



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

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

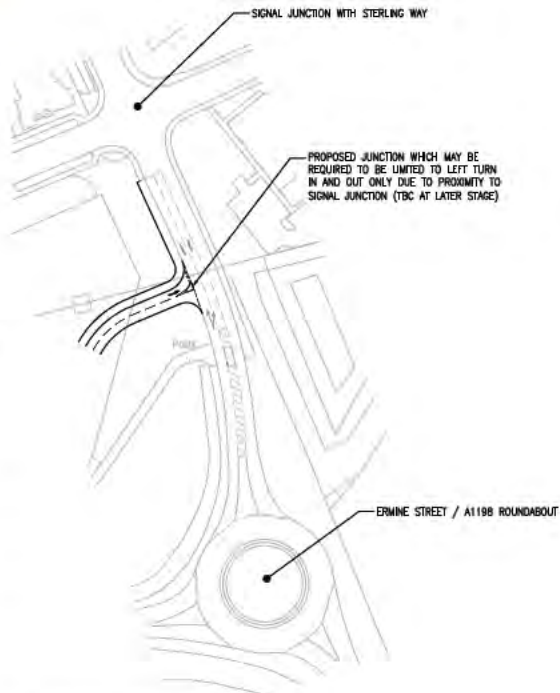


Figure 36; Proposed Vehicular Access

A1198 / ST IVES ROAD ROUNDABOUT

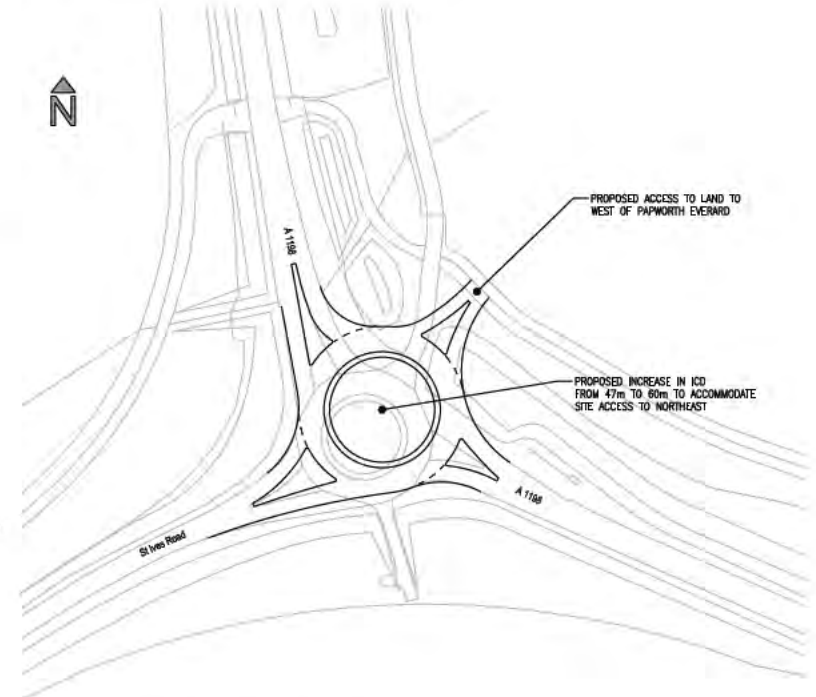


Figure 37; Proposed Vehicular Access





6.0

THE PROPOSALS

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

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 40; Green links



Figure 41; Natural play for multifunctional woodlands



Figure 42; Enabling active travel



Figure 45; Woodland habitats



Figure 43; Recreational opportunities



Figure 44; Productive garden

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 46; Housing facing woodlands



Figure 47; Building with positive fronting overlooking green open spaces



Figure 49; Modern materials with older style buildings



Figure 48; High-quality, appropriate materiality



Figure 50; Green avenue with integral SuDS features

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