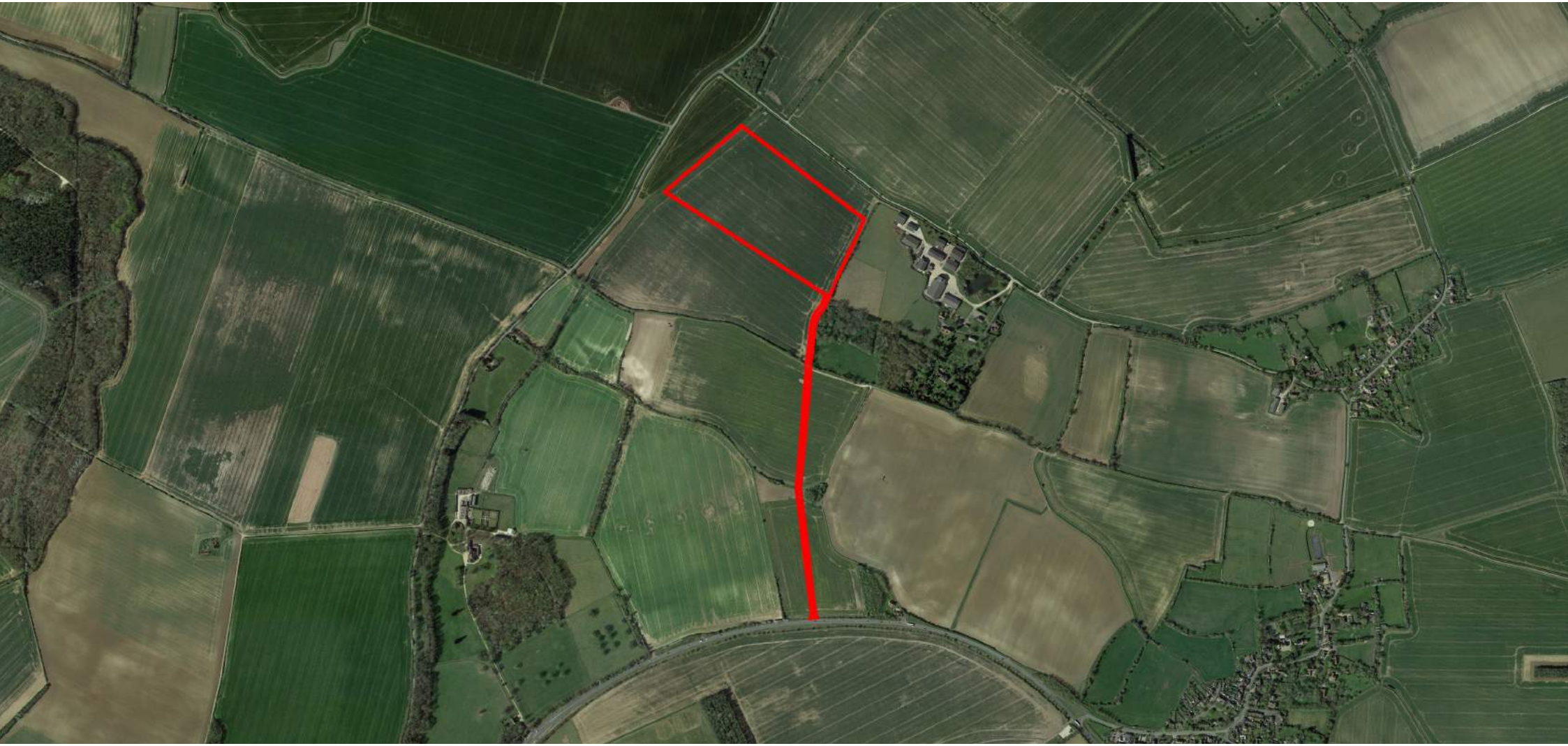


**Proposed Anaerobic Digestion Facility, Streetly End, Cambridgeshire**

Landscape and Visual Impact Assessment

October 2023

Contents

# 1. INTRODUCTION

1.1 This Landscape and Visual Impact Assessment has been prepared on behalf of Streetly Hall Estate to determine the potential impact of a proposed biogas plant on land west of Streetly Hall, West Wickham, Cambridgeshire.

**Purposes of the Document**

1.2 The purpose of this document is to assess the landscape, visual and cultural impacts of the potential development on the site.

1.3 The document evaluates the contribution of the site to the landscape character, visual amenity and cultural and heritage features of the local area before assessing the potential impacts of the development on that character and amenity.

Structure of the Document

Landscape Baseline

1.4 This section assesses the character and quality of the local landscape before identifying the extent to which the proposal site contributes to or detracts from that character and therefore its sensitivity to change. Particular reference is made to the district-wide Landscape Character Assessment.

1.5 The assessment of the character and of the proposal site identifies the wider landscape receptors that may be affected by the proposals, as well as their sensitivity to change. These receptors may be features or elements of character that need to be preserved, restored or enhanced.

Development Proposals and Site description

1.6 This section reviews the historic development of the site and its landscape setting, and describes the development proposals.

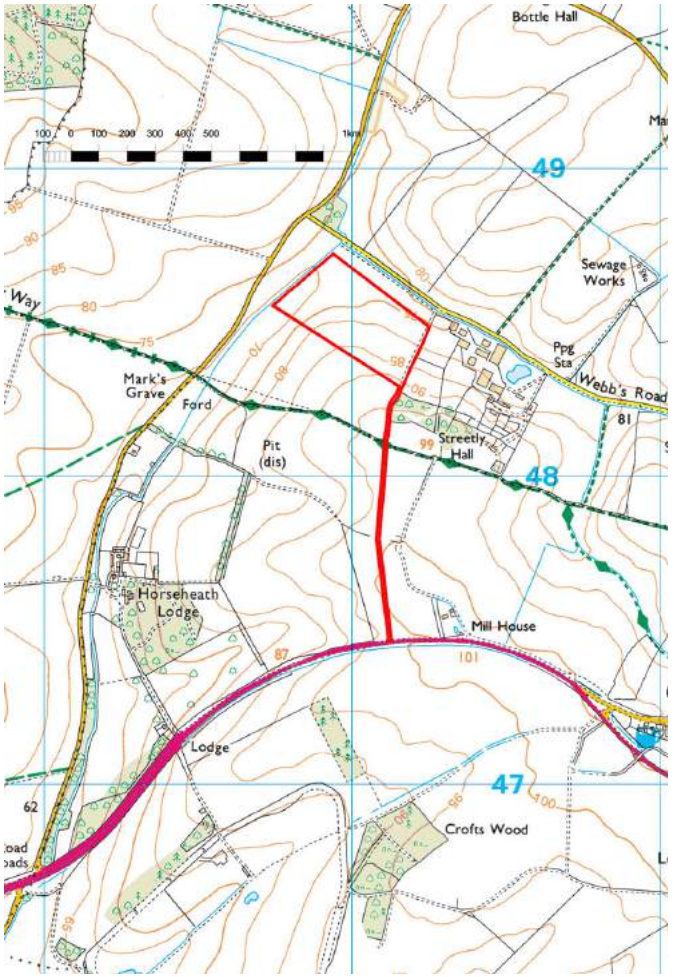
Landscape and Visual Assessment

1.7 This section assesses the potential landscape and visual impacts of development on the site, based on a thorough field survey and panoramic site photographs. The precise locations of the photographs were plotted using GPS, and were prepared in accordance with current LI guidance on photography and photomontage in landscape and visual assessment. This is followed by a more detailed assessment of the potential impact of the development.

Conclusion

1.8 This section summarises the predicted overall landscape, cultural heritage and visual impacts of the development.

1.9 This landscape and visual assessment was undertaken only from public rights of way or from land under the control of the site owner. Direct views from private property were not possible, although potential views from neighbouring properties were assessed as far as was possible from nearby public rights of way. The assessment was undertaken during December 2022 and June 2023.



## 2. Personal Statement

2.1 This report has been prepared by **Luke Broom-Lynne CMLI MRTPI.**

2.2 I am an independent Chartered Landscape Architect and Chartered Town Planner with over 30 years in professional practice. I was awarded a BA Degree in Landscape Architecture from Leeds Metropolitan University in 1983, followed by a Post-graduate Diploma (with commendation) in 1985. I have been a Chartered member of the Landscape Institute since 1989 and of the Royal Town Planning Institute since 2004.

2.3 I worked in initially in the public sector, including senior posts in the planning teams of the Broads Authority and Norwich City Council. I have worked in the private sector for the past 18 years, including a period as Partner in a major regional planning and property consultancy. I now work as an independent landscape planning consultant, involved in Landscape and Visual Impact Assessment, Urban Design and Masterplanning for a wide range of commercial and residential projects throughout the UK.

2.4 Significant projects have included

- University of East Anglia – Landscape Strategy
- Bewilderwood, Tatton Park and Hoveton – LVIAs and Landscape Strategy
- North Weald AONB, Essex Coast and Pembrokeshire - LVIAs for new solar farms
- Future Biogas – LVIAs and landscape strategy for various power plants in Lincolnshire, Staffordshire, Norfolk and Cambridgeshire.
- Coltishall airfield Solar Park – LVIA and landscape strategy.
- Grays, Essex - Masterplanning and urban design for new residential development
- Bridlington, Yorkshire - New holiday development
- Edinburgh - LVIA for new Park and Ride scheme
- Pembroke, S. Wales - LVIA for new solar farm

2.5 I believe that my submission complies with the requirements of the Codes of Professional Conduct of the Royal Town Planning Institute and the Landscape Institute.

## 3. Executive Summary

3.1 A Landscape and Visual Assessment was undertaken to determine the impacts of a new anaerobic digester plant adjacent to Streetly Hall, West Wickham, Cambridgeshire.

3.2 The Site does not fall under any statutory or non-statutory landscape designations.

3.3 The site is located within a simple rectangular field under intensive arable cultivation, with no significant landscape features.

3.4 There are a number of landscape receptors within the Study Area. They were assessed in terms of their sensitivity to change and the potential effects of the Proposed Development upon them. It is acknowledged that the site occupies an area with a landscape character described as a tranquil, often remote rural landscape, and with a relatively low capacity to accommodate development.

3.5 A wider study of the visibility of the Site was undertaken using desk based research, site visits and the production of a digital Zone of Theoretical Visibility. From this data, visual receptors were identified, along with 15 representative viewpoints.

3.6 The ZTV analysis shows that there will be a relatively narrow cone of visibility of the proposed development toward the south-western and north-western quadrants, and locally toward the north-east. However, the site is located within a small valley and largely screened by topography and woodland for receptors from the north-east through to south-west. It its furthest extent, the ZTV suggests that the site will be visible from distances of up to 3.5 kilometres near West Wratting House. However, at this location the visual impact is considered to be negligible due to the effects of distance and the fact that the plant will be a very small element in the landscape and coloured with recessive hues.

3.7 Some filtered views toward the development are possible from nearby footpaths, although new planting and infilling of gaps in existing hedgerows will reduce these impacts. The most significant visual impacts will be for road users from close viewpoints along approximately 600 metres of Dean Road and 600 metres of Webb's Road.

3.8 There will be no loss of trees and hedgerows as a result of the proposals. Extensive landscape mitigation proposals have been developed as part of an iterative process. This accords with National, Regional and District landscape character objectives. The new tree and hedgerow planting around the site will visually form an extension to existing trees and woodland, and also provide biodiversity gains. The conversion of 3.65 hectares of arable land to the north of the site will provide significant habitat enhancement.

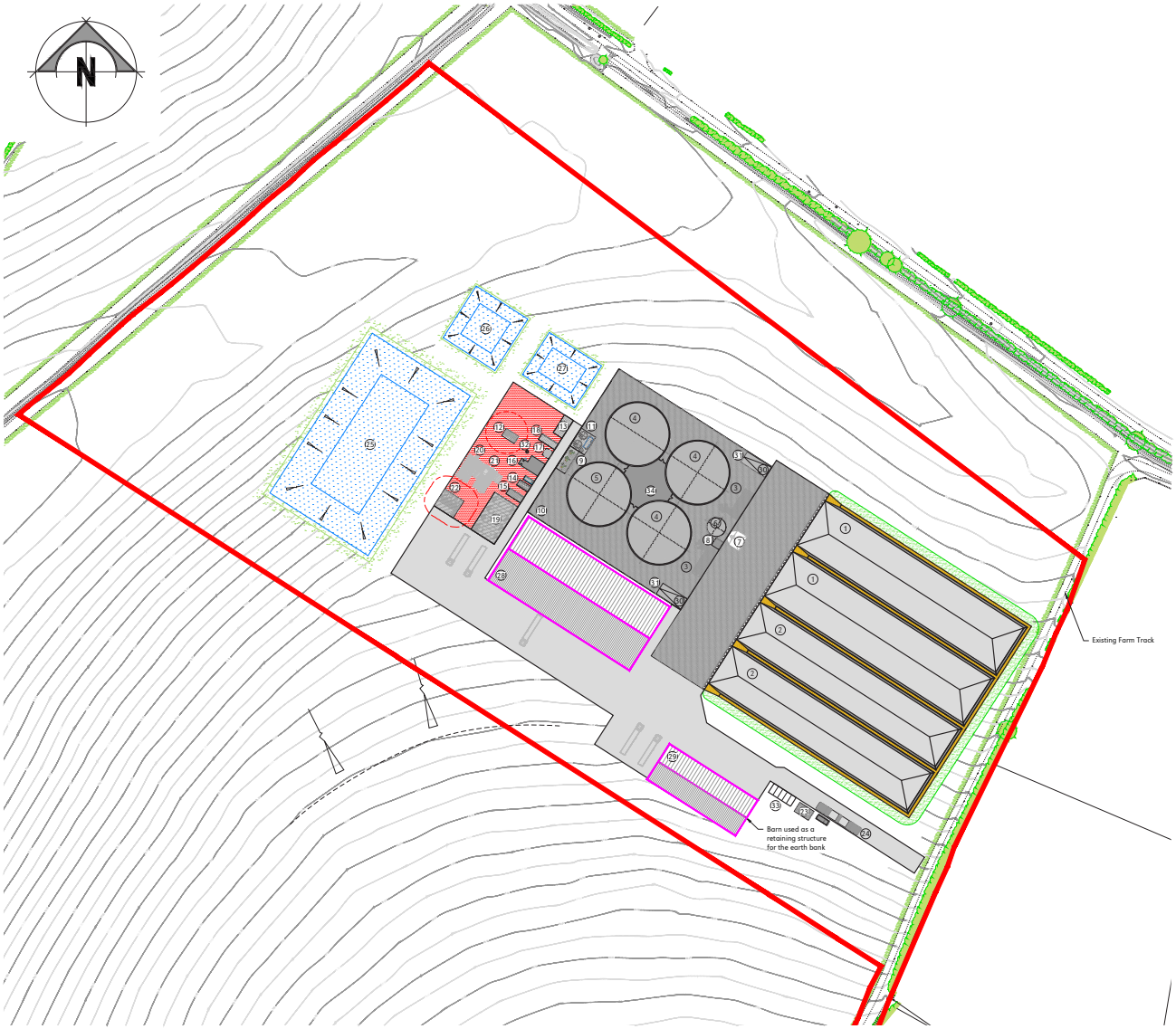
3.9 Considerable effort has gone into the design of the built form, including its layout, orientation and elevation to respond to surrounding landform, existing farm complex and landscape character. With the extensive landscape mitigation proposals it is considered that the proposed development can be accommodated satisfactorily into the landscape.

# 4. Site Proposals

4.1 The intended site for the AD facility is to the north-west of the farm along Webb's Road.

4.2 The facility will occupy approximately 8 hectares of land and is positioned to allow direct access from the existing farm buildings without the use of Webb's Road, and with a new access off the A1307 to the south. The farm buildings closest to the site are cattle sheds which produce agricultural waste for the facility to process. The site is low lying and relatively well shielded from local residences.

4.3 The proposed facility will produce approximately 700 cubic metres per hour of biomethane for export to the gas grid (injected locally to the site; the gas main runs immediately to the south of the site), and is expected to process between 50,000 and 70,000 tonnes of feedstock. The feedstock will be a mixture of-agricultural waste and energy crops, with an expected minimum of 50% waste to comply with the government's Green Gas Support Scheme.




1. Silage Clamps (2No. 112.50m x 25.00m)
2. Silage Clamps (2No. 112.50m x 21.00m)
3. Feed Hopper (2No.)
4. Fermenter (3No. 30mØ)
5. Post Fermenter (1No. 30mØ)
6. Pre-Storage Tank (1No. 9mØ)
7. Filling Station
8. Ferric Chloride Tank
9. Pasteurisation
10. Containment Bund
11. External Desulphurisation
12. Gas Flare
13. Gas Technology
14. LV Board + Emergency Generator
15. GEU
16. CHP
17. Buffer Tank
18. Power to Heat Module
19. CO2 Tanks
20. CO2 Recovering System
21. Gas Upgrading System
22. Propane Tanks
23. Weighbridge Office
24. Weighbridge
25. Digestate Storage Lagoon (15,260m³)
26. Surface Water Lagoon (1,100m³)
27. Dirty Lagoon (805m³)
28. Intake & Process Building - Straw Briquetting (36.00m x 80.00m)
29. Straw Barn (20.00m x 50.00m)
30. Bund Gate (2No.)
31. Bund Ramp (2No.)
32. Condensate Pit
33. Car Parking Spaces (5No.)
34. Technical Building

*Site Proposals*

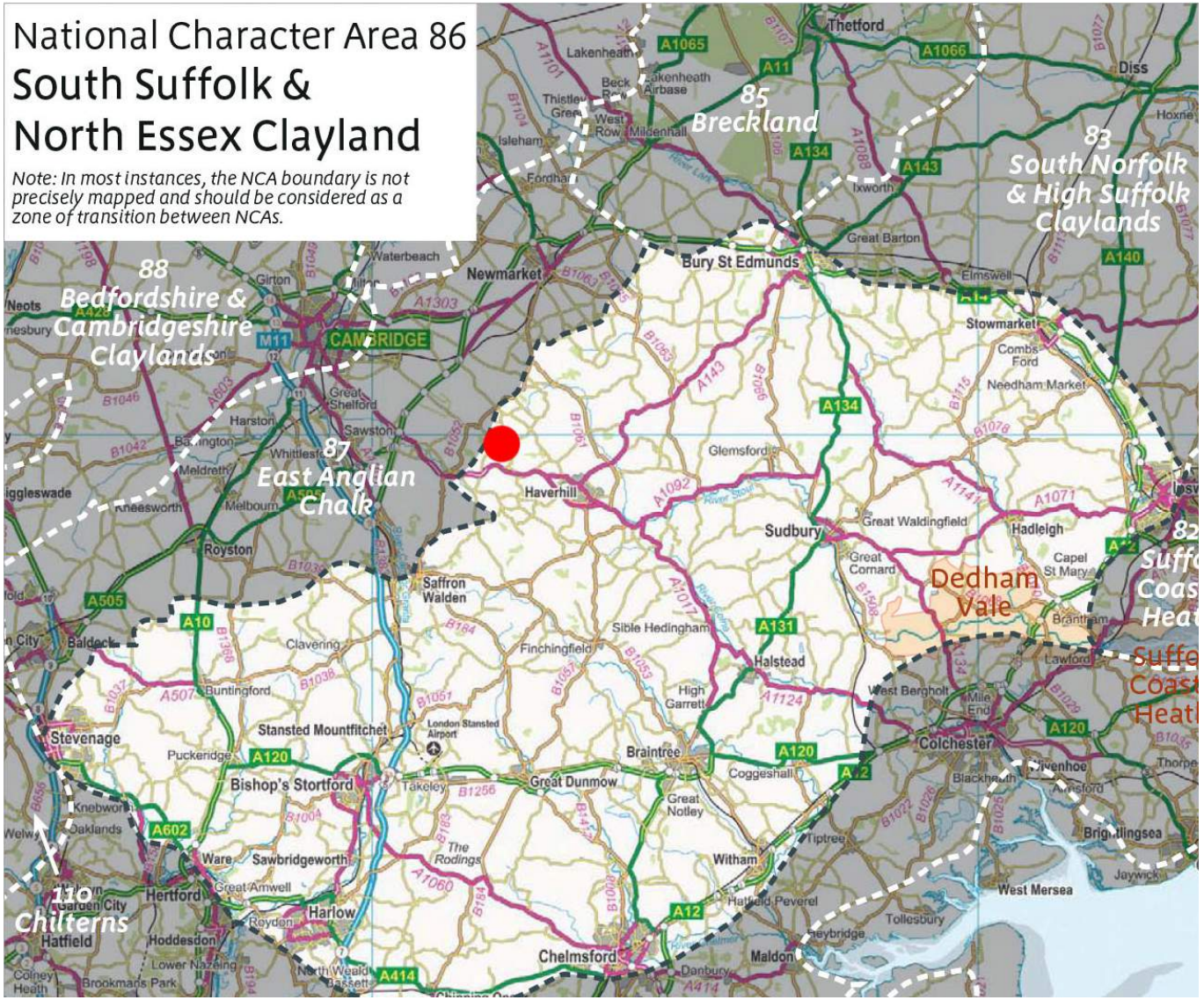
## 5. Landscape Planning Issues

**National Character Area profile: 86. South Suffolk and North Essex Clayland**

5.1 The site is located within the National Character Area identified as the South Norfolk and North Essex Clayland.

5.2 NCA profiles are guidance documents which can help communities to inform their decision-making about the places that they live in and care for. The information they contain will support the planning of conservation initiatives at a landscape scale, inform the delivery of Nature Improvement Areas and encourage broader partnership working through Local Nature Partnerships. The profiles will also help to inform choices about how land is managed and can change.

5.3 The NCA notes that this is an ancient landscape of wooded arable countryside with a distinct sense of enclosure. The overall character is of a gently undulating, chalky boulder clay plateau, the undulations being caused by the numerous small-scale river valleys that dissect the plateau. There is a complex network of old species-rich hedgerows, ancient woods and parklands, meadows with streams and rivers that flow eastwards. Traditional irregular field patterns are still discernible over much of the area, despite field enlargements in the second half of the 20th century. The widespread moderately fertile, chalky clay soils give the vegetation a more or less calcareous character.




*Extract from National Character Area profile: 86. South Suffolk and North Essex Clayland*

Gravel and sand deposits under the clay are important geological features, often exposed during mineral extraction, which contribute to our understanding of ice-age environmental change.

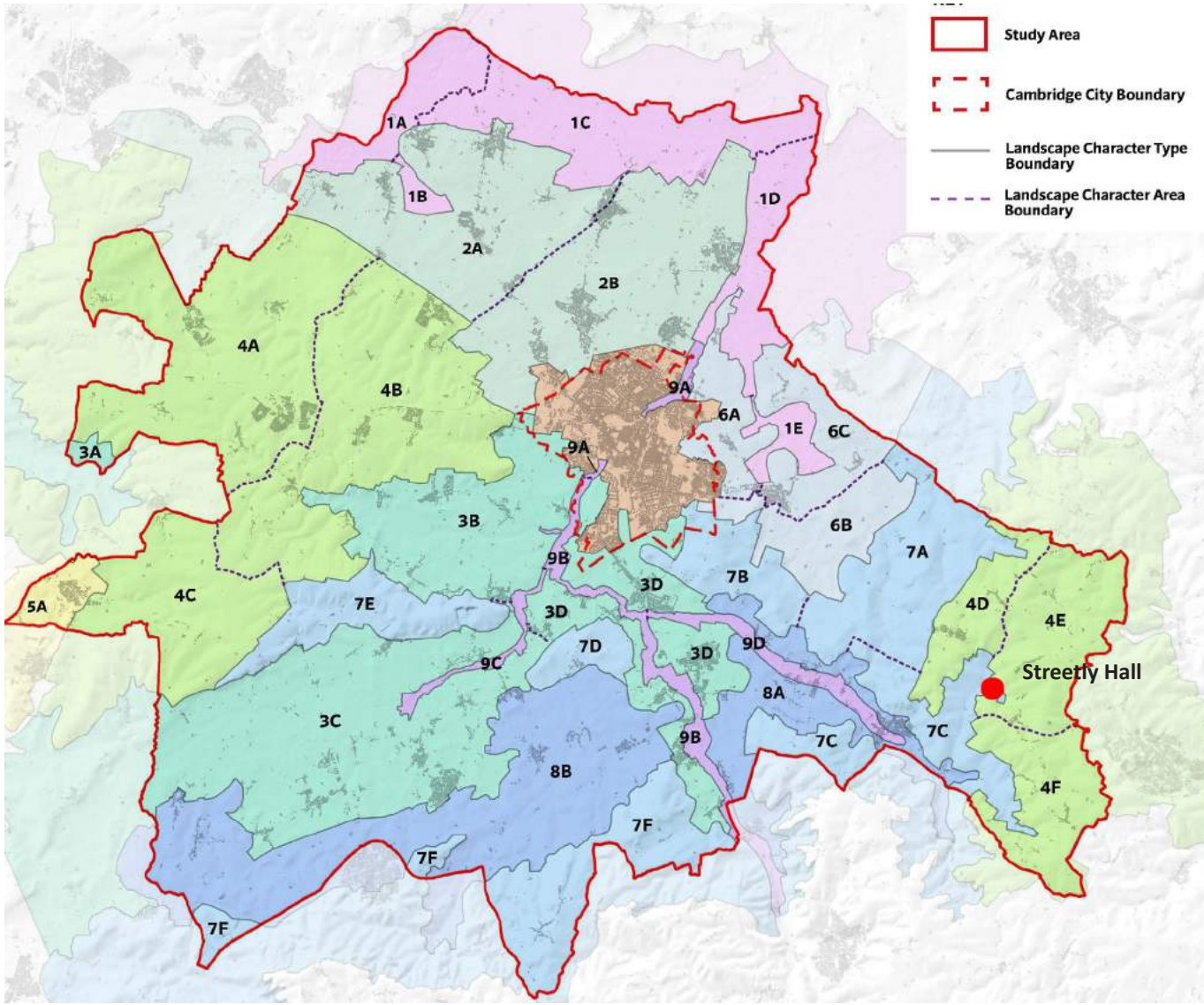
**NCA Statements of Environmental Opportunity**

5.4 SEO 1: Maintain and enhance the character of this gently undulating, rural landscape by maintaining agricultural productivity and encouraging sustainable land management practices that protect and enhance the landscape, geodiversity and biodiversity assets and benefit carbon storage and water quality, as well as the over-riding sense of place.

5.5 SEO 2: Protect and enhance the area's ancient woodland cover, parkland trees, river valley plantations and ancient hedgerows, through the management of existing woods and the planting of new woods, hedgerows and hedgerow trees to benefit landscape character, habitat connectivity and a range of ecosystem services, including timber provision, the regulation of soil erosion and the strengthening of the sense of place and history.

**Greater Cambridge Landscape Character Assessment**

5.6 The Greater Cambridge Shared Planning Service commissioned an up-to-date and consistent Landscape Character Assessment of the whole Greater Cambridge area, which identifies and records the patterns, features and elements of the various generic types of landscape




*Extract from Greater Cambridge Landscape Character Assessment 2021*

and areas of distinctive character in Greater Cambridge that contribute to making one landscape different from another. It is these factors that contribute to defining local distinctiveness and sense of place.

5.7 The Landscape Character Assessment also identifies the forces for change in the landscape that are eroding or enhancing local distinctiveness and offers guidance on ways by which landscape change might best be managed to reinforce and enhance landscape character.

5.8 The Landscape Character Assessment can be used to inform monitoring of landscape change to enable the Councils to assess the practical effectiveness of existing policy, initiatives and management, and help modify these in the light of actual trends.

5.9 The Greater Cambridge Landscape Character Assessment encourages Developers to use the relevant character information as a baseline resource for informing Landscape & Visual Impact Assessments of development proposals in accordance with the latest edition of the Guidelines for Landscape & Visual Impact Assessment. The impact of development on key landscape features and characteristics should be assessed and where impacts are found to occur, appropriate scheme modification or mitigation measures should be required to avoid, reduce or compensate for potential adverse impacts

**Landscape Condition and Strength of Character**

5.10 The condition of the Greater Cambridge landscape evaluated by Landscape Character Type is based on judgements about how the condition and intactness of the different components create a perception of the overall condition of the landscape. Using professional judgement, landscape condition is defined on a three-point scale of poor, moderate or good

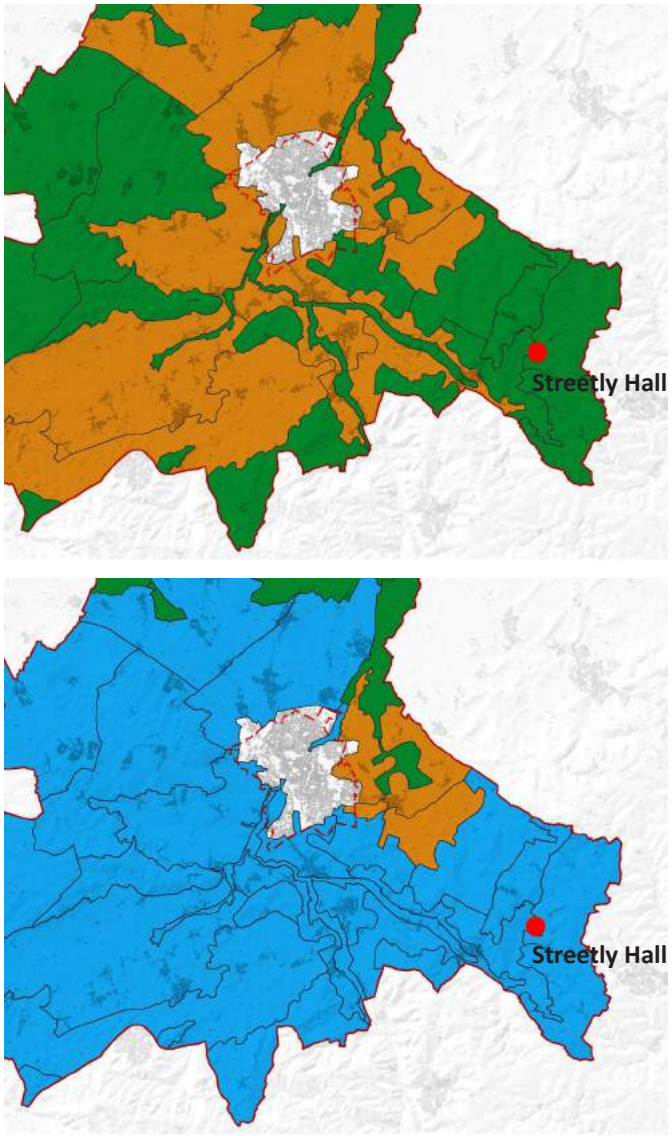
5.11 Strength of character is connected to distinctiveness and landscape integrity. It is based on judgements about how distinct and recognisable the pattern of physical and cultural attributes is that defines the character of the landscape, and the sense of place that they evoke. Using professional judgement, strength of character is defined on a three-point scale of weak, moderate or strong,

**7c: Linton Chalk Hills Landscape Character Area**

5.12 Streetly Hall is located on the transition of two character areas identified as The Linton Chalk Hills Landscape Character Area (LCA), and the West Wickham Wooded Claylands. The former is noted as being a 'simple, large scale rolling arable landscape with scattered woodland and open views across the Granta River Valley.'

**Description**
**Key Characteristics**

- Simple rural landscape with large, rectilinear arable fields organised in an irregular pattern
- Sparsely scattered small woodland blocks,




*Extract from Greater Cambridge Landscape Character Assessment 2021*

*Top: Strength of character/condition (Good)*
*Bottom: Management Objectives (Conserve and enhance)*

including ancient woodland

- Small pockets of lowland calcareous grassland and mosaic habitat
- Open character with long views across the Granta River Valley
- Distinctive linear features including earthworks, a Roman road, historic tracks, minor roads and dismantled railways.

5.13 The undulating landscape comprises large, open arable fields which are generally rectilinear and organised in an irregular pattern, enclosed by a fragmented hedgerow network. Woodland is sparse, with occasional shelterbelts and scattered small blocks of deciduous and mixed woodland, including ancient woodland at Bush Park, Hildersham Wood and Rivey Wood. There is a localised distinctive linear pattern associated with the vineyard at Chilford Hall. Ecologically rich landscape includes small pockets of lowland calcareous grassland within larger areas of mosaic habitat. The elevated landscape offers long views across the Granta River Valley to distant horizons which are punctuated by scattered woodland.

5.14 The LCA is sparsely settled, with occasional isolated farms. This is a simple, large scale rural area with a quiet and tranquil character.

**Key Landscape Sensitivities**

- Distinctive, elevated landscape that forms locally prominent hills and ridges that contrast with the surrounding, low lying landscape that is characteristic of Greater Cambridge
- Open, long distance, panoramic views across Greater Cambridge and beyond from this upland landscape
- Scattered woodland including ancient woodland on summits and slopes
- Network of historic routes and earthworks that contribute to the area's sense of place
- Wooded and undeveloped ridgelines are visually sensitive
- Tranquil, often remote rural landscape away from major roadways

**4e: West Wickham Wooded Claylands Landscape Character Area**

5.15 The West Wickham Wooded Claylands Landscape Character Area (LCA) is characterised by an irregular field pattern with a scattering of small villages and isolated farms, interspersed with blocks of ancient woodland.

**Description**
**Key Characteristics**

- Predominantly irregular field pattern indicative of medieval field layout
- Significant woodland cover generally comprising medium size blocks including ancient woodland
- Settlement includes small, linear villages and


*Extract from Greater Cambridge Landscape Character Assessment 2021*

*Top: West Wickham Wooded Claylands*
*Bottom: Linton Chalk Hills*

isolated farms, generally enclosed by strong woodland groups and mature hedgerows.

- Distinctive open, panoramic views towards wooded horizons

**Specific Landscape Sensitivities**

5.16 In addition to the generic landscape sensitivities for this landscape character type, the following sensitivities are specific to this character area:

- Predominantly irregular field pattern indicative of medieval field layout
- Small, regular fields, strong woodland groups and mature hedgerows generally enclosing settlement
- Distinctive open, panoramic views towards wooded horizons

**Specific Landscape Guidelines**

5.17 In addition to the generic landscape guidelines for this landscape character type, the following guidelines are specific to this character area:

- Conserve irregular, medieval field boundaries
- Conserve and enhance the regular small-scale fields, woodlands and hedgerows at village edges
- Conserve open views towards wooded horizons

*Extract from Greater Cambridge Landscape Character Assessment 2021*

*Top: West Wickham Wooded Claylands*
*Bottom: Linton Chalk Hills*

## 6. Light Pollution

6.1 The Campaign to Protect Rural England (CPRE) has long fought for the protection and improvement of dark skies, and against the spread of unnecessary artificial light. CPRE recommends that 'developers should ensure new developments have well designed lighting schemes that do not cause light pollution.' Apart from the impact on people's experience of the countryside, there is an increasing awareness of the effect that light pollution can have on wildlife, by interrupting natural rhythms including migration, reproduction and feeding patterns. Furthermore a 2010 survey by CPRE found that light pollution can cause a great deal of distress to humans too, including disrupted sleep. Advances in lighting technology mean that upward light pollution can be minimised without compromising road safety or increasing crime.

6.2 The NPPF (2012) states that by encouraging good design, planning policies and decisions should limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation (paragraph 125 of the NPPF, 2012).

6.3 The CPRE mapping shows that the application site is located in an area of some of the darkest skies in Cambridgeshire.

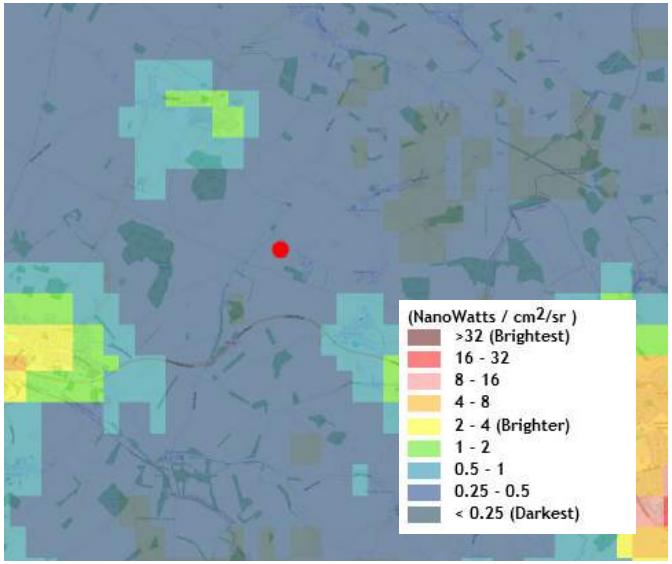
6.4 The District Design Guide SPD: Adopted March 2010 notes that *'in a predominantly rural environment such as South Cambridgeshire, the impact of lighting associated with development can have an adverse impact upon both the surrounding landscape and residents of surrounding properties. In certain circumstances lighting is critical in terms of public safety and security but in others, the amount of light emitted only serves to create a form of pollution either through windows of bedrooms. In such cases, the District Council will seek to reduce the amount of pollution, particularly in the context of new development where lighting is required for the road system or security lighting for remote developments.'*

6.5 The South Cambs Local Plan 2018 notes that South Cambridgeshire, as a predominantly rural area, is sensitive to light pollution through sky glow which can affect the tranquillity of the countryside. Light pollution can have a negative impact upon biodiversity by affecting the normal diurnal (daily) patterns of plants, animals and insects and can be a waste of energy and resources (including carbon).

6.6 Policy SC/9: Lighting Proposals states that development proposals which include new external lighting will only be permitted where it can be demonstrated that:

- The proposed lighting scheme and levels are the minimum required for reasons of public safety, crime prevention / security, and living, working and recreational purposes;
- Light spillage and glare are minimised;
- There is no unacceptable adverse impact on the local amenity of neighbouring or nearby properties, or on the surrounding countryside;
- There is no dazzling or distraction to road users including cyclists, equestrians and pedestrians;
- Road and footway lighting meets the County Council's adopted standards.

6.7 Care will therefore need to be taken to ensure that the new development does not add to the existing extent of light spillage and 'night blight'.




*Extract from CPRE light pollution mapping*

## 7. Topography

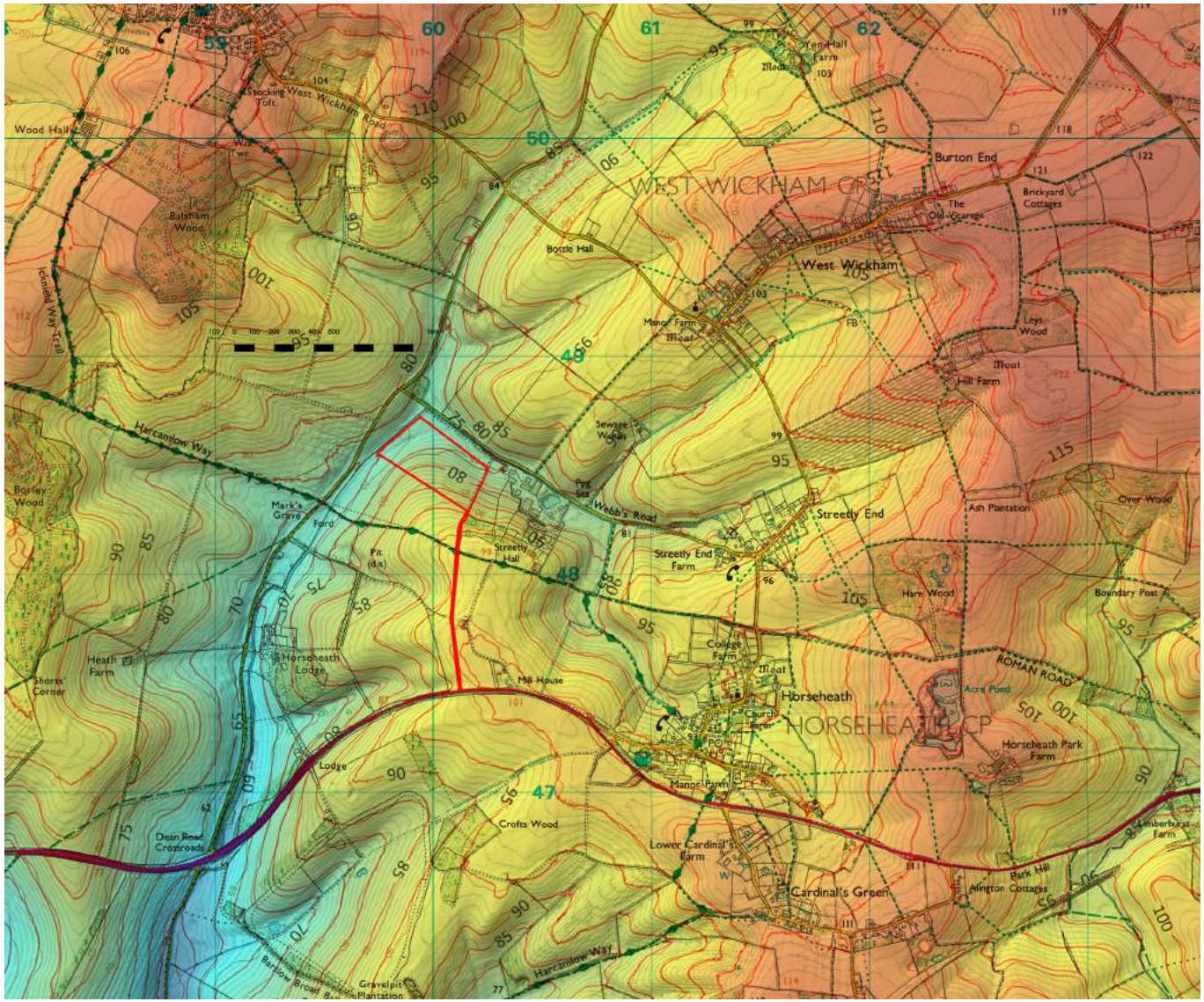
7.1 The plan here shows the local topography, based on a model created using the Environment Agency's LIDAR data.

7.2 The area has a gently undulating topography with the landform incised with many small valleys. This results in wide open vistas interspersed with more enclosed intimate views as one traverses the area.

7.3 The site is located on the north-facing side of a small somewhat enclosed valley of a tributary of the River Granta which it joins approximately 4 kilometres to the south at Bartlow.

7.4 The site itself slopes from around 88 metres above Ordnance Datum at the South-eastern corner, to around 71 metres to the North-west over a distance of approximately 380 metres.

7.5 South of the site, the land rises to a ridge at an elevation of around 100 metres before falling away to the south and west. This ridge effectively screens the site from viewers south of it. North-west and North-east the land falls to the valley floor at an elevation of around 75 metres before rising to the plateau areas around Balsham Wood and West Wickham village at around 110 metres




*West Wickham: Site topography*

## 8. Local Landscape Character

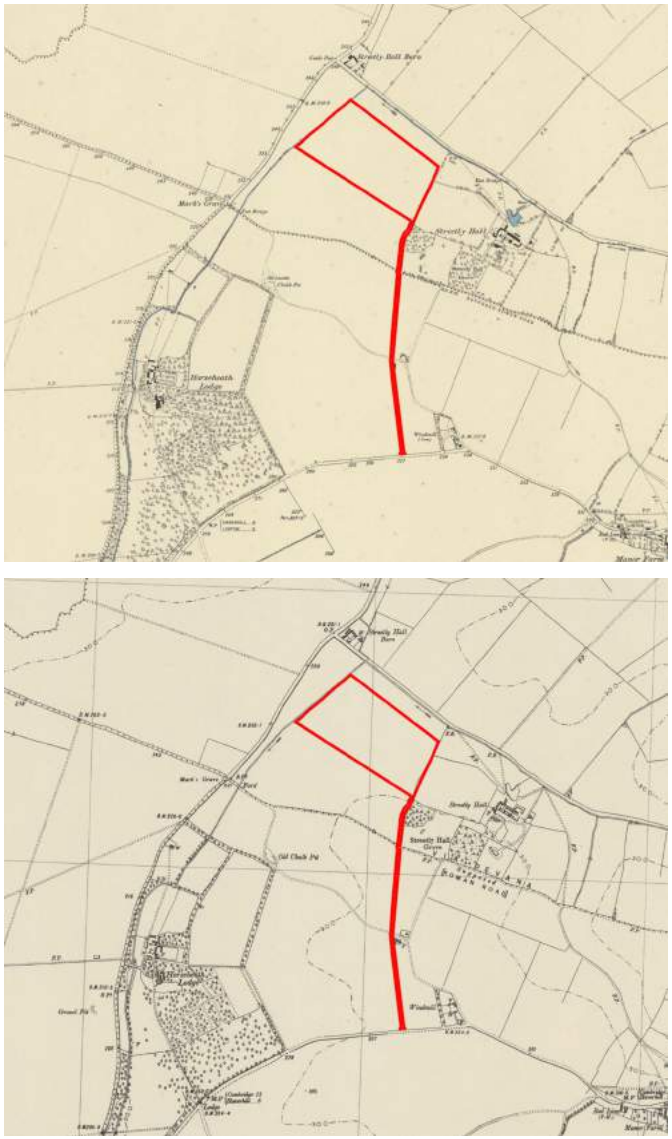
8.1 Historic mapping shows how the broad landscape structure of the area has remained relatively constant. The area was always characterised by medium to large-sized angular fields, presumably bounded by hedgerow.

8.2 Now, the main characteristics are of an arable landscape of large-sized arable fields in an undulating landscape bounded by fragmented hedgerows and blocks of deciduous woodland on the valley sides and plateau, and grazing fields and some parkland on the valley floor.

8.3 The site itself is located within an arable field of approximately 26 hectares.

8.4 The area is typical of the Wooded Clayland Landscape Character Area as described in the Greater Cambridge Landscape Character Assessment, the key characteristics of which include:

- Gently rolling, elevated, arable landscape forming a lowland clay plateau
- Minor streams within create shallow depressions or valleys dissect the landscape
- Wooded landscape with substantial areas of deciduous and mixed woodland particularly at higher altitudes and associated with parkland and farm estates
- Strong evidence of medieval settlement, including deserted medieval villages, substantial earthworks,



*Top left: 1890 Ordnance Survey mapping. Top right: 1945 aerial*
*Bottom left: 1950 Ordnance Survey. Bottom right: 2000 aerial*

green lanes and several moated sites

- Low density settlement, comprising small linear or nuclear villages interspersed with farms and woodlands
- Open, peaceful and rural landscape

8.5 The condition of the landscape is judged to be good. The landscape has a generally well-kept appearance with strong linkages of hedgerows/woodland, often maintained by the influence of parklands and estates. Arable farming has altered the field pattern in places through removal of hedgerow and ditch boundaries, although there is evidence of more recent improved management. The hedgerow along the Harcamlow Way Long Distance Footpath is particularly noticeable with a high diversity of shrubby species and likely to be of historic origin and thus considered an 'Important Hedgerow' according to the Hedgerows Regulations 1997.

8.6 This is largely a peaceful, rural landscape with relatively intact hedgerows, woodland and small villages and scattered farms of vernacular materials. There is localised influence from major transport routes and new, large settlement and extension of villages along them. However, the overall strength of landscape character is judged to be strong.

*View Northward over the site from Harcamlow Way to the south of the site.*

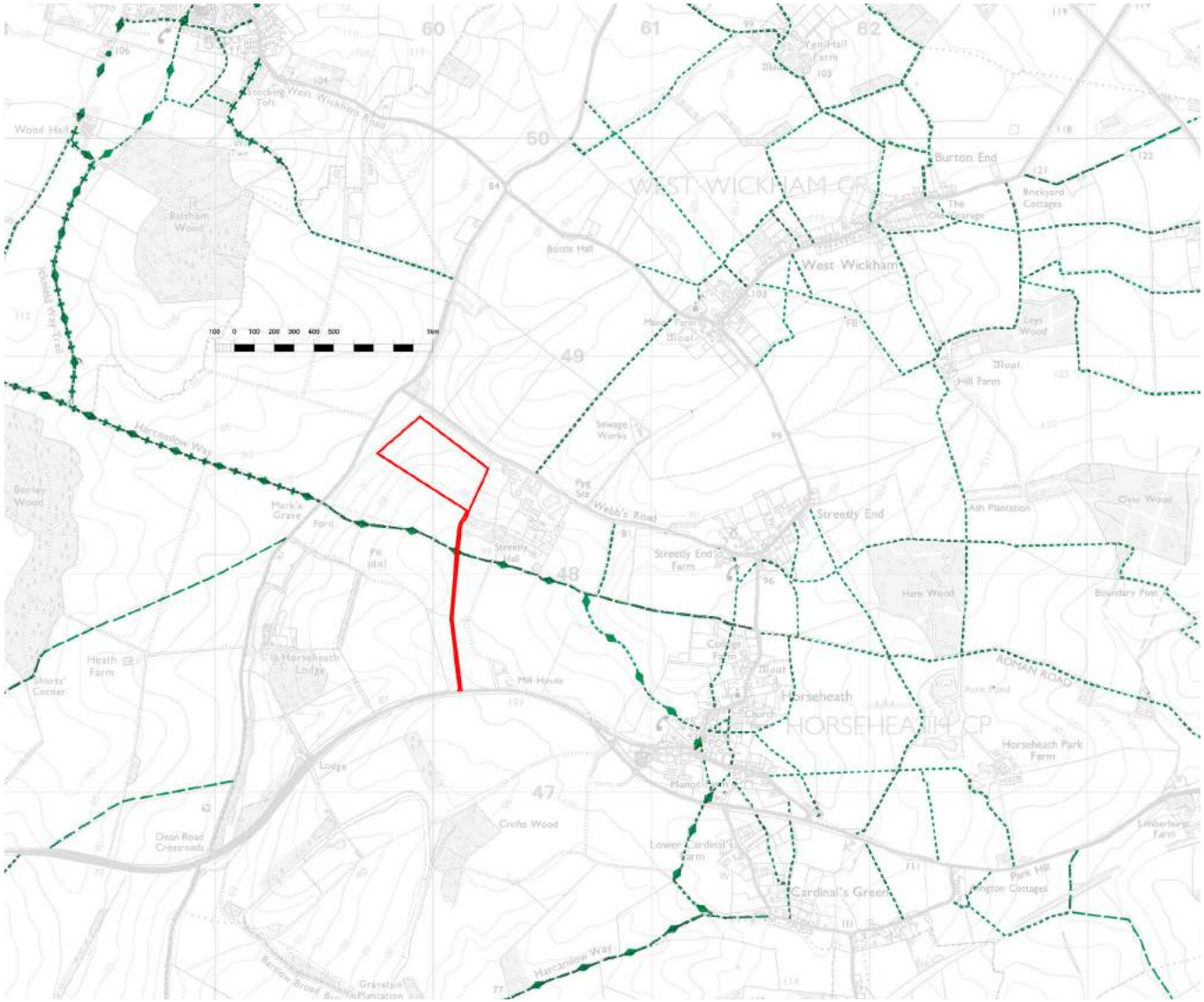
*Top: View Eastward along Harcamlow Way, close to Dean Road.*
*Bottom: View Southwestwards toward the site from footpath close to St. Mary's Church West Wickham.*

## 9. Public Rights of Way

9.1 There is a strong network of Public Rights of Way (PROW) through this area, providing connections between the parklands, nature sites and dispersed settlements across the open countryside. The PROW include a variety of bridleways and footpaths, which tend to follow field boundaries and trackways through the landscape.

9.2 The Harcamlow long distance path links through the eastern Wooded Claylands and the Clopton Way long distance path through the west of the LCT. This path runs east-west approximately 200 metres south of the application site, with the new access track crossing the path.

9.3 Apart from this location, the development will not directly affect any public rights of way. There will be intermittent views of the proposed development from this path through gaps in the hedgerow. However, a mature hedgerow runs along the northern side of the path, which will help to screen the development from the path. This hedgerow is particularly dense south of Dean Road, from where the elevated location would otherwise result in the development being particularly noticeable, but the hedge effectively prevents views northward.




*West Wickham: Footpaths*

## 10. Designations

10.1 The plan here shows statutory designations in the local area.

10.2 There are some listed buildings in the area, with the only close one being Grade II Old Streetly Hall approximately 300 metres to the East. This is described as being a Mid- to late-18th century timber-farmed farmhouse.

10.3 West Wratting Park House is a Grade 2* listed building in West Wratting, approximately 3 kilometres to the north.

10.4 Other listed buildings are scattered within the settlements of Horseheath, Streetly End, West Wratting West Wickham.

10.5 Approximately 1.5 kilometres to the North-west is Balsham Wood, a Site of Special Scientific Interest.


*West Wickham: Designations*

## 11. Zone of Theoretical Visibility

11.1 To aid the determination of visual impact, a more detailed Zone of Theoretical Visibility (ZTV) exercise was undertaken.

11.2 It is important to note that the ZVT should be used to guide an assessment of potential visibility, and should always be combined with a site inspection to determine actual site visibility. Nevertheless, it is a useful tool in demonstrating where a development will definitely *not* be visible due to the permanent and static effects of topography.

11.3 Landform is closely linked to the visibility of the site. This relationship is illustrated in the ZTV plans on the following ages. Based on the bare-earth model development could theoretically be visible from anywhere within the ZTV, however in reality, visibility will be much reduced by buildings and vegetation in the intervening landscape.

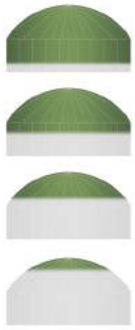
**11.4 Digital Terrain Model (DTM)**: this provides the bare-earth elevations, with surface features such as vegetation and buildings filtered out. Areas of no data, such as water bodies, are also filled to ensure there are no gaps in the model. A ZTV prepared using the DTM, as such, is 'a worst case' scenario and the actual extents of visibility are likely to be much less extensive.

**11.5 Digital Surface Models (DSM):** this provides data including all ground and surface objects and provides a more realistic impression of potential visibility of a feature.

11.6 It should be noted that a plan generated digitally using a bare-earth terrain model takes no account of any intervening trees, hedgerows or buildings. It therefore illustrates a worse-case scenario of the visibility of the proposals.

11.7 From work carried out in the field it is evident that the actual zone of visibility associated with the proposed development would generally be smaller than plotted on the ZTV.

11.8 It is also important to note that mere visibility of an object is not necessarily a guide to its dominance or intrusion into the landscape. That depends on a range of factors including colour, tone, relationship with other features and distance.



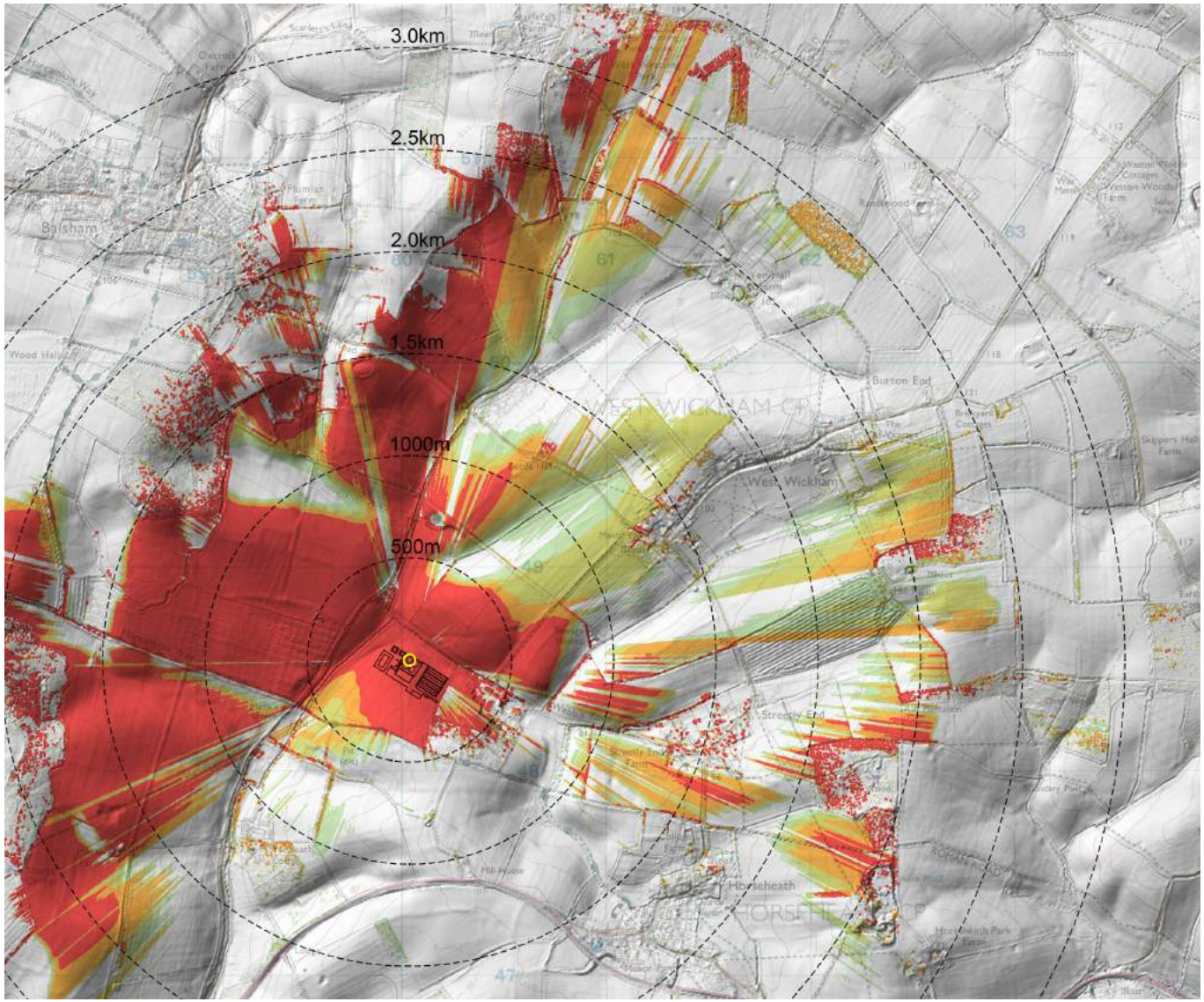
Most of 16.1 metre-high digester theoretically visible

Upper 50-75% of 16.1 metre-high digester theoretically visible

Upper 25-50% of 16.1 metre-high digester theoretically visible

Upper 0-25% of 16.1 metre-high digester theoretically visible

Site location 560036.00, 248544.98
Existing ground level 76.6m
Top of dome 93.6m




*Zone of theoretical visibility of NW Fermenter*

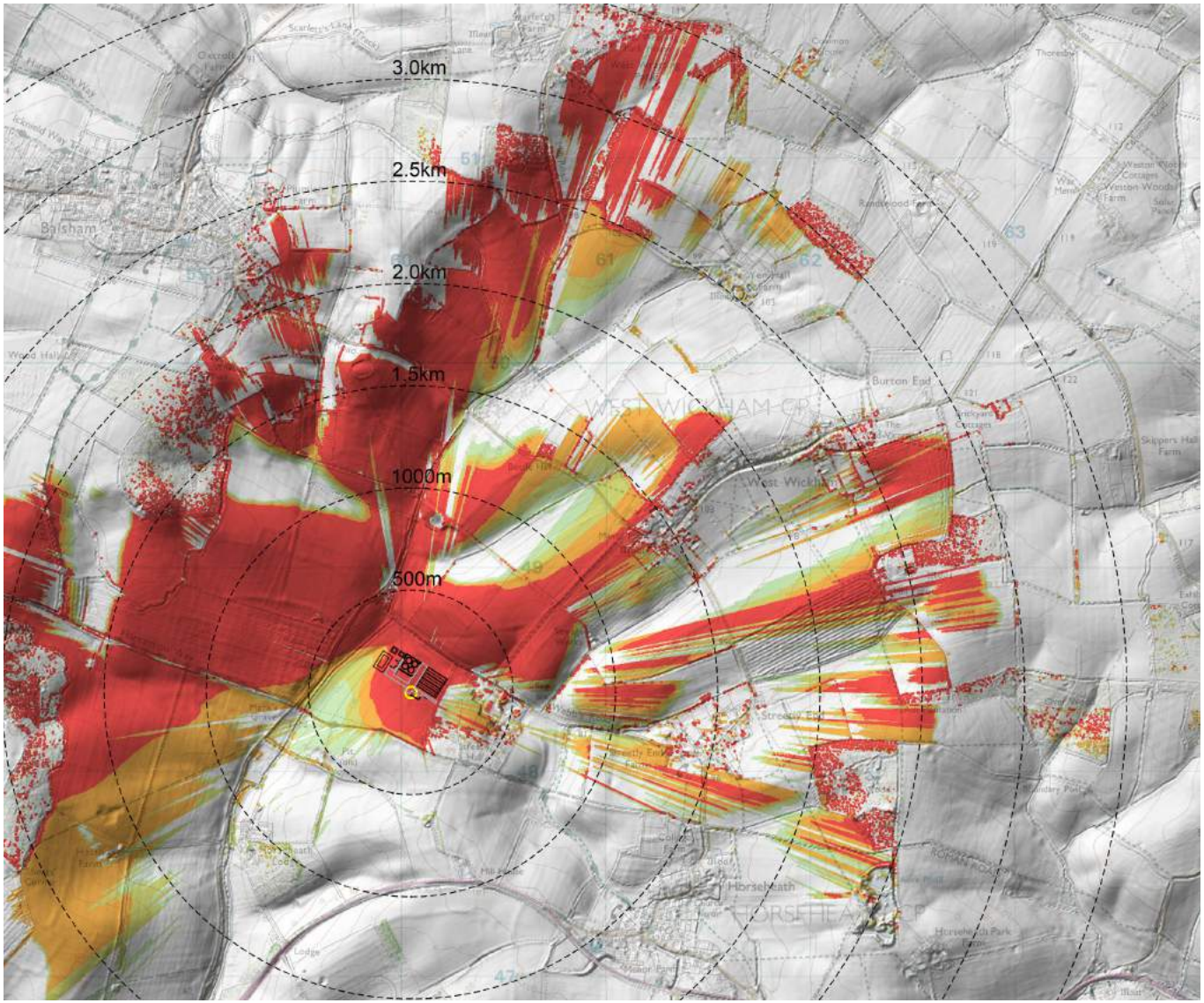
Most of 12m high barn theoretically visible

Upper 50-75% of 12m high barn theoretically visible

Upper 25-50% of 12m high barn theoretically visible

Only upper 0-25% of 12m high barn theoretically visible

Site location 560045.91, 248388.86
Existing ground level 85.0m
Ridge level of barn 94.85m




*Zone of theoretical visibility of Straw Barn (western end)*

# 12. Landscape Capacity

**12.1** **Landscape Capacity** is defined as 'the extent to which a particular area or type of landscape is able to accommodate change without significant effects on character or overall change in landscape type'. *Ref - 'Topic Paper 6 - Techniques and criteria for judging capacity and sensitivity' (Countryside Agency and Scottish Natural Heritage, Jan 2004)* and illustrates methods for assessing Landscape Capacity.

12.2 The full methodology is described in the appendix but, in summary, capacity can be expressed as follows:

| |
|---|
| **Landscape Capacity to accommodate specific type of change** |
| **=** |
| **Landscape Character Sensitivity** Landscape Sensitivity **plus** Visual Sensitivity |
| **+** |
| **Landscape Value** |

**Landscape Sensitivity**

**12.3** **Landscape Sensitivity** is based on judgements about sensitivity of physical and aesthetic elements in the landscape that are most likely to be affected. The level of sensitivity is based on a professional judgement about the degree to which the landscape in question is robust, in that it is able to accommodate change without adverse impacts on its character.

Landscape Sensitivity: (Low, Low/Medium, Medium, Medium/High or High)

| | | | | | |
|---|---|---|---|---|---|
| **Natural Factors** | **L** | **L/M** | **M** | **M/H** | **H** |
| **Cultural Factors** | **L** | **L/M** | **M** | **M/H** | **H** |
| **Landscape Quality and condition** | **L** | **L/M** | **M** | **M/H** | **H** |
| **Aesthetic factors** | **L** | **L/M** | **M** | **M/H** | **H** |
| **Overall** | | | **M** | | |

12.4 Summary of Characteristics - Landscape Sensitivity

- An undulating and peaceful pastoral landscape.
- Some historic hedgerow boundaries and ancient woodland
- Few distracting elements

**Visual Sensitivity**

**12.7** **Visual Sensitivity** of the landscape relates to the way people perceive the landscape, in terms of three primary factors: General Visibility, Population and Mitigation Potential.

Visual sensitivity: (Low, Low/Medium, Medium, Medium/High or High)

| | | | | | |
|---|---|---|---|---|---|
| **General Visibility** | **L** | **L/M** | **M** | **M/H** | **H** |
| **Population** | **L** | **L/M** | **M** | **M/H** | **H** |
| **Mitigation potential** | **L** | **L/M** | **M** | **M/H** | **H** |
| **Overall** | | | | **M/H** | |

12.5 Summary of Characteristics - Visual Sensitivity

- An undulating landscape with potential views from higher land which would increase visibility of development
- Potential views from well-used public rights of way
- Potential views, particularly from the west and north along public roads.

**Landscape Value**

12.6 The value of the landscape is an important element in assessing the overall landscape capacity of an area. These are more subjective, experiential or perceptual aspects that can also reflect the local value of a landscape to a community and includes both designated and non-designated elements.

Landscape Value: (Low, Low/Medium, Medium, Medium/ High or High)

| | | | | | |
|---|---|---|---|---|---|
| **Designations** | **L** | **L/M** | **M** | **M/H** | **H** |
| **Perceptual aspects** | **L** | **L/M** | **M** | **M/H** | **H** |
| **Settlement edge** | **L** | **L/M** | **M** | **M/H** | **H** |
| **Local associations** | **L** | **L/M** | **M** | **M/H** | **H** |
| **Overall** | | **L/M** | **M** | | |

12.8 Summary of Characteristics - Landscape Value

- Currently an arable field no notable local associations but within an landscape of good value.
- No notable conservation or historic designations, although with the presence of a possible Roman Road nearby.
- No known particular local associations

12.9 Therefore, in summary:

- Landscape Sensitivity of the site is considered to be **Medium**
- Visual Sensitivity is considered to be **Medium/High**
- Landscape Value is considered to be **Medium**

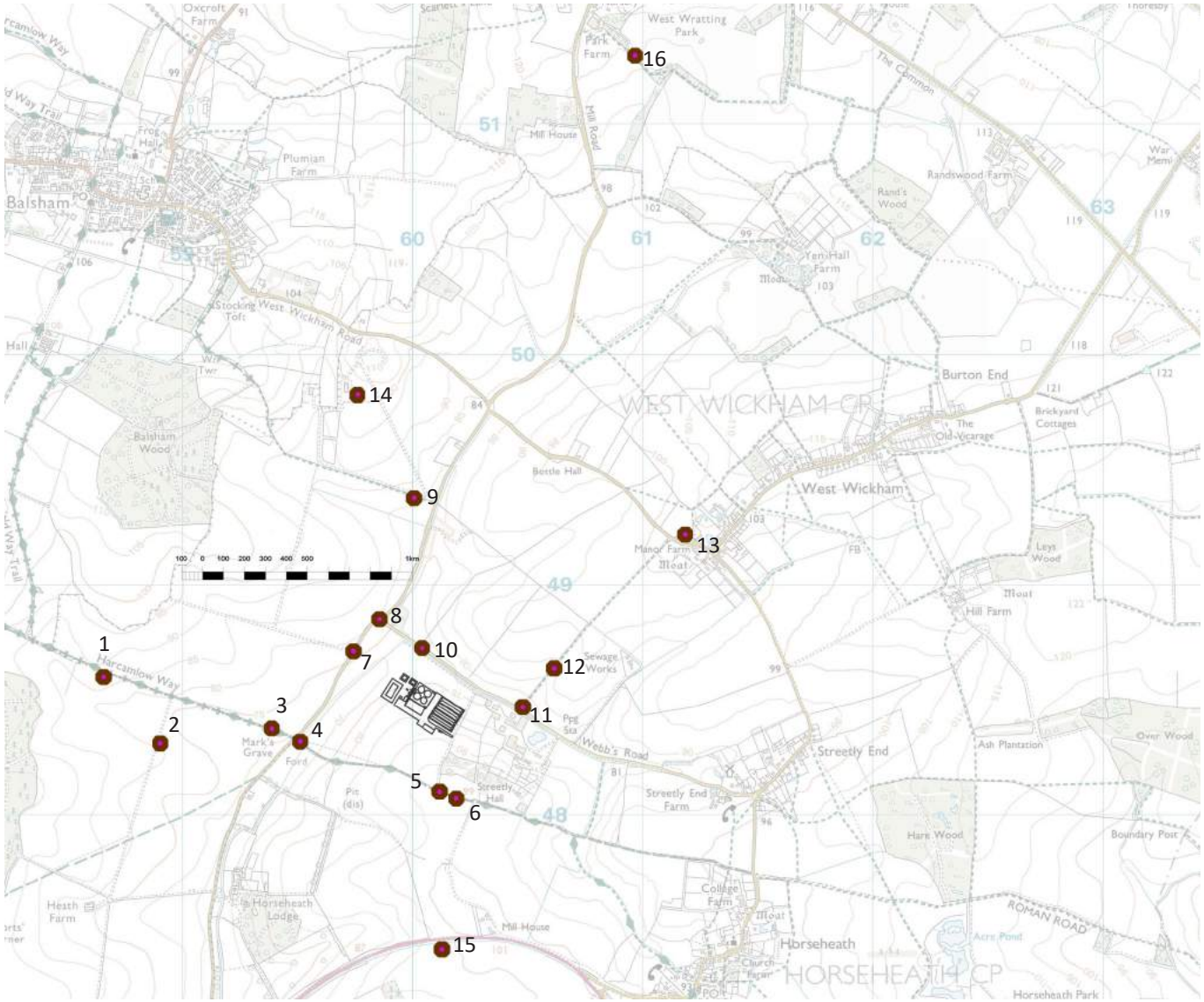
12.10 This leads to the Landscape Character Sensitivity of the site being considered **Medium/High**, and overall landscape capacity to be **Medium/Low**.

12.11 This suggests thresholds for development are relatively low and development can be accommodated only in limited situations, providing it has regard to the setting and form of existing settlement and the character and the sensitivity of adjacent landscape character areas.

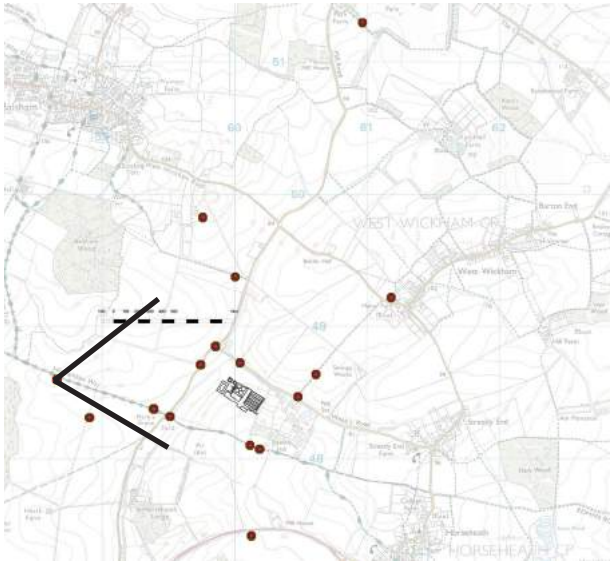
## 13. Visual Assessment

13.1 In order to undertake the assessment, the application site and its environs were walked and driven over one day to determine potential views, and identify representative locations (receptors) to demonstrate the visual impact.

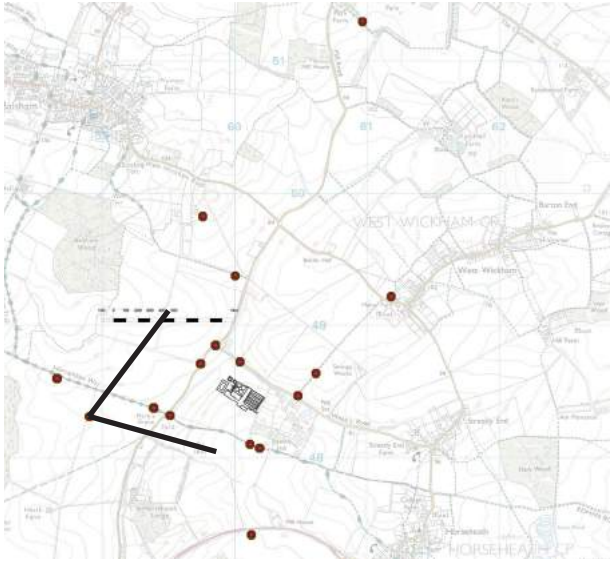
13.2 Photographs have been used to demonstrate the key views and vistas, and to indicate potential visibility to and from the proposed development site. The location of the viewpoints was logged using GPS and this data was used to prepare the panoramic visualisations which were used in the preparation of the proposals. The following section summarises the potential visual impacts.



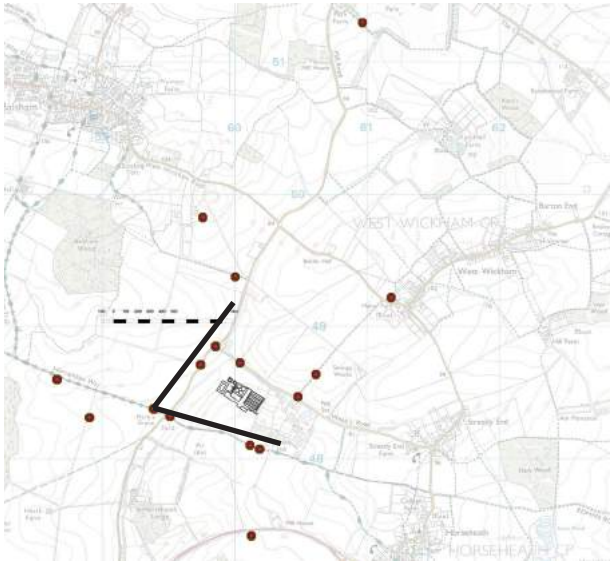

*Viewpoints used in the visual assessment*



| Viewpoint 1 | Sensitivity | Description of effects | Magnitude of visual effect | Significance |
|---|---|---|---|---|
| Location: 52.112762°N, 0.344105°E, 85.8m TL6061048640 560610, 248640<br><br>View eastwards from close to the Harcamlow Way Long Distance Footpath, approximately 1100 metres from the site. | High<br><br>This is the view from a public right of way, in an quiet pastoral area of good landscape quality. | CONSTRUCTION<br><br>Construction activity will be visible in the distance, although partly screened by hedgerow and topography | Minor | Minor adverse |
| | | COMPLETION<br><br>The new plant is likely to be largely screened from this area by the high hedgerow, although will be visible intermittently through any gaps in the hedgerow | Minor | Minor adverse |
| | | COMPLETION PLUS MITIGATION<br><br>New hedgerow and tree planting will augment the existing woodland and hedgerow and screen any ground-level activity, although the tops of the larger domes will still be visible | Minor | Minor neutral |

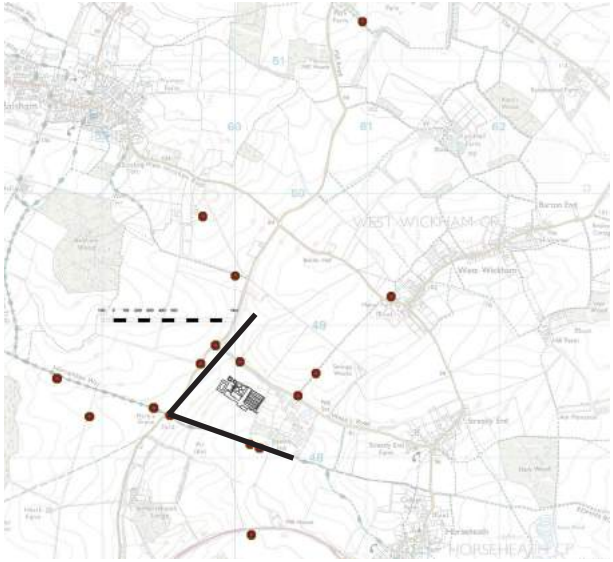
| Viewpoint 2 | Sensitivity | Description of effects | Magnitude of visual effect | Significance |
|---|---|---|---|---|
| Location: 52.110329°N, 0.319017°E, 78.8m TL5890148314 558901, 248314<br><br>View eastwards from Harcamlow Way, approximately 920 metres from the application site. | Low<br><br>This is the view away from public rights of way, in an quiet pastoral area of good landscape quality. | CONSTRUCTION<br><br>Construction activity will be visible in the distance, although partly screened by hedgerow and topography | Minor | Minor adverse |
| | | COMPLETION<br><br>The new biodigester domes are likely to be noticeable here, although partly screened at the base by topography. Vehicles using the new access track will occasionally be visible on the skyline in front of the Streetly Hall woodland | Minor | Minor adverse |
| | | COMPLETION PLUS MITIGATION<br><br>New hedgerow and tree planting will augment the existing woodland and hedgerow and screen any ground-level activity, although the tops of the larger domes will still be visible. | Moderate | Minor beneficial |

| Viewpoint 3 | Sensitivity | Description of effects | Magnitude of visual effect | Significance |
|---|---|---|---|---|
| Location: 52.110771°N, 0.32611°E, 70.8m<br>TL5938548379<br>559385, 248379<br><br>View North-eastwards from Harcamlow Way, approximately 440 metres from the application site | High<br><br>This is the view from a public right of way, in an quiet pastoral area of good landscape quality. | CONSTRUCTION<br><br>Construction activity will be visible in the distance, although partly screened by hedgerow and topography | Moderate | Moderate adverse |
| | | COMPLETION<br><br>The new biodigester domes are likely to be noticeable here, although partly screened at the base by topography. Vehicles using the new access track will occasionally be visible on the skyline in front of the Streetly Hall woodland | Moderate | Moderate adverse |
| | | COMPLETION PLUS MITIGATION<br><br>New hedgerow and tree planting will augment the existing woodland and hedgerow and screen any ground-level activity, although the tops of the larger domes will still be visible. | Minor | Minor adverse |

*Visualisation of proposed AD Plant*
*Top: Existing view*
*Bottom: Wireframe view of model*

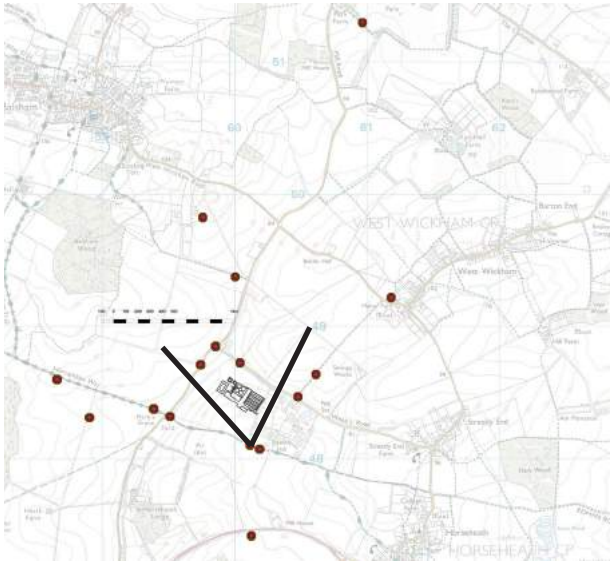
*Visualisation of AD Plant*
*Top: prior to landscape mitigation*
*Bottom: with landscape mitigation*

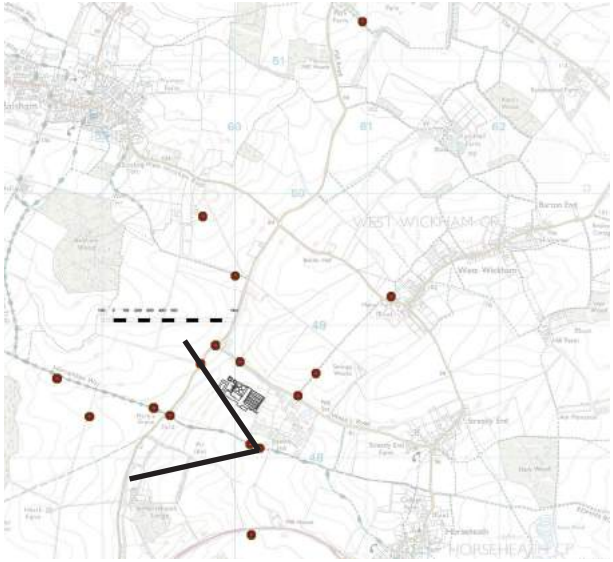
| Viewpoint 4 | Sensitivity | Description of effects | Magnitude of visual effect | Significance |
|---|---|---|---|---|
| Location: 52.110222°N, 0.327873°E, 72.1m<br>TL5950848322<br>559508, 248322<br><br>View North-eastwards from Harcamlow Way, approximately 300 metres from the application site | High<br><br>This is the view from a public right of way, in an quiet pastoral area of good landscape quality. | CONSTRUCTION<br><br>Construction activity will be visible in the distance, although partly screened by hedgerow and topography | Moderate | Moderate adverse |
| | | COMPLETION<br><br>The new biodigester domes and buildings are likely to be noticeable here, although partly screened at the base by topography. Vehicles using the new access track may occasionally be visible on the skyline in front of the Streetly Hall woodland. | Moderate | Moderate adverse |
| | | COMPLETION PLUS MITIGATION<br><br>New hedgerow and tree planting will augment the existing woodland and hedgerow, although the tops of the domes and buildings may still be visible. | Moderate | Minor beneficial |

*Visualisation of proposed AD Plant*
*Top: Existing view*
*Bottom: Wireframe view of model*

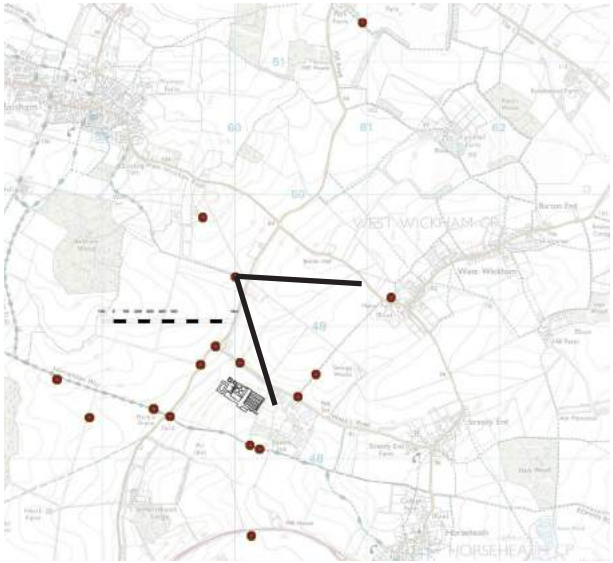
*Visualisation of AD Plant*
*Top: prior to landscape mitigation*
*Bottom: with landscape mitigation*

| Viewpoint 5 | Sensitivity | Description of effects | Magnitude of visual effect | Significance |
|---|---|---|---|---|
| Location: 52.108124°N, 0.336598°E, 92.3m<br>TL6011348108<br>560113, 248108<br><br>View northwards from Harcamlow Way, approximately 210 metres from the site. | High<br><br>This is the view from a public right of way, in an quiet pastoral area of good landscape quality. | CONSTRUCTION<br><br>Construction activity will be noticeable here in the middle distance, and with construction of the access track in the foreground | Major | Moderate adverse |
| | | COMPLETION<br><br>The new barns will be noticeable here, screening the digester domes, although partly screened by topography. Vehicles using the new access track will be visible in the foreground | Moderate | Moderate adverse |
| | | COMPLETION PLUS MITIGATION<br><br>New hedgerow and tree planting will augment the existing woodland and hedgerow, although the tops of the barns are likely to still be visible. | Moderate | Moderate adverse |



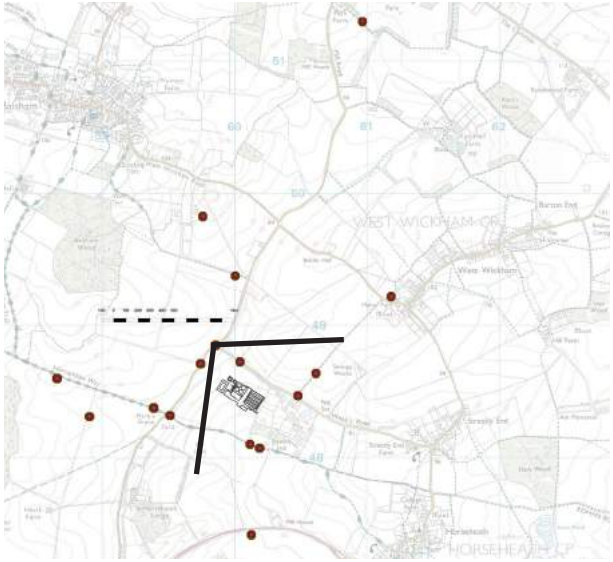
| Viewpoint 6 | Sensitivity | Description of effects | Magnitude of visual effect | Significance |
|---|---|---|---|---|
| Location: 52.108028°N, 0.336923°E, 90.6m<br>TL6013548098<br>560135, 248098<br><br>View west wards from Harcamlow Way, approximately 240 metres from the edge of the site. | High<br><br>This is the view from a public right of way, in an quiet pastoral area of good landscape quality. | CONSTRUCTION<br><br>Construction plant will be visible middle distance. Main AD Plant construction will be hidden from view by topography and trees | Minor | Minor adverse |
| | | COMPLETION<br><br>The new access track will be visible as a new feature across the arable field. The main AD plant will be screened by existing trees and topography. | Minor | Minor adverse |
| | | COMPLETION PLUS MITIGATION<br><br>The new track could be planted with a hedgerow either side, which will provide long term landscape enhancement | Minor | Minor beneficial |

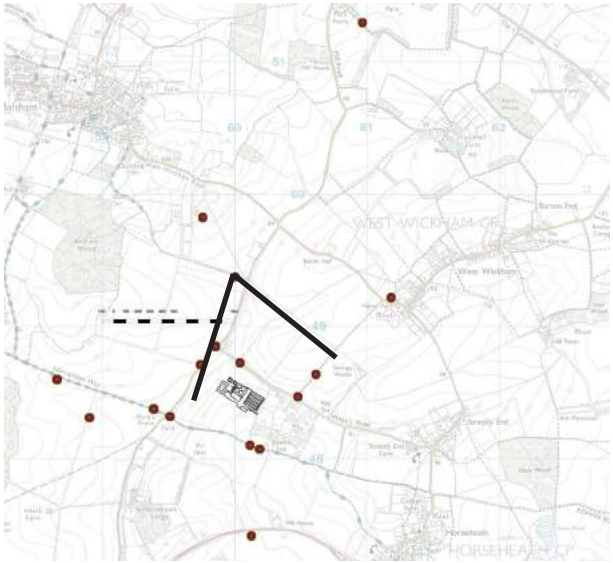
| Viewpoint 7 | Sensitivity | Description of effects | Magnitude of visual effect | Significance |
|---|---|---|---|---|
| Location: 52.113674°N, 0.33143°E, 74.7m<br>TL5973948714<br>559739, 248714<br><br>View Eastward from Dean Road, approximately 170 metres from the edge of the application site | Medium<br><br>This is the view from a public road, where travellers will have passing views of the site | CONSTRUCTION<br><br>Construction activity will be noticeable here in the middle distance, and with construction of the access track in the foreground | Moderate | Moderate adverse |
| | | COMPLETION<br><br>The new biodigester domes will be noticeable here, with some ground-level activity being visible, although partly screened by topography. Vehicles using the new access track may be visible at the top of the hill | Moderate | Moderate adverse |
| | | COMPLETION PLUS MITIGATION<br><br>New hedgerow and tree planting will augment the existing woodland and hedgerow, although the tops of the larger domes will still be visible. | Moderate | Moderate adverse |

*Visualisation of proposed AD Plant*
*Top: Existing view*
*Bottom: Wireframe view of model*

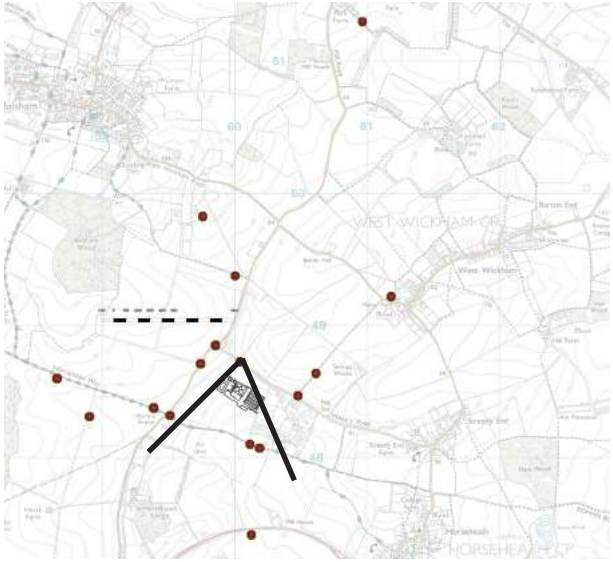
*Visualisation of proposed AD Plant*
*Top: prior to landscape mitigation*
*Bottom: with landscape mitigation*

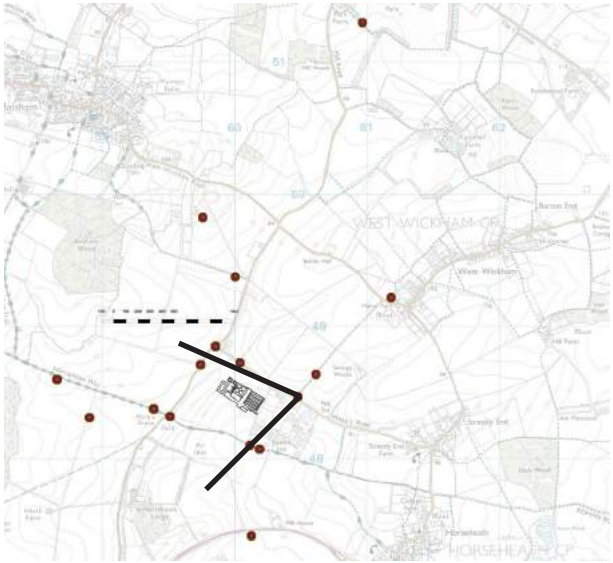
| Viewpoint 8 | Sensitivity | Description of effects | Magnitude of visual effect | Significance |
|---|---|---|---|---|
| Location: 52.114895°N, 0.333148°E, 72.7m TL5985248853 559852, 248853<br><br>View South-eastwards from the junction of Dean Road and Webb's Road, approximately 230 metres from the application site. | Medium<br><br>This is the view from a public road, where travellers will have passing views of the site | CONSTRUCTION<br><br>Construction activity will be noticeable here in the middle distance on the otherwise arable field, against the backdrop of the woodland. | Moderate | Moderate adverse |
| | | COMPLETION<br><br>The new biodigester domes and barns will be noticeable here, with some ground-level activity being visible. Vehicles using the new access track might be visible at the top of the hill | Moderate | Moderate adverse |
| | | COMPLETION PLUS MITIGATION<br><br>New hedgerow and tree planting will augment the existing woodland and hedgerow, although the upper parts of the domes and barns will still be visible. | Moderate | Moderate adverse |

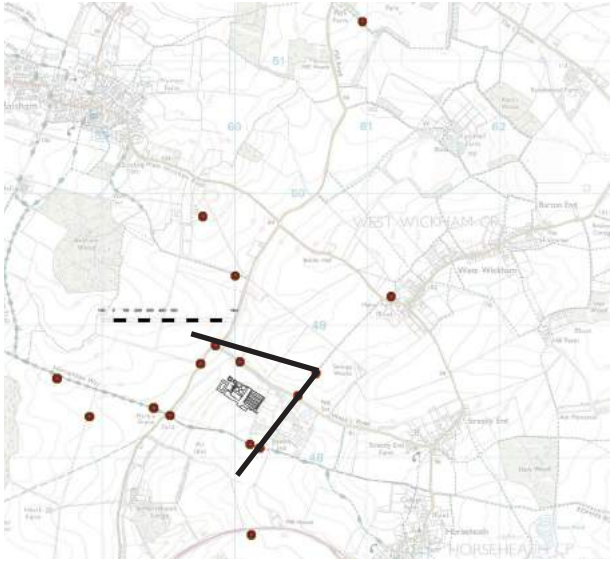
| Viewpoint 9 | Sensitivity | Description of effects | Magnitude of visual effect | Significance |
|---|---|---|---|---|
| Location: 52.119736°N, 0.335218°E, 91.5m TL5997749396 559977, 249396<br><br>View South-eastwards from West Wickham footpath No. 2, approximately 750 metres from the application site. | High<br><br>This is the view from a rural public footpath | CONSTRUCTION<br><br>Construction will be distantly visibly, but partly screened by topography and vegetation | Minor | Minor adverse |
| | | COMPLETION<br><br>The new plant will be distantly visible, but partly screened by topography and vegetation | Minor | Minor adverse |
| | | COMPLETION PLUS MITIGATION<br><br>The new plant will be visible, but relatively distant and partly screened by topography and vegetation | Minor | Minor adverse |

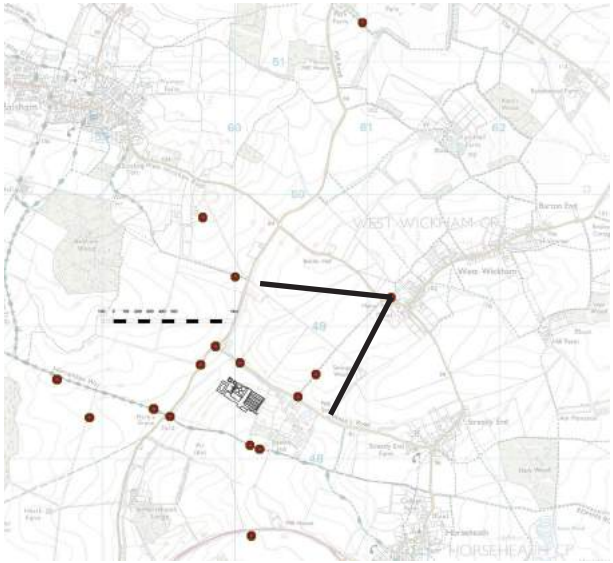
| Viewpoint 10 | Sensitivity | Description of effects | Magnitude of visual effect | Significance |
|---|---|---|---|---|
| Location: 52.113716°N, 0.335788°E, 71.6m TL6003748728 560037, 248728<br><br>View Southwards from Webb's Road, approximately 100 metres from the edge of the site | Medium<br><br>This is the view from a public road, where travellers will have passing views of the site | CONSTRUCTION<br><br>Construction activity will be noticeable here in the middle distance, and with construction of the access track alongside the Streetly Hall woodland | Moderate | Moderate adverse |
| | | COMPLETION<br><br>The new biodigester domes will be noticeable here, with some ground-level activity being visible. Vehicles using the new access track will be visible in the foreground alongside the woodland | Moderate | Moderate adverse |
| | | COMPLETION PLUS MITIGATION<br><br>New hedgerow and tree planting will augment the existing woodland and hedgerow, although the upper parts of the domes will still be visible. | Moderate | Minor adverse |

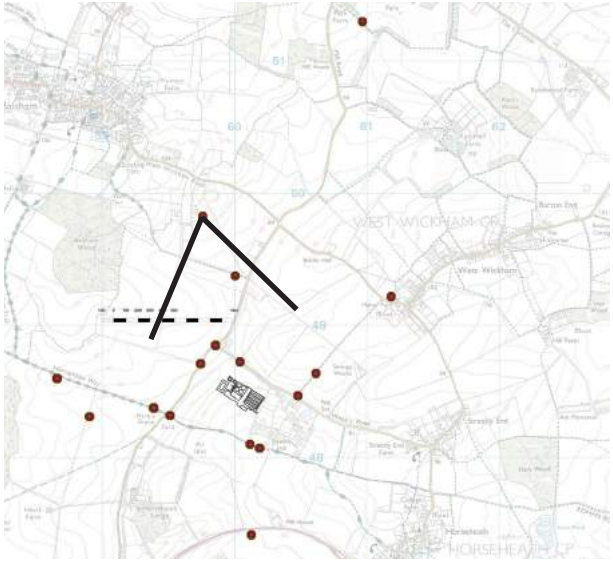
| Viewpoint 11 | Sensitivity | Description of effects | Magnitude of visual effect | Significance |
|---|---|---|---|---|
| Location: 52.11129°N, 0.342043°E, 64.4m TL6047448472 560474, 248472<br><br>View South-westwards from West Wickham Footpath no. 11, approximately 280 metres from the site. | High<br><br>This is the view from a rural public footpath | CONSTRUCTION<br><br>Construction activity will be visible here in the middle distance, although partly screened by existing farm buildings | Minor | Minor adverse |
| | | COMPLETION<br><br>The new biodigester domes will be noticeable here, although partly screened by existing farm buildings | Minor | Minor adverse |
| | | COMPLETION PLUS MITIGATION<br><br>The new biodigester domes will be noticeable here, although partly screened by existing farm buildings | Minor | Minor adverse |


| Viewpoint 12 | Sensitivity | Description of effects | Magnitude of visual effect | Significance |
|---|---|---|---|---|
| Location: 52.11216°N, 0.34326°E, 77.3m<br>TL6055448571<br>560554, 248571<br><br>View South-westwards from West Wickham footpath no. 11, approximately 440 metres from the site. | High<br><br>This is the view from a rural public footpath | CONSTRUCTION<br><br>Construction activity will be visible in the distance, although partly screened by hedgerow and topography | Moderate | Moderate adverse |
| | | COMPLETION<br><br>The new biodigester domes are likely to be noticeable here, although partly screened at the base by topography. Vehicles using the new access track will occasionally be visible on the skyline in front of the Streetly Hall woodland | Moderate | Moderate adverse |
| | | COMPLETION PLUS MITIGATION<br><br>New hedgerow and tree planting will augment the existing woodland and hedgerow and screen some ground-level activity, although upper parts of the domes and barns will still be visible. | Moderate | Moderate adverse |



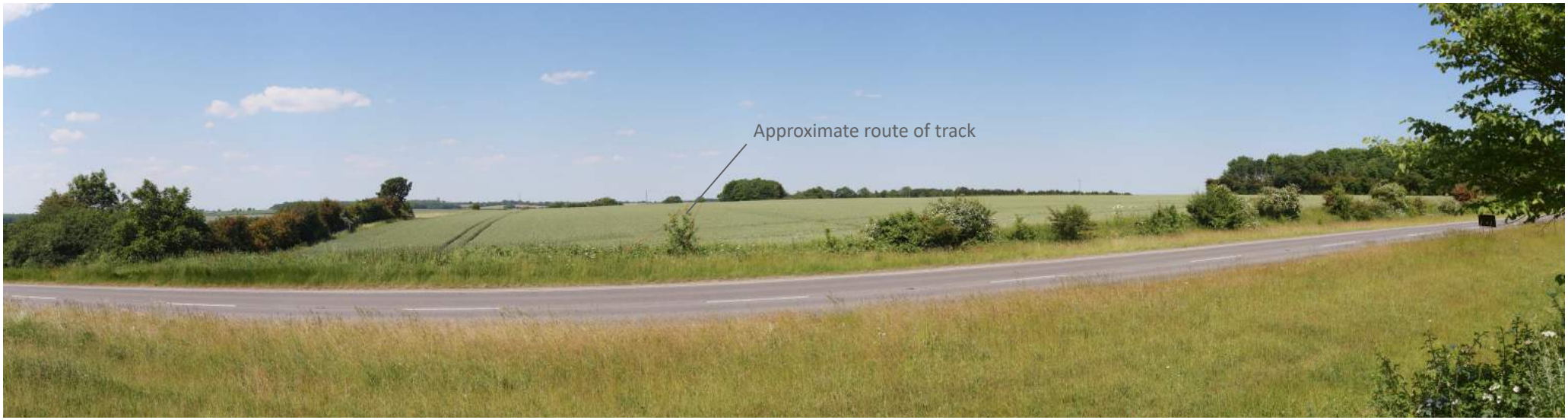
| Viewpoint 13 | Sensitivity | Description of effects | Magnitude of visual effect | Significance |
|---|---|---|---|---|
| Location: 52.111183°N, 0.341987°E, 76.1m<br>TL6047148460<br>560471, 248460<br><br>View South-westwards from St. Mary's Church, West Wickham. | Very High<br><br>This is the view from the grounds of a listed church. | CONSTRUCTION<br><br>Constriction activity may be visible, but largely screened by woodland and topography | Negligible | Negligible |
| | | COMPLETION<br><br>The site may be visible, but distant and largely screened by woodland and topography | Negligible | Negligible |
| | | COMPLETION PLUS MITIGATION<br><br>The site may be visible, but distant and largely screened by woodland and topography | Negligible | Negligible |

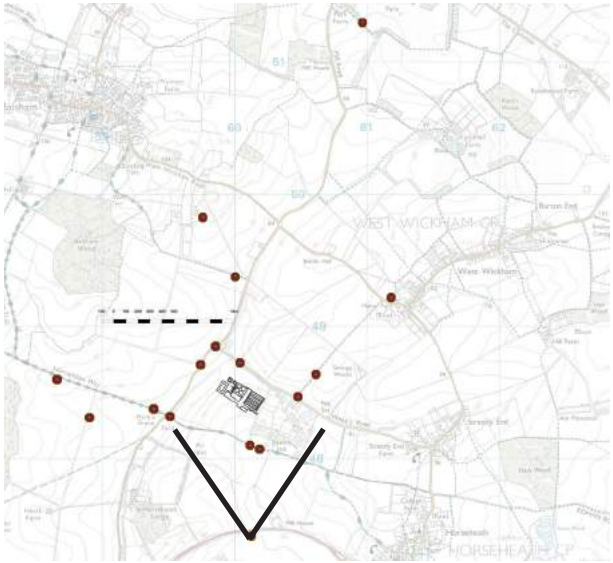



| Viewpoint 14 | Sensitivity | Description of effects | Magnitude of visual effect | Significance |
|---|---|---|---|---|
| Location: 52.123371°N, 0.33224°E, 102 m, TL5976049794, 559760, 249794<br><br>View South-eastwards from The Gallops, Dean Road, approximately 1.3 kilometres from the site | High<br><br>This is the view from a private residence | CONSTRUCTION<br><br>Construction activity will be visible in the distance, although a relatively distant feature in the landscape | Minor | Minor adverse |
| | | COMPLETION<br><br>The new biodigester domes will visible be here, although distant and set below the skyline and partly screened at the base by topography. New structures clad with recessive tones and colours to reduce their impact. | Minor | Minor neutral |
| | | COMPLETION PLUS MITIGATION<br><br>New hedgerow and tree planting will augment the existing woodland and hedgerow and screen any ground-level activity, although the upper parts of the domes will still be visible. | Minor | Minor neutral |

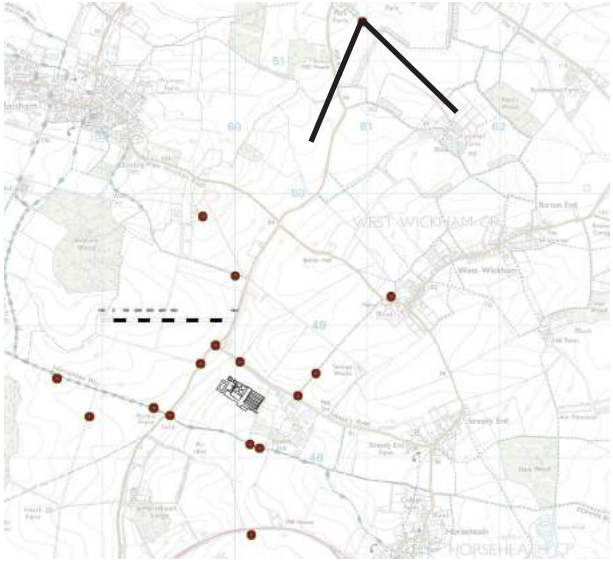
*Visualisation of proposed AD Plant*
*Top: Existing view*
*Bottom: Wireframe view of model*

*Visualisation of proposed AD Plant*
*Top: prior to landscape mitigation*
*Bottom: with landscape mitigation*



| Viewpoint 15 | Sensitivity | Description of effects | Magnitude of visual effect | Significance |
|---|---|---|---|---|
| Location: 52.1021°N, 0.336502°E, 107m, TL6012847438, 560128, 247438<br><br>View Northwards from the A1307, close to the new access track and approximately 1 kilometre from the main plant | Low<br><br>This is the view from a busy main road where users will be less focussed on their surroundings | CONSTRUCTION<br><br>Constriction activity for the new track will be visible in the field may be visible. Construction of the main site will be but largely screened by woodland and topography | Minor | Minor adverse |
| | | COMPLETION<br><br>The new track will be visible as a simple track with a new access onto the road, similar to other farm access tracks in the area. | Minor | Minor adverse |
| | | COMPLETION PLUS MITIGATION<br><br>The new hedgerows either side of the track will provide addition landscape structure and biodiversity gain | Minor | Minor beneficial |

| Viewpoint 16 | Sensitivity | Description of effects | Magnitude of visual effect | Significance |
|---|---|---|---|---|
| Location: 52.136726°N, 0.35027°E, 114.2m, TL6094651319, 560946, 251319<br><br>View Southwards from public footpath close to West Wratting Park House and grounds, approximately 3 kilometres from the site | High<br><br>This is the view from a public footpath close to a listed building | CONSTRUCTION<br><br>Construction activity will be visible in the distance, although a very distant feature in the landscape | Minor | Minor adverse |
| | | COMPLETION<br><br>The new plant will be visible, although unlikely to be noticed to a causal viewer due to distance. The plant will be clad with recessive colours and is located below the skyline, with trees and woodland in the background | Negligible | Negligible |
| | | COMPLETION PLUS MITIGATION<br><br>New hedgerow and tree planting will augment the existing woodland and hedgerow and help screen ground-level activity. | Negligible | Negligible |

*Visualisation of proposed AD Plant*
*Top: Existing view*
*Bottom: Wireframe view of model*

*Visualisation of proposed AD Plant*
*Top: prior to landscape mitigation*
*Bottom: with landscape mitigation*

# 14. Landscape Assessment

14.1 Potential impacts can come from a variety of sources related to the proposals and can be adverse or beneficial in nature.

14.2 Magnitude of potential impacts is assessed using Tables M7 and Matrix M1 in the Methodology. Significance is a product of Magnitude and Sensitivity and is assessed against the criteria set out in Matrix M1 in the Methodology.

**Sources of Impact**

14.3 Predicted landscape and visual impacts of the development are based on the construction and operational phases of the proposed scheme as well as the effect of the mitigation proposed.

**Impacts Due to Construction**

14.4 Potential effects which will be of a temporary nature during the construction phase include:

- Removal of landscape features necessary to carry out the operations
- The effect of any cranes and other plant within the landscape
- The effect of site vehicles and construction traffic, both within the site boundary and the surrounding areas,
- Stockpiles of materials and temporary lighting along with other factors associated with construction sites, and
- During the construction, a progressive change in landscape character and viewpoints.

**Impacts from the Completed Development**

14.5 Potential effects during operation of the site include:

- A change of land use from an open field to a more interrupted landscape with a new structures and hard surfacing;
- Establishment of new built features in the landscape;
- The creation of new structural planting, screening and framing the development.

## Predicted landscape effects

14.6 Reference is made to the key landscape elements of this landscape character area, as identified in the published Council assessments.

**Overall landscape context**

14.7 At completion, the development of the main AD would be perceived as a distinctive new cluster of structures in the landscape with the dome shapes of digester tanks contrasting with the adjacent more traditional and angular agricultural architecture.

14.8 At year one, the landscape would be immature and the newly built infrastructure including would seem prominent from relatively close locations. However, the presence of tree blocks, hedgerow and undulating topography creates local screening resulting in the site being visible intermittently as one passes through the landscape. Belts of native tree planting will be provided to soften the structures in the longer term. The proposed wildflower grassland to replace the existing arable fields to the north and west of the development will provide rapid biodiversity benefits, although the overall landscape will need time for the tree planting to mature before it provides any significant landscape benefit.

14.9 As it matures, the new woodland and hedgerow around the site boundary and along the new access road will assist to integrate the new structures within the wider context. There would be a change in the open character of the local landscape as a result of the development to a more enclosed landscape but this should be considered in the context of the loss in recent decades of many of the historic hedgerows and trees which would have created a more enclosed character in any case. The new planting will appear as a continuity of the existing woodland to the south-east of the site, and add to green infrastructure.

14.10 The magnitude and nature of effect in the medium term (at completion - 5 years) would be an irreversible MODERATE ADVERSE effect.

14.11 The magnitude and nature of effect in the long term (after 15 years) would be an irreversible MINOR ADVERSE effect.

**Simple rural landscape with large, rectilinear arable fields organised in an irregular pattern**

14.12 As noted in this assessment, the historic field patterns of this undulating landscape have remained largely constant although some of the hedgerow boundaries have become sparse and neglected.

14.13 At completion, the new immature planting around the boundaries of the main AD plant, and off-site hedgerow planting along the access track will have limited effect on the character of the open landscape and the new structures will look raw. However, the woodland and off-site hedgerow corridors will create a more diverse range of habitats than currently exists.

14.14 The magnitude and nature of effect in the medium term (at completion - 5 years) would be an irreversible MINOR ADVERSE effect.

14.15 The magnitude and nature of effect in the long term (after 15 years) would be an irreversible MINOR BENEFICIAL effect.

**Sparsely scattered small woodland blocks, including ancient woodland**

14.16 The development will not impact any existing woodlands trees or hedgerows. The LVIA mitigation strategy will introduce new structural tree belts which will provide extended green infrastructure and link up with the Streetly Hall Grove on the hilltop south-east of the site. New hedgerow along the access track will provide further landscape linkages.

14.17 The magnitude and nature of effect in the medium term (at completion - 5 years) would be an irreversible NEGLIGIBLE NEUTRAL.

14.18 As it matures, the new boundary tree belt and off-site hedgerows and trees would integrate the new development within the wider landscape.

14.19 The magnitude and nature of effect in the long term (after 15 years) would be an irreversible MINOR BENEFICIAL effect.

**Open, long distance, panoramic views across Greater Cambridge and beyond from this upland landscape**

14.20 The location of the proposed development, toward the lower-lying parts of a small valley, results in it being viewed largely below the skyline from most viewpoints. It will thus rarely break the skyline apart from close viewpoints. The intention is for the new structures to be clad with neutral colours which will blend in with the landscape, and the new planting will help to conceal lower-level activity in the longer term

14.21 The magnitude and nature of effect in the medium term (at completion - 5 years) would be an irreversible MINOR ADVERSE effect.

14.22 The magnitude and nature of effect in the long term (after 15 years) would be an irreversible MINOR ADVERSE effect.

**Wooded and undeveloped ridgelines are visually sensitive**

14.23 As noted above, the location of the proposed development, toward the lower-lying parts of a small valley, results in it being viewed largely below the skyline from most viewpoints. It will thus rarely break the skyline apart from close viewpoints. The extensive new planting proposed will form an extension to the existing hilltop woodland at Streetly Hall Grove.

14.24 The magnitude and nature of effect in the medium term (at completion - 5 years) would be a NEGLIGIBLE effect.

14.25 The magnitude and nature of effect in the long term (after 15 years) would be an MINOR BENEFICIAL effect

**Tranquil, often remote rural landscape away from major roadways.**

14.26 Initial construction activity will constitute an moderate adverse impact on the tranquility of the immediate area. However, although the new development will

constitute a new built form into the landscape, this will not necessarily detract from the tranquil nature of the landscape. The development is located close to an existing active and large farm unit and in a relatively enclosed location, where any adverse affects on the tranquility will only affect those in relatively close proximity. Extensive new tree planting around the site will add to the existing tree cover. The new access road will cross existing fields, away from the quiet roads in the area, and will be planted with hedgerows either side.

14.27 The magnitude and nature of effect in the medium term (at completion - 5 years) would be an irreversible MINOR ADVERSE effect.

14.28 The magnitude and nature of effect in the long term (after 15 years) would be an MINOR NEUTRAL effect.

**Landscape elements of the site**

14.29 Initial construction activity will constitute an moderate adverse impact on the landscape elements of the site. The landscape structure proposed for the main AD plant will reinforce the existing and strengthen the northern, western and southern boundaries of the Site by introducing a native woodland planting mix surrounding the site. No existing trees or other semi-natural landscape features will be affected.

14.30 Once mature, the planting associated with the proposed development would better integrate the AD plant structures and the lagoons. Most views of the former arable field would be screened by the mature landscape scheme and in addition, the extensive planting will improve the overall green infrastructure network. Overall the magnitude and nature of effect is considered to be moderate beneficial. The proposed conversion of 7.1 hectares of arable land to grassland and approximately 2600 metres of new hedgerow will provide significant landscape and biodiversity benefits.

14.31 The magnitude and nature of effect in the medium term (at completion - 5 years) would be an irreversible MODERATE ADVERSE effect.

14.32 The magnitude and nature of effect in the long term (after 15 years) would be an irreversible MODERATE BENEFICIAL effect.

**Impact on public rights of way**

14.33 The Harcamlow long distance path links through the eastern Wooded Claylands and the Clopton Way long distance path through the west of the Landscape Character Area.

14.34 This path runs east-west approximately 200 metres south of the application site, with the new access track crossing the path. Apart from close proximity, the site is well screened by topography and the dense hedgerow screen on the northern side of the path. The new access track is partly on an existing farm track.

**Impact on residential properties**

14.35 No residential properties are directly affected by the proposals.

14.36 Horseheath Lodge, approximately 1100 metres south-west of the site is screened by the local topography and tree cover.

14.37 The Gallops, situated on elevated land off Dean Road, approximately 1.3 kilometres from the site. There are expansive views over the surrounding landscape from this high location. The proposed plant will be visible, although relatively distant and considered to be a recessive element in the landscape due to the use of recessive colours and its location below the skyline.

**Cumulative impacts**

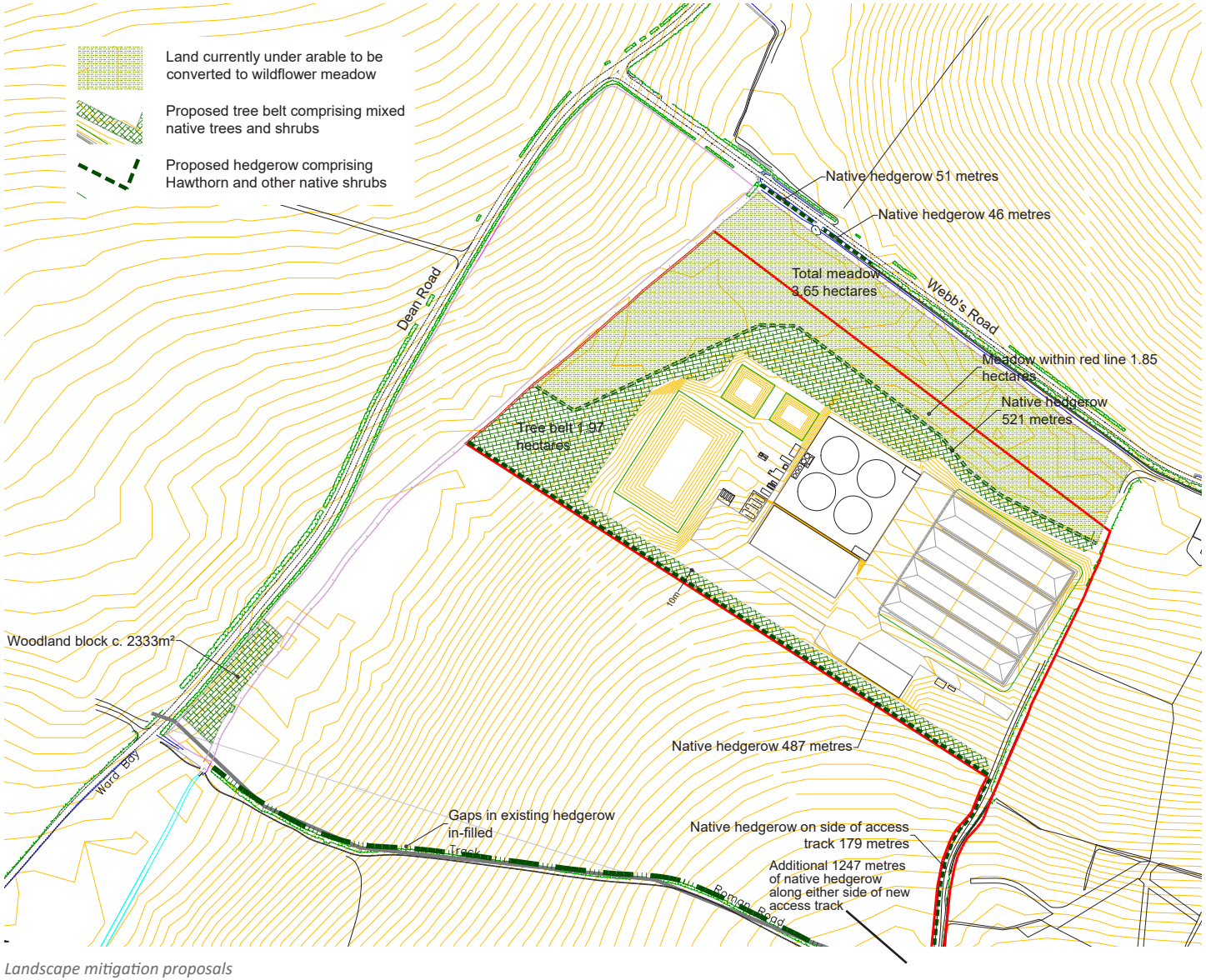
14.38 No nearby developments were discovered which could be considered to have cumulative negative impacts to protected species or nearby designated sites. The nearest planning applications were primarily small-scale barn conversions and tree works.

# 15. Mitigation

15.1 The majority of the adverse landscape and visual effects are predicted during the construction stages and at completion when the landscape and built development are raw and the planting immature. It is acknowledged that the site construction process, with the use of mobile cranes and scaffolding and the need for multiple vehicular movements and stockpiled materials, will cause some temporary adverse landscape and visual effects.

15.2 However a comprehensive landscape scheme has been developed as a component of the design process, and which responds to the existing landscape structure, the new development, topography and viewpoints. The key landscape proposals are as follows:

- 10 metre-wide tree belt around the site, widened on the northern and western boundaries. Total area 1.97 hectares.
- Woodland block close to the visually-sensitive junction of Dean Road and the Harcamlow Way footpath. Total area 2333m²
- Arable field to the north and west converted to meadow. Total area 3.65 hectares
- Hedgerow on the outside of the tree belt and in-filling the hedge on Webb's Road. Total length 1105m.
- Hedgerow alongside the new access road. Total length 1426m.
- Gaps in hedgerow along Harcamlow Way in-filled.




*Landscape mitigation proposals*

## 16. Conclusion

16.1 The Site does not fall under any statutory or non-statutory landscape designations.

16.2 The site is located within a simple rectangular field under intensive arable cultivation, with no significant landscape features.

16.3 There are a number of landscape receptors within the Study Area. They were assessed in terms of their sensitivity to change and the potential effects of the Proposed Development upon them. It is acknowledged that the site occupies an area with a landscape character described as a tranquil, often remote rural landscape, and with a relatively low capacity to accommodate development.

16.4 A wider study of the visibility of the Site was undertaken using desk based research, site visits and the production of a digital Zone of Theoretical Visibility. From this data, visual receptors were identified, along with 15 representative viewpoints.

16.5 The ZTV analysis shows that there will be a relatively narrow cone of visibility of the proposed development toward the south-western and north-western quadrants, and locally toward the north-east. However, the site is located within a small valley and largely screened by topography and woodland for receptors from the north-east through to south-west. It its furthest extent, the ZTV suggests that the site will be visible from distances of up to 3.5 kilometres near West Wratting House. However, at this location the visual impact is considered to be negligible due to the effects of distance and the fact that the plant will be a very small element in the landscape and coloured with recessive hues.

16.6 Some filtered views toward the development are possible from nearby footpaths, although new planting and infilling of gaps in existing hedgerows will reduce these impacts. The most significant visual impacts will be for road users from close viewpoints along approximately 600 metres of Dean Road and 600 metres of Webb's Road.

16.7 There will be no loss of trees and hedgerows as a result of the proposals. Extensive landscape mitigation proposals have been developed as part of an iterative process. This accords with National, Regional and District landscape character objectives. The new tree and hedgerow planting around the site will visually form an extension to existing trees and woodland, and also provide biodiversity gains. The conversion of 3.65 hectares of arable land to the north of the site will provide significant habitat enhancement.

16.8 Considerable effort has gone into the design of the built form, including its layout, orientation and elevation to respond to surrounding landform, existing farm complex and landscape character. With the extensive landscape mitigation proposals it is considered that the proposed development can be accommodated satisfactorily into the landscape.

## 17. Bibliography


Countryside Agency and Scottish Natural Heritage 2002: Landscape Character Assessment Guidance for England and Scotland.

Greater Cambridge Shared Partnership, 2021: Greater Cambridge Landscape Character Assessment.

Landscape Institute / Institute of Environmental Management and Assessment 2013: Guidelines for Landscape and Visual Impact Assessment (GLVIA3).

Natural England 2011: Landscape Character Assessment Guidance for England, Scotland & Wales.

Landscape Institute 2019: Technical Guidance Note 06/19: Visual Representation of Development Proposals.

Natural England, 2014: NCA Profile: 86 South Suffolk and North Essex Clayland

South Cambridgeshire Local Plan 2018.

UK Government 2014: An Approach to Landscape Character Assessment.

# Appendix

# 18. APPENDIX

## METHODOLOGY

18.1 This report has been prepared in accordance with the guidelines as set out in "*Guidelines for Landscape and Visual Impact Assessment: Third Edition*", (GLVIA) published by the Landscape Institute and the Institute of Environmental Management and Assessment. This is widely regarded by professionals as the industry standard on the subject.

18.2 The assessment distinguishes between landscape impacts and visual impacts which, although related, are different. Landscape impacts are changes in the fabric, character and quality of the landscape. Visual impacts relate solely to changes in available views of the landscape and the effects of those changes on people. Impacts can also be beneficial as well as adverse.

18.3 A desktop study of the site was undertaken, including an assessment of character, landform, landscape features, historic evolution, policy and designations. This information was both used for, and assessed against, the site visit.

### Definition of the study area

18.4 With regard to the landscape assessment, the views used were chosen based upon their location in relation to the site and other landscape elements. Beyond the area chosen, the visual effects of the development are not considered likely to be significant. This is due in part to scale and height of the built components of development, the effect of reduced contrast between different landscape textures and colours at increasing distance and the increasing importance of atmospheric conditions in determining the availability of long distance views. At these distances, the development is likely to be screened by local features, such as landform, buildings and vegetation.

### Baseline Information

18.5 A thorough inspection of the site was undertaken to determine the Zone of Visual Influence, which involved walking public rights of way and visiting significant public viewpoints to determine the likely visibility of the development. Photographs from selected viewpoints were taken using a Canon EOS 6D full-frame DSLR camera. Viewpoints were selected as being most representative of all potential views into the site, and the precise location was logged using GPS.

18.6 Photographs were taken at a focal length of 50mm (equivalent to 50mm on a conventional 35mm camera), to create the view which is generally accepted as being closest to that seen by the human eye. The photographs used are intended only to give an indication of the view discussed and are not a substitute for visiting the site in person Panoramic views consisted of photographs taken by the criteria outlined above merged together with ICE® software. No other photographic manipulation was undertaken.

18.7 A brief description of the existing land use of the area is provided and includes reference to existing settlements, transport routes and vegetation cover, as well as local landscape designations, elements of cultural and heritage value and local landmarks or tourist destinations. These factors combine to provide an understanding of landscape value and sensitivity, and an indication of particular key views and viewpoints that are available to visual receptors and therefore are to be included in the visual assessment.

## LANDSCAPE ASSESSMENT

18.8 Landscape effects are defined by the Landscape Institute as *'changes to landscape elements, characteristics, character, and qualities of the landscape as a result of development'* and these may be adverse, neutral or beneficial, Landscape receptors are things that are affected by landscape impacts and may include the following:

- **Landscape elements**: introduction or removal of trees, vegetation and built features and other elements which together form landscape patterns;
- **Landscape patterns**: degradation or erosion of groups and arrangements of landscape elements, which form patterns that are characteristic of landscape character types;
- **Landscape character**: the landscape character is a product of a combination of factors that contribute to the creation of a unique setting. Landscape character is a product of the combination of geological features, geomorphic processes, floral and wildlife associations, with social, economic and cultural forces; and
- **Cumulative landscape effects**: these are defined by the Landscape Institute as resulting from additional changes to landscape amenity caused by the proposed development in conjunction with other development (associated or separate from it), or actions that occurred in the past, present or are likely to occur in the foreseeable future.

18.9 The landscape effects have been assessed by consideration of three criteria:

- The **sensitivity** of the landscape resource or receptor (very high, high, medium, low or very low);
- The **magnitude** of the affected landscape resource (no change, low, medium, high and very high); and
- The **significance** of the impact (major, moderate, minor or negligible).

18.10 Consideration of the sensitivity of the landscape receptor against the magnitude of change posed by the development to give the significance of the impact is fundamental to landscape assessment and each of these criteria has been defined in more detail with relevance to this assessment.

**Sensitivity of Landscape Receptors**

18.11 The sensitivity of landscape receptors have been determined by reference to the baseline assessment of the existing landscape. The classification of sensitivity with regard to landscape receptors is defined further in Table M1 and is derived from consideration of the existing (baseline) landscape receptors as follows:

- **Landscape condition**: the state of repair of the elements of a particular landscape, the integrity and intactness and the extent to which its distinctive character is apparent;
- **Landscape value**: the importance attached to a landscape or its elements. This is most readily recognised by the existence of any planning policy designations. These may express national or local consensus, and generally reflect aspects of its quality, cultural associations, scenic or aesthetic characteristics or ecological state. The rarity of the landscape or its particular representation of a certain landscape character may also be considered; and
- **Landscape capacity**: the ability of a particular landscape or element to absorb change without unacceptable adverse effects on its character. This may be considered with reference to existing landscape characteristics such as scale, topography and existing screening elements as well as landscape change, including the presence of existing development. Generally, landscapes that are already influenced by the type of development proposed have a greater capacity to accommodate the proposed changes, whilst those lacking any influence from similar development will have less capacity.

18.12 It is important to use sensitivity criteria of an appropriate scale for the development. In some cases where criteria are chosen to reflect nationally sensitive sites, such as designated National Parks or Areas of Outstanding National Beauty, it is possible that issues of local importance are under emphasised. The opposite is also true. If the highest significance is assigned to nationally designated landscapes and the study area falls within one, there is the assumption that all of the land within that study area is of the highest sensitivity

18.13 to change. This is not the case as many designations, such as AONBs, are broad-brush and the sensitivity criteria should be altered accordingly. Sensitivity criteria should be reviewed on a case by case basis.

*Table M1 Sensitivity of Landscape Receptors*

| Sensitivity | Definition |
|---|---|
| Very High | Includes the most aesthetically attractive landscape. Areas of particular Natural Beauty perceived as special in a regional or national context. Nationally designated land such as National Parks, AONBs etc. |
| High | Areas include historic and designated landscape. Diverse, semi-natural or farmed landscape with natural features. Normally abundant woodland cover together with a high distribution of trees, hedgerows and shrubs, streams, brooks and other naturalized unpolluted water corridors may be present. Several local landscape designations may apply, including Conservation Areas, and some historical or cultural sites may be present. |
| Medium | Countryside with some variety in farmland cover. Settlements and villages with pockets of open space and public recreation areas. There is a reasonable distribution of semi-natural vegetation, trees and shrub cover and the overall view of the area is pleasant. Local landscape designations of cultural and historic value may be present. |
| Low | Typical open agricultural land where attractive features are offset by detractors. Some strategic planning is evident but development is primarily functional including housing estates, business parks or urban fringe land uses. Not particularly aesthetically attractive, but with more value than a poor quality landscape. Land may be within a Green Belt or have a local landscape designation. |
| Very Low | Includes detractors such as power lines, industrial derelict or inappropriate built forms with no aesthetic value or evidence of strategic planning. There is lack of mature vegetation cover and no landscape designations apply. Intensively farmed landscape, which has lost most of its features. |

**Magnitude of Landscape Effects**

18.14 Magnitude of landscape impact is a function of the following factors:

- The nature of the effect; and
- The degree of change to the landscape element, taking into account the proposed mitigation measure
- The overall effect on the landscape receptor can range from degradation to enhancement.

*Table M2 Magnitude of Landscape Effects*

| Magnitude | Predicted Landscape Effects |
|---|---|
| Severe | The proposals would result in a complete change to landscape features or characteristics of the landscape character |
| Major | Significant loss of, or major alteration to, key elements/features/characteristics of the landscape or introduction of elements considered to make significant changes within the receiving landscape. |
| Moderate | Noticeable loss of, or alteration to, key elements/features/characteristics of the landscape or introduction of elements that may be prominent within the receiving landscape. |
| Minor | Partial loss of, or some alteration to, key elements/features/characteristics of the landscape or introduction of elements that may be noticeable within the receiving landscape. |
| Negligible | Minor loss of, or minor alteration to, key elements/features/characteristics of the landscape or introduction of elements that are barely noticeable within the receiving landscape. |
| None | No loss of, or alteration to, key elements/features/characteristics of the landscape and no introduction of features. |

**LANDSCAPE CAPACITY**

18.15 The process for undertaking this study involves two stages;-

- Definition of local level landscape character areas.
- Assessment of landscape capacity.

**Definition of local level landscape character areas**

18.16 Prior to assessment of landscape capacity a review of the areas within the study area was required in order to define boundaries for assessment. These boundaries are called 'Character Areas' and the establishment of these is based on guidance within "Landscape Character Assessment - Guidance for England and Scotland" (Countryside Agency and Scottish Natural Heritage, April 2002).

18.17 Character areas are defined as…' distinct, recognisable and consistent patterns of elements in the landscape that makes that landscape different from another' . Elements and features assessed include a number of different aspects such as the geological pattern, landform, land use, vegetation, ecology, scale and enclosure.

18.18 This characterisation process has already been completed to a district-wide level within the Borough Landscape Character Assessment - June 2001 (BLCA). However the areas within this are considered to be too large for assessment of landscape capacity. Therefore the character areas within the BLCA were refined in order to produce smaller local–level character areas. This was carried out through desk-top study and on-site assessment using the above guidance.

**Assessment of Landscape Capacity**

18.19 Landscape Capacity is defined as 'the extent to which a particular area or type of landscape is able to accommodate change without significant effects on character or overall change in landscape type'. Ref - 'Topic Paper 6 - Techniques and criteria for judging capacity and sensitivity' (Countryside Agency and Scottish Natural Heritage, Jan 2004) and illustrates methods for assessing Landscape Capacity.

18.20 The Landscape Capacity is a combination of the sensitivity of the landscape character (both physical/ aesthetic and visual) and the value attached to the landscape, and can be expressed as follows;-

18.21 This is adapted from *Figure 1(b): Summary of factors to consider in judging landscape capacity for a particular type of change. Page 5, 'Topic Paper 6 - Techniques and criteria for judging capacity and sensitivity' (Countryside Agency and Scottish Natural Heritage, Jan 2004)*

18.22 Note 1 - In order to provide a consistent assessment, the nature of the type of development that are likely to have an impact on the landscape needs to be defined . For the purposes of this study, it has been agreed that the likely form of development will consist of mainly 2-3 storey residential development with some 4 storey buildings; however, likely numbers of houses and layouts have not been defined but have been assumed to be in range of 35-50 houses per hectare.

18.23 Using this method, the Landscape Sensitivity and Visual Sensitivity of each character area are combined to produce an overall Landscape Character Sensitivity.

18.24 The Landscape Character Sensitivity is then combined with the Landscape Value of the area to produce the overall Landscape Capacity for each character area. The value of the landscape is important in the process as the value attached to certain landscapes will need to be considered in relation to the capacity of the landscape to accept change.

18.25 These aspects and the elements assessed within them can be defined as follows;-

| | | | | |
|---|---|---|---|---|
| Landscape Capacity to accommodate specific type of change | = | Landscape Character Sensitivity<br>Landscape Sensitivity plus Visual Sensitivity | + | Landscape Value |

**LANDSCAPE SENSITIVITY**

18.26 This is based on judgements about sensitivity of physical and aesthetic elements in the landscape that are most likely to be affected. The level of sensitivity is based on ….a professional judgement about the degree to which the landscape in question is robust, in that it is able to accommodate change without adverse impacts on its character. This means making decisions about;-

- whether or not significant characteristic elements of the landscape will be liable to loss through disturbance;
- whether or not they could be easily restored and;
- whether important aesthetic aspects of character will be liable to change;
- the consideration of new elements, which may also have a significant influence on character.

18.27 These decisions need clear and consistent thought about three factors;-

- the individual elements that contribute to character; their significance and their vulnerability to change;
- the overall quality and condition of the landscape in terms of it's intactness; representation of typical character and condition; and
- the aesthetic aspects of landscape character – including scale; enclosure, diversity, form, colour, line pattern and texture. These elements may have significance for judgements about sensitivity and are different from the perceptual aspects of landscape character which are much more subjective.

*(Page 5-6, Topic Paper 6 - Techniques and Criteria for Judging Capacity and Sensitivity' (Countryside Agency and Scottish Natural Heritage, Jan 2004).*

18.28 Assessment of these will help to measure the endurance of the landscape character representing the likelihood of change in relation to the degree to which the landscape is able to tolerate change.

18.29 The aspects most likely to be affected and illustrations as to how the level of sensitivity are assessed is based on the following;-

**Natural Factors**

18.30 Vegetation – the nature and extent of woodland and hedgerows will have different sensitivities (e.g. an area with a strong and extensive hedgerow structure will be more sensitive to change than a landscape with few hedges; natural woodland may be more sensitive than a plantation).

18.31 Extent and pattern of semi-natural habitat – presence, size and dispersal of seminatural habitats. There are areas which have greater sensitivity due to the nature of habitats (e.g. species rich grassland will be more sensitive than areas in continued arable crop production).

18.32 Landform and drainage – presence of water courses, distinctive features (valleys, scarps etc), slopes and elevation all contribute to the sensitivity of the landscape (e.g. features such as prominent slopes, ridges and river valleys would be more sensitive to development than flat landscapes.

**Cultural factors**

18.33 Land use/function of the area – the nature of land use, the level of scarcity and resilience to change will all have a level of sensitivity attached (e.g. an area of woodland would be more sensitive to change than area of urban fringe activities such as paddocks)

18.34 Settlement Patterns – nature and extent of settlement patterns, would they be sensitive to change (e.g. sprawling urban fringe may be less sensitive to change than a clear town/country divide)

18.35 Historical features – the presence of historical features adds to the sensitivity because of the need to preserve their integrity. Features such as historical parks, Scheduled Ancient Monuments (SAM), Roman roads and scarce/uncommon historical landscape types. The level of sensitivity will depend on their presence, nature and extent.

**Landscape quality and condition**

18.36 Representation of typical character – this will indicate how similar the area is to the landscape character area within which it exists, how many of the typical features it exhibits.

18.37 Intactness – this indicates how well the landscape has survived over a period of time and whether significant features have been lost (e.g. hedges, woods).

18.38 State of repair – this assesses how well the landscape is looked after and whether elements such as hedges have been managed consistently.

**Aesthetic Factors**

18.39 The aesthetic value of the character areas includes an assessment of sensitivity of the following elements – scale, enclosure, diversity, texture, form, pattern and prominence of skyline. (e.g. areas which are small scale; open character; display a greater level of unity rather than fragmentation; possess a number of local visual horizons could all have a greater level of sensitivity).

**VISUAL SENSITIVITY**

18.40 The study will also take account of the visual sensitivity of the landscape and consideration as to the way people see the landscape. This depends on; -

**General Visibility**

18.41 This considers the level of visibility (or intervisibility) in the area, based on the nature of the landform and vegetation cover. Landscapes with higher levels of intervisibility are more sensitive to change.

18.42 This will also consider any key views and the contribution the area makes to the visual setting of an area (including visual links to the wider landscape). Areas containing wider panoramas across areas of countryside will be more sensitive.

**Population**

18.43 This element will consider the number (magnitude) of people likely to perceive change in the landscape. The higher the number of people then the greater the level of magnitude.

18.44 The purpose of viewers being within an area (sensitivity) is considered, as the nature of activity will have a bearing on how visually sensitive the landscape is (e.g. residential and recreational pursuits (e.g. walking) are considered to be more sensitive than transient views of people travelling through or where there are views from workplaces).

**Mitigation Potential**

18.45 This aspect considers the likelihood of change being mitigated, without the mitigation measures themselves having an adverse effect (for example, planting trees to screen a development in a large-scale open landscape could have as great an impact as the development itself). The level of sensitivity relates to how appropriate mitigation may be in an area, for example, in an area where mitigation is more appropriate the sensitivity would be lower.

**LANDSCAPE VALUE**

18.46 The value of the landscape is an important element in assessing the overall landscape capacity of an area. These are more subjective, experiential or perceptual aspects that can also reflect the local value of a landscape to a community and includes both designated and non-designated elements. These include; -

**Designations**

18.47 The value of a landscape can be recorded by some form of formal designation – from national down to local level. The nature, number and extent of the designation may also indicate the level of sensitivity of the landscape to change – whether physical, visual or historical and is recorded within the assessment as such.

**Perceptual Aspects**

18.48 The perceptual value of character areas need to be considered within the assessment. The tranquillity of an area can be defined by the extent of noise sources within an area; the absence of views of development and the absence of human activity. The scenic beauty of an area is the subjective value given to an area relating

o pleasing patterns and combinations of landscape features that appeal primarily to visual senses. The value will relate to the presence and extent of these aspects.

**Settlement Edge**

18.49 This aspect refers to the functional (as opposed to visual) role that an area has in relation to the settlement edge. This could relate to whether or not an area defines some form of physical separation between two areas. The level of sensitivity will relate to the presence and extent of these aspects.

**Local Associations**

18.50 There are sometimes parts of landscape areas that have special associations or meanings to a local community and therefore make a contribution to the value of the local landscape. Often, these are not designated but still need to be recorded in some manner in relation to the landscape capacity of the area. Assessing this aspect is an intensive area of work, often requiring extensive local knowledge beyond the resource capability of this study. Therefore, in order to reflect this in the assessment, each area is assumed to have a medium level of sensitivity in relation to cultural associations, except where there is some known aspect that contributes to the value of the area. It is possible that this element could be reviewed as time progresses.

18.51 In relation to this study, the following indicates the likely level of development that a landscape character area could accommodate;-

- Low – The landscape character area could not accommodate areas of new development without a significant and adverse impact on the landscape character. Occasional, small scale development may be possible, providing it has regard to the setting and form of existing settlement and the character and the sensitivity of adjacent landscape character areas.
- Low/ Medium – Thresholds for development are low and development can be accommodated only in limited situations, providing it has regard to the setting and form of existing settlement and the character and the sensitivity of adjacent landscape character areas.
- Medium - Thresholds for change are intermediate with the landscape character area able to accommodate areas of new development in some parts, providing it has regard to the setting and form of existing settlement and the character and sensitivity of adjacent landscape character areas.
- Medium/ High – Thresholds for change are high and the area is able to accommodate larger amounts of development, providing it has regard to the setting • and form of existing settlement and the character and the sensitivity of adjacent landscape character areas.
- High – Thresholds for change are very high and much of the area is able accommodate significant areas of development, providing it has regard to the setting and form of existing settlement and the character and the sensitivity of adjacent landscape character areas.

## VISUAL ASSESSMENT

18.52 Visual effects are concerned wholly with the effect of the development on views, and general visual amenity of people who have (or will have) views of the development. Visual effects may include the following:

- **Visual obstruction**: physical blocking of view;
- **Visual intrusion**: the visual intrusion of the proposed development into an existing view or loss of particular landscape element or features already present in the view; and
- **Cumulative visual effects**: the cumulative or incremental visibility of similar types of development may combine to have cumulative visual effect, this may concern intervisibility where more than one development may be viewed simultaneously from a viewpoint, or occur sequentially where developments may be viewed from a number of differing location, most commonly from a road, rail route or long distance path.

**Sensitivity of Visual Receptors**

18.53 Based on the Guidelines for Landscape and Visual Impact Assessment (GLVIA), the different receptor categories are ranked in order of their sensitivity to visual effects as set out in Table M3. It should be stressed that this table is indicative only as it would be impossible to rigidly tabulate sensitivity to change.

**Nature**

18.54 An impact may be adverse, neutral or beneficial in nature. However, as planting proposed as part of mitigation measures matures, the degree to which the nature of the impact is adverse may reduce, or the degree to which it is beneficial may increase. This is termed as reducing adverse or increasing beneficial.

*Table M3 Sensitivity of Visual Receptors*

| Sensitivity | Category |
|---|---|
| Very High | Including viewer within nationally designated landscape or townscape features (such as the setting of an Area of Outstanding Natural Beauty). Users of such areas are often very aware of the value of views. |
| High | Including viewers looking from windows of their own residential properties or recreational viewers using public rights of way or the setting of a Grade II* listed building. |
| Medium | Including views from people engaged in outdoor sports or recreation. Such users are not wholly focused on the landscape around them. |
| Low | Including people with cars and on other transport routes. |
| Very low | Including people working inside who are not focused on views outside. |

**Magnitude of Visual Effects**

18.55 Magnitude of visual impact is a function of the following factors:

- The distance from receptor to the source;
- The nature of the effect (obstruction, intrusion, cumulative); and
- The degree of change to the existing view caused by the construction of an intrusive feature or the obstruction or modification of an existing view, taking into account the agreed mitigation measures. The overall effect upon visual amenity can range from degradation to enhancement.

18.56 It is important to note that magnitude is not a judgement on whether the impact is positive or negative.

*Table M4 Magnitude of Visual Effects*

| Magnitude | Predicted Visual Effects |
|---|---|
| Severe | The proposals would result in a complete change or obstruction to a view change in the view, which may be visible over a wide area. |
| Major | The proposals become the dominant feature of the scene to which other elements become subordinate and they significantly affect and change its character. |
| Moderate | The proposals may form a visible and recognisable new element within the overall scene and may be readily noticed by the observer or receptor. A significant change in view. |
| Minor | The proposals are visible within the view and have an effect on the quality of the scene. A noticeable change in view. |
| Negligible | The proposals constitute only a minor component of the wider view, which might be missed by the casual observer or receptor. Awareness of the proposals would not have a marked effect on the overall quality of the scene. A barely perceptible change in view. |
| None | No part of the development is discernible. |

**Sensitivity of Receptors** (refer to Tables M1 and M3)

**Magnitude of effect** (refer to tables M2 and M4)

| | Very High | High | Medium | Low | Very Low |
|---|---|---|---|---|---|
| Severe | Severe | Major | Major | Moderate | Moderate |
| | Major | | Moderate | | Minor |
| Major | Major | Major | Moderate | Moderate | Minor |
| | | Moderate | | Minor | |
| Moderate | Major | Moderate | Moderate | Minor | Minor |
| | Moderate | | Minor | | Negligible |
| Minor | Moderate | Moderate | Minor | Minor | Negligible |
| | | Minor | | Negligible | |
| Negligible | Negligible | Negligible | Negligible | Negligible | Negligible |
| None | None | None | None | None | None |

*Table M5: Criteria for the magnitude and nature of visual effects*

| Significance category | Description of Effect |
|---|---|
| Major Beneficial Effect | The project would:<br>Greatly enhance the character (including quality and value) of the landscape; enable the restoration of characteristic features and elements lost as a result of changes from inappropriate management or development; enable a sense of place to be created or greatly enhanced; cause a very noticeable improvement in the existing view; and open up a new view of local landscape dominate the future view. |
| Moderate Beneficial Effect | The project would:<br>Enhance the character (including quality and value) of the landscape; enable the restoration of characteristic features and elements partially lost or diminished as a result of changes from inappropriate management or development; enable a sense of place to be restored; and cause a noticeable improvement in the existing view. |
| Minor Beneficial Effect | The project would:<br>Complement the character (including quality and value) of the landscape; maintain or enhance characteristic features and elements; enable some sense of place to be restored; and cause a barely perceptible improvement in the existing view. This will typically occur where the viewer is at some distance from the development and the development newly appears in the view, but not as a point of principal focus. It will also occur where the development is closely located to the viewpoint but is seen at an acute angle and at the extremity of the overall view. |
| Negligible | The project would:<br>Maintain the character (including quality and value) of the landscape; blend in with characteristic features and elements; enable a sense of place to be retained; and not result in a discernible improvement or deterioration in the existing view. |
| Minor Adverse Effect | The project would:<br>Not quite fit the character (including quality and value) of the landscape; be at variance with characteristic features and elements; detract from a sense of place; and cause a barely perceptible deterioration in the existing view. This will typically occur where the viewer is at some distance from the development and the development newly appears in the view, but not as a point of principal focus. It will also occur where the development is closely located to the viewpoint but is seen at an acute angle and at the extremity of the overall view. |
| Moderate Adverse Effect | The project would:<br>Conflict with the character (including quality and value) of the landscape; have an adverse impact on characteristic features or elements; diminish a sense of place; and cause a noticeable deterioration in the existing view. |
| Major Adverse Effect | The project would:<br>Be at complete variance with the character (including quality and value) of the landscape; degrade or diminish the integrity of a range of characteristic features and elements; damage a sense of place or cause a sense of place to be lost; cause the integrity of characteristic features and elements to be lost; cause a very noticeable deterioration in the existing view; and obstruct an existing view of local landscape and the development will dominate the future view. |

*Matrix M2: Significance values for landscape and visual effects*

| Magnitude and nature of effect | Sensitivity of receptor | | | | |
|---|---|---|---|---|---|
| | Very High | High | Medium | Low | Very Low |
| Major Beneficial | Beneficial | Beneficial | Beneficial | Beneficial | Beneficial |
| Moderate Beneficial | Beneficial | Beneficial | Beneficial | Beneficial | Beneficial |
| Minor Beneficial | Beneficial | Beneficial | Beneficial | Beneficial | Beneficial |
| Negligible | Neutral | Neutral | Neutral | Neutral | Neutral |
| Minor Adverse | Medium | Medium/low | Low | Low | Neutral |
| Moderate Adverse | High | High/medium | Medium | Low | Low |
| Major Adverse | Very High | Very High | High | Medium | Medium |

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