North Northamptonshire Council

Planning Communities Executive Advisory Panel

Monday 27 March 2023

Agenda Item 4

Presentation on Kettering Energy Park – Draft Masterplan

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KETTERING
ENERGY PARK

A unique opportunity to create one of the UK's most sustainable developments

NNC EAP Planning Communities 27th March

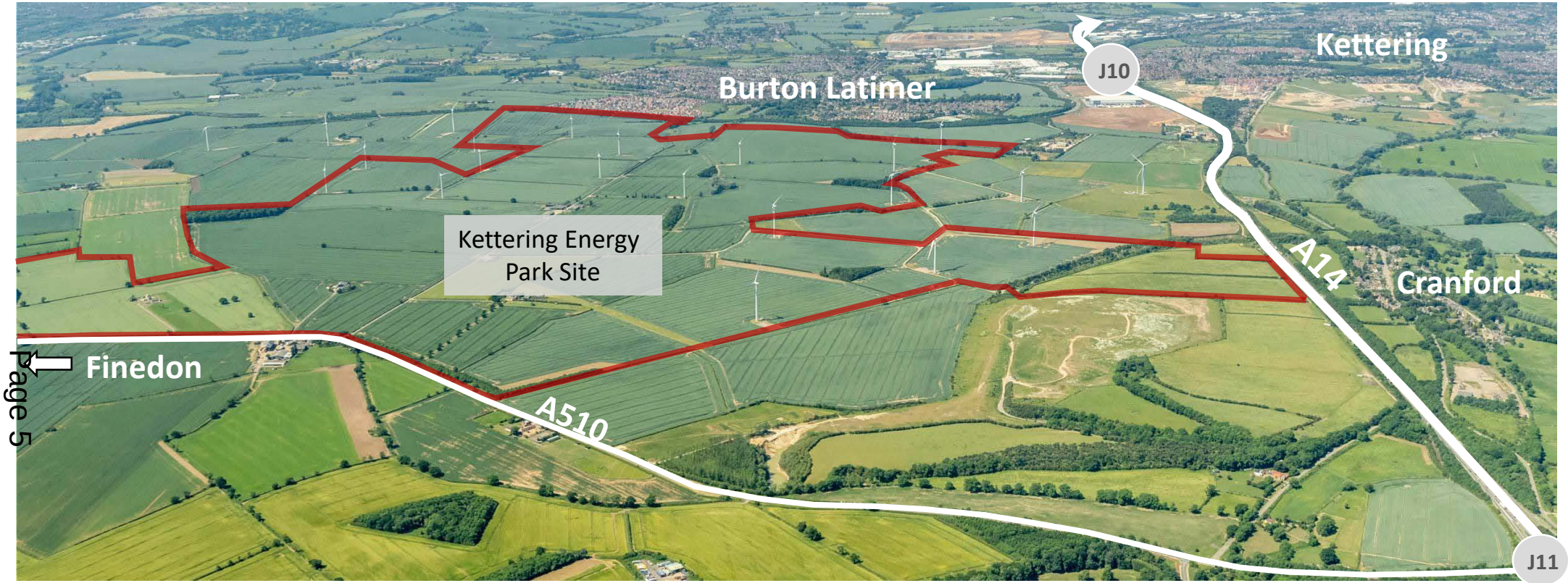
FIRST RENEWABLE DEVELOPMENTS

Welcome

Anthony Watkins
Head of Development – South East & London
Developer and ‘Enablers’ of Energy Park

Matthew Thomas
Michael Sparks Associates - Chartered Architects and Planning Consultants

Recap



- Purpose of the Masterplan
  - Policy 26 of the Joint Core Strategy
- Policy Panel Review 24th of October 2022
- Website Consultation
- Development of the Masterplan
  - Lapwing Area
  - Further Highway modelling now commenced

FIRST RENEWABLE DEVELOPMENTS

The Opportunity

- Climate and Environment Emergency
- Transition towards Net Zero
- Investment in infrastructure for the future
- The Energy Crisis
- Food Security & Supply
- Availability of Existing Energy Infrastructure
- Few Sites can offer what the Energy Park can – First of it's kind
- Scale of the Energy Park should make best use of this opportunity

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Opportunity

The Energy Park provides an opportunity to address these issues using a sustainable and holistic approach to support:

- Access to Secure & Renewable Energy
- Additional Renewable Energy Infrastructure
- Future technologies and larger employment units
- Drive towards Net Zero Carbon

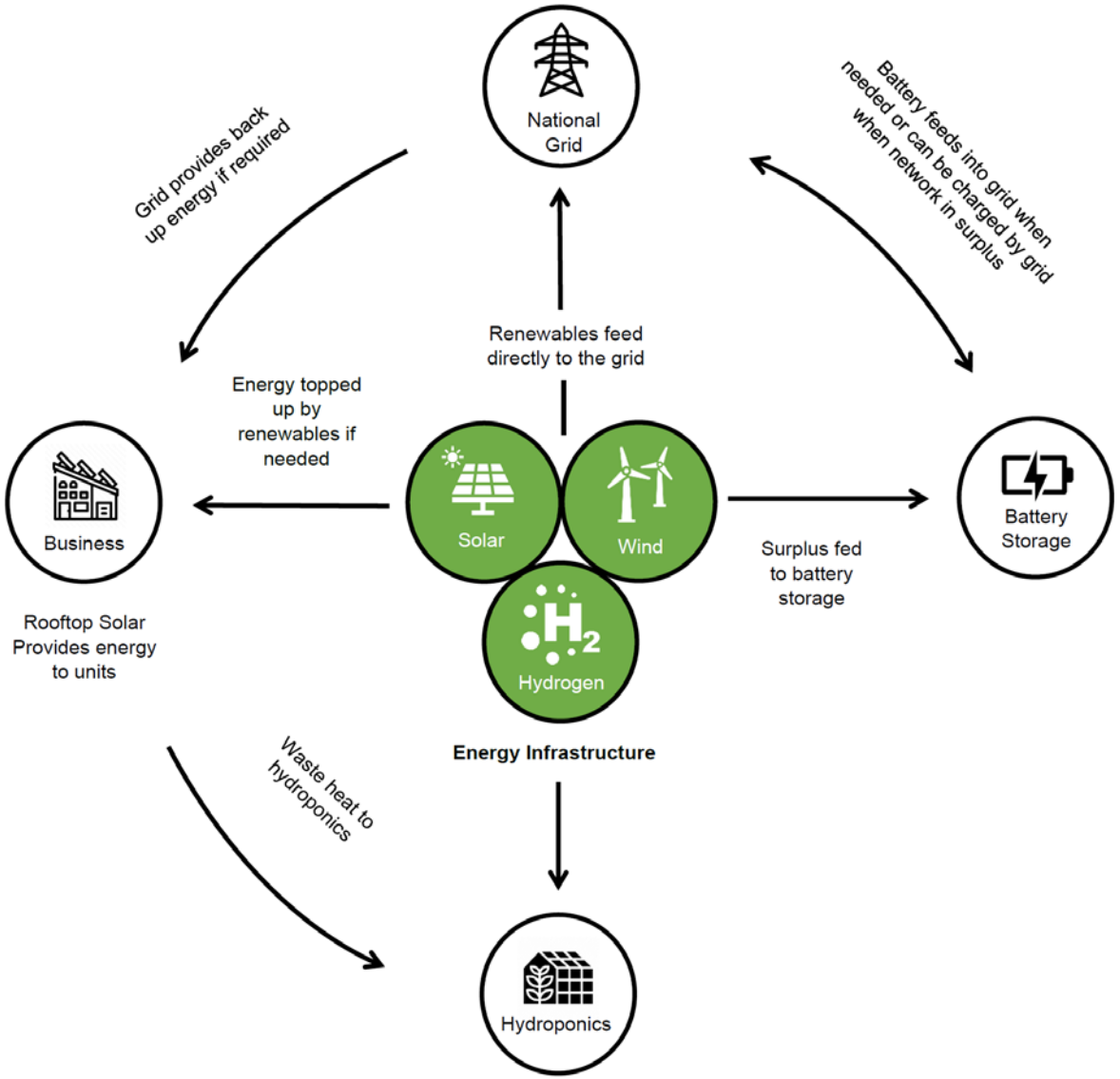
Anticipated Benefits

- 550 jobs during construction
- 5,500 jobs during operational phase
- Investment of £512m during the construction phase
- Investment of £167m per annum into the local economy through wages
- Business rates of circa £8m per annum

Enabling Infrastructure for the Energy Park will total c.£40m in addition to the above.

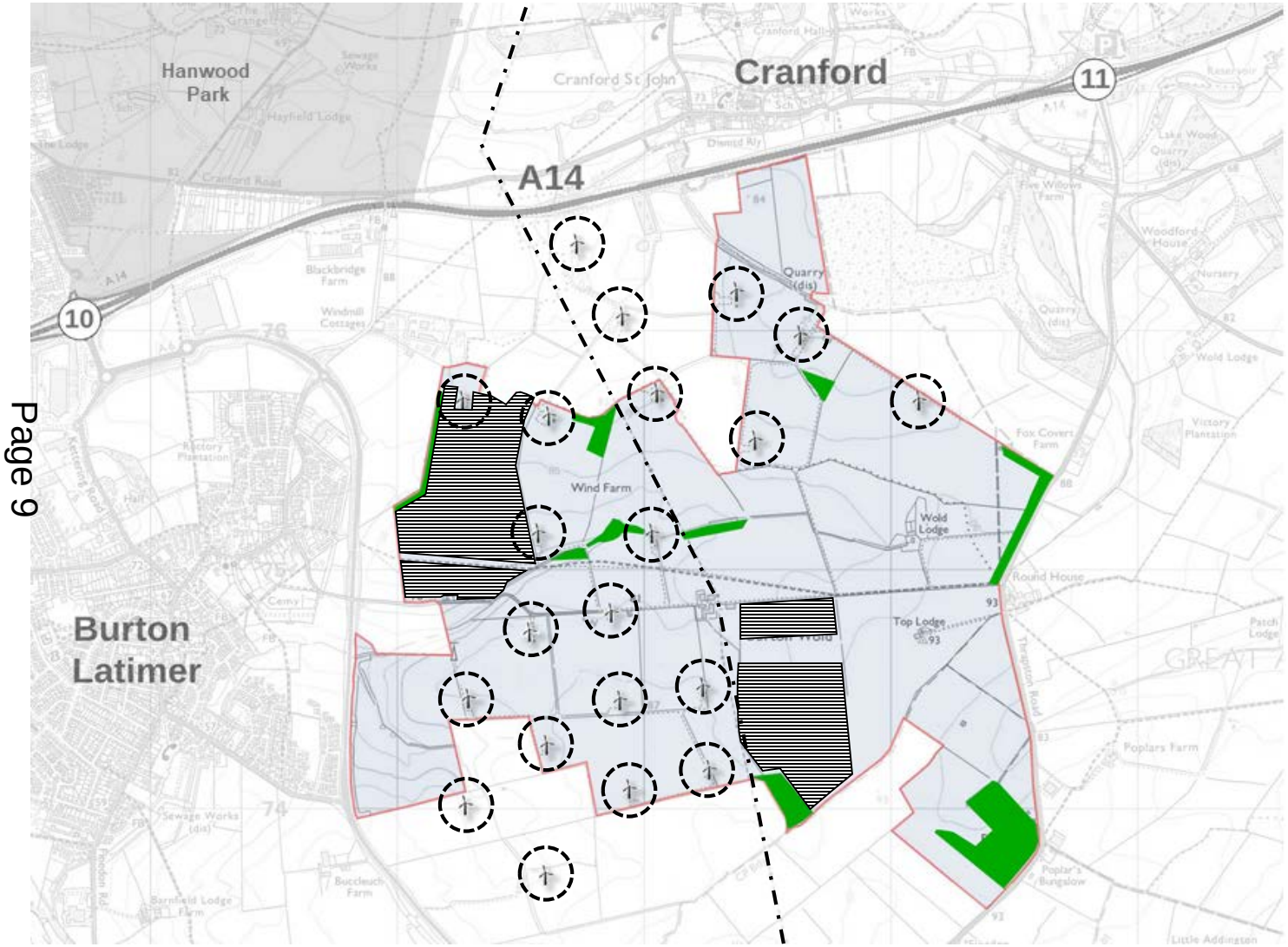
FIRST RENEWABLE DEVELOPMENTS

The Energy Park Concept



FIRST RENEWABLE DEVELOPMENTS

Land Use Framework



Existing Infrastructure

- Existing on site wind turbines
- Consented Solar Farm
- Existing overhead power line

FIRST RENEWABLE DEVELOPMENTS

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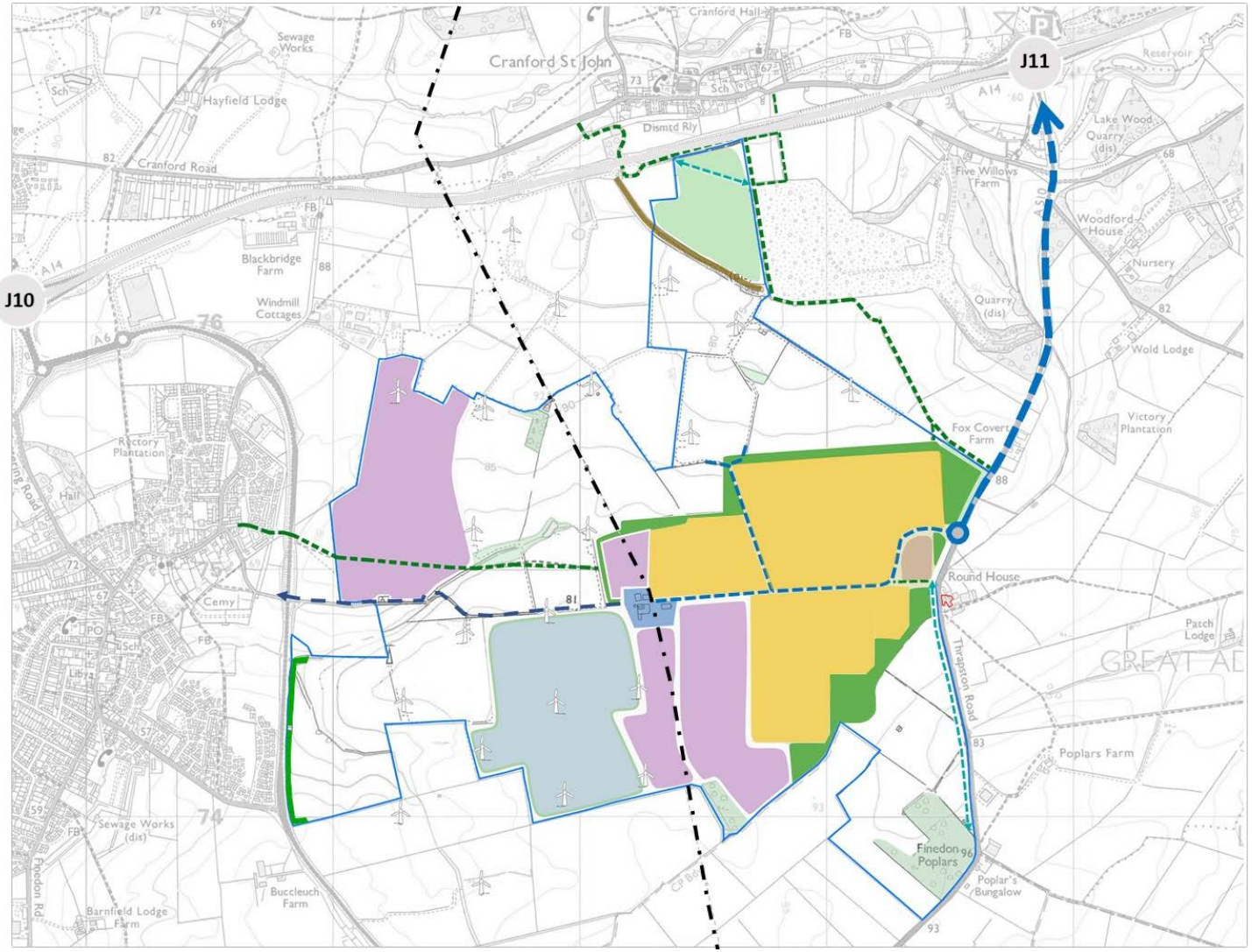

Proposed Uses

- Energy Infrastructure
  - Solar Farms
  - Battery Storage
  - Other Appropriate Energy (e.g. Hydrogen, ground source heat)
  - Grid Connection
- Future Technology Centre
- Hydroponics/Advanced Agriculture
- Employment
  All subject to Energy Criteria
- Biodiversity Net Gain Area
- Strategic Landscape Buffers
- Existing Landscape

FIRST RENEWABLE DEVELOPMENTS

Energy Criteria

Requirement to meet 2 out of the 3 below criteria.

1. The proposed operations are associated with activities related to:

   - Energy Infrastructure potentially including: Solar, CHP (if sustainably powered), hydrogen, ground source heat pump, battery storage and other appropriate technologies (biomass is excluded from this list);
   - Automation of operations, e.g. manufacturing using robotic assistance / automated processes, logistics and distribution operations using intelligent robotics, automated scanning or picking, as well as measures that can increase efficiency and productivity; and/or
   - Engineering, manufacturing, R&D or other operations linked to low/zero carbon sectors or the transition away from fossil fuel dependency.

2. A minimum of 50% of the energy demand from operations within the new unit is provided by the on-site renewable infrastructure;
3. Every unit will have access to a minimum power supply based on the ration of the 1MW per 100,000sq ft/ 9,290 sqm.

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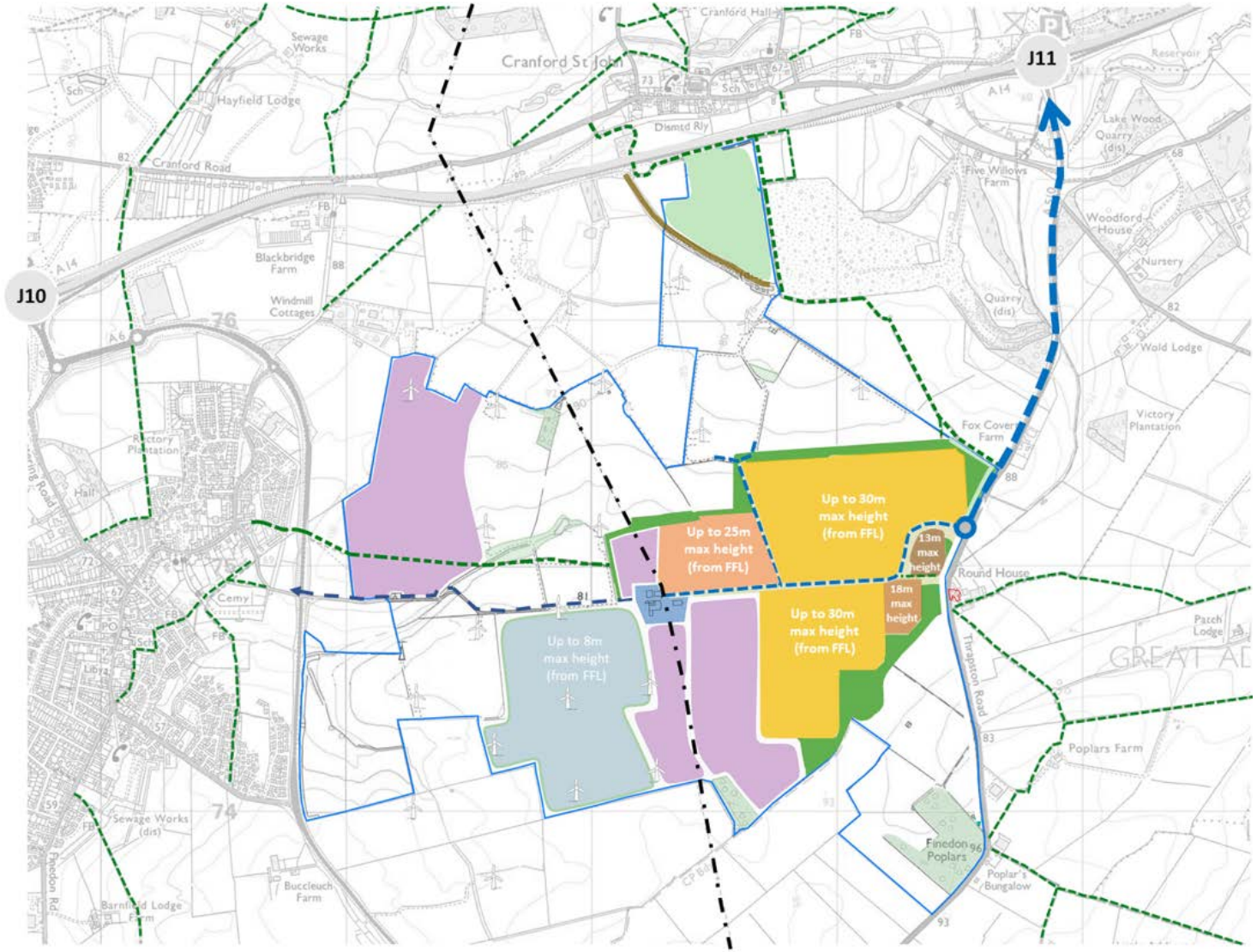
Building Heights



Height of existing Wind Turbines approx. 110m

- Lower building heights to the east adjacent to the Round House
- Higher building heights in the middle of the site
- Building Heights to allow for flexibility from occupiers
- Will be fully tested at application stage through Landscape and Visual Impact Assessment
- Landscape Buffers provided around the site perimeter to help screen new development

Building Height up to 30m

Building Height up to 25m

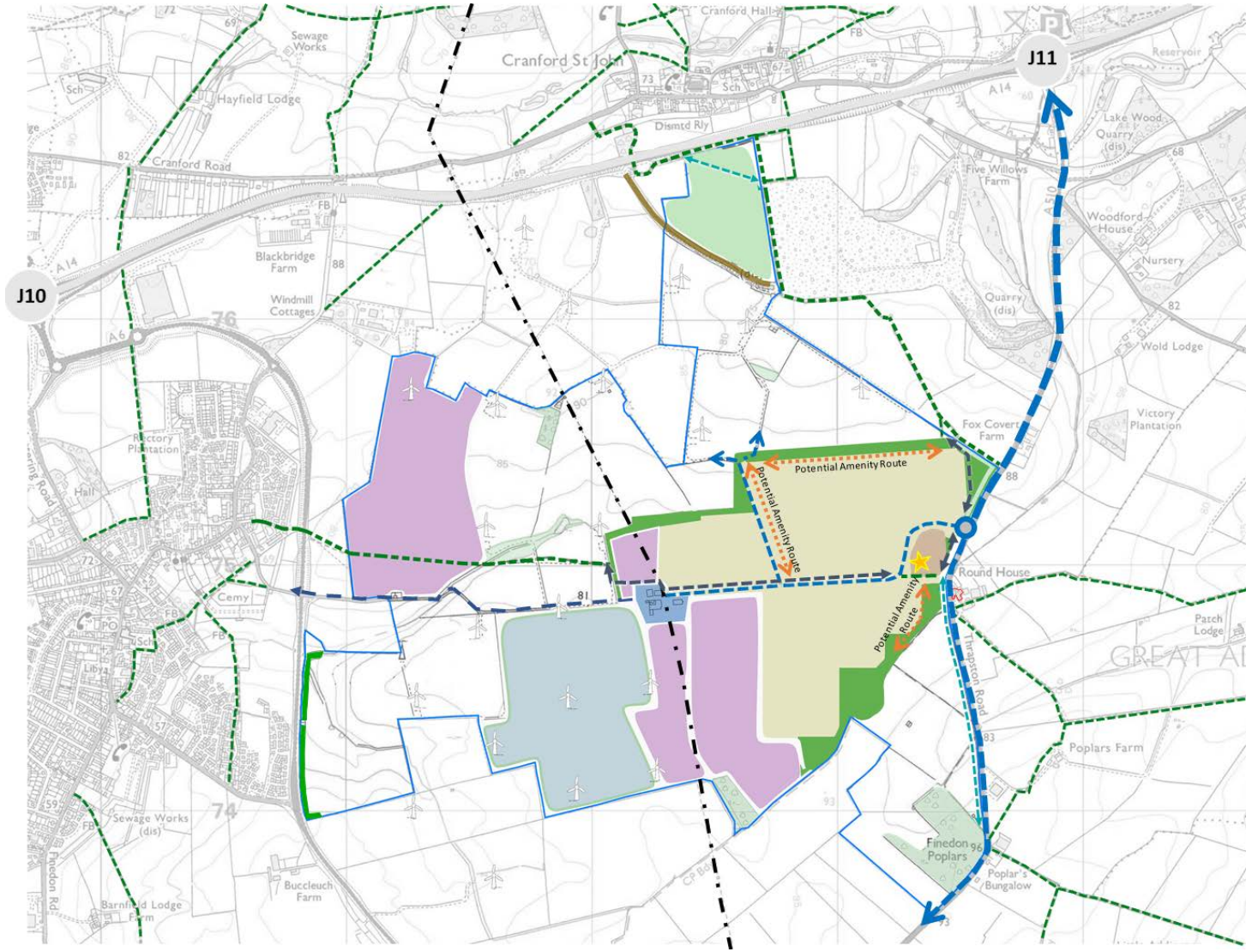
Building Height up to 18m

Building Height up to 13m

Building Height up to 8m

FIRST RENEWABLE DEVELOPMENTS

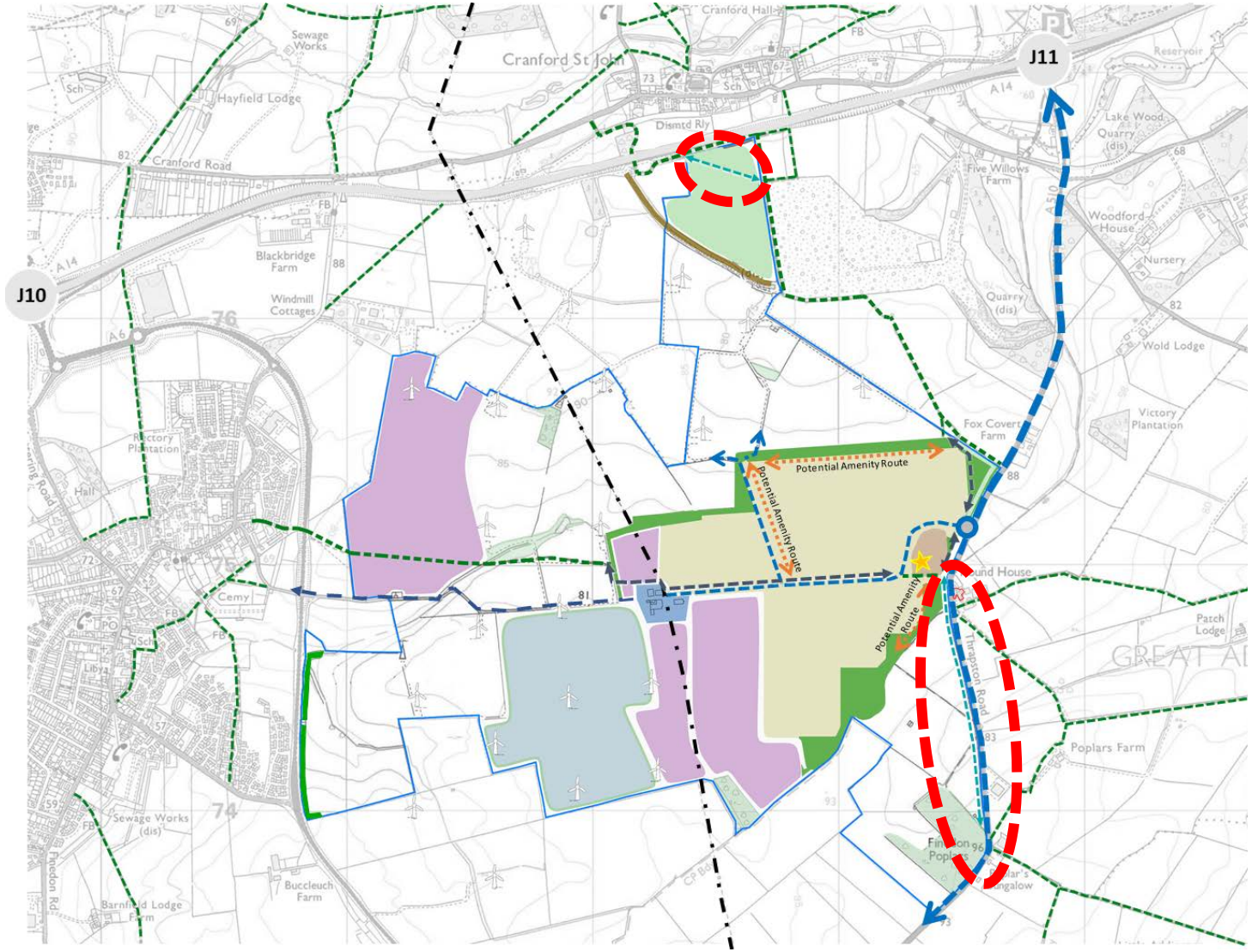
Movement Framework



- New site Access from A510 – to north of the Round House
- Estate Road to follow alignment of Wold Road – with shared footway/cycleway within the site
- Public rights of way diverted
  - Footpath along Wold Road
  - Bridleway to the north
- Amenity Routes Provided within the site for use by employees
- Mobility Hub to support sustainable travel
- Improved bus connections (existing service enhancements, shuttle bus serving the site etc)
- Wold Road used for cycling and pedestrian connections towards Burton Latimer
- New Permissive Routes provided to supplement Public rights of way
  - Across Biodiversity Net Gain Area
  - To the south along A510

FIRST RENEWABLE DEVELOPMENTS

Movement Framework



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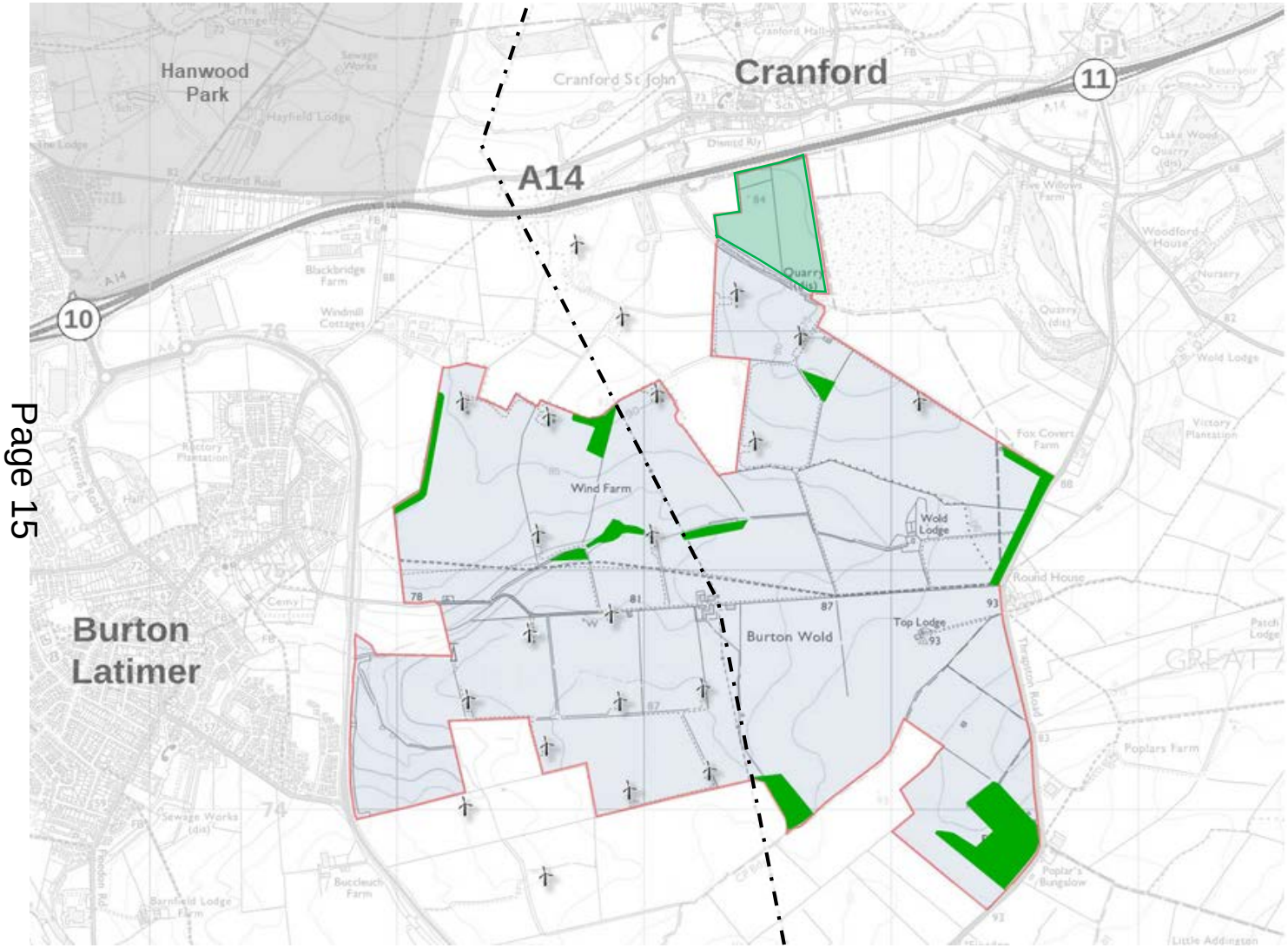
FIRST RENEWABLE DEVELOPMENTS

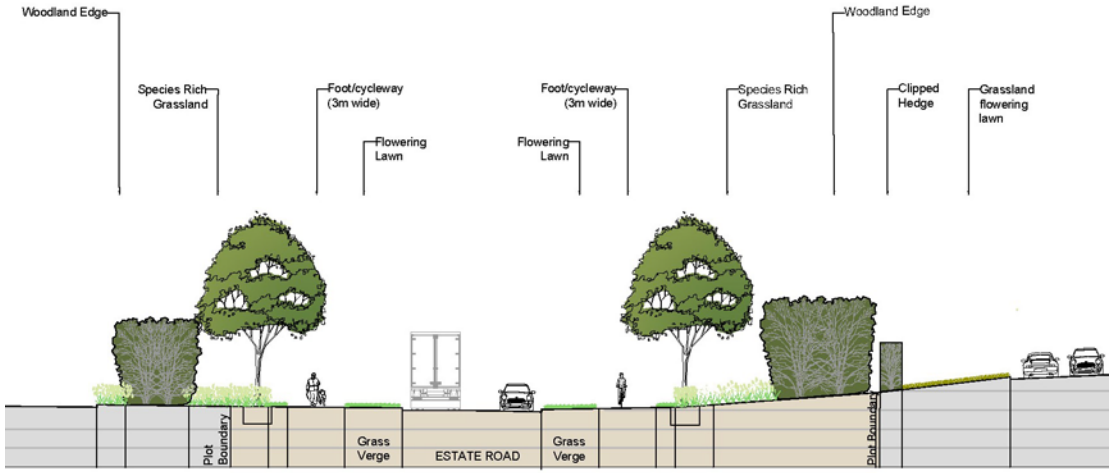
Green Infrastructure & Landscape Strategy



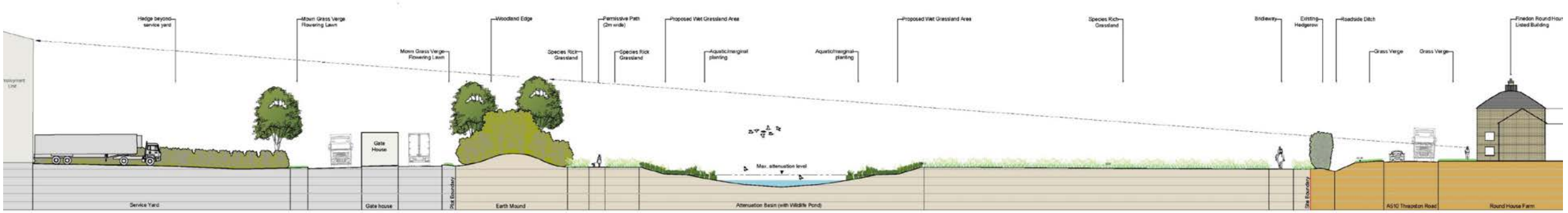
- Retention of existing features and existing trees and hedgerows where possible.
  - New site access will affect boundary planting along A510
- Replacement tree planting will be provided as part of a strategic landscape scheme, also including scrub planting drainage features, amenity areas and walking routes
- Bunds will be provided around the perimeter to elevate planting and assist with screening of new development
- New landscape will be subject to management and maintenance programme
- Development set back from the Round House to provide open aspect
- Views towards the Round House maintained from within the site

FIRST RENEWABLE DEVELOPMENTS

Green Infrastructure & Landscape Strategy



Illustrative Estate Road Cross Section



Illustrative Cross Section of Potential Employment Unit & site frontage opposite the Round House

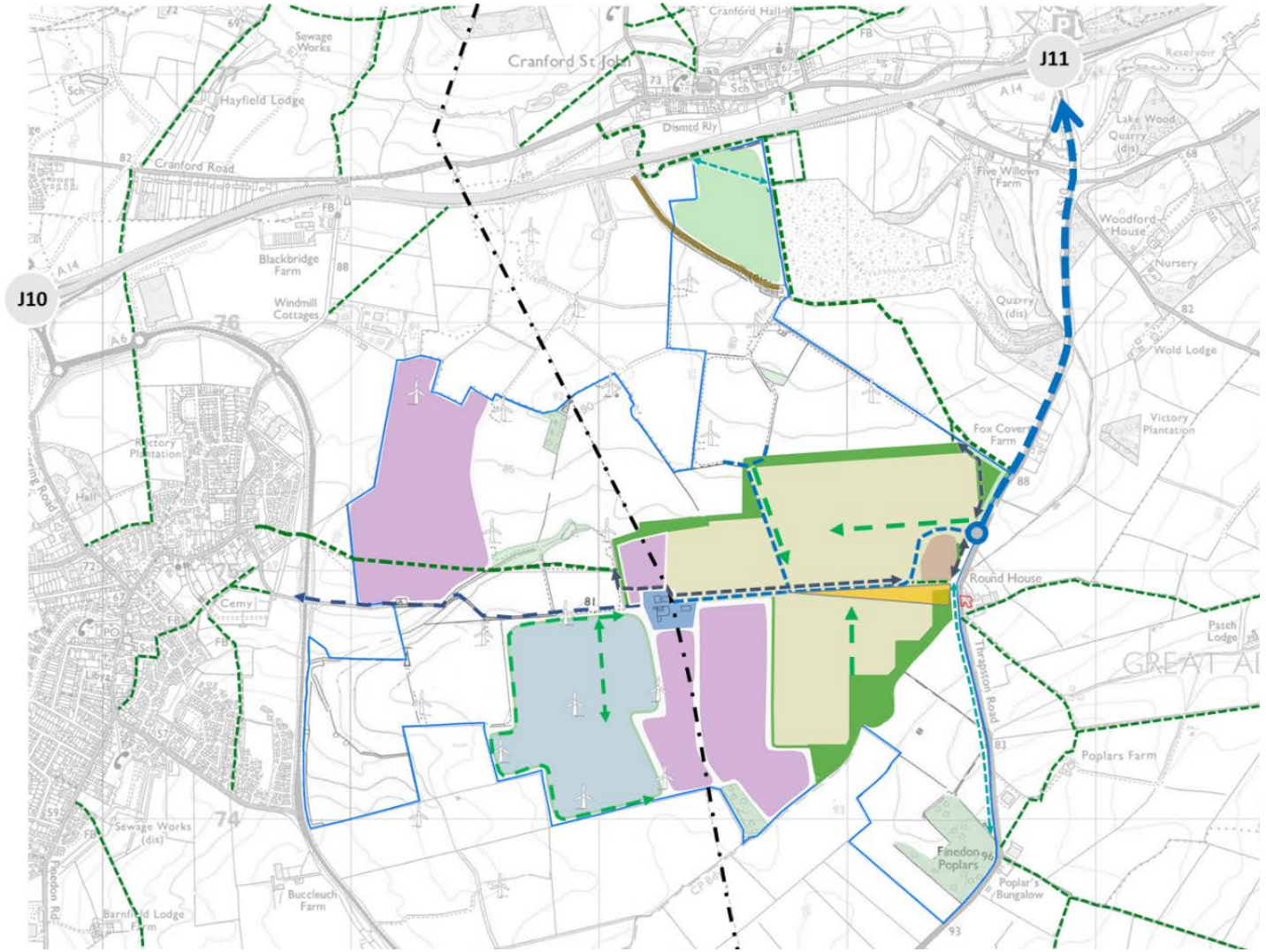
FIRST RENEWABLE DEVELOPMENTS

Drainage Strategy

- The Drainage Strategy for the site will adopt Sustainable Urban Drainage features, including opportunities for swales, filter drains and attenuation basins. It is anticipated that surface water will drain to existing watercourses.
- The Hydroponic uses will use rain water harvesting, collecting water from run off for use within the growing system.
- The drainage strategy will be prepared in conjunction with the project ecologist to provide biodiversity benefits.

FIRST RENEWABLE DEVELOPMENTS

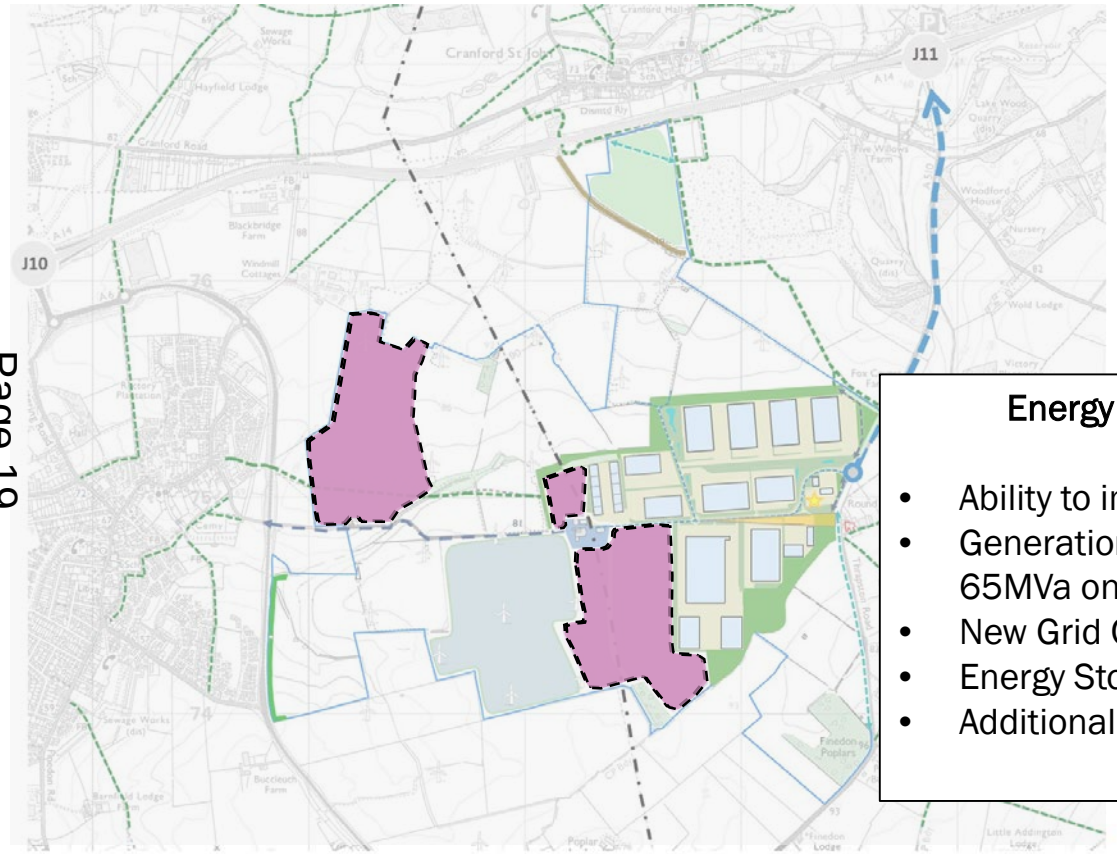
Proposed Masterplan Framework – Response to Policy 26

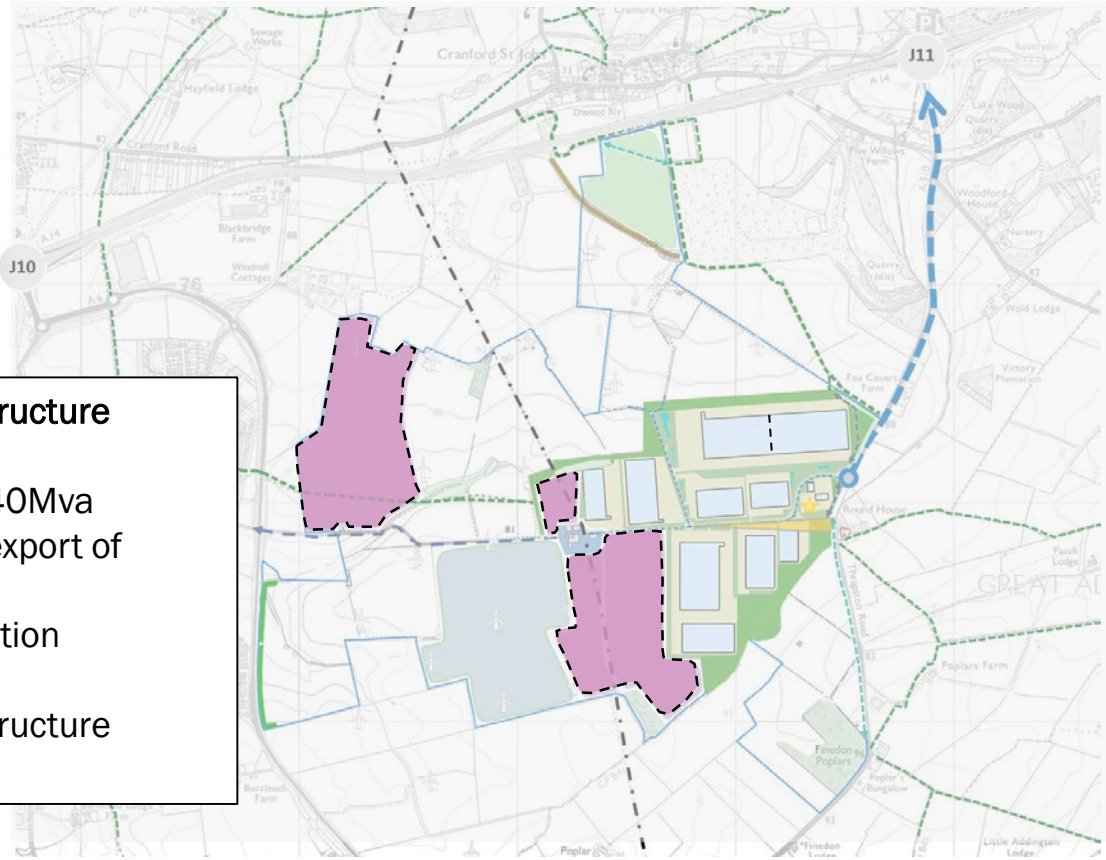


- Responds to Policy 26
- Strategic Development Parameters to crystalise opportunity
- Informed by consultation
- Inclusion of Permissive Routes
- Set Back from the Round House
- Secure Key views to Round House
- Incorporates Lapwing habitat area
- Landscape Buffers
- Landscape to break up development plots

FIRST RENEWABLE DEVELOPMENTS

Illustrative Layouts & Development Zones





Energy Infrastructure

- Ability to import 40Mva
- Generation and export of 65MVa on site
- New Grid Connection
- Energy Storage
- Additional infrastructure

FIRST RENEWABLE DEVELOPMENTS

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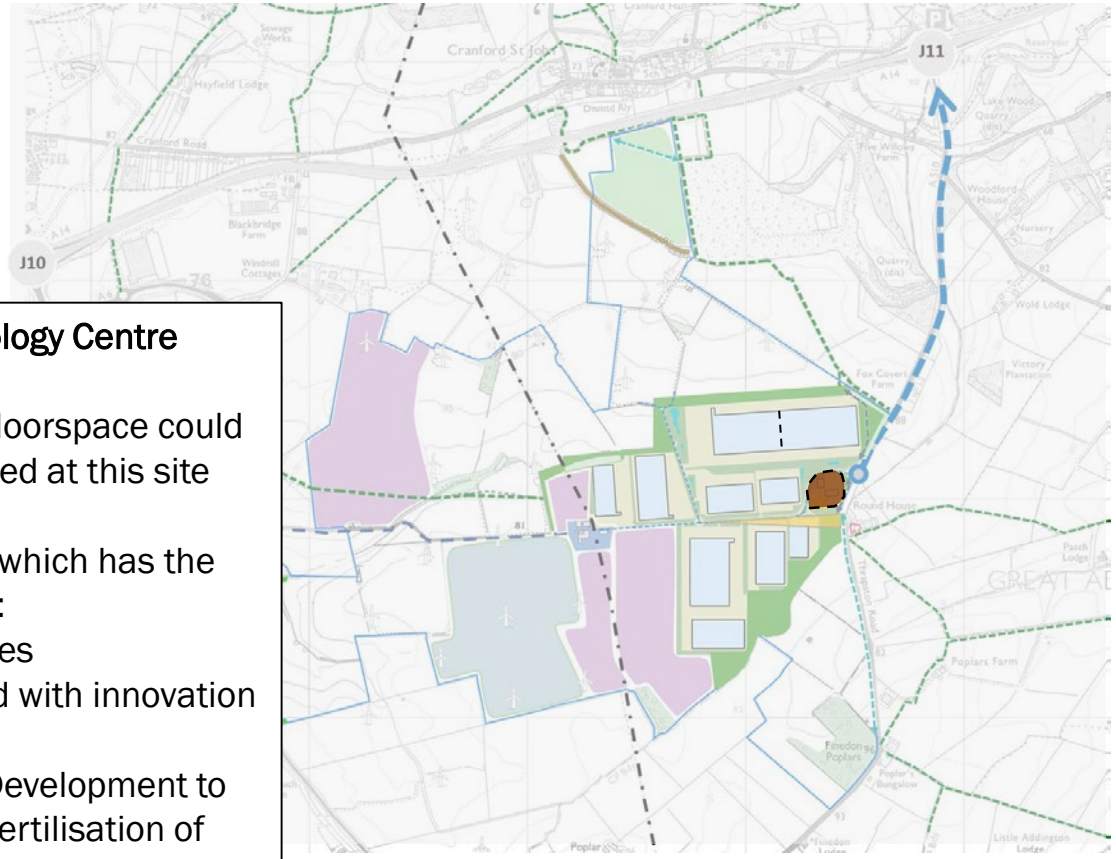

Future Technology Centre

c. 15,000sqm of floorspace could be accommodated at this site

Creating a location which has the potential to provide:

- Charging facilities
- Uses associated with innovation & education
- Research and Development to allow for cross fertilisation of ideas

Responsive to Market Requirements

FIRST RENEWABLE DEVELOPMENTS

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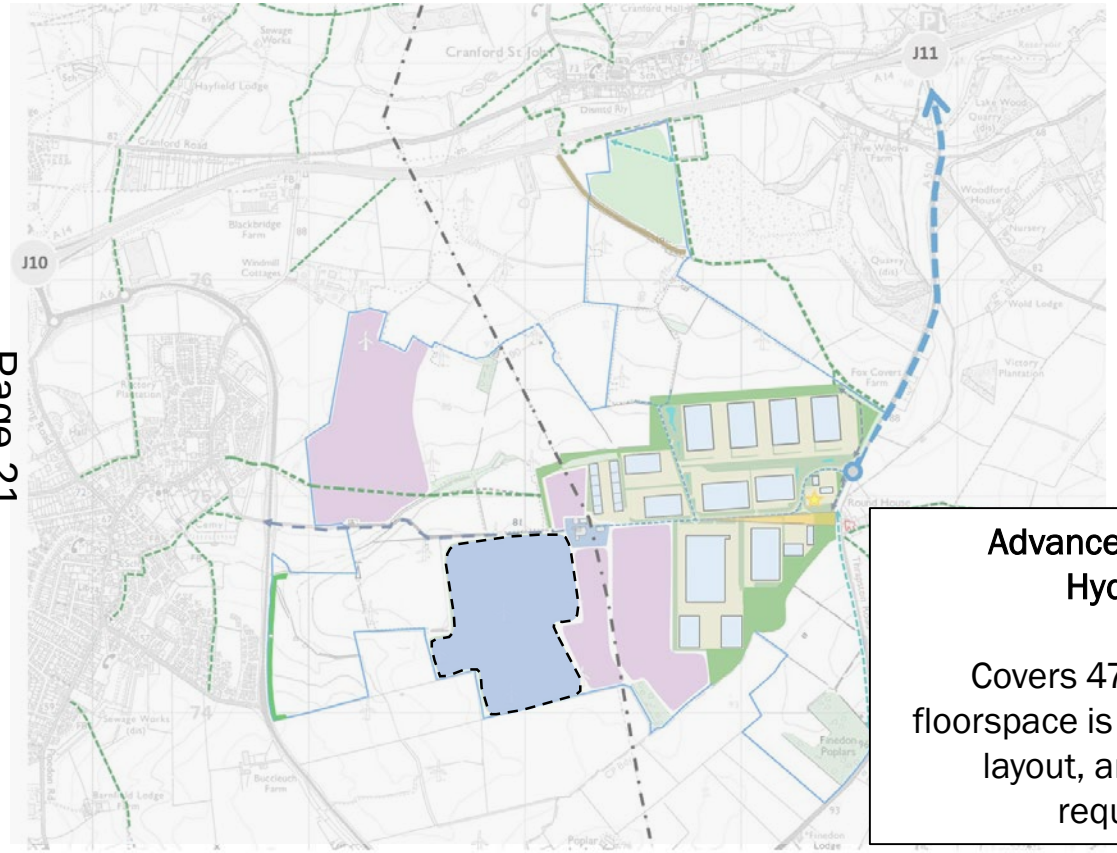

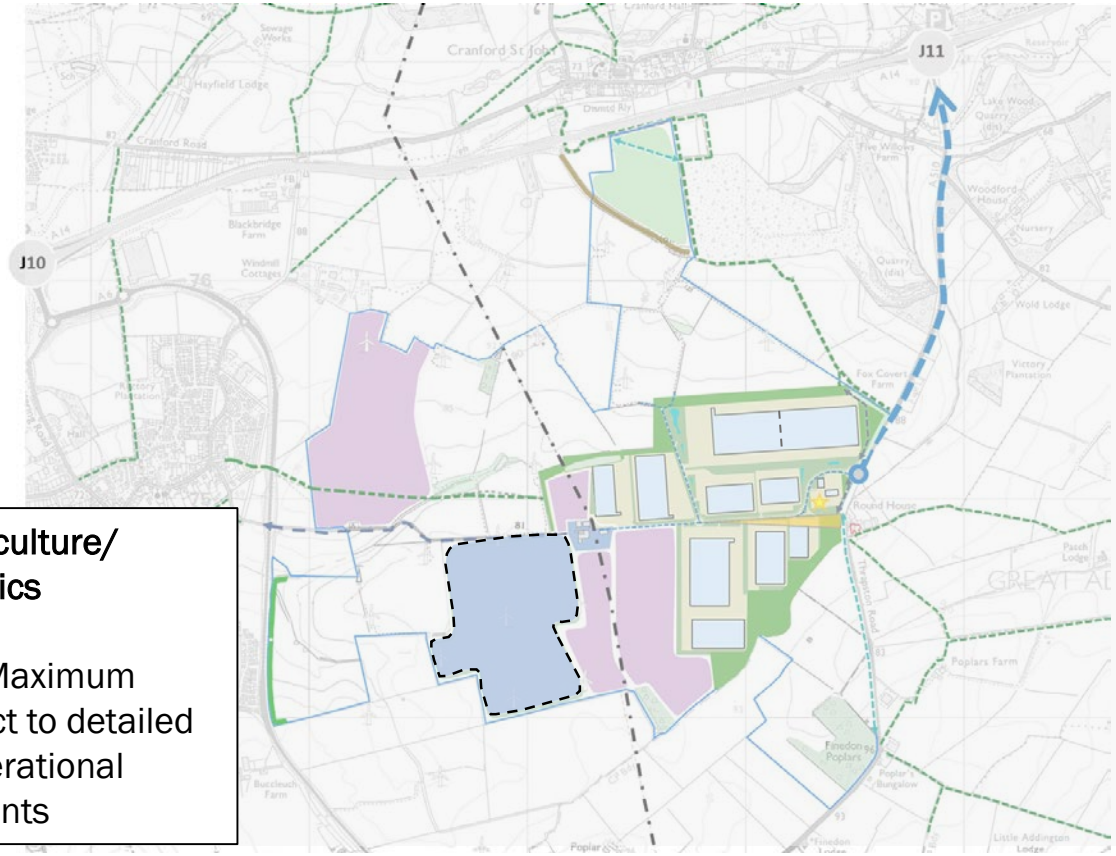

Advanced Agriculture/ Hydroponics

Covers 47 Ha. Maximum floorspace is subject to detailed layout, and operational requirements

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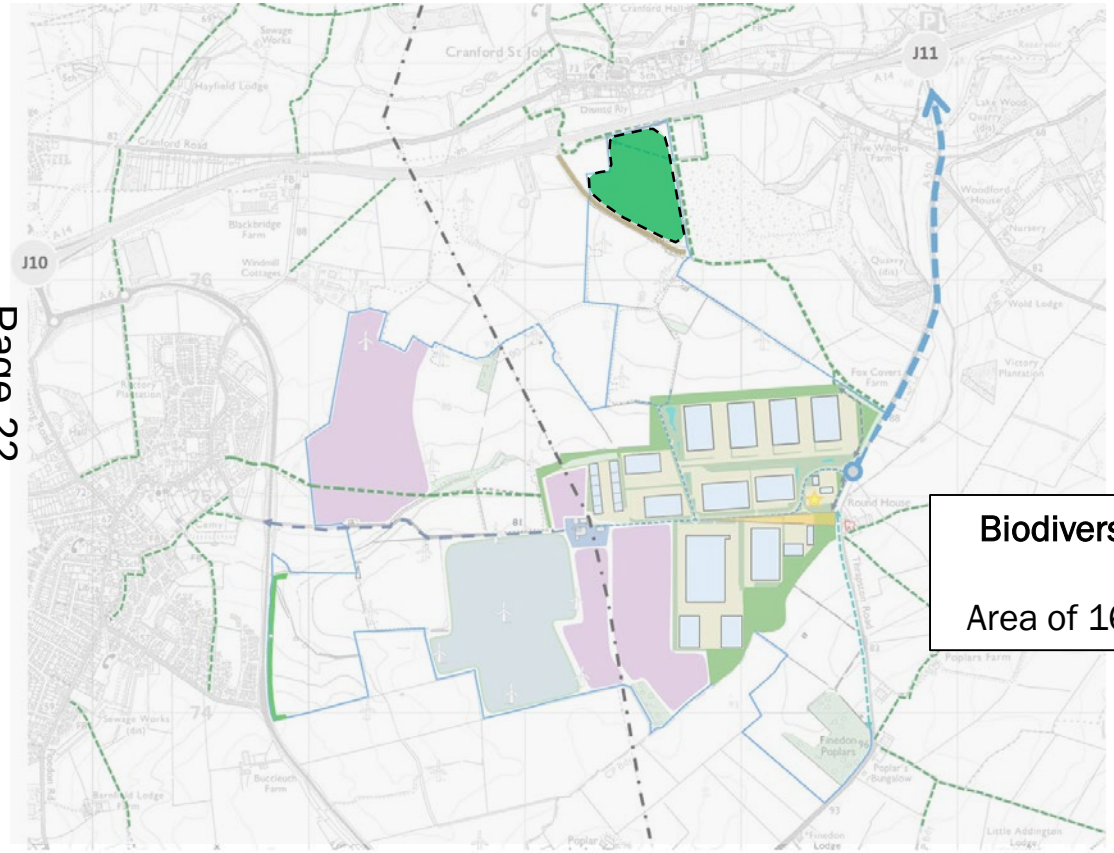
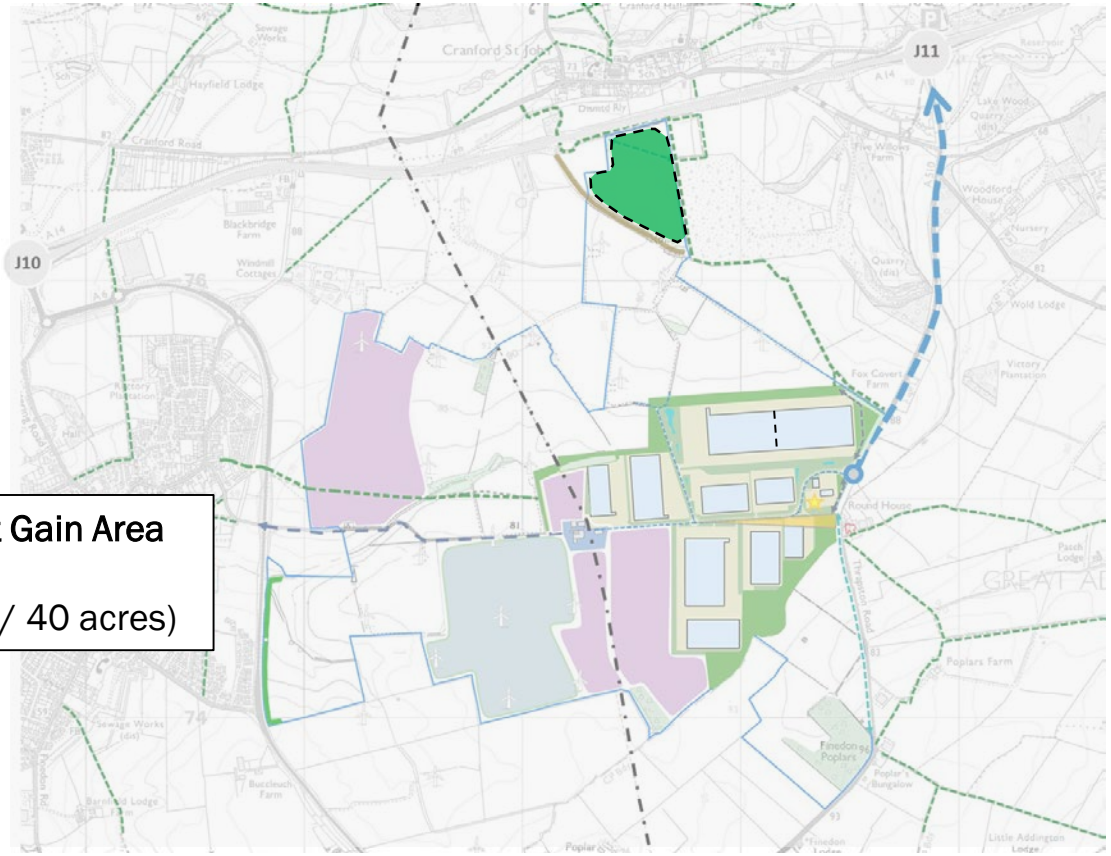


Biodiversity Net Gain Area

Area of 16.4 Ha / 40 acres)



FIRST RENEWABLE DEVELOPMENTS

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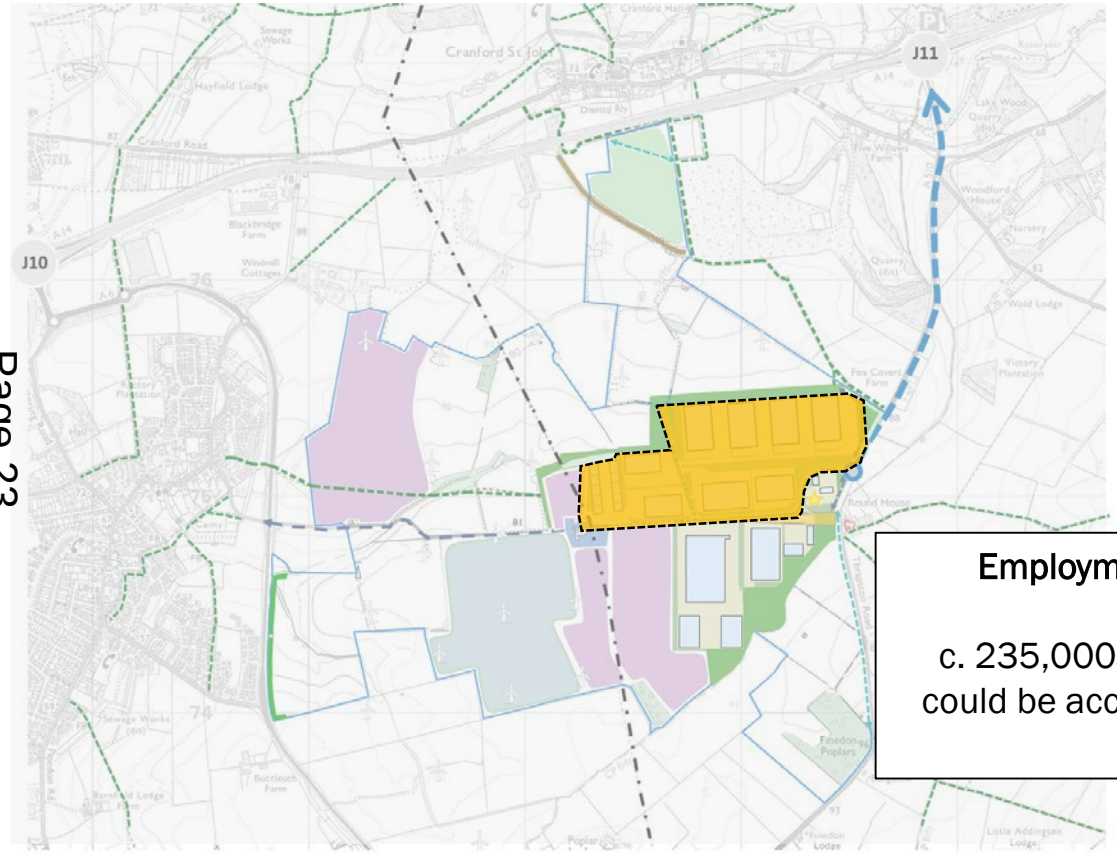
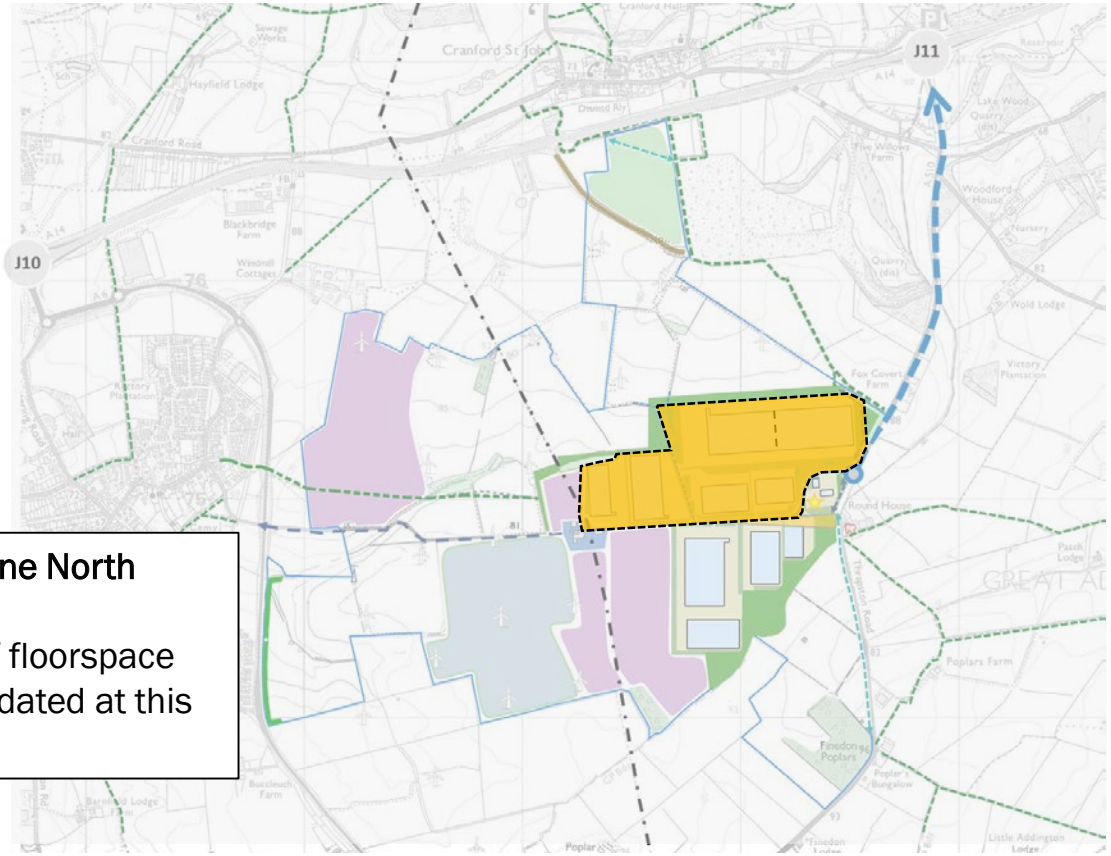


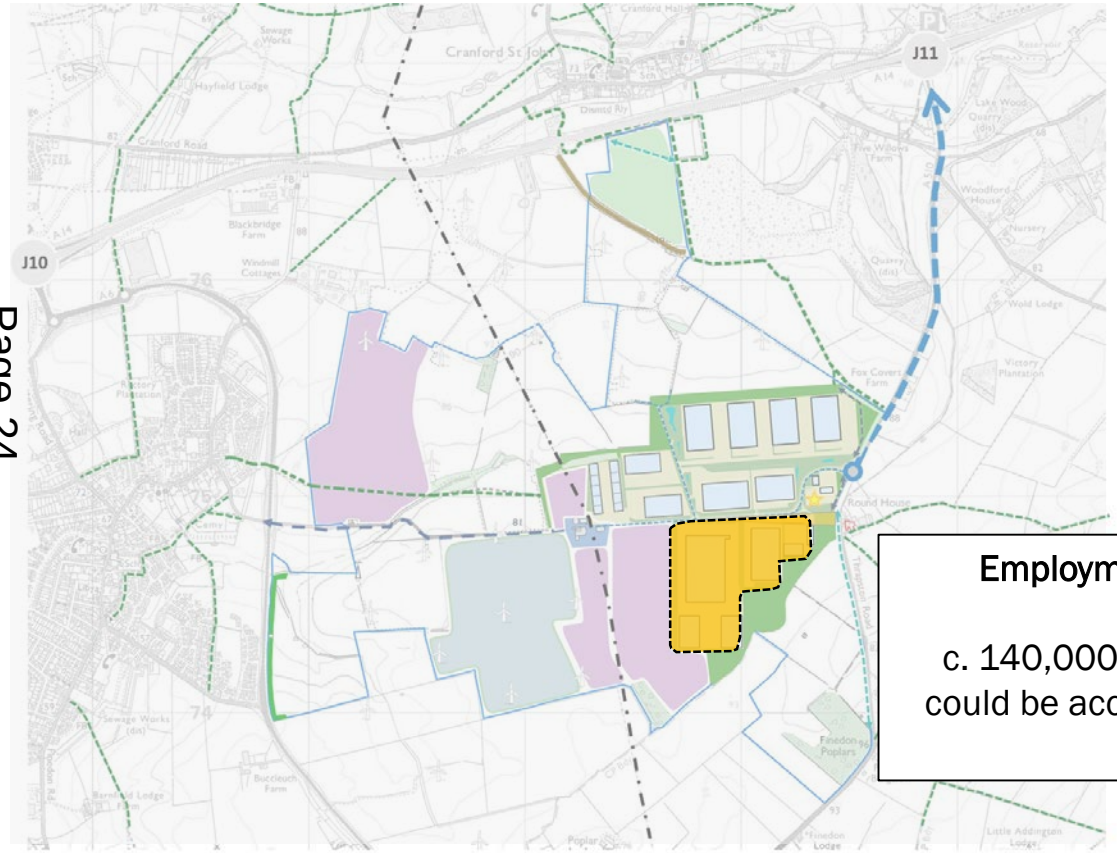
Employment Zone North

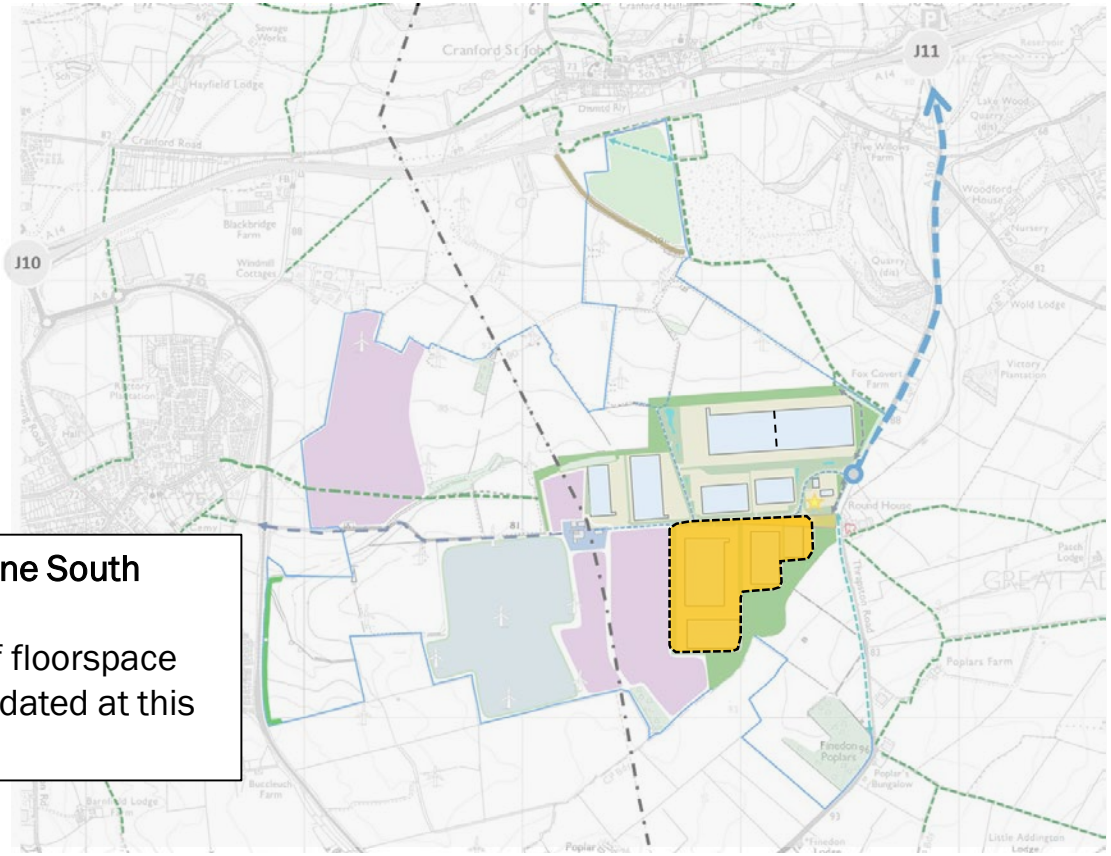
c. 235,000sqm of floorspace could be accommodated at this site



FIRST RENEWABLE DEVELOPMENTS

Illustrative Layouts & Development Zones





Employment Zone South

c. 140,000sqm of floorspace could be accommodated at this site

FIRST RENEWABLE DEVELOPMENTS

Design Principles

- Target BREEAM Excellent
- EPC Rating of A
- Solar PV on roof space
- Building Efficiency
- Water Efficient
- Flexible Building Form
- Energy Usage Monitoring

FIRST RENEWABLE DEVELOPMENTS

Delivery

Requirements for Outline Application

Supporting reports will assess the impacts of the development based on the maximum extent of the development that could come forward at the site, including but not limited to;

Acoustic Assessment – Air Quality Assessment – Archaeology Assessment – Biodiversity Net Gain Assessment
Heritage Impact Assessment – Landscape & Visual Assessment – Transport Assessment

Planning Conditions & S106 Agreements

Planning conditions and legal obligations will be used to ensure that likely impacts identified at the outline planning stage will be addressed and mitigated as development comes forward:

- Highways Works (*subject to assessment*)
  - New Site Access
  - Junction Works e.g. A6/A510 at Finedon
- PRoW, Permissive & Cycle Routes
- Community Fund
- Employment & Skills Plan
- Landscape management and maintenance
- Biodiversity Net Gain

Design Code

Development will be expected to address relevant planning policies as well as the vision and objectives of the Masterplan. A design code will be prepared to support the delivery of a quality development at the Energy Park. The design code for the Energy Park will be informed by the National Model Design Code.

FIRST RENEWABLE DEVELOPMENTS

Planning Process

Masterplan

Adopted July 2023

Outline Planning Application

Summer 2023

Reserved Matters for development plots

Following grant of application.

FIRST RENEWABLE DEVELOPMENTS

Thank You

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DEVELOPMENTS