

# Tween Bridge Solar Farm

Environmental Statement
Appendix 6.7: Stainforth & Keedby Canal –
Thorne to Crowles Corridor Study

Planning Act 2008 Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

APFP Regulation 5(2)(a)

**Document Reference: 6.3.6.7** 

August 2025

**Revision 1** 

# APPENDIX 6.7 STAINFORTH & KEADBY CANAL - THORNE TO CROWLE CORRIDOR STUDY

August 2025 V3





## CONTENTS

1. INTRODUCTION

HISTORY

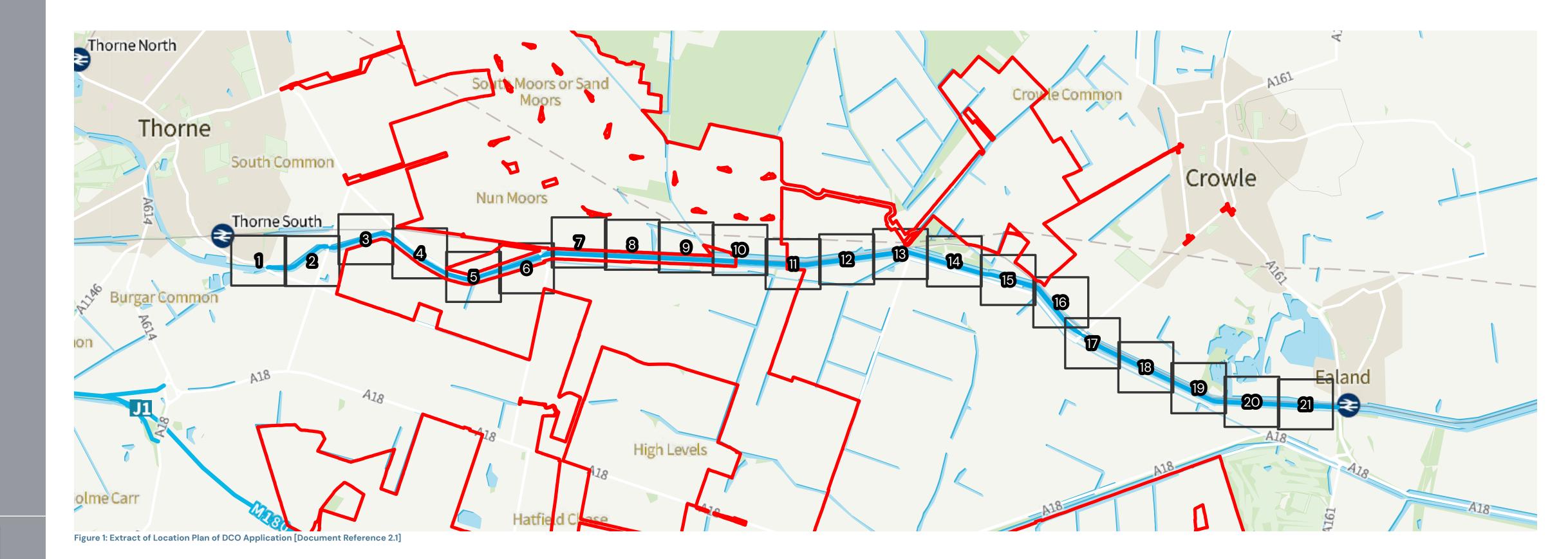
THE ISLE OF AXHOLME GREENWAY

- 2. ENVIRONMENTAL DESIGNATIONS & LANDSCAPE POLICY
- 3. LANDSCAPE CHARACTER & ORDER LIMITS CHARACTER
- 4. DETAILED BASELINE SHEETS AND MITIGATION SHEETS 1-21
- 5. SUMMARY & CONCLUSION

This Canal Corridor Study has been prepared by: Kate Curtis / Liisi Selmet

Pegasus Environment, part of Pegasus Group
5th Floor (East), Capitol, Russell Street, Leeds, LS1 5SF
t: 0113 2878200

Job code	P21 - 3484
Author	LS
Checked by	KC
Date	August 2025



01 - INTRODUCTION STAINFORTH & KEADBY CANAL CORRIDOR STUDY STAINFORTH & KEADBY CANAL CORRIDOR STUDY 01 - INTRODUCTION



Figure 2: Historic photograph of the Stainforth & Keadby Canal

#### 01- INTRODUCTION

- 1.1 The purpose of this document is to examine in detail the section of the Stainforth & Keadby Canal between Thorne and 15 Crowle in the context of the Scheme. Users of the canal, (both boaters and those on the canal tow-path) are identified as sensitive visual receptors and are considered in detail in ES Chapter 6 - Landscape and Visual Impact Assessment (LVIA) [Document Reference 6.2.6]. This document presents a detailed study of the baseline conditions of this section of the canal and the mitigation response to that baseline to inform the assessment of effects.
- 2.2 In terms of inbuilt mitigation of the Scheme, it has first been reviewed in detail in terms of offsets from boundaries and key landscape features. Subsequently, a set of landscape Landscape and Visual Mitigation Strategy [Document **Reference 6.4.6.4**] to further mitigate the effects of the Scheme. These proposals are also considered in the context of the landscape in this document alongside the baseline of the corridor.

#### THE HISTORY OF THE CANAL

- 1.3 The Stainforth & Keadby Canal runs through South Yorkshire and Lincolnshire and is a part of the area's rich industrial history. Stainforth & Keadby Canal came under construction in late 1793 and opened in 1802 after the idea was proposed by James Brindley, to connect the River Don, which flows through Sheffield and Doncaster, to the River Trent. The canal was a centre for boat building between 1858, when Richard Dunston moved his yard to Thorne from Torksey, and 1984 when the yard closed. Dunston's company were pioneers in the use of welded construction and innovative tug propulsion systems.
- The Stainforth and Keadby follows a fairly direct course from west to east, running for 14.9 miles from Bramwith Junction, where it meets the New Junction Canal and the River Don Navigation, to Keadby Lock, where it joins the River Trent. There is a lock at both ends and one part way along at Thorne, which is smaller than the other two. Maximum boat sizes over Medge Hall Bridge the entire canal are 18.8m long by 5.2m wide. Boats can draw 2.21m and headroom is restricted to 3.3m.
- The Transport Acts of 1968 and 1983 divided British canals into commercial waterways, which were still carrying commercial traffic, cruising waterways, which had potential for leisure use, and remainder waterways, for which no economic use could be seen at the time. The Stainforth and Keadby was designated as a commercial waterway, and traffic was restricted to working boats carrying freight. With the steady demise of freight traffic, British Waterways (now the Canal and Rivers Trust encouraged the use of the canals for leisure cruising, walking and fishing, and were later recognised their environmental value.

#### How it is managed today

- proposals has been developed, as shown in Figure 6.4 2.6 The Stainforth & Keadby Canal is now often regarded as part of the Sheffield & South Yorkshire Navigation composed of Sheffield & Tinsley Canal, the River Don Navigation and Stainforth & Keadby Canal and is managed by the Canal and River Trust.
  - 1.7 The canal is home to coarse fisheries along several stretches



Figure 3: Extract of the Historic OS Map showing a section of the Stainforth & Keadby Canal between Maud's Bridge and

of the route, attracting anglers throughout the year. Recent years have seen the development of Stainforth Waterside Regeneration Group which has been principle in sourcing funds for local canal improvements and the inception of an annual water festival which attracts bargees from far and wide. The canal is also managed by the Don Catchment River Trust, a volunteer led organisation which helps to protect the heritage, ecology, history and amenity values of the rivers and canals within the Don catchment, which encompasses water that flows from the hills of the Pennines and the Peak District, all the way to the course of the River Don.

#### THE ISLE OF AXHOLME GREENWAY

1.8 The Isle of Axholme Greenway has enabled residents to explore more of the Isle Landscape. Using the industrial infrastructure of the Isle, either running alongside the Keadby and Stainforth Canal or along the old Axholme Joint Railway Line, residents can learn about their local heritage from interpretation boards dotted along the route. Figure 6 illustrates this, showing an extract of Greenway mapping that highlights the Greenway route along the canal corridor between Thorne and Crowle. The route is also shown on

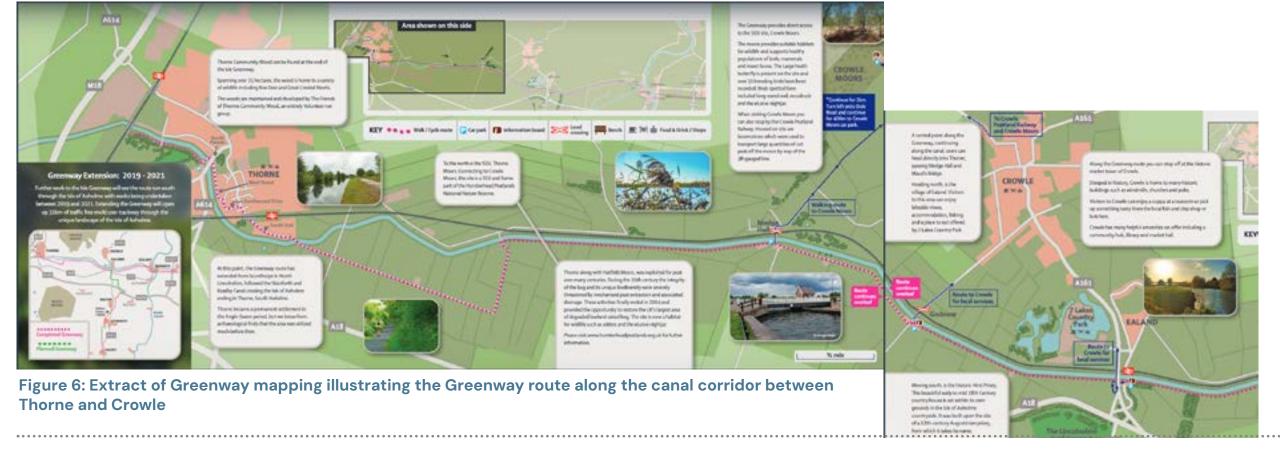


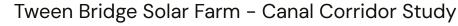
Figure 4: The Greenway signage along canal the corridor near **Godnow Bridge** 

Figure 3.1 - Environmental Designations Plan [Document Reference 6.4.3.1]. The Greenway route passes through the parish of Gunness and crosses the River Trent to the village of Keadby. Linking the parishes of Keadby and Althorpe to Gunness is the King George V Bridge - known locally as Keadby Bridge. The bridge provides passage between the Isle of Axholme and North Lincolnshire. The bridge was opened in 1916 with twin rail lines, a road and foot path, and at the time was at the cutting edge of bridge engineering.

1.9 The Greenway also provides direct access to the SSSI Order Limits, Crowle Moors. The moors provides habitats for wildlife and supports healthy populations of birds, mammals and insects. The Large heath butterfly is present on the Order Limits and over 30 breeding birds have been recorded. Birds spotted have included long-eared owl, woodcock and the Figure 5: Greenway signage along canal corridor near Crowle elusive night jar. There are plans to extend the Greenway South from Ealand to Belton, Epworth and Haxey.













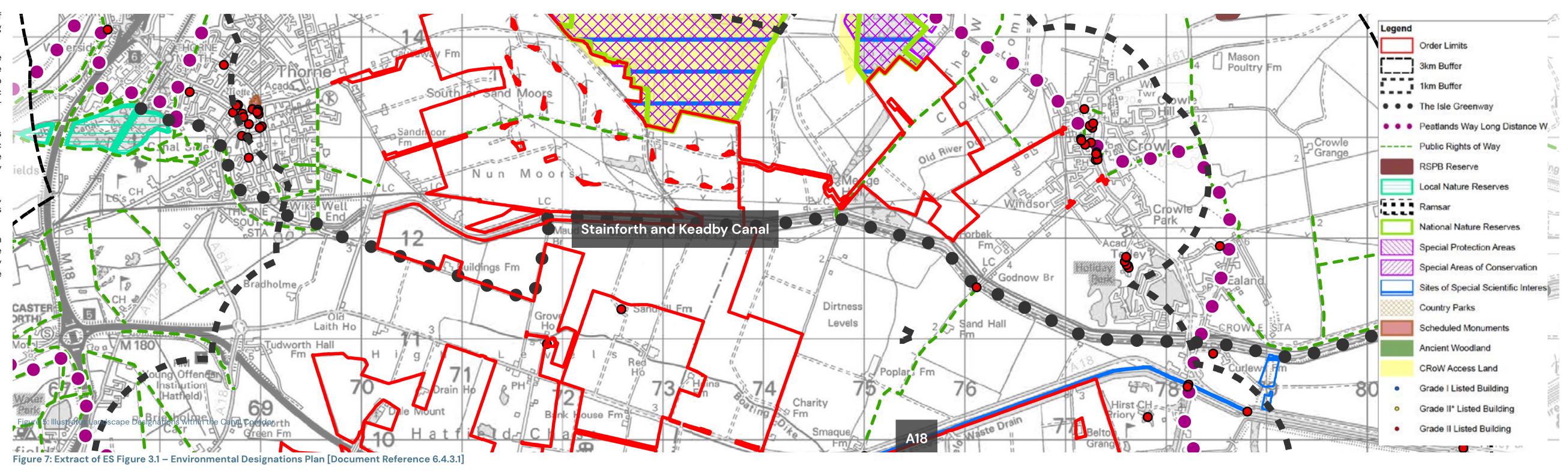




02 - LANDSCAPE DESIGNATIONS & POLICY STAINFORTH & KEADBY CANAL CORRIDOR STUDY 02 - LANDSCAPE DESIGNATIONS & POLICY STAINFORTH & KEADBY CANAL CORRIDOR STUDY

#### 02 - LANDSCAPE DESIGNATIONS

- 2.1 The Stainforth and Keadby Canal Corridor is a landscape of ecological, recreational, and cultural significance, connecting key natural and heritage features across the region.
- 2.2 To the north, Thorne and Crowle Moors form part of the Humberhead Peatlands National Nature Reserve (NNR)—the largest lowland raised mire in England. The moors are also designated as a Ramsar Site's and Site of Special Scientific Interest (SSSI), reflecting their international importance for biodiversity and peatland restoration.
- 2.3 Thorne Country Park, located within Thorne Moors, provides a gateway to the peatlands and supports wildlife and public access. Within Thorne Market Town, a Local Nature Reserve offers accessible green space and habitats for community
- 2.4 The Thorne Conservation Area, with its listed buildings, showcases the town's historic connection to the canal and its boat building heritage.
- 2.5 Recreational routes such as the Isle of Axholme Greenway run alongside the canal, while the Peatlands Way Long Distance Walk intersects it near Crowle. These are complemented by a network of public rights of way that improve access to the area's natural and cultural heritage.











03 - LANDSCAPE CHARACTER STAINFORTH & KEADBY CANAL CORRIDOR STUDY 03 - LANDSCAPE CHARACTER STAINFORTH & KEADBY CANAL CORRIDOR STUDY

#### 03 - LANDSCAPE CHARACTER

- 3.1 The Stainforth and Keadby Canal corridor, extending from Thorne in Doncaster to Crowle in North Lincolnshire, traverses a diverse and historically rich landscape. This section provides an overview of the landscape character areas through which the canal passes, drawing on national and local assessments to describe the physical, ecological, and perceptual qualities of the surrounding environment.
- 3.2 The corridor lies within the Humberhead Levels National Character Area (NCA), a flat, low-lying landscape shaped by centuries of drainage and agricultural use. It also intersects more detailed local character areas, including the Thorne and Hatfield Peat Moorlands in Doncaster and the Trent Levels in North Lincolnshire. Each of these areas contributes distinct features and values to the overall character of the canal corridor, from the expansive openness of drained arable land to the semi-enclosed structure of wooded farmland and the ecological significance of lowland raised bogs. The following sections explore these character areas in more detail, highlighting their defining characteristics, land use patterns, visual qualities, and landscape strategies.

Tween Bridge Solar Farm - Canal Corridor Study

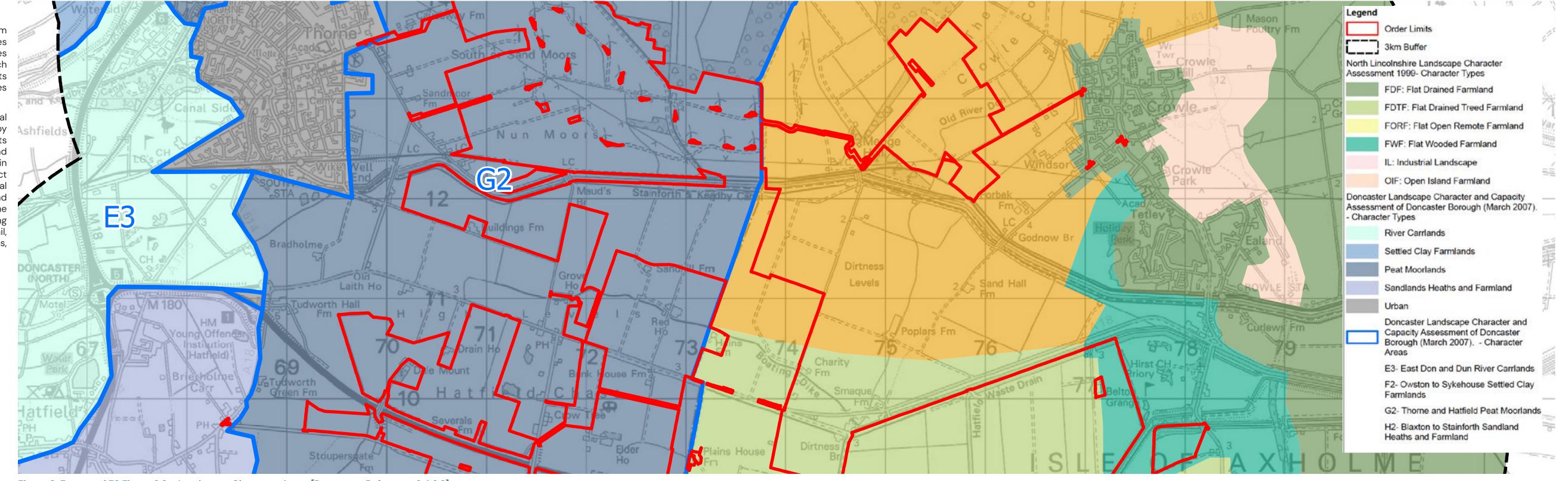
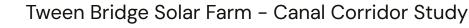


Figure 8: Extract of ES Figure 6.2 – Landscape Character Areas [Document Reference 6.4.6.2]







03 - LANDSCAPE CHARACTER STAINFORTH & KEADBY CANAL CORRIDOR STUDY STAINFORTH & KEADBY CANAL CORRIDOR STUDY 03 - Order Limits CHARACTER



Figure 9: Excerpt from the National Character Area Profile for the Humberhead Levels (NCA 39), published by Natural England (2012). The approximate Order Limits area is indicated by a red square.

#### National Character Area (NCA)

3.3 The Order Limits lies within the central part of the Humberhead Levels National Character Area (NCA), a predominantly flat. low-lying landscape characterised by large, regular, geometric arable fields delineated by drainage ditches. These ditches serve not only as essential drainage infrastructure but also as important ecological corridors supporting species movement. Much of the land is at or below the mean high-water mark and is actively managed through drainage systems. The landscape bears extensive evidence of historical drainage, particularly from the 17th century, visible in the network of canals, dykes, and bridges. Views across the area are typically long and uninterrupted, with expansive skies. Vertical elements such as wind turbines are visually prominent, yet despite the presence of settlements, motorways, and major roads, a strong sense of remoteness persists—especially across Thorne and Hatfield Moors.

Tween Bridge Solar Farm - Canal Corridor Study



Figure 10: Excerpt from the Doncaster Landscape Character and Capacity Study, showing the G2: Thorne and Hatfield Peat Moorlands Landscape Character Area, as identified in March 2007.

#### Western Canal Corridor - Doncaster

3.4 The western portion of the canal corridor is situated within 3.5 The eastern section of the canal corridor lies within the the Peat Moorlands Character Type, specifically the G2: Thorne and Hatfield Peat Moorlands LCA, as identified in the Doncaster Landscape Character and Capacity Study (March 2007). This area is recognised as a highly distinctive and highquality landscape, comprising intact farmland with minimal man-made intrusion and the significant lowland raised bogs of Thorne and Hatfield Moors. The landscape is described as large-scale, flat, and low-lying, with extensive arable farming and occasional pasture beyond the moors. Fields are typically large and geometrically arranged in a regular grid, bounded by straight drainage ditches, with occasional hedgerows and mature trees. Settlement is sparse, consisting mainly of isolated farmsteads with associated agricultural buildings and shelter-belt planting. Thorne is the only significant builtup area within this LCA. Despite some disturbance near major transport corridors, the overall landscape value remains high.



Figure 11: Excerpt from the North Lincolnshire Landscape Character Assessment, showing the Trent Levels, as defined by JBA Consulting (1999). The approximate Order Limits area is indicated by a red square.

#### Eastern Canal Corridor - North Lincolnshire

- Trent Levels, encompassing two distinct but interconnected Landscape Character Types: Flat Open Remote Farmland and Flat Wooded Farmland, as defined in the North Lincolnshire Landscape Character Assessment (JBA Consulting, 1999).
- 3.6 The Flat Open Remote Farmland is characterised by its level, low-lying terrain and expansive arable fields, which contribute to a strong sense of openness and exposure. Historically, this area was remote and sparsely populated, but the introduction of vertical infrastructure such as wind turbines, particularly around Medge Hall, has diminished this sense of isolation. The landscape strategy for this area focuses on preserving its open character and resisting further encroachment by settlements or infrastructure. The flatness and minimal vegetation make the area especially sensitive to visual change, and maintaining its uninterrupted rural quality is a key objective.
- 3.7 In contrast, the Flat Wooded Farmland presents a more enclosed and structured landscape, defined by mediumsized arable fields, fragmented hedgerows, and scattered blocks of deciduous woodland. Tree-lined avenues and remnants of historic woodland contribute to a semi-enclosed character, while infrastructure such as the M180 and major



Figure 12: south-facing view from the Canal Path across the open, flat agricultural landscape.

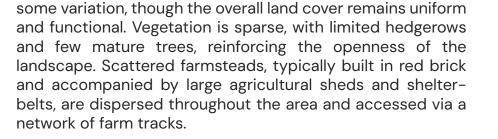
drainage channels intersect the area. Although some recent planting, particularly on motorway embankments, introduces non-native species, these areas still offer valuable habitat and visual screening. The strategy here is to enhance the existing woodland and hedgerow structure using locally appropriate species, manage even-aged woodland for biodiversity, and integrate development through sensitive planting.

#### Landscape Character: Stainforth and Keadby Canal Corridor (Thorne to Crowle)

- 3.8 The Stainforth and Keadby Canal corridor, extending from Thorne to Crowle, is characterised by flat, low-lying terrain and a distinctly agricultural identity. Located within the historic Humberhead Levels, the landscape bears the legacy of extensive land drainage and reclamation efforts dating back to the 17th century. The land lies at approximately O metres Above Ordnance Datum (AOD), and the canal forms a linear, engineered feature running west to east through a predominantly open and expansive rural setting. Vegetation lines the canal intermittently, softening its edges and contributing to the visual character of the corridor.
- 3.9 Land use is dominated by intensive arable farming, with large, geometric fields defined by straight drainage ditches. Occasional sheep grazing and horse paddocks introduce



Figure 13: Northward view across a broad, relatively open landscape featuring man-made vertical structures.



located to the north-east of Medge Hall Bridge, west of the 7 Lakes Country Park, and around the margins of Thorne Moors. A linear belt of trees also follows the South Humberside Main Line railway, offering partial visual containment. Despite these features, the landscape remains relatively open, affording extensive views across the flat terrain. These views are partially interrupted by vertical infrastructure such as wind turbines and electricity pylons, which introduce prominent man-made elements into the skyline. The perceptual experience of the landscape is further influenced by major transport corridors, notably the A18 and M180 motorway. These routes contribute to visual clutter and introduce movement and noise.

3.10 Woodland cover is limited, with the most notable blocks

3.11 The canal corridor supports a range of recreational activities, including walking, cycling, fishing, boating, and birdwatching. The southern towpath comprises both surfaced and unsurfaced sections, while an unsurfaced offside path runs



Figure 14: Looking north-west towards Thorne Moors, with canal-side reeds in the foreground partially obscuring views towards the scheme.

along the northern bank between Wykewell and Maud's Bridge. The route broadly aligns with the Isle of Axholme Greenway and is intersected by several Public Rights of Way, enhancing accessibility. The Peatlands Way long-distance path also connects with the corridor near Crowle. To the north, Thorne Moors-internationally significant lowland raised bogs currently undergoing ecological restoration form an important ecological backdrop. However, they are largely screened from the canal by intervening vegetation. From the canal corridor, only the mature deciduous woodland along the southern boundary of the moors is typically visible, limiting direct views of the bog landscape.

3.12 The visual character of the corridor is defined by its flat topography, intermittent canal-side vegetation, and the interplay between natural and man-made elements. Intermittent vegetation along the canal contributes to a degree of visual enclosure, limiting outward views across the landscape. Although woodland is limited, it often forms a backdrop to views across the canal. The landscape retains a sense of tranquillity and remoteness in certain areas, though this is locally disrupted by infrastructure such as pylons, wind turbines, and the railway. Sensitive visual receptors include local residents, users of the canal and associated recreational routes, as well as those experiencing the landscape from the









03 - Order Limits CHARACTER STAINFORTH & KEADBY CANAL CORRIDOR STUDY



Figure 15: View to the north in the direction of Crowle Bridge



Figure 16: Looking north from Wykewell Bridge



Figure 17: View to the north from Maud's Bridge, overlooking the surrounding landscape

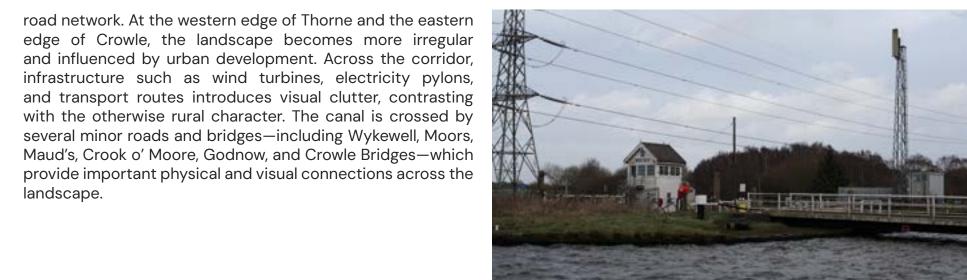


Figure 18: Northeast-facing view in the direction of Crook o' Moore Bridge.



Figure 19: Looking north from the Canal Path towards electricity pylons with a wooded backdrop



Figure 20: View looking west-north-west from the Stainforth and Keadby Canal towpath, illustrating the existing visual context in the vicinity of Maud's Bridge (Extract from Appendix 6.4 – Photomontage Visualisations [Document Reference 6.3.6.4])



Figure 22: View looking west-northeast from the Stainforth and Keadby Canal towpath, illustrating the existing landscape character near Maud's Bridge (Extract from Appendix 6.4 – Photomontage Visualisations [Document Reference 6.3.6.4])



04 - DETAILED BASELINE & MITIGATION SHEETS STAINFORTH & KEADBY CANAL CORRIDOR STUDY 04 - DETAILED BASELINE & MITIGATION SHEETS STAINFORTH & KEADBY CANAL CORRIDOR STUDY

#### 04 - INTRODUCTION

- 4.1 The Stainforth & Keadby Canal, traversing South Yorkshire and North Lincolnshire, is a significant inland waterway that links the River Don Navigation to the River Trent. The section evaluated in this Canal Assessment Study extends approximately 9 kilometres, running in a west to southeast direction from Thorne Market Town to the vicinity of Crowle Market Town.
- 4.2 Historically, the canal played a pivotal role in the industrial development of the region during the 19th century. Although its commercial importance diminished with the rise of the railway network, the canal has retained considerable heritage and ecological value. In recent decades, it has been re-purposed as a recreational and conservation corridor, supporting recreational activities, leisure boating and environmental restoration initiatives.
- 4.3 The canal is divided into 21 assessment sections, each accompanied by a brief description of visual experiences from the perspective of pedestrians along the towpath. For each section, a landscape baseline is established, and where applicable, a mitigation strategy is proposed to address visual effects.

Tween Bridge Solar Farm - Canal Corridor Study



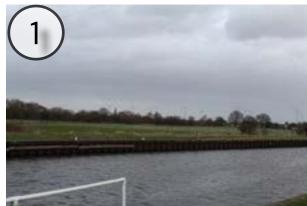
Figure 23: Illustrates the Stainforth & Keadby Canal, focusing on the 21 assessment sections that form the basis of this Canal Study











Photograph 1: North





Photograph captured from the Wykewell Bridge facing north.



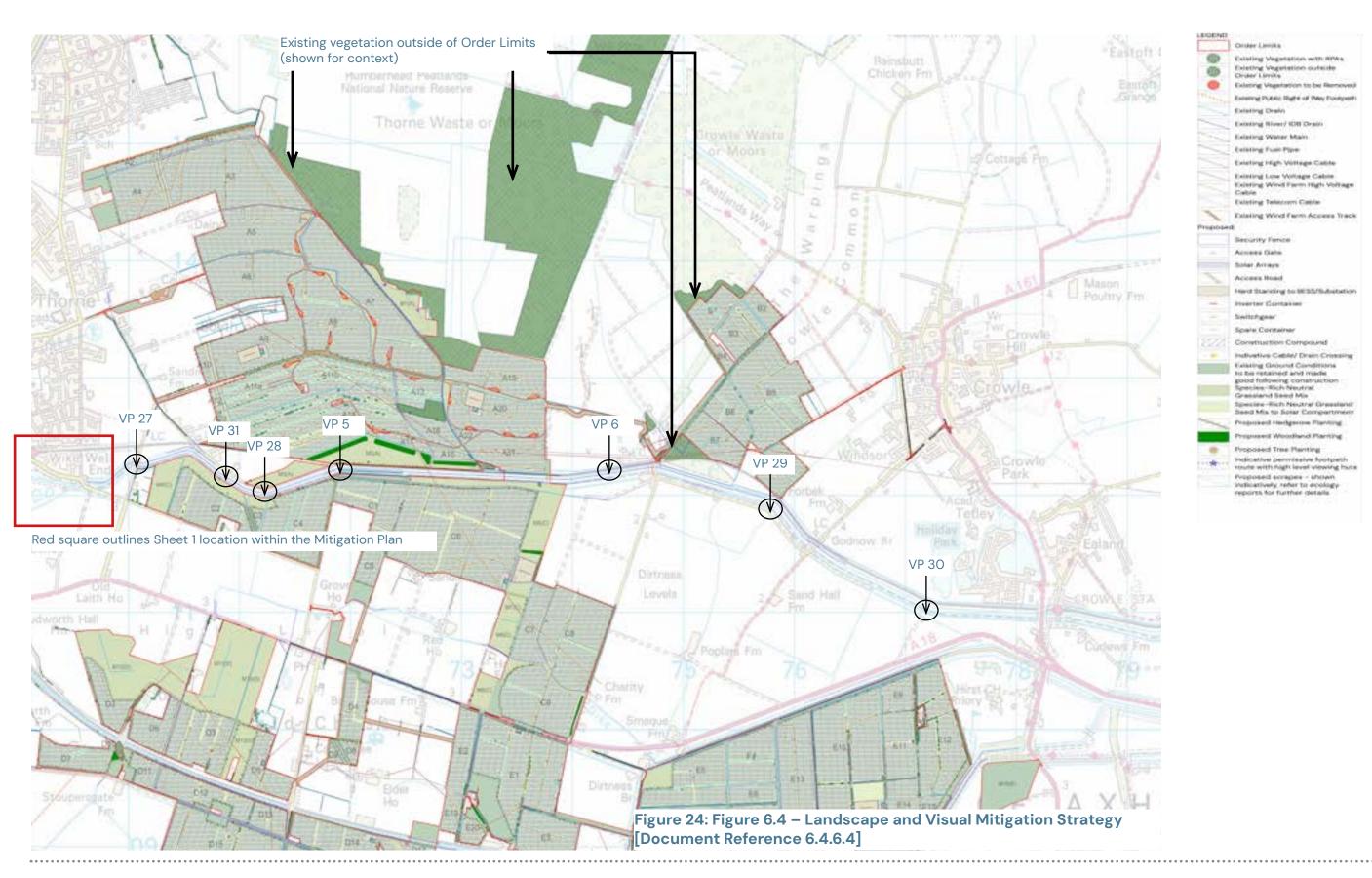
Photograph 1: South

Views are partially filtered by the



# Tween Bridge Solar Farm - Canal Corridor Study DESIGN | ECONOMICS | ENVIRONMENT | HERITAGE | LAND & PROPERTY | PLANNING | TRANSPORT & INFRASTRUCTURE Copyright Pegasus Planning Group Ltd. Crown copyright, All rights reserved. Emapsite Licence number 1000031673. Ordnance Survey Copyright Licence number 100042093. Promap Licence number 100042049. Pegasus accepts no liability for any use of this document other than for its original purpose, or by the original client, or following Pegasus' express agreement to such use. Toll3 287 8200 http://www.pegasusgroup.co.uk

# **PEGASUS** GROUP



#### Tween Bridge Solar Farm - Canal Corridor Study





Photograph 3: North



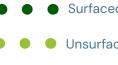
Photograph 3: South









































Photograph 2: South

Photograph 4: North

Photograph 4: South

(2)



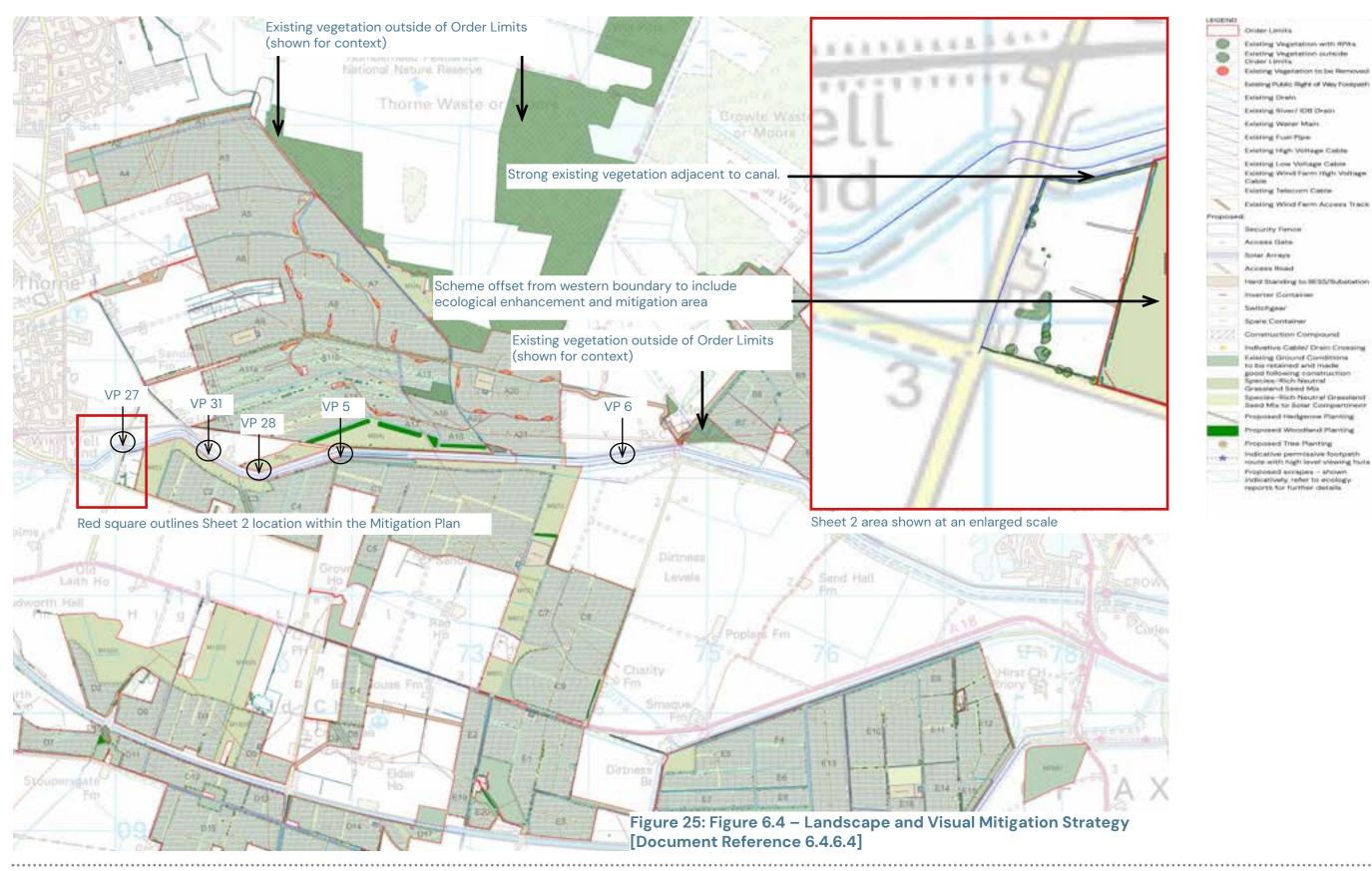




DESIGN | ECONOMICS | ENVIRONMENT | HERITAGE | LAND & PROPERTY | PLANNING | TRANSPORT & INFRASTRUCTURE Copyright Pegasus Planning Group Ltd. Crown copyright, All rights reserved. Emapsite Licence number 0100031673. Ordnance Survey Copyright Licence number 100042093. Promap Licence number 100020449. Pegasus accepts no liability for any use of this document other than for its original purpose, or by the original client, or following Pegasus' express agreement to such use. T 0113 287 8200 http://www.pegasusgroup.co.uk



# norne Railway Station approx. 1 miles



#### Tween Bridge Solar Farm - Canal Corridor Study

DESIGN | ECONOMICS | ENVIRONMENT | HERITAGE | LAND & PROPERTY | PLANNING | TRANSPORT & INFRASTRUCTURE Copyright Pegasus Planning Group Ltd. Crown copyright, All rights reserved. Emapsite Licence number 0100031673. Ordnance Survey Copyright Licence number 100042093. Promap Licence number 100020449. Pegasus accepts no liability for any use of this document other than for its original purpose, or by the original client, or following Pegasus' express agreement to such use. T 0113 287 8200 http://www.pegasusgroup.co.uk



Existing Vegetation with RPAs Existing Vegetation outside Order Limits

Existing Drain Existing River/ IDB Drain Extering Water Main Existing Full Pipe **Existing High Wittings Calife** Existing Low Voltage Cabre

Security Fence Access Galle Stoler Arrays Access Board

Inventor Container

Switchgeer Spale Container Construction Compound

Exceeding Public Right of Way Poolgath

Existing Wind Farm High Voltage Cable Existing Telecom Cable Existing Wind Ferm Access Track

Heart Standing to 8655/Substation

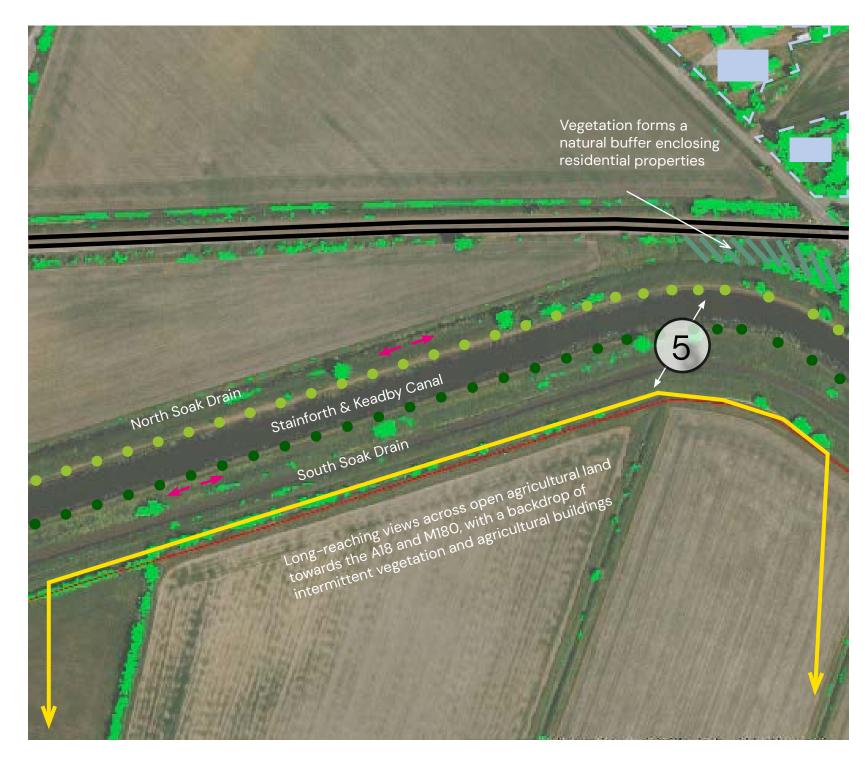
Indivative Cable/ Drain Creasing Existing Ground Conditions to be retained and made

good following construction Species Sich Neutral Grassland Seed Mis Species Sich Neutral Cressland Seed Mix to Solar Compartment Projectived Hedgerow Planting Progressed Woodland Planting Proposed Tree Planting

STAINFORTH & KEADBY CANAL CORRIDOR STUDY STAINFORTH & KEADBY CANAL CORRIDOR STUDY 04 - DETAILED BASELINE SHEET 3. 04 - DETAILED MITIGATION SHEET 3.



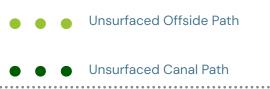
Photograph 5: North





Photograph 5: South





Tween Bridge Solar Farm - Canal Corridor Study













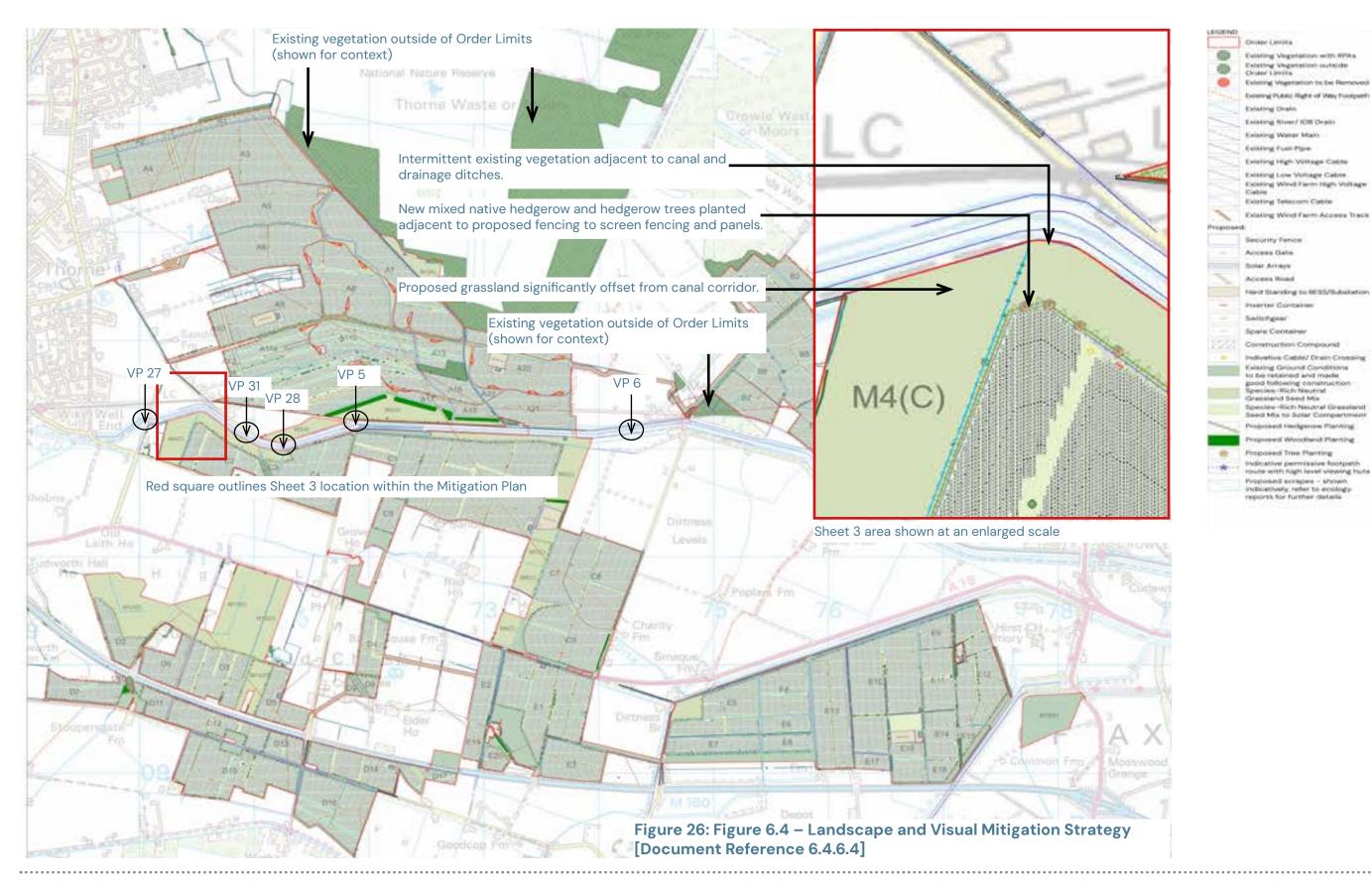






Existing Significant Vegetation





#### Tween Bridge Solar Farm - Canal Corridor Study

DESIGN | ECONOMICS | ENVIRONMENT | HERITAGE | LAND & PROPERTY | PLANNING | TRANSPORT & INFRASTRUCTURE Copyright Pegasus Planning Group Ltd. Crown copyright, All rights reserved. Emapsite Licence number 0100031673. Ordnance Survey Copyright Licence number 100042093. Promap Licence number 100020449.

Pegasus accepts no liability for any use of this document other than for its original purpose, or by the original client, or following Pegasus' express agreement to such use. T 0113 287 8200 http://www.pegasusgroup.co.uk



Exceeding Public Right of Way Poolgath

Existing High Vittige Cable

Existing Low Voltage Cabre Existing Wind Farm High Voltage Cable Existing Telecom Cable

Heart Standing to 8655/Substation

good following construction Species Rich Neutral Grassland Seed Mis Species - Rich Neutral Grassland Seed Mix to Solar Compartme Proposed Hedgerow Planting

Proposed Tree Planting

Existing Drain Existing River/ IDB Drain Extering Water Main Existing Full Pipe

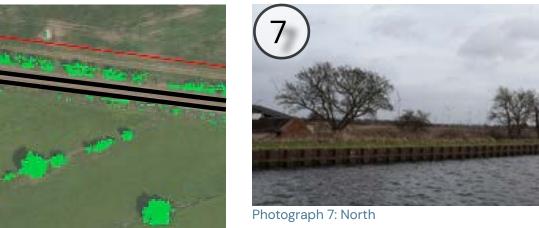
Security Fence Access Galle Stoter Arrays Access Boad

> Inverter Container Switchgeer

Spale Container Construction Compound Indivative Cable/ Drain Crossing Existing Ground Conditions to be retained and made



Photograph 6: North





Photograph 6: South



rection of Views • • Unsurfaced Path



Tween Bridge Solar Farm - Canal Corridor Study























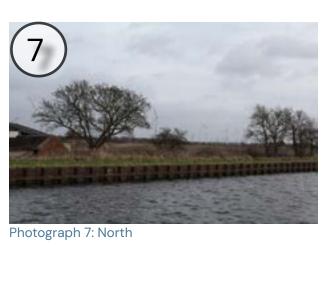






Existing Significant Vegetation







Photograph 7: South





# Substantial offset from canal corridor; land to form ecological enhancement and mitigation area. Existing intermittent vegetation is present along the canal encing and edge of proposed solar farm screened with mixed ‴ native hedgerow planting and native hedgerow trees. xisting vegetation outside of Order Limits shown for context) Sheet 4 area shown at an enlarged scale Red square outlines Sheet 4 location within the Mitigation Plan Figure 27: Figure 6.4 – Landscape and Visual Mitigation Strategy [Document Reference 6.4.6.4]

Fencing and edge of proposed solar farm screened with mixed

native hedgerow planting and native hedgerow trees.

## Tween Bridge Solar Farm - Canal Corridor Study



Existing vegetation outside of Order Limits

(shown for context)



Existing Vegetation with RPNs

Existing Vegetation outside

Croser Limits

 Exleting Visgeration to be Removed Exceeding Public Right of Way Poolgath

> Existing Drain Existing River/ IDB Drain Extering Werer Main

Existing Furt Pipe

Security Fence Access Galle Soler Arrays

Access Boad

Inventor Container Switchgeer

Spale Container

Proposed Tree Planting indicative permissive footpath toute with high level wewing buts Proposed scrapes - shown indicatively, refer to ecology reports for further details.

Construction Compound Indivative Cable/ Drain Crossing Existing Ground Conditions to be retained and made

good following construction Species Sich Neutral Grassland Seed Mix Species Sich Neutral Grassland Seed Mix to Solar Compartment Projectived Hedgerow Planting

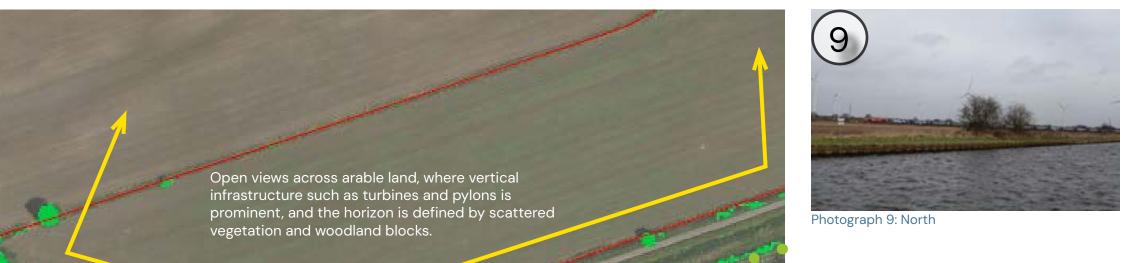
**Existing High Wittings Calife** Existing Low Voltage Cabre Existing Wind Farm High Voltage Cable Existing Telecom Cable

Existing Wind Ferm Access Track

Heart Standing to 8655/Substation



Photograph 8: North



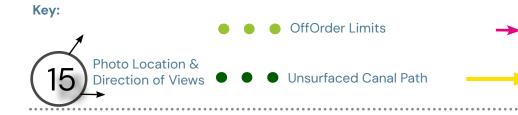


Main Direction of Views

Open Views



Photograph 9: South



Red line Boundary

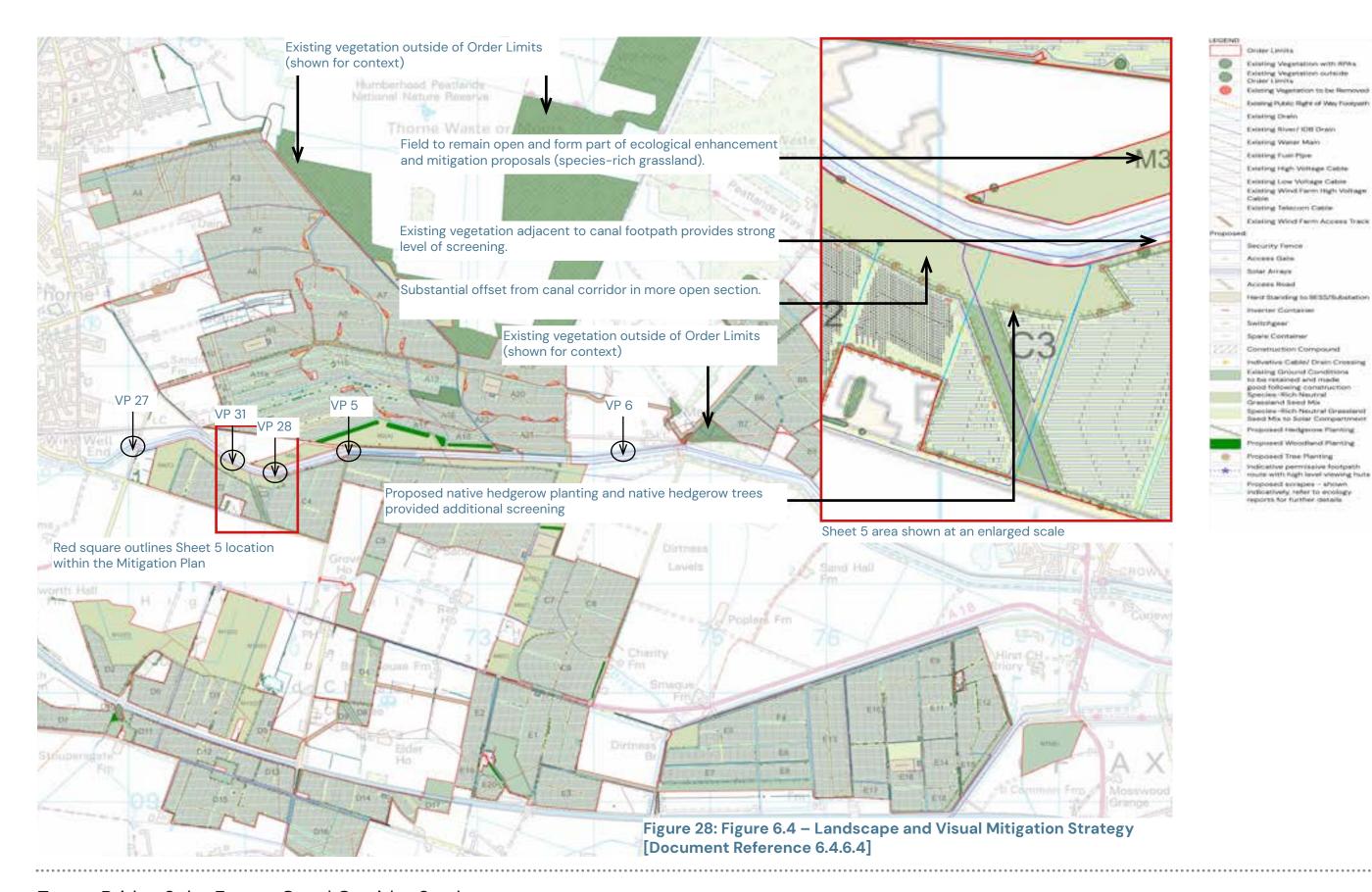
Existing Significant Vegetation Vegetative Visual Barrier

## Tween Bridge Solar Farm - Canal Corridor Study

DESIGN | ECONOMICS | ENVIRONMENT | HERITAGE | LAND & PROPERTY | PLANNING | TRANSPORT & INFRASTRUCTURE

Copyright Pegasus Planning Group Ltd. Crown copyright, All rights reserved. Emapsite Licence number 0100031673. Ordnance Survey Copyright Licence number 100042093. Promap Licence number 100020449. Pegasus accepts no liability for any use of this document other than for its original purpose, or by the original client, or following Pegasus' express agreement to such use. T 0113 287 8200 http://www.pegasusgroup.co.uk





## Tween Bridge Solar Farm - Canal Corridor Study



STAINFORTH & KEADBY CANAL CORRIDOR STUDY STAINFORTH & KEADBY CANAL CORRIDOR STUDY 04 - DETAILED BASELINE SHEET 6. 04 - DETAILED MITIGATION SHEET 6.



Photograph 10: North

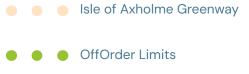


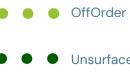
Photograph 10: South



Photograph 11: North





































Copyright Pegasus Planning Group Ltd. Crown copyright, All rights reserved. Emapsite Licence number 0100031673. Ordnance Survey Copyright Licence number 100042093. Promap Licence number 100020449. Pegasus accepts no liability for any use of this document other than for its original purpose, or by the original client, or following Pegasus' express agreement to such use. T 0113 287 8200 http://www.pegasusgroup.co.uk



Main Direction of Views

tograph captured from

Generally open views of turbines,

with woodland forming the horizon

















Photograph 12: North

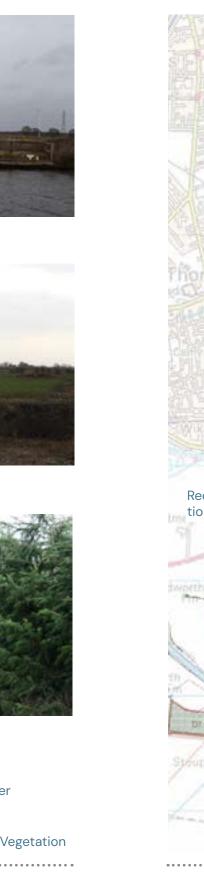
Photograph 12: South

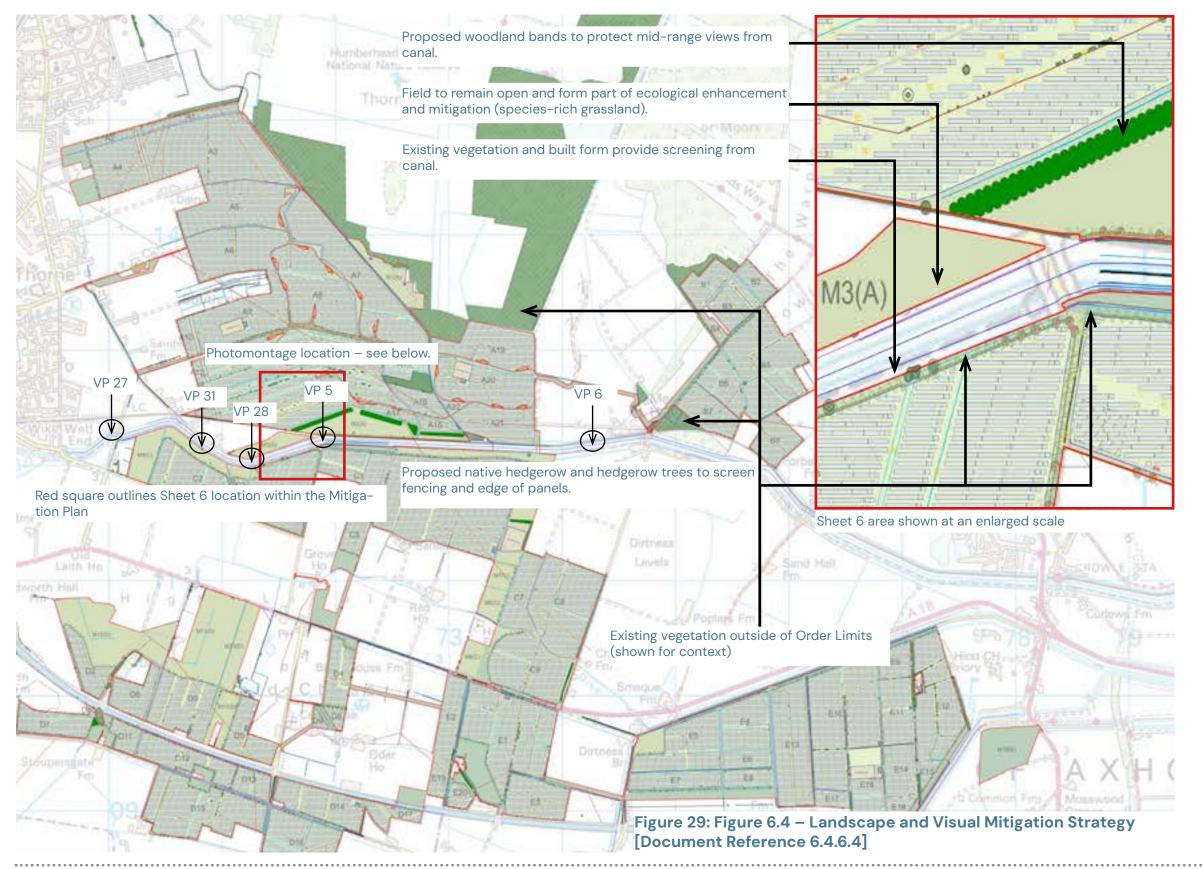












# Tween Bridge Solar Farm - Canal Corridor Study

DESIGN | ECONOMICS | ENVIRONMENT | HERITAGE | LAND & PROPERTY | PLANNING | TRANSPORT & INFRASTRUCTURE Copyright Pegasus Planning Group Ltd. Crown copyright, All rights reserved. Emapsite Licence number 0100031673. Ordnance Survey Copyright Licence number 100042093. Promap Licence number 100020449. Pegasus accepts no liability for any use of this document other than for its original purpose, or by the original client, or following Pegasus' express agreement to such use. T 0113 287 8200 http://www.pegasusgroup.co.uk



Existing Vegetation with RPNs Existing Vegetation outside Order Limits

 Exleting Visgeration to be Removed Exercise Public Right of Way Poolpath

> Existing River/ IDB Drain Extering Water Main

**Existing High Wittings Calife** 

Existing Low Voltage Cabre

Existing Wind Farm High Voltage Cable Existing Telecom Cable Existing Wind Ferm Access Track

Heart Standing to 8655/Substation

good following construction Species Sich Neutral Grassland Seed Mix Species Sich Neutral Grassland Seed Mix to Solar Compartment Projectived Hedgerow Planting Proposed Woodland Planting Proposed Tree Planting indicative permissive footpath toute with high level wewing buts

Proposed scrapes - shown indicatively refer to ecology reports for further details

Existing Furnition

Security Fence

Inverter Container Switchgeer Spale Container Construction Compound Indivative Cable/ Drain Creasing

Existing Ground Conditions to be retained and made

Access Galle Stoler Arrays Access Boad

Existing Drain



Photo showing the existing view from the Stainforth and Keadby Canal towpath, looking northwest (Extract from Appendix 6.4 – Photomontage Visualisations [Document Reference 6.3.6.4])

Photomontage showing the view from the Stainforth and Keadby Canal towpath, looking northwest, after 15 years of vegetation growth (Extract from Appendix 6.4 – Photomontage Visualisations [Document Reference 6.3.6.4])



Photo showing the existing view from the Stainforth and Keadby Canal towpath, looking west-north-west, after from Appendix 6.4 – Photomontage Visualisations [Document Reference 6.3.6.4])

15 years of vegetation growth (Extract from Appendix 6.4 – Photomontage Visualisations [Document Reference



Photo showing the existing view from the Stainforth and Keadby Canal towpath, looking west northeast (Extract from Appendix 6.4 – Photomontage Visualisations [Document Reference 6.3.6.4])

Photomontage showing the view from the Stainforth and Keadby Canal towpath, looking northeast, after 15 years of vegetation growth (Extract from Appendix 6.4 – Photomontage Visualisations [Document Reference 6.3.6.4])

DESIGN | ECONOMICS | ENVIRONMENT | HERITAGE | LAND & PROPERTY | PLANNING | TRANSPORT & INFRASTRUCTURE





Photo showing the existing view from the Stainforth and Keadby Canal towpath, looking southeast (Extract from Appendix 6.4 – Photomontage Visualisations [Document Reference 6.3.6.4])

Photomontage showing the view from the Stainforth and Keadby Canal towpath, looking southeast, after 15 years of vegetation growth (Extract from Appendix 6.4 – Photomontage Visualisations [Document Reference 6.3.6.4])



Photo showing the existing view from the Stainforth and Keadby Canal towpath, looking southeast (Extract from Appendix 6.4 – Photomontage Visualisations [Document Reference 6.3.6.4])

Photomontage showing the view from the Stainforth and Keadby Canal towpath, looking southeast, after 15 years of vegetation growth (Extract from Appendix 6.4 – Photomontage Visualisations [Document Reference 6.3.6.4])



Photo showing the existing view from the Stainforth and Keadby Canal towpath, looking south-south-west (Extract from Appendix 6.4 – Photomontage Visualisations [Document Reference 6.3.6.4])

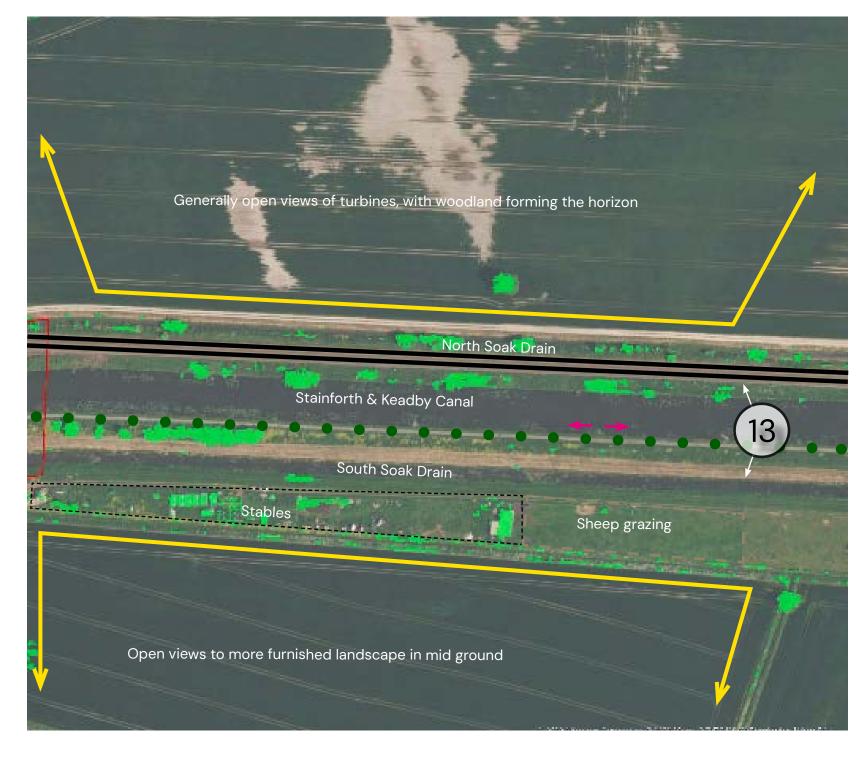
Photomontage showing the view from the Stainforth and Keadby Canal towpath, looking south-south-west, after 15 years of vegetation growth (Extract from Appendix 6.4 – Photomontage Visualisations [Document Reference 6.3.6.41)

#### Tween Bridge Solar Farm - Canal Corridor Study





Photograph 13: North





Photograph 13: South

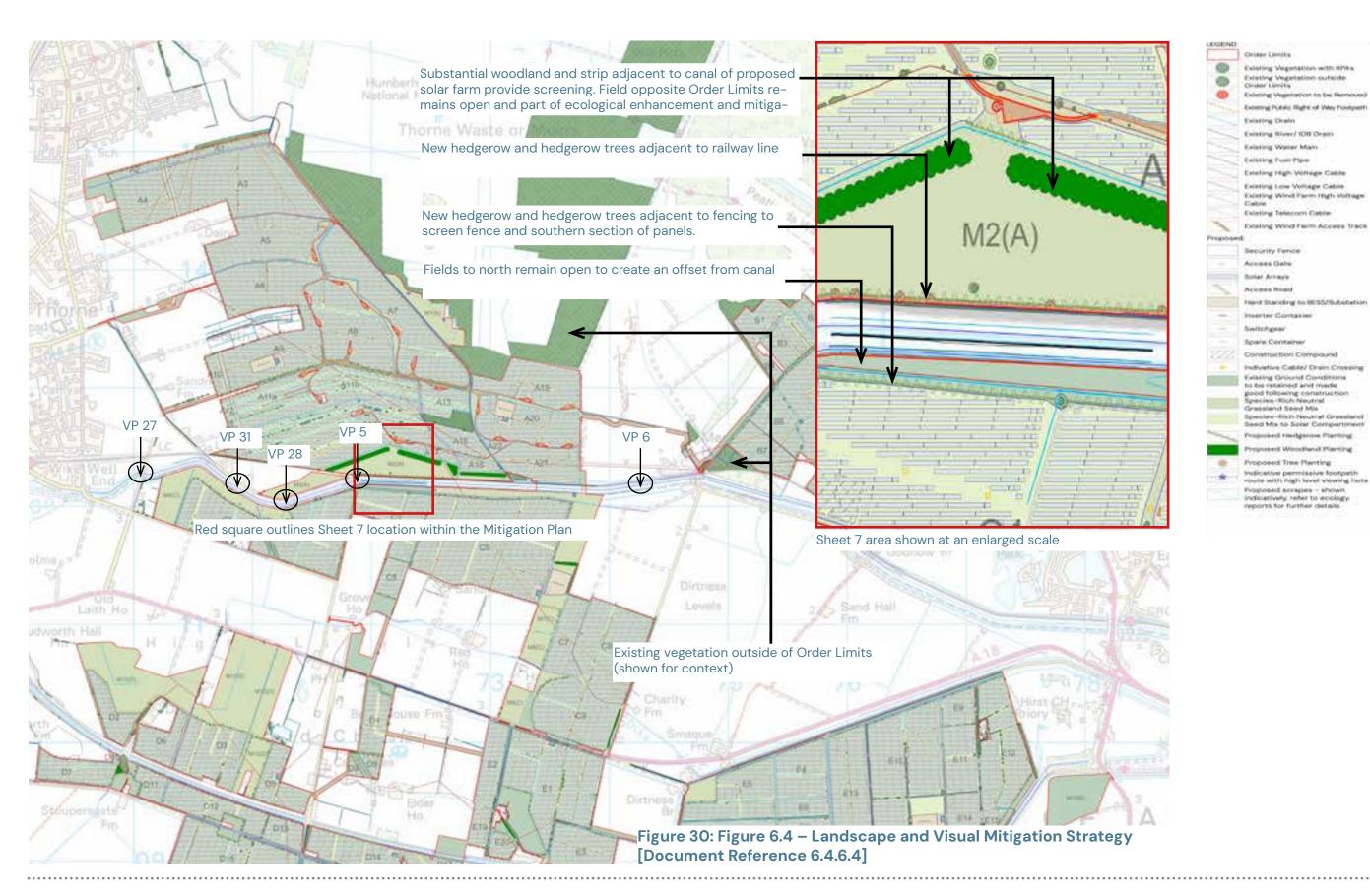


DESIGN | ECONOMICS | ENVIRONMENT | HERITAGE | LAND & PROPERTY | PLANNING | TRANSPORT & INFRASTRUCTURE

Copyright Pegasus Planning Group Ltd. Crown copyright, All rights reserved. Emapsite Licence number 0100031673. Ordnance Survey Copyright Licence number 100042093. Promap Licence number 100020449.

Pegasus accepts no liability for any use of this document other than for its original purpose, or by the original client, or following Pegasus' express agreement to such use. To 113 287 8200 http://www.pegasusgroup.co.uk





#### Tween Bridge Solar Farm - Canal Corridor Study





Photograph 14: North



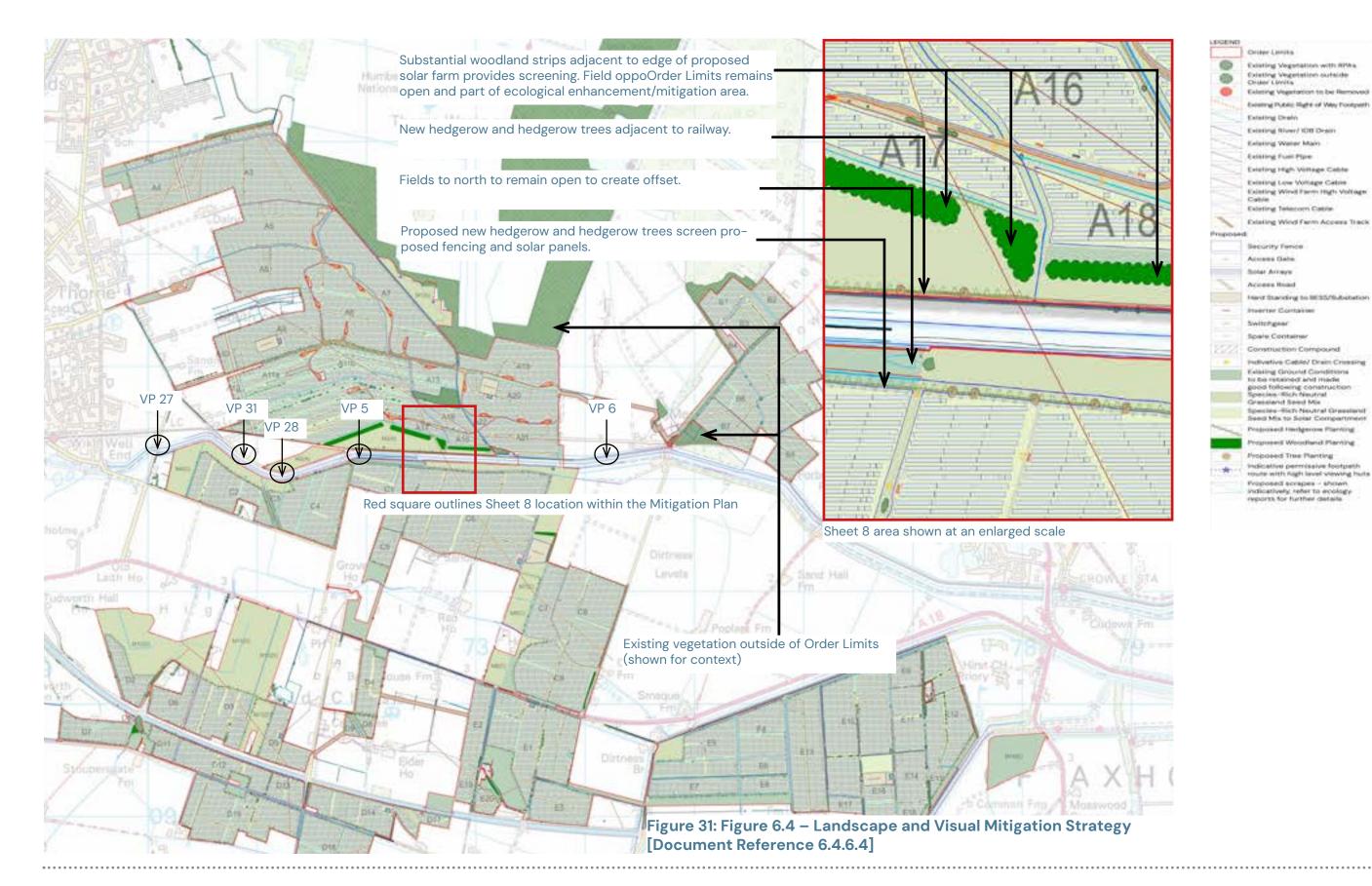


Photograph 14: South



DESIGN | ECONOMICS | ENVIRONMENT | HERITAGE | LAND & PROPERTY | PLANNING | TRANSPORT & INFRASTRUCTURE

**PEGASUS** GROUP



#### Tween Bridge Solar Farm - Canal Corridor Study

DESIGN | ECONOMICS | ENVIRONMENT | HERITAGE | LAND & PROPERTY | PLANNING | TRANSPORT & INFRASTRUCTURE

Copyright Pegasus Planning Group Ltd. Crown copyright, All rights reserved. Emapsite Licence number 0100031673. Ordnance Survey Copyright Licence number 100042093. Promap Licence number 100020449.

Pegasus accepts no liability for any use of this document other than for its original purpose, or by the original client, or following Pegasus' express agreement to such use. T 0113 287 8200 http://www.pegasusgroup.co.uk

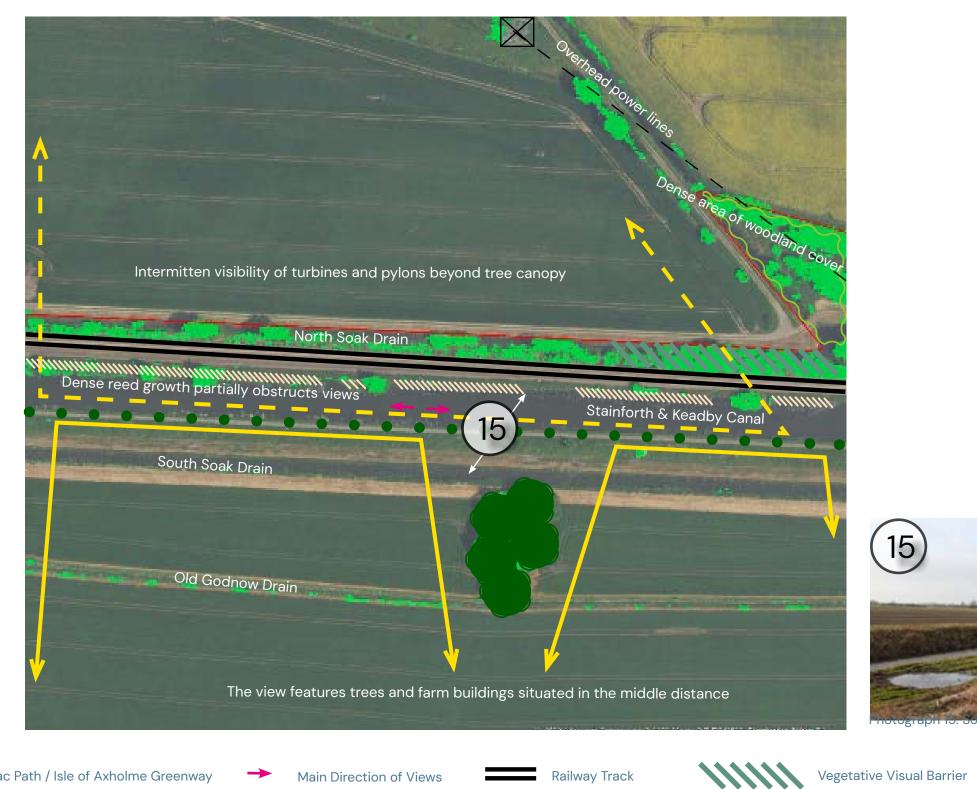


STAINFORTH & KEADBY CANAL CORRIDOR STUDY

STAINFORTH & KEADBY CANAL CORRIDOR STUDY STAINFORTH & KEADBY CANAL CORRIDOR STUDY 04 - DETAILED BASELINE SHEET 9. 04 - DETAILED MITIGATION SHEET 9.



Photograph 15: North



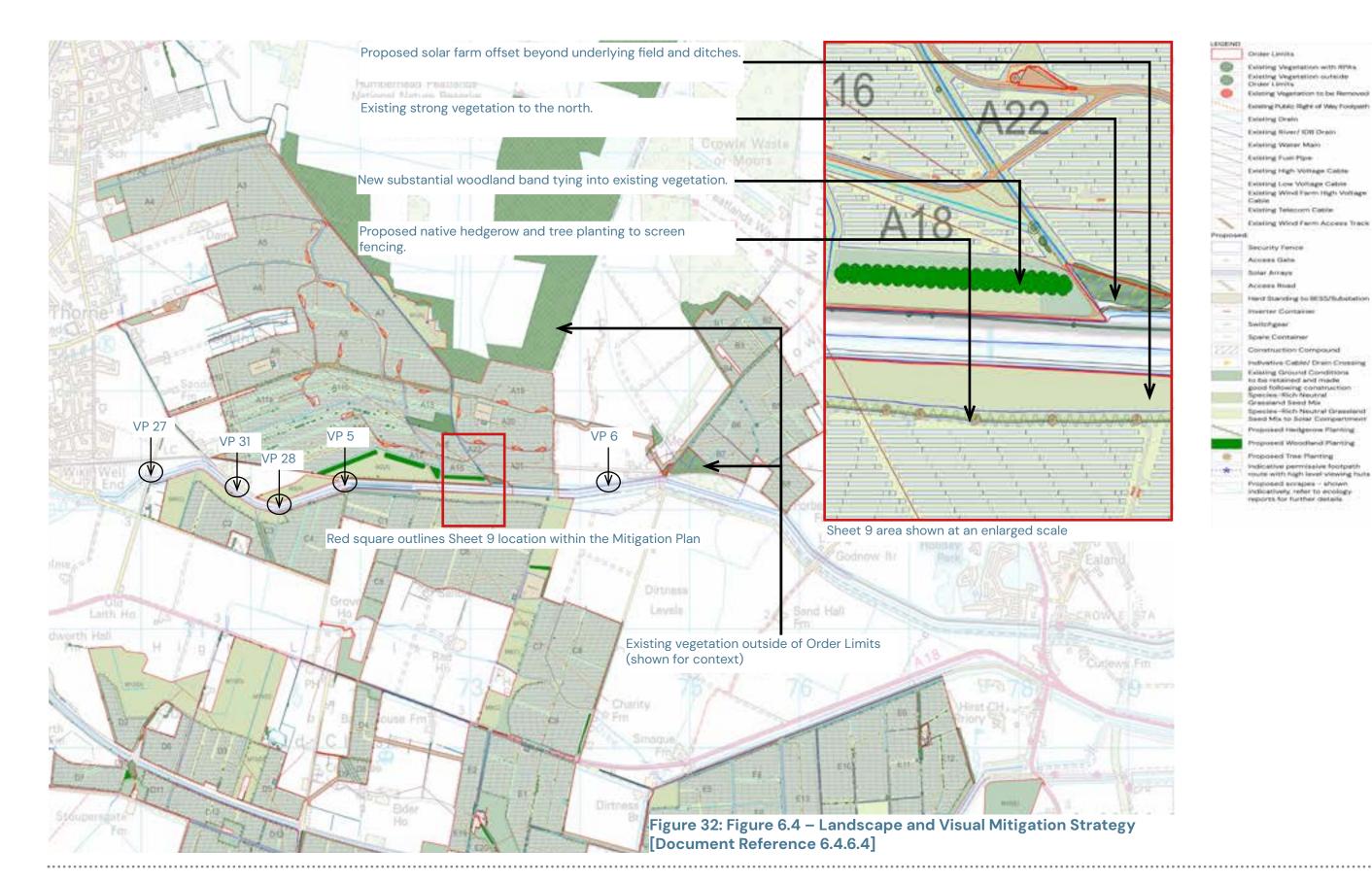






**Existing Significant Vegetation** 

**PEGASUS** GROUP



#### Tween Bridge Solar Farm - Canal Corridor Study

DESIGN | ECONOMICS | ENVIRONMENT | HERITAGE | LAND & PROPERTY | PLANNING | TRANSPORT & INFRASTRUCTURE Copyright Pegasus Planning Group Ltd. Crown copyright, All rights reserved. Emapsite Licence number 0100031673. Ordnance Survey Copyright Licence number 100042093. Promap Licence number 100020449.

Pegasus accepts no liability for any use of this document other than for its original purpose, or by the original client, or following Pegasus' express agreement to such use. T 0113 287 8200 http://www.pegasusgroup.co.uk



# Tween Bridge Solar Farm - Canal Corridor Study



Photograph 16: North

Photograph 16: South





Views across trees and farmland in the middle distance, with traffic movement visible along the A18 and M180 on the horizon

Stainforth & Keadby Canal

Openings in tree and shrub cover per

views toward the wider set



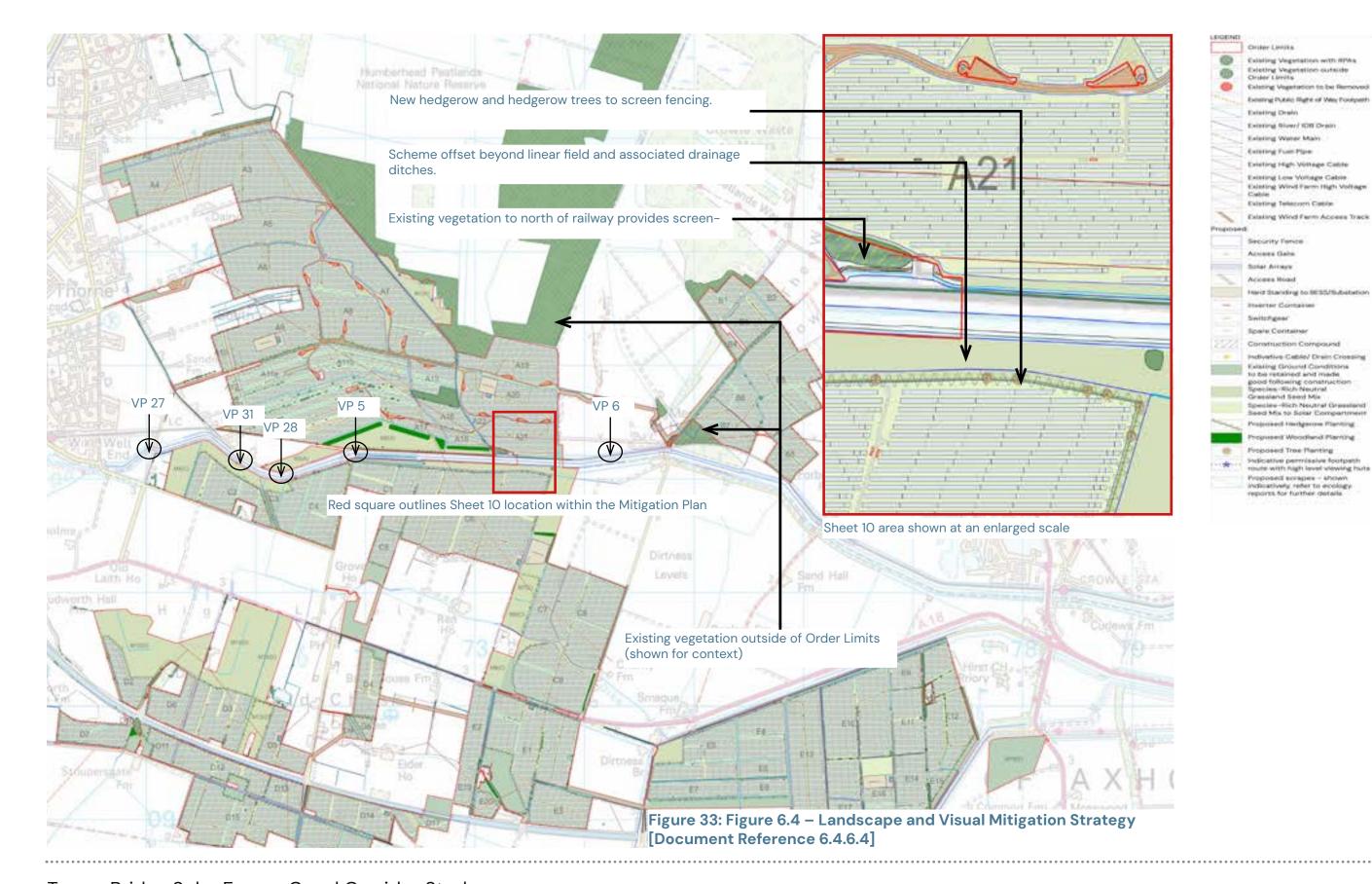
Photograph 17: South



#### Tween Bridge Solar Farm - Canal Corridor Study DESIGN | ECONOMICS | ENVIRONMENT | HERITAGE | LAND & PROPERTY | PLANNING | TRANSPORT & INFRASTRUCTURE

Copyright Pegasus Planning Group Ltd. Crown copyright, All rights reserved. Emapsite Licence number 0100031673. Ordnance Survey Copyright Licence number 100042093. Promap Licence number 100020449. Pegasus accepts no liability for any use of this document other than for its original purpose, or by the original client, or following Pegasus' express agreement to such use. T 0113 287 8200 http://www.pegasusgroup.co.uk



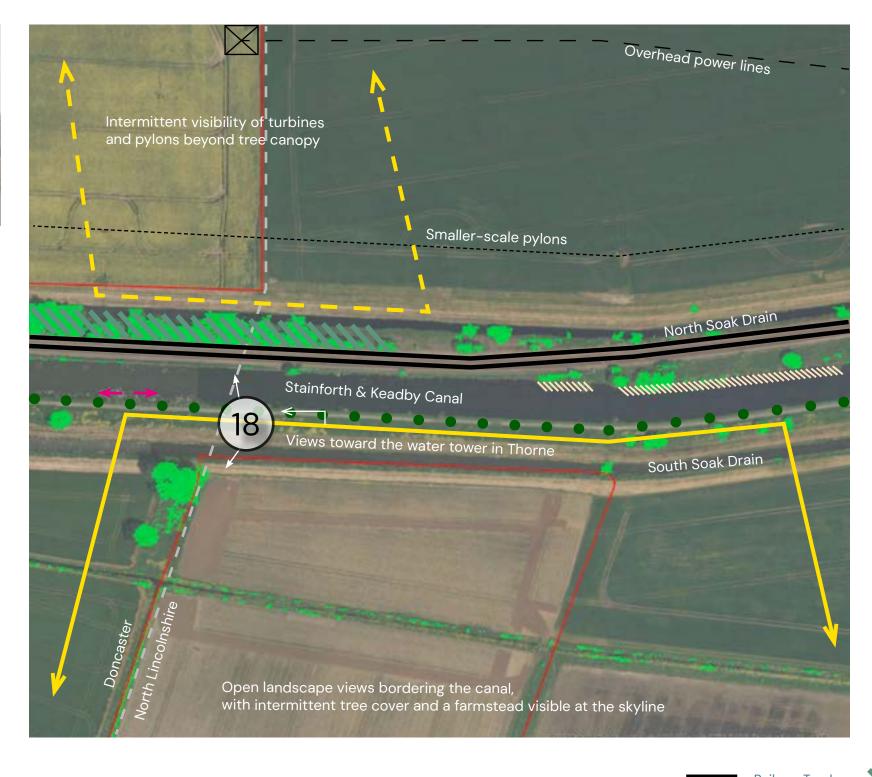


#### Tween Bridge Solar Farm - Canal Corridor Study





Photograph 18: North





Photograph 18: South

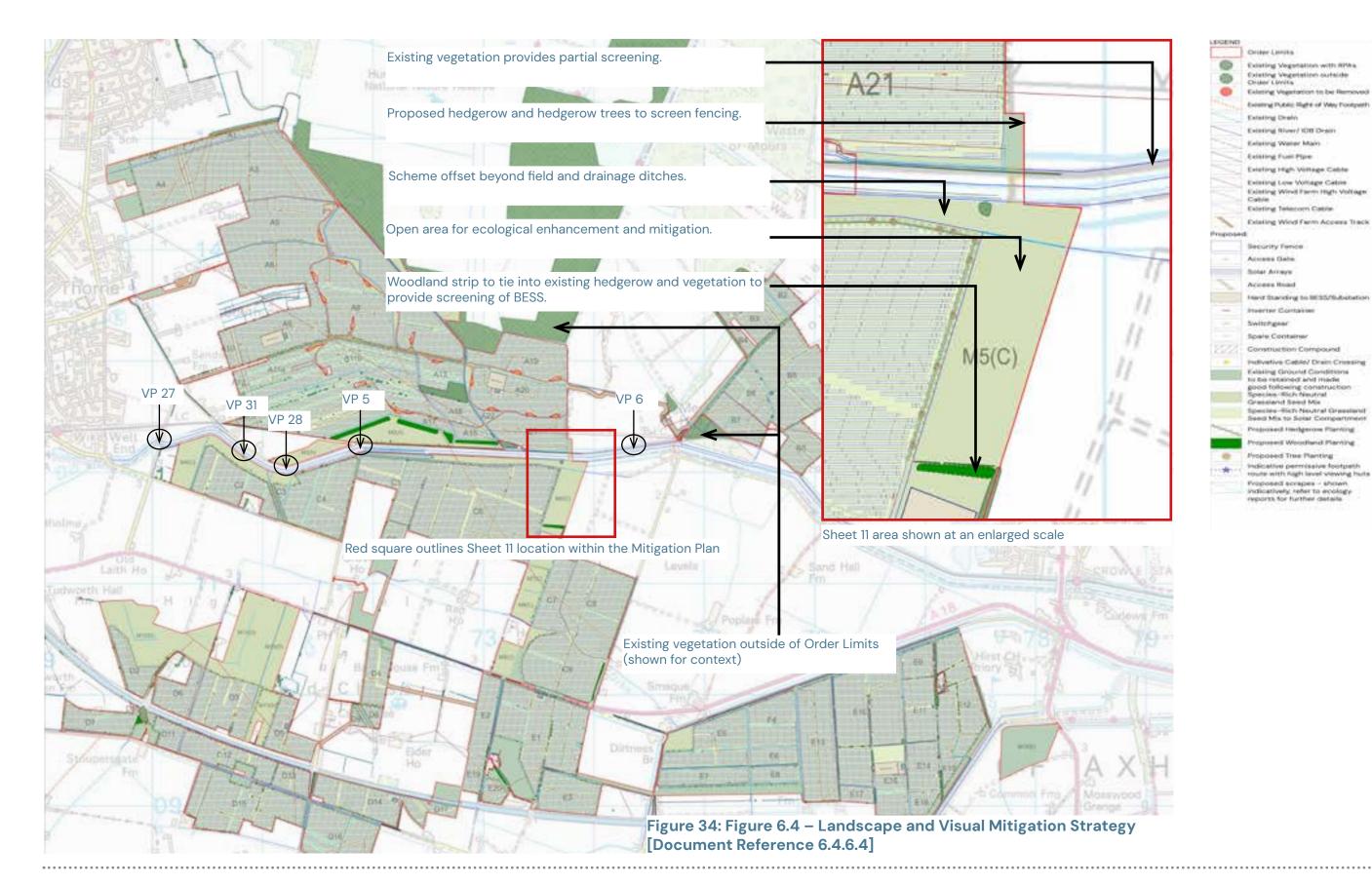


DESIGN | ECONOMICS | ENVIRONMENT | HERITAGE | LAND & PROPERTY | PLANNING | TRANSPORT & INFRASTRUCTURE

Copyright Pegasus Planning Group Ltd. Crown copyright, All rights reserved. Emapsite Licence number 0100031673. Ordnance Survey Copyright Licence number 100042093. Promap Licence number 10004049.

Pegasus accepts no liability for any use of this document other than for its original purpose, or by the original client, or following Pegasus' express agreement to such use. T 0113 287 8200 http://www.pegasusgroup.co.uk

**PEGASUS** GROUP



#### Tween Bridge Solar Farm - Canal Corridor Study



04 - DETAILED BASELINE SHEET 12. STAINFORTH & KEADBY CANAL CORRIDOR STUDY 04 - DETAILED MITIGATION SHEET 12. STAINFORTH & KEADBY CANAL CORRIDOR STUDY



Photograph 19: North





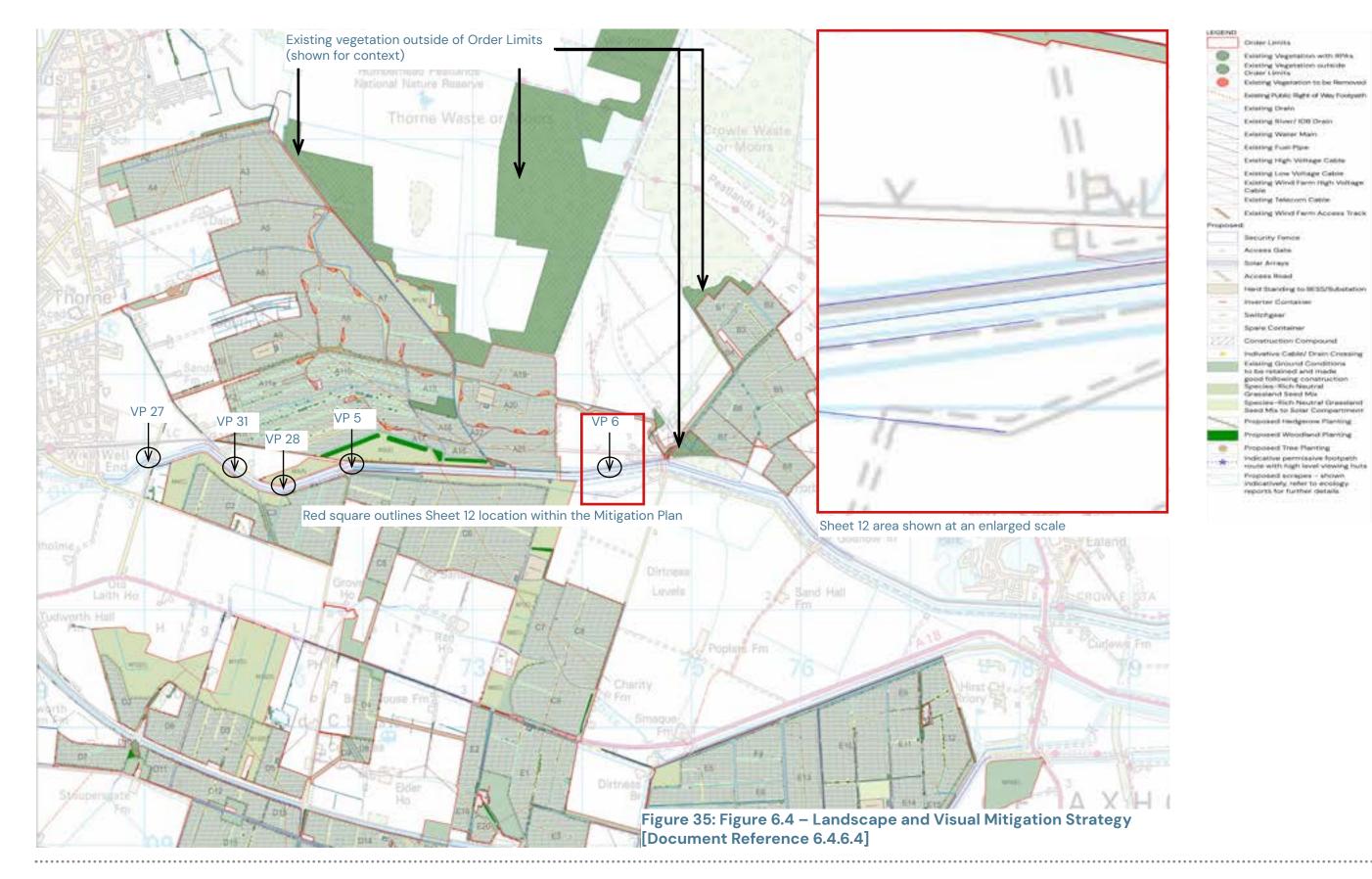
Photograph 19: South



# Tween Bridge Solar Farm - Canal Corridor Study

DESIGN | ECONOMICS | ENVIRONMENT | HERITAGE | LAND & PROPERTY | PLANNING | TRANSPORT & INFRASTRUCTURE

**PEGASUS** GROUP



#### Tween Bridge Solar Farm - Canal Corridor Study



04 - DETAILED BASELINE SHEET 13. STAINFORTH & KEADBY CANAL CORRIDOR STUDY 04 - DETAILED MITIGATION SHEET 13. STAINFORTH & KEADBY CANAL CORRIDOR STUDY



Photograph 20: North

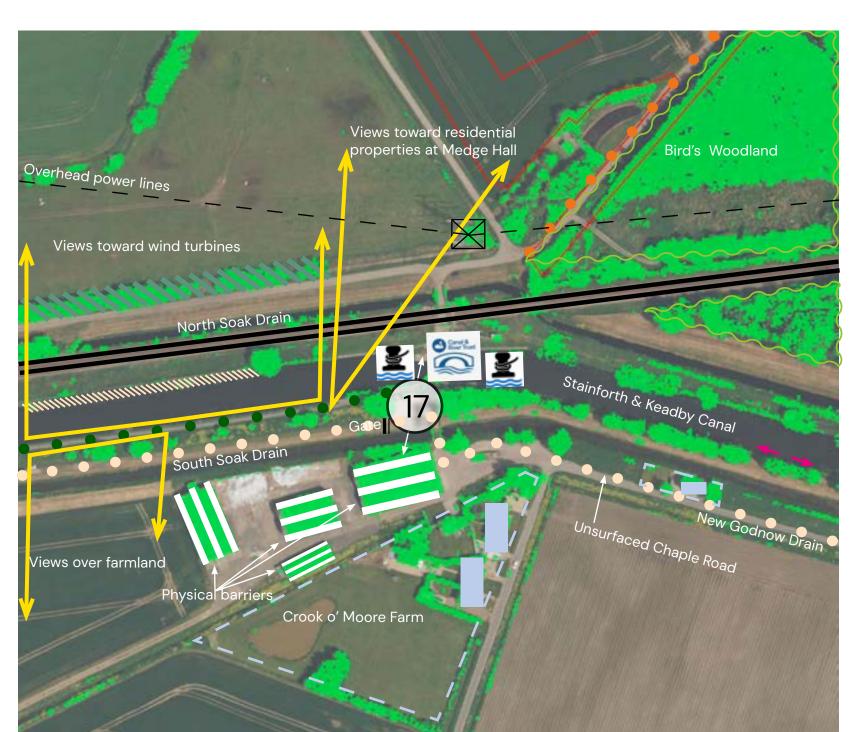
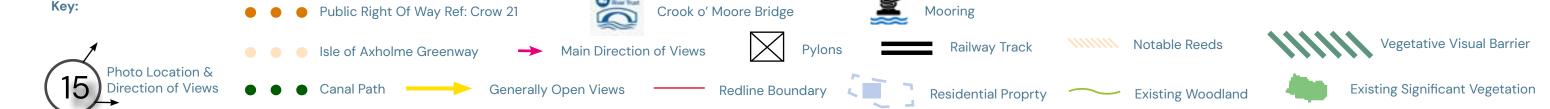




Image captured in the direction of Crook o' Moor Bridge





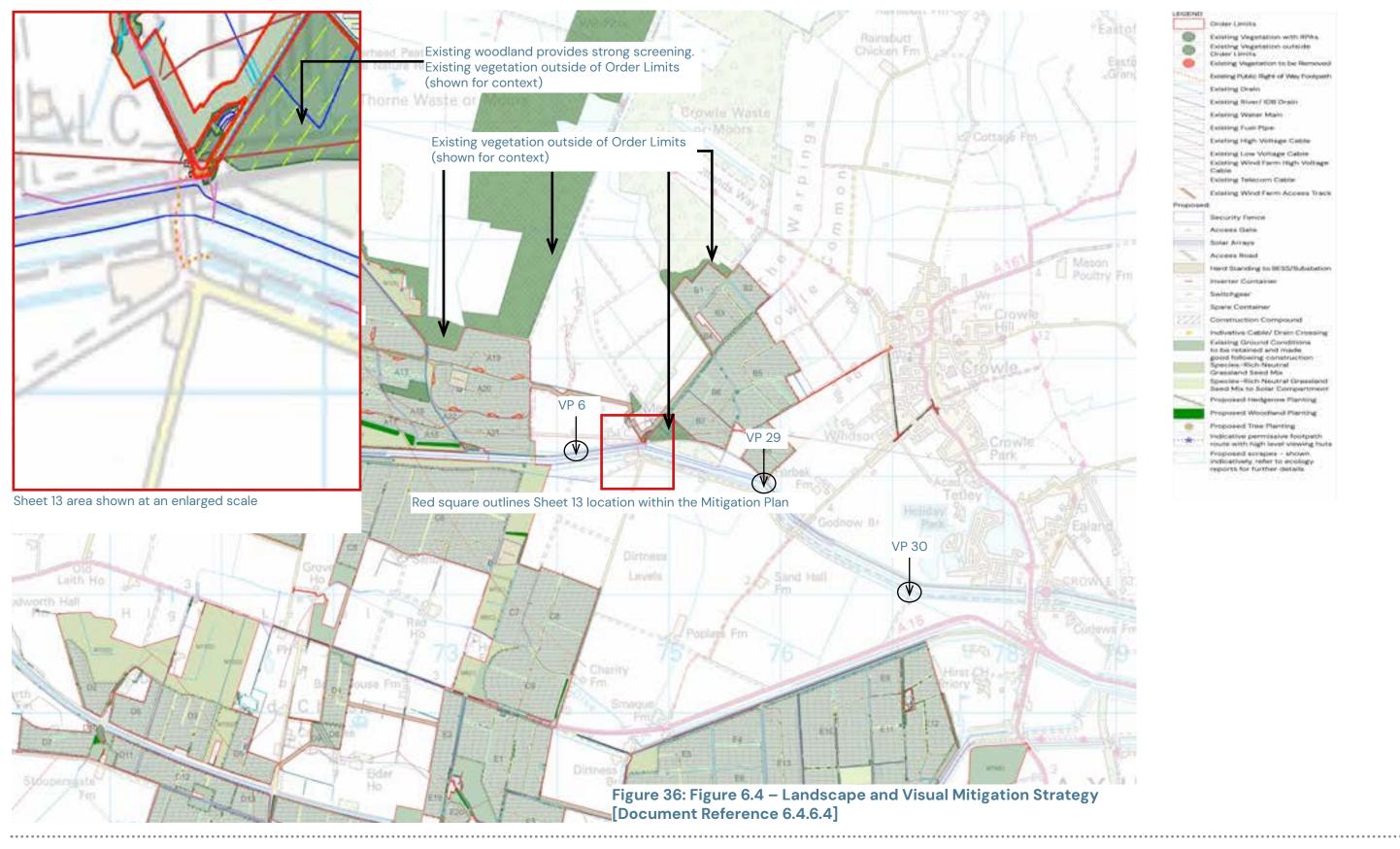
# Tween Bridge Solar Farm - Canal Corridor Study

DESIGN | ECONOMICS | ENVIRONMENT | HERITAGE | LAND & PROPERTY | PLANNING | TRANSPORT & INFRASTRUCTURE

Copyright Pegasus Planning Group Ltd. Crown copyright, All rights reserved. Emapsite Licence number 0100031673. Ordnance Survey Copyright Licence number 100042093. Promap Licence number 100020449.

Pegasus accepts no liability for any use of this document other than for its original purpose, or by the original client, or following Pegasus' express agreement to such use. To 113 287 8200 http://www.pegasusgroup.co.uk





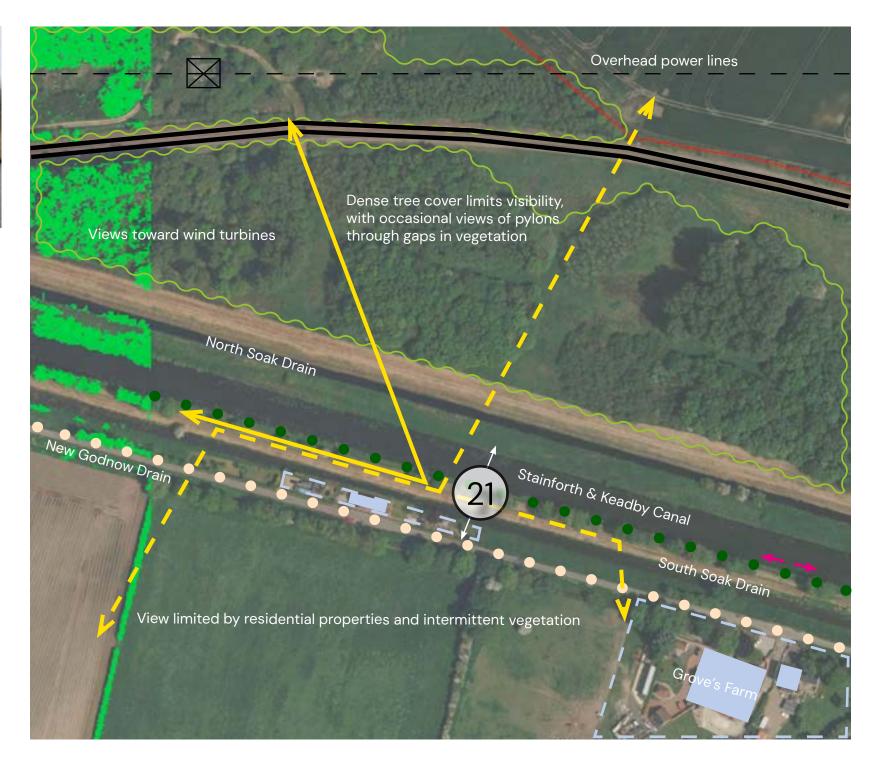
#### Tween Bridge Solar Farm - Canal Corridor Study



04 - DETAILED BASELINE SHEET 14. STAINFORTH & KEADBY CANAL CORRIDOR STUDY 04 - DETAILED MITIGATION SHEET 14. STAINFORTH & KEADBY CANAL CORRIDOR STUDY



Photograph 21: North





Photograph 21: South



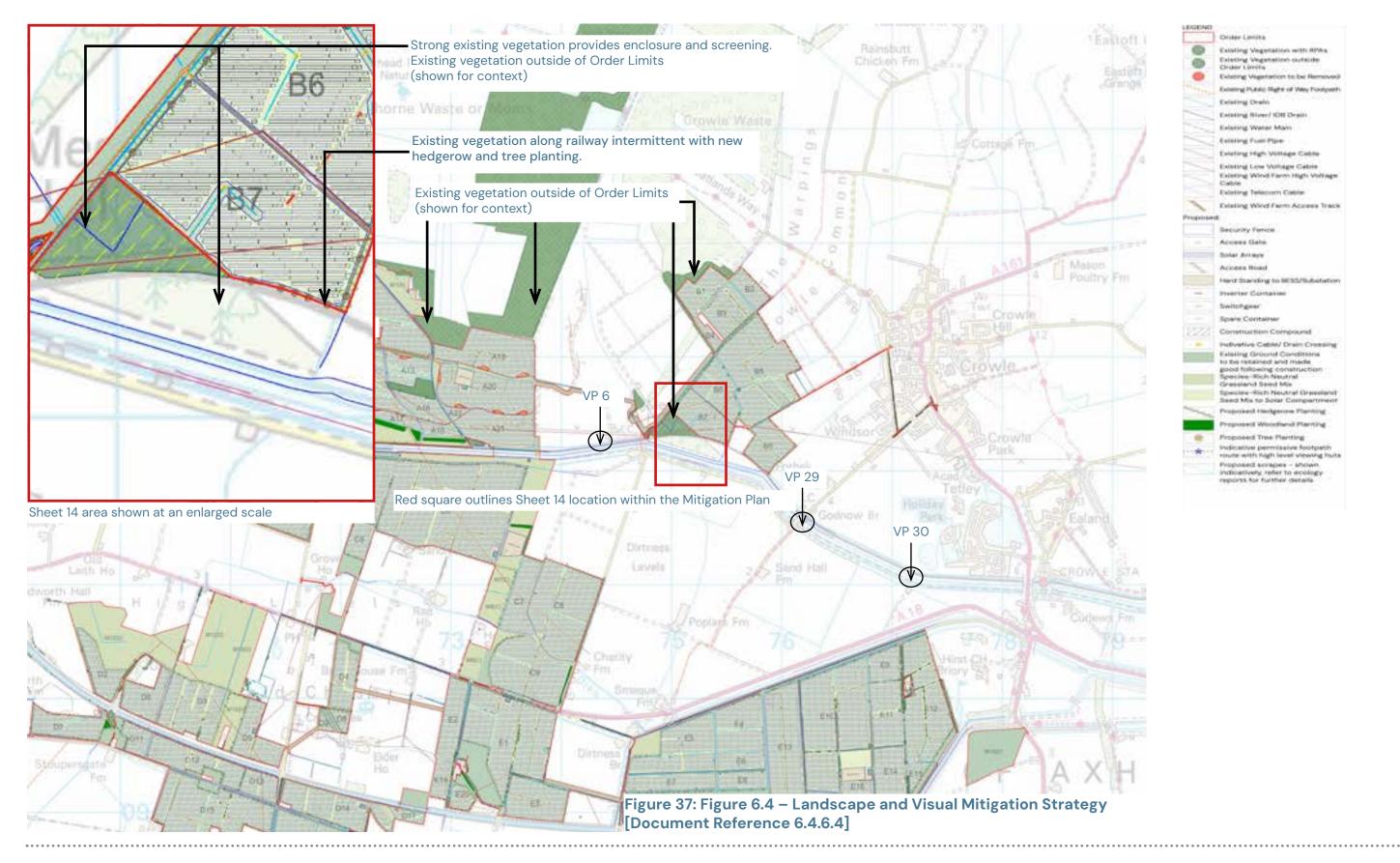
#### Tween Bridge Solar Farm - Canal Corridor Study

DESIGN | ECONOMICS | ENVIRONMENT | HERITAGE | LAND & PROPERTY | PLANNING | TRANSPORT & INFRASTRUCTURE

Copyright Pegasus Planning Group Ltd. Crown copyright, All rights reserved. Emapsite Licence number 0100031673. Ordnance Survey Copyright Licence number 100042093. Promap Licence number 100020449.

Pegasus accepts no liability for any use of this document other than for its original purpose, or by the original client, or following Pegasus' express agreement to such use. T 0113 287 8200 http://www.pegasusgroup.co.uk





#### Tween Bridge Solar Farm - Canal Corridor Study





Photograph 22: North

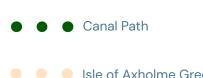


Photograph 23: North



Photograph 22: South









ews toward the residential edge of Crowl



Generally Open Views

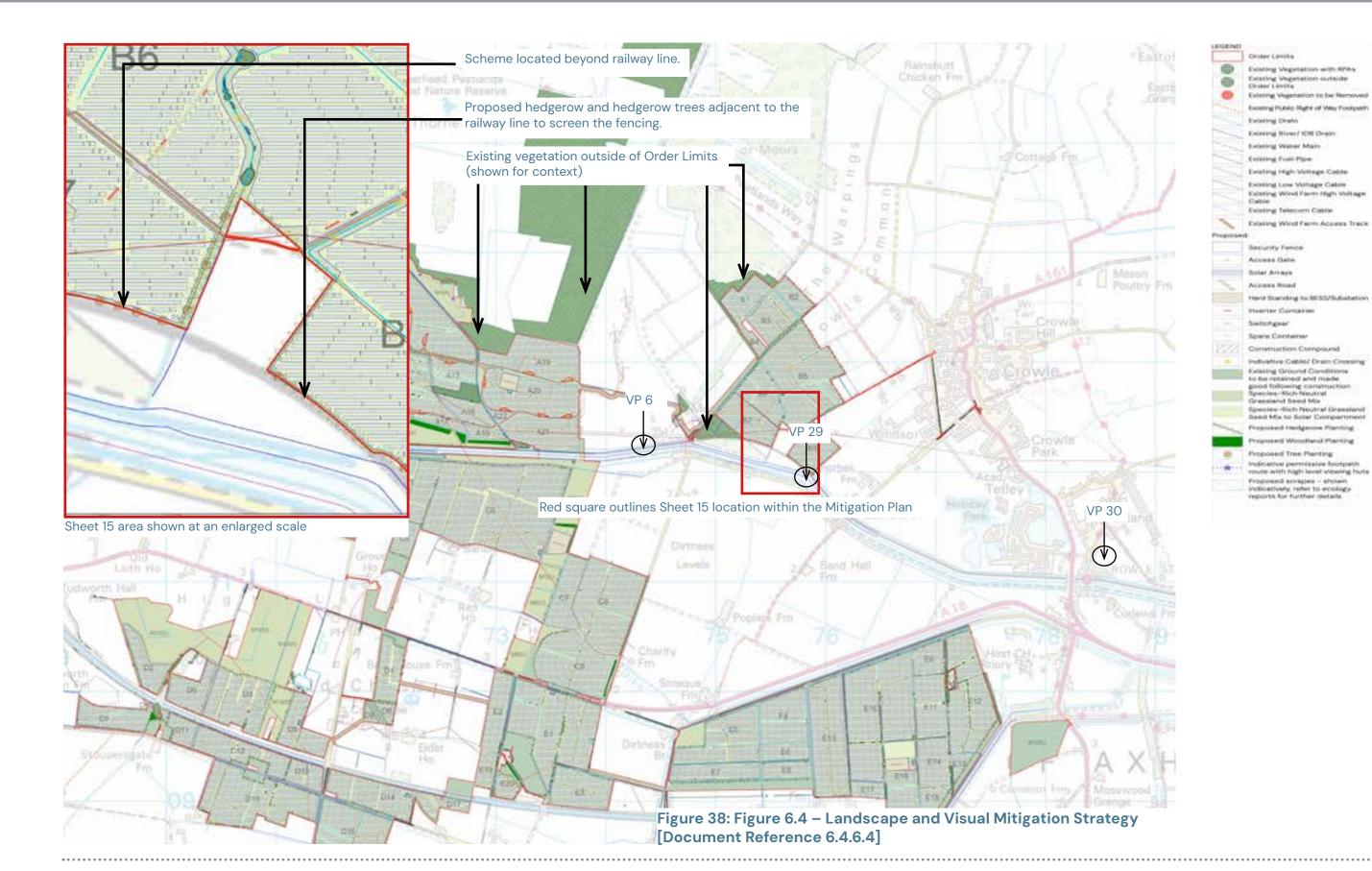






Photograph 23: South

**PEGASUS** GROUP



#### Tween Bridge Solar Farm - Canal Corridor Study

DESIGN | ECONOMICS | ENVIRONMENT | HERITAGE | LAND & PROPERTY | PLANNING | TRANSPORT & INFRASTRUCTURE Copyright Pegasus Planning Group Ltd. Crown copyright, All rights reserved. Emapsite Licence number 0100031673. Ordnance Survey Copyright Licence number 100042093. Promap Licence number 100020449.

Pegasus accepts no liability for any use of this document other than for its original purpose, or by the original client, or following Pegasus' express agreement to such use. T 0113 287 8200 http://www.pegasusgroup.co.uk



# Tween Bridge Solar Farm - Canal Corridor Study



Photograph 24: North

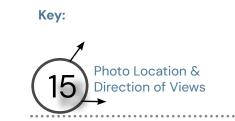


Photograph 25: North



25)

Photograph 25: South







Main Direction of Views







Notable Reeds

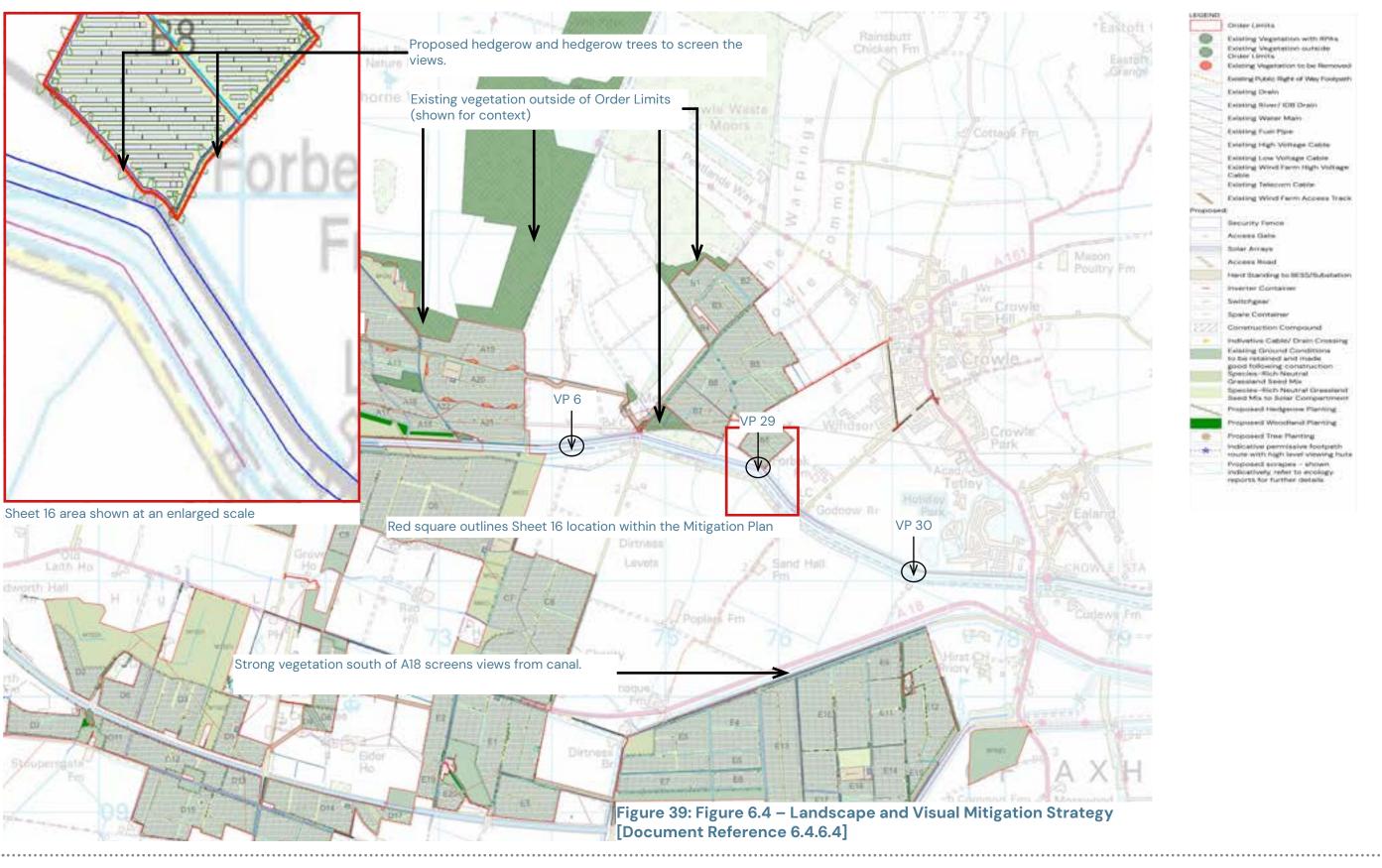
Red line Boundary

# Tween Bridge Solar Farm - Canal Corridor Study

DESIGN | ECONOMICS | ENVIRONMENT | HERITAGE | LAND & PROPERTY | PLANNING | TRANSPORT & INFRASTRUCTURE Copyright Pegasus Planning Group Ltd. Crown copyright, All rights reserved. Emapsite Licence number 0100031673. Ordnance Survey Copyright Licence number 100042093. Promap Licence number 100020449. Pegasus accepts no liability for any use of this document other than for its original purpose, or by the original client, or following Pegasus' express agreement to such use. T 0113 287 8200 http://www.pegasusgroup.co.uk

Unsurfaced Canal Path





#### Tween Bridge Solar Farm - Canal Corridor Study





Photograph 26: North



Photographic view of the bridge



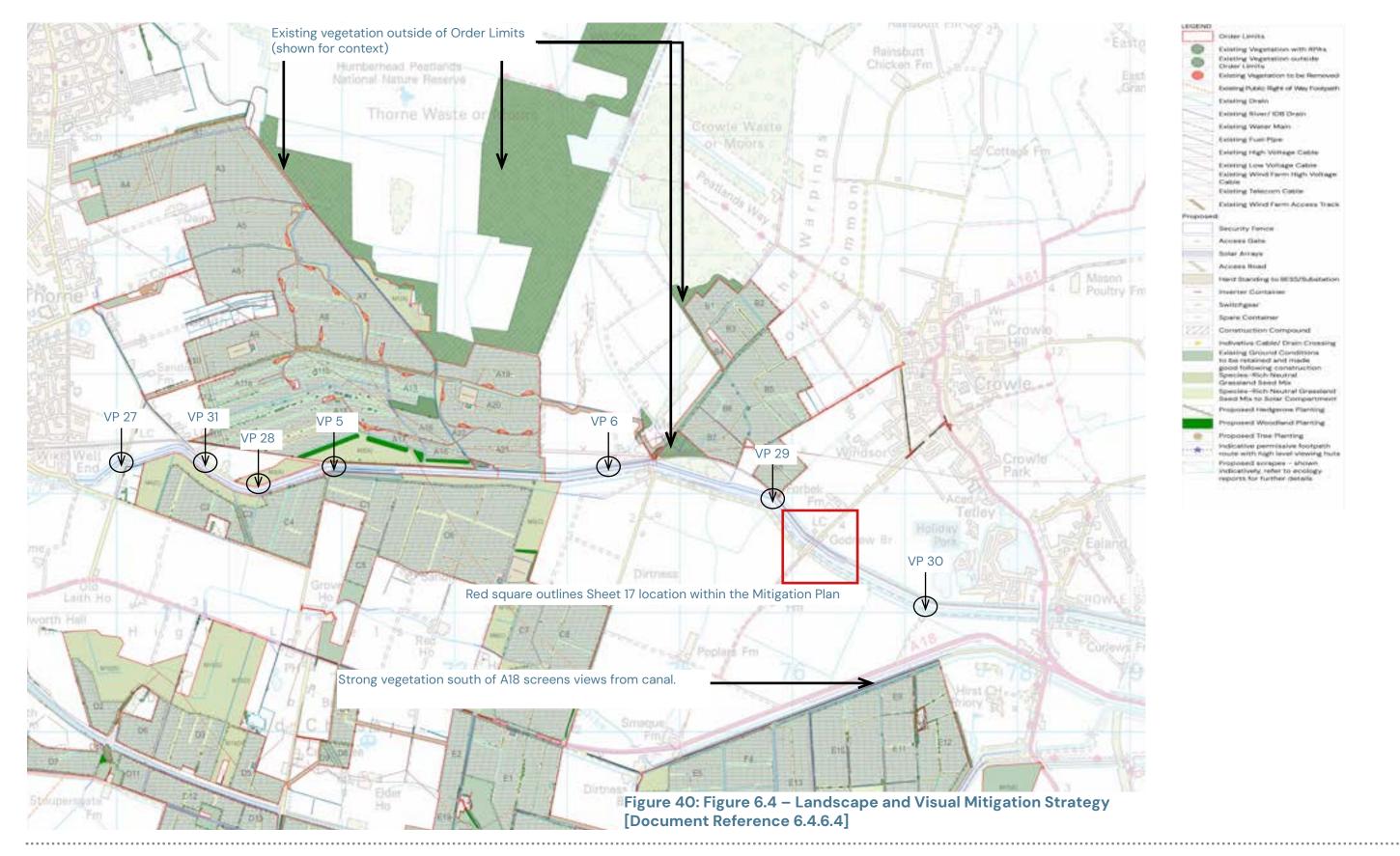
Photograph 26: South





DESIGN | ECONOMICS | ENVIRONMENT | HERITAGE | LAND & PROPERTY | PLANNING | TRANSPORT & INFRASTRUCTURE Copyright Pegasus Planning Group Ltd. Crown copyright, All rights reserved. Emapsite Licence number 0100031673. Ordnance Survey Copyright Licence number 100042093. Promap Licence number 100020449. Pegasus accepts no liability for any use of this document other than for its original purpose, or by the original client, or following Pegasus' express agreement to such use. T 0113 287 8200 http://www.pegasusgroup.co.uk





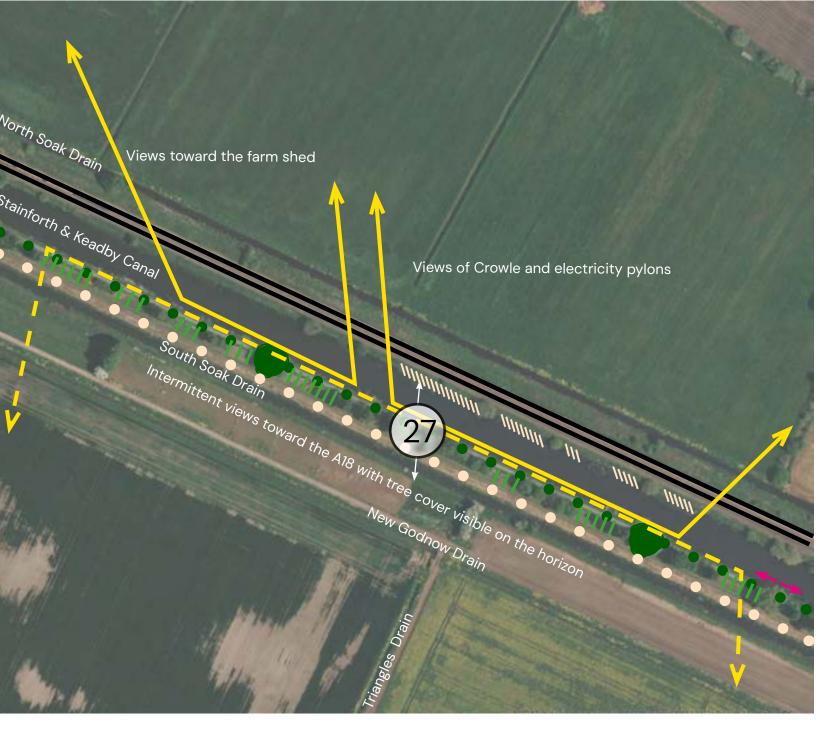
#### Tween Bridge Solar Farm - Canal Corridor Study



04 - DETAILED BASELINE SHEET 18. STAINFORTH & KEADBY CANAL CORRIDOR STUDY 04 - DETAILED MITIGATION SHEET 18. STAINFORTH & KEADBY CANAL CORRIDOR STUDY



Photograph 27: North





Photograph 27: South



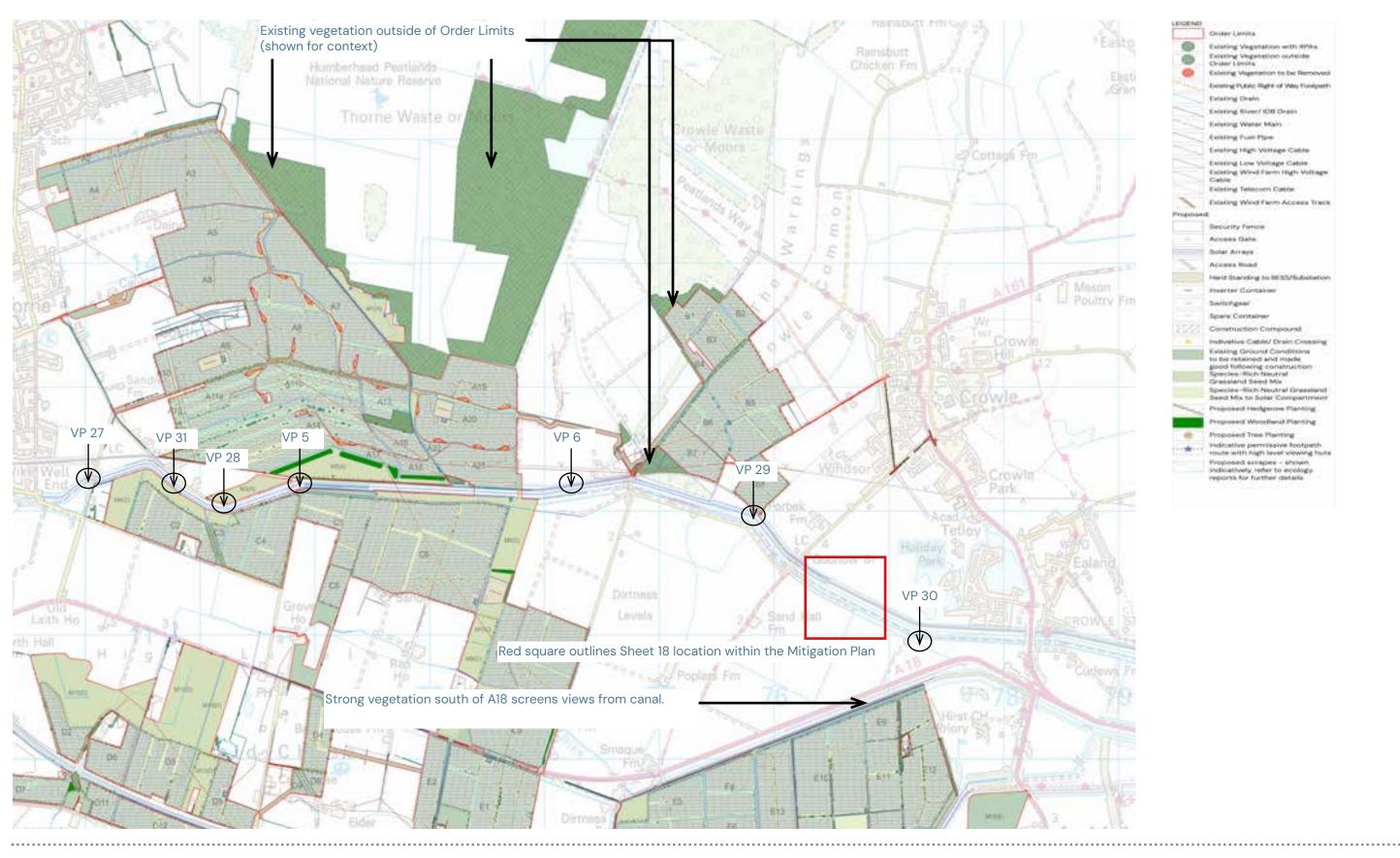
#### Tween Bridge Solar Farm - Canal Corridor Study

DESIGN | ECONOMICS | ENVIRONMENT | HERITAGE | LAND & PROPERTY | PLANNING | TRANSPORT & INFRASTRUCTURE

Copyright Pegasus Planning Group Ltd. Crown copyright, All rights reserved. Emapsite Licence number 0100031673. Ordnance Survey Copyright Licence number 100042093. Promap Licence number 100020449.

Pegasus accepts no liability for any use of this document other than for its original purpose, or by the original client, or following Pegasus' express agreement to such use. To 113 287 8200 http://www.pegasusgroup.co.uk





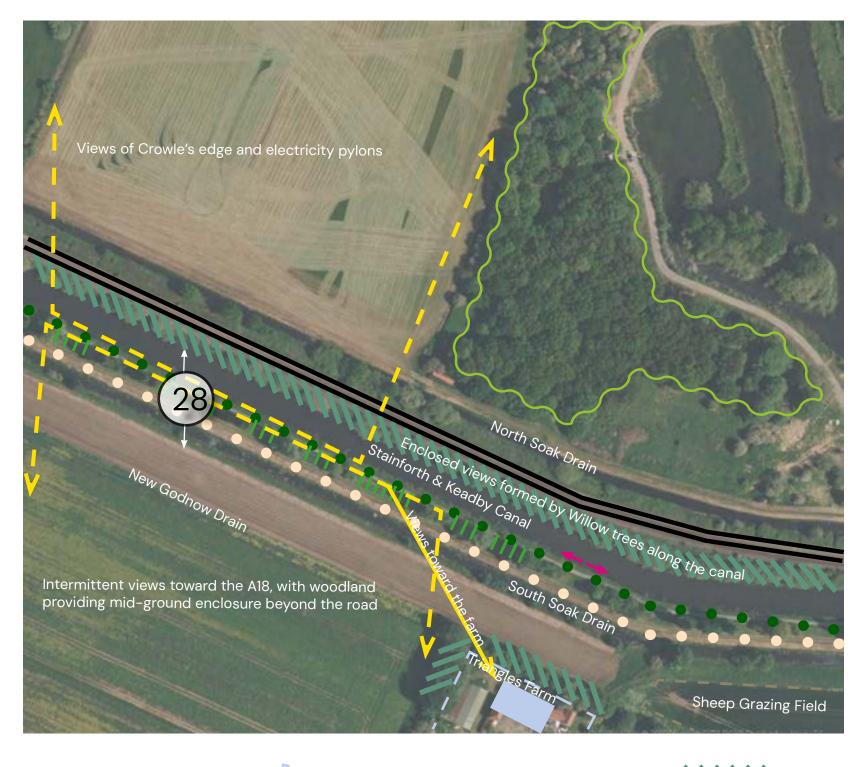
#### Tween Bridge Solar Farm - Canal Corridor Study



04 - DETAILED BASELINE SHEET 19. STAINFORTH & KEADBY CANAL CORRIDOR STUDY 04 - DETAILED BASELINE SHEET 20. STAINFORTH & KEADBY CANAL CORRIDOR STUDY



Photograph 28: North





Photograph 28: South



#### Tween Bridge Solar Farm - Canal Corridor Study

DESIGN | ECONOMICS | ENVIRONMENT | HERITAGE | LAND & PROPERTY | PLANNING | TRANSPORT & INFRASTRUCTURE

Copyright Pegasus Planning Group Ltd. Crown copyright, All rights reserved. Emapsite Licence number 0100031673. Ordnance Survey Copyright Licence number 100042093. Promap Licence number 100020449.

Pegasus accepts no liability for any use of this document other than for its original purpose, or by the original client, or following Pegasus' express agreement to such use. T 0113 287 8200 http://www.pegasusgroup.co.uk





Photograph 29: North





Photograph 29: South



#### Tween Bridge Solar Farm - Canal Corridor Study



(31)



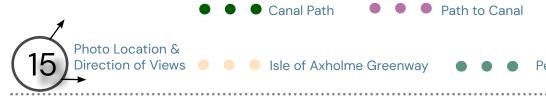
Photograph 30: North



Photograph 30: South



Photo Showing the Greenway Signage















alimpsed views towards lodges



Main Direction of Views

Views towards sheds and caravan storage

through breaks in vegetation





aptured view of Crowle Bridge

North Soak Drain

New Housing Development

istas across the new housing estate

Long views along the canal





Vegetative Visual Barrier





Tween Bridge Solar Farm - Canal Corridor Study

DESIGN | ECONOMICS | ENVIRONMENT | HERITAGE | LAND & PROPERTY | PLANNING | TRANSPORT & INFRASTRUCTURE Copyright Pegasus Planning Group Ltd. Crown copyright, All rights reserved. Emapsite Licence number 0100031673. Ordnance Survey Copyright Licence number 100042093. Promap Licence number 100020449. Pegasus accepts no liability for any use of this document other than for its original purpose, or by the original client, or following Pegasus' express agreement to such use. T 0113 287 8200 http://www.pegasusgroup.co.uk



Mooring

#### 04 - SUMMARY & CONCLUSION

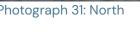
- 4.1 This corridor study of the Stainforth & Keadby Canal between Thorne and Crowle has sought to clearly understand the existing context of the canal, both in terms of the landscape character of the associated corridor and the surroundings and views experienced by the different canal users. The route was walked in a west east direction and an east west direction to experience traveling through the corridor in both directions.
- 4.2 Throughout the design process users of the canal have been considered as key receptors. The Scheme has been notably offset in several locations along the route, particularly where the landscape is more open and does not benefit from screening by existing vegetation. In addition to closely considering the layout, attention has been paid to then mitigating the resulting effects by providing a comprehensive mitigation strategy. As highlighted in this document, large lengths of new hedgerows are proposed along the proposed fencing which over time would grow up to entirely cover the fences and be maintained at 3m. Many of the proposed hedgerows are also supplemented with hedgerow trees. Sections identified as needing additional mitigation are shown planted with strips of woodland planting, to provide more substantial screening.
- 4.3 Traveling along the canal is a currently a varied and transitional experience, different elements in the landscape come in and out or are framed in the view. Whilst the Scheme covers a relatively long section of the landscape through which the canal travels, views of the Scheme would not be constant and would be broken by both existing and proposed vegetation. The majority of the elements comprising the scheme i.e. the Solar Panels are relatively low level and would be contained to a degree by perimeter hedgerows. The scheme would also be experienced, along much of this section of the canal, in the context of the existing Tween Bridge Wind Farm. As noted in the study, local roads including the busy A18 and the M180 also have an influence on this landscape.
- 4.4 The canal began as a commercial waterway and has become over time, a rich recreational resource and habitat for wildlife. It is envisaged that the landscape and ecological enhancements proposed, including hedgerow planting and large areas of species rich neutral grassland, will be of benefit to biodiversity and in turn the context of the canal, adding another layer to the story and context of the route.

#### Tween Bridge Solar Farm - Canal Corridor Study

DESIGN | ECONOMICS | ENVIRONMENT | HERITAGE | LAND & PROPERTY | PLANNING | TRANSPORT & INFRASTRUCTURE Copyright Pegasus Planning Group Ltd. Crown copyright, All rights reserved. Emapsite Licence number 0100031673. Ordnance Survey Copyright Licence number 100042093. Promap Licence number 100020449. Pegasus accepts no liability for any use of this document other than for its original purpose, or by the original client, or following Pegasus' express agreement to such use. T 0113 287 8200 http://www.pegasusgroup.co.uk









Photograph 31: South



Photograph of Roadside Sign

STAINFORTH & KEADBY CANAL CORRIDOR STUDY



#### Leeds

5th Floor (East), Capitol, Russell Street, Leeds, LS1 5SP T 0113 287 8200 Leeds@pegasusgroup.co.uk Offices throughout the UK and Ireland.

# **Expertly Done.**

DESIGN | ECONOMICS | ENVIRONMENT | HERITAGE | LAND & PROPERTY | PLANNING | TRANSPORT & INFRASTRUCTURE

All paper sources from sustainably managed forests
Pegasus Group is a trading name of Pegasus Planning Group Limited (07277000) registered in England and Wales.
Registered office: Querns Business Centre, Whitworth Road, Cirencester, Gloucestershire, GL7 1RT
We are ISO certified 9001, 14001, 45001

