

December 2021

VISION AND DELIVERY STUDY

# PAPWORTH ESTATE, VARRIER JONES FOUNDATION - SITE A & B

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Quality Assurance

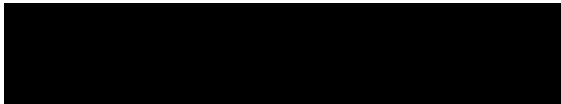
**Site name:** Papworth Estate - Site A and B

**Client name:** Varrier Jones Foundation

**Type of report:** Vision and Delivery Study

**Prepared by:** Helen Davies, Martina Sechi

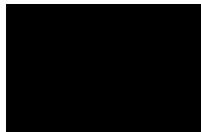
**Signed:**



**Date:** 01.12.2021

**Reviewed by:** Danielle Percy

**Signed:**



**Date:** 01.12.2021

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# 1.0

## **INTRODUCTION**

This section of the document gives an overview of the document, its aims and content.

## 1.1 INTRODUCTION

This Master Plan Vision and Delivery Study has been prepared to demonstrate the development potential for land known as site A & B at Papworth Everard and support the allocation of the site in the Greater Cambridgeshire Local Plan.

This Vision follows an assessment and evaluation process to identify the opportunities and constraints and to inform a landscape led concept master plan which provides numerous benefits to the community and enhancements to local biodiversity.

The document comprises the following sections.

### UNDERSTANDING THE SITE

A description of the site in its local and wider context including a study of local amenities.

### LANDSCAPE AND VISUAL BASELINES

The landscape baseline includes a desktop assessment of the site's mapping data including designations, significant vegetation and historical mapping to determine the key opportunities and constraints of the site.

The visual baseline consist of a photographic survey of the site and its context. Also a detailed visual study of the views of the site afforded by critical visual receptors is included.

### CONSULTANTS SUMMARY

This section provides a summary of the initial assessment work undertaken for ecology, highways and drainage including the proposed new vehicular access points.

### THE PROPOSALS

A concept master plan demonstrating the potential of the site and the design principles underpinning the concept is presented in this section.

### LEGEND

















	<i>Proposed Site Boundary</i>
	<i>Existing Road Network</i>
	<i>Drainage Channel</i>
	<i>Existing Public Right of Way</i>
	<i>Overhead Electricity Line</i>
	<i>Existing Woodland</i>
	<i>Proposed woodland</i>
	<i>Proposed Green Links / Corridors</i>
	<i>Proposed Public Open Space</i>
	<i>Proposed Developable Area</i>
	<i>Proposed Developable Area within Areas Sensitive to Heritage</i>
	<i>Proposed Vehicular Access</i>
	<i>Proposed Pedestrian / Cycle Access</i>
	<i>Proposed Primary Vehicular Route</i>
	<i>Proposed Pedestrian Routes</i>
	<i>Open Links between Existing Settlement and Proposed Development</i>





Figure 1; Conceptual Master plan







# 2.0

## UNDERSTANDING THE SITE

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This section of the document gives an overview of the site location and landscape features.

## 2.1 SITE LOCATION



Both sites A and B are located along the western edge of Papworth Everard between the existing built form and the A1198 By-Pass.

Papworth is located in a central location between the settlements of Cambridge (approx. 17km to the east), St Neots (approx. 10km to the east) and Huntingdon (approx. 10km to the north). There is a population of approximately 2,880 (2011 census).

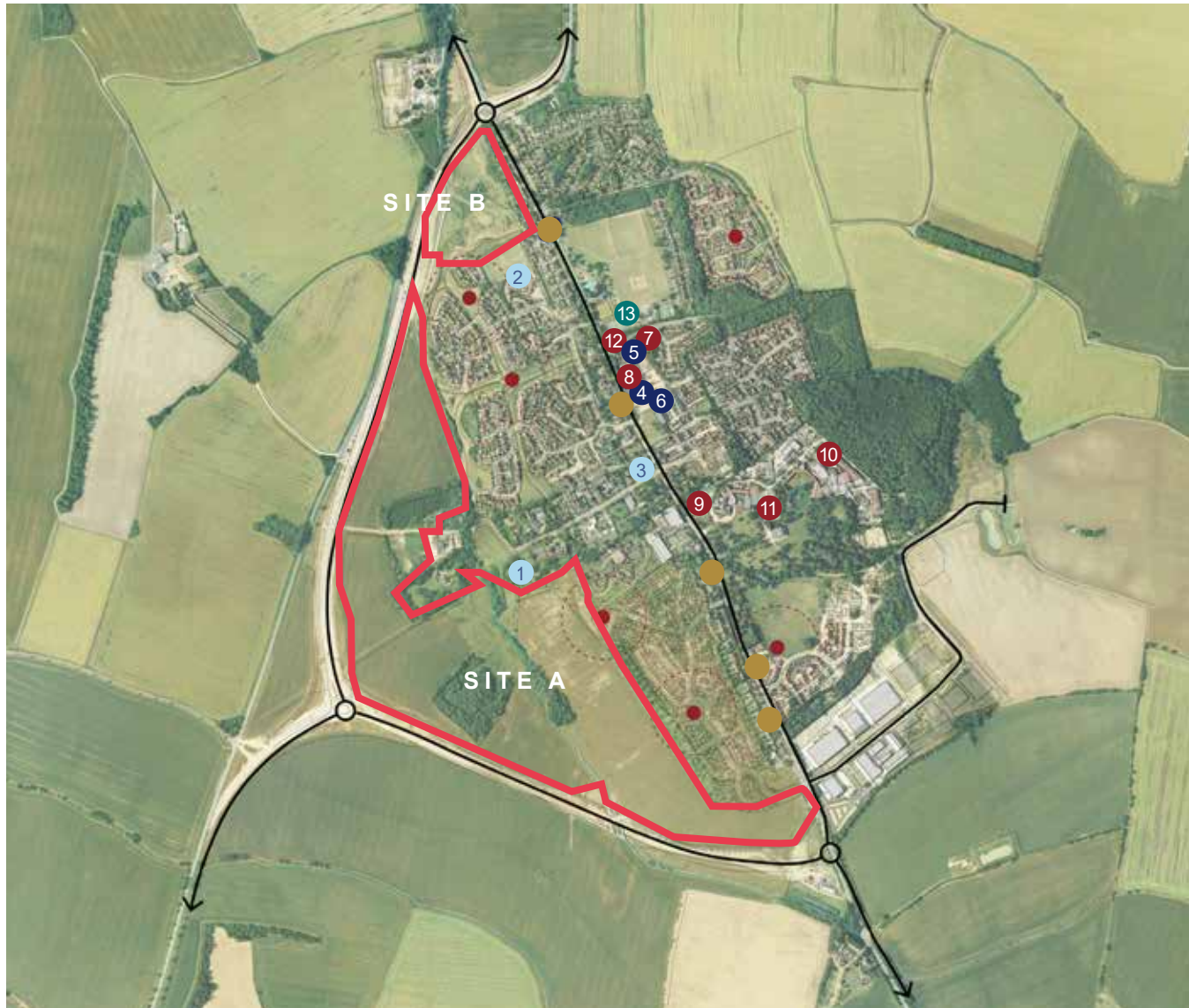
Site A is approximately 40.589 hectares.

Site B is approximately 4.072 hectares.

Figure 2; Site location



## 2.2 LOCAL AMENITIES



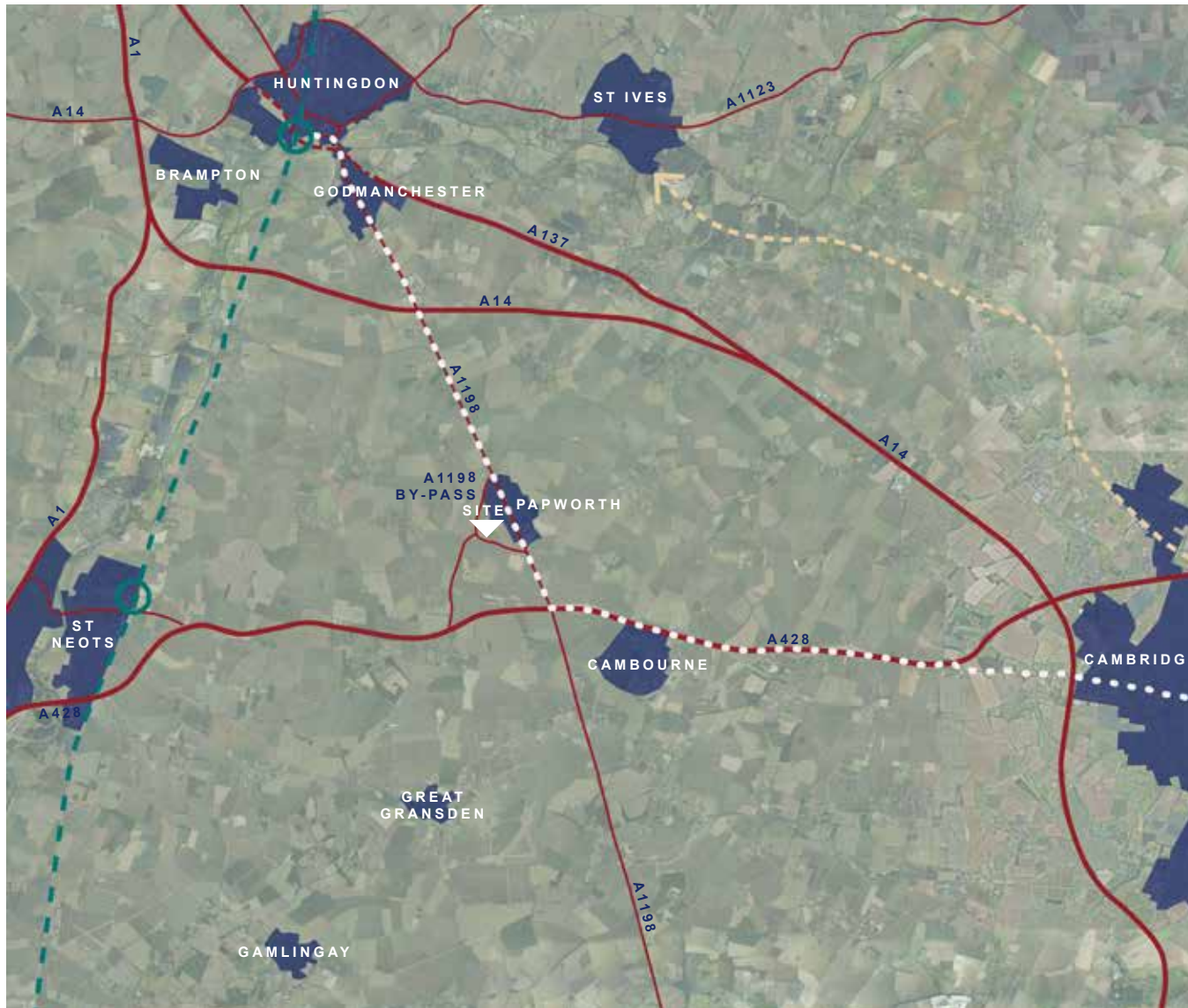
### LEGEND

- Site boundary
- 1 St Peter's Church
- 2 Pendragon Community Primary School
- 3 St. Thomas Indian Orthodox Church
- 4 The Courtyard Coffee Shop and Micropub
- 5 Norfolk Street Deli
- 6 Luke's Traditional Fish and Chips
- 7 Papworth Surgery
- 8 Papworth Library
- 9 Papworth Village Hall
- 10 Cambridgeshire Police
- 11 Childrens Ark Day Nursery
- 12 Ashcroft Veterinary Surgery
- 13 Tennis Courts and Papworth Blasters Football Club
- Bus stops with routes to Cambridge, Addenbrookes and Huntingdon

Figure 3; Local amenities



## 2.3 SITE CONNECTIVITY



Papworth is centrally located between the settlements of Cambridge (approx. 45 minute by bus / car), St Neots (approx. 15 minutes by car) and Huntingdon (approx. 15 minutes by bus / car).

St Neots and Huntingdon Trains Stations are both approximately 8 miles from Papworth where trains run regularly to Peterborough (20 - 28 mins) and London (50 - 60 mins). The bus route X3 runs hourly in both directions and provides public transport to Cambridge (approximately 45 mins).

### LEGEND







-  Settlement
-  Road Network
-  X3 Bus Route (indicative)
-  St Ives to Cambridge Guided Busway
-  Peterborough - Horsham Trainline
-  Train Station

Figure 4; Site connectivity

## 2.4 LANDSCAPE POLICIES OVERVIEW

The planning context relevant to the site includes the South Cambridgeshire Local Plan 2018 and the Supplementary Planning Documents (SPD).

### SOUTH CAMBRIDGESHIRE LOCAL PLAN 2018

The following policies within the Local Plan are relevant to the landscape constraints and opportunities associated with the site.

- Policy NH/11: Protected Village Amenity Areas (PVAAs)

Areas identified with this policy are designated in order to safeguard undeveloped land that is important to the village character. These areas are of various characteristics, they could be allotments, recreational ground and playing fields.

Proposed development on the site shall consider potential impact on the qualities of the open space and opportunity to enhance the PVAAs.

- Policy NH/12: Local Green Space (LGS)

The areas identified in the policy are protected from development due to their 'local significance' as valued by the local community. The local significance is determined by the LGS beauty, historic significance, recreational value, tranquillity or richness of the wildlife.

NH/12-063 is located in proximity of the north west boundary.

- Policy NH/14: Heritage Assets

This policy aims to protect and enhance the historic environment, including the landscape and settlement pattern within the historic landscape of South Cambridgeshire. Amongst the challenges faced by the historic environment, the preservation of the rural character and scale of buildings are mentioned.

Due to its proximity to Papworth Conservation Area and the rural context, the site affords opportunities to contribute positively to the preservation of the historic environment.

### PAPWORTH EVERARD VILLAGE DESIGN GUIDE SPD

This SPD (adopted January 2020) supports all the policies in the Local Plan that relates to the built and natural character, aiming to preserve the distinctiveness of South Cambridgeshire.

The SPD states a preference for a landscape-led design approach and highlights important views that should be taken in consideration as significant to the village. It is stated that Papworth Everard's development pattern, characterised by 'an unusually rich series of green landscapes' throughout the village, affords a diverse range of views to the natural environment both within and outwards of the village. 'Views out of the village include wide open agricultural or meadow landscapes, such as St. Peters Church or The Ridgeway, thickly-wooded landscapes such as the SSSI, and highly-designed parkland at Papworth Hall'.

The SPD requests the following:

- 'New development should preserve and enhance existing key views (see Figures X), and create new views, out into the countryside, or into existing green spaces, wherever possible.
- New green spaces between developments are to be welcomed, but must be well-designed, taking into account views, use, amenity, and good connection.'

Another important aspect highlighted in the SPD is the extensive network of off-road routes within the village and into the countryside beyond. Therefore, 'the pedestrian, cycle and equestrian network within the village should be enhanced or added to wherever possible.'

Furthermore, the network of off-road routes provides great biodiversity value for the village, as the routes are typically 'framed by mature trees and hedgerows, even at the heart of the village'. In fact, the 'wild feeling' is considered a distinctive quality of Papworth Everard. The SPD, therefore, recommends the following:

- Existing trees and hedges should be protected. New dwellings should be built such that they do not interfere with the health or growth of existing trees and hedges.
- Landscape designs should include native species
- Landscape designs and planting schemes should respond to the 'wild-feeling' currently present within the village, in a manner that supports greater diversity of wildlife and is not costly to maintain. Hedges and ditches in the village provide a precedent for this approach.





Figure 5; Local plan inset map 86 - 1 of 4

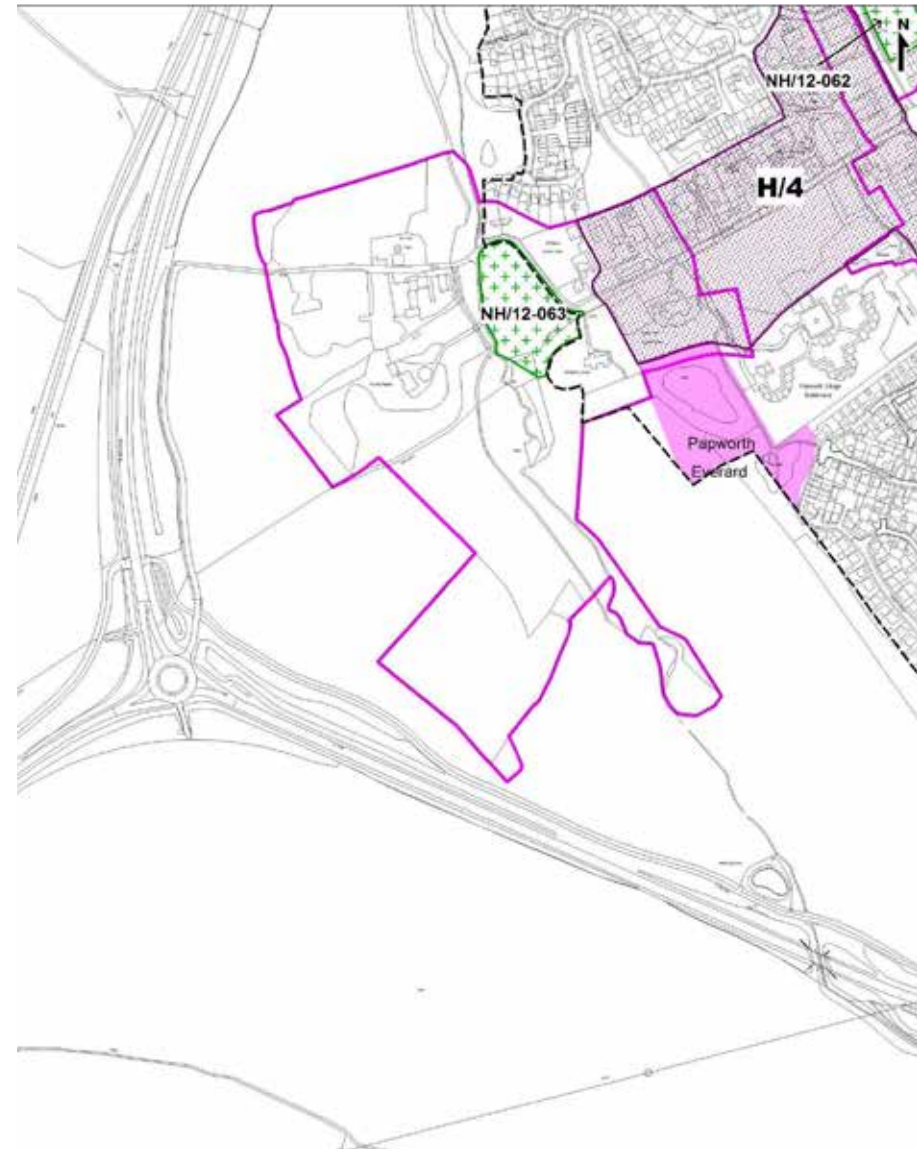


Figure 6; Local plan inset map 86 - 3 of 4





Figure 7; Local plan inset map 86 - 4 of 4

Fig. 10 Important Views (NTS).  
Development Plan designations can be subject to change over time. Please refer to the Local Plan pages of SCDC's website for up to date information.

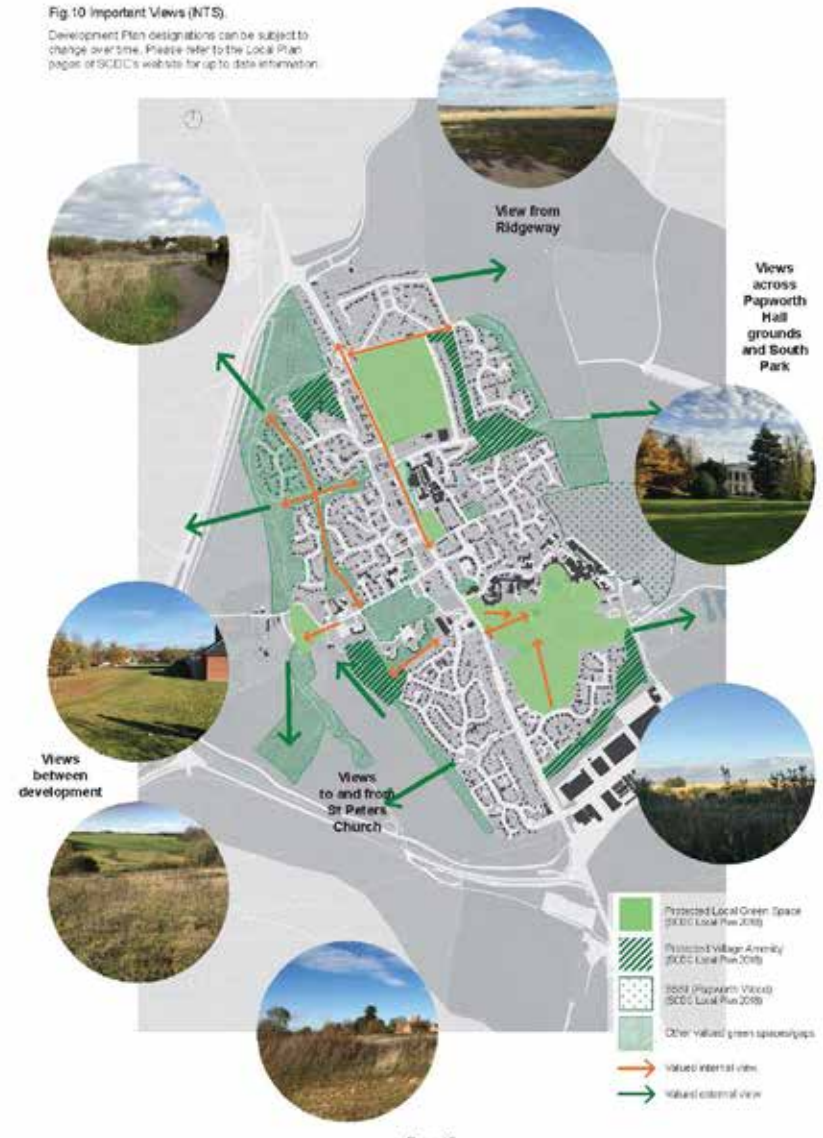


Figure 8; Papworth Everard Village Design Guide









# 3.0

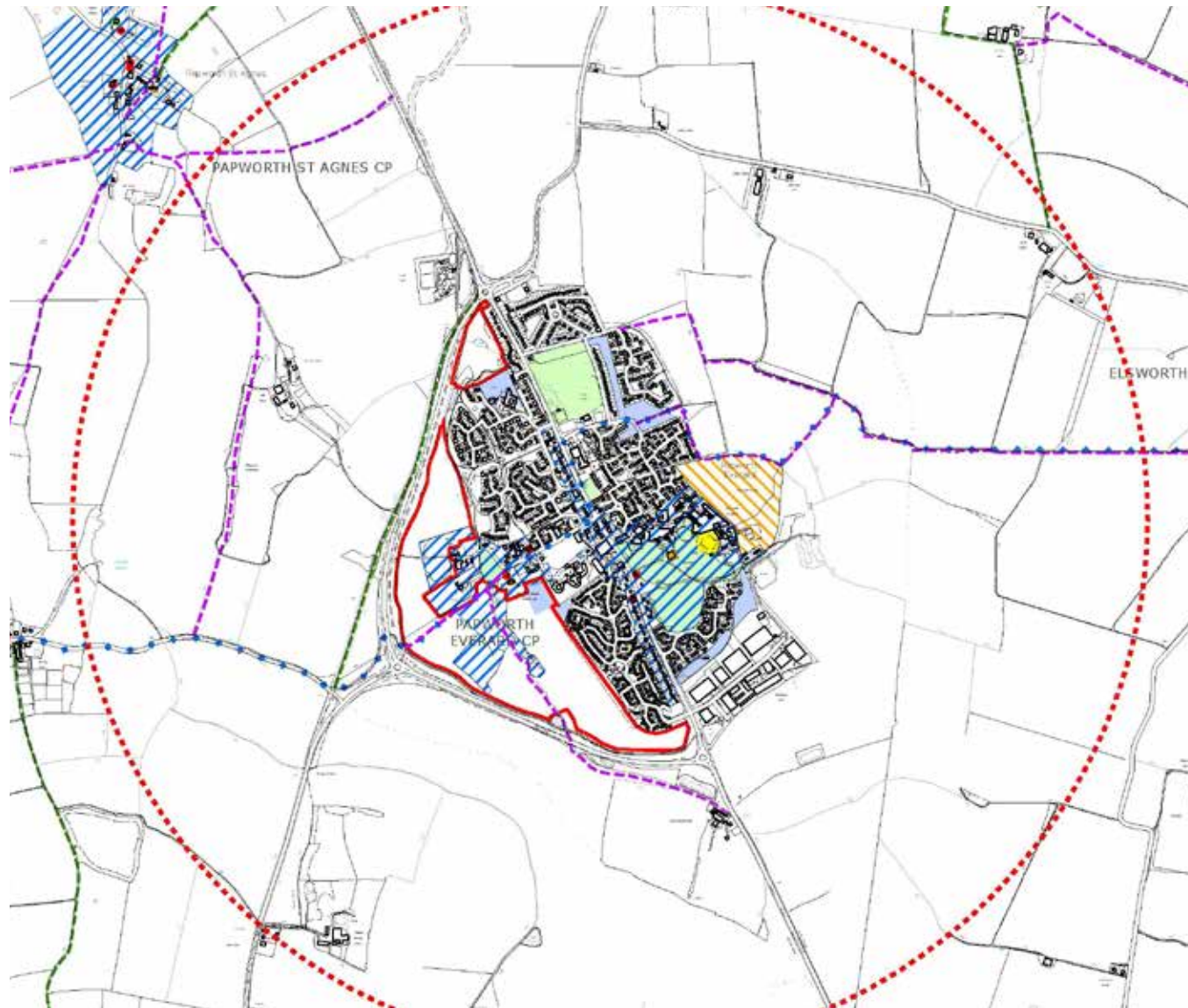
## LANDSCAPE BASELINE

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The landscape baseline includes analysis of the site topography, designations, historical mapping and heritage assets.



### 3.1 DESIGNATIONS



There is a Long Distance Footpath which aligns through the village, this is called the Pathfinder Long Distance Walk, there are additional Public Rights located within 2km

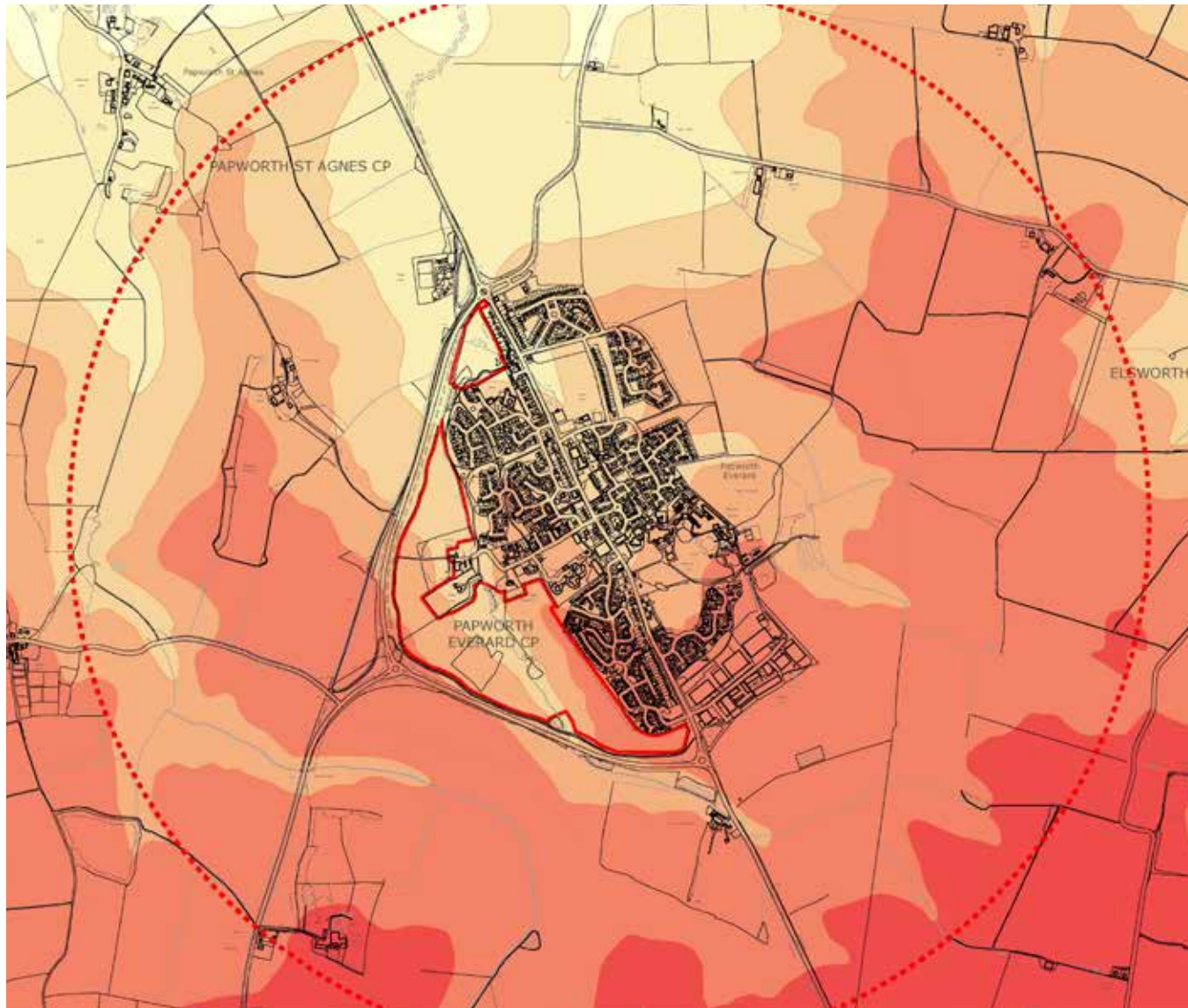
There are two Conservation Areas within the village these include a number of listed buildings, including Papworth Hall and Parish Church St Peter (both Grade II\*) and a Scheduled Monument named Moated Site 140m east of Papworth Hall. Papworth Wood SSSI is located at the eastern edge of the village and there are a number of protected Local Green Spaces within the village.

#### LEGEND

- Proposed Development Site
- 2km Radius
- Public Footpath
- Public Bridleway
- Recreational Route
- SSSI
- Scheduled Monument
- Conservation Area
- Local Open Space
- Protected Village Amenity Areas
- Grade I Listed Building
- Grade II\* Listed Buildings
- Grade II Listed Buildings

Figure 9; Designations

### 3.2 LOCAL TOPOGRAPHY



There is a general decline in topography in a south to north direction, this is interspersed by small drainage inlets which form lower-lying valleys through Papworth.

One of these valleys aligns along the western edge of the village adjacent to St Peter's Church and aligns south passed the A1198 by-pass.

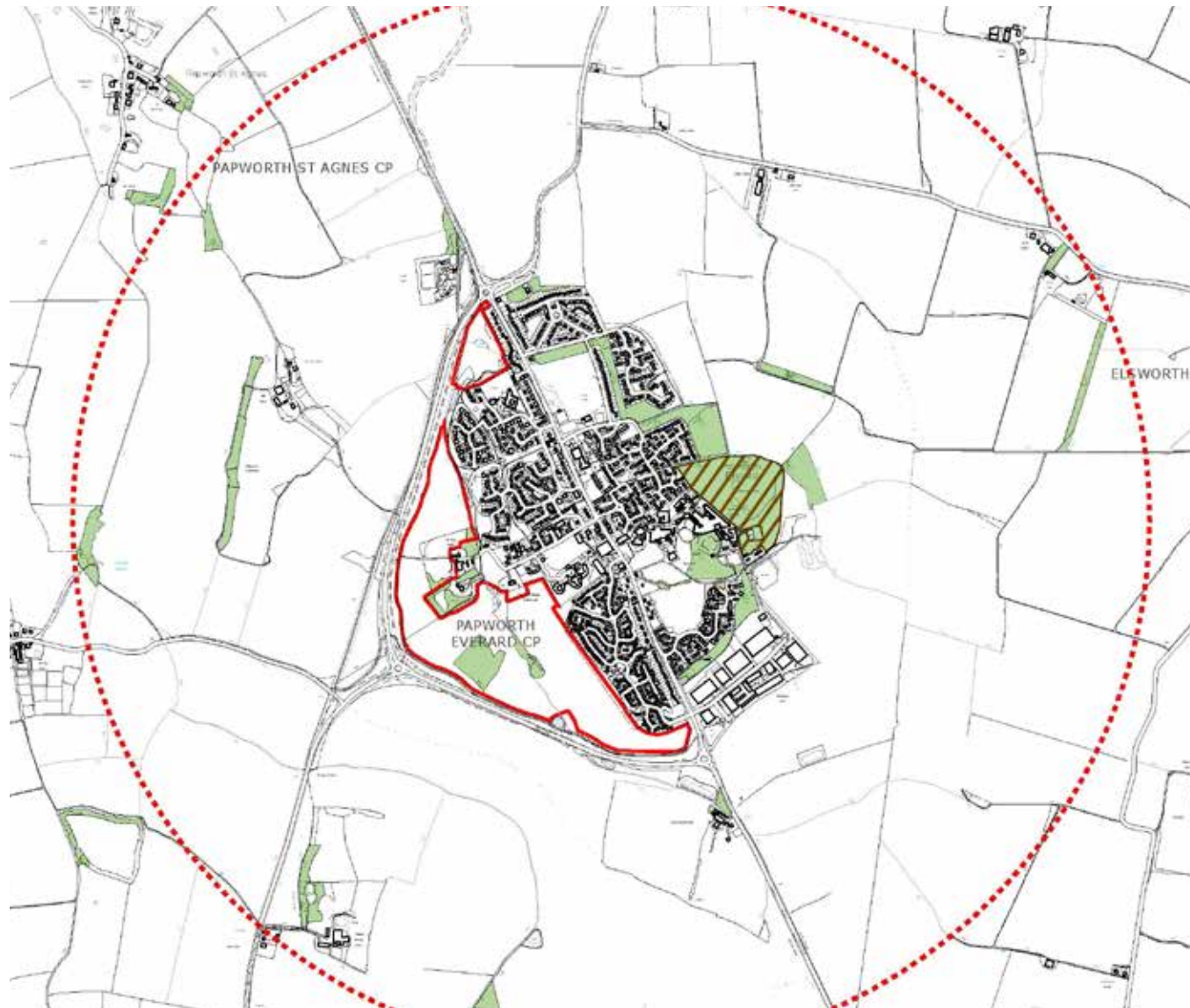
#### LEGEND

- Proposed Development Site
- 2km Radius
- 10m-20m
- 20m-30m
- 30m-40m
- 40m-50m
- 50m-60m
- 60m-70m

Figure 10; Topography



### 3.3 SIGNIFICANT VEGETATION



Woodland cover within the sites' context is sparse and inconsistent.

A large block of woodland, mostly deciduous, is located to the east of Papworth Everard. Two smaller woodland blocks are located within the site.

#### LEGEND





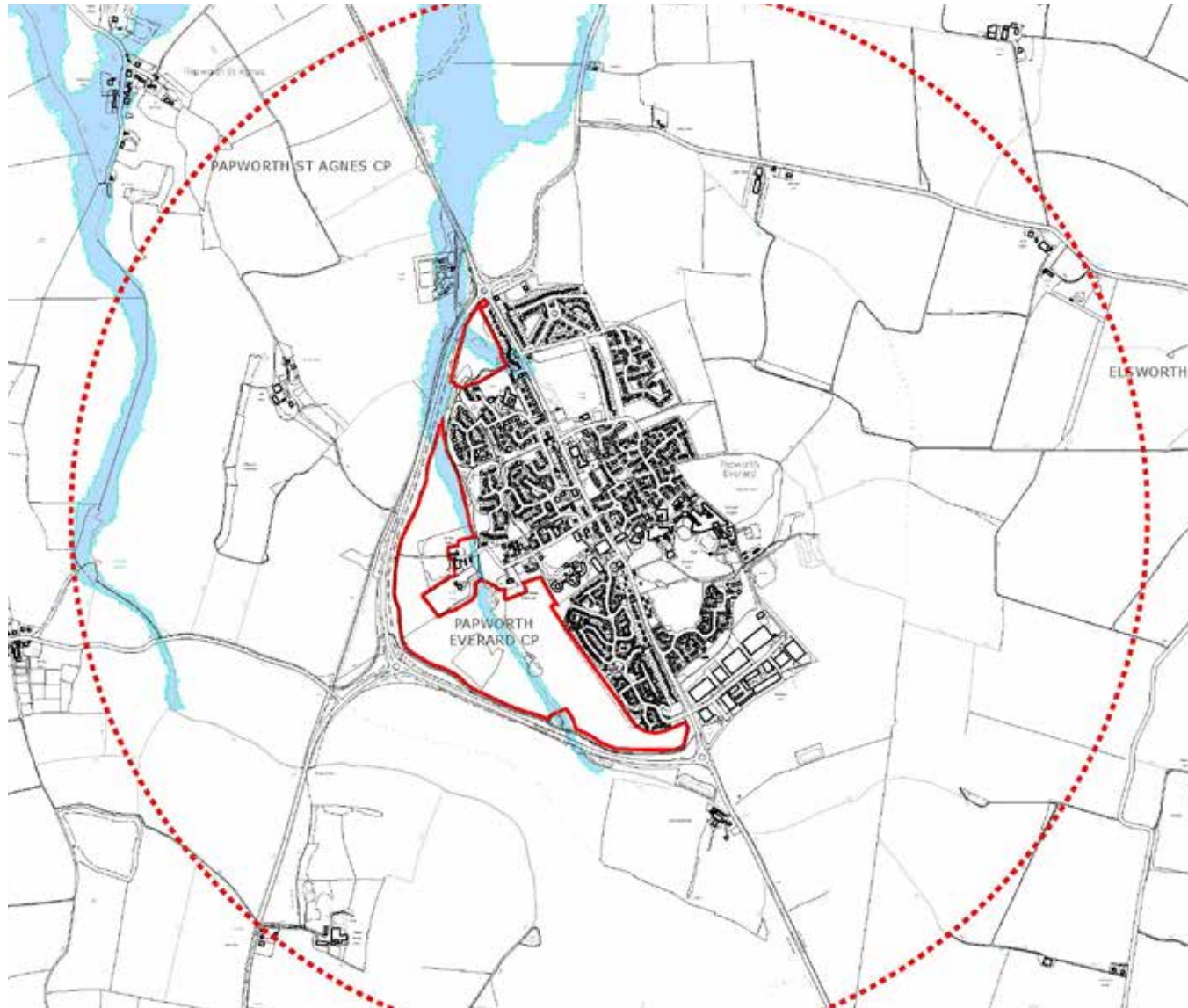
-  *Proposed Development Site*
-  *2km Radius*
-  *Ancient Woodlands*
-  *Woodland habitat: Deciduous Woodland*

Figure 11; Local landscape character areas



### 3.4 FLOODING AREAS



The site is largely located in Flood Zone 1, which has a low probability of flooding.

However, a small corridor of Flood Zone 2 and 3 aligns through the site in a north to south direction. These areas have a greater risk of flooding and are associated with the land drains running across the lower lying field boundaries within the site.

#### LEGEND





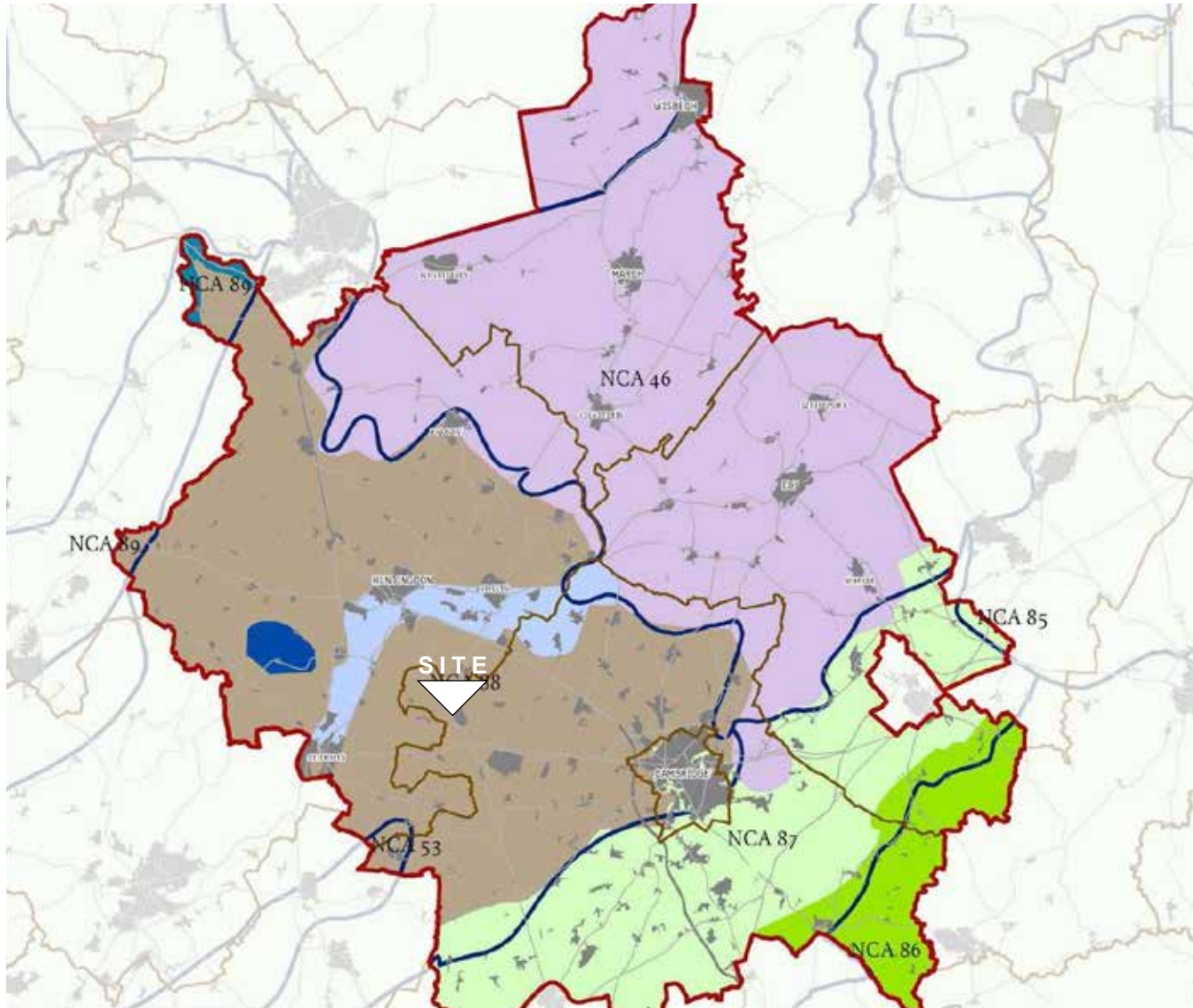
-  *Proposed Development Site*
-  *2km Radius*
-  *Flood Zone 3*
-  *Flood Zone 2*

Figure 12; Flood Risk

### 3.5 NATIONAL LANDSCAPE CHARACTER AREA



The site is located in the National Character Area (NCA) profile: 88. Bedfordshire and Cambridgeshire Claylands.

Key characteristics applicable to the site context are:

- *‘The River Great Ouse and its tributaries meander slowly across the landscape...’*
- *‘Predominantly open, arable landscape of planned and regular fields bounded by open ditches and trimmed, often species-poor hedgerows which contrast with those fields that are irregular and piecemeal.’*
- *‘Variable, scattered woodland cover...’*
- *‘Views of large-scale arable farmland’*
- *‘Tranquillity within the NCA has declined significantly – affected by visual intrusion, noise and light pollution from commercial agriculture, settlement expansion, and improvements in road infrastructure... Strong contrasts exist between greater tranquillity in more rural, inaccessible areas (including sections of the river valleys) and lower tranquillity in areas with a settled, urban and developed feel.’*

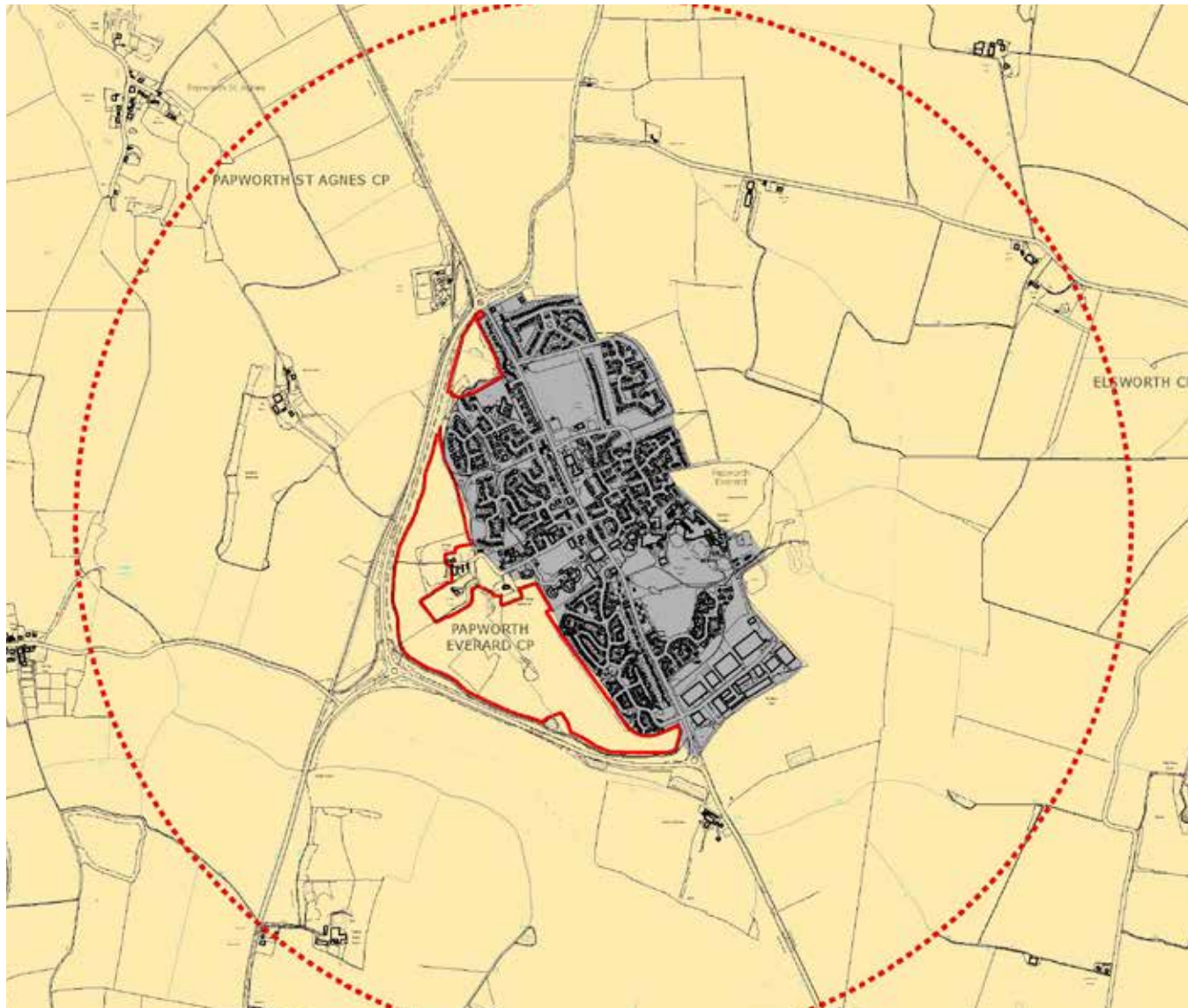
#### LEGEND

- Study Area Boundary
- National Landscape Character Areas

Figure 13; National Character Areas, from the Cambridgeshire Green infrastructure Review and Second Edition, by LDA Design



### 3.6 LOCAL LANDSCAPE CHARACTER AREA



The site is located in the Western Claylands (The Cambridgeshire Landscape Guidelines, Landscape Design Associates, Cambridgeshire Landscape Guidelines, Cambridge County Council, 1991)

Key characteristics applicable to the site context are:

- A gentle undulating landscape consisting of *'large-scale arable farmland with open fields, sparse trimmed hedgerows and watercourses often cleared of backside vegetation.'* Woodland are often important in visual and nature conservation terms. While the remaining hedgerows are often gappy.
- *'There are scattered woodlands and approximately half of these are ancient semi-natural woodlands of considerable importance in the County context.'*
- *'Small grass paddocks typically occur on the edges of the villages.'*
- *'Church spires and towers enliven the skyline.'*

The landscape character assessment includes some principles for landscape improvements that aim to guide new development and landscape maintenance

#### LEGEND

-  Proposed Development Site
-  2km Radius
-  Urban Area
-  Western Clayland

Figure 14; Local landscape character areas



strategies. The following principles are relevant to the site and development proposal:

### CREATION OF NEW WOODLANDS

*'Ideally these should be at least 2 hectares in size and located so that they make a major impact in relation to:*

- *viewing points;*
- *wildlife potential;*
- *landform and skylines.'*

It is acceptable to plant woodland following landform and create a new character of wooded skylines and distinctive clumps. *'Elsewhere, woodlands may be planted to reflect the existing or former field patterns, thus being derived from the inherited pattern.'* A mix of the two approaches is desirable.

### PLANTED WOODLAND BELTS

*'Probably based on existing hedgerows, linking woodland blocks, the belts should be carefully aligned to reinforce landform and would enclose large areas of rolling farmland.'*

### HEDGEROWS

Hedgerows should be protected and reinforced for their visual and wildlife potential. Particular care is suggested for historically significant hedgerows.

### ROAD VERGES

The guidance encourages the maintenance of verges for floral diversity. Hedgerows and trees should be carefully placed to prevent the loss of views from higher land. However, they should be strategically located to enhance the contrast between the enclosed and open character or large scale landscapes.

### FOOTPATH CORRIDOR IMPROVEMENTS

Improvements to the existing public access network with a small number of long-distance routes and circular/linking routes connecting villages and towns would be welcomed. This improvement should be carried out in tandem with landscape enhancement along the routes.

### VILLAGE APPROACHES

*'Increased tree cover with trees along the road margins, woodland belts alongside roads, planting at edges of villages and hedgerows planting is desirable; it is important to ensure key views are not lost.'*

### 3.7 HISTORICAL CONTEXT



Figure 15; Historic map 1891



Figure 16; Historic map 1903




Figure 17; Historic map 1952

The historic maps show the changes and evolution of the landscape and urban character of Papworth Everard and its environment between the end of the 19th and first half of the 20th centuries.

The maps show a clear intensification of the urban character along Ermine Street, which is also a Roman Road. In the 1952 map buildings and facilities associated with Papworth Hospital (founded in 1918) extend the urbanisation into Papworth Hall estate.

Although the fields pattern remains largely unchanged through this period of time, there is a clear loss of hedgerows and hedgerow trees in the 1903 map. Notable in 1903 is also the increased woodland cover and parkland to the north of Papworth Hall.

#### LEGEND

 Proposed Development Site









# 4.0

## VISUAL BASELINE

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The visual baseline includes tabulation of the photographic survey carried out during a site visit and detailed visual study of critical views.

## 4.1 PHOTOGRAPHIC SURVEY



A site visit has been carried out to assess landscape character and the site's visibility. Publicly accessible areas were visited to identify views of the site, representative viewpoints are mapped in Figure 18 opposite.

The site is afforded substantial screening from the east by the adjacent urban settlement. The identified viewpoints are therefore located along the western edge of Papworth Everard and on public footpaths to the north and east of the site, providing views from a range of different receptors at different angles and distances.

Despite the open character of the landscape, the site is largely screened by intervening topography and vegetation, particularly the planted embankment along St Ives Road. Viewpoints in proximity of the site afford more extensive views.

Three viewpoints were selected to conduct a detailed visual study: viewpoints 6, 7 and 8. These are representative of sensitive receptors and therefore impact on these views is critical.



Figure 18; Viewpoints location





Figure 19; View from St Ives Road looking south across the site, in the background glimpses of existing dwellings on the edge of Papworth Everard are visible through the tree canopies.



Figure 20; View from the public open space on the edge of Papworth Everard (Hut Filed Lane) looking westwards across the site.



Figure 21; View looking eastwards across the site from Ermine Street (south) in proximity of a Public Bridleway access.



Figure 22; View looking eastwards across the site from public open space on the edge of Papworth Everard (east of St Peter's Lane).



Figure 23; View looking eastwards at the site from bridleway 180/5, most of the site is screened by the planted embankment along St Ives Road.





Figure 24; View from Brookley Road looking westwards towards the site, which is located in the far distance and screened by intervening topography.



Figure 25; View from Brookley Road looking westwards towards the site, which is located in the far distance and screened by intervening topography.

— Site  
 Theoretically visible area



Figure 26; Indicative area of site visible from viewpoint 6

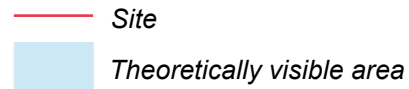


Figure 27; Indicative area of site visible from viewpoint 7

The visual study in Figure 26 and 26 highlights the site's visibility form viewpoints 6 and 7. The first views is limited due to intervening topography; while the latter affords extensive views of the site as located on an vantage point in terms of higher topography.



Figure 28; View from Brookley Road looking westwards towards the site, which is located in the far distance and screened by intervening topography.



The visual study in Figure 29 highlights the site's visibility from viewpoints 8. Only a limited portion of the site is visible due to screening provided by the existing vegetation.



Figure 29; Indicative area of site visible from viewpoint 8





The overlapping of the visual analysis carried out for Viewpoints 6, 7 and 8 is shown on Figure 30. This highlights the visual sensitivity of the western boundary of the site towards the open countryside.

Appropriate boundary treatment should be considered to mitigate visual effects while retaining positive connection with the countryside.



### LEGEND



-  Proposed Development Site
-  Visually sensitive boundary

Figure 30; Visually sensitive areas









# 5.0

## CONSULTANTS SUMMARY

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This section includes summaries of the studies and analysis carried out by other consultants.

## 5.1 FLOOD RISK AND DRAINAGE ASSESSMENT - SITE A



Figure 31; Surface water flood risk - Site A



Figure 32; Flood risk - Site A

A Flood Risk and Drainage Appraisal has been undertaken by EAS, the following provides a summary of the report:

- No built development should be included within areas at risk of surface water flooding or within Flood Zones 2 and 3. An 8 metre buffer should also be maintained from the watercourse to provide a biodiversity and habitat corridor.
- The surface water drainage will discharge to the watercourse with a restricted discharge to the 1 in 1 year greenfield runoff rate with storage provided for all events up to and including the 1 in 100 year + 40% climate change.
- The following recommendations are made as a result of this assessment in order to demonstrate the feasibility of the proposals at a planning application stage:
  - A) All sources of flooding have been considered by means of a desktop assessment and no significant risks have been identified as built development will remain outside the areas at risk of flooding.
  - B) The clay geology is unlikely to be suitable for infiltration drainage and therefore an attenuation strategy would be required.
  - C) Sustainable Drainage Systems (SuDS) should be integrated in to the development with features that have multiple benefits and create multi -functional spaces.
  - D) The drainage strategy will be restricted to the 1 in 1 year greenfield runoff rate and storage will be provided for all events up to and including the 1 in 100 year + 40% climate change event.
  - E) There is a 225mm sewer which runs along the eastern boundary of the site in a northerly direction. It is recommended that consultation with Anglian Water is carried out to determine if it is feasible to connect to the sewer and the level of upgrades required. It is likely that due to the topography a pumped foul drainage solution will be required for parts of the site.
- In conclusion, this site is suitable for residential development from a flood risk and drainage perspective. The development will not be at risk of flooding nor cause flooding elsewhere and there are methods to dispose of foul and surface water sustainably within the site.



## 5.2 FLOOD RISK AND DRAINAGE ASSESSMENT - SITE B



Figure 33; Surface water flood risk - Site B



Figure 34; Flood risk - Site B

A Flood Risk and Drainage Appraisal has been undertaken by EAS, the following provides a summary of the report:

- The site falls within Flood Zone 1 of the Environment Agency (EA) Flood Zone maps to the north and south of the plot but the middle of the site is in Flood Zones 2 and 3. It is also shown to be at risk of surface water flooding due to the embankment created by the A1198. A flood warning system must be incorporated into any development .
- The surface water drainage will likely discharge to the watercourse within the site with a restricted discharge to the 1 in 1 year greenfield runoff rate or as close as practicably possible with storage provided for all events up to and including the 1 in 100 year + 40% climate change.
- The following recommendations are made as a result of this assessment in order to demonstrate the feasibility of the proposals at a planning application stage:
  - A) All sources of flooding have been considered by means of a desktop assessment and significant risks have been identified but can be mitigated against by selecting an appropriate land use and introducing a flood warning system.
  - B) No built development should be located in areas at risk of surface water or fluvial flooding but this land can be used for recreational activities, open space, biodiversity and nature conservation which can all be used for educational purposes.
  - C) The clay geology is unlikely to be suitable for infiltration drainage and therefore an attenuation

strategy would be required.

- D) The drainage strategy will be restricted to the 1 in 1 year greenfield runoff rate or where
- This is not practicable the lowest alternative rate and storage will be provided for all events up to and including the 1 in 100 year + 40% climate change event.
- E) There are two foul sewers within the site, however it is not clear where the existing school drainage discharges but this should be utilised where possible. It is recommended that consultation with Anglian Water is carried out to determine if it is feasible to connect to the sewer and the level of upgrades required, where necessary.
- In conclusion, the site is suitable for the extension of the school however, all built development should be in the area around of the existing building and the majority of the red line boundary should be used for amenity/ recreation. There are suitable options for both foul and surface water disposal and the proposals would not increase flood risk off site.

## 5.3 ECOLOGICAL APPRAISAL



Figure 35; Ecology map

An Ecological Report has been prepared by Applied Ecology Ltd, the following provides a summary of the report:

- The Sites are comprised mainly of habitats that are widespread, commonplace and of relatively low biodiversity value that do not represent a development planning constraint and mean that it will be straightforward to achieve net biodiversity gain as part of development planning going forward.
- The Sites are considered likely to have protected faunal interest that should be straightforward to appropriately manage by adopting standard ecological mitigation and compensation approaches as part of detailed development planning.
- The Sites are not protected by any statutory or non-statutory wildlife site designation and do not occur particularly close to any designated wildlife site.
- Significant adverse impacts (either direct or indirect) as a result of development construction and/or operation on nearby wildlife sites are not predicted to occur.



## 5.4 ACCESS APPRAISAL

An Access Appraisal has been undertaken by EAS, the following provides a summary of the report:

- Vehicle access will be provided from a new fourth arm on the A1198/B1040 bypass roundabout. There is currently a spur where the new arm will be placed, however to meet the required design standards the ICD of the roundabout would need to be increased to facilitate access to the development site.
- A second vehicle access point is proposed to the south of Papworth Everard on Ermine Street between the Business Park signal junction and the A1138/ Ermine Street roundabout. This second access will be a priority junction which may be required limited to left turn in and out only to avoid conflict with the signal junction, subject to future design and discussion with the highway authority.
- Proposals to enhance the existing excellent footway and cycleway connections will be considered. These could include providing lighting for The School Walk along its northern most section to the north of Pendragon Primary School. This would be particularly appropriate if the existing Primary school were to be extended.

### CONCLUSION

Papworth Everard is a sustainable settlement and site A has excellent connections to the village and its facilities. Site A is therefore a sustainable location suitable for the proposed up to 452 new dwellings.

### ERMINE STREET ACCESS

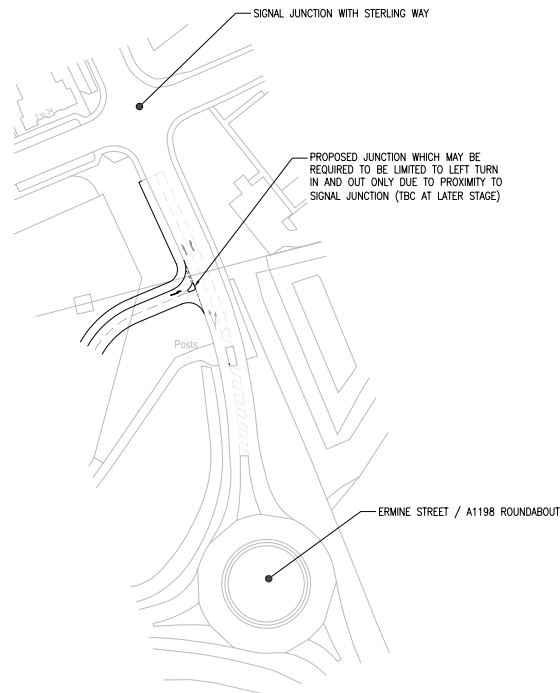


Figure 36; Proposed Vehicular Access

### A1198 / ST IVES ROAD ROUNDABOUT

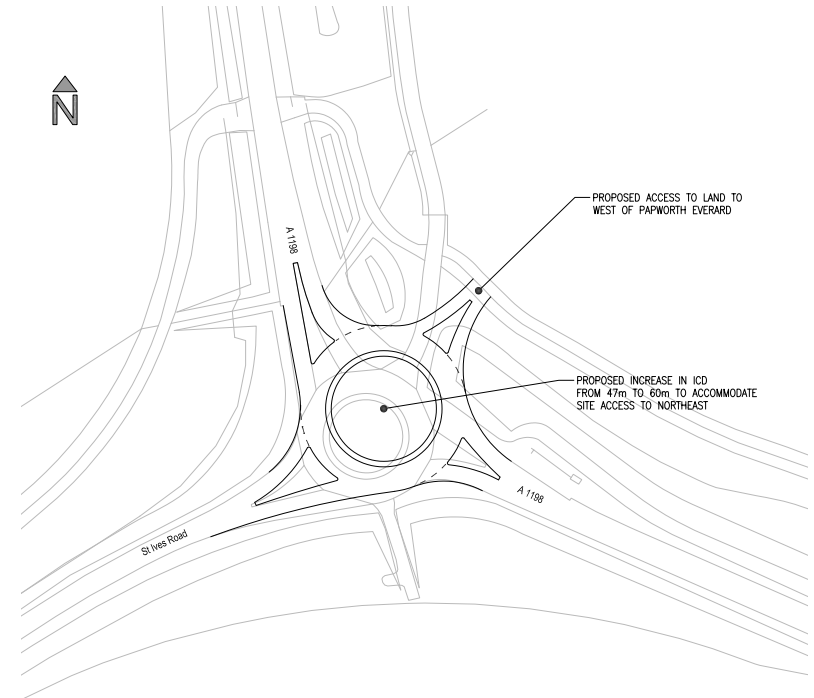


Figure 37; Proposed Vehicular Access









# 6.0

## THE PROPOSALS

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This section proposes a master plan vision for the site, including opportunities and constraints mapping, and supporting images.

## 6.1 OPPORTUNITIES AND CONSTRAINTS

Through the baseline mapping and assessment of the site, a number of opportunities and constraints have been identified which provide a framework within which the proposed development will be brought forward.

### SITE BOUNDARIES

- Both Sites are located between the existing settlement edge and the A1198 By-Pass.
- Site B includes a boundary shared with Pendragon School grounds and rear gardens to properties along Ermine Street, there is an opportunity to extend the school grounds and protect existing dwellings from overlooking.
- The site shares a boundary with the south-west extent of Papworth this includes a boundary with St Peter's Churchyard.

### LEVELS & DRAINAGE

- Site B is located within an area of lower lying topography which slopes uphill to the south and towards the existing dwellings.
- The majority of Site B lies within a Flood Risk Zone 3 with further areas at risk of surface water flooding.
- Site A is affected by a drainage channel which aligns centrally through the site and is associated with a Flood Risk Zone 3, there is an opportunity to create a wide green corridor along this route to manage the flood risk.
- The topography within Site B rises on either side

of the drainage channel with a change in level from 30-40m AOD to 50-60m AOD in both east and west directions.

### ACCESS & CIRCULATION

- Vehicular access is proposed from Ermine Street and as an additional arm to the A1198 roundabout.
- Pedestrian access is proposed from a number of locations where they connect with existing footpaths and to create enhanced circular walking routes.

### LAND USE

- Site B consists of scrub and tree vegetation and the vegetated bund associated with the A1198 by-pass.
- Site A consists of the vegetated bund planted along the A1198 by-pass in addition to blocks of woodland within the site particularly surrounding The Old Rectory and St Peter's Churchyard.
- St Peters Lane Park is located within the site boundary is Informal Open Space, and opportunity exists to retain and upgrade this as part of the proposed development.
- An area of Protected Village Amenity Space (SCDC Local Plan 2018) is located along the north-eastern boundary of Site A, which will be protected and upgraded as appropriate.
- There is an opportunity to enhance the biodiversity across the proposed site, by connecting existing natural features which are currently disconnected, and by creating and enhancing sensitive new green corridors.

### VEGETATION

- There is an opportunity to incorporate open space corridors and retain the open views identified in the Papworth Village Design Guide by forming connections through both sites.
- Appropriate planting treatment should be considered for the western boundary to create an appropriate buffer and mitigate visual issues identified in the visual study.
- There is an opportunity to break up the built form by creating woodland and green links through the proposed developable areas.
- There is an opportunity to encourage a diverse eco-system by introducing a variety of open space typologies and planting variety.





### LEGEND





















-  Proposed Site Boundary
-  Existing Road Network
-  Flood Risk Zone
-  Existing Public Right of Way
-  Conservation Areas
-  Existing Woodland
-  Papworth Wood SSSI
-  Existing Informal Open Space
-  Scheduled Monument
-  Overhead Electricity Line
-  Existing Allotment Site
-  Protected Village Amenity Space
-  Pendragon Community Primary School
-  Existing LAP and 100m isochrone
-  Grade II Listed Building
-  Grade II\* Listed Building
-  Existing Bus Stop
-  Potential Vehicular Access
-  Potential Pedestrian / Cycle Access
-  Valued External View (Papworth Village Design Guide)

Figure 38: Opportunity and constraints

## 6.2 MASTER PLAN STRATEGY

The master plan strategy proposes a landscape led development which provides a sensitive and contextually appropriate addition to Papworth, responding to the sites sensitive heritage and landscape constraints.

### LANDSCAPE LED DEVELOPMENT

Developable areas are focused to the west of a wide green spine which aligns in a north south direction, creating a landscape corridor centred on the alignment of the existing drainage channel. This enhanced corridor provides a multi-functional landscape, to help alleviate flood risk, support bio-diversity and enhance the users experience of the existing local footpath which provide circular walking routes.

Developable Areas have been carefully considered, to ensure they sit well within the existing landscape features, sensitively extending the built form of Papworth Everard.

Existing woodland and vegetation is enhanced and connected to form part of the wider proposed green networks. A wide swathe of vegetation including woodland blocks is proposed along the western boundary forming a wide buffer between the A1198 by-pass and the site. This will provide a soft edge to the development from views within the surrounding countryside.

Sensitive areas within the site include the Papworth Conservation Area and areas identified as a heritage constraint in relation to St Peters Church. Development within these areas is proposed to be of much lower

density with a loose grain to create a sense of openness and allow views through and out into the local environment.

A central multi- functional public open space is proposed to include open parkland, woodland and areas for play which is inter-connected by green corridors to enhance and build upon the existing green corridors in the village. These corridors and public open spaces provide permeability across the site with integrated footpaths to enable ease of movement for the local community along with recreational routes.

The preliminary Ecology Appraisal identifies that the site can achieve Biodiversity Net Gain assuming a indicative developable area of 15.07ha.

### ACCESS AND CIRCULATION

Two points of vehicular access are proposed, one from the existing A1198 roundabout, creating an additional spur in this location and another from the High Street. These access points are inter-connected by a primary road which would incorporate SuDS into its typical section.

A number of points for pedestrian access are located adjacent to the existing settlement edge, where there are existing publicly accessible green corridors which are proposed to be extended to form a continued connection into the proposed development. Existing footpaths are enhanced through the introduction of proposed green corridors connecting to a wider network of footpaths, providing opportunities for circular walking routes in and around Papworth.

### PROVIDING FOR THE COMMUNITY

There is the opportunity to provide a range of dwellings with sustainable links into the village, local schools and employment areas.

A range of publicly accessible multi- functional open spaces including woodlands and parkland provide numerous wellbeing benefits and opportunities for informal and formalised recreation. In addition allotment provision could be provided within the parklands which would be easily accessible to local residents.

Formal play areas for all years could allow young children and teenagers the space to play and/or socialise in safe, well designed locations that benefit from passive surveillance. Involving the community in the design and feel of these spaces will be key to successful place-making.





### LEGEND

















-  Proposed Site Boundary
-  Existing Road Network
-  Drainage Channel
-  Existing Public Right of Way
-  Overhead Electricity Line
-  Existing Woodland
-  Proposed woodland
-  Proposed Green Links / Corridors
-  Proposed Public Open Space
-  Proposed Developable Area
-  Proposed Developable within Areas Sensitive to Heritage
-  Proposed Vehicular Access
-  Proposed Pedestrian / Cycle Access
-  Proposed Primary Vehicular Route
-  Proposed Pedestrian Routes
-  Open Links between Existing Settlement and Proposed Development

Figure 39; Master plan

## MANAGING LANDSCAPE AND VISUAL IMPACT

The analysis of the site's landscape context and visibility informed the definition of pivotal design principles that would mitigate the possible adverse effects.

As illustrated in Figure 41, key areas of visual sensitivity have been managed through the proposal of strategic tree cover.



Figure 40: Visually sensitive areas

The woodland belts to the west of the site reinforce the existing planting along the A1198 and will provide, in time, visual screening of the site in views from the public footpaths in the adjacent countryside.

Proposed woodlands will be interspersed with open space and parkland with loose tree planting to ensure this does not become a continuous visual block. These would preserve the Internal and External Key Views identified in the Papworth Village Design Guide.

The A1198, enclosing the site to the west, is a strong boundary feature with visually prominent embankments which also interrupt the consistent rural character of the wider contextual landscape, exerting an urbanising influence to the west of the Parcels A and B. While the proposal will locally alter the landscape character, the informal tree planting within the parkland would create filtered views of proposed developable area and break the settlement density in response to the adjacent rural context.

The master plan carefully considers development breaks to preserve key internal and external views from within Papworth village. In response to the HELAA, the proposed woodland blocks have been carefully located within the master plan, with proposed woodland planting to enhance and expand existing mature woodland blocks, linking these with the existing, establishing linear woodland blocks which have been

planted as part of the works associated with A1198 to create a master plan strategy which respects both the views identified within the Papworth Village Design Guide, and the wider rural landscape.

### LEGEND

- Proposed Development Site
- ■ ■ Visually sensitive boundary





### LEGEND








-  *Proposed Site Boundary*
-  *Existing Woodland*
-  *Proposed woodland*
-  *Proposed Green Links / Corridors*
-  *Proposed Public Open Space providing filtered views*
-  *Key External View from the Papworth Village Design Guide*
-  *Key Internal View from the Papworth Village Design Guide*

Figure 41; Master plan with landscape mitigation, including key relevant views from the Papworth Village Design Guide



## 6.3 OPEN SPACE CHARACTER

The proposal includes multi-functional public open space including a linear country park, formal green areas and woodlands which are connected by green corridors to enhance and build upon existing corridors in the surrounding landscape.

The proposals respond to the settlement typical pattern proposing strategic green open space, at the heart of development, benefiting both existing and future residents. The variety of landscape provides diverse habitats contributing to environmental net gain.



Figure 42; Green links



Figure 43; Natural play for multifunctional woodlands



Figure 44; Enabling active travel



Figure 45; Recreational opportunities



Figure 46; Productive garden



Figure 47; Woodland habitats



## 6.4 BUILT FORM AND MATERIALITY CHARACTER

The master plan strategy reflects the local character by breaking the developable area with green spaces.

This and the proximity to critical heritage assets provides opportunity to create discrete character zones that appropriately respond to the contextual landscape. The character of these will need to be considered in detail, with traditional materials deployed sensitively and a range of styles provided to cater for a diverse population.



Figure 48; Housing facing woodlands



Figure 49; Building with positive fronting overlooking green open spaces



Figure 51; Modern materials with older style buildings



Figure 50; High-quality, appropriate materiality



Figure 52; Green avenue with integral SuDS features

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