

MARCH 2019

LANDSCAPE AND VISUAL SCOPING

# CAMBRIDGE SCIENCE PARK EXTENSION

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Quality Assurance

**Site name:** Cambridge Science Park Extension

**Client name:** Trinity College

**Type of report:** Landscape and Visual Scoping

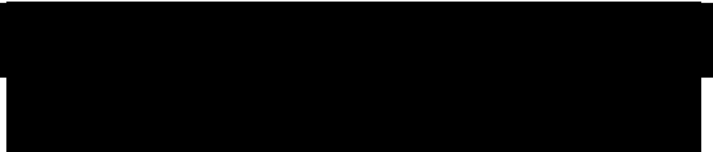
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# 1.0

## **INTRODUCTION**

This section provides an overview of the document contents and scope, in accordance with the site assessment and delivery requirements.

## **1.1 PURPOSE OF THE DOCUMENT**

On behalf of Trinity College, this document has been prepared to scope the development potential in landscape and visual terms of a site located north west of the Cambridge Science Park, adjacent to the Evolution Business Park. The document commences with a site assessment, leading to the definition of site specific opportunities and constraints to be considered in any development proposal brought forward.

highlighted in the previous chapters, to define the site development potential.

The document comprises of the following sections:

### **SITE CONTEXT:**

A description of the immediate context of the site. This includes land uses, local landscape characteristics and features, and their relationship with the site.

### **BASELINE STUDY:**

An assessment of the site's mapping information including topographical and flood risk mapping to determine the key considerations and constraints of the site; followed by a photographic study of the site and its context, determining key visual receptors.

### **CONCLUSION:**

A description of the identified opportunities and constraints of the site, which are based on the key landscape characteristics and visual issues or values



Figure 1; Guided Busway



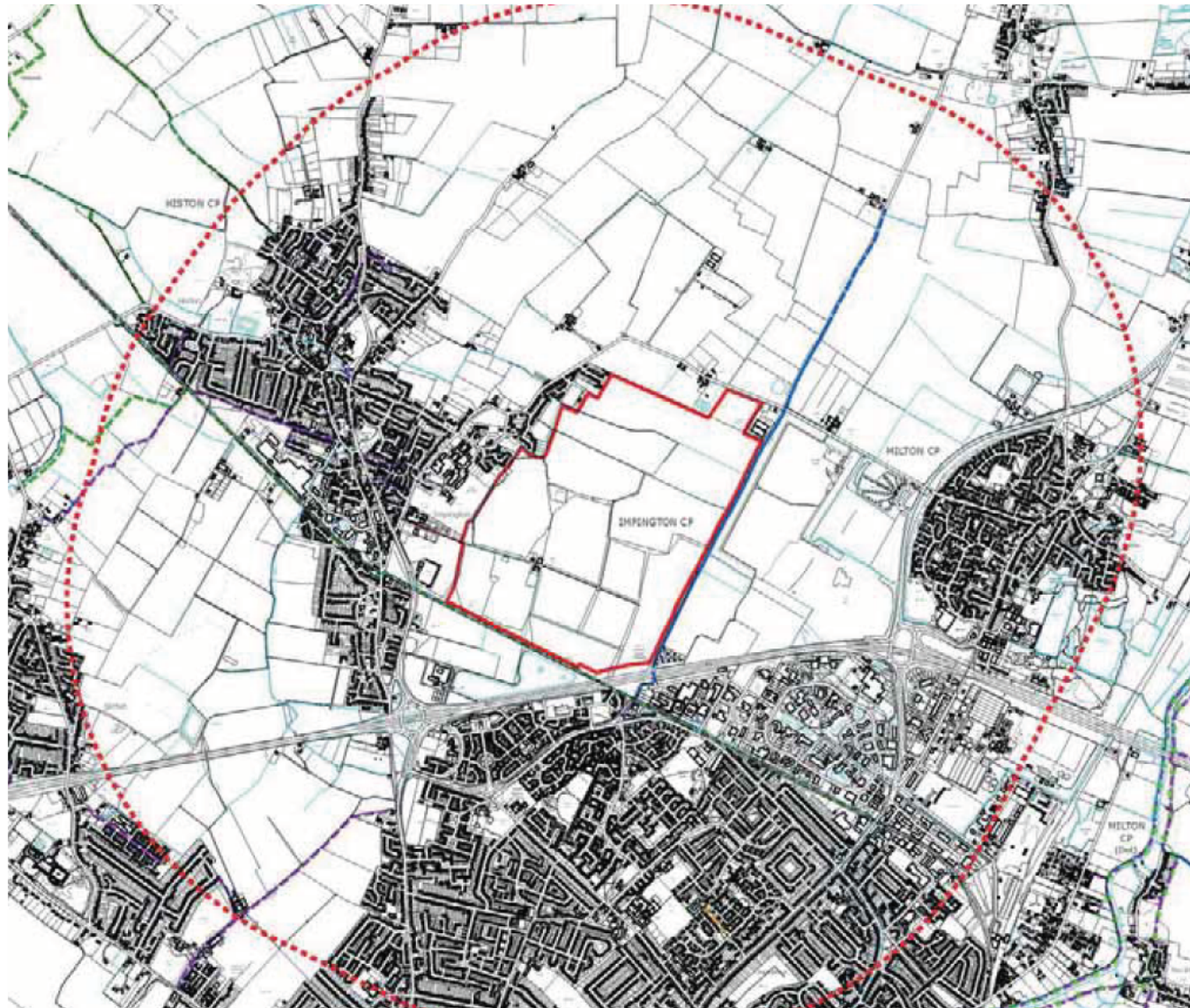


# 2.0

## **SITE CONTEXT**

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

## 2.1 SITE LOCATION



The site is located to the north west of Cambridge Science Park, separated by the A14 and Cambridge Regional College, but connected by the Guided Busway and Mere Way. To the west of the site is Impington village.

The environs of the site are largely urbanised to the south and west, at Cambridge and Impington. Milton is located to the east of the site, separated by agricultural fields, park & ride and the recycling centre. A complex network of roads provides connectivity between the urban centres, including Waterbeach and Cottenham further north, with the A14 and A10 being the most important transport infrastructure within the site proximity.

Contrasting the articulated road infrastructure, there are limited publicly accessible footpaths in the landscape surrounding the site. The only Public Right of Ways are the 162/3 byway and the 135/6 Bridleway, respectively along the eastern and southern site's boundary. The latter also runs along the Guided Busway.

### LEGEND

- Site boundary
- 2km Radius
- Recreational Route
- National Cycle Route
- Public Footpath
- Public Bridleway
- BOAT
- Restricted Byway

Figure 2; Site Location



The site's immediate landscape context is characterised by the A14 (currently subject to implementation works) and the built form of Cambridge and Impington.

Milton settlement is separated from the site by the intervening fields, which are interrupted along Milton Road by Milton Recycling Centre, The Evolution Business Park, Sun Close Farm polytunnels and the park & ride.

To the north of the site the landscape opens up to the countryside, with large, regular fields. Open, panoramic vistas are occasionally interrupted by hedgerows, mostly located along country roads and tracks.

The agricultural character differs the southern area of the site, immediately to the north of the Busway, which is subdivided into several smaller fields. Mature hedgerows, tree belts and small woodlands provide here a strong sense of enclosure.

### LEGEND

-  Site boundary
-  2km Radius

Figure 3; Aerial View





# 3.0

## BASELINE STUDY

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The baseline study of the site includes analysis of the site topography, designations and historical mapping, in order to inform the opportunities and constraints of the site.

## 3.1 LANDSCAPE CHARACTER

The diversity of the landscape context of the site is captured at national and county scale by landscape assessment literature. Following is an overview of relevant documents focusing on the distinctive landscape qualities necessary to understand the site and its environs.

### NATIONAL LANDSCAPE CHARACTER

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

This NCA is characterised by *'a broad, gently undulating, lowland plateau dissected by shallow river valleys that gradually widen as they approach The Fens NCA in the east.'*

The majority of the NCA is sparsely populated, with settlements typically located along major transport infrastructure (such as the A14 and M11) and within the river valley. This is the case for Cambridge which with Milton Keynes, Bedford, Huntingdon and Peterborough is one of the major urban centre that increases the feeling of urbanisation of the NCA.

Consequentially, tranquillity across the whole NCA has declined as a result of the influence of major roads and expansion of the main urban settlement.

Woodland cover is generally scattered and sparse.

Key characteristics of the NCA are:

- *'Gently undulating, lowland plateau divided by shallow river valleys that gradually widen as they approach The Fens NCA in the east.'*
- *'Predominantly open, arable landscape of planned and regular fields bounded by open ditches and trimmed, often species-poor hedgerows rich contrast with those fields that are irregular and piecemeal.'*
- *'Settlements cluster around major road and rail corridors, with smaller towns, villages and linear settlements widely dispersed throughout, giving a more rural feel. Small villages are usually nucleated around a church or village green, while fen-edge villages are often in a linear form along roads.'*

The NCA profile identifies a series of Statements of Environmental Opportunities (SEO) to guide development within this landscape. The following SEO is considered relevant to the site:

*'SEO 3: Plan and create high-quality green infrastructure to help accommodate growth and expansion, linking and enhancing existing semi-natural habitats.'*

### COUNTY LANDSCAPE CHARACTER

The site is located within the Western Clayland Landscape Character Area (LCA), identified in The Cambridgeshire Landscape Guidelines (Landscape Design Associates, Cambridgeshire Landscape Guidelines, Cambridgeshire County Council, 1991).

Woodlands concentrate in the south-west part of the LCA, leaving the site environs with scarce tree cover.

Therefore, *'individual woods are of importance in visual and nature conservation terms, but they tend to be isolated incidents in an area dominated by arable farmland.'*

*'The landscape of this part of Cambridgeshire has been greatly affected by modern agricultural practices. Increased mechanisation has led to the removal of hedgerows and amalgamation of fields. Many of the remaining hedges are 'gappy' and trimmed almost out of existence by regular cutting.'*

As a consequence of intensified agriculture, the increased production requires substantial storage room. Large storage buildings can therefore be prominent in this landscape.

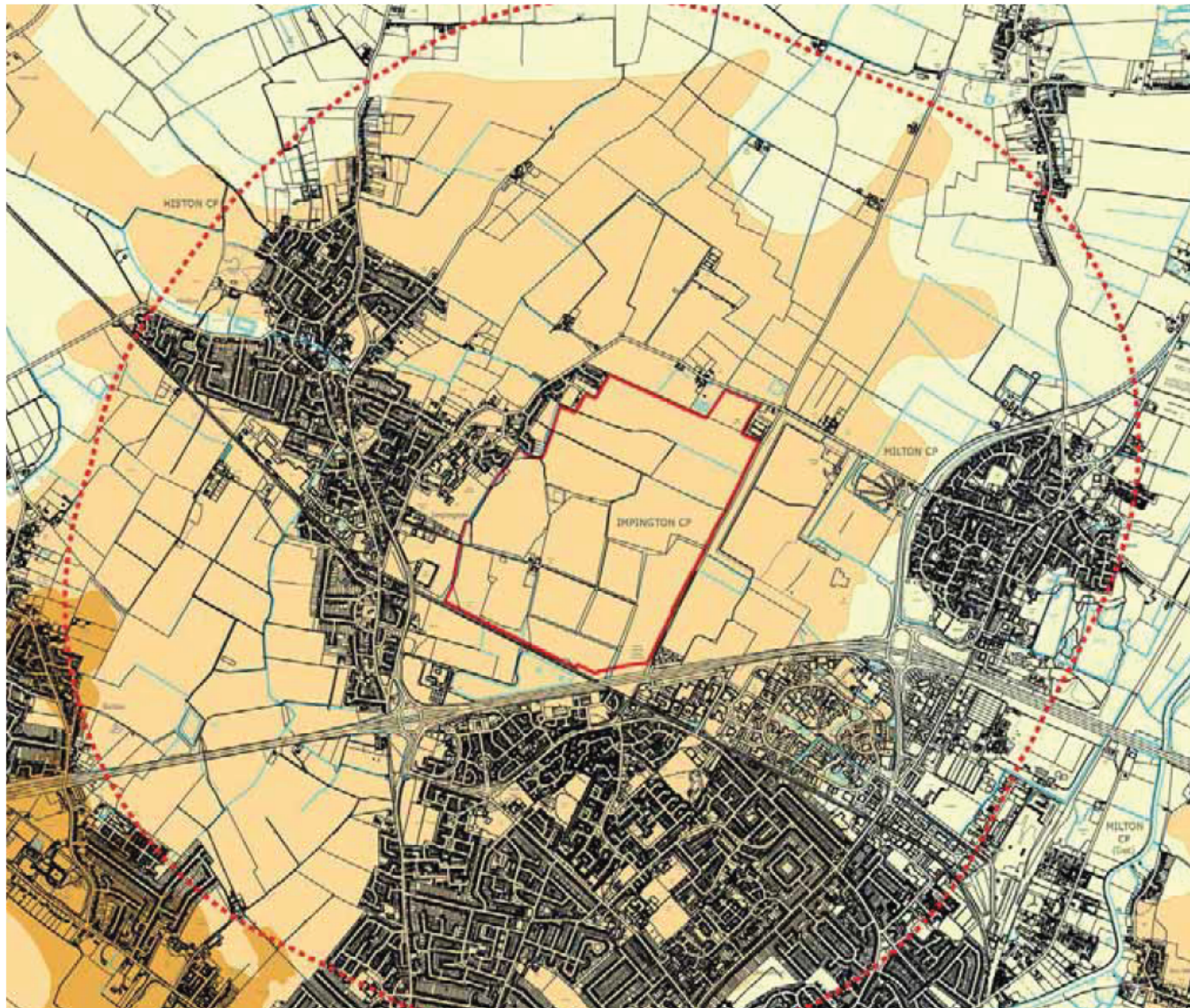
*'Small villages and hamlets are scattered throughout the area, usually in sheltered places with existing trees. Small grass paddocks typically occur on the edges of the villages. Church spires and towers enliven the skyline.'*

The overall vision for the LCA aims to create a *'fairly large-scale landscape with large rolling fields enclosed by and sweeping around blocks and belts of woodland and broad hedgerows.'* Amongst the specific guideline proposed to achieve the overarching objective, the following are of relevance to the site:

- *'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. The new woodland blocks may be planted to reflect landforms,*



## 3.2 TOPOGRAPHY



The site is located on substantially flat land.

Topography within the site and its surrounding is largely uniform. This is influenced by the proximity to the Fens. To the north east of the site the Clayland NCA is in fact bounded by the Fen NCA, which are typically flat, low-lying land.

### LEGEND

-  Site boundary
-  2km Radius
-  0m - 10m
-  10m - 20m
-  20m - 30m

Figure 5; Topography

### 3.3 WOODLAND COVER



There are few scattered woodland belts and small blocks in the landscape surrounding the site.

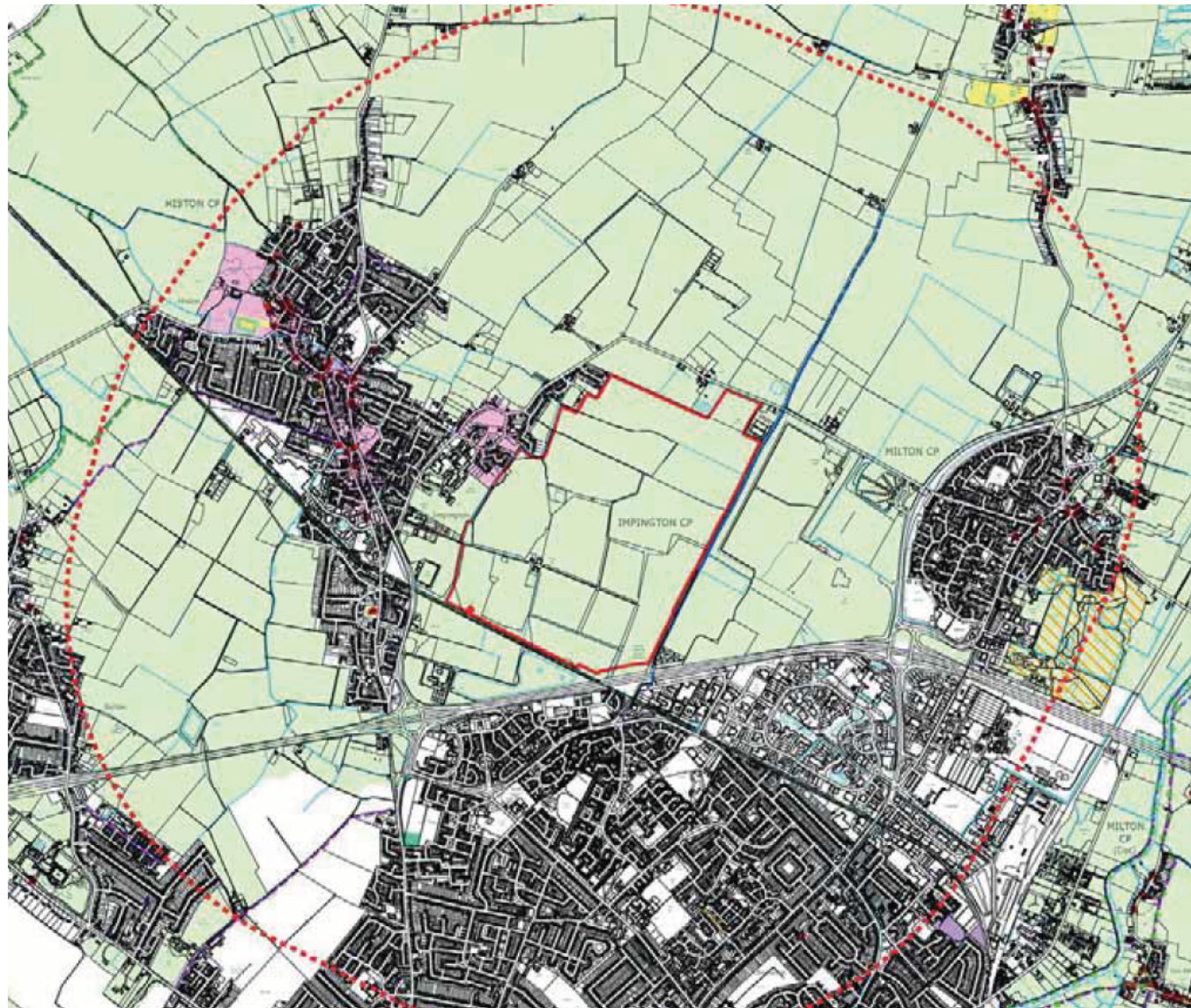
Most of the wooded blocks are small scale; the tree belt surrounding the recycling centre and woodland at Milton Country Park are the two most notable vegetative features located to the west of the site. There are no Ancient Woodlands, but most are identified in the Priority Habitat Inventory as Deciduous Woodlands.

#### LEGEND

-  Site boundary
-  2km Radius
-  Existing Woodland
-  Orchard Priority Habitat
-  Deciduous Priority Habitat

Figure 6; Woodland Cover

### 3.4 DESIGNATIONS



There are not many landscape designations found within the site proximity. It is, however, noted that the site is within the Cambridge Green Belt, which is a national policy dependent on landscape qualities.

Worts' Meadow Local Nature Reserve (LNR), which is also a publicly accessible Scheduled Mounment, is located approximately 2km north of the site and Milton Country Park 2km to the east.

Several heritage assets are located close to the site, mostly within Impington and Histon Conservation Areas. This includes two Grade I Listed Buildings (LB):

- Church of St Andrews; and
- Village College.

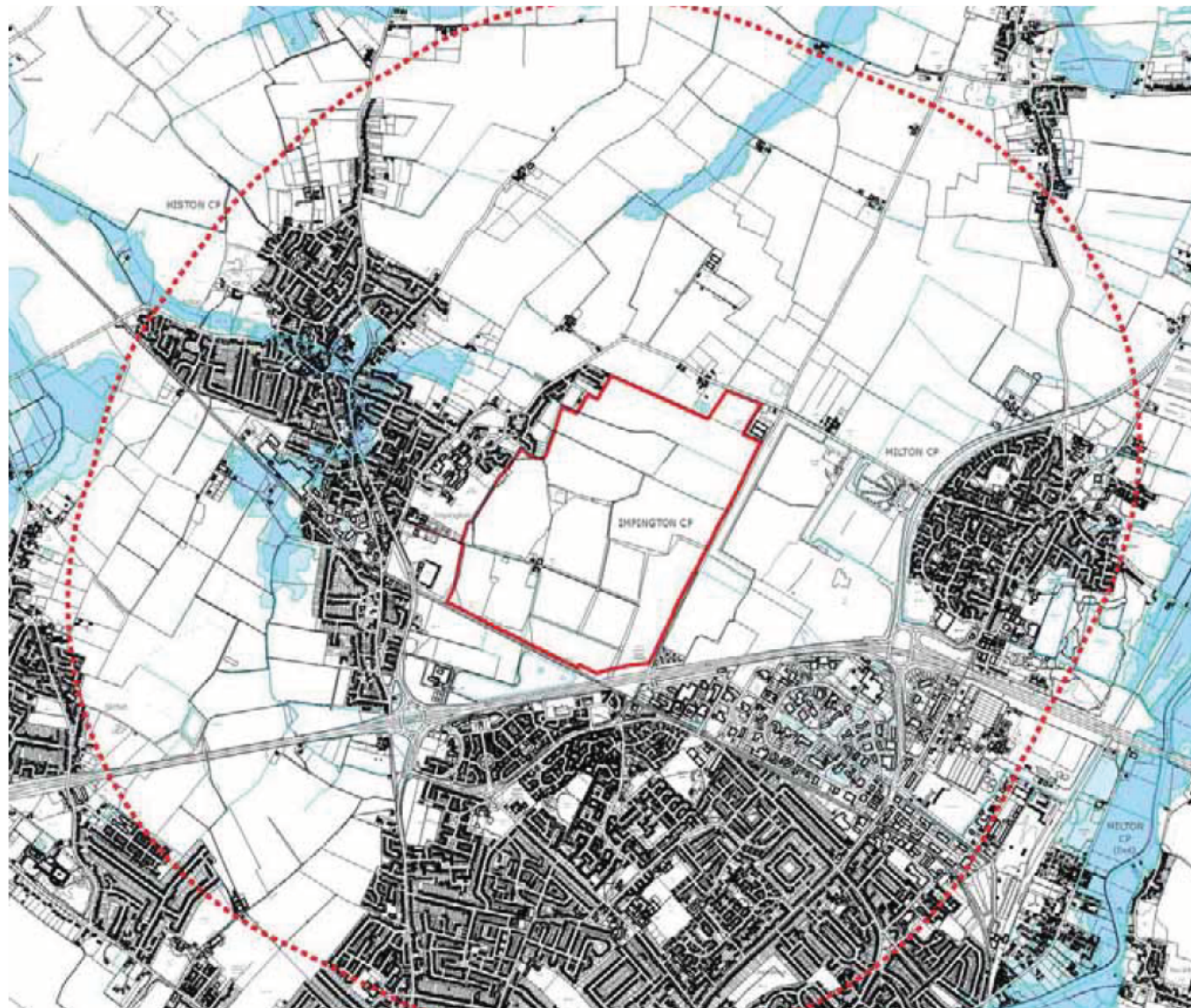
The Grade II Memorial Stone is located within the site boundary to the south.

#### LEGEND

Site boundary	Conservation area
2km Radius	SSSI
Recreational route	LNR
National Cycle Route	Country Park
Public footpath	Green Belt
Public bridleway	Grade I LB
BOAT	Grade II* LB
Restricted byway	Grade II LB
Scheduled monument	

Figure 7; Designations

### 3.5 FLOOD RISK



Flood Zones 3 and 2 are mostly associated with the Long Reach corridor to the south east of the site and other various land drains. There is no substantial risk of flooding identified within the site boundary.

#### LEGEND

-  Site boundary
-  2km Radius
-  Flood Zone 3
-  Flood Zone 2

Figure 8; Flood Risk

## 3.6 CAMBRIDGE GREEN BELT

Green Belt is a key designation in the district, which protects the setting and special character of Cambridge. National and Local policies aim to protect its rural character and openness by controlling inappropriate development.

South Cambridgeshire District Council appointed Landscape Design Associates to undertake a Green Belt Study (September 2002). *'This study, therefore, describes and illustrates the factors that contribute to the setting and special character of Cambridge. It then focuses on the qualities to be safeguarded to preserve this setting and special character, before setting out a vision of the city. The vision is a strategy for safeguarding and enhancing the setting and special character of Cambridge while recognising that there is likely to be a need for some urban expansion, through Green Belt releases...'*

Amongst the special qualities of the Cambridge Green Belt identified in the study, the following are of relevance to the site and its context:

- *'Short and/or characteristic approaches to Cambridge from the edge of the city;*
- *Key views of Cambridge from the landscape;*
- *Significant areas of distinctive and supportive townscape and landscape;*
- *Topography providing a framework to Cambridge;*
- *A soft green edge to the city;*
- *Designated sites and areas enriching the setting of Cambridge;*
- *Long distance footpaths and bridleways providing*

*links between Cambridge and the open countryside;*

- *Elements and features contributing positively to the character of the landscape setting;*
- *The distribution, physical separation, setting, scale and character of necklace villages; and*
- *A city set in a landscape which retains a strong rural character.'*

The study baseline provides its own landscape character assessment (Figure 8) which identified overall Landscape Types (LT), then subdivided in Landscape Character Area (LCA). The site in the Fen Edge LT and Western Fen Edge LCA.

The Fen Edge *'is a transitional landscape type, situated between the Fens and the higher land beyond. It is relatively low lying, but not as low as the fens. It still appears generally flat, and contains a variety of land uses, including arable and pastoral agriculture, roads and settlement.'* It is also noted the disrupting effect of the A14 on the link between Cambridge and the Fens Edge.

The Western Fen Edge *'is a flat and expansive landscape, where sky and horizons are dominant features. Arable agriculture is the principal land use, and the land is divided into medium-sized regular fields.'*

*'Views to Cambridge are restricted by the low-lying topography and the A14. Therefore the only key views to Cambridge from the western fen edge are from the A14 itself. The A14 also acts as an artificial edge to the city, and undermines the gentle transition between*

*the city and the fen edge.'* The substantial expansion of Cambridge's peripheral villages has increased urbanisation in this part of the Green Belt throughout the 20th century, with villages linking seamlessly to the city itself. However, it is recognised that villages have maintained their own particular character.

The study definition of the setting and special character of the Green Belt (Figure 10) is also of relevance to the site as it identifies that *'the rural landscape separating the inner necklace villages, and separating those villages from Cambridge, plays a critical role in preserving the separate identities of these villages and therefore the immediate landscape setting of the city.'*

The final results of the study put the site within the Outer Rural Area of the Green Belt (Figure 11) which is an area of landscape *'from which distinct views of the city are scarce or absent. The function of this landscape is in providing a backdrop to views of the city, and in providing a setting for approaches to connective, supportive and distinctive areas of townscape and landscape'*. Crucially, the study concludes that *'outer Rural Areas play a lesser role in contributing to the distinctiveness of Cambridge and its setting, and are less finite as land that plays this role continues to an undefined extent beyond the Green Belt boundary. Outer Rural Areas might also have the potential to accommodate change (and development) that does not adversely affect the setting and special character of Cambridge, subject to clarification by more detailed assessment.'*

The study sets a vision for the development of Cambridge by providing guidelines to safeguard the

Green Belt qualities. Figure 12 reiterates the important role of the site as protection of the countryside between development, specifically of the separation between Cambridge and Impington, Impington and Milton.

In November 2015 LDA Design (formerly Landscape Design Associates) published the Cambridge Inner Green Belt Boundary Study for Cambridge City Council and South Cambridgeshire District Council as evidence for the emerging Local Plan. The new study draws from the previous one (2002), but adds detailed assessment of specific areas (19 sectors) within the Green Belt.

While the study examines on all Green Belt purposes, it identifies three fundamental purposes of the Cambridge Green Belt:

- ‘Preserve the unique character of Cambridge as a compact, dynamic city with a thriving historic centre;
- Maintain and enhance the quality of its setting; and
- Prevent communities in the environs of Cambridge from merging into one another and with the city.’

Although the study area of this report does not include the Green Belt land north of the A14 (where the site is located), it accords with the 2002 version defining the land surrounding Cambridge forming the rural setting of necklace villages contributes to the separation between villages and Cambridge or between the villages themselves.

It is noted that the study, and consequent supplement in March 2016, acknowledges that certain type of development, in certain areas is possible. Even if the sector contributes to the Green Belt purposes

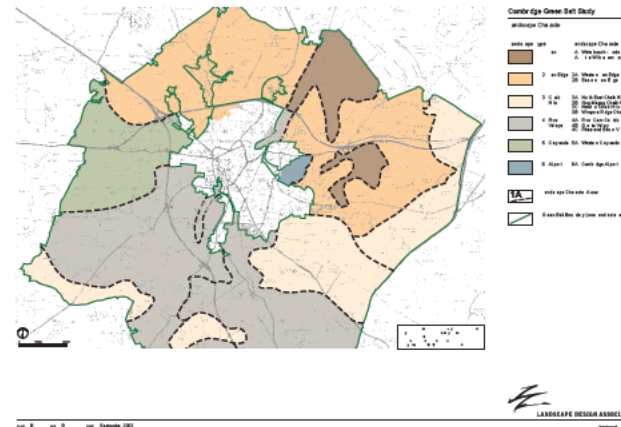


Figure 9; Green Belt landscape character

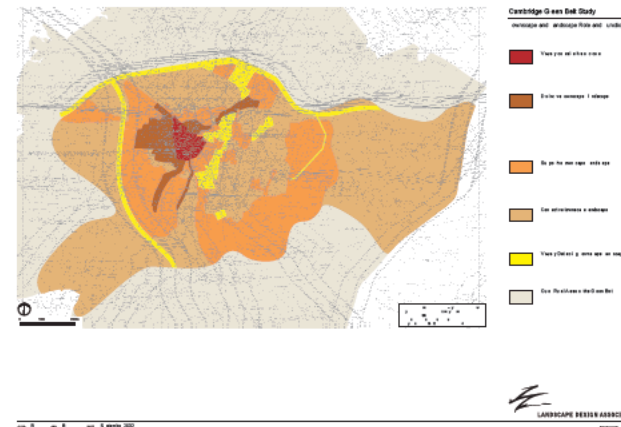


Figure 11; Green Belt townscape and landscape role and function

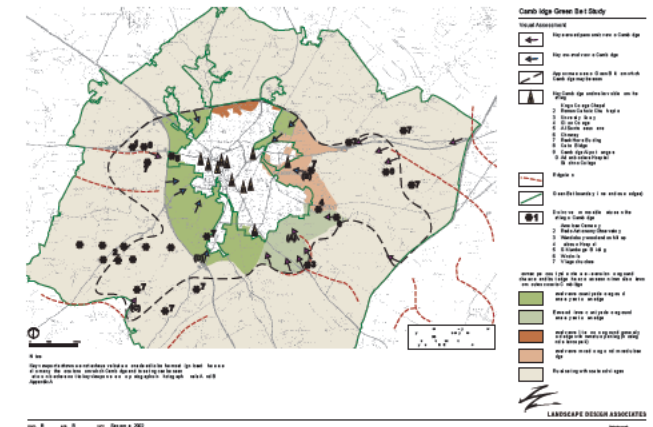


Figure 10; Green Belt visual assessment

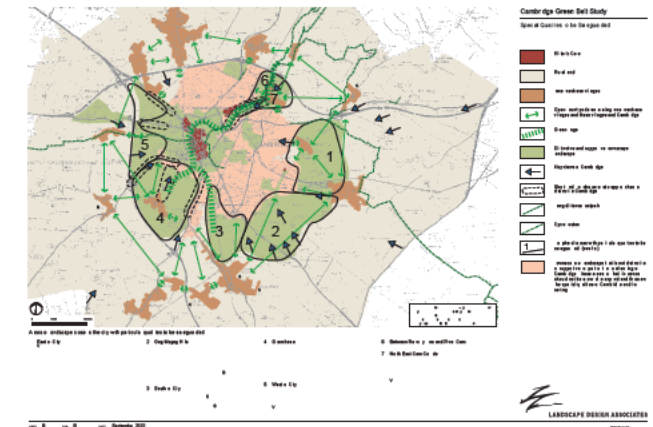


Figure 12; Special qualities to be safeguarded

development is acceptable providing that it follows defined parameters. As the site is not identified and assessed within this study, appropriate parameters need to be defined to inform appropriate development in respect of the Green Belt purposes.

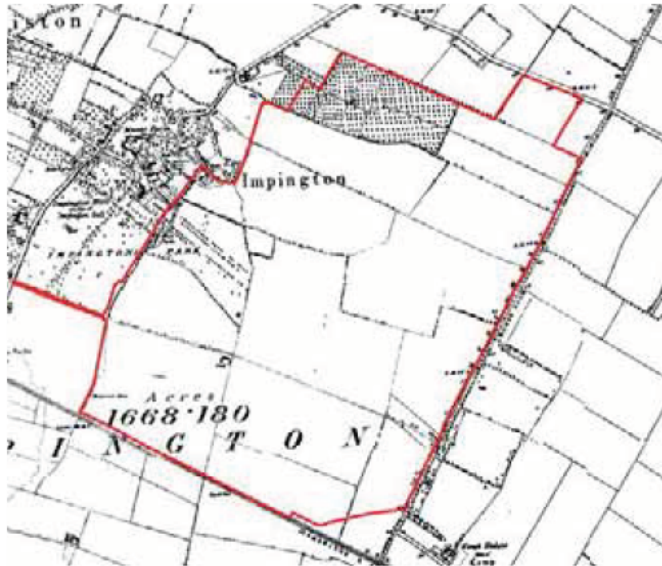


Figure 13; Historic Map - 1889

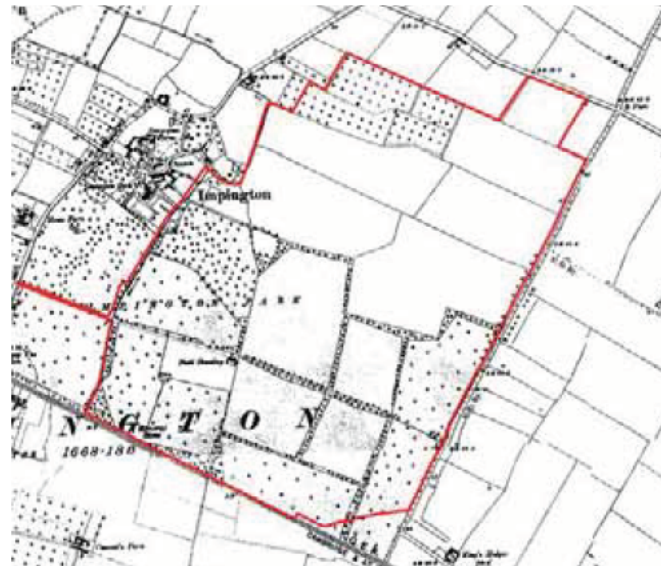


Figure 14; Historic Map - 1903



Figure 15; Historic Map - 1938

The three maps above show the evolution of the built and rural landscape surrounding the site from the late 19th to the early 20th centuries. The land use of the site, as well as that of the surrounding landscape, appears generally unchanged through the selected years, with a predominately agricultural landscape to the east of Impington, prior to the inclusion of the A14.

While to the east and north of the maps the agricultural

fields are subject to limited changes and remain large, regular shapes; within the southern area associated with Impington Park there is a substantial increase of woodlands and tree belts in the 1903. Although some woodlands are lost in 1938, the increased subdivision of the fields and landscape enclosure is still clear.

The urban expansion of Impington is apparent in 1938, including the Village College, and increases along Milton Road.

#### LEGEND

 Site boundary

### 3.8 VISUAL STUDY



A photographic survey has been carried out to assess the landscape character and qualities around the site and to identify critical visual receptors.

The site visit and analysis of the photographs suggest that the landscape and urban characteristics, as follows, appear prominent in defining the site and its context:

- Flat, open landscape;
- Arable fields as dominant land use;
- Occasional sense of enclosure from hedgerows and tree belts;
- A14 and Guided Busway as strong urban features; and
- Lack of a feeling of urbanisation related to Cambridge and satellite villages.

In most of the identified views, the largely agricultural landscape is the dominant character of the site and its surrounding environs. Major transport infrastructure is the major impact on the otherwise tranquil and open countryside.

The urban character of Cambridge, Milton, Impington and Histon is perceived mostly in proximity of the settlements. Long, panoramic views from the north maintain an overall undeveloped feel. However, the scattered farmsteads and rural storage buildings are frequent features in the views.

The setting of most heritage assets in proximity to the site relies on the quality of the surrounding landscape,

which is generally open and rural, even within Impington Conservation area, refer to viewpoint 9.

Tree belts are well established in the southern area of the site. This dense planting along fields' edges creates smaller agricultural spaces which afford a strong sense of enclosure and privacy.

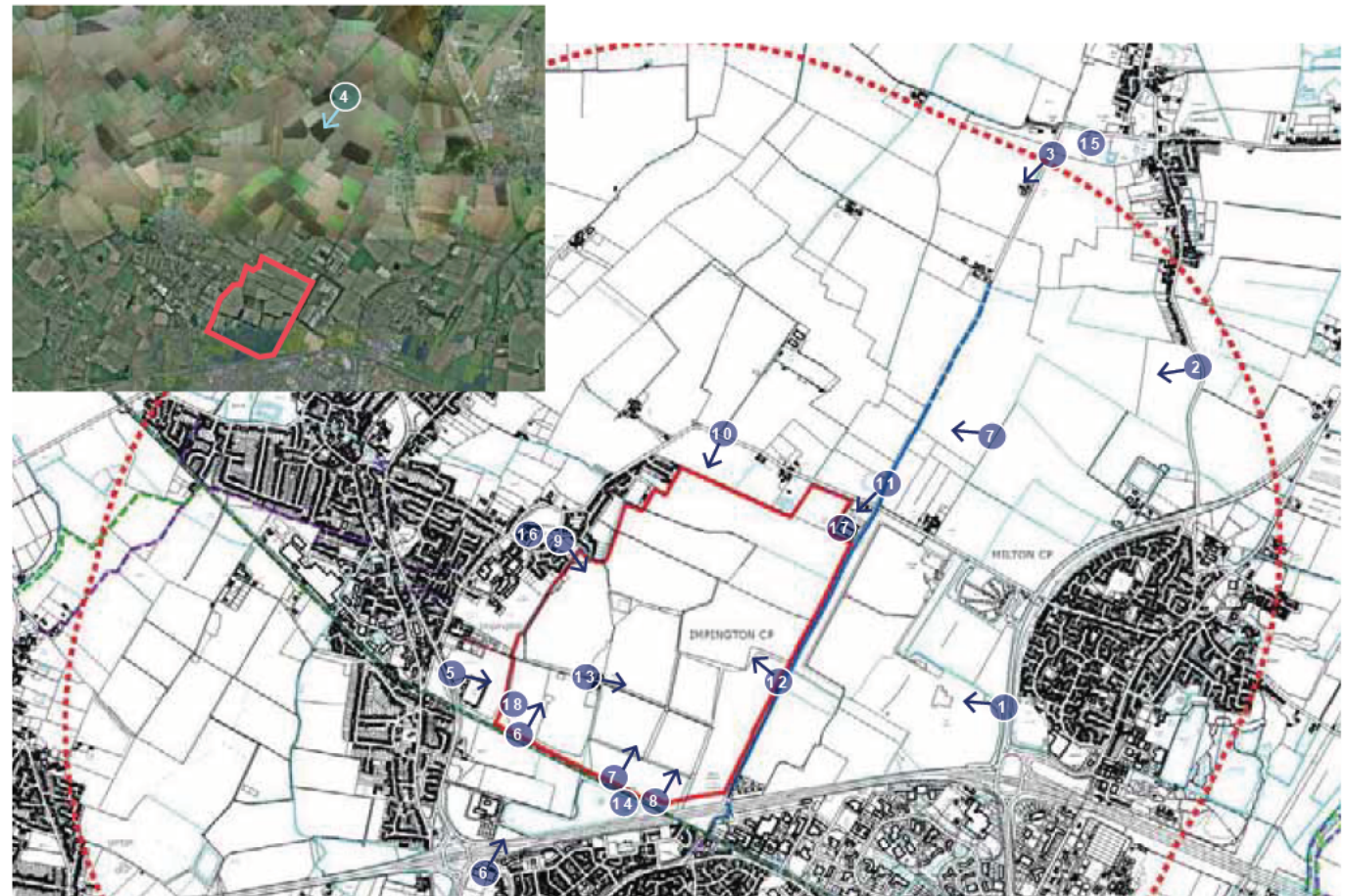


Figure 16; Visual Study Locations



Figure 17; View towards the site from A10



Figure 18; View towards the site from Landbeach Road



Figure 19; View towards the site from Akoman Street in proximity of the Worts' Meadow Nature Reserve



Figure 20; View from Cottenham Road towards the site



Figure 21; View from Bridge Road across Impington Football Ground towards the site



Figure 22; View from the Guided Busway (west) of the site in proximity to the Memorial Stone



Figure 23; View of the site from the Guided Busway



Figure 24; View of the site from the Guided Busway (east) in proximity to the A14 bridge



Figure 25; View from Impington Conservation Area, in proximity to Church of St Andrew towards the site



Figure 26; View of the site from Milton Road



Figure 27; View from Public Byway (162/3) north of the site



Figure 28; View from Public Byway (162/3) of the site



Figure 29; View of the site from Impigton recreation ground and



Figure 30; The Guided Busway crossing the A14



Figure 31; Worts' Meadow SSSI



Figure 32; Church of St Andrew, Impington



Figure 33; The Evolution Business Park



Figure 34; Memorial Stone







# 4.0

## CONCLUSION

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The report concludes with the identification of opportunities and constraints leading to recommendations to inform the site's development potential.

## 4.1 OPPORTUNITIES AND CONSTRAINTS

Following the appraisal of the site context and baseline study the following opportunities and constraints should be considered to enable site development.

### HISTORIC CONTEXT

- The site contributes to the setting of the historic assets located within its proximity; located within the site is the Memorial Stone. The preservation and enhancement of the historic value of the landscape is a key constraint to the definition of developable areas; and
- Opportunities to restore or improve historic hedgerows and woodlands should be considered in the development of the master plan strategy.

### BOUNDARIES

- Development on the site offers opportunities to redefine the settlement edge, especially along the A14, through promoting or enhancing soft landscape qualities to contrast hard urban lines; and
- There are opportunities to enhance existing vegetation to reinforce the contrast between enclosed and open nature of the site, limiting visual impact where necessary.

### VIEWS

- A key consideration at masterplanning stage are the visually sensitive site boundaries, in particular the northern and eastern edges into the Green Belt, to mitigate visual impact of the proposed development where necessary while maintaining visual openness;

and

- Open, rural views afforded by properties on the eastern edge of Impington and protected by the Green Belt policy are key consideration for the development of the master plan strategy.

### OPEN SPACE

- Preservation of crucial Green Belt qualities and the setting of critical historic assets requires the strategic location and design of multifunctional open spaces; and
- The existing drains and ponds provide opportunities to creatively implement Sustainable Drainage Systems (SuDS) within the master plan strategy.

### CONNECTIVITY AND OPEN SPACE

- The scarce Public Right of Way network could be enhanced with additional access to the countryside through an improved footpaths network; and
- The Guided Busway and National Cycle Network on the southern site edge offer opportunities to link to the existing publicly accessible connection and implement recreational and alternative transport opportunities within the potential development.

## 4.2 RECOMMENDATIONS

Based on the findings of the landscape and visual scoping, it is considered that the site shows potential for development. Further site analysis and investigation is required to define the full potential in both the landscape and visual terms. However, this initial appraisal identifies basic opportunities to develop the site in a sustainable and sensible manner.

The baseline study demonstrate that the site and its context contribute to the Green Belt due to its rural character and sense of openness between Cambridge and Impington, Impington and Milton. Aside from the Green Belt, the site and it environs shows few landscape designations, but a strong historic component.

The noticeable urban context surrounding the site does not reflect in an equally strong feeling of urbanisation. However, the Evolution Business Park introduces substantial built form to the north east of the site and major road infrastructure strongly define the settlements expansion.

The following are key design recommendations that should be considered for the definition of a solid masterplanning and landscape strategy:

- Provide appropriate open landscape in the western area of the site to guarantee sense of openness and preserve the rural character along Impington settlement edge;
- Propose a mix of enclosed and open landscapes appropriate to different character areas within the

site;

- Consider sensitive masterplan solutions for the northern boundary of the site which links to the wider Green Belt;
- Strategically integrate SuDS into the existing water assets; and
- Integrate green corridors within the developed area to mitigate the perception of built volumes and extend the Green Belt qualities within an urban context.

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