

Greenhays

Vision Statement



The Landowners

Greenhayes is the vision of two local farming families, the Carter family (FWS Carter & Sons Limited) and the Down family (Crealy Farms) who have been working together for many years to bring forward a carefully designed and sustainable residential-led housing development to complement their existing employment sites at Greendale Business Park, Greendale Farm Shop and Crealy Theme Park and Resort.

The success and long-term viability and vibrancy of Greenhayes as a thriving rural community is of fundamental importance to both families and that is why they have sought to lead the promotion of the site thus far and why they intend to remain fully involved in its long-term delivery.

All of the land that is being promoted for Greenhayes is owned by these two families.



FWS CARTER & SONS LIMITED

The Carter family can trace their farming roots in East Devon through several generations. Today, the family own and manage the Greendale Farm Shop and café, which will form an integral part of the proposed scheme. This is already an important local facility for the villages which surround it – a function it will continue to serve – but this vision document demonstrates how the Farm Shop and café will be redesigned and enhanced to operate as the main commercial hub for the new community and to offer the additional shops and services that local residents desire. The Carter family intend to retain ownership of the Farm Shop and café and will continue to supply products from the family's farm and fishing boats, and stocking a fantastic variety of other locally sourced products. Although the café and take-away offering is already very popular with local residents, this will be enhanced and developed to meet the additional requirements of the new community. Furthermore, the family have a vision of this becoming a thriving location for future farmer's markets, enabling local producers to showcase and sell their produce in a prominent location.

As well as the Farm Shop forming the proposed heart of Greenhayes, the Carter family also own the Greendale Business Park, which immediately adjoins the site to the east. The business park is home to over 100 different businesses, supporting over 1,600 jobs and the family have invested considerably in the business park over many years to create an ideal base from which local and national businesses can operate. It has always been the intention of the Carter family to retain ownership of the business park in the long term, which further underscores the family's commitment to ensuring the long-term success of Greenhayes as a viable community, linking the existing employment opportunities to further housing opportunities.



CREALY FARMS

The Down family are also a generational farming family within East Devon and, similarly to the Carter family, they have other employment interests in close proximity to the proposed site, including the family's main farming operations and the Crealy Theme Park and Resort. The Theme Park, occupying 100 acres immediately adjacent to Greenhayes to the west, was established in 1989 with the vision of recalling the agricultural history of the land as a working farm family attraction.

Since its opening, the park has grown considerably, adapting its facilities to accommodating to the park's growing popularity whilst keeping its history and initial vision. Today, the park hosts numerous attractions, rides, play areas and holiday accommodation alongside the existing farm and nearby nature trails.

The Down family also intend to retain complete ownership of their farm and the Crealy Theme Park which, again, emphasises that the family are also invested in the long-term success and viability of the Greenhayes community, with the overarching priority of creating a future legacy for this part of East Devon.



Statement of Intent

There is a clear vision for Greenhayes to become a thriving rural community with the existing Greendale Farm Shop at its heart, taking advantage of the significant employment opportunities in the locality, whilst at the same time enhancing the environment within the site and preserving the character and setting of this part of East Devon.

All decisions for Greenhayes will be underpinned by its overarching design and how it sits within this wider landscape. On this basis, both families are committed to delivering a residential-led housing scheme which:

- creates a real sense of “community” and a place where residents will want to live, work and play in their immediate surroundings, with the provision of fantastic sports and recreational facilities, “grow-your-own” opportunities and a beautiful rural backdrop;
- maximises the potential of the location and its proximity to existing and growing major centres of employment, providing further employment opportunities and a work hub to enable future residents to live within walking distance of their place of work and to minimise employment travel to and from their homes;

- takes full advantage of the existing facilities within the site, building upon the thriving Greendale Farm Shop and café and developing additional shops and services (including future farmer’s markets);
- provides sustainable transport opportunities for those wishing to live at Greenhayes and work elsewhere, improving the existing public transport services for Greendale Business Park, Hill Barton Business Park and visitors to Crealy Theme Park & Resort;
- sits comfortably within the environment, restricting development to those parts of the site which have capacity for change while at the same time providing significant Biodiversity Net Gain and a natural environment which promotes the wellbeing of residents and an outdoor living culture;

- seeks to achieve the highest energy and sustainability standards, maximising energy conservation and utilising existing and proposed on-site renewable energy generation and storage; and
- respects the vernacular and character of local villages and promotes the highest quality of design.

To ensure that their aspirations for Greenhayes are realised, both families have decided to take the lead in promoting Greenhayes thus far and it is their intention to retain a high level of involvement throughout each stage of the process.

Preface

This Vision Statement has been prepared on behalf of the Carter and Down families by Pad Design and Savills (Planning), with detailed input from Stantec (Transport/Drainage/Sustainability), Nicholas Pearson Associates (Landscape), Cotswold Archaeology (Heritage), GE Consulting (Arboriculture/Ecology) and Glenn Howells (Architecture).

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Greenhayes will be a mixed-use, sustainable new settlement which complements and supports existing businesses, including the relocated Greendale Farm Shop

Introduction

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1.1 Introduction

Through a period of baseline assessment, technical assessment and detailed design considerations, this Vision Statement sets out the potential for development of the land surrounding the Greendale Farm Shop and café, and in between three major employment sites: Hill Barton Business Park, Crealy Theme Park and Resort and Greendale Business Park (alongside the A3052).

It focuses on the opportunities and constraints of the site, together with an initial design concept. It is, however, intended that the design of the proposed community will evolve significant through ongoing collaboration with local planning authorities, consultees, and the wider community.

The evidence produced by our team of consultants has revealed how we can incorporate measures to overcome and mitigate any challenges and maximise the opportunities presented by the site and the following sections provide an indicative design concept to aide discussions, including visualisations showing the potential for a vibrant community hub to grow around the established Greendale Farm Shop and café.



The community hub at Greenhayes will be set around an expanded Farm Shop, and include complementary education and commercial opportunities to create a vibrant heart to the development

The conclusion to this Vision Statement summarises the benefits of the Greenhayes development and how the principles of a successful Garden Village will be achieved.

A summary of the environmental and technical evidence is also provided within the appendices.

Through this carefully considered and evidenced process, a masterplan has emerged which demonstrates that there is an opportunity to deliver:

- a new local rural community of circa 1300 - 1500 homes (including affordable and self/custom build properties);
- a newly designed and enhanced Farm Shop and café/restaurant, with future opportunity for regular farmer's markets;
- a new community work hub positioned alongside the new Farm Shop, encouraging home working and mitigating unnecessary and unsustainable commuting;

- a range of additional shops and services, to meet existing local requirements and the needs of the new community;
- a two-form entry primary school;
- significant Green Infrastructure, including an extension to the proposed Clyst Valley Regional Park, with delivery of Suitable Alternative Natural Greenspace (SANG), tree and new hedgerow planting, with protection of much of the existing vegetation;
- community "grow-your-own" opportunities, including allotments and an orchard;
- a fantastic new health and sports club, with playing pitches, gym, facilities, and events venue;
- the provision of enhanced sustainable modes of transport, with active travel (walking and cycling routes); and
- a park and ride facility to provide local services and mitigate any perceived impact on the local road network.



Greendale Farm Shop is a well-established retail and leisure facility with fresh, locally-sourced produce



The document sets out proposals for a sustainable Garden Village on land surrounding the Farm Shop



The extensive green space proposed for the Garden Village will include opportunities for food production

1.2 Site Location

Greenhayes provides a unique opportunity for East Devon and the Greater Exeter area to meet its growth needs in a highly sustainable location.

The site lies around 8km east of central Exeter, predominantly to the south of the A3052. It is well linked to the local and strategic highway networks, including good access to the M5 and A30.

Nearby Farrington Cross accommodates a small number of houses, as well as employment uses, while individual properties adjoin the site along the A3052.

A local public house, The White Horse, lies to the north-east of the site.



The A3052 lies to the north of the site, and runs towards Junction 30 of the M5 and Exeter

A little over 1km to the south of Greendale Farm Shop – to which it is connected by a dedicated footpath off Honey Lane – is Woodbury Salterton. This attractive village includes a public house, primary school and a church.

Further west is Westpoint Exeter; Exeter Airport is around 4km to the north; and Skypark, Exeter Science Park and Sowton Industrial Estate are also equidistant from the site.

There are approximately 30,000 jobs located within 5km of Greenhayes and approximately 3,600 jobs within walking distance, at Crealy Theme Park and Resort, Hill Barton Business Park and Greendale Business Park. This is only around 500 fewer than



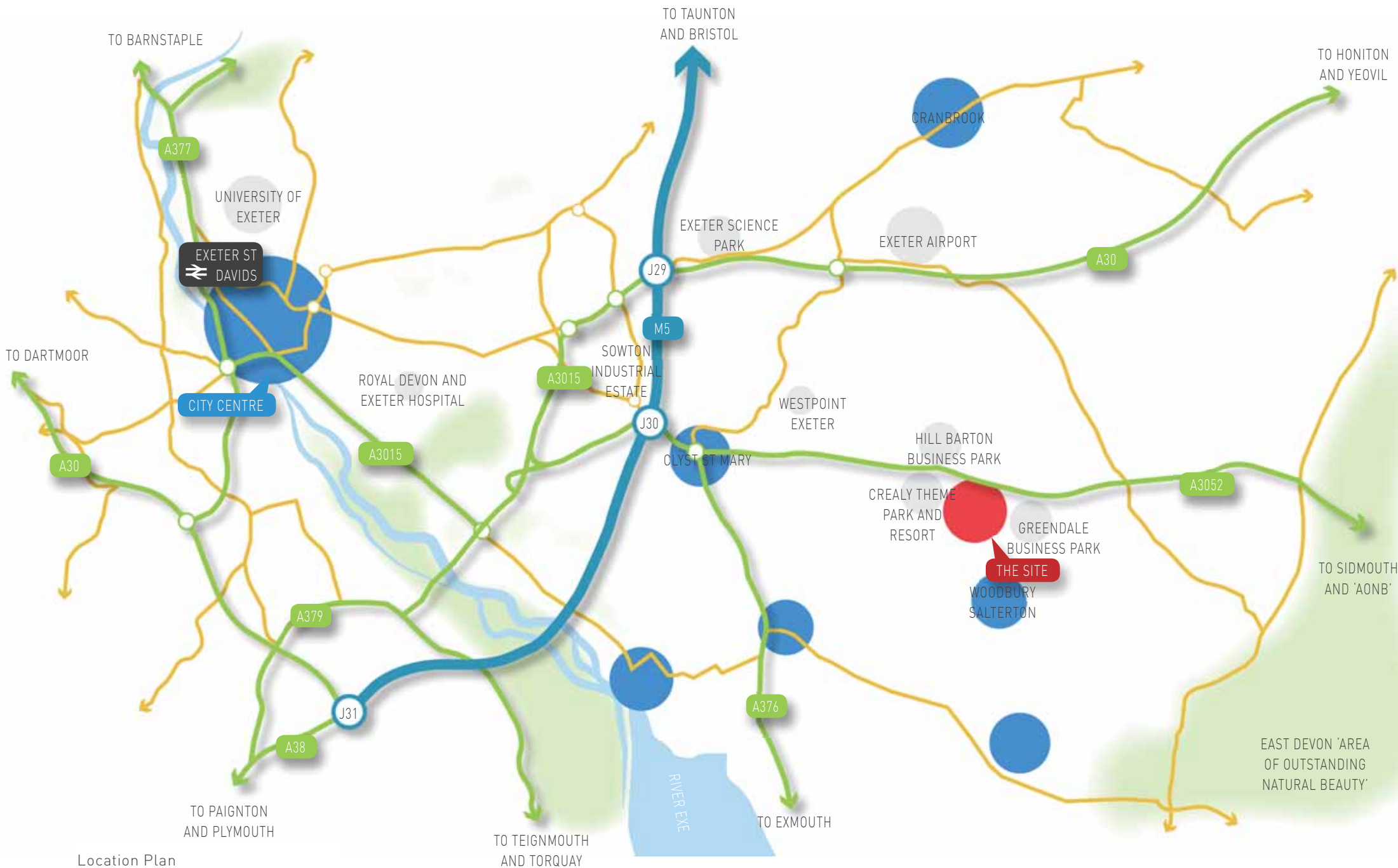
The site benefits from access to many employment opportunities, including at Greendale Business Park

the number of private sector jobs at Honiton and substantially more than those at the towns of Ottery St. Mary and Seaton.

This sustainable connection to existing local employment centres (including bus routes and a proposed park and ride facility), the creation of an even wider range of shops and services around the Farm Shop (reducing the need to travel), the proposed home working facilities and the incorporation of work space into future house design will minimise the need for future residents to travel, benefitting not only the creation of a truly thriving community but also reducing car use.



Cycling along the attractive, quiet rural lanes of Woodbury Salterton to the south of the site



Location Plan

1.3 Site Overview

TOPOGRAPHY & DRAINAGE

The site comprises 132.83 hectares (ha) / 328.23 acres (ac) of predominantly Grade 3 agricultural land (with some Grade 2 land) set within the overall landownership of approximately 330 hectares.

The land generally falls from a high point at Windmill Hill towards the north-east, with the Farm Shop also on this higher and relatively level ground. The land then falls away to the south and towards the Grindle Brook, with steeper sections to the south of the proposed housing.

The Grindle Brook flows along much of the southern boundary and sits within an area of floodplain.



The existing Farm Shop and its car parking occupies relatively level land in a broadly central location

LANDSCAPE & ECOLOGY

The site comprises fields divided by hedgerows (some of which are native species-rich), with a number of mature trees. Several small copses and specimen trees are distributed across the site.

Long range views are available from the upper slopes towards Exeter; however, due to the topography there is only limited inter-visibility with the Area of Outstanding Natural Beauty (AONB) to the south-east..

A small pocket of ancient woodland lies along the Grindle Brook, which itself is lined by semi-natural broad-leaved woodland.



The site enjoys long-distance views and is crossed by a footpath from the Farm Shop to Woodbury Salterton

ACCESS & MOVEMENT

The existing vehicular access to the land from the A3052 is via the Greendale Farm Shop. There is the opportunity for new vehicular accesses to both the west and east, off the A3052, which would enable a through-route to be created and with it the potential for buses to penetrate the development, with enhanced services and a connection to the new proposed park and ride facility.

While not crossed by any Public Rights of Way (PRoWs), a permissive footpath connects the Farm Shop to Honey Lane at the edge of Woodbury Salterton in the south. Local bus stops lie on the A3052 and pass through Greendale Business Park.



The site is surrounded by commercial uses, including Crealy Adventure Park and Resort, along the A3052



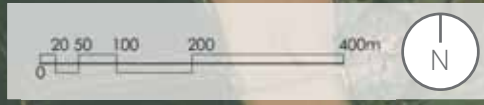
HILL BARTON
BUSINESS PARK

CREALY THEME
PARK AND
RESORT

THE SITE

GREENDALE
BUSINESS PARK

WOODBURY
SALTERTON



Aerial photo of site and context

1.4 Constraints & Opportunities

A thorough investigation has been undertaken of the constraints and opportunities for development and how these should shape the proposals for the proposed community. A more detailed summary of the evidence produced has been appended to this Statement. This includes thorough assessments of:

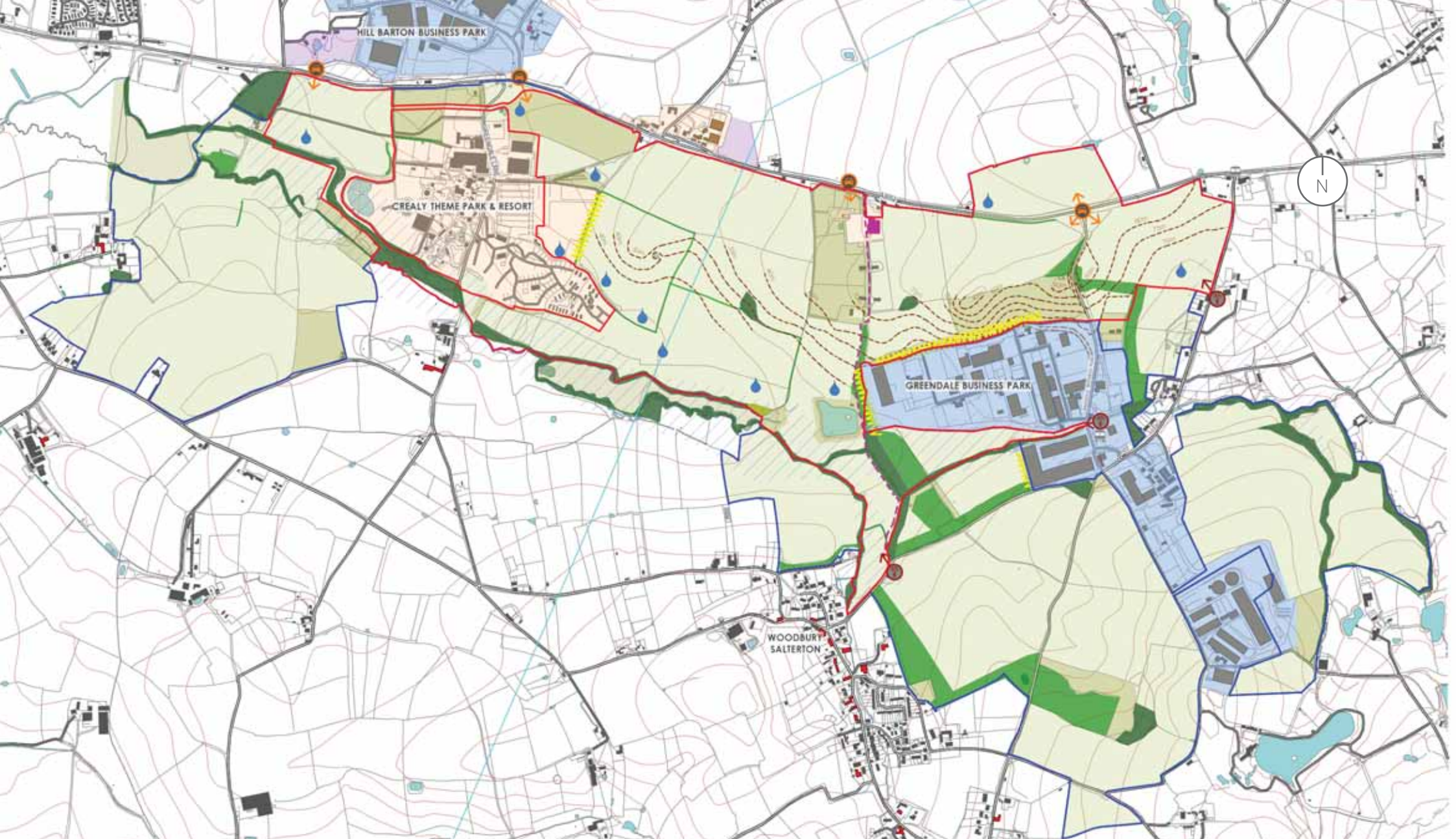
- landscape impact;
- heritage assets;
- ecology and biodiversity;
- mobility and access; and
- flood risk and drainage.

CONSTRAINTS & OPPORTUNITIES

- Parts of the site are relatively steeply sloping, the development will be carefully designed around this
- More visible areas of the site will be sensitively designed to mitigate any landscape visual impact
- Lower-lying areas are subject to flood risk and these areas will remain undeveloped as a result, providing opportunities for green infrastructure

- Parts of the site need to be protected and enhanced for biodiversity and significant steps will be taken to provide an ambitious level of Biodiversity Net Gain throughout the Green Infrastructure network.
- The existing Greendale Farm Shop provides a successful existing facility which can be redeveloped and enhanced to provide a greater range of shops and services (whilst remaining open throughout the development)
- A site for future farmer's markets and, with the provision of "grow-your-own" allotments and green spaces, a community with growing and local produce at its core
- With the provision of a new community work hub supported by an existing Jurassic Fibre super-fast broadband network through the site, there is the opportunity to encourage further home working and to mitigate unsustainable travel
- Furthermore, by linking the proposed housing to the abundance of nearby employment sites, there is an opportunity to create a truly sustainable working, living and thriving community

- There is the potential for vehicular access to be provided at either end of the site, to support a through-bus route and the additional provision of a new park and ride facility, mitigating any concerns regarding the perceived impact on the local road network and providing a sustainable transport link to nearby centres
- There is the opportunity to deliver an extension to the proposed Clyst Valley Regional Park, linking to this site via green corridors, walking and bike trails and providing outdoor recreation and wellbeing opportunities for residents
- There is the potential to provide a significant proportion of the energy requirements for the community via existing and proposed on-site renewable energy schemes (via existing Anaerobic Digester/Combined Heat and Power plants, proposed solar PV schemes and other renewable energy sources)
- Powerlines currently cross the site and there is also the option of undergrounding these lines as a benefit to the development and wider landscape



- | | | | | |
|--|---|--|--|---------------------------|
| Site Boundary | Indicative Proposed Attenuation Pond Location | Potential Vehicular Access | Arable Land
(refer to GE Consulting Information) | Power Cables & Pylons |
| Adjacent Land within Ownership | Buildings (Unspecified Uses) | Potential Pedestrian/Cycle Access | Improved Grassland
(refer to GE Consulting Information) | Permissive Foot/Cycle Way |
| Potential Noise from Adjacent Land Uses | Commercial & Light Industrial Buildings | Semi-Natural Broad Leaved Woodland
(refer to GE Consulting Information) | Crealy Theme Park | |
| Emphasised Contours indicating Steeper Gradients | Greendale Farm Shop | Plantation Broad Leaved Woodland
(refer to GE Consulting Information) | Employment Areas | |
| EA Flood Zone 2 | Listed Building | Species Rich Hedgerows
(refer to GE Consulting Information) | Planning Consent for Employment | |
| Inland Water | Existing Bus Stop | Ancient Semi-Natural Woodland | | |





Greenhayes will include integrated green infrastructure, with a network of footpaths and cycle routes as part of a sustainable transport strategy

The Vision 2

2.1 Development Vision

With a long-established history in East Devon, it is the aspiration of both landowners to create a thriving and sustainable rural community in every sense, where residents can enjoy working and living healthy and active lives in natural surroundings.

Both landowners wish to retain a long-term interest in the site to ensure it is delivered in line with their aspirations.

Beneath this over-arching vision are a number of separate but inter-linked objectives and aspirations, including:

- 1: Creating a new commercial centre around the existing Farm Shop, meeting the needs of new residents and the wider community from the outset and encouraging opportunities for residents to grow and consume locally sourced food and produce, even selling these through future Farmer's Markets;
- 2: Creating a new working hub within the heart of the new community and promoting further employment opportunities to compliment the circa 3,600 of existing jobs within the surrounding employment centres, encouraging residents to avoid commuting and promoting the increasing work-from-home culture;
- 3: Promoting sustainable modes of travel via a new park and ride facility, improved bus routes and a network of new cycle and pedestrian paths linking residents to nearby employment centres, towns, villages, cities and the surrounding natural environment;
- 4: Creating a high quality natural environment to reflect the characteristics of the area and for residents to enjoy for generations, providing biodiversity enhancement beyond national targets and helping to combat climate change;
- 5: Promoting high quality design that respects local vernacular and incorporates existing and proposed renewable energy systems and other sustainable design principles.



The proposals will respond sensitively to landscape features, helping create an attractive Garden Village

1. A NEW COMMUNITY HEART

The thriving Greendale Farm Shop sells a range of locally produced and Devon-sourced products. Good quality meat comes from local farms including those managed by the Greendale Group, while the fish counter is stocked with the daily catch from Exmouth and Brixham Harbours. The ethos of the Farm Shop is to provide locally and sustainably sourced fresh produce. This ethos will not stop at the four walls of the Farm Shop but will form an integral part of Greenhayes as a whole.

The Farm Shop and café will be relocated into the centre of the community and will be expanded to increase the number and range of day-to-day



The proposed locally-distinctive development will reflect the East Devon vernacular (Woodbury)

facilities available to residents and the wider towns and villages which it currently serves. It will continue to focus on sustainably sourced, local and fresh Devon produce.

The character and appearance of the commercial centre will be distinctive and in keeping with the location of Greenhayes. It will build upon the ethos of the current Farm Shop and café, adopting a design and pallet of materials which are low-key and rural in appearance. In so doing, this new focal point will imbue a rural yet modern East Devon Village character and this will set the tone for the remainder of the development.



The community hub will be served by foot/cycle routes and public transport



The site will deliver a new community hub, based around a relocated and expanded the Farm Shop

It is anticipated that a wide range of services and facilities will be delivered within the expanded commercial centre, focused around the Farm Shop and café. The precise range of facilities will be determined when a planning application is submitted and through local engagement. When it is, meeting the needs of future residents will be a key priority, but would likely include:

- an expanded Farm Shop with an increased range;
- an expanded café and restaurant;
- a small collection of shops;
- hair and beauty facilities;
- a two form entry primary school and a nursery;
- an outpost clinic for a primary health care provider to offer general practice services on a part-time basis;
- a community building designed to provide a meeting place and opportunities for a range of leisure and recreation opportunities; and
- a village green and market square for community events, such as a Farmer's Market.

Throughout the green infrastructure network spanning the new community there will be an edible landscape of orchards, herb gardens, individual allotments and community food growing areas, managed and maintained as part of the development.



The community heart will include a primary school and village green



The GI network will include opportunities for local food production

2. A NEW WORKING HUB

The site is already extremely well located to achieve high levels of self-containment, with a wide range of employment opportunities at the adjacent Crealy Theme Park and Resort, Greendale Business Park and Hill Barton Business Park.

Furthermore, it is proposed that Greenhayes will include a new flexible work space/hub adjacent to the re-developed Farm Shop, supporting business innovation for many local businesses, from start-up businesses to established ones.

Flexible meeting space and amenities will help facilitate home-working and businesses will be able to take advantage of an existing super-fast Jurassic Fibre broadband network which passes through the site.

Elsewhere within the masterplan proposals are areas of additional employment land, which are intended to deliver a further range of industrial, warehouse and office space for small to medium sized enterprises.



Greenhayes will be a self-contained new community, including flexible commercial space



Employment land within the proposals can deliver a range of industrial, warehouse and office space

3. SUSTAINABLE TRAVEL MODES

There are many social, economic and environmental benefits to reducing the need to travel and this objective has featured prominently in the preparation of the Greenhayes masterplan.

Providing good-quality pedestrian and cycle links to the important local employment centres will reduce the need for future residents of the community to travel further afield for work.

Despite the self-contained and sustaining measures being integrated at Greenhayes, it is not possible or indeed desirable to create a new community which will be entirely self-contained.

There will of course be a number of residents who wish to travel outside of the immediate area, for employment, education, leisure or recreation and the proposed site is extremely well placed to promote and take advantage of sustainable transport opportunities along the A3052 corridor.

The movement strategy will focus on the provision for the most sustainable modes of walking and cycling before working down the hierarchy through public transport, shared vehicle solutions and the mitigation of residual impact of vehicle trips on the surrounding highway network.

Through the provision of suitable infrastructure to prioritise non-car modes, combined with travel demand management measures to be delivered via a Travel Plan, we envisage that Greenhayes residents will have a choice of sustainable transport options to satisfy their primary travel requirements. This will allow challenging but achievable targets to be set in order to lock-in this low-car usage as a localised cultural norm.

A key component of the proposed strategy is the delivery of a new facility on the B3052 which combines a Park & Ride for travel into Exeter with a relocated parking area for Crealy. This new facility would have three major benefits.



A Park and Ride facility is proposed to encourage a modal shift and encourage sustainable travel



High quality foot/cycle routes will be integrated within Greenhayes



Alternatives to the private car, including a car club, will help encourage more sustainable travel choices

Firstly, when combined with a high frequency bus service into Exeter it will encourage existing commuters out of their cars.

Secondly, it will provide a high frequency service to future residents dissuading them from getting into their cars in the first place.

Thirdly, unlike many Park & Rides which have one-way flows in the morning peak and the reverse in the afternoon peak, due to its location at Crealy and close to the employment at Hill Barton and Greendale, this service would encourage visitors and employees respectively to also leave their cars at home and travel by sustainable modes.

Further measures to facilitate and encourage travel by public transport, could include:

- Enhancement of the existing bus services on the A3052 including increased frequency and upgrades to vehicle fleet.
- Provision of a tree-lined central street through the new community to enable a new or existing bus service to be routed through the site
- Pedestrian/cycle links with Digby & Sowton station to allow park & change journeys via Devon Metro



A green transport hub will help reduce reliance on the private car, and could include bike/scooter hire



The pedestrian and cycle links across the development will help create an inclusive community



The high quality, walkable environment of the Garden Village will include extensive street tree planting

4. A HIGH QUALITY NATURAL ENVIRONMENT

Environmental sensitivity, biodiversity enhancement and climate change mitigation have been and will be absolutely critical to the masterplan's evolution.

Much environmental assessment work has already been undertaken to provide a robust understanding of the baseline position and of important environmental considerations. The assessment has also identified where these considerations present a constraint to development which must be avoided and/or mitigated through the masterplanning process, and where there are opportunities to enhance the environment as part of the development. A summary of the assessment work undertaken is provided in the appendices.

Based upon the evidence which has been collated there are areas within the landowners ownership which are unsuitable for development. It is often, but not always the case, that areas are constrained for more than one reason. For example, land adjacent to the Grindle Brook is particularly

sensitive for ecological reasons, but is also within a flood risk area and has a higher level of heritage sensitivity.

Conversely, there are large parts of the land ownership which are unconstrained, and upon which sensitively-designed and masterplanned development is considered acceptable based upon the environmental evidence.

The evidence-based approach adopted by the landowners has therefore confined the area within which development is proposed through the masterplan to ensure the new community is consistent with the land's environmental capacity.

The creation of Greenhayes is not just about avoiding harm, it is about creating an enhanced environment for people and nature. There are significant opportunities to integrate measures which will enhance the environment, including areas within the landowners' control which can be improved and used for recreation and other areas capable of contributing to a Biodiversity Net Gain.



New and retained planting will be incorporated within the extensive landscape areas across the site



Measures within the development will help to ensure an environment for recreation and biodiversity



Surface water attenuation will be integrated to ensure an attractive landscape with wildlife benefits

5. HIGH QUALITY DESIGN

Both landowners aspire to ensure that Greenhayes does not become a dormitory housing estate, but instead becomes a thriving community which is reflective of East Devon's existing villages and their vernacular and design.

Creating a sense of community and shared pride will foster a long-term respect for the environment and help maintain the quality of development which has been created.

The housing, streets and community facilities will be designed and detailed such that they sit comfortably in the landscape.



Greenhayes will be a self-contained community with a high quality environment (Otterton)

An innovative strategy is proposed for a sustainable development, following the Energy Hierarchy. This places emphasis on reducing energy demands first, using energy efficiently and, only then, providing renewable and low carbon energy generation technologies where appropriate, including the existing anaerobic digester system at Greendale Business Park.

A series of master planning principles have been identified to reduce the energy demands. These have been informed by the local micro-climate and consider issues such as green / blue infrastructure proposals to counter the urban heat island effect and passive solar design. An innovative mobility strategy will support active movement and mass transit.



A walkable environment will be created, encouraging healthy lifestyles and interaction with nature

More detailed, building-specific demand reduction measures have also been identified. 'Passive' measures can include building orientation, appropriate internal layouts and building fabric selection, that inherently reduce the buildings' energy requirements. 'Active' measures will increase the efficiency of the energy used, and therefore reduce the demand.















The anaerobic digestion plant at Greendale Farm, a sustainable energy strategy will be delivered

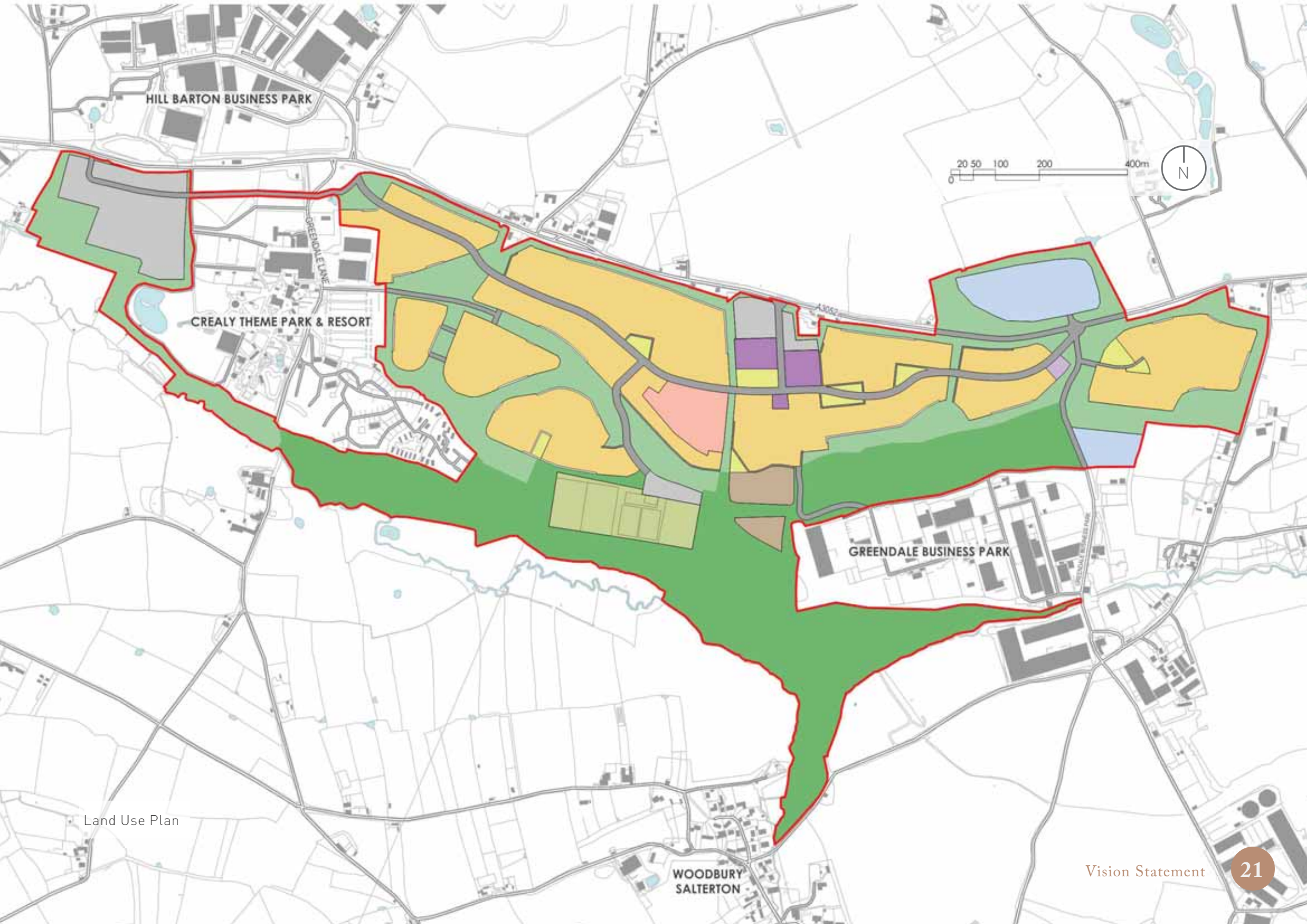
2.2 Potential Land Use

Greenhayes will provide a complimentary mix of land uses, delivering approximately 38 hectares of residential land (circa 1300 – 1500 dwellings), approximately 4.5 hectares of employment land and a range of other shops, services, facilities and infrastructure, all as summarised in the following table:

Use	Ha	Ac
Residential	37.65	93.04
Employment	4.55	11.24
Community Hub	1.43	3.53
Potential Commercial Use	0.16	0.40
Primary School	2.00	4.94
Infrastructure (Highway)	7.69	19.00
Infrastructure (Parking)	6.65	16.43
Parks & Recreation (including Play Space)	1.65	4.08
Sports Pitches (including all-weather pitch)	3.74	9.24
Community Allotments & Orchard	1.67	4.13
Suitable Alternative Natural Green Space (SANGS)	36.19	89.43
Landscape (including amenity open space & SANGS)	66.17	163.51
Total Provision	133.36	329.54

Indicative Land Use Schedule

	KEY
Residential	
Employment	
Local Centre	
Commercial	
Primary School	
Infrastructure (Highways)	
Infrastructure (Parking)	
Pocket Park	
Sports Pitches	
Community Allotments & Orchard	
Suitable Alternative Natural Green Space	
Strategic Landscape (including SANGS)	



HILL BARTON BUSINESS PARK

CREALY THEME PARK & RESORT

GREENDALE BUSINESS PARK

WOODBURY
SALTERTON



Land Use Plan

2.3 Community Infrastructure Strategy












Greenhayes will deliver exceptional community services, facilities and infrastructure, but most importantly around a Farm Shop that will be available to residents and the wider towns and villages from the commencement of development and throughout the development phases.

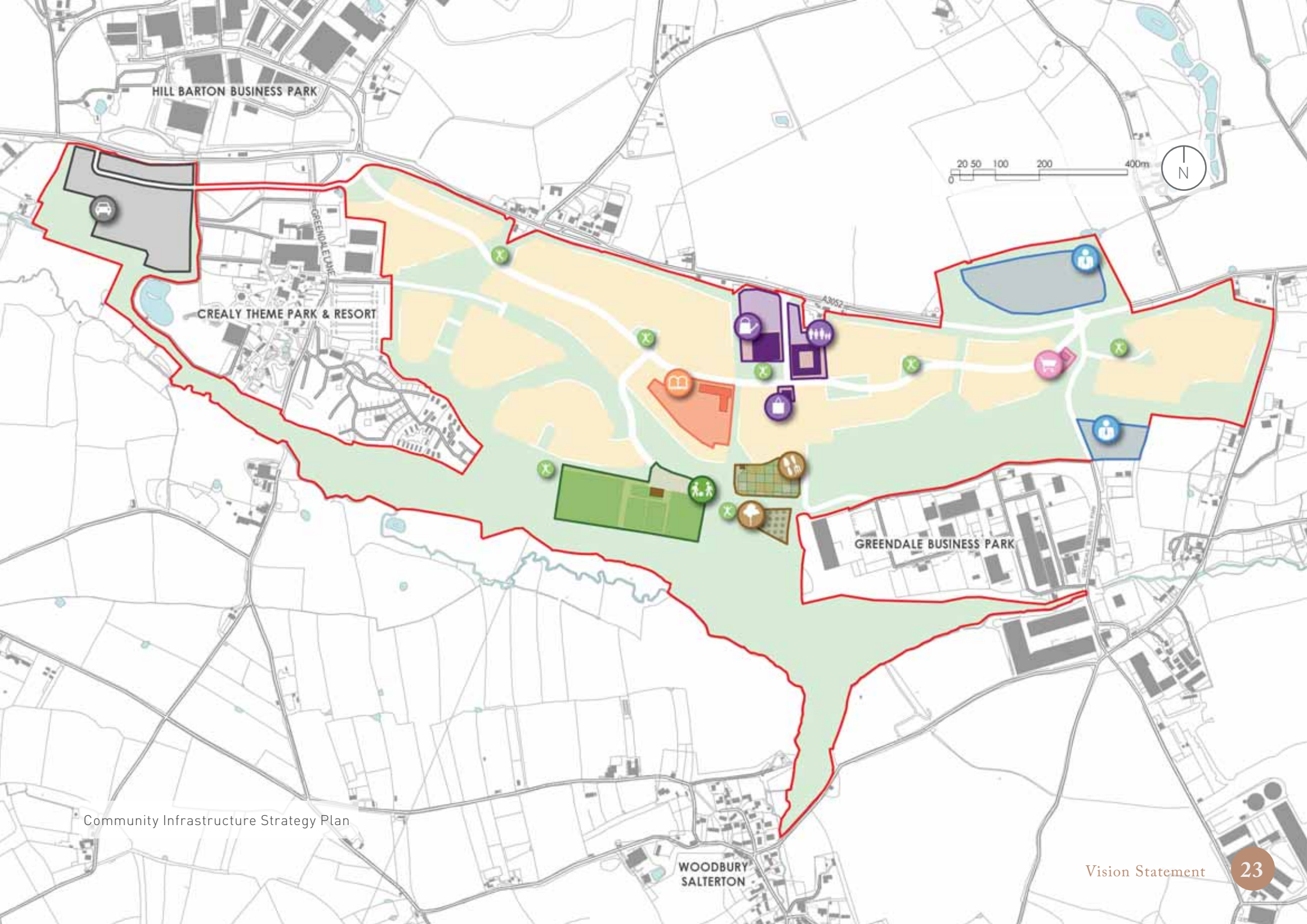
This will create a commercial centre for the development from day 1, which is completely unique to this proposed site.

With the ambition of creating a truly vibrant rural community, the ambition would also be to bring forward the rest of the proposed commercial centre (incorporating flexible work hub), park and ride facilities, two form entry Primary School, nursery and health and wellbeing/sports facilities during the earliest phases of development.

Community allotments, orchards and play areas would be delivered when the relevant development parcels come forward and given the level of existing employment land in the immediate surroundings, it would be anticipated that these areas would come forward to suit market conditions over time.

Any proposed outpost clinic could be delivered for a primary healthcare provider to suit requirements and timescales.

KEY	
Farm Shop	
Community Hub	
Commercial Use within Local Centre	
Other Potential Commercial Use	
Primary School	
Employment Land	
Sports Pitches	
Community Allotments	
Community Orchard	
Potential Play Area	
Park & Ride	



HILL BARTON BUSINESS PARK

CREALY THEME PARK & RESORT

GREENDALE BUSINESS PARK

WOODBURY
SALTERTON



2.4 Community Hub

The importance of the proposed community centre at Greenhayes cannot be over-emphasised and is perhaps the most unique attribute of the scheme in its entirety.

It will provide a highly attractive and vibrant commercial heart, promoting local food production (including a vision for future Farmer's Markets), social interaction, home-working options and community engagement. It will provide a significant range of retail and café/leisure facilities and will be entirely in keeping with the current and future demands of residents and the wider towns and villages.

Most significantly, it is intended that the Farm Shop would continue to provide a service prior to development, during the various phases of development and afterwards, with the proposed re-development being timed appropriately on a new parcel of land that could be developed without the closure of the existing premises.

The Farm Shop and commercial centre will continue to benefit from direct access from the A3052, as well as being positioned on the primary street through the development. Therefore, it will remain connected to existing and proposed public transport links and existing and proposed pedestrian and cycle routes.

The design and character of the community centre will remain of critical importance to the landowners and will be fundamental to the character and feel of the development as a whole. This will fundamentally set Greenhayes apart from other sites and will be a significant contributor to the successful delivery of the scheme.





- ① Greendale Farm shop
- ② Greenhayes Village Square
- ③ 'Yard' Community Centre within Commercial Hub
- ④ Village 'Marker'
- ⑤ Greenhayes Village Primary School
- ⑥ Medium density residential core
- ⑦ Green Pedestrian/Cycle corridor
- ⑧ Tree Lined Central Street

Greenhayes Community Hub Masterplan
(Glenn Howells Architects)

In addition to the relocated Farm Shop and café, it is proposed that a large mixed-use building will be positioned alongside, incorporating further retail premises, a flexible home-working hub and other community space and facilities. These will open out towards the central village green, and provide an opportunity for smaller-scale independent operators to help create a vibrant 'buzz' to the local centre. In the long term, the vision is for the village green area to become a market square for Farmer's Markets and other community engagement, events and activities.

The frontage to this key space has the ability to house further uses, such as a community hall as well as strong residential buildings to provide a mix of uses and create activity throughout the day.

It is envisaged that the built form within the community hub will have an increased scale and massing than elsewhere within Greenhayes to aid the sense of place and enhance legibility. Its distinctive character will provide a key focus for the development.



The hub will provide complementary uses, including a new two-form entry primary school



The community hub will include a village green and commercial space to help create a vibrant heart



The Farm Shop will continue to offer fresh produce as part of the Garden Village's wellbeing ethos



Artist's impression of the community hub, set around an attractive village green (Glenn Howells Architects)

2.5 Green Infrastructure Strategy

Fundamental to the vision for Greenhayes is the creation of an inspiring natural environment for residents and the wider community and a significant and ambitious biodiversity enhancement to help combat climate change.












Green Infrastructure will be core to the proposed residential areas and the ambition will be to deliver natural green space throughout (incorporating play areas, pocket parks, community allotments and community orchards) which are fitting to the rural surroundings and nearby towns and villages. This will include the retention of existing hedgerows, woodland, water features and trees wherever possible.

Beyond the residential zones, a highly ambitious nature and recreation space is proposed covering an area of land from the proposed park and ride facilities at the western end of the site, all the way to the boundaries of Woodbury Salterton to the south and wrapping around all of the western extension of the Greendale Business Park at the development's east end.

This will provide significant SANGS for residents and the wider community, including Biodiversity Net Gain, improved wildlife corridors and picturesque walking and cycling routes (with some substantial circular routes possible) to promote health and wellbeing.

With the ambition of exceeding current Biodiversity Net Gain targets, this development will help as much as possible in combating climate change.

Engagement will be sought throughout the next stages of promotion around the Clyst Valley Regional Park proposals and how elements of this can be incorporated into the masterplan as it evolves. Significant elements of these proposals have been introduced already.

	KEY
Retained Water Feature	
Retained Woodland	
Retained Hedge	
Sports Pitches	
Community Allotments	
Community Orchard	
Pocket Park	
Potential Play Area	
Indicative Attenuation Pond Location	
Strategic Landscape	
Suitable Alternative Natural Green Space (SANGS)	



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GREENDALE BUSINESS PARK

WOODBURY
SALTERTON






2.6 Urban Design Strategy

Greenhayes will be designed around best practice placemaking principles. This will include a range of residential densities, to help establish a series of distinctive character areas and deliver an inclusive and complementary variety of dwelling types and tenures. The buildings of site-wide importance, including the Farm Shop and café, will have an enhanced treatment to deliver a series of landmarks for Greenhayes – increasing its distinctive character and high quality placemaking.

The higher density areas (c.40 – 60 dwellings per hectare (dph)) will be focused around the centre of the community, helping to encourage patronage of the services and facilities located there, while also supporting walking and cycling. The increased scale and denser urban form will also help to aid legibility of the development, communicating that this is centre of the new Garden Village. An increase in density and massing will also follow the areas alongside the tree-lined primary street, aiding the legibility of this corridor, while helping to encourage patronage of the bus service which is proposed to run along it.

The body of the development is anticipated to be delivered at a medium residential density (c.25–45dph), making efficient use of the site. As with the development as a whole, key spaces, street and edges will be framed by a strong built form, with key buildings (de-marked by features such as their scale, materials, architectural style, or boundary treatment) will further add to the development's legibility and character.

The residential areas which sit alongside the development edges will be delivered at a lower density (c.15 – 30dph). This will help to soften the development in these area, incorporating further planting, including street trees and hedgerow boundaries. Where appropriate, larger rear gardens may be provided to accommodate further layers of planting and/or level changes. These areas will also be set within a strong landscape framework, including new and retained trees and hedgerows which also operate as green corridors for active travel and biodiversity connectivity.

	KEY
Higher Residential Density	
Medium Residential Density	
Lower Residential Density	
Key Building and Frontage	
Landmark Building	



2.7 Mobility Strategy

One of the core principles of Greenhayes is its sustainable transport strategy, which takes into account the wider concerns around the A3052, the Clyst St Mary roundabout and Junction 30 of the M5. However, key to this proposal is that there would be no anticipated reliance on wider strategic infrastructure improvements and this would be hugely beneficial to the sites delivery.

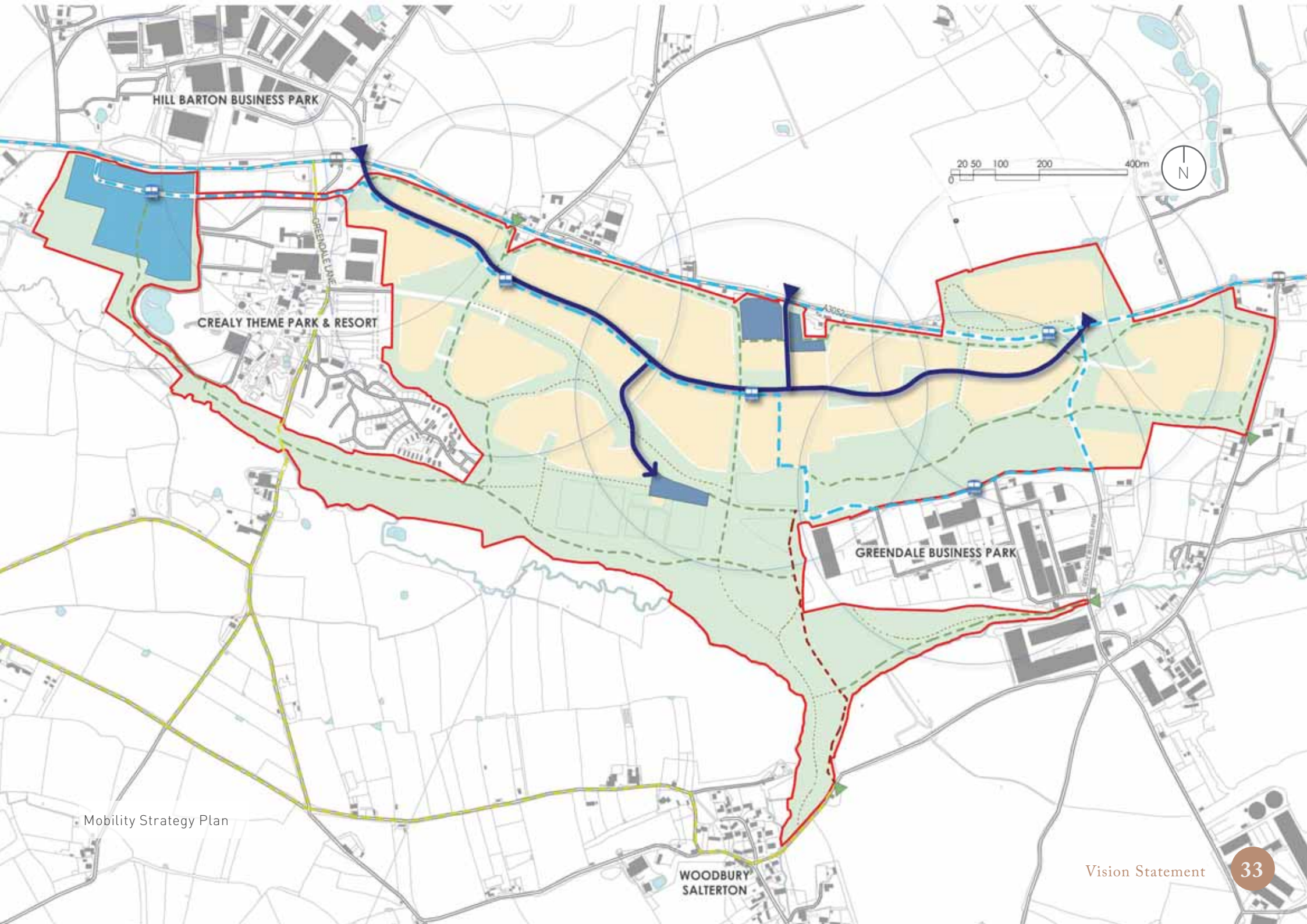
Through the provision of suitable infrastructure to prioritise non-car modes, combined with travel demand management measures to be delivered via a Travel Plan, we envisage that Greenhayes residents will have a choice of sustainable transport options to satisfy their primary travel requirements. This will allow challenging but achievable targets to be set in order to lock-in this low-car usage as a localised cultural norm.

Across Greenhayes a distinctive street hierarchy will be established to enhance the sense of place and aid legibility. This will include the tree-lined primary street, secondary routes and shared surface tertiary streets, which together will encourage a low-speed environment.

A key component of the proposed strategy is the delivery of a new facility on the B3052 which combines a Park & Ride for travel into Exeter with a relocated parking area for Crealy. This new facility would have three major benefits.

- First, when combined with a high frequency bus service into Exeter it will encourage existing commuters out of their cars.
- Second, it will provide a high frequency service to future residents of the new community dissuading them from getting into their cars in the first place.
- Third, unlike many Park & Rides with one-way flows in the morning peak and the reverse in the afternoon peak, due to its location at Crealy and close to the employment at Hill Barton and Greendale, this service would encourage visitors and employees to also leave their cars at home and travel by sustainable modes.





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2.8 Concept Masterplan

A Concept Masterplan has been prepared which brings together the robust technical assessments of the environment within and surrounding the land; our evaluation of the constraints and opportunities that arise as a consequence; and the Vision for Greenhayes outlined on the preceding pages.

This Masterplan shows how the new community would be book-ended by the significant employment opportunities at Greendale to the east and Crealy / Hill Barton to the west. The new community hub, anchored by the relocated Farm Shop and café, sits at its heart; continuing to serve the wider community but also acting as a focal point and meeting place for the new residents. A tree-lined street would link the two primary vehicular access points, providing easy active travel and public transport connectivity for all of the new homes. Substantial green open spaces would complement the expansion of the Clyst Valley Regional Park, providing sport and recreational opportunities for residents and the wider community. Between Hill Barton Business Park and Crealy is the proposed new Park & Ride.

DEVELOPMENT

- 1: Community hub alongside Farm Shop, with additional commercial opportunities, higher density residential use and green transport hub
- 2: Primary school and nursery co-located within hub
- 3: Medium density residential core
- 4: Existing houses alongside A3052
- 5: Low density area within landscape framework
- 6: New employment use and petrol filling station, within an attractive landscape setting
- 7: Health and sports facilities and venue
- 8: Low density area alongside parkland

ACCESS

- 9: Park and Ride shared with Crealy visitor parking
- 10: Western access to development from enhanced junction along A3052
- 11: Tree-lined central street, operating as part of blue/green corridors, cycle and bus route
- 12: Replacement access to new Farm Shop and community hub from A3052
- 13: Bus link between the Garden Village and Greendale Business Park
- 14: Enhanced junction and eastern access to development along A3052
- 15: Network of foot/cycle routes throughout development and to surrounding destinations
- 16: Retained permissive path to Honey Lane

LANDSCAPE

- 17: Network of naturalised attenuation ponds set within a strong landscape framework, including new/retained habitats to benefit biodiversity
- 18: Multi-functional green corridor alongside the A3052 lined by active frontage, accommodating new and retained planting, and a foot/cyclepath
- 19: North-south green corridor from parkland to A3052 edge via local centre, following parish boundary, with planting and a key foot/cycle route
- 20: Green link from northern landscape edge with framed view to Windmill Hill
- 21: Local food production (including allotments and community orchard) with green link to Farm Shop
- 22: SANGS provision with network of active travel routes (with semi-natural walks) and new/retained planting along Grindle Brook and wooded slopes
- 23: Green route to Park & Ride
- 24: Green corridor accommodating level change and new (light green) / retained (dark green) trees and hedgerows, and retained wildlife pond
- 25: Incidental spaces to aid placemaking, legibility and help to create a low speed environment
- 26: Network of play areas across the development
- 27: Sports pitches/tennis courts and other facilities, set within a strong landscape framework
- 28: Strong landscape framework including layers of strategic planting



HILL BARTON BUSINESS PARK

CREALY THEME PARK & RESORT

GREENDALE BUSINESS PARK



Concept Masterplan



Greenhayes will provide a range of complementary facilities, including a new primary school, and be enhanced by new and retained planting

Conclusion 3

3.1 Conclusion

This Vision Document and masterplan illustrates the significant potential to create a truly thriving rural community between three significant existing employment centres and in a strategic position within East Devon.

It demonstrates the ability to deliver a commercial centre during the earliest stages of development, including an exceptional Farm Shop and providing further facilities to support residents and the wider towns and villages from the outset.

It highlights a sustainable strategy for transport, encouraging residents to work from home or within walking/cycling distance from home where possible (with circa 3,600 already existing jobs at Crealy Theme Park and Resort, Hill Barton Business Park and Greendale Business Park and further employment land within the proposals), park and ride facilities that avoid major strategic infrastructure schemes and investment and the provision of significant walking, cycling and bus routes between Greenhayes and surrounding areas.

It sets out ambitious proposals to create a natural environment within residential areas and with the creation of significant areas of SANGS/Biodiversity Net Gain and recreational and amenity space around the Grindle Brook, promoting wellbeing for residents and the wider community and helping in a small way to combat climate change.

Finally, it highlights the importance of design and sustainable design and how the landowners will deliver this through their long-term involvement in the site, reflecting and respecting the local vernacular and rural surroundings.



Artist's impression of the relocated Farm Shop at the heart of Greenhayes (Glenn Howells Architects)



3,600

EXISTING JOBS

within

walking & cycling

distance



Parkland

alongside

Grindle Brook



Retained
mature trees
& woodland



New
Homes

c.1300–1500

INCLUDING SELF/CUSTOM BUILD & AFFORDABLE

c.50%

OF THE SITE AS
GREEN

INFRASTRUCTURE



100s

of New Trees
to be planted



3.75ha

SPORTS PITCHES
inc. all-weather provision



c.3,500

PEOPLE WILL
LIVE HERE



Extended
CLYST VALLEY
REGIONAL PARK
INCLUDING WINDMILL HILL



1.7HA OF
NEW
allotments
& orchard

Park
& Ride



Enhanced
biodiversity



NEW
PLAY
Equipment



MILES
OF CONSERVED & NEW
HEDGEROW



4.6ha New Employment

Improved Farm Shop

 **420 NEW**
school places

c. 5 km 
NEW CYCLEPATHS



Greenhayes will have an attractive character which draws on the traditional East Devon style, such as the nearby village of Woodbury Salterton

Appendices

Appendix: Preliminary Landscape & Visual Appraisal

A preliminary Landscape Character Appraisal has been undertaken by Nicholas Pearson Associates to inform the early stages of the emerging vision.

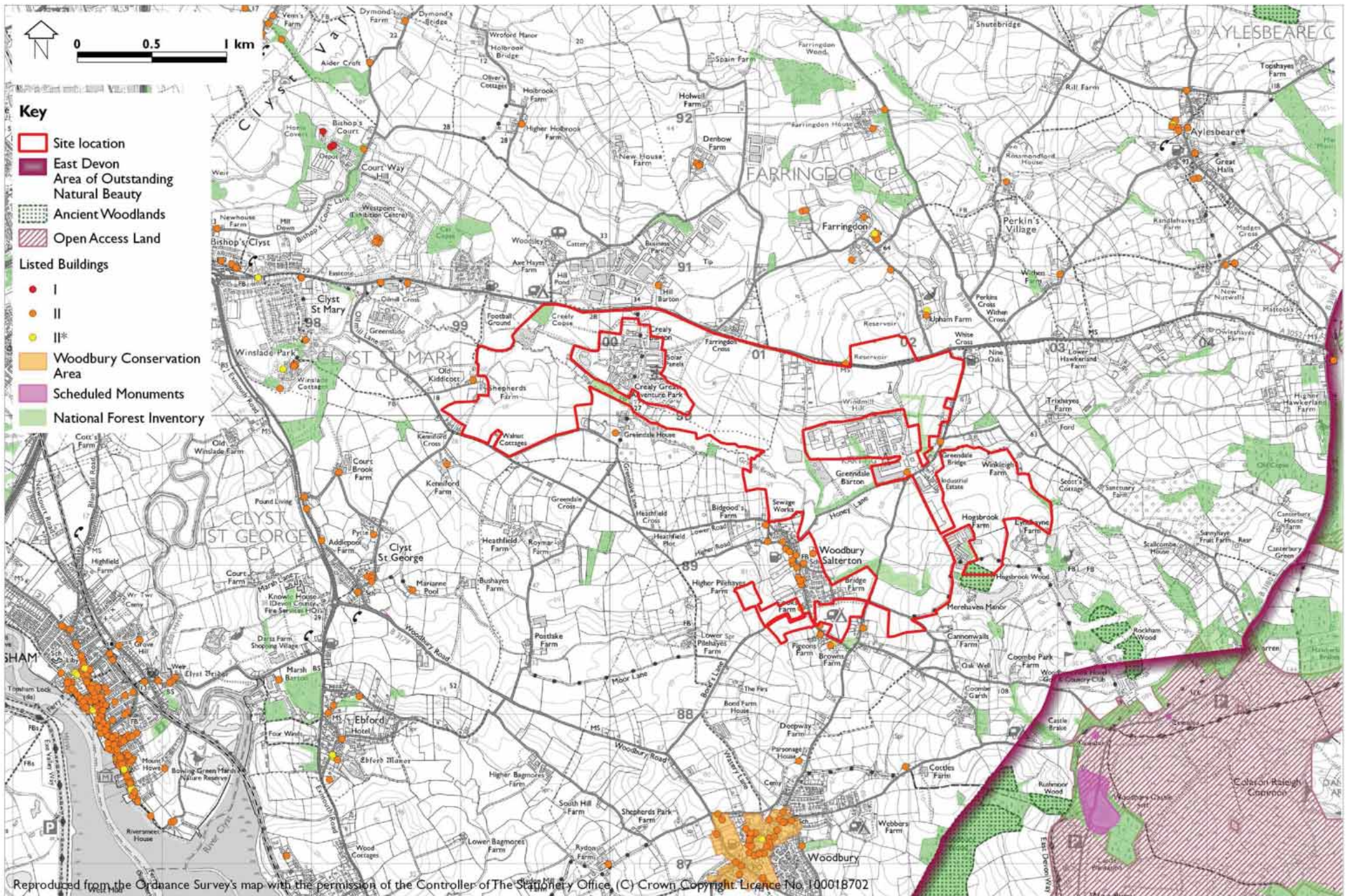
Overall the existing landscape context is rural, but well settled, featuring considerable existing areas of development. It is of varying character but due to the extent of development in the area has a greater capacity for change, relative to the wider valued landscapes of East Devon. The site is within the broad landscape setting of the East Devon AONB, as such great care will be needed with respect to landscape and visual matters. However substantial areas of intervening vegetation, trees and woodland considerably restrict and limit views between the AONB and the site.

Development of the scale proposed would result in substantial landscape change, with associated effects on landscape character. However the site itself is to a large extent well contained and well featured by woodland such that it does, with care, provide some capacity for a high quality development informed by a carefully considered strategic design approach.

At this early visioning stage of the project the proposed illustrative masterplan has recognised and been informed by the overall landscape character, context and key features.

The extent of main development areas is broadly contained on more gentle sloping ground between the existing development associated with Crealy Theme Park (CTP) in the west and Greendale Business Park (GBP) in the east. This generally would minimise effects to; a wider area of more valued rural landscape; the Grindle Brook corridor; and more steeply sloping land. It also focuses development in areas with existing access and infrastructure.

The illustrative masterplan proposes a series of development areas set within a framework of landscape/ GI assets which has sought to build upon the existing features. This would assist in creating distinctive and attractive places.



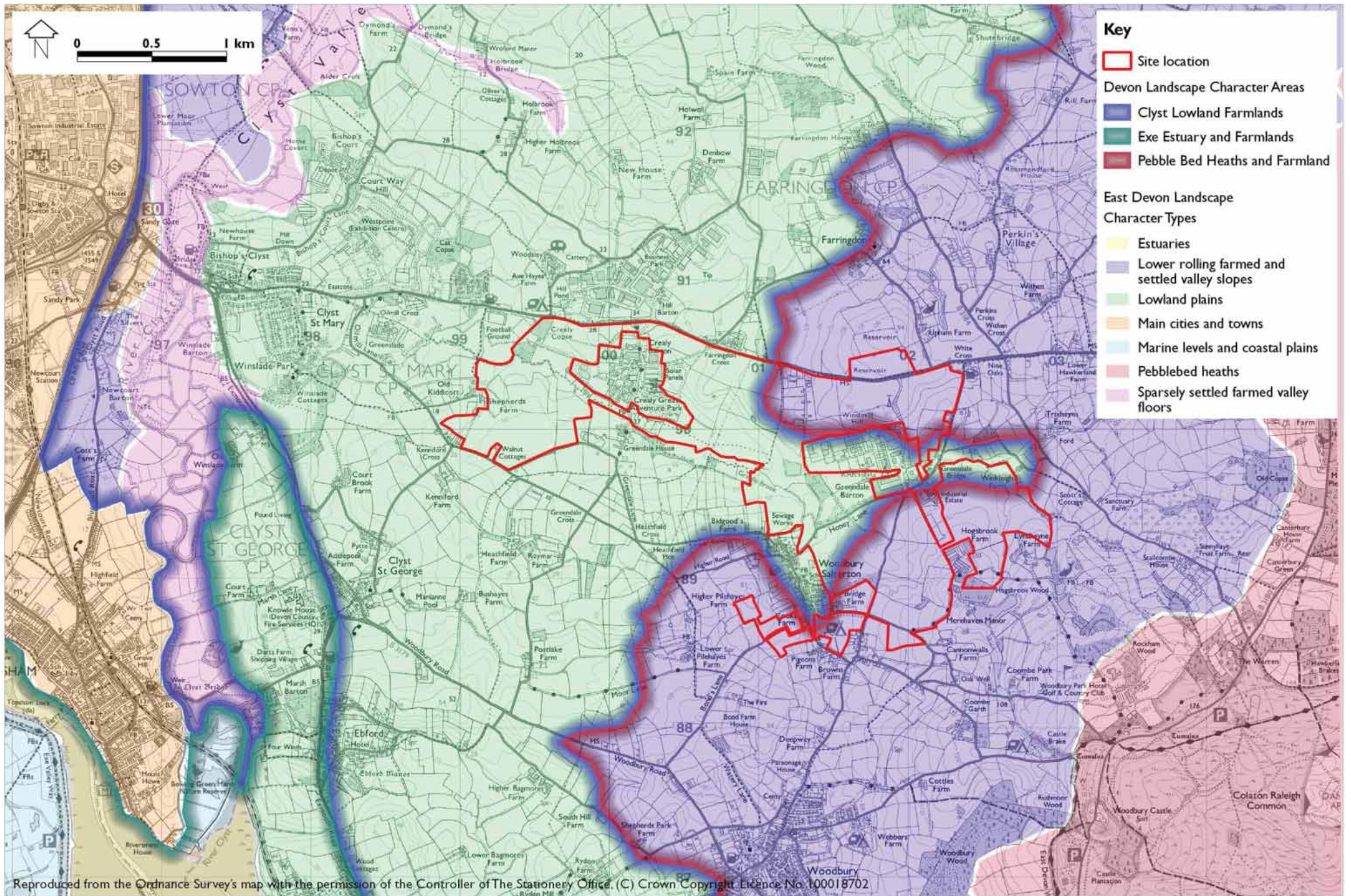
OUTLINE LANDSCAPE STRATEGY

To minimise potential landscape and visual effects and maximise opportunities for enhancements, an initial and broad outline landscape strategy is set out below:

- Undertake further, more detailed landscape and visual, tree and vegetation surveys to identify key specific features and develop protection, retention, mitigation and enhancement strategies.
- Deliver sufficient and meaningful green infrastructure (GI) integrated, within development areas, with commitments to well designed and maintained tree planting.
- Sustainable surface water drainage strategies to ensure the scale, extent and location of such features are designed to integrate into the landscape.

- An early strategy is put in place for large/ landscape scale tree and woodland planting, both within the site and other areas within client ownership/ control. This will; expand GI and GI networks; provide a strong landscape framework; assist with landscape integration; over time, further minimise visual impact; and soften the future settlement edges. Such areas could also provide Suitable Alternative Natural Greenspaces (SANG), support Biodiversity Net Gain, and assist with benefits associated with health and well being.
- Early consideration is given to short, medium and long term landscape management to ensure the establishment of GI assets.

Such a landscape strategy will assist in being sympathetic to the local landscape character and integrating the development proposals into the existing context.



Appendix: Ecology

Preliminary ecological survey work has been undertaken by GE Consulting to identify key constraints and opportunities relating to future development of the site. The majority of the site comprises agricultural cropland and grassland of low intrinsic ecological value. The fields are divided by a network of species-rich and species-poor hedgerows, many with mature trees, which are considered an important ecological asset and are Habitats of Principal Importance. Small blocks of semi-natural woodland are present within the site, particularly notable are the areas along the Grindle Brook corridor, including an area of ancient woodland. Other key habitats include a small number of ponds and mature field trees.

The site is not subject to any nature conservation designations, but is within the 'Zone of Influence' of East Devon Pebblebed Heaths Special Protection Area (SPA), Special Areas of Conservation (SAC) and Site of Special Scientific Interest (SSSI) and the Exe Estuary SPA and Ramsar site. The site also lies within a consultation zone for the European Protected Species great crested newt.

The site's overarching ecological objectives are to:

- Conserve biodiversity in accordance with the mitigation hierarchy (avoid, mitigate, and as a last resort compensate)
- Demonstrate at least 10% Biodiversity Net Gain through restoration of existing ecological features and creation of new habitats in locations that contribute to enhancing ecological networks
- Provide mitigation for potential impacts to nearby designated sites
- Provide a long-term strategy for the sensitive management of habitats and species.

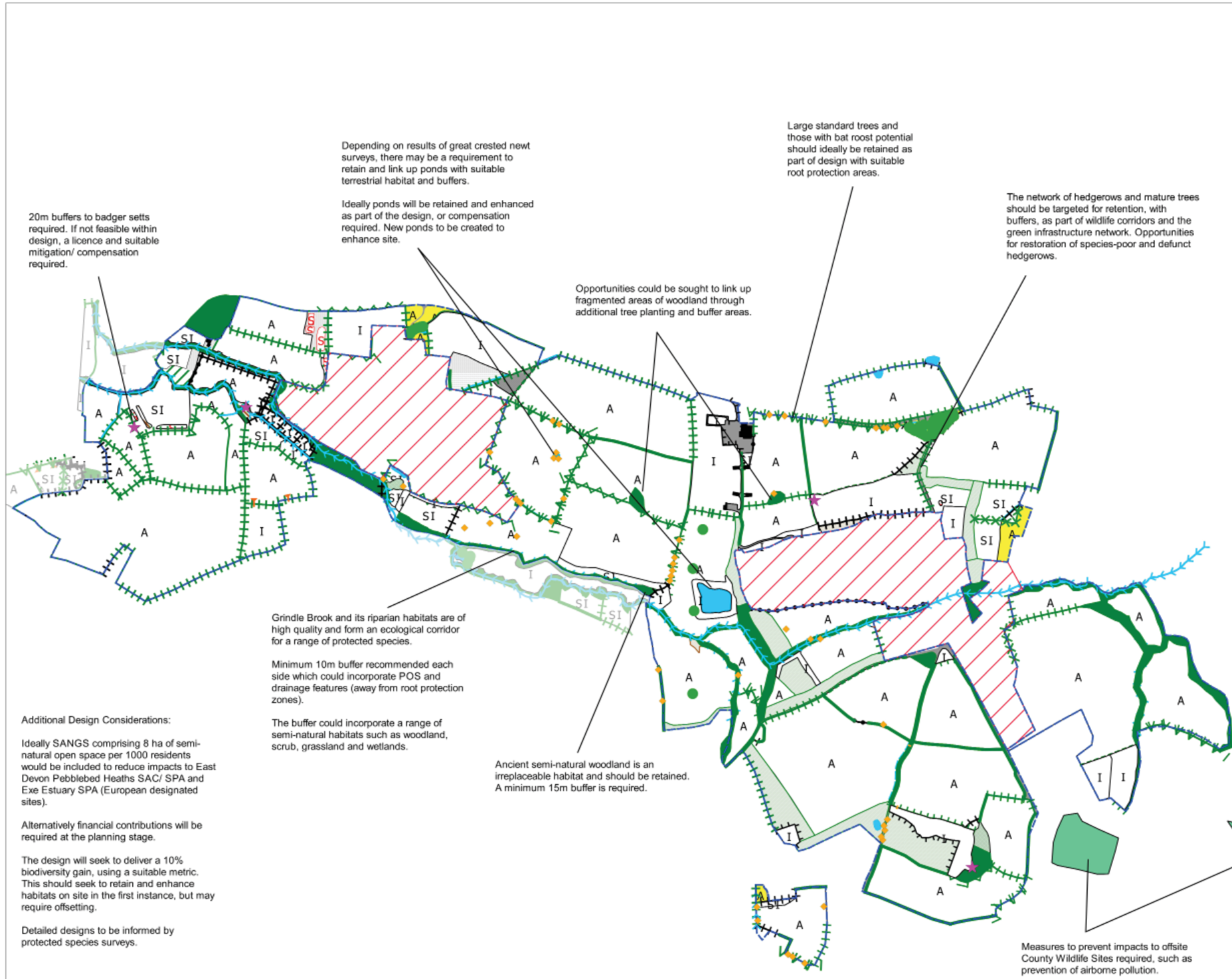
The masterplan delivers these objectives by:

- Retaining the network of hedgerows, woodland, stream and trees, buffering and incorporating them into multi-functional green infrastructure where possible;
- Providing Suitable Alternative Natural Greenspace (SANG) to divert recreational usage away from nearby European designated sites and funding of measures to reduce impacts on the sites themselves. The SANG will include a minimum of 8ha per 1000 new residents, including open space of semi-natural character to appeal to dog walkers;

- Creating and restoring ecological networks, by linking up areas of existing woodland and providing dark corridors for nocturnal wildlife;
- Improving water quality in the Grindle Brook, from the cessation of agricultural practices to the creation of buffers as part of a blue and green infrastructure strategy;
- Providing appropriate buffers to ancient woodland and notable trees;
- Retaining and restoring ponds and providing links between them;
- Securing long-term benefits to nature through a sensitive management plan.

Detailed ecological surveys are being carried out in line with best practice guidance for the following protected species/species groups:

- Bats (activity and roost surveys)
- Dormouse
- Otter and Water Vole
- Badger
- Breeding and Wintering Birds
- Great Crested Newt
- Reptiles



- Legend**
- Survey Area
 - Not Surveyed (Crealy and Greendale Business Park)
 - Ancient semi-natural woodland
 - Semi-natural Broad-leaved Woodland
 - Plantation Broad-leaved Woodland
 - A Amenity Grassland
 - I Improved Grassland
 - SI Poor Semi-improved Grassland
 - Tall Ruderal
 - S Spoil
 - A Arable
 - Native Species-rich Hedge
 - Species-poor Hedge
 - Defunct Species-poor Hedge
 - Native Species-rich Hedge with Trees
 - Species-poor Hedge with Trees
 - Fence
 - Standing Water
 - Running Water
 - Dry Ditch
 - Wet Ditch
 - Earth Bank
 - Mammal Track
 - ◆ Tree with Bat Roost Potential
 - County Wildlife Site
 - Scattered Broad-leaved Trees
 - ★ Badger evidence

0 100 200 300 400 m

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Figure 1: Ecological Constraints and Opportunities Plan - Vision Document

Project: Greenhayes New Community

Client: FWS Carter and Sons and Crealy Farms

Date: 15/7/2020 Drawn by: SL

Version: 1 1047-ECOP-F1



Appendix: Access & Movement

Greenhayes is located on at the western end of East Devon, in close proximity to Exeter which is a thriving and vibrant city. Exeter already has high quality transport links to its surrounding areas including East Devon and the Jurassic Coast. Consequently, the proposed community is in a highly advantageous location to enable the use of the sustainable travel options and minimise residents' reliance on the private car.

The transport strategy for Greenhayes, is not based on the traditional methodology of 'predict and provide' due to its tendency to focus on car-based solutions resulting in the provision of resource-hungry infrastructure projects. The strategy follows a 'vision-led' approach in which travel demand scenarios and objectives for the site are identified at the outset, followed by consideration of how these can be best delivered.

By shifting the paradigm in this way, we can be sure that sustainable access is at the heart our proposals and that Greenhayes does not become just 'another car-based development'. In this way, we will establish a blueprint for a community

which is reflective of what people need from the places in which they live and work, so that the right quality of development is delivered in the right location and residents can access the facilities and services they require in a sustainable manner.

ACCESS STRATEGY PRINCIPLES

Greenhayes is already situated at the heart of a thriving employment, retail and leisure area and the residential development provides a juxtaposition of complementary land uses, maximising the potential for the use of non-car modes of transport, as residents have the opportunity to work, shop and play close to where they live.

In developing the access strategy in line with this vision-led model, we will work through our integrated approach forecasting the potential impact of movement associated with the new community at each stage as part of an iterative review process.

Deliver - we will design the new community so that the actual need to travel is reduced. Greenhayes residents will be encouraged to stay on site through provision of links to complimentary land uses, home/local working provision and local facilities.

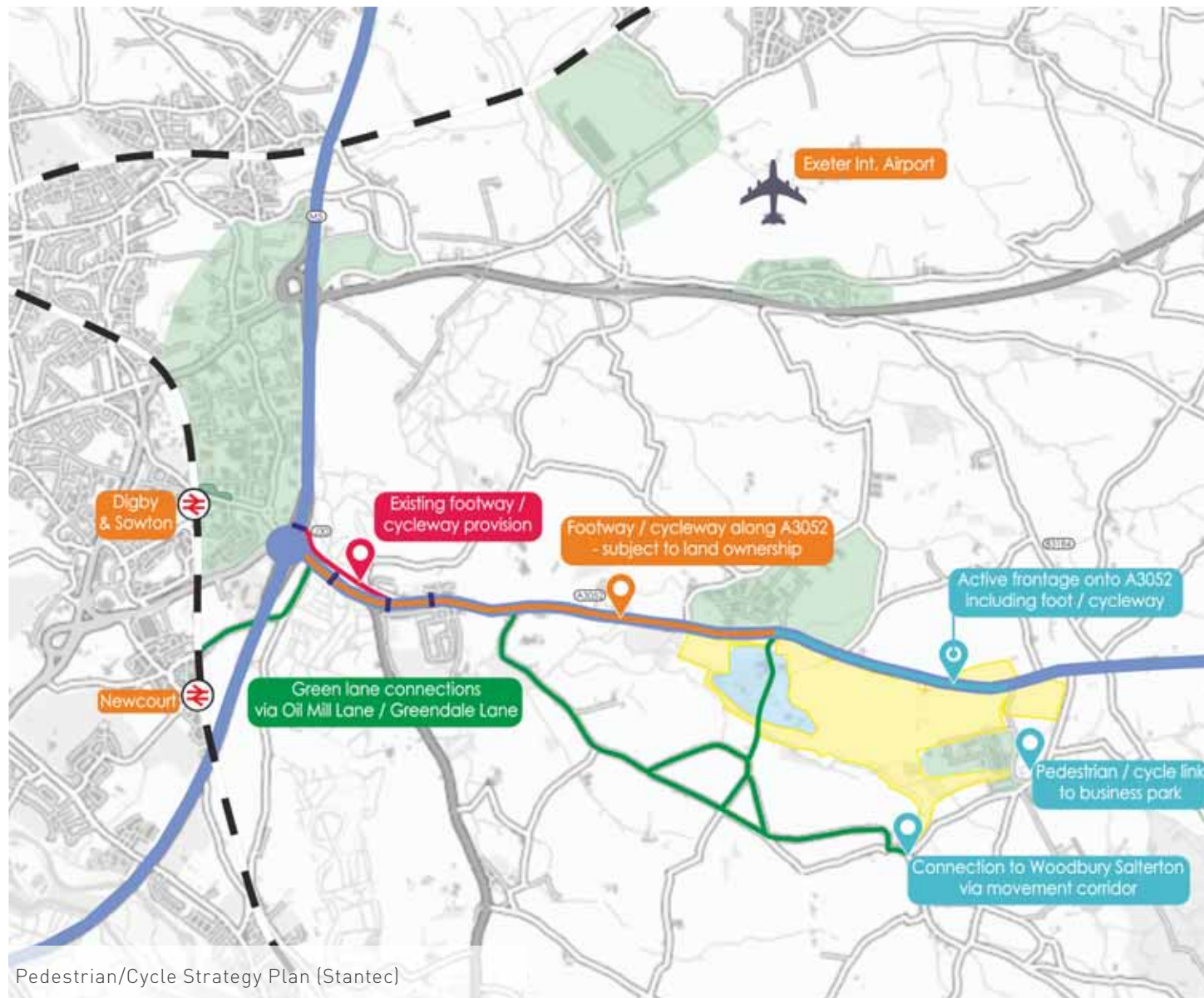
Maximise sustainable travel - we will design the new community so that the impact of movement to and from the site the is as limited as possible. Movement associated with Greenhayes will be made by the most sustainable modes as a priority and maximum provision will be made for non-car travel, so these sustainable options become Greenhayes residents' default choice.

Mitigate - we will mitigate any residual vehicle trips on the local highway network to ensure that the new community does not have a severe impact on existing conditions. We will ensure our mitigation proposals take a balanced approach so that the there is no overprovision of unnecessary infrastructure solutions.

DELIVER

For Greenhayes the key element of the 'manage' aspect of the access strategy will be to retain trips within the site, making walking, cycling and other forms of micro-mobility the default choice for residents accessing the range of complementary land uses to be provided in and around the new community including the nearby leisure and employment opportunities. We will achieve this through a combination of extending green corridors on key desire lines though the site, managing vehicle permeability to enhance the attractiveness of these routes, providing micro-mobility solutions for local journeys and the implementation of a site-wide Travel Plan to make sure future residents are fully informed of their on-site travel options.

It is estimated that with the carefully considered mix of on-site facilities, including high-speed broadband, work hubs, retail and other services provision as well as a primary school, sports facilities and leisure opportunities, that the off-site trip generation potential of Greenhayes could be reduced by up to 30%.



MAXIMISE SUSTAINABLE TRANSPORT

In order to minimise the impact of movement to and from the new community, in the first instance the access strategy will focus on the provision for the most sustainable modes of walking and cycling before working down the hierarchy through public transport, shared vehicle solutions before seeking to mitigate the residual impact of vehicle trips on the surrounding highway network.

To facilitate and encourage travel by foot and cycle to and from Greenhayes, the access strategy for the new community could include the following elements:

- Footway/cycleway connections with the existing provision at Clyst St Mary, which in turn connects to the existing network around M5 J30 and beyond which will also be protected for potential future connected autonomous vehicle (CAV) network use
- 'Green lane' routes via Oil Mill Lane and Greendale Lane, providing additional choice for leisure users

- A new pedestrian/cycle crossing on the A3052 to facilitate pedestrian/cycle access to existing network within Clyst St Mary
- Provision of Movement corridor to Woodbury Salterton to provide local connections and accommodate existing desire lines between the village and Greendale Farm Shop
- Enhancement of the existing pedestrian/cycle link between Greendale Business Park and Greendale Farm Shop
- Provision of high-quality pedestrian/cycle facilities to connect to local leisure and employment opportunities including Crealy, Hill Barton Business Park and Westpoint including new pedestrian/cycle crossing of A3052.

To facilitate and encourage travel by public transport to and from Greenhayes, the access strategy for the new community could include the following elements:

- Enhancement of the existing bus services on the A3052 including increased frequency and upgrades to vehicle fleet.

- Provision of a tree-lined central street though the new community to enable a new or existing bus service to be routed through the site
- A new Park & Ride to be delivered in consultation with DCC as a shared facility combined with Crealy's relocated parking area
- Provision of a dedicated bus link with Greendale business park to increase opportunities for bus circulation through the site and surrounding facilities
- Pedestrian/cycle links with Digby & Sowton station to allow park & change journeys via Devon Metro

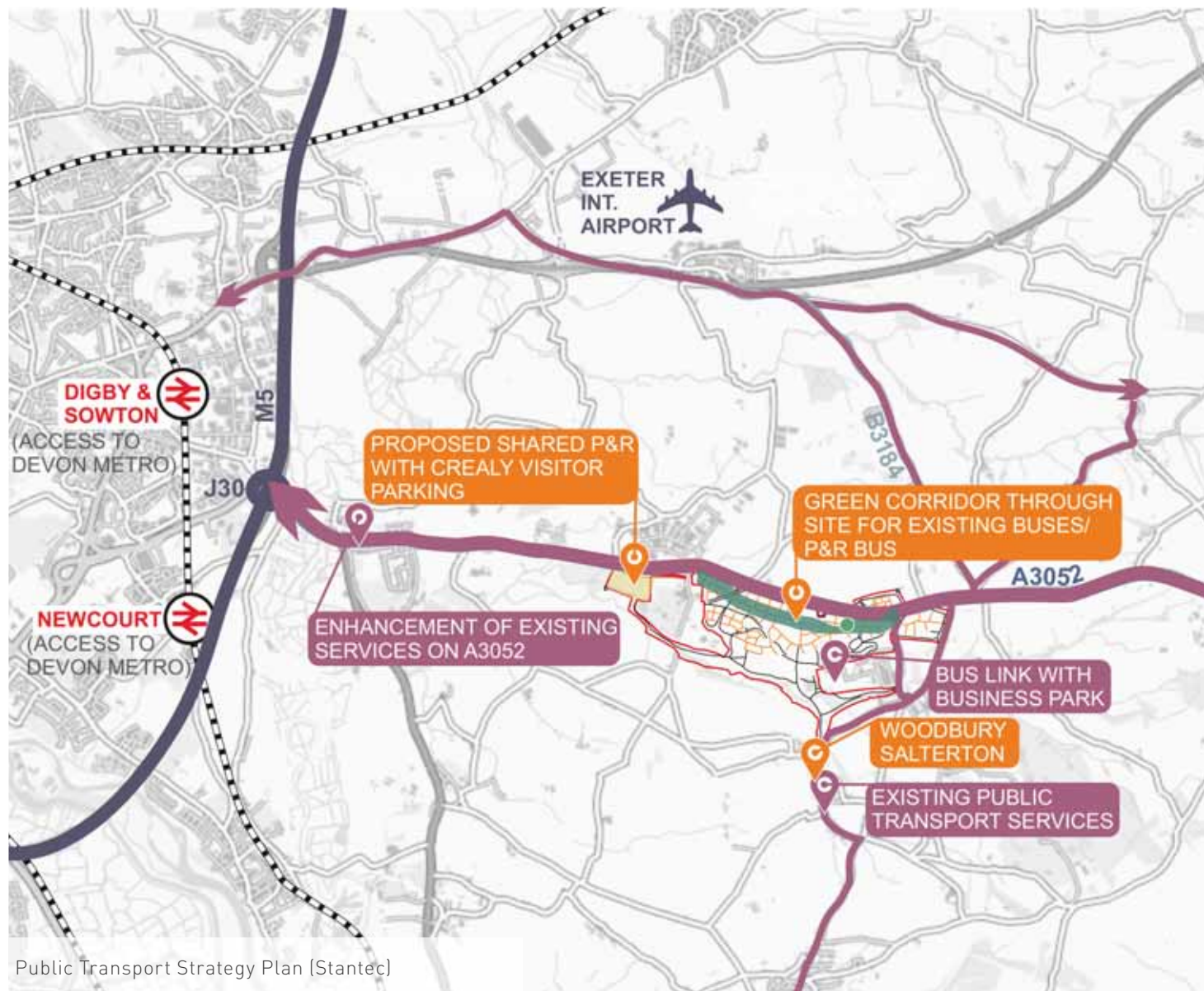
In addition to these proposals to ensure the infrastructure is in place to allow as many journeys as possible to be made by non-car modes of transport, we will also develop a comprehensive Travel Plan for the site which could include the following elements:

- A detailed pack of information for each household providing information a range of transport opportunities at the new community
- Bespoke web and app-based technology solutions to provide dynamic travel information to residents including real time passenger information and travel and traffic updates as well as integrated

ticketing options (linked with Exeter's new single integrated ticketing platform (MaaS))

- An offer of vouchers to purchase cycle equipment or bus season tickets to incentivise residents to try our new modes of transport which they may not have otherwise considered
- A dedicated Travel Plan Co-ordinator manage the implementation of the Plan, provide advice to residents and liaise with DCC following each monitoring period
- Regular travel induction sessions and travel surgeries to allow residents to engage with the Travel Plan and ask any questions regarding their travel options.

Through the provision of infrastructure to prioritise the requirements of non-car users combined with travel demand management measures to be delivered via the Travel Plan, we envisaged that Greenhayes residents will have a choice of sustainable transport options to satisfy their primary travel requirements. This will allow challenging but achievable Travel Plan targets to be set for the new community in order to lock-in this low-car usage as a localised cultural norm.



This type of cultural shift is being sought by Devon County Council throughout East Devon as well as the wider Exeter area. Greenhayes' commitment to providing an accessible development focussed around maximising the use of non-car modes will support the local highway authority to deliver a sustainable transport strategy for Devon as whole, with particular benefits for the locality of the site and the associated key transport links.

MITIGATION

The 'deliver' and 'maximise' stages of the access strategy process will reduce the need for movement off-site, whilst ensuring that those trips which are made are focussed around sustainable modes of transport through enhanced transport choices and greater connectivity.

To enable vehicle travel to and from Greenhayes, the access strategy for the new community could include the following elements:

- Enhanced junction at the western extent of the site frontage on the A3052 site to create

a gateway feature for westbound traffic, incorporating access to Crealy, Hill Barton Business Park and the proposed Park & Ride site, as well as the tree-lined central street through the new community

- Enhanced junction at the eastern extent of the site on the A3052 site to create a gateway feature for eastbound traffic, incorporating access to Greendale Business Park and the land parcel to the north of the A3052 as well as the tree-lined central street through the new community
- A reconfigured priority junction with the A3052 providing access to Greendale Farmshop and other facilities within the proposed local centre.
- Use of gateway features, road markings, active frontage and increased levels of side friction to enhance the feeling of place-over-movement on the stretch of the A3052 on the boundary of the site in order to increase the desirability for non-vehicle users and encourage drivers to modify their behaviour accordingly.

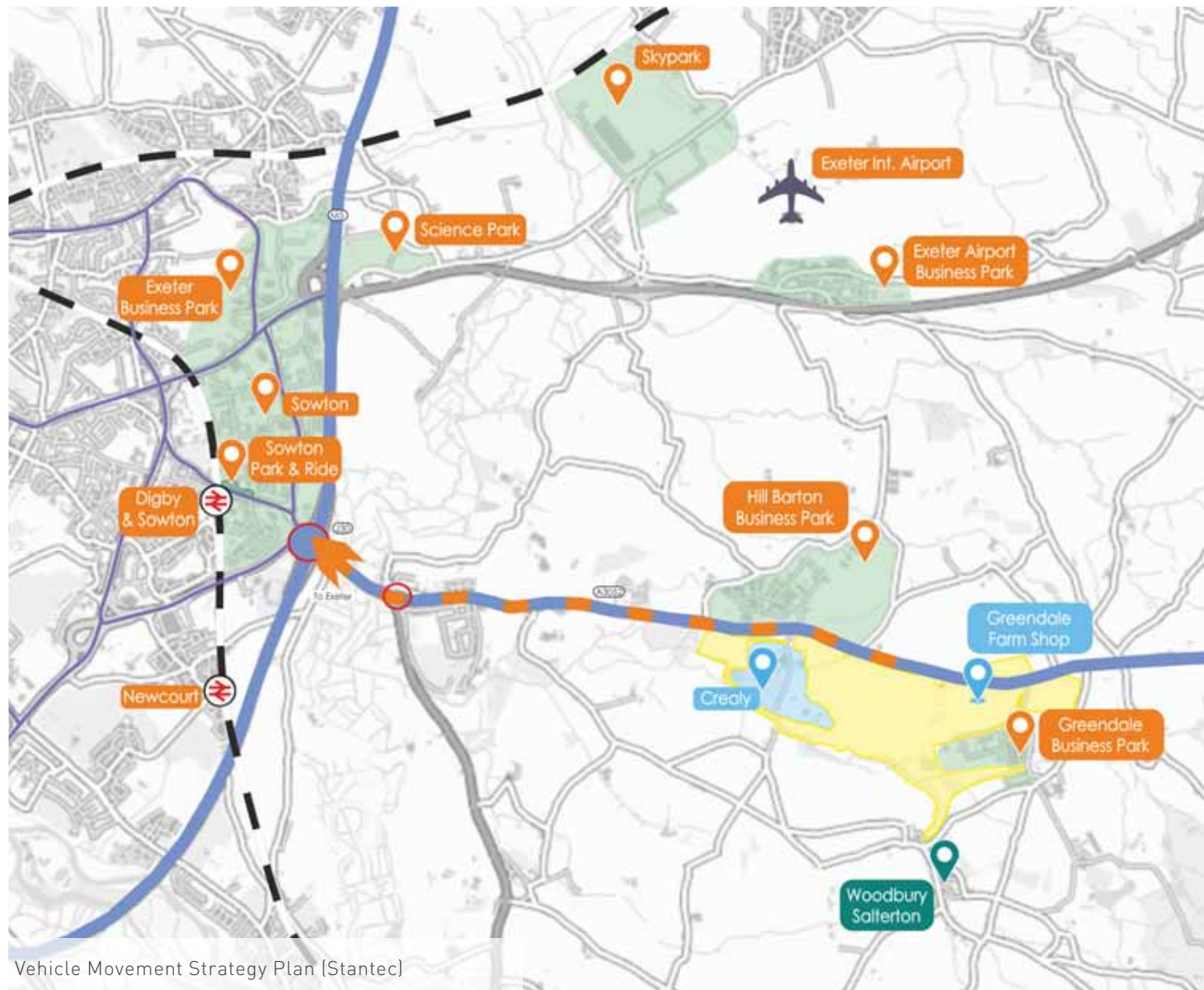
As well as providing for the movement of vehicles to and from the new community the Travel Plan will include a number of measures designed to encourage more sustainable car-use which could include:

- Provision of an on-site car club vehicles which reduces the need for 2nd and 3rd car ownership, with free or subsidised membership for residents
- Promotion of carsharedevon.com and blablacar.com, connecting drivers and passengers for frequent, short journeys or longer one-off trips, as well arrangement of 'car share coffee mornings' or other introductory events to enable car-share matches to be made
- Provision of on-site high-speed EV charging facilities, potentially within the local centre to allow time spent while vehicles are charging to be captured in undertaking domestic administration
- Education of residents in relation to eco-driving techniques in order to minimise

emissions and vehicle wear and tear made by everyday car journeys.

Provision of these elements will ensure that the necessary infrastructure to enable safe and appropriate vehicular access to the new community is in place, whilst also ensuring the impact of the vehicle trips which do need to be made by residents are as sustainable as possible. However, further mitigation works are also likely to be required to offset the impact of the presence of additional vehicles trips associated with the new community on the A3052 corridor.

The proposed Park & Ride will act as an important form of mitigation as this high-quality frequent service be not only be accessible to Greenhayes residents, but also those already travelling to and from Exeter via the A3052. Park & Ride services offer an opportunity for drivers to break their journey and shift to a bus service which could shorten their journey time, remove the need to park at their destination and potentially allow them to accomplish tasks while they travel.



Vehicle Movement Strategy Plan (Stantec)

Building on the Park & Ride proposals, we also envisage that further highway mitigation measures may be required on the approach to the M5. These must balance the demand from new development against the hierarchy of transport needs to ensure that priority is given to sustainable modes of transport.

We believe that the A3052 corridor should be better controlled through the provision of series of traffic signals through Clyst St Mary through to M5 J30. This would prioritise public transport walking and walking modes of transport. The existing roundabout between the A3052 and the A376 should also be signalised which would allow the location of the existing vehicles queues to be managed and partially displaced on to the dualled section of the A376 between the Clyst St Mary and Clyst St George Roundabout. Management of the existing vehicle queues would allow one of the existing westbound lanes between the Clyst St Mary Roundabout and M5 J30 to be repurposed as a bus lane which would allow all public transport services, include those serving the Park & Ride facility to achieve faster and more reliable journey

times, by bypassing peak hour congestion on the approach to Exeter.

Prioritisation of bus movements in this way, will further increase the attractiveness of public transport as a mode of travel for residents the new community, which in turn will lead to greater modal shift away from private car. The impacts of this scheme are likely to be further reaching in that existing travellers on the A3052 such as those commuting from Exeter to Hill Barton and Greendale Business Parks and those travelling into Exeter from outlying towns such as Sidmouth and Seaton may also change their choice of mode of to make use of the increased reliability and speed of public transport services, including the Park & Ride.

This envisaged wider modal shift towards public transport will be supported by the introduction of employee Travel Plans at Greendale Business Park and Crealy in order to maximise the transference of existing trips away from private car is envisaged to bring about sufficient 'trip credit' on the A3052, Clyst St Mary Roundabout and M5 J30 to

offset the impact of the vehicle trips associated with the new community and ensure there is no significantly detrimental effect on the existing local and strategy road networks associated with the delivery of Greenhayes.

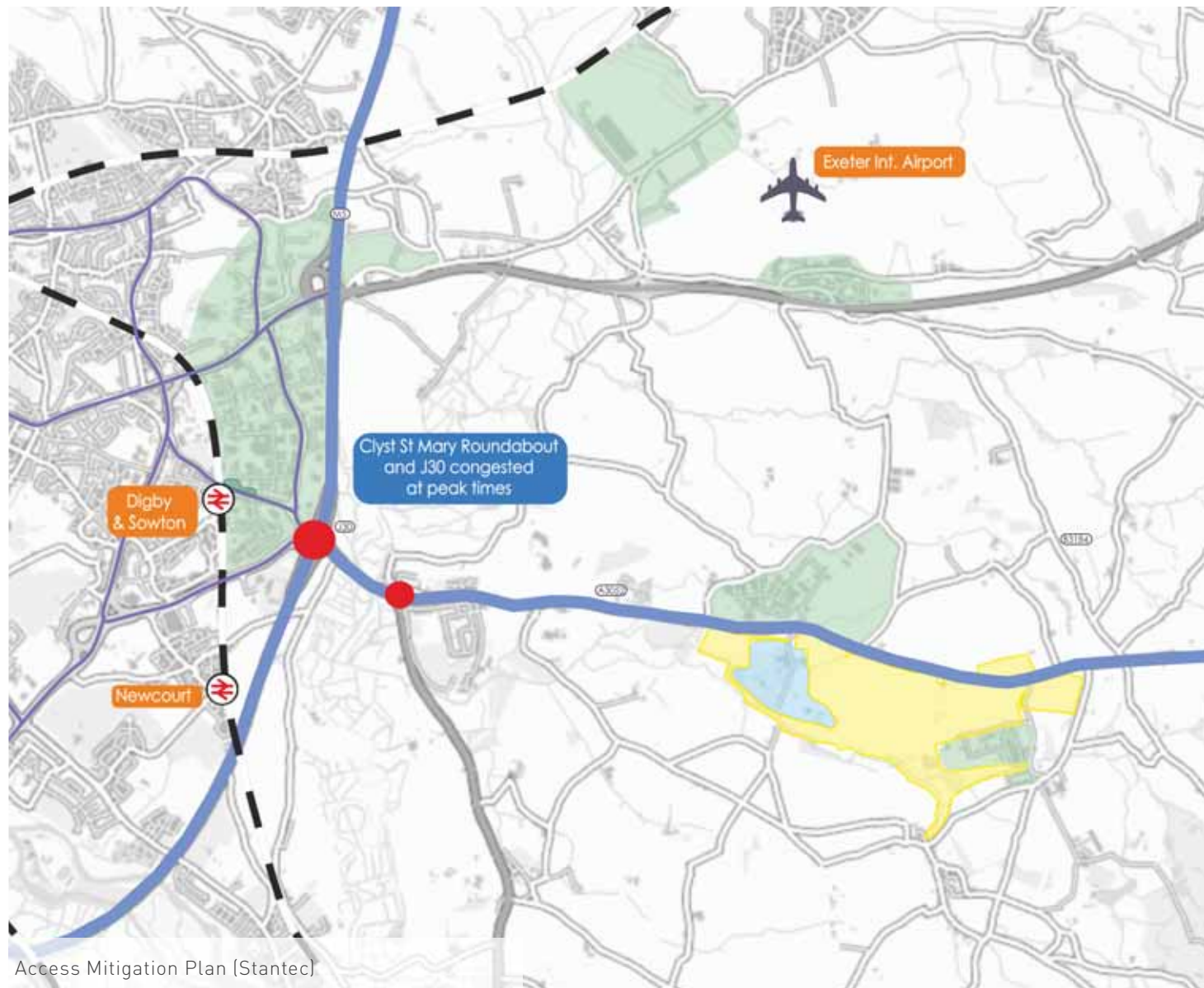
SUMMARY

This vision outlines some of the ways in which the access strategy for Greenhayes will maximise the location advantages of the site ensure that the new community does not have a detrimental impact on the operation of the existing highway and strategic road networks.

We will achieve this by seeking to manage the travel demand from the site by enabling many of the Greenhayes residents trip purposes to be satisfied on site by the provision of complementary land uses and high-quality local facilities within an accessible and primarily walkable and cyclable community, with additional consideration of micro-mobility opportunities. The use of sustainable modes of transport will be prioritised for trips which do need to be made off site, through the

provision of appropriate supporting infrastructure and Travel Plan measures, to ensure that these become the default choice for residents' everyday trips and the traffic generation is minimised. Finally, we will mitigate the impact of residual vehicle trips generated by the new community through the provision of a new Park & Ride service and the introduction of a public transport priority measures on the most congested parts of the network to improve bus journey times and reliability.

Greenhayes New Community will be delivered as a vibrant and forward-thinking new community which has connectivity and accessibility built into the heart of the development, delivering the sustainability aspirations of EDDC and DCC and providing high-quality outcomes for future residents of the site.



Access Mitigation Plan (Stantec)

Appendix: Heritage

Initial heritage assessment has been carried out by Cotswold Archaeology. This early work has examined all aspects of the historic environment, including the potential for below-ground archaeological remains within the site; the evolution of the historic landscape; and the role of the land in the 'setting' of historic buildings and monuments.

HISTORIC CONTEXT AND NON-DESIGNATED HERITAGE ASSETS

The local landscape has been settled from the prehistoric period, and evidence for this is known from major monuments such as Woodbury Castle, an Iron Age hillfort, around 1.5km to the south-east, to smaller settlement enclosures, field systems and possible burial sites.

No such remains are known within the site, although archaeological investigations have found possible settlement to the south (south of Crealy Adventure Park) and north of the A3052 at Hill Barton Business Park.

Excavations at Hill Barton also found evidence for Roman settlement on the north side of the A3052, which preserves the line of the Roman road between Exeter, and evidence for fields of the same date has been found in investigations to the south of Crealy Adventure Park. It is therefore possible that the Study Area formed part of the field systems associated with the rural settlement at Hill Barton.

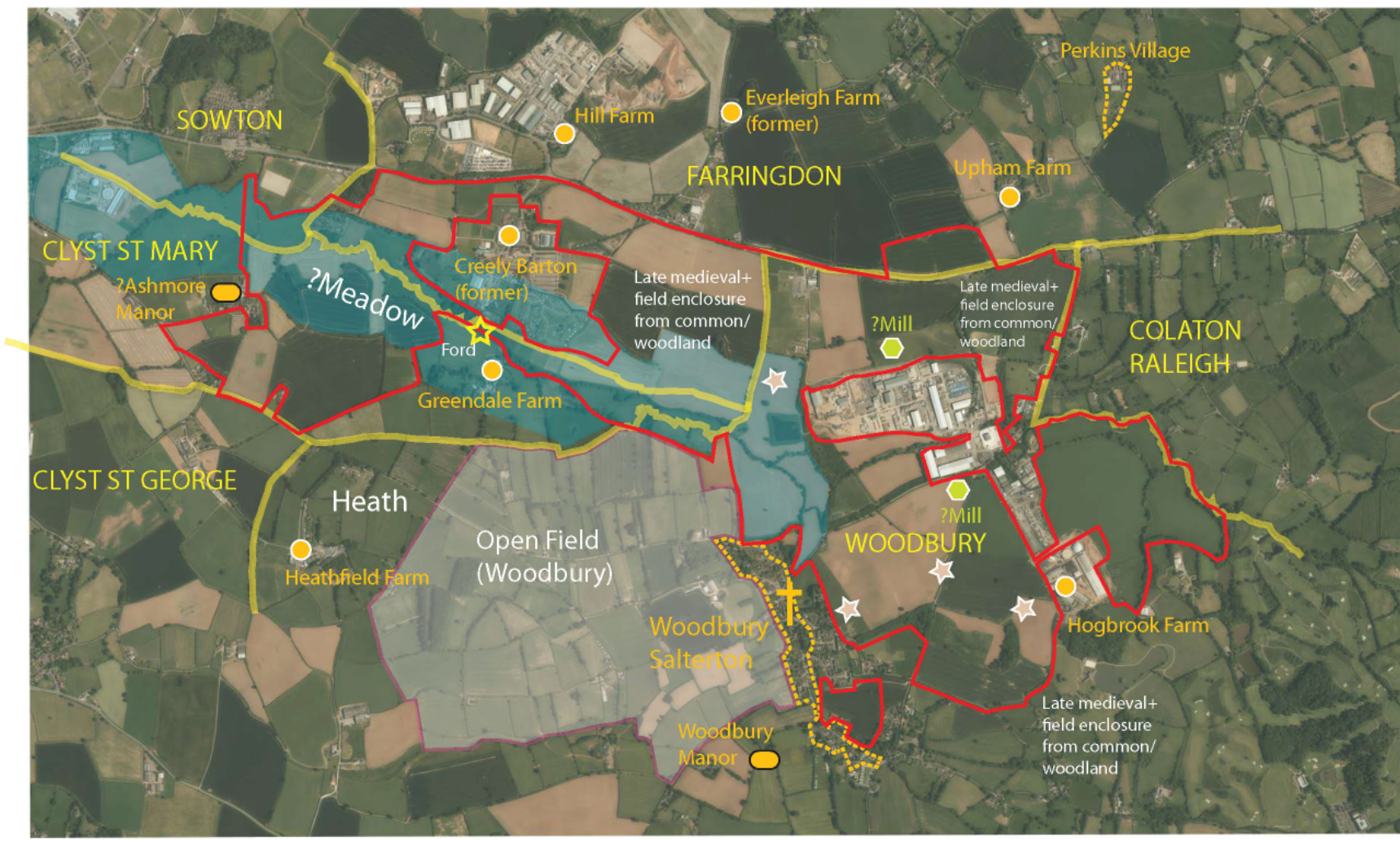
In the medieval period (Fig. X1), the Study Area was located across four parishes, namely Woodbury; Farringdon; Clyst St Mary; and Sowton. Woodbury Salterton, to the south of the study area, is a medieval village, and several older buildings in the area (such as Greendale Farm, Upham Farm, and Hill Farm) were medieval farms. Kiddicott (to the west of the study area) may have been the site of Ashmore Manor.

There is no evidence for medieval settlement within the study area, although mills may have been sited at Windmill Hill and south of Greendale Business Park. The study area includes some possible parts of the former medieval open fields,

as well as likely former meadow along the Grindle Brook, and late medieval fields enclosed from former woodland or common. Most fields were rationalised in the post-medieval period, with removal of many former boundaries. Most of the remaining hedgerows are defined as 'important' under the Hedgerows Regulations 1997.

Windmill Hill is located in the northern part of the study area. This local small hill is one of several possible locations of a battle between Royalists and rebels following the 1549 religious reforms, including the introduction of the Book of Common Prayer.

Authors based at the University of Leeds produced a report for Devon County Council in 2009 ('Battlefields of the Prayer Book Rebellion: an Archaeological Resource Assessment') which noted that 'it is not possible on present evidence to provide a certain identification of the battlefield'. There is indeed no physical evidence for the battle, and the documentary evidence (which has been examined for the heritage assessment) is scant.



-  Redline area
-  Parish boundary
-  Possible medieval farm
-  Medieval settlement
-  Possible mill site
-  Possible manors
-  ?Open field
-  ?Meadow
-  Possible extraction pits

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PROJECT TITLE
 Creely/Greendale New Community

FIGURE TITLE
Analysis of the medieval landscape

PROJECT NO.	EX0127	DATE	15 April 2020	FIGURE NO.
DRAWN BY	RM	REVISION	00	3
APPROVED BY	AB	SCALE	A3 NTS	

DESIGNATED HERITAGE ASSETS

No designated heritage assets lie within the study area, including listed buildings, Scheduled Monuments, Registered Parks or Gardens or Conservation Areas. The village of Woodbury Salterton, to the south of the study area (Plan opposite, 10), contains some twenty-one historic listed buildings. Several further listed buildings lie in the environs of the study area, including Kiddicott (2), Greendale Court (3), Greendale Barton (11), Greendale Farm (12), Upham Farm (9), and Hill Farm (10).

More distant designated heritage assets include the aforementioned Woodbury Castle Hillfort, and several Scheduled prehistoric barrows on Colaton Raleigh Common, and the designated Conservation Area at Woodbury village.

HERITAGE INFLUENCE IN THE MASTERPLAN

The objective of carrying out early heritage assessment has been to inform the masterplan and to 'minimise heritage harm and maximise heritage

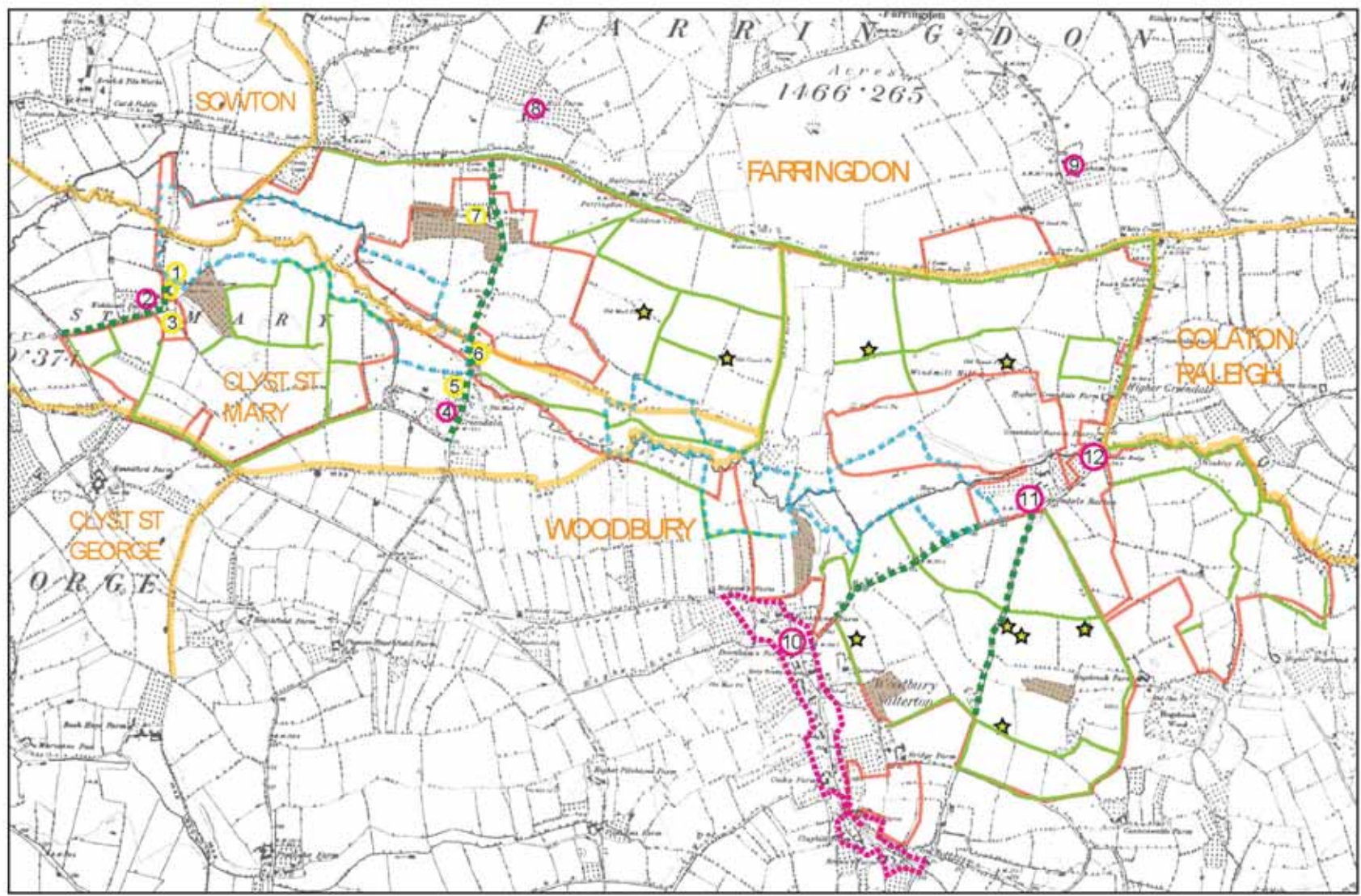
enhancement' in accordance with heritage best practice. The masterplan has therefore been informed by analysis of potential below-ground archaeological remains, the evolution of the historic landscape and field systems, and the 'setting' of heritage assets.

A key heritage measure is the emphasis on green space creating a corridor along the Grindle Brook. This land is likely to have formed meadow from the medieval period, and borders remnant open-fields to its south. Built development north of this occupies generally later field enclosure, of lesser heritage value. This 'green corridor' also provides open space in the vicinity of Greendale Court (4), and links to the open land incorporated around Windmill Hill to the east. Although the evidence for a battle at this site is scant, the provision of green space ensures that the hill remains appreciable – and indeed greater access will be afforded to it than at present. A 'green link' is also provided between Windmill Hill and the A3052, to frame views of the hill. These measures thus have a strong rationale in measures to preserve heritage values, and improve local appreciation and use.

The masterplan includes measures to reflect the evolved field system, including the established historic parish boundaries. The key boundary is that between Farringdon and Woodbury parishes, and the plan incorporates this hedge and alignment through the centre of the site, linking with the green corridor at the Grindle Brook. The design also emphasises retention of historic hedgerows.

The masterplan provides significant green space to the north of the historic village of Woodbury Salterton. This land, along the Grindle Brook, displays evidence of early medieval open-field use in its boundaries: its retention as green space retains its historic landscape character, as well as tying-in with the broader 'green corridor' and preserving the setting of historic buildings within the settlement, particularly on its northern side.

The masterplan thus restricts any heritage harms to a low level, with notable enhancements such as improved public access. The heritage assessment identifies further archaeological surveys which may be carried out in a staged manner to provide additional information on below-ground remains.



-  Former orchard/woodland
-  Listed buildings
-  Historic settlement
-  Other historic places referred to in the text
-  Parish boundaries
-  Former gravel/marl pits
-  Former orchard/woodland
-  'Important' hedgerows
-  Lanes with 'important' hedgerows
-  Recorded as 'meadow'


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PROJECT TITLE
 Greenbrook, Exeter

KEYWORD TITLE
 The post-medieval landscape

PROJECT NO. EX2922	DATE 16 April 2020	FIGURE NO. 11
DRAWN BY EM	REVISION 00	
APPROVED BY AB	SCALE 1:1000	

Appendix: Flood Risk & Surface Water Drainage

FLOOD RISK

Environment Agency (EA) mapping indicates that the majority of the site lies within Flood Zone 1 (the Zone with the lowest flood risk from rivers and the sea – less than 0.1% probability of flooding each year). However, some areas associated with the Grindle Brook are located within Flood Zone 2 (between 0.1% and 1% probability of flooding each year) and Flood Zone 3 (greater than 1% probability of flooding every year). These Flood Zones do not take account of the impacts of climate change.

Based on present planning policy stated in the National Planning Policy Framework (NPPF) and accompanying Planning Practice Guidance (PPG) “Flood Risk and Coastal Change”, all types of development are permitted in Flood Zone 1, whilst lower risk land uses (e.g. sports pitches or public open space) are permitted in Flood Zones 2 and 3. The masterplan for the site has been developed in accordance with this guidance, which is referred to as following “the sequential approach”.

The EA has also produced mapping indicating areas of surface water flood risk (i.e. the source of flooding is precipitation and not from a watercourse). This mapping indicates that the risk of surface water flooding across the site ranges from “Very Low” to “High”, but that areas of high surface water flood risk generally correspond with the Flood Zones. Therefore, by developing the masterplan using the sequential approach and implementing a Sustainable Drainage Strategy, surface water flood risk to future occupants should be mitigated.

Regarding risk of flooding from reservoir, EA mapping indicates that lower lying areas of the site are at risk of flooding in the event of a reservoir breach. These flood extents appear to be associated with a reservoir location south-east of Hogsbrook Wood, to the east of Woodbury Salterton. Importantly, these extents closely match those of the Flood Zones and therefore, by following the sequential approach should be kept clear of development (i.e. will form part of the development’s Public Open Space).

No other sources of flood risk (e.g. groundwater, sewers) have been identified on site.

SURFACE WATER DRAINAGE

A key requirement of surface water drainage on site is to not increase flood risk on site and downstream. The potential to increase flood risk is generated by the replacement of natural ground with roofs and hardstanding, which when compared to the pre-development condition will result in increased rates and volumes of surface water runoff. In addition, the loss of natural surfaces also removes the process by which pollutants are naturally removed from rainfall.

Regarding water quality, the requirements of the Water Framework Directive (WFD) should also be considered. The site lies within the Upper Clyst catchment which was recorded as “Poor” in its most recent assessment (2016) and this was primarily due to the “Poor” ecological quality of the catchment rather than chemical. Nonetheless, improved water quality discharge from the proposed development could contribute

to improving the ecology of the Upper Clyst catchment, as good water quality is a pre-requisite for providing a suitable freshwater habitat for biodiversity.

To seek that flood risk and water quality are not adversely affected (as a minimum requirement), the NPPF recommends the use of Sustainable Drainage Systems (SuDS), unless there is clear technical evidence that this would be inappropriate. This is also in accordance with local planning policy and guidance. SuDS, when designed appropriately, can also improve public open space placemaking, improve amenity value of areas within the site, improve biodiversity (potentially contributing to the aims of Biodiversity Net Gain) whilst contributing to reducing the overall carbon impact of the development (through reduced embodied carbon in materials used and carbon sequestration where vegetated systems are used).

The overall philosophy of SuDS is to mimic, as closely as possible, the natural drainage processes of a site prior to development. Initially, the means of discharging surface water should

be determined based on the following hierarchy (outlined in the NPPF, Building Regulations Part H and CIRIA C753 "The SuDS Manual"):

- 1: Infiltration; then
- 2: Discharge to a surface water body, then
- 3: Discharge to a surface water sewer, highway drain or other drainage system; finally
- 4: Discharge to a combined sewer.

Based on the underlying geology, the existing topography and existing drainage assets on site, surface water runoff will be discharged into existing water bodies on site, principally the Grindle Brook. To seek that flood risk is not increased downstream, discharge rates and volumes from the development into surface water bodies will not exceed the pre-development greenfield conditions.

To drain surface water on site, a SuDS "management train" should be developed, as this will better mimic natural processes than a conventional piped system would. The management train should form a holistic part of the development proposals, integrating into both the urban and public open space realms and forming an encompassing

site-wide Blue-Green Infrastructure Strategy. By adopting this approach, SuDS will (as mentioned previously) manage water quantities, improve water quality, enhance amenity and improve biodiversity as part of multi-functional, multi-benefit spaces.

A SuDS Management Train consist of the following elements

- 1: Source Control
- 2: Conveyance
- 3: Site Control

Source Control is an overarching term for SuDS that manage rainfall at source and best replicate the properties of natural surfaces, which makes them an effective and valuable tool for managing water quantity and treating water quality at source. Examples include: permeable paving systems and bioretention (also referred to as rain gardens and also includes tree pits). Both of these examples should be incorporated into the development proposals, as they are critical to success of the management train whilst having minimal land-take. Furthermore, the vegetated nature of

bioretention systems provides a great opportunity for amenity and biodiversity enhancement.

Conveyance features (e.g. swales, ditches and rills) primarily move runoff from one place to another. These conveyance measures, being open and often vegetated, will inherently provide more water quality treatment when compared to a conventional piped system and can provide an attractive feature alongside linear transport routes such as cycle/footways and roads.

It is recommended that conveyance features are integrated into Blue-Green Corridors throughout the site, which should utilise different features depending on their setting. For example, Blue-Green Corridors within the development plots themselves will likely have a more “urban” form to reflect the surrounding built environment, whereas in open spaces within and along the fringes of the development plots these corridors can be more “rural”; softer and vegetated, given the surrounding green space.

Site control features provide the strategic means of ensuring that the management train meets the flood risk objectives for a site. They are often open depressions that temporarily store surface water runoff to manage the difference between the higher rate of inflow from the urbanised development and the controlled outflow designed to match the pre-development condition. As such, these are sometimes referred to as balancing ponds.

The plan indicates initial suggested locations and sizes for site control features which could consist of detention basins (i.e. a dry pond) or ponds and wetlands. The type of site control features used will depend on the upstream SuDS used and public open space and ecological aims of the site, however they should complement these aims and be fully integrated within the development proposals.

SUMMARY

The site lies predominantly within Flood Zone 1, the Zone with the lowest flood risk from rivers and the sea. Whilst there are areas of Flood Zones 2 and 3 present on site, these areas are at lower lying elevations and are associated with the Grindle Brook. The masterplan for the site has been developed in accordance with the NPPF and PPG, applying the sequential approach for allocating land uses within the site.

Similarly, the site is demonstrated to be predominantly at a “Very Low” risk of surface water flooding. Some areas of “High” flood risk are present on site, although these generally correspond with the Flood Zone extents and therefore the masterplan accommodates these areas.

Lower lying areas of the site are indicated to be at risk of flooding in the event of a reservoir breach, with these extents appearing to be associated with a reservoir located south-east of Hogsbrook

Wood. By applying the sequential approach to mitigate risk flood risk from the Grindle Brook, the masterplan does not propose development within the reservoir breach flood extents.

No other sources of flood risk have been identified on site.

In accordance with the NPPF and local planning policy and guidance, it is recommended that a surface water drainage strategy using Sustainable Drainage Systems (SuDS) is implemented. SuDS seek to mimic natural drainage processes as closely as possible and therefore provide the opportunity to not only manage water quantity (runoff rates and volumes), but also improve water quality, provide amenity and enhance biodiversity. When integrated with the wider development proposals, in particular open space and street scene proposals, SuDS form part of an encompassing Blue-Green Infrastructure Strategy providing efficient, multi-functional and multi-benefit spaces.

An effective SuDS system consists of three elements; Source Control, Conveyance and Site Control, and when these utilised together they form what is referred to as a "SuDS Management Train".

Source Control features are any drainage features that manage rainfall at source (e.g. permeable paving, rain gardens) and are the most effective means of removing pollutants from runoff.

Conveyance features (e.g. swales, ditches and rills) simply transport runoff around a site. Being open and often vegetated means that these conveyance features will inherently improve water quality, but can also provide attractive features alongside linear transport corridors (e.g. cycle/footways).

Site Control (e.g. detention basins, dry ponds) and ponds or wetlands, provide the strategic levels means of managing water quantity by balancing the inflow of runoff from the development before discharging off site. A plan indicating initial locations and sizes for site control features is provided in this document.

Based on the site's geology and topography, it is unlikely that infiltration will be a viable means of discharging surface water runoff, although this will be confirmed by a ground investigation in the future. Therefore, to maintain the existing drainage pathways on site, it is proposed that surface water, after being managed within the Blue-Green Infrastructure of the site, will be discharged into the Grindle Brook.

Appendix: Energy & Sustainability

Stantec has prepared an Outline Energy Masterplan for Greenhayes. This provides an initial vision for a sustainable energy masterplan, considering opportunities that exist within the site and wider area.

KEY ENERGY TARGETS

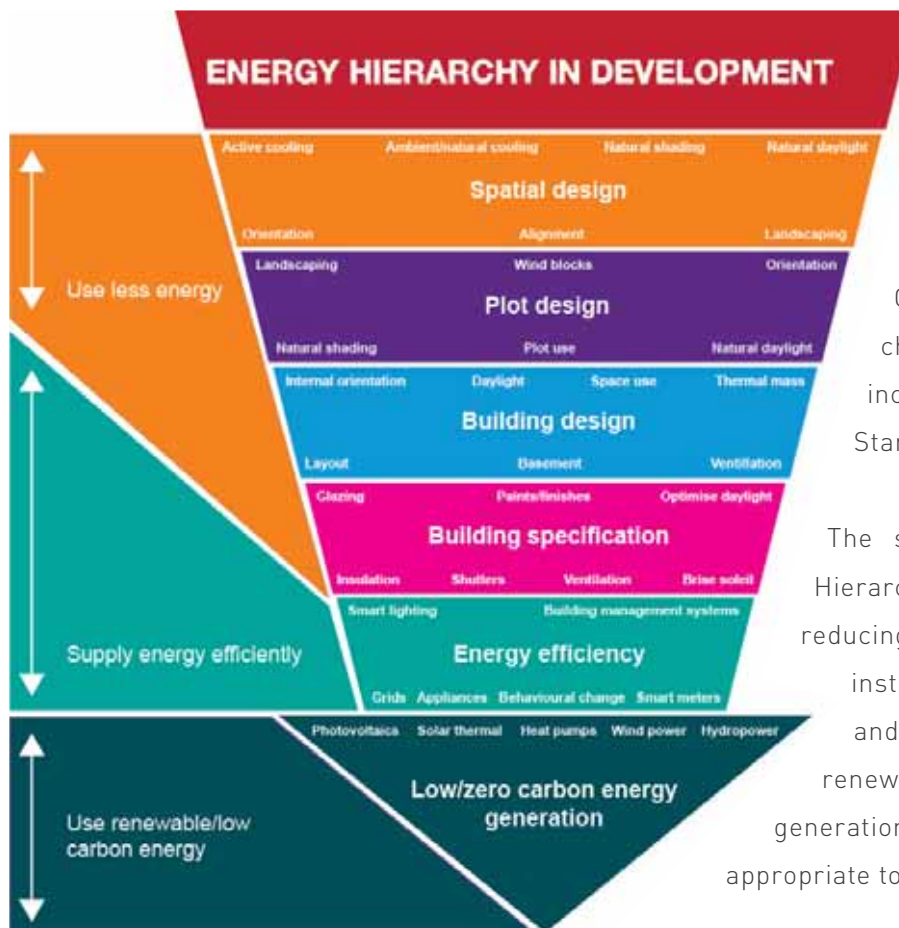
Key energy targets have been identified to inform the strategy. These policies are subject to changes in the national regulations (Part L) and adoption

of new policies at the local level which are likely to come forward during the timeline for this project and should be continually reviewed going forward. Consideration is given to the changing national context, including the Future Homes Standard.

The strategy follows the Energy Hierarchy. This places emphasis on reducing energy demands in the first instance, using energy efficiently and, only then, providing renewable and low carbon energy generation technologies where it is appropriate to do so.

A series of master planning principles have been identified to passively reduce the energy demands of the proposed development. These principles have been informed by the local micro-climate and consider issues such as green/blue infrastructure proposals to counter the urban heat island effect (providing evaporative cooling and shading), plot design to facilitate natural ventilation and passive solar design.

More detailed, building-specific demand reduction measures (both 'passive' and 'active') have been identified, which should be considered as the development progresses. 'Passive' measures are design features, which can include building orientation, appropriate internal layouts and building fabric selection, that inherently reduce the buildings' energy requirements. 'Active' measures are building services design features that will increase the efficiency of the energy used, and therefore also reduce the energy demand requirements.



An appraisal has been undertaken to identify potential renewable and low carbon energy technologies for the site (at both a 'multi-plot' and 'building specific' level). An electric-led strategy is likely to be favoured and offers strong carbon reduction potential that could support towards achieving a "net-zero emissions" development.

Preliminary engagement with Western Power Distribution (WPD) shows that there are electrical grid constraints in the area and some form of reinforcement is likely to be needed to support the development. This is likely to be compounded by the national policy direction of electric-led heating strategies and future electric vehicle (EV) charging infrastructure requirements.

MULTI-PLOT ENERGY TECHNOLOGIES

Ambient loop communal heat networks (also referred to as '5th generation heat networks') have been identified as a potential solution for the site. Other potential 'multi-plot' technologies that could support such an approach have been identified: battery storage and gas peaking plants / a Short Term Operating Reserve (STOR) scheme.

There are two existing heat networks in the area. Due to the distance of these networks from the Site (each between 3 – 4 km), connection to these networks may not be a viable option. In addition, there currently no plans to extend these networks towards the site that we are aware of.

However, it is recommended this opportunity is explored further going forward and engagement with the heat network operators is undertaken to understand the viability of a potential connection. The proposed development could also consider 'future-proofing' with appropriate technology to allow for connection if viable in the future.

There are also two Anaerobic Digestion (AD) plants in the vicinity of the site, both owned and operated by the applicant. There may potential for this "green gas" to be utilised in a heat network. However, the current scale of these operations is unlikely to be sufficient to support the proposed development. Heat losses between these facilities and the site would also have to be considered. Nonetheless,



Anaerobic digestion plant at Greendale Business Park, one of two in the vicinity of the site

these options should not be discounted and should be subject to further techno-economic appraisal going forward.

Subject to further techno-economic appraisal, other potential 'multi-plot' energy technologies could include a solar farm outside the site boundary (e.g. through a land swap or similar arrangement) and centralised ground/water source heating systems.

RENEWABLE & LOW CARBON TECHNOLOGY

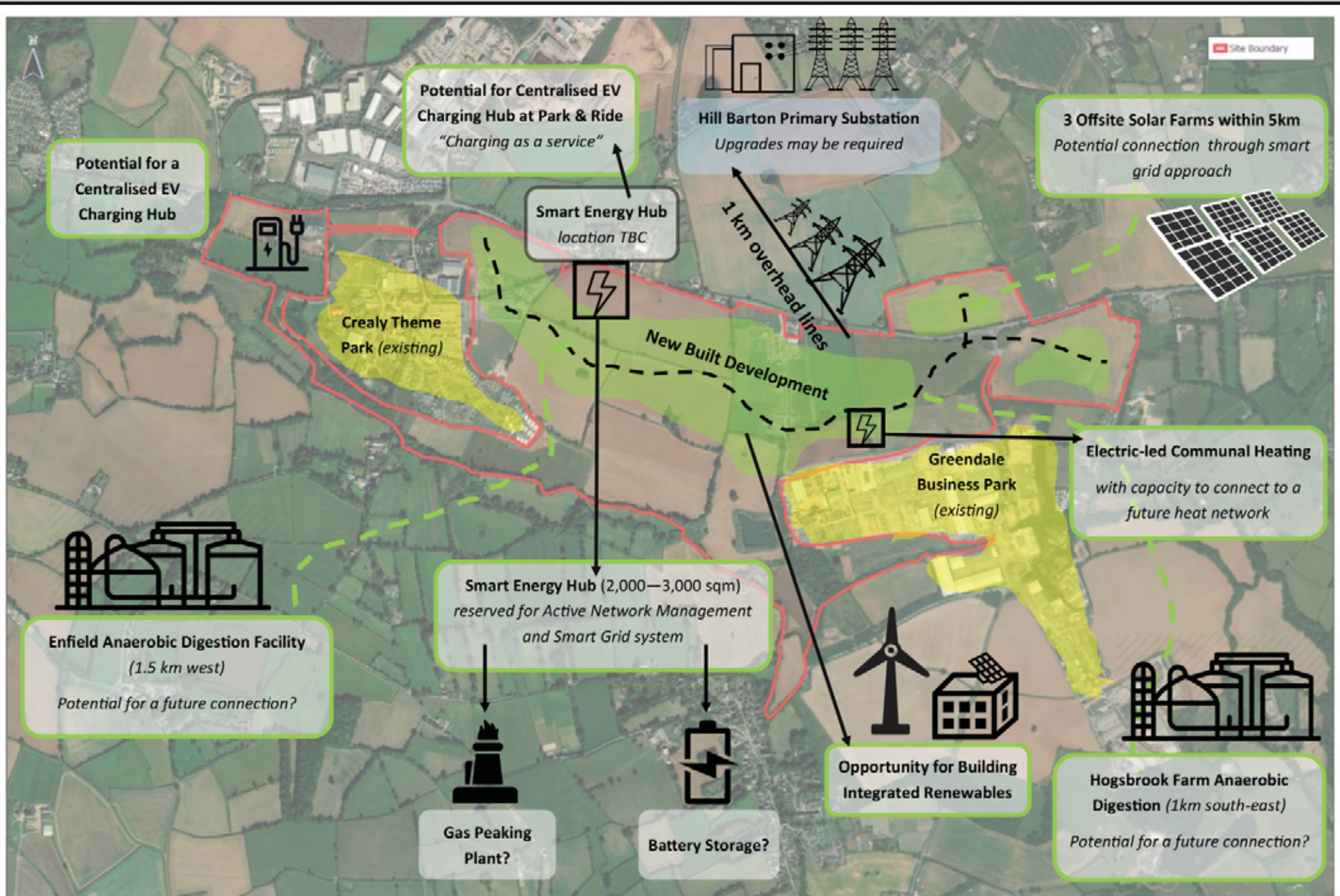
Potential building-integrated renewable and low carbon technologies have been identified, including roof-mounted photovoltaics, heat recovery systems and air source heat pumps. There may also be opportunities for solar water heating systems, medium-scale pole-mounted wind turbines (5 – 6 kW) and small ground / water source heating solutions.

Collectively, small-scale renewable generation on the scheme could contribute towards a wider Distributed Energy Resource (DER) approach.

There are also opportunities to integrate and manage all potential renewable and low carbon energy technologies that may be employed at the proposed development using emerging 'smart' energy infrastructure to help manage peak electrical demands (which is particularly important in the context of local grid constraints) and potentially support a "net-zero emissions" approach. This includes Active Network Management (ANM), and broader exploration of 'smart' energy concepts and potential collaborative opportunities with local off-site renewable energy developments.

FLEXIBILITY

As this is a large development that will progress over several years, the energy strategy needs to be flexible and able to respond to regulatory changes, market forces and technological advances. Therefore, the comments given above may be superseded over time.



	Client	GREENHAYES GARDEN VILLAGE	Opportunities		1:10,000 @ A3	Date: 13/07/2020
	Study Area			<small>World Imagery: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community</small>	Drawn: TL	Checked: FP
				Figure 01	Rev A	

Appendix: Garden Village Principles Audit

The landowners aspirations are to create a truly outstanding and distinctive Garden Community. Throughout the masterplanning process, careful consideration has been given to how the Garden City principles can be interpreted and applied to inform the shape and form of the development.



The new settlement will provide opportunities for local food production and green recreation



Greenhayes will be shaped by the Garden Cities principles to create a distinctive development

A) CREATE DISTINCTIVE, LOCAL IDENTITIES THROUGH STRONG VISIONS

It is the objective of the landowners to create a genuinely distinctive Garden Village which combines the vernacular of the East Devon villages with a layout and mix of uses which support modern, sustainable lifestyles. In so doing the proposals for Greenhayes bring together the positive rural character and charm of a village environment with a wide range of benefits arising from a new, purpose-built community.



A genuinely distinctive Garden Village is proposed drawing on the traditional East Devon vernacular

B) ENSURE WELL DESIGNED, VIBRANT, MIXED USES PLACES INCLUDING A RANGE OF LOCAL FACILITIES

It has been highlighted throughout this Vision Document that one of the great advantages of Greenhayes as a location for a Garden Community is the ability to deliver new homes around the existing local facilities. There is on site a thriving farm stop which sells a wide range of locally sourced Devon produce and a successful café / restaurant. As self-sustaining businesses, they generate sufficient revenue to remain prosperous based upon the passing trade alone. From the very outset therefore the residents of the new community will have local facilities on their doorstep.



From the outset the residents of the New Community will have local facilities on their doorstep

The proposals for Greenhayes include the relocation and expansion of the existing Farm Shop and café to create a vibrant mixed-use commercial heart. In so doing, these facilities will serve not only the residents of the new community but will continue to meet the needs of the residents of Woodbury Salterton, surrounding towns and villages and the existing passing trade.

The landowners recognise that the design and appeal of the community hub is of crucial importance to the success of Greenhayes. It is for this reason that the concept has been developed further and the details provided within this Vision Document.



A vibrant mixed-use heart will be delivered at Greenhayes for residents and visitors

C) SUPPORT HEALTHY LIFESTYLES & PROVIDE LOCAL HEALTHCARE FOR EVERYDAY NEEDS

The health and well-being of residents has been at the forefront of the masterplanning for Greenhayes. There are a wide range of leisure and recreation uses proposed throughout the proposals designed to meet a range of needs and forms of recreation. For example, informal recreation opportunities will be created along the Grindle Brook, connecting the green infrastructure within the site into the wider network of the proposed Clyst Valley Regional Park. A range of formal recreation provision has also been incorporated, including playing pitches, a measured running circuit, children's play equipment, and outdoor gym facilities.

These leisure and recreation opportunities, and indeed the wider facilities within the site, are connected through a Green Infrastructure network. This will encourage active travel within the community and to the significant employment (Greendale and Hill Barton Business Parks), recreation (Crealy Theme Park) and travel

(proposed new Park & Ride) designations nearby.

In addition, it is envisaged that the neighbourhood hub will include a community building within which there will be healthcare facilities for the future residents in the form of a GP surgery.

D) PROVIDE A VARIETY OF HIGH QUALITY & FLEXIBLE AFFORDABLE & MARKET HOMES

The Greenhayes proposals include a range of house types and sizes to meet local demand from larger family homes to smaller properties. Throughout the development there will be a variety of affordable housing tenures to meet the needs of those household unable to afford to buy or rent housing on the open market, as well as a number of serviced plots for those wishing to build their own home.

The precise mix of housing types and tenures will be based upon an understanding of housing needs at the time of a future planning application.



Significant green infrastructure will provide healthy recreational opportunities, including allotments



Leisure and recreation opportunities will include active travel within the Garden Community



A range of house types will be provided to meet local demand and reflect the East Devon vernacular

E) DELIVER APPROPRIATELY PHASED & DESIGNED INFRASTRUCTURE WHICH PLAYS A POSITIVE ROLE IN PLACE-MAKING & BUILDING COMMUNITIES

The proposed community hub (which will include a replacement Farm Shop and café along with a range of other commercial uses and community space) at the heart of Greenhayes will provide an attractive and vibrant heart to the new community.

A key objective of the landowners is to deliver a community hub which will not only provide the mix of uses needed by the future residents but to do so in an attractive environment which encourages social interaction and fosters a community spirit.

The landowners wish to create a place which the residents are proud to call home and the creation of a community hub which achieves this ambition is an essential part of creating the place.

The development can afford to do this because of two key factors. First, the proposals for Greenhayes are not reliant upon the delivery of

major new pieces of infrastructure – for example, there are no major new roads or railway stations which the development relies upon. Second, the existing Farm Shop and café (which is owned and managed by FWS Carter & Sons) is already a viable and thriving local business based upon passing trade alone.

The community hub, which will have the new Farm Shop and café at its heart will therefore be viable from the outset and come forward at a very early stage in the delivery programme, setting the tone and character, and helping to foster a strong community spirit.



The Farm Shop and café, alongside other commercial and community uses will sit at the heart of the village



The community hub will help create a place residents are proud of and foster a strong community spirit

F) SUPPORT A WIDE RANGE OF ACCESSIBLE, LOCAL JOBS & PROVIDE THE EDUCATION & SKILLS TO SUPPORT LOCAL EMPLOYMENT

One of the unique attributes of Greenhayes is the accessibility of local jobs. Located on the land between two of the largest employment areas within East Devon and the seasonal employment at Crealy Theme Park, residents of the community would be within walking reach of circa 3,600 jobs. There is also an ambition to increase the level of employment at the Greendale Business Park and to incorporate employment opportunities within the proposals themselves through a range of measures.



Greenhayes will be within walking reach of several major employment areas

A recently installed Jurassic Broadband Fibre Network traverses the site and provides high-speed broadband connectivity sufficient to support home working for even the most bandwidth intensive needs. This caters for those who work from home already with a reliable service and presents an opportunity to encourage further home working, harnessing the new ways of working that have arisen as a result of the Coronavirus Pandemic.

In order to further support both home workers and small scale start up businesses, the development proposals incorporate a 'work hub'. Located within the community hub, the ground floor is designed to provide a sociable environment for those working from home to use as and when required,



The proposals incorporate a 'work hub' supporting home workers and small scale start-up businesses

with shared communal facilities, including a café, bookable meeting rooms, IT and printing facilities. The upper floor provides office space for those businesses wanting to have a permanent workspace but with the flexibility to grow as the business expansion demands.

Also located within the heart of the community will be a new primary school. Scaled to meet the needs of all future residents, the school will provide a modern teaching space for children of Greenhayes where trips to school can be combined with those to other facilities in the community hub.



A primary school will be located at the heart of the community, providing a modern teaching space

G) ENHANCE THE NATURAL & HISTORIC ENVIRONMENT & PROVIDE COMPREHENSIVE GREEN INFRASTRUCTURE, FACILITATING & ENCOURAGING RECREATIONAL USE

The Greenhayes proposals are designed to sit within the landscape, protecting and enhancing the natural environment and avoiding harm to heritage assets. Creation of informal Public Open Space along the Grindle Brook, and linking the site with the wider Clyst Valley Regional Park, will provide a valuable amenity for future residents as well as those living in the local area.

There are no heritage assets within the development land, and the impact upon those outside has been minimised through careful design. There are opportunities to enhance heritage and historical understanding of the site and the landscape incorporated into the proposals.

As explained in response to criterion (c) the proposals include formal and informal recreation space set within an extensive Green Infrastructure network. This links different parts of the site and

provides active travel connectivity for residents. It also links to locations outside such as the adjacent Business Parks, Crealy Theme Park, the proposed Park & Ride, the village of Woodbury Salterton and the expanded Clyst Valley Regional Park.

H) ENSURE THAT ALL NEW RESIDENTIAL, EMPLOYMENT & COMMERCIAL DEVELOPMENT WILL DELIVER NET ZERO CARBON EMISSIONS & IS RESILIENT TO THE EFFECTS OF CLIMATE CHANGE

The landowners are committed to developing a sustainable energy strategy with the target of achieving net zero carbon emissions for Greenhayes.

Renewable energy is not a new concept for the landowners, both of whom are currently generating renewable electricity from anaerobic digestion plants within their land. Indeed, the adjacent Greendale Business Park which is owned and operated by FWS Carter & Sons is powered entirely on the renewable electricity generated by the anaerobic digestion plant located on Greendale Farm at the southern edge of the Business Park.



The proposals will protect and enhance the natural environment and avoid harm to heritage assets



Active travel links will be delivered to key locations outside the site including Clyst Valley Regional Park



The anaerobic digestion plant at Greendale Farm, a sustainable energy strategy will be delivered

I) DELIVER HIGH QUALITY, INTEGRATED, MULTI-MODAL & LOW CARBON TRANSPORT OPTIONS

A key objective of Greenhayes is to minimise the need to travel. In this respect, the site is extremely well located. With substantial existing and proposed future employment within the locality, there are a large number of residents who would be able to travel by active modes for employment purposes.

This objective is further supported by the mix of uses within the site. At the heart of the development will be a community hub incorporating a new, expanded and enhanced Farm Shop and café / restaurant. As it will serve the new community as well as passing trade, this will be much larger and will contain a wider range of products, than a local convenience store that would ordinarily be promoted in a local centre within a new development. The community hub will also contain a range of services sufficient to meet the everyday needs of the residents, minimising the need to travel off-site.

It is recognised that not all employment, recreation and shopping needs will be available on site. For journeys off-site a comprehensive package of sustainable travel measures has been devised to support and prioritise low carbon transport.

At the centre of this package is a new Park & Ride on the A3052 served by a high quality, high frequency bus service. Park & Ride facilities often result in one way 'tidal' flows, with many bus services having high levels of patronage in one direction at the morning peak hour and the other direction during the evening peak hour. By combining the Park & Ride with the proposed community and locating it in walking distance from the circa 3,600 jobs and major leisure destination of Crealy Theme Park, a high frequency service will be supported by strong levels of patronage in both directions throughout the day and throughout the year.

Not only will the Park & Ride and associated high frequency bus service provide for the needs of the residents but it will enhance the low carbon transport options available to and from the key destinations close to Greenhayes.



The Farm Shop will contain a wide range of products and serve the new community and passing trade



Integrated active travel routes will be provided within attractive movement corridors



A new Park & Ride on the A3052 will be served by a high quality, high frequency bus service

J) ENSURE DEVELOPMENT IS FUTURE PROOFED & RESILIENT TO CHANGE

Amongst the work undertaken to inform the Masterplan for Greenhayes is a flood risk and drainage strategy. This strategy has led to the integration of a sustainable drainage solution into the masterplan proposals which will ensure that the development and properties downstream of the site are protected from the effects of climate change.



A sustainable drainage solution is integrated into the proposals to future-proof the development



The surface water attenuation will also provide attractive features which benefit biodiversity

pad

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