

Brotherton Farm, Livingston

Design and Access Statement

01 September 2014



Masterplan

Alba
Business
Campus

Allocated for
Residential
Development



Executive Summary

This Design and Access Statement supports an application for Planning Permission in Principle (PPiP) for a residential development on a site at Brotherton Farm, south west of Livingston, West Lothian.

The proposals demonstrate how part of West Lothian's identified strategic housing shortfall can be delivered by development on this 12.4 Hectare site in a manner which will not be detrimental to the principles of the Countryside Belt.

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01

Site and Context

Site Context

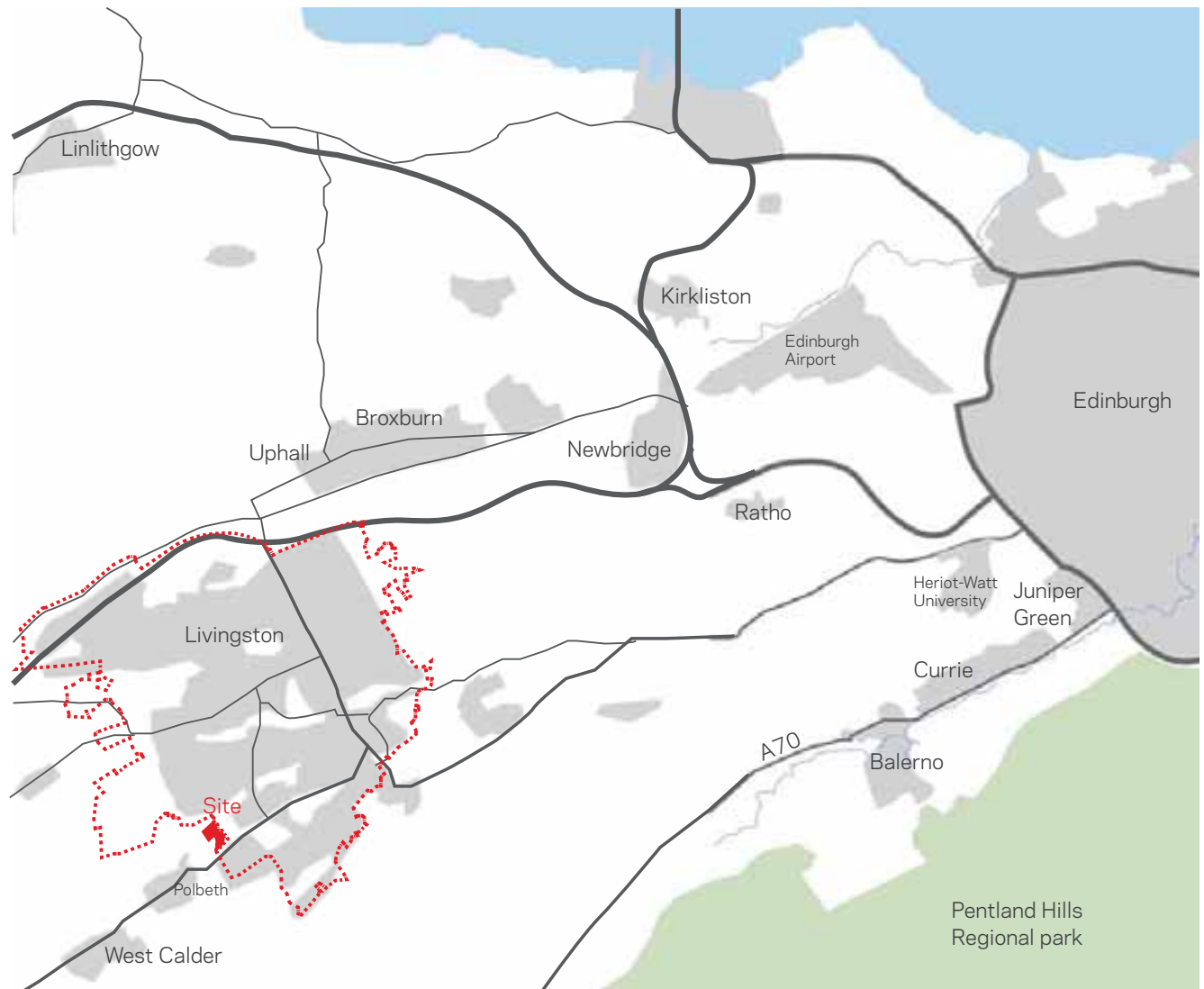
Location

Livingston is the largest town in West Lothian and second largest (after Edinburgh) in Lothian. It sits about 13 miles west from Edinburgh in the Almond Valley and part of the Central Belt. The proposed site sits on the southwestern boundary of the Livingston settlement.

The settlement started in the ancient village of Livingston. Later the villages of Bellsquarry and Livingston Station were also founded. Livingstone's expansion into a town was set by the New Towns Act of 1946 which identified 5 locations for new towns to be built. Livingston was the fourth to be built and was designated a New Town in 1962.

Livingston further expanded in the 1980s and 1990s due to high-tech industry. Today it is known for its large retail centre.

According to the 2011 census the population is over 56,000 people.



■ Site

⋯ Livingston settlement boundary

Livingston and the development site in context

Site Context

Livingston



Livingston

Site

A899

A71

Knightsbridge

Wether Dechmont

Deans

Ladywell

Craigshill

East Calder

Mid Calder

Howden

Livingston Village

Almondvale

Seafield

Dedridge

Kirkton

Kirkton Campus

Alba Campus

Bellsquarry

Murieston

Brucefield Industrial Park

Polbeth

A71

Site Context

Site

The site is situated within south-west Livingston and comprises agricultural land extending to 12.4Ha (30.6 acres). The land is bounded by established woodland to the east, the Brucefield Industrial Park and the A71 to the South, agricultural land to the west and the Alba Business Campus to the north. Access to the site will be via the existing roundabout spur on the A71.

Why is the site suitable for development?

- The site is in good proximity to local transport connections and services
- The site is accessible via existing Wilderness Roundabout on the A71
- There are opportunities to connect footpaths to established woodland areas, proposed recreational route and beyond to the wider area
- The site is surrounded by generous areas of woodland and open green space which provides a sage and pleasant environment.
- Proposed development areas are very well screened from view by existing tree belts and landscape topography



Site Context

Local Character

This area of Livingston has a distinct suburban edge character. Along Bankton Road mature trees and landscape planting is interspersed with housing or industrial development. The photographs to the right show a mix of character and setting.



Bankton Road



Polbeth



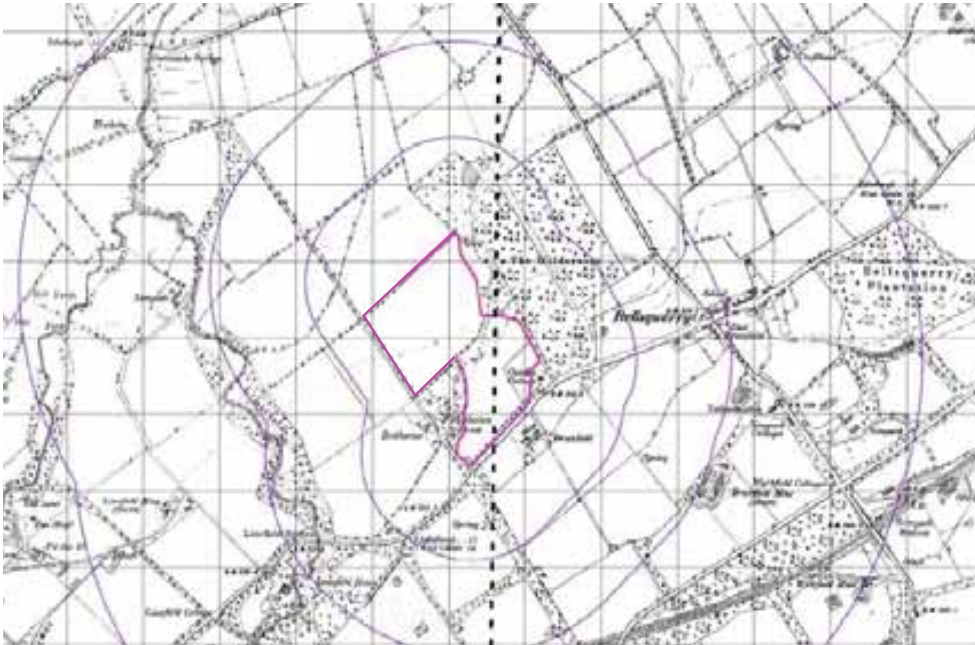
Brucefield Farm, local pub and carvery



Brucefield Industrial Park

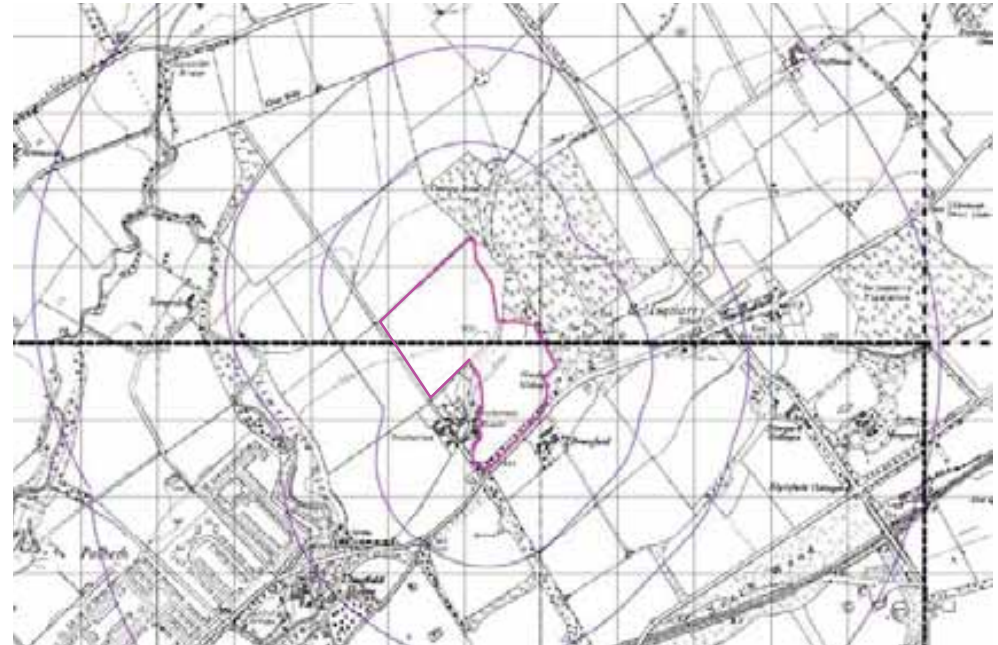
Site Context

Area History



1895

Brotherton Farm and key area landscape features (The Wilderness, Limefield Glen, tree belts and field lines) already clearly visible.



1957

By 1957 Polbeth housing had been built.



1991- 1994

Brucefield Industrial Estate and the western part of Dedridge housing had been built.



2013

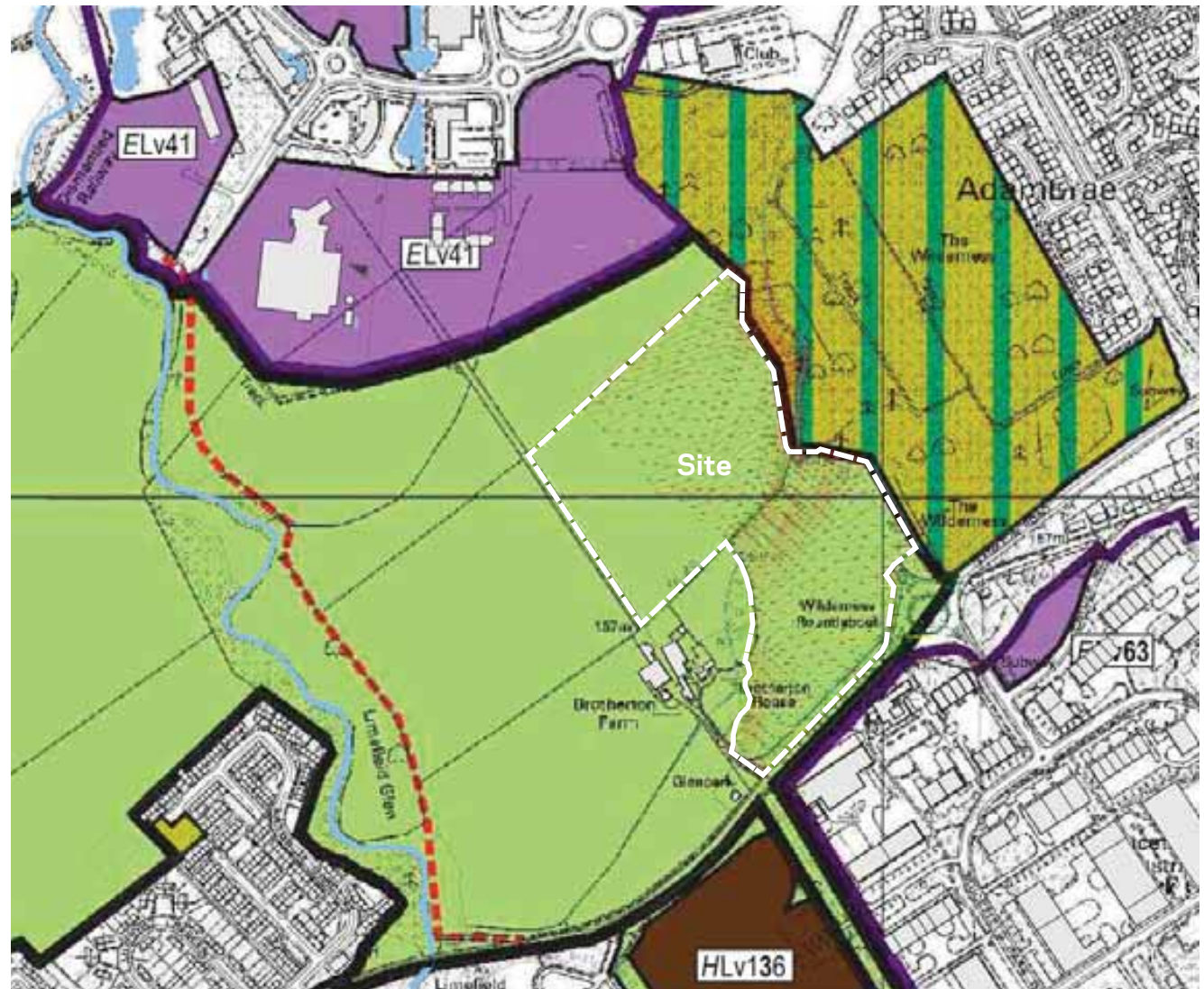
Alba Business Campus as well as Adambrae and Bellsquarry housing are built out. Key landscape features have barely been affected by development over the last 100 years and remain to this day.

Planning Context

Local Policy

West Lothian Local Plan
January 2009

The map to the right is an extract from the West Lothian Local Development Plan and shows that the site sits on the edge of the Countryside Belt between development to the north and to the south.



West Lothian Local Plan - January 2009

Planning Context

Design Policy Guidance

Government Policy, Local Policy and Best Practice for Design

The core documents of relevance in this instance include the following:

- o Scottish Planning Policy 2014: The development proposal has been guided by the key policy principles set out in the SPP 2014, with particular reference to the six qualities of successful places referred to in paragraphs 41-46.
- o Creating Places: A Policy Statement for Scotland, June 2013
- o Designing Streets: A Policy Statement for Scotland, March 2010
- o West Lothian Local Development Plan, January 2009

The Scottish Government publish a series of Planning Advice Notes on Best Practice aimed to provide planning authorities and applicants guidance on shaping future developments. These are important documents and are material considerations in the determination of planning applications. They specifically relate to good practice and should inform planning authorities and applicants alike.

- o PAN 44 Fitting New Housing Development into the Landscape
- o PAN 67 Housing Quality
- o PAN 68 Design Statements
- o PAN 83 Masterplanning
- o PAN 72 Housing in the Countryside

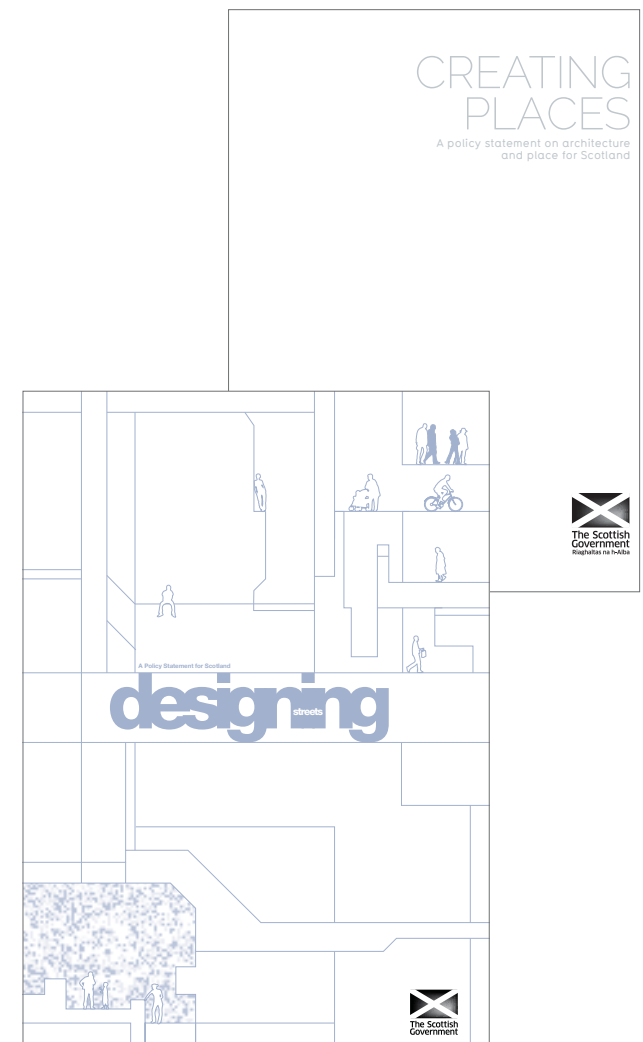
Designing Streets: A Policy Statement for Scotland, March 2010

Designing Streets is the first policy statement in Scotland for street design and marks a change in the emphasis of guidance on street design towards placemaking and away from a system focused upon the dominance of motor vehicles. It has been created to support the Scottish Government's placemaking agenda and is intended to sit alongside the 2010 planning policy document Designing Places, which sets out government aspirations for design and the role of the planning system in delivering these.

Designing Streets promotes the development of places which are well integrated with adjacent land uses and requires that they are highly permeable, particularly for non-car based travel modes.

Key principles of Designing Streets include:

- o The built environment should place a high priority on pedestrian and cycle movement;
- o Where possible, cycling activity should be accommodated within road carriageways;
- o Road widths can vary throughout a development, and a variety of treatments should be adopted;
- o A design speed of 20mph should be borne in mind for roads within a development;
- o The distance between building frontages can vary between 10m and 18m;



Planning Context

Design Policy Guidance

Creating Places: A Policy Statement for Scotland, June 2013

Creating Places is Scotland's policy statement on architecture and place which sets out the comprehensive value good design can deliver.

Architecture and place has an established, strong relationship with planning. The policies contained in the document are material considerations in determining planning applications and appeals.

The document contains an action plan that sets out the work that will be taken forward to achieve positive change.

The statement is in four parts:

1. The value of architecture and place,
2. Consolidation and ambition,
3. A strategy for architecture and place,
4. Resources, communications and monitoring.

PAN 44 – Fitting New Housing Development into the Landscape

The approach expressed by PAN 72 is supported by PAN 44 Fitting New Housing Development into the Landscape. PAN 44 stresses the importance of sensitively responding to local landscape and setting, existing urban form and settlement patterns, and considering the visual impact.

“Insensitive development can undermine the special environmental quality of towns and their setting in the countryside which have drawn people to live and invest in them in the first place”.

The approach to the planning of town expansion areas is well tested. PAN 44 and PAN 72 provide the context to good design practice stressing the importance of good contextual design.

“Careful attention to landscape fit should be given by housing developers, and the principles of good design should be applied consistently by authorities in their planning decisions”.

Understanding the landscape capacity and the surrounding context for Livingston has been an integral part of the masterplan process. Our approach has been to consider an appropriate form and density of development to properly reflect the transition from suburban to rural at a location at the edge of the settlement with open countryside beyond. The proposed residential development is in harmony with and respectful to its landscape setting.

PAN 67 - Housing Quality

PAN 67 recognises that the planning process has an essential role to play in ensuring that:

- The design of new housing reflects a full understanding of its context – in terms of both physical location and market conditions;
- The design of new housing reinforces local and Scottish identity; and,
- New housing is integrated into the movement and settlement patterns of the wider area.

The guidance states that many people also want to live in a place that has a distinct identity, rather than one that could be anywhere, and that every development should be planned and designed as part of a place that does more than just house people.

Further the guidance seeks an overall approach to designing housing considering the design of streets, open space and relationship with the wider landscape/context.

The proposed development at Brotherton Farm sits well into the existing settlement pattern, using it as a basis for the assessment of landscape capacity. The identified site is well protected from views either screened by trees or topography. Sound principles of landscape planning, urban design and placemaking are at the heart of a proposal that seeks to fit with its surroundings and the existing settlement and landscape patterns rather than ignore them.

PAN 68 – Design Statements

PAN 68 outlines good practice in preparing Design Statements and the extent of supporting information and analysis that will inform and shape the design process.

“A design statement should explain and illustrate the design principles and design concept of the proposed layout; landscape; scale; and mix; details and materials; and maintenance. It should show, as briefly as necessary, how these will help to achieve the qualities in Designing Places.”

PAN 72 – Housing in the Countryside

PAN 72 reinforces the approach and methodology outlined by PAN 83 and states:

“... landscapes have different capacities to accommodate development. It is therefore crucial that the proposed location and siting of new housing considers the impact on the landscape, in terms of both immediate and wider surroundings...”

The guidance goes on to state that: **“The importance of layout within a site cannot be over stated”.**

The proposal for Livingston works well within the site’s capacity and its siting is respectful to both its immediate and wider surroundings and topography.

PAN 83 - Masterplanning

The plan led system and masterplan approach is supported by government policy guidance and good planning and design practice. PAN 83 supports this approach stating that:

“In general, masterplanning is required for areas of large-scale change such as town extensions”.

PAN 83 and PAN 68 both also recognise context as a critical starting point. Development should be contained and should not be linear or sprawl or detached from the settlement edge. Good design is about providing shape and context and providing a good environment for all. Government guidance strongly supports this approach and provides that the landscape and topography should inform and contain the layout of any new development.

Working with the landscape and topography is at the heart of the proposal for Brotherton Farm, Livingston. It takes a very sensitive approach to masterplanning in a landscape setting and on the edges of rural landscape.

Planning Context

Pre-Application Community Consultation

Community Consultation

A pre-application community consultation was undertaken on the 18th of March 2014 between 2pm and 8pm. The consultation provided local residents with the opportunity to view and comment on the development proposals.

Key comments, both positive and negative, were:

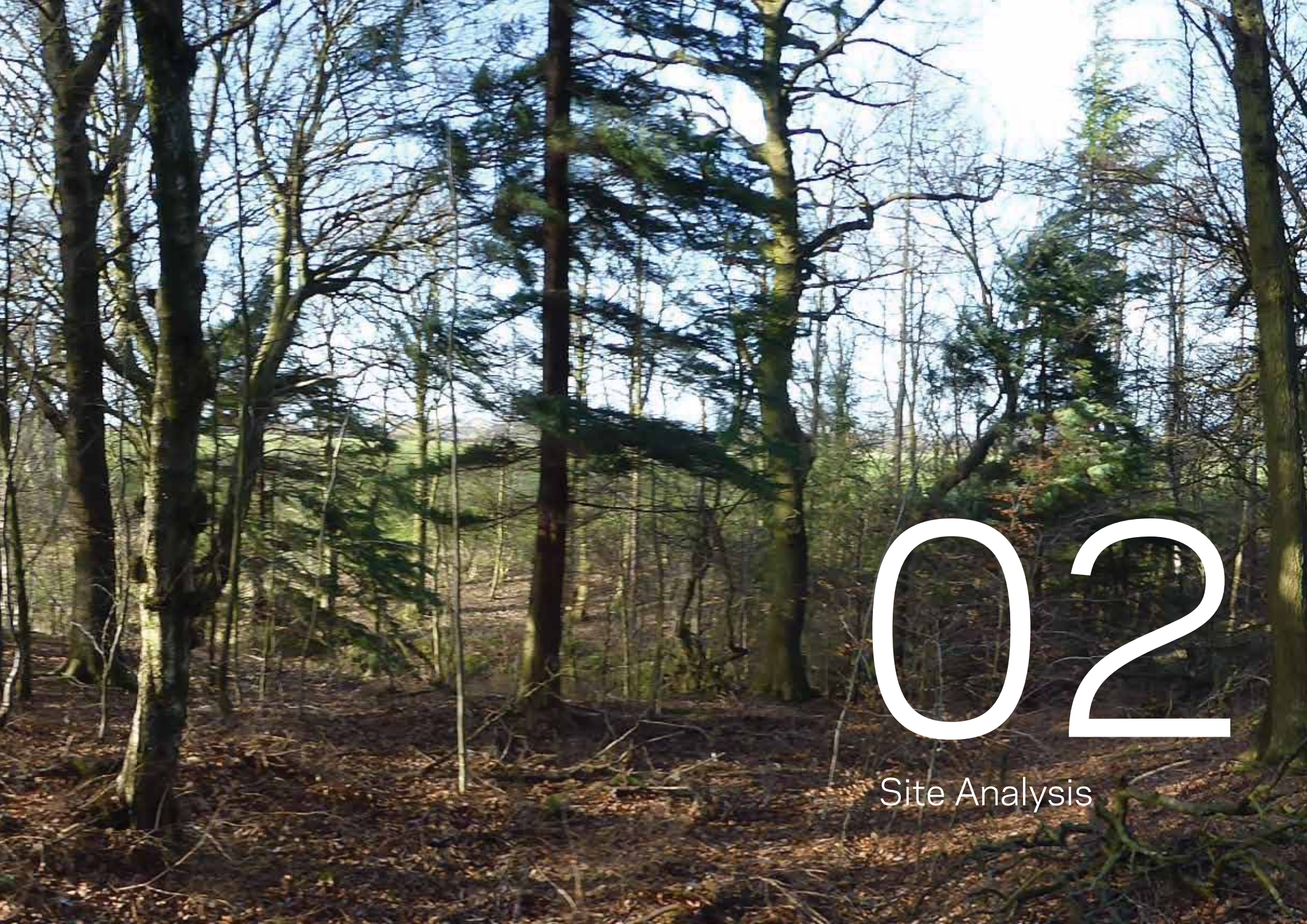
- The location of the site means the development would not inflict significant impact onto residents.
- There is a significant need for new homes in the Livingston area.
- The site is within the Countryside Belt and there are other sites in the area already allocated for housing. However these sites are large and progress has been slow during the recession. A short term solution to the local housing shortage is needed
- The inclusion of a 20m tree belt between the woodland and the development was suggested in answer to concerns about the impact of the development on the wildlife living within the woodland.
- There is concern about the negative impact the development could have on traffic on the A71 and on routes through Bellsquarry.

The Masterplan for the development was subsequently amended in response to local residents comments and concerns raised through the community consultation. A Pre-Application Consultation Report (PAC) has been prepared by Gladman as part of this PPIP. Please refer to the report for further information.



Presentation for public consultation . Exhibition on 18th March 2014 at Bellsquarry Village Hall.





02

Site Analysis

Site Analysis

Connections

The site is well located to benefit from easy pedestrian and cycle access. All of the footways in Livingston are designated for cycle use. It is proposed that a new footway be provided through The Wilderness, to the south of Silverbirch Glade, by upgrading and extending an existing informal route.

There is also the possibility of a pedestrian connection to the Alba Business Campus to the north. These pedestrian and cycle connections demonstrate the 'Easy to Move Around and Beyond' principle identified as one of the six qualities of a successful place in SPP paragraph 46.

- Surfaced public footpaths
- Unsurfaced footways
- Proposed footpath link



Site Analysis

Public Transport

The site is located near to the A71 bus corridor, giving a total of 4 buses per hour in each direction between the site, the town centre, and various onward destinations. The proposal therefore meets the locational requirements of SPP and PAN75, and the policy principles of accessibility for guiding decisions in SPP paragraph 29.

- Bus stop
- Bus route. Nos. 26, 36, 71, 77



Site Analysis

Vehicle Access

Vehicle access to the site will be via the existing Wilderness Roundabout spur on the A71.



Site Analysis

Landscape Character

The site occupies an edge of settlement location comprising agricultural fields, and is located within the Livingston Countryside Belt. It comprises of open agricultural fields bounded by a mix of tree belts and woodland. The combination of tree lined boundaries, woodland and the detailed topographic pattern of the site considerably restrict the visibility of the site from the surrounding area.

The site is located within the eastern section of the 'Lowland Plateau', and specifically within the 'West Lothian Plateau' Landscape Character Area (LCA). The 'Lowland Plateau' occupies much of western West Lothian and extends westwards outwith the district, comprising a gently undulating slightly elevated plateau predominantly dominated by a grassland.

The site itself comprises a simple landscape pattern of medium scale agricultural fields which extend westwards from the edge of Livingston to Polbeth and beyond. This field pattern reflects the predominant east - west grain of the undulating low ridges and shallow valleys which cross the area. Boundaries are regular and relatively geometric or slightly curving, although their existing tree lines are too fragmented to significantly reinforce and emphasise the landscape pattern of the site. This is an area with a strong contrast between the enclosing pattern of woodlands and tree lines to the south and east of the site with a more open, expansive character to the west and north.

Horner + MacLennan (h+m) landscape architects have prepared a Landscape and Visual Impact Assessment (LVIA) of the proposed development at Brotherton Farm, Livingston which has informed the masterplan. The key aspects of the assessment are incorporated within this Design Statement but please refer to the LVIA itself for more detailed information.



Grassland with strong tree lined boundary lines



Tree lined boundary along Bankton Road

Site Analysis




Topography and Key Site Features

Topography

Overall, with the exception of localised features such as the east-west valley across the site and small local ridges, the site gently slopes down in a north-west direction.

Key Site Features

- The site is generally located in an area where views to it from the surrounding area are relatively limited
- Strong field boundary lines with lines of sporadic trees set out the structure of the landscape
- Glenfield Glen, The Wilderness, tree belts along Bankton Road, the complex of Brotherton Farm buildings, tree belt east of Brotherton Farm and tree belt along farm access path to the north of Brotherton Farm form strong containment edges in the immediate landscape
- Brotherton Farm is a cluster of residential and agricultural buildings, set within a tree group which assists in masking its overall extent and scale

-  Site boundary
-  Field boundary line with trees and hedgerows
-  A strong containment edge formed by trees



Site Analysis

Site Views and Visual Enclosure

Key Views

Views of the site are largely mitigated by landscape and topography features:

- North - Views from Kirkton Campus and the north are largely mitigated by topography, tucking the site behind a local ridgeline.
- South/southwest - Views are broken up by trees and vegetation along Bankton Road (A71).
- East - The site is not visible from the east due to thick screening of The Wilderness.
- West/southwest - Views from the west both from Bankton Road (A71) road and from Polbeth are screened by Limefield Glen and trees in the area around Brohterton Farm.

The views identified on the plan are illustrated on the following pages.



Site Analysis

Key Views and Visual Enclosure



View 1: View from Bankton Road through tree belt to proposed site beyond



View 2: View south-west along Bankton Road with site on the right.



View 3: View north-west over site to Brotherton Farm, tree belt and fence line Topography sloping away northwards.



View 4: Small valley with trees along the fence line in the centre of site.



View 5: View through The Wilderness trees onto the proposed site.



View 6: View from Kirkton Campus toward proposed site.



View 7: View of campus, adjacent field, edge of site and The Wilderness in background.



View 8: View towards The Wilderness. Localised dip and steep topography hide proposed site from views.



View 9: View north-east along proposed site fence line.



View 10: Brotherton Farm building and treebelt screening proposed site beyond.



View 11: Brotherton Farm house sheltered by tree belt.



View 12: View over proposed site from its southernmost corner.

Site Analysis

Surrounding Areas Typology and Density



The following analysis of surrounding residential developments indicates the density of development in the vicinity of the site.



1. Langside Crescent, Polbeth

Density: 17.8 dwellings per Hectare
Plot sizes: 200 - 1100 m sq
Dwelling sizes: 45 - 63 m sq in footprint (2 storeys)

2. Langside Gardens, Polbeth

Density: 33.3 dwellings per Hectare
Plot sizes: 120 - 140 m sq
Dwelling sizes: 42 - 58 m sq in footprint (1-2 storeys)



3. Cypres Glade, Livingston Village

Density: 16.4 dwellings per Hectare
Plot sizes: 340 -520 m sq
Dwellings: 88 - 133 m sq in footprint (2 storeys)

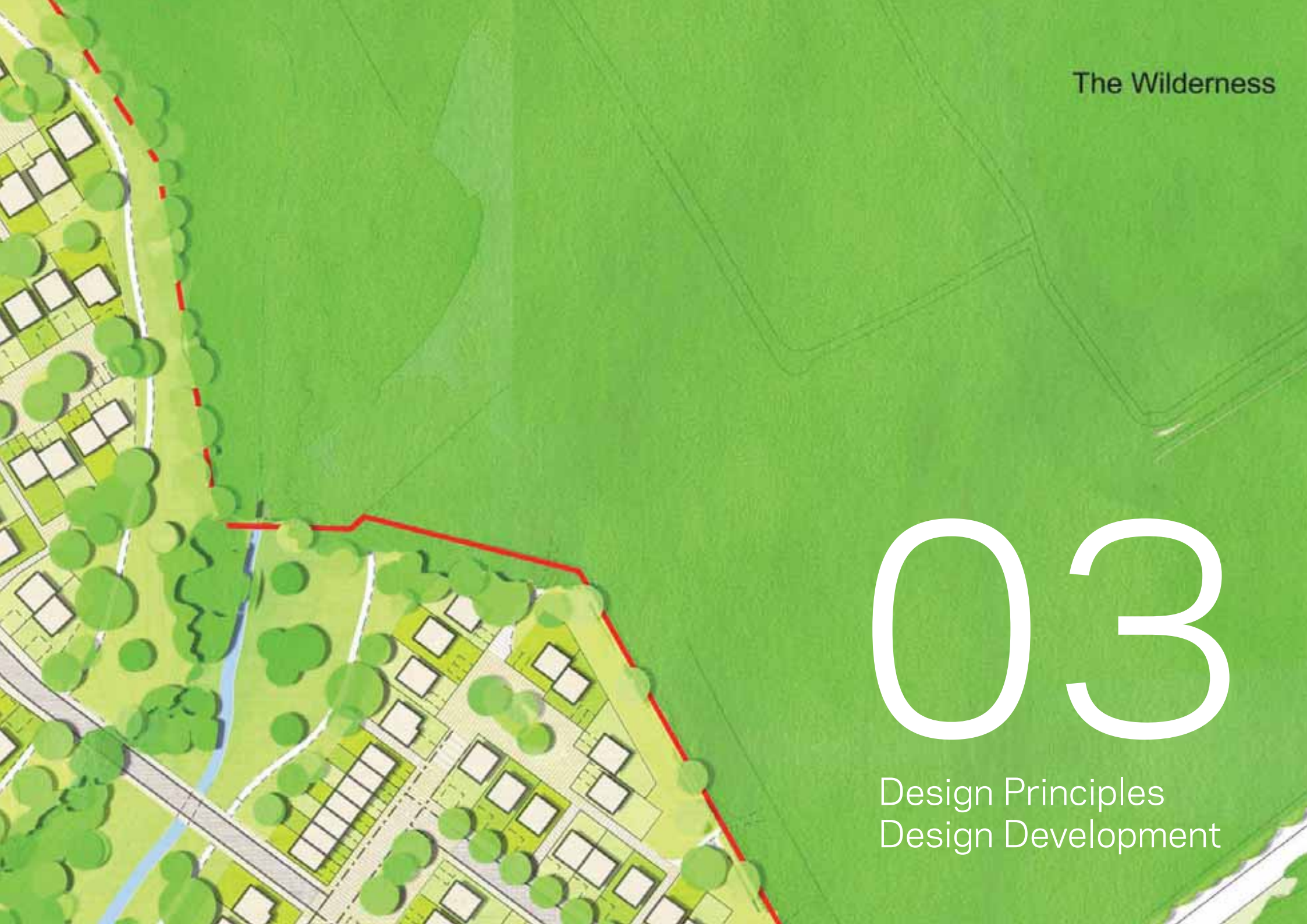
4. Saltscoats Gardens, Bellsquarry

Density: 11.4 dwellings per Hectare
Plot sizes: 350 m sq - 1300 m sq
Dwelling sizes: 148 - 180 m sq in footprint (2 storeys)



03

Design Principles
Design Development



Design Principles

Brief and Approach

The brief for the site is to establish a sensitively designed development that is embedded in its landscape setting on the edge of Livingston which will provide an attractive place to live that meets housing needs in the area.

This site has been selected for its potential to deliver the qualities of a successful place identified in SPP paragraphs 41-46.











- Distinctive - By working with the existing landscape topography and features to create a place with a distinct identity.
- Safe and Pleasant - By offering the opportunity to create a pedestrian priority residential neighbourhood with well defined, active spaces.
- Welcoming - By designing the development to sit comfortably within the landscape context to accentuate the legibility and identity of the place.
- Adaptable - By designing a masterplan that is a flexible, landscape driven, framework for development.
- Resource Efficient - By developing a low rise but high density masterplan (in the local context), which responds to local housing needs in a manner that works with the natural environment and utilises durable materials for building and landscaping.
- Easy to Move Around and Beyond - By creating a pedestrian/cycle dominated neighbourhood that prioritises their needs over motor vehicles on a site which is sufficiently well connected by public transport and footpaths.

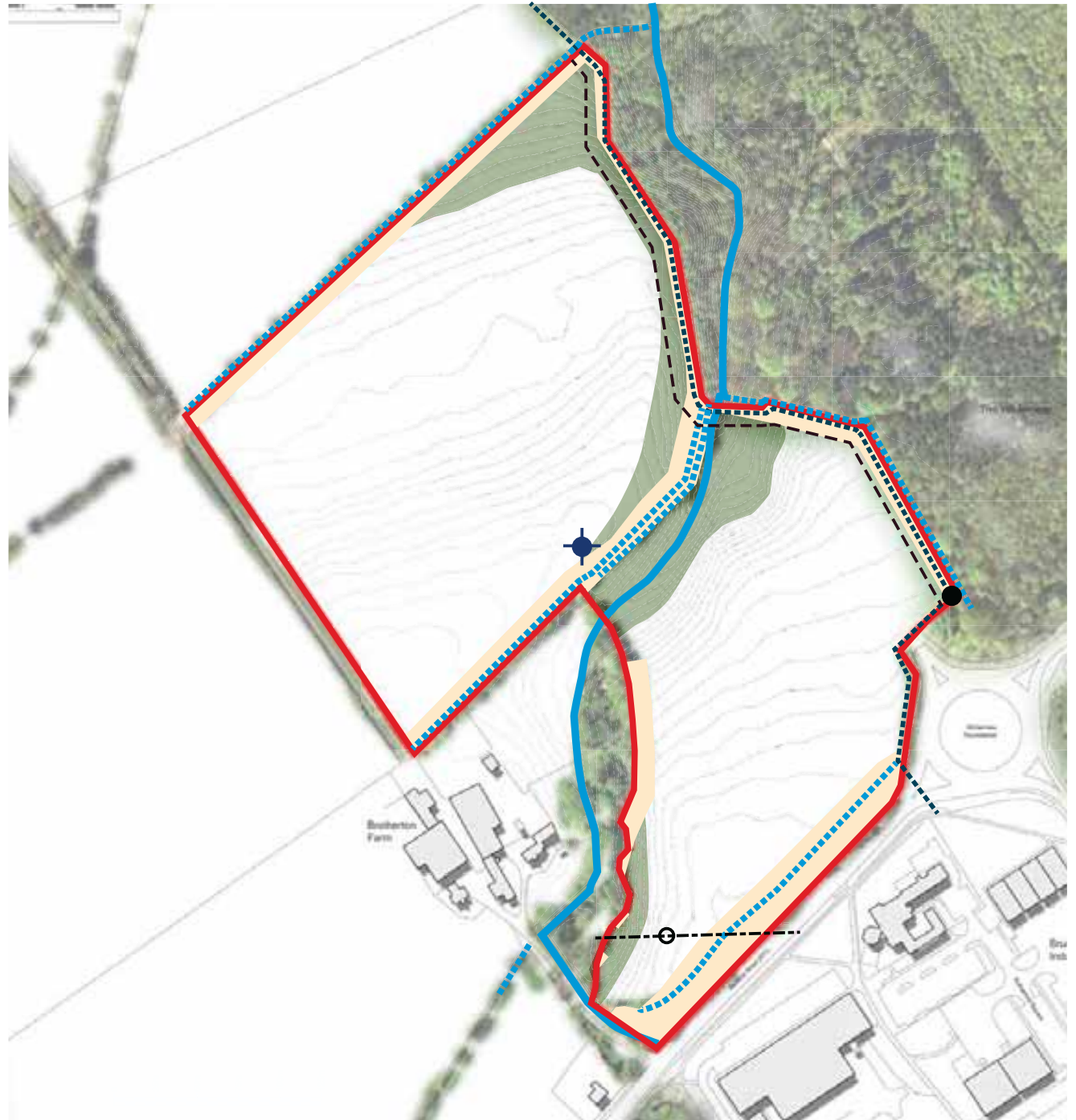


Image of a typical street in the proposed development

Design Principles

Key Development Constraints

-  Site boundary
-  Construction exclusion zone for the protection of existing trees
-  Construction exclusion zone for landscape and topography
-  10m setback from Wilderness
-  Medium Pressure gas pipe
-  Drain
-  Ditch
-  Power line and mast
-  Communication mast
-  Mine entry



Masterplan Development

First concepts and proposals



South-west facing gardens:

- o Majority of gardens facing south-west.
- o Possibility to design houses to pasiv house standards.
- o Perimeter and ridgeline landscape buffer zones



Landscape swaths:

- o Majority of gardens facing south.
- o Possibility to design houses to pasiv house standards.
- o Perimeter and ridgeline landscape buffer zones
- o Landscape swaths for greening, screening and enhancement of landscape character



Courtyards:

- o Majority of gardens facing south-west or south.
- o Possibility to design houses to pasiv house standards.
- o Perimeter and ridgeline landscape buffer zones

Masterplan Development

Design Development



Responding to landscape and topography

- Site boundary is extended to provide substantial landscape screening and public amenity
- Landscape fingers permeate the development in the form of courtyards and amenity space and strengthen in line with existing landscape patterns
- Development steps back from edges to give buffer to landscape features



Design development / response to consultation feedback

- Houses pulled back from the edge of the Wilderness
- Houses pulled back from northern boundary to accommodate sloping topography
- Houses pulled back from southern western tip of site.
- Area of amenity play space increased

Design Principles

Key Development Parameters

Legend

-  Land Ownership boundary
-  Proposed Site boundary

West Lothian Local Plan








-  Livingston Countryside Belt
-  Employment site allocation
-  Housing site allocation
-  Area of special landscape control
-  Proposed recreational route

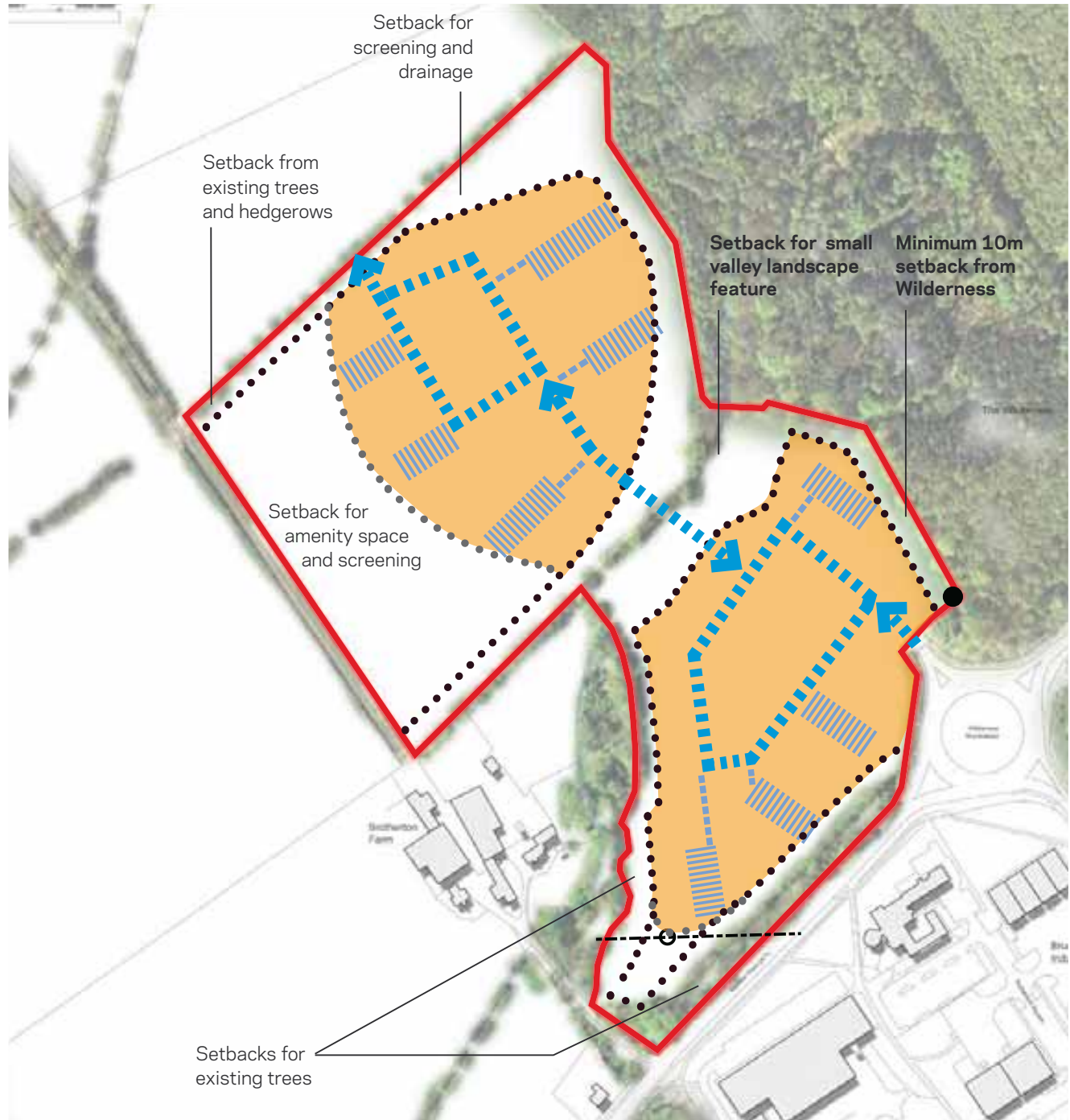


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Design Principles

Framework for Development

-  Site boundary
-  Development zone
-  Setback for trees and landscape features
-  Setback for amenity and screening
-  Primary route
-  Access to courtyard
-  Courtyard





An aerial architectural rendering of a residential development. The scene shows a cluster of modern, rectangular houses with light-colored roofs and walls, interspersed with numerous green trees of varying sizes. A winding blue stream flows through the development. A prominent red line, likely representing a boundary or a specific design element, runs across the site. The background is a vast, flat green field with faint lines suggesting agricultural plots or property boundaries. The overall style is clean and illustrative, typical of landscape architecture presentations.

The Wilderness

04

Design Proposal

Illustrative Masterplan

Summary of Development

The proposals presented here summarise the masterplan design solution that has been developed from the analysis of the site and its context, the key principles that have been established, and the outcome of consultation process.

This masterplan is principally landscape led, concentrating on the capacity of the landscape setting for new housing development. The masterplan approach establishes a pattern of development which reinforces the existing landscape structure.

The masterplan cultivates the active use of the street spaces by clearly orientating the dwelling frontages towards them, giving pedestrians priority in the shared surface spaces and linking into the wider landscape. The ambience of the neighbourhood will be fundamentally green in character, an extension of the landscape.

The approach to the site seeks to:

- Bring the landscape into the centre of the development through courtyards and pedestrian links
- Enhance the character of the setting with new tree planting
- Establish wildlife corridors through the site
- Nestle the development into areas where it has little impact on its wider setting
- Connect the development to its wider context through a network of footpaths
- Use principles from Designing Streets to prioritise pedestrians and enhance the quality of the public realm

Site Area

12.4 Hectares

Net Developable Area

7.7 Hectares (19 acres)

Plots/Dwellings

182 inc. 28 no. Affordable (=15%)

Density (site)

23.6 Dwellings/Ha (Developable area)

14.7 Dwellings/Ha (Site area)

Green Amenity Space

5.46 Hectares (... acres)

Dwellings:

154 plots of private residential 2-storey homes comprising:

- 18 no. plots approx 220m² with circa 104m² (1119 sq.ft.) 3-bed semi-detached homes
- 45 no. plots approx 230m² with circa 120m² (1291 sq.ft.) 3-bed detached homes
- 76 no. plots 250-280m² with circa 140m² (1506 sq.ft.) 4-bed detached homes
- 15 no. plots 275-325m² with circa 158m² (1700 sq.ft.) 4-5 bed detached homes

28 plots of 2-storey affordable homes comprising:

- 14 no. plots 124m² with circa 90m² (969sq.ft.) 2-bed terraced homes
- 10 no. plots 150m² with circa 94m² (1011 sq.ft.) 3-bed terraced homes
- 4 no. plots 210m² with circa 98m² (1055 sq.ft.) 3-bed semi-detached homes

Illustrative Masterplan

Masterplan Proposal

Alba
Business
Campus

Development is located in areas where it will have the least visual impact on its surroundings.

Network of footpaths connects the development to its wider context.

New tree planting to reinforce existing tree belts and enhance character.

Landscape buffer to A71

Courtyards bring landscape into the centre of the development

Pedestrian priority streets and spaces

Wildlife corridors established through the site.

1m high earth bund with 1m high acoustic fence above.

Allocated for Residential Development



Livingston landscape pattern

Before development

When viewed in isolation it may appear that the site is isolated from the rest of the Livingston settlement by the Wilderness. When viewed in its wider context however, the landscape and settlement pattern reveals how landscape features have been incorporated through time. The pattern reveals an almost continuous network of green spaces, buffer planting, open and amenity spaces.

Developments on the edges of this green network have mostly established landscape buffers and allowed the landscape to permeate the development thus extending the network of green spaces and pedestrian paths, mitigating visual impact and building on the green character of the Livingston settlement edge.









Livingston landscape pattern

After development

When viewed in its wider context the site and the proposed development are very much in keeping with the established landscape and settlement pattern which has through time incorporated many key landscape features and amenity spaces.

The proposal itself establishes strong landscape buffers and allows the landscape to permeate the development in keeping with the established principles. The development thereby strengthens and extends the existing character, and network of green spaces and pedestrian paths.

-  Site
-  Livingston settlement boundary
-  Developed Land
-  Undeveloped Land
-  Land Allocated for Redevelopment
-  Trees



Landscape and Public Realm

Designing Streets and Placemaking

The approach adopted in this proposal is that the residential courtyards and secondary streets are designed as shared surface Home Zones in accordance with Designing Streets principles. These follow a distinct hierarchy of primary and secondary streets to facilitate vehicle access with a clear priority for pedestrians and cyclists.

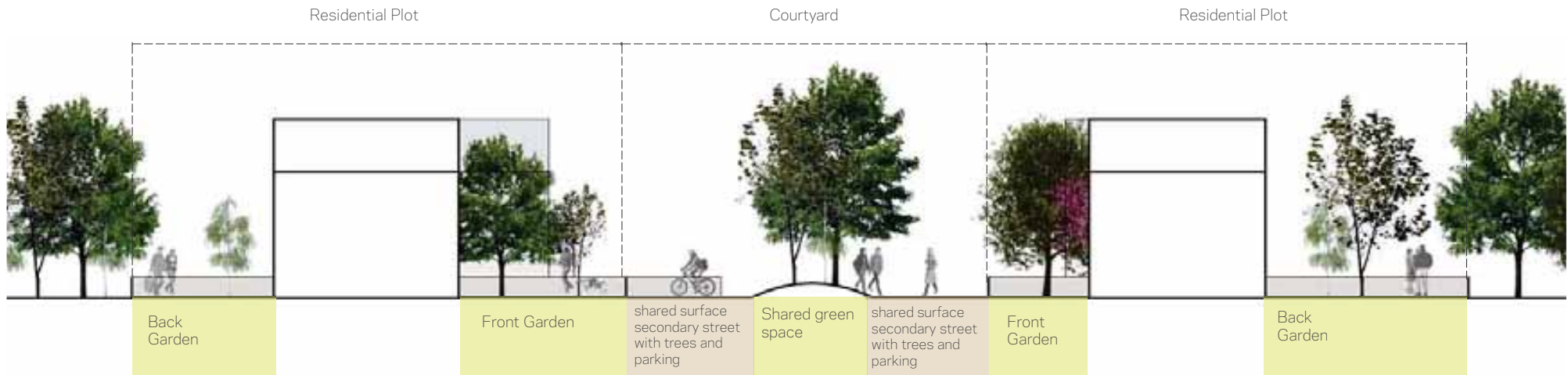
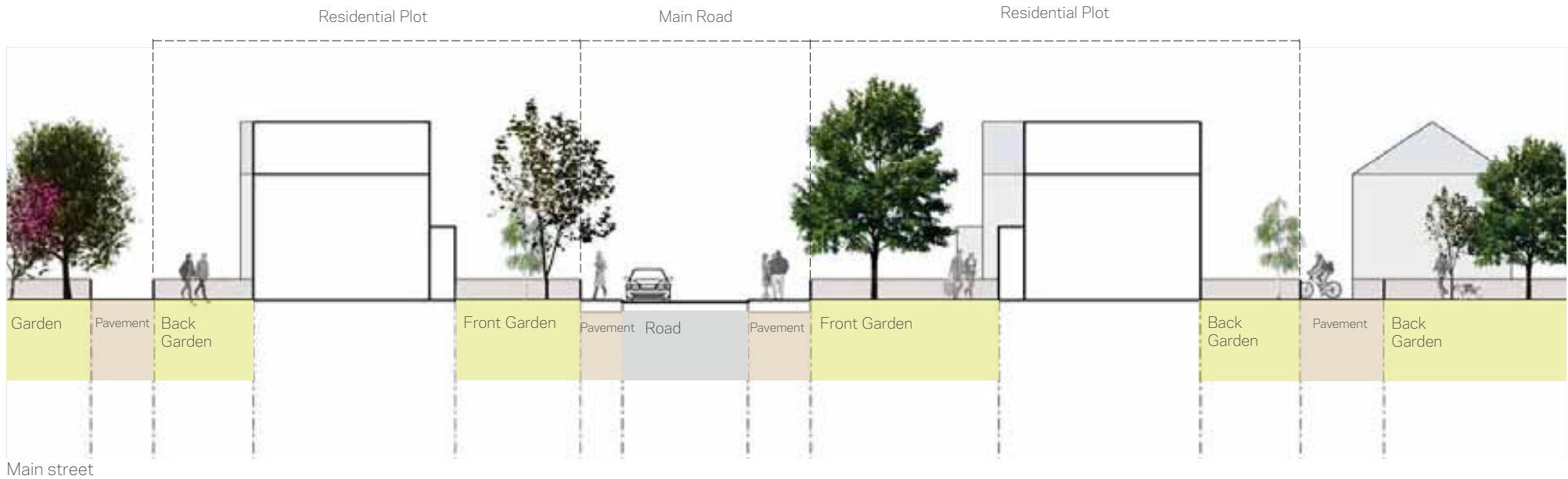
- o The primary access road is a vehicle priority street with pavements for pedestrians.
- o The access to the courtyard spaces is via 6-8m shared surfaces.
- o The courtyards themselves are semi-private Home Zones with pedestrian priority and vehicular circulation around a central landscape feature.

This approach is in accordance with the 'Easy to Move Around and Beyond' principles which is one of the six qualities of a successful place in SPP paragraph 46.



Landscape and Public Realm

Typical Sections



Courtyard

Illustrative Masterplan

Material Palette

The building material palette will comprise muted wall colours and dark slate roofs, to integrate the development with its landscape setting at the edge of the settlement. The materials will be robust and durable.



Image of a typical street in the proposed development



Illustration of the proposed palette of materials.

Landscape and Public Realm

Landscape Framework

The landscape approach seeks to utilise and build on the character of the setting by:

- o Organising the structure of the landscape around the established field boundaries, boundary features and tree belts.
- o Nestling the development into the landscape and working with its topography.
- o Not developing on the north corner and in the local central 'valley'
- o Retaining existing mature trees.
- o Reinforcing the character of the setting with new tree planting.
- o Offsetting development from the perimeter of the site.
- o Establishing a public realm and landscape which recognises the site's location on the threshold between an urban edge and a rural landscape.
- o Proposing a development density similar to the surrounding area.
- o Building to a maximum of 2 storeys
- o Implementing structure planting and open space areas as part of the initial stage of the development, to establish a strong landscape setting into which the built development is introduced.
- o Creating green spaces which connect to the wider green network for people to walk and cycle through



Landscape Plan

Landscape and Public Realm

Landscape Character Areas

The masterplan has been developed to create a distinctive new residential neighbourhood which is integrated with its landscape setting at the edge of the Livingstone settlement.

The approach has been to establish a landscape framework that provides structure to the development, and contains it, so that the new housing sits comfortably within the landscape setting.

The scale of the development is broken down into a series of character areas, each with their own specific landscape structure and identity, which respond to their particular part of the site.

The approach and proposals are appraised in the Landscape and Visual Impact Assessment by Horner + MacLennan which is submitted in support of the application.



Landscape Plan

Landscape and Public Realm

Character Areas

1. Tree belt buffer to Bankton Road



2. Brotherton Farm tree belt



3. Central local valley



Landscape and Public Realm

Character Areas

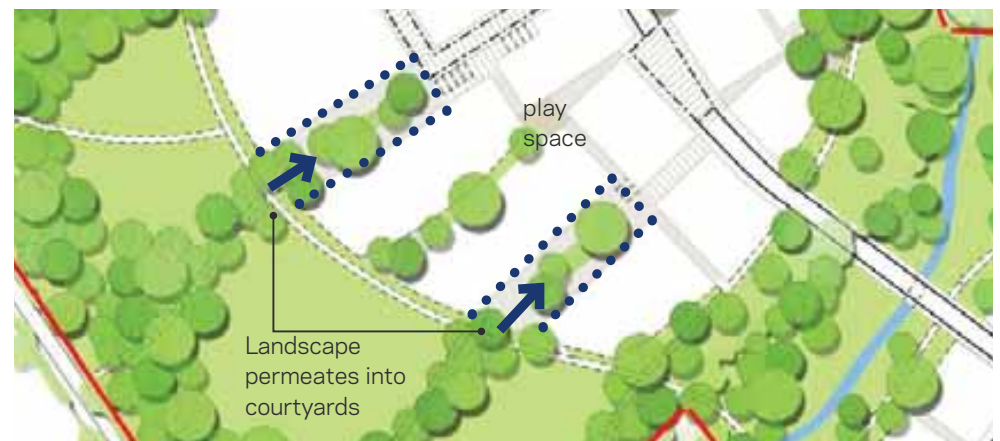
4. Large community green



5. North slope



6. Residential courtyards



Landscape and Public Realm Playspace Provision

The allocation of playspaces within the development is in accordance with West Lothian Council's open space standards as set out in the Local Development Plan. Playspace is provided for each area of the development in addition to the generous green space elsewhere on the site.

 Play areas (0.4Ha in total)

 Residential Courtyards (0.7Ha in total)

Total Playspace = 1.1Ha



Landscape Plan

Landscape and Public Realm

Pedestrian Connectivity

The majority of the streets and spaces are pedestrian priority and Home Zones to promote a safe and pleasant walking and cycling environment. (SPP paragraph 42)

These are integrated with a network of paths through the green landscape around the development which, in turn, connect to existing pathways so that the development is easy to move around and beyond (SPP paragraph 46).



Landscape Plan

Indicative Masterplan

Vehicle Access and Parking Strategy

The access strategy establishes a hierarchy of primary and secondary streets to facilitate vehicle access with a clear priority for pedestrians and cyclists in accordance with Designing Streets principles.



- o The primary access point is from an existing spur on the Wilderness Roundabout.
- o The primary access road is a vehicle priority street with pavements for pedestrians.
- o This provides access to the residential courtyard spaces via 6-8m shared surfaces.
- o The courtyards themselves are semi-private Home Zones with pedestrian priority and vehicular circulation around a central landscape feature.



Indicative Masterplan

SUDS Strategy

Surface water run-off from roads and housing plots on the development will be drained through a SUDS system designed in accordance with the requirements of the Local Authority and SEPA. The natural topography of the site will be utilised and surface water will drain into a SUDS pond located in the central valley on the site. From here, it is anticipated, that discharge will be made into the natural watercourse. The surfaces of shared spaces and private driveways will be paved with porous paving to allow surface water to drain away.

-  Porus paving to privately maintained shared spaces
-  Porus paving to privately maintained driveways



Indicative Masterplan

Sustainability and Environment

The development will foster a sustainable lifestyle as a guiding principle for the new neighbourhood through an holistic approach which will encourage healthy, sustainable living and wellbeing.

Sustainability will inform and permeate all aspects of the development using the best precedents as benchmarks for what can be achieved and strive to mirror successful sustainable communities throughout Scotland and Northern Europe.

The development contributes to sustainable development by:

- o Supporting the delivery of accessible housing.
- o Making efficient use of existing land and infrastructure
- o Supporting good design and the six qualities of a successful place.



support
sustainable
lifestyles



build
sustainable
places

Indicative Masterplan

Technical Summaries

The PPIP submission is supported by technical reports, surveys and documents prepared by Gladman's consultant team comprising: Goodsons, Envirocentre, Alan Motion Tree Consultants, CFA Archaeology Ltd and Andrew Carrie Traffic and Transportation. Summaries of the main points of relevance to the Design Statement and Indicative Masterplan are as follows.

Engineering Site Appraisal

The ground conditions on the development site are primarily hard clay in the top 6m. Based on these assumed firm clay soils it is envisaged that traditional pad and strip foundations could be adopted.

Perched ground water may be present due to shallow clay soils.

Basic remodelling of the current site topography will be required to create platforms suitable for housing plots. It is anticipated that all excavated material could be retained on site using a cut-fill balance.

There is known mine entry on site but the ground appears to be otherwise minerally stable.

Ecology and Habitat

EnviroCentre was commissioned by Gladman to undertake a phase 1 habitat survey and protected species walkover at a site on Brotherton Farm, Livingstone.

The survey aimed to identify all broad habitat types within the site boundary and included a search for suitable habitat for and evidence of protected species (i.e. bats, otters, water voles, badgers and nesting birds).

The survey area does not support any sites designated for nature conservation value at a local or national level. Several Sites of Special Scientific Interest (SSSIs) were recorded within 4km of the site however these are not connected by structure or function to the site.

A total of four phase 1 habitat types were identified within the survey area. Although suitable habitat for a range of protected species was identified within the site, no direct field evidence was recorded.

No European Protected Species licences are likely to be required.

General mitigation measures are provided in the report.

Indicative Masterplan

Technical Summaries

Drainage Strategy and Flood Risk Assessment

The type 1 flood risk assessment presented in the Drainage Strategy and Floodrisk Assessment report confirms that the site is at low risk of flooding from fluvial, tidal, groundwater and pluvial sources.

Surface water run-off, from the roads and the housing plots, will be drained through a SUDS system, designed in accordance with the requirements of the Local Authority and SEPA. It is envisioned that the discharge, which must be controlled in accordance with the requirements of the Local Authority, will be made to the natural watercourse. The current development proposals can be drained in accordance with the recommendations of the latest planning guidance and key stakeholder design criteria. The future, detailed drainage design will be carried out in accordance with the standards and regulations in force at that time.

Transport Assessment

The site is well located to benefit from easy pedestrian and cycle access. All of the footways in Livingston are designated for cycle use. It is proposed that a new footway be provided through The Wilderness, to the south of Silverbirch Glade, by upgrading and extending an existing informal route.

The site is located near to the A71 bus corridor, giving a total of 4 buses per hour in each direction between the site, the town centre, and various onward destinations. The proposal therefore meets the locational requirements of SPP and PAN75.

Vehicle access to the site would be achieved by extending an existing "stub" from the Wilderness roundabout, at the entrance to Bellsquarry.

The proposed development will generate a minimal number of new vehicle trips on the road network in the morning and evening peak hours. This Transportation Assessment examines the operation of the site access and also the junctions at Newpark Roundabout and Adambrae Roundabout, and concludes that the development will not significantly affect the operation of those junctions at peak periods.

Air Quality

Due to the proximity of the proposed development site to the local road network, especially the A71, there was concern that traffic emissions may impact the air quality of future residents. As such a DMRB model was utilised to complete an initial screening assessment of the potential air quality impact.

Consultation was carried out with West Lothian environmental Health Department in May 2014. Environmental Health confirmed that they were not aware of any issues in relation to air quality in this area. As such the Design Manual for Roads and Bridges (DMRB) Air Quality model was considered appropriate to screen for air quality impacts at the site.

The results of the 2017 DMRB model predict that NO₂ and PM_{2.5} concentrations will meet their corresponding Air Quality Objective Limits with and without development. The magnitude of change, on comparison of the with and without development scenarios, was predicted to be imperceptible with a negligible degree of impact on all locations considered in the model.

In summary, the Air Quality Assessment therefore concludes that air quality is not a material concern for the development.

Indicative Masterplan

Technical Summaries

Utilities

On-site services:

- Telecoms - Telecoms tower located to the south-east of the site;
- Gas - There is a medium pressure line running along the north-eastern perimeter of the site. Its capacity is unknown.
- Water - None
- Sewers - None
- Cable and wireless - None
- Electricity - There is an overhead power line running across the northern part of the site. Allow for diversion.

Off-site services

- Telecoms - Overhead BT wire running along the road to Brotherton Farm
- Gas - There are low and medium pressure pipes supplying the industrial estate to the south-east, capacity unknown.
- Water - Water pipes running along the A71. Capacity unknown.
- Sewers - Combined sewers south of the proposed site.
- Electricity - Power cables running along the A71 which also supply the industrial estate to the south. Capacity unknown.
- Pipelines - There is a large Ineos pipeline running to the west of the site. The pipeline is sufficiently far from the site that PADHI Regulations should not apply to any development.

Noise Assessment

World Health Organisation Precautionary Guideline Levels have been used as assessment criteria for defining noise levels and assessing the suitability of the site for residential development:

- 55 dB (A) LAeq during daytime periods i.e. 0700 hours to 2300 hours; and
- 45 dB (A) LAeq during night time periods i.e. 2300 to 0700.

The only areas where potential noise impact is predicted are those closest plots to the road and roundabout to the south and southeast of the site. An acoustic barrier to be installed along the southern and south-eastern borders of the development area in combination with an earth bund has been modelled in mitigation.

According to the CadnaA model outputs, the proposed acoustic screening would reduce the expected noise levels resulting in neutral to slight impacts during daytime and nighttime periods.

Window design has also been considered to reduce internal noise levels to acceptable standards. Using thermal insulating glazing units 4mm/(6-16mm)/4mm a 26dB_(A) the necessary attenuation will be achieved. With this proposed screening and window design incorporated, noise levels will be reduced to a level considered as acceptable for residential development, and can be controlled by condition of planning consent.

Tree Survey and Arboricultural Constraints

The existing shelterbelt, groups and hedgerows are important landscape features and the retention of the trees and the features as a whole should generally be retained within the development. It is inevitable that in developing the site some tree loss will occur. Wherever possible, road access points should be planned to utilise existing gaps in hedgerows.

Indicative Masterplan

Technical Summaries

Archaeology

CFA Archaeology Ltd undertook an archaeological assessment with the following objectives:

- To identify the archaeological baseline within the study area; and
- To assess the potential of the study area to contain previously unrecorded buried archaeological remains.

Based on the results of the assessment, the archaeological potential of the proposed development is considered to be low

The West of Scotland Archaeology Service (WoSAS), which provides curatorial support to West Lothian Council, confirmed that trial trenching evaluation would be required in advance of development. The results of the desk based assessment indicate that it would be appropriate for the requirement to conduct the trial trenching evaluation to be a condition attached to planning consent for the development. The exact scope of works for the evaluation would be agreed in advance with WoSAS on behalf of West Lothian Council, and would be detailed in a Written Scheme of Investigation.

Landscape and Visual Impact Appraisal

The indicative masterplan layout responds positively to the characteristics of the site and its surroundings, incorporating a low density development with open space and landscape framework provision which responds positively to and reinforces the landscape pattern and character of the site.

The proposed development would have limited impacts on the landscape character of the surrounding area, although the character of the development site itself would be altered. Visibility of the site from the surrounding area is limited by existing boundary tree belts and woodland, and consequently visual impacts are predominantly limited. Where moderate adverse impacts are identified, these would be short term in nature as proposed planting establishes and matures.

Whilst the site currently comprises part of the Livingston Countryside Belt, it is considered that, with the landscape treatment proposed, the development could be successfully accommodated without compromising the overall landscape character of the Countryside Belt, and that the introduction of the proposed development would not result in the physical and visual coalescence of Livingston with Polbeth. Consequently, the objectives of the Countryside Belt designation would be retained.







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