unusual, spacious, later C19, aisled cattleshed, little altered. It is of special interest as the culmination of the C19 changes in the farming economy of the area towards fattening cattle in enclosed yards with open fronted sheds for shelter. The addition of roofs over the yards was common and led to integration of covered yard and shelter sheds in the nave and aisles of a single building in this example. It is part of the historic farm group at Briggens Home Farm*

## APPENDIX 2: Map of Proposed standoffs



# APPENDIX 3: Site Context Plan

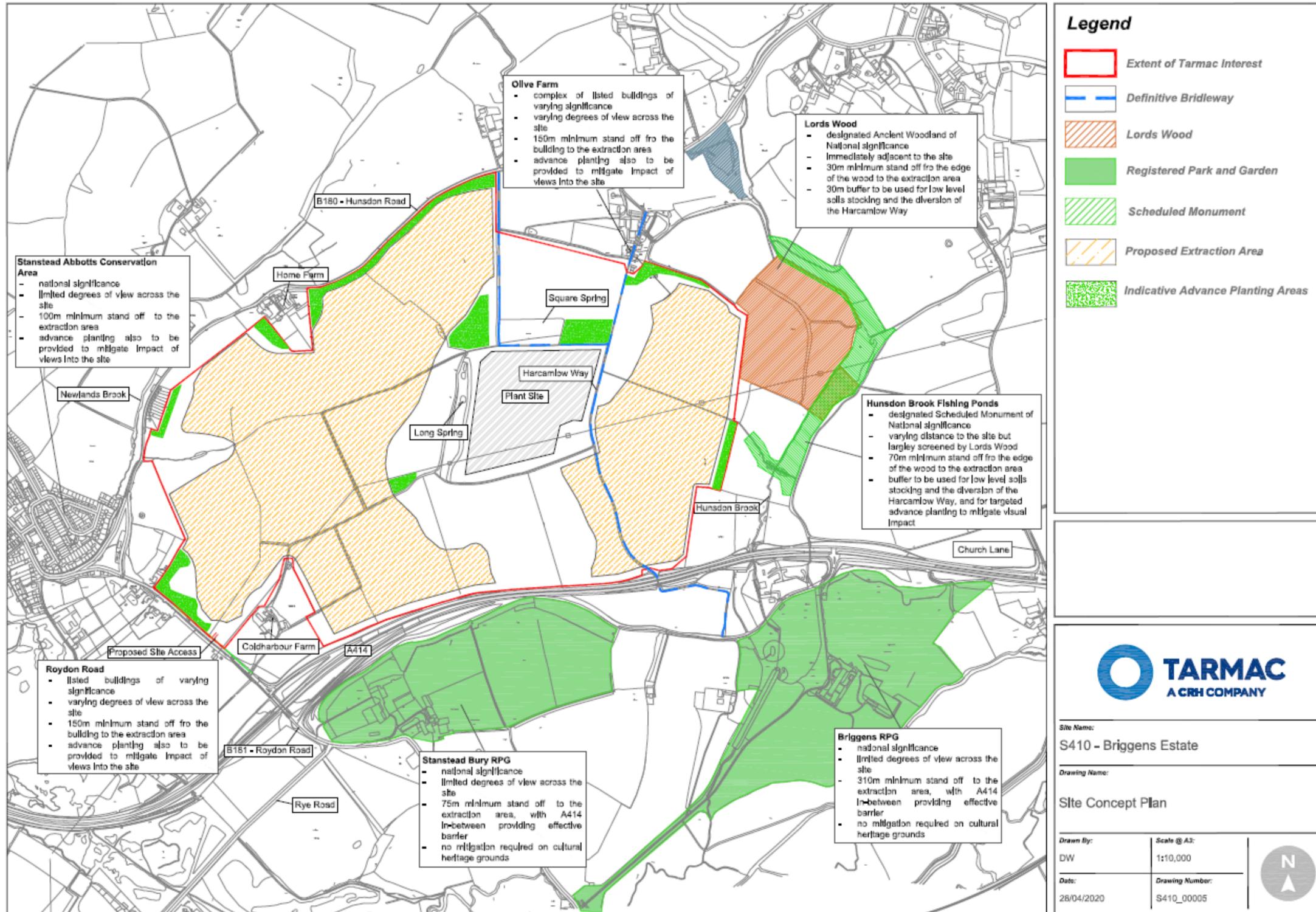


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## APPENDIX 4: Location map of proposed soil bunds and overburden stockpiles



# APPENDIX 5: Concept Plan



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Site Name:  
S410 - Briggs Estate

Drawing Name:  
Site Concept Plan

Drawn By: DW	Scale @ A3: 1:10,000
Date: 28/04/2020	Drawing Number: S410_00005

N

## APPENDIX 6: BCL Hydro Hydrological Assessment

Your Ref: B90/1  
Our Ref: S/TSL/BEP/L20/002

Dan Walker  
David L Walker Limited  
Albion House  
89, Station Road  
Eckington, Sheffield  
S21 4FW

16th April 2020

Dear Dan,



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[Tarmac Trading Limited: Briggens Estate Prospect, Hertfordshire](#)  
[Draft Minerals Local Plan Consultation Submission](#)  
[Water Features Associated with Heritage Assets](#)

### Background

In February 2018, Tarmac Trading Limited (TTL) submitted a draft Minerals Local Plan consultation submission (The Submission) to Hertfordshire County Council (HCC) with regards to the proposed extraction of sand and gravel (The Proposed Development) at Briggens Estate, Hertfordshire (The Site).

The Submission included a Heritage Impact Assessment, as drafted by the Heritage Collective in 2019, ref: 3950A (The 2019 HIA). A separate Hydrological and Hydrogeological Assessment (H&HA), as drafted by BCL Consultant Hydrogeologists Limited (BCL) in 2018, ref: TSL.BRIGGENS.MPS17.02 (The 2018 H&HA) was also provided.

Correspondence has since been received from Historic England (HE) providing comment upon the 2019 HIA, and requesting submission of further detail upon the potential for hydrological impact upon the heritage assets detailed.

BCL have thus been instructed by David L Walker Ltd (agents of TTL) to provide further hydrological and hydrogeological detail in this regard.

### Aims & Requirements

The correspondence received from HE details the following requirements:

- i. Consideration of potential water related impacts upon hydrological / hydrogeological features associated with local heritage assets that may be associated with the Proposed Development.
- ii. Provision of a detailed conceptual hydrogeological model of the Site and its relationship with local heritage assets.
- iii. Presentation of figure detailing the Site hydrological / hydrogeological setting in relation to local heritage assets.

**BCL HYDRO**

S/TSL/BEP/L20/002  
16th April 2020  
Page 1 of 8

With regards to point iii. above, the referenced methodology exceeds both the level of assessment typically required at the Minerals Local Plan Submission stage, and that which is possible given the preliminary level of assessment, detail of Site development proposals and associated supporting data that is available at this time.

It is however considered that, much of the required information is already presented within the 2018 H&HA, as summarised in a preliminary Conceptual Hydrogeological Model at section 3.11 of that document.

For ease of interpretation, and to provide further context, this letter thus aims to apply the findings of the 2019 H&HA to the relevant local heritage assets identified within the 2019 HIA, to provide a preliminary assessment of the potential for water related impact upon these features to occur as a result of the Proposed Development, and to highlight potential mitigation techniques that may be applied to reduce any such impacts to acceptable levels where necessary.

Review of the 2019 HIA has identified the following heritage assets considered to be relevant in this regard:

- Water features associated with Stanstead Bury Registered Parks and Garden (RPG).
- Water features associated with Briggens RPG.
- Water features associated with Hunsdon Brook Fishponds Scheduled Monument (SM).

### Summary Site Description

The hydrogeology of the local area consists of Cretaceous chalks (a Principal Aquifer) overlain by the silts sands and clays of the Lambeth Group (a Secondary Aquifer though of limited vertical permeability, functioning as an aquiclude) and the London Clay Formation (a low permeability aquiclude) respectively. The solid strata is in turn overlain by superficial deposits, constituting glacial / fluvial / glaciofluvial sands and gravels (The Lower Aquifer) and Boulder Clay (an aquiclude with interbedded sand and gravel aquifers of limited distribution, the Upper Aquifer).

The Proposed Development is to involve extraction of the superficial sands and gravels, both within and beneath the Boulder Clay. Mineral extraction is not to proceed significantly below the expected base of the superficial deposits (elevation within Site of 46 to 56 metres above Ordnance Datum, maOD). Underlying strata will thus be effectively undisturbed.

Groundwater elevations within the Lower Aquifer range from some 48-50maOD, with an indicated southerly flow direction (though an easterly flow component is present on the eastern Site boundary, towards and in line with the Hunsdon Brook).

Groundwater interception within the works is expected, both from perched groundwaters within the Upper Aquifer, and from within the Lower Aquifer (only parts of the Site will require dewatering and to modest depth due to the limited Lower Aquifer saturated thicknesses indicated).

Abstracted waters are to be returned to ground within worked quarry phases (Lower Aquifer) without need for surface water discharge. The Site will be restored through use of a combination of on Site indigenous resources and through the importation of inert restoration material.

## Stanstead Bury RPG

### Overview

Stanstead Bury RPG is located some 90m to the south of the southern Site boundary (separated from the Site by the A414). The Parks and Gardens (and features therein) are located upon the same geological succession as described for the Site, excepting the absence of Boulder Clay (and thus Upper Aquifer).

Publicly available well records for the area show 2 no. wells in proximity to the House, as located at National Grid Reference (NGR):  $^539960$   $^211150$  (Well 1, 20m west of main house) and NGR:  $^540050$   $^211250$  (Well 2, 200m north east of house).

Wells 1 & 2 are recorded as being of 100m depth and completed within Chalk, with the full overlying geological sequence being metal cased. These wells are thus assumed to have groundwaters within the chalk as their sole source of supply.

Publicly available mapping shows the presence of 1 no. surface waterbody within the grounds of the House, in the form of a rectangular lake to the west of Stanstead Bury Farm, at NGR  $^540075$   $^211088$  (Lake 1). The construction of Lake 1 is not known, and must thus be assumed to be in continuity with groundwater within the Lower Aquifer.

A small ditch (The Southern Stream) is seen to rise upon the southern side of the A441, 300m to the north east of the House, which flows south to the River Stort. The flow regime and relative value of this feature is not known. It must thus also be assumed in continuity with groundwater within the Lower Aquifer for at least part of its course.

The location of relevant identified features is shown at *figure 1*, with preliminary cross sections being presented at *figure 2*.

### Preliminary Assessment of Potential for Impact Upon Identified Features

#### Water Levels / Flows

Wells 1 & 2 are indicated to be hydraulically isolated from the Site, as their source of supply (Chalk) is separated from the Site by intervening strata of low vertical permeability, functioning as aquicludes (London Clay / Lambeth Group). Site operations are thus not anticipated to result in any impact upon these features.

Lake 1 is potentially in hydraulic continuity with the Lower Aquifer, though holds an indicated elevation of 42maOD. Mineral extraction is not expected to significantly exceed the base of Lower Aquifer (minimum 46maOD), and groundwater elevations will thus not be drawn down below this level by dewatering operations. Further, as at section A, *figure 2*, negligible Lower Aquifer unsaturated thickness is present upon the southern Site boundary at this location. Direct impacts upon water levels within Lake 1 are thus not anticipated at this time.

The Southern Stream rises at an elevation of some 50maOD. As at section A, *figure 2*, saturated thickness upon the southern Site boundary at this location is negligible. Direct dewatering induced impact (drawdown) on this feature is thus not anticipated at this time.

It should further be noted that Site operations will not result in any significant impact upon the volumes of water available within the Lower Aquifer (and thus indirect impact upon down hydraulic gradient water features), as dewatering waters are to be returned to it via discharge

to soakaway. Associated potential impacts upon Lake 1 / the Southern Stream are thus not anticipated.

#### Water Quality

As discussed, Wells 1 & 2 are hydraulically isolated from the Site and are thus not vulnerable to any risk of derogation of groundwater quality that may be associated with the Proposed Development. Lake 1 and the Southern Stream are down hydraulic gradient from the Site and in potential continuity with the Lower Aquifer, and are thus more vulnerable to such impact.

The Site will operate in accordance with an Environmental Management System (EMS) to ISO 14001 standard. This will include measures to mitigate any risk of groundwater contamination from the handling of fuels / oils / lubricants etc. and the operation of mobile plant, obviating any risk in this regard.

Restoration of the Site will be undertaken using on Site indigenous materials, supplemented by the importation of inert restoration materials. Inert wastes are defined by the Landfill Directive (1999/31/EC), article 2(e) as: *'waste that does not undergo any significant physical, chemical or biological transformations. Inert waste will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm human health. The total leachability and pollutant content of the waste and the ecotoxicity of the leachate must be insignificant, and in particular not endanger the quality of surface water and / or groundwater'*.

The inert materials deposited at the Site will be governed by strict Waste Acceptance Procedure (WAP), ensuring all accepted materials comply with the above classification, and mitigating any risk of resultant groundwater contamination. It is considered that these matters will be controlled through a suitably worded Environmental Permit.

#### *Potential Requirement for Mitigation*

Mitigation measures further to those inherent to the design and proposed operating methods to be employed upon implementation of the Proposed Development are not considered necessary at this time.

It is however considered that, prior to further assessment being undertaken in advance of future planning / permit applications, the gathering of baseline hydrometric monitoring data with regards to Stanstead Bury RPG would further ensure identification and mitigation of any potential risk that may be posed to its supported water features.

### Briggens RPG

#### *Overview*

Briggens RPG is located some 430m to the southeast of the Site (also separated from the Site by the A414). The Parks and Gardens (and supported features therein) are located upon the same geological succession as described for the Site, largely excepting the presence of Boulder Clay (and thus the presence of the Upper Aquifer).

Publicly available well records for the area show 1 well adjacent to Briggens House, as located at National Grid Reference (NGR):  $541420 \ 211230$  (Well 3). Well 3 is recorded as being of 78m

depth and completed within Chalk, groundwaters within which form the assumed sole source of supply.

Publicly available mapping shows the presence of 1 no. surface waterbody within the RPG, in the form of a circular lake upon the course of the Hunsdon Brook (which flows southwards skirting the eastern Site boundary), at NGR <sup>5</sup>41201 <sup>2</sup>11313 (The Circular Lake). The construction of the Circular Lake is not known. Though clearly artificial, it must thus be assumed to be in continuity with groundwater within the Lower Aquifer, with its level being partly sustained by upstream flows within the Hunsdon Brook.

Downstream of, and fed by, the Circular Lake, a section of the Hunsdon Brook that has been canalised, forming a waterbody of approximately 260m length and 25m width is present, approximately centred upon NGR <sup>5</sup>41148 <sup>2</sup>11133 (The Hunsdon Canal). This feature is indicated to be regulated by a weir upon its southern limit.

The location of relevant identified features is shown at *figure 1*, with preliminary cross sections being presented at *figure 2*.

### *Preliminary Assessment of Potential for Impact Upon Identified Features*

#### Water Levels / Flows

Well 3 is indicated to be hydraulically isolated from the Site, as its source of supply (Chalk) is separated from the Site by intervening strata of low vertical permeability, functioning as aquicludes (London Clay / Lambeth Group). Site operations are thus not anticipated to result in any impact upon this feature.

The Circular Lake and Hunsdon Canal are potentially in hydraulic continuity with the Lower Aquifer, though hold indicated elevations of 37maOD. As discussed, mineral extraction is not expected to significantly exceed the base of Lower Aquifer (minimum 46maOD), and groundwater elevations will thus not be drawn down below this level by dewatering operations. Direct impacts upon water levels within these features are thus not anticipated at this time.

As previously described, Site operations will not result in any significant impact upon the volumes of water available within the Lower Aquifer (and thus indirect impact upon down hydraulic gradient water features), as dewatering waters are to be returned to it via discharge to soakaway. Associated potential impacts upon the Hunsdon Brook and supported features are thus not anticipated.

#### Water Quality

As discussed, Well 3 is hydraulically isolated from the Site and thus not vulnerable to any risk of derogation of groundwater quality that may be associated with the Proposed Development. The Circular Lake and Hunsdon Canal are indicated to be cross hydraulic gradient from the Site, though are supported by the Hunsdon Brook, which is in indicated continuity with the Site to the north.

As previously described with regards to Stanstead Bury RPG, significant impacts upon water quality are not anticipated as a result of the Proposed Development. Associated impacts upon Briggens RPG are thus not indicated at this time.

### *Potential Requirement for Mitigation*

Mitigation measures further to those inherent to the design and proposed operating methods to be employed upon implementation of the Proposed Development are not considered necessary at this time.

It is however considered that, prior to further assessment being undertaken in advance of future planning / permit applications, the gathering of baseline hydrometric monitoring data with regards to Briggens RPG would further ensure identification and mitigation of any potential risk that may be posed to its supported water features.

## Hunsdon Brook Fishponds SM

### *Overview*

Hunsdon Brook Fishponds SM forms an earth mound impounded fishing pond upon the course of the Hunsdon Brook, 300m to the east of the Site, at approximately NGR: <sup>5</sup>41464 <sup>2</sup>12232 (The Hunsdon Pond). The construction of this feature is not fully known, though its level is indicated to be artificially elevated by impoundment with the use of locally won soils and clay materials. Baseflow is however likely provided to this feature, and the Hunsdon Brook, from the Lower Aquifer.

The location of relevant identified features is shown at *figure 1*, with preliminary cross sections being presented at *figure 2*.

### *Preliminary Assessment of Potential for Impact Upon Identified Features*

#### Water Levels / Flows

The Hunsdon Pond and associated reach of the Hunsdon Brook are potentially in hydraulic continuity with the Lower Aquifer, and, as they hold indicated elevations of 46.6maOD, relative to a base of workings within the Site of 46maOD, they are in potential hydraulic continuity with the Site. Further, the catchment of this reach of the Hunsdon Brook extends within the Site boundary (runoff waters within which may be intercepted by the closed depression formed by the Proposed Development).

As at Section C, *figure 2*, saturated thickness within the Lower Aquifer upon the eastern Site boundary is limited (1.2m based on available data), likely thickening and falling to the east. This will serve to limit the radius of influence of dewatering induced drawdown (the distance from the site over which groundwater elevations may potentially be lowered by Site dewatering), the magnitude of which will in itself reduce rapidly with increasing distance from the Site boundary. Propagation of this influence over the 300m distance to an extent sufficient to result in significant potential for impact, is thus considered unlikely at this time.

As previously described, Site operations will not result in any significant impact upon the volumes of water available within the Lower Aquifer (and thus indirect impact upon down hydraulic gradient water features such as the Hunsdon Brook or features therein), as dewatering waters are to be returned to it via discharge to soakaway.

This method of working will also ensure that any surface runoff from within the Hunsdon Brook catchment which may be intercepted by the Proposed Development will still ultimately drain to it.

Associated potential impacts upon the Hunsdon Brook and supported features are thus not anticipated. This method of working will further serve to reduce any dewatering induced drawdown and thus potential for impact upon the Hunsdon Brook / Hunsdon Pond.

#### Water Quality

As previously described with regards to Stanstead Bury RPG, significant impacts upon water quality are not anticipated as a result of the Proposed Development. Associated impacts upon Hunsdon Brook Fishponds SM are thus not indicated at this time.

#### *Potential Requirement for Mitigation*

Mitigation measures further to those inherent to the design and proposed operating methods to be employed upon implementation of the Proposed Development are not considered necessary at this time.

It is however considered that, prior to further assessment being undertaken in advance of future planning / permit applications, the gathering of baseline hydrometric monitoring data with regards to Hunsdon Brook Fishponds SM would further ensure identification and mitigation of any potential risk that may be posed to its supported water features.

#### **Requirement for Further Assessment**

The Proposed Development requires a number of further assessments prior to its commencement, at which point potential impacts upon the water environment, including those features described above, will be further assessed, and where necessary, mitigated.

A planning application will be required, which will require a full Hydrogeological and Hydrological Impact Assessment (H&HIA) and Flood Risk Assessment (FRA), within which potential impacts upon the water environment will be assessed, quantified and mitigated, this being enforced by planning condition as required. This may include hydrometric monitoring, which could potentially be recommended for local heritage assets.

An abstraction licence will be required to permit dewatering, application for which will require further assessment, specifically with regards to water availability and dewatering related impacts. The licence will be conditioned and enforced by the Environment Agency (EA) where required to mitigate any potential impacts.

An Environmental Permit, water discharge may be required to permit the discharge of waters to ground, application for which will require further assessment, specifically with regards to water quality impacts. The permit will be conditioned and enforced by the Environment Agency (EA) where required to mitigate any potential impacts. A similar level of control applies for the silt management lagoons that will be required on Site.

An Environmental Permit, waste recovery / disposal will be required to permit the use of inert materials within Site restoration, application for which will also require further assessment. This will be in the form of a Hydrogeological Risk Assessment (HRA) specifically with regards to potential impacts upon water quality resulting from inert infill deposition. The permit will be conditioned and enforced by the Environment Agency (EA) where required to mitigate any potential impacts.

### Conclusions

Based on presently available information, preliminary assessment does not indicate any significant potential for impacts upon water features associated with identified local heritage assets that may result from the Proposed Development, that are not able to be adequately controlled through proposed Site working methods.

Further, extensive additional assessment is required prior to commencement of the Proposed Development at which point any potential impacts / features not addressed above will be assessed, and where necessary, mitigated.

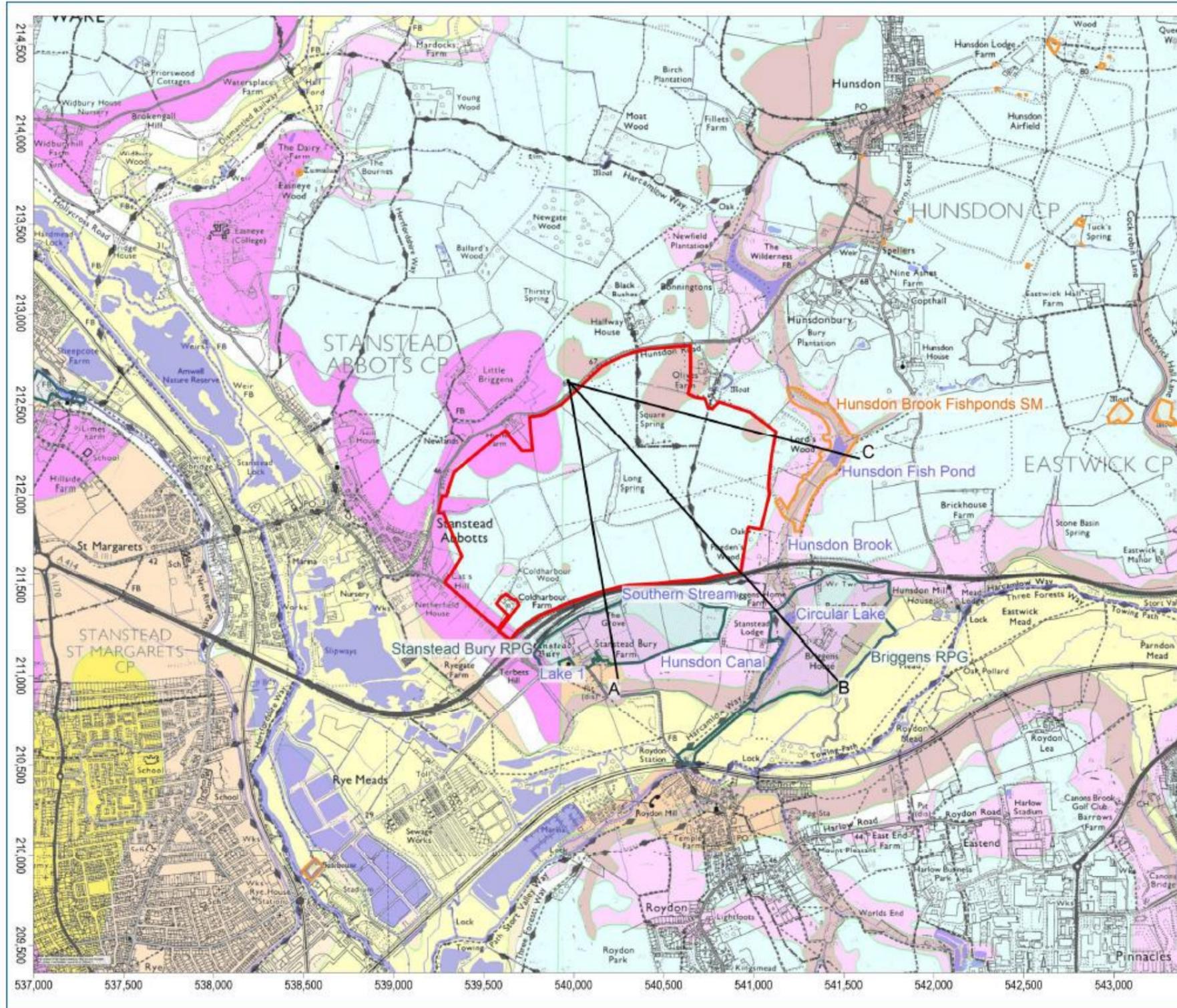
Regular monitoring is already undertaken at the Site and extending this to cover features associated with local heritage assets prior to a planning application being made should be easily achievable (subject to agreement of access). This would provide further data to ensure robust assessment at the time of application for further permissions / permits / licenses.

Yours sincerely,

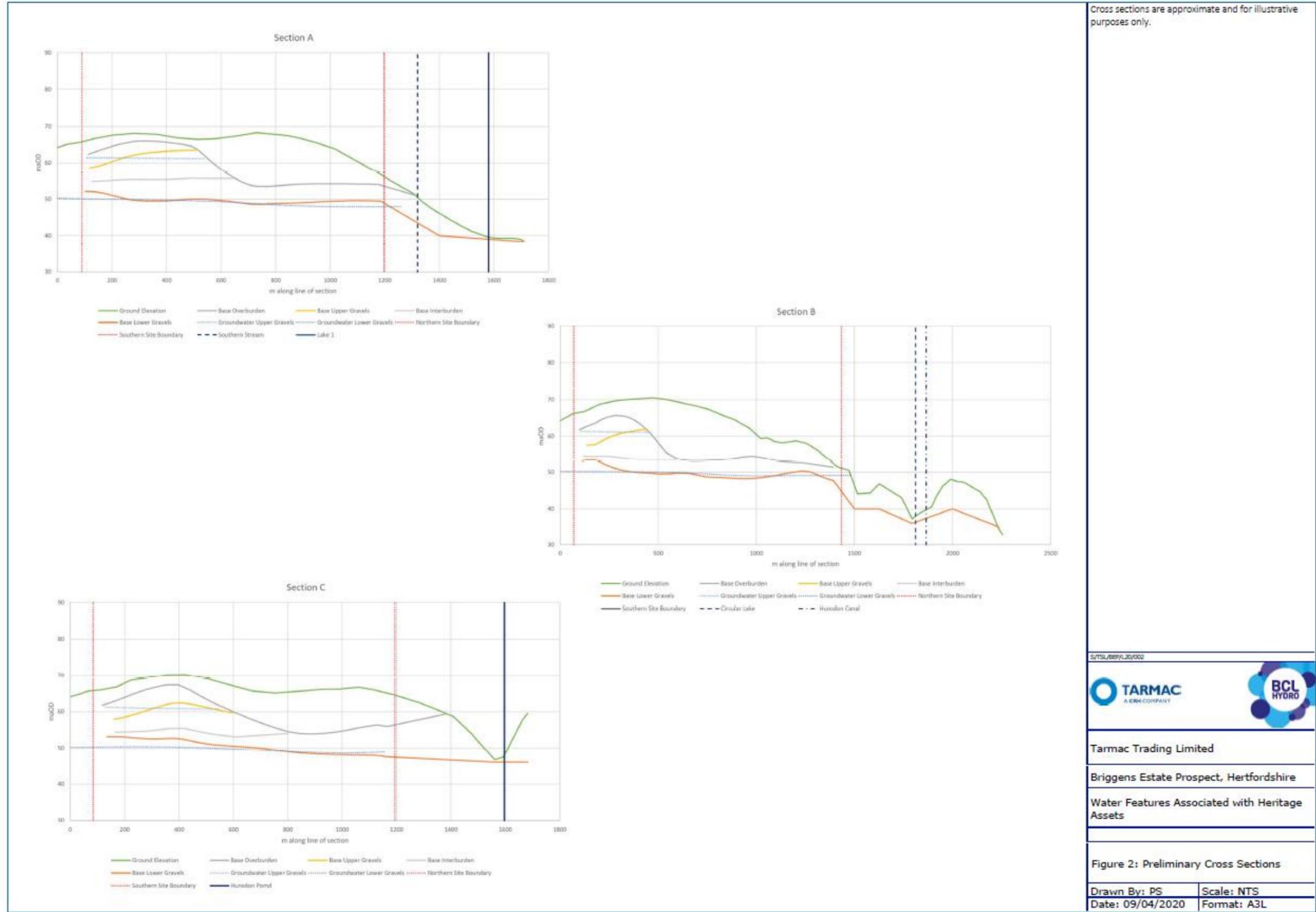


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<ul style="list-style-type: none"> <li>Alluvial (and fluvio-glacial)</li> <li>River Terrace Sands &amp; Gravels (Hempton Park Drift Member)</li> <li>River Terrace Sands &amp; Gravels (Tipton Gravel Member)</li> <li>Head</li> <li>Boulder Clay (Lowermost Formation)</li> <li>Glacial Sand &amp; Gravel (Kingsnare Catchment Subgroup)</li> <li>RPG</li> <li>SM</li> <li>Surface Water</li> <li>Line of Section</li> </ul>	<ul style="list-style-type: none"> <li>Alluvial (and fluvio-glacial)</li> <li>River Terrace Sands &amp; Gravels (and fluvio-glacial)</li> <li>Glacial Sand &amp; Gravel (and fluvio-glacial)</li> </ul>
<p>SYMS/09/PL/20/002</p> <p><b>TARMAC</b> A CRM COMPANY</p> <p><b>BCL HYDRO</b></p>	
<p>Tarmac Trading Limited</p> <p>Briggens Estate Prospect, Hertfordshire</p> <p>Water Features Associated with Heritage Assets</p>	
<p>Figure 1: Site Location and Setting</p>	
<p>Drawn By: PS</p> <p>Date: 09/04/2020</p>	<p>Scale: 1:20,000</p> <p>Format: A3L</p>



Cross sections are approximate and for illustrative purposes only.

5/15/20/002

**TARMAC**  
A CRH COMPANY

**BCL HYDRO**

Tarmac Trading Limited

Briggens Estate Prospect, Hertfordshire

Water Features Associated with Heritage Assets

Figure 2: Preliminary Cross Sections

Drawn By: PS	Scale: NTS
Date: 09/04/2020	Format: A3L