

# Landscape and Visual Impact Assessment

**Murieston Road  
Murieston  
Livingston**

Prepared by  
**Clarendon Planning and Development Ltd**

On behalf of  
**BDW Trading Ltd and H&J Russell**

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## INTRODUCTION

This report sets out a Landscape and Visual Impact Assessment (LVIA) of a proposed residential development on land west of Murieston Road, Murieston, Livingston (herein called the 'proposed development').

The LVIA has been undertaken by a Chartered Member of the Landscape Institute and in accordance with EIA regulations, seeks to identify any significant landscape and visual effects which would potentially arise as a result of the proposed development. To this end, the method used to undertake this assessment is based on the current Guidelines for Landscape and Visual Impact Assessment, version 3 (produced by the Landscape Institute and the Institute of Environmental Management and Assessment 2013). A full description of the methodology is presented in an Appendix at the end of this chapter.

Based on a 3 km study area, this assessment identifies the baseline against which the effects of the proposed development are assessed, and concentrates on predicting the likely significant effects that might result. The outline design of the scheme, including any mitigation measures incorporated to minimise adverse effects, has been informed by the findings of the baseline study.

Effects on features identified as important to the landscape quality and on the landscape character of the site and its setting are assessed. Although inter-related, effects on views of the site and its setting and visual amenity are assessed separately.

Landscape effects are on the fabric, character and quality of the landscape and are concerned with:

- Landscape elements (e.g. hedgerows, trees and woodlands);
- Landscape character – regional and local distinctiveness; and
- Special interests (e.g. designations, conservation sites, cultural associations).

Visual effects on people are concerned with the changes in available views through intrusion or obstruction and whether important opportunities to enjoy views may be improved or reduced.

The objectives of the assessment are to:

- Describe and evaluate the landscape and visual amenity of the site and surrounding area which is likely to be affected by the proposed development;
- Identify and assess the significance of any effects on landscape or visual amenity, associated with the proposed development;
- Identify mitigation measures which could be implemented in order to avoid, reduce or remedy adverse effects; and

- Describe any enhancements of the landscape or visual amenity incorporated into the proposals.

The findings of the LVIA are presented in the following sections:

### Baseline Assessment

- **Planning Policy Context:** a summary of the regional and local landscape related planning policies relevant to the proposed development;
- **Baseline Description:** a description of the landscape and visual resource of the study area conducted through desk study and site survey;
- **Landscape Design Strategy:** a summary of the design process in response to landscape and visual issues.

### Impact Assessment

- **Pattern of Likely Visibility:** an overview of the pattern of the likely visibility and the main receptors with the potential to experience views of the proposed development;
- **Viewpoint Assessment:** A detailed assessment of landscape change and visual effects predicted from a selection of representative viewpoints;
- **Landscape Effects:** An assessment of effects predicted on the landscape resource, landscape character types/areas, and designated landscapes;
- **Visual Effects:** An assessment of effects predicted on the views of people through obstruction and whether important opportunities to enjoy views may be improved or reduced;
- **Mitigation and Enhancement Strategy:** An outline of suggested mitigation measures to minimise any adverse effects; and
- **Summary and Conclusions:** A summary of the landscape and visual effects of the proposed development and associated statement of significance.

### Appendix

- **The LVIA Methodology:** a description of the methods and associated guidance used to inform the assessment process is provided at the end of this LVIA.

### Summary of Proposed Development

The proposed development would consist of residential housing on a site of approximately 15 hectares. This application is for Planning Permission in Principle thus definitive street design, landscape/open space design and building types and forms are the subject of the detailed design stage.

## PLANNING POLICY CONTEXT

The development plan relevant to this application consists of the SESPlan Strategic Development Plan (2013) and the West Lothian Local Plan (2009). Within this context, the planning policies relevant to the landscape and visual considerations of this application are summarised in the following sections.

### SESPlan Strategic Development Plan

The Strategic Development Plan sets out a spatial strategy which recognises existing development commitments and promotes a sustainable pattern of growth. The strategy is supported by a framework for delivery which will promote and secure economic growth and the delivery of housing in the most sustainable locations; and promote the development of strategic transport and infrastructure networks to support that growth and to meet the needs of communities.

In relation to housing, the plan identifies the following aim to: *“Set out a strategy to enable delivery of housing requirements to support growth and meet housing need and demand in the most sustainable locations.”*

In delivering this aim, the plan states: *“Within the West Lothian Sub-Regional Area, Livingston will continue to be supported as a strategic town centre. Over 22,300 new homes are already committed in West Lothian capitalising on the area’s high accessibility. The scale of the housing requirements for West Lothian in the periods 2009 to 2019 and 2019 to 2024 will be determined by the supplementary guidance to be prepared under Policy 5 and implemented through site allocations in the LDP. Such allocations will be focused in sustainable locations where infrastructure is either available or can be provided and in locations where there are no environmental constraints.”*

Policy 5 states: *“The supplementary guidance will be based on an analysis of opportunities and of infrastructure and environmental capacities and constraints, and will be undertaken in consultation with the six constituent planning authorities.”*

The Strategic Development Plan supports the creation of a strategic Green Network including the Central Scotland Green Network. In delivering this, policy 11 states: *“Major developments in the SESplan area should contribute positively to the creation, maintenance and enhancement of the green network.”*

### West Lothian Local Plan

The West Lothian Local Plan (2009) provides guidance on the location of development across West Lothian, based on meeting the requirements set by the approved Edinburgh & Lothians Structure Plan (2015). The local landscape planning policies relevant to this application include:

### Policy ENV 11

*“There will be a presumption against development affecting woodlands and trees unless there is a proven locational need and where a sustainable environmental gain through replacement and additional tree planting appropriate to the area is provided.”*

Policy ENV 19 - *“Within the six AGLVs shown on the proposals map there is a presumption against development which would undermine the landscape and visual qualities for which the areas were designated.”*

Policy ENV 20 - *“Development proposals outwith an AGLV which would affect its setting from important viewpoints will be subject to detailed visual appraisal and will not be supported if it adversely affects the designated area.”*

Policy ENV 21 - *“The council will protect the six Areas of Special Landscape Control shown on the proposals map from intrusive development in order to retain their landscape character. The council will promote opportunities to enhance the six Areas of Special Landscape Control and their accessibility to the public for recreational and educational purposes in a manner that does not undermine their landscape character and biodiversity value.”*

Policy ENV 22 - *“Countryside Belts are designated at Livingston, Bathgate/Whitburn and Winchburgh/Broxburn as shown on the proposals map. Opportunities to protect and enhance the landscape of these Countryside Belts will be sought and encouraged as part of the Central Scotland Forest initiative through woodland planting and managed access.”*

Policy ENV 23 - *“Within the Countryside Belts, development that will lead to coalescence between settlements and for which there is no specific locational need will be resisted. Proposals that would result in sporadic development, or the expansion of existing clusters of houses and for which there is no specific locational need, will be similarly resisted.”*

### Summary of Policy Context

In summary, development plan policy supports meeting housing need and demand in the most sustainable locations and as part of this; the landscape capacity of the site and surrounding is an important consideration. The site of the proposed development is within a Countryside Belt and in close proximity to an Area of Special Landscape Control. In addressing these sensitivities, local plan policy provides criteria for the assessment of the acceptability of the proposed development in landscape and visual terms. Therefore, the key issues that this LVIA will aim to address are, **a) the suitability of the location of the proposed development in relation to its wooded landscape setting, b) the protection and enhancement of valued landscapes, particularly the ASLC and AGLV (cSLA) designations, c) the conservation and enhancement of the characteristic features and qualities of the wider landscape; and, d) where possible, any mitigation measures of any adverse landscape and visual effects are identified and incorporated into the proposals.**

## BASELINE ASSESSMENT

The baseline assessment establishes the existing landscape and visual resource against which the effects of the proposed development are predicted within the 3 km study area. It describes the site and its setting and examines the existing landscape elements, landscape character, value and susceptibility to change. Visual receptors including settlements, road and rail users, users of recreational routes and their associated susceptibility and value are also identified.

### The site and surrounding landscape

As illustrated in **Figure I**, the site of the proposed development is situated on the southern edge of Livingston. Set within a wooded framework, the residential areas of Murieston and Bellsquarry are located immediately to the east and north-east and Brucefield Industrial Park to the north. The village of West Calder is located approximately 2.2 km to the southwest and the centre of Livingston is approximately 3 km to the north.

The site extends to approximately 15 hectares and comprises rough grazing land enclosed by post and wire fencing. The western boundary is marked by a dry stone wall and mixed woodland and the southern boundary is formed by a beech lined access track running between Murieston Road and Westfield House/Farm. The northern and eastern boundaries are enclosed by areas of near continuous mixed woodland.

Along the eastern boundary, Murieston Road forms a local distributor road and bus route connecting the nearby Murieston, Bellsquarry and Bankton residential areas along with the Brucefield industrial area to the A71 arterial route approximately 1km to the north (and onwards to Livingston town centre and the M8).

The site falls gradually from 180 m AOD along the southern boundary to 168 m AOD along the northern boundary. Immediately beyond the northern boundary, there is an existing watercourse that runs parallel with the Edinburgh to Glasgow railway line that passes east-west. Further to the north, North Wood provides visual separation to the Brucefield Industrial Park.

Farmland extends south and westwards with narrow access roads which are often defined by lines of trees and woodland belts. There are several scattered farmhouses including Westfield Farm located approximately 80 m to the southwest and Murieston Castle Farm 560 m to the south. The Murieston Trail runs near to the south-eastern part of site, approximately 200m at its closest point. The site and surrounding landscape has a prevailing rural character and sense of relative tranquillity and enclosure formed by surrounding woodlands. Views to the north, east and west are generally short range, curtailed by nearby trees and woodlands. Views to the south are short to medium range although there is some longer range glimpses of the Pentland Hills viewed above intervening woodlands.

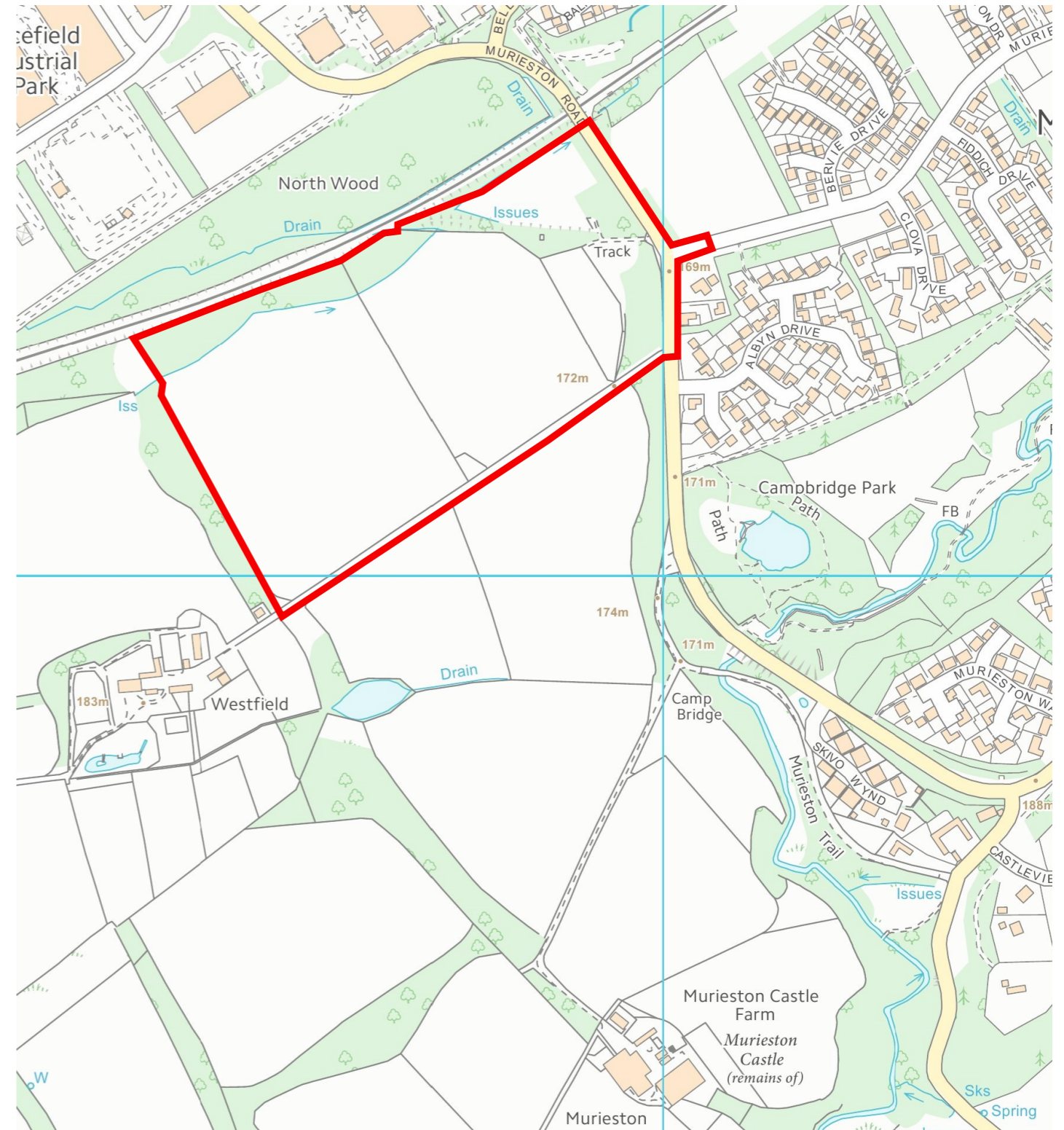


Fig. I - Application Site

## Landscape designations

The study area includes one Garden and Designed Landscape, parts of two Areas of Great Landscape Value (and candidate Special Landscape Areas), part of a Country Park and several parcels of an Area of Special Landscape Control. These designations are illustrated in **Figure 2** below and their qualities described in **Table 1** on Page 9.

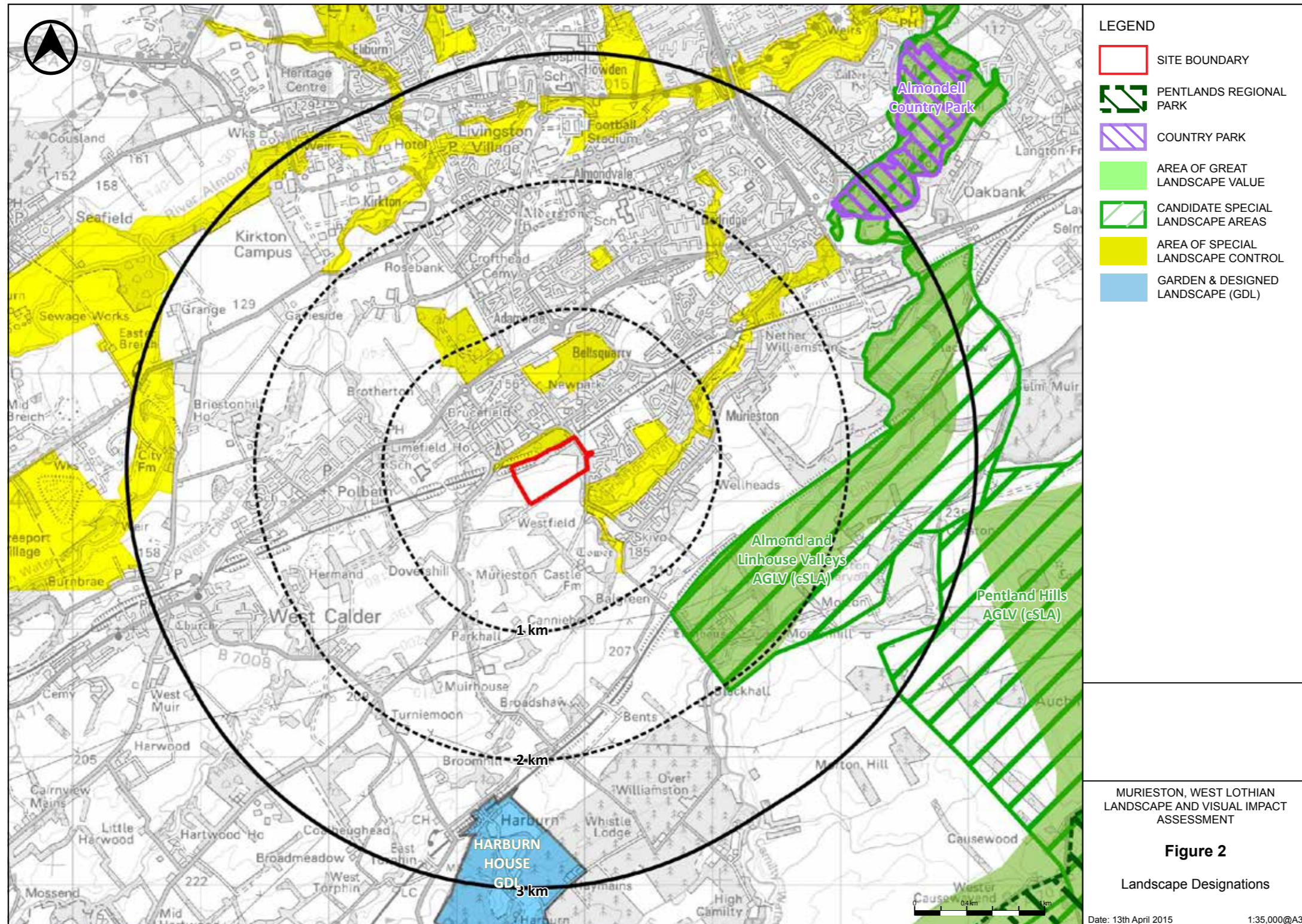


Fig.2 - Landscape designations

## Gardens and Designed Landscapes

Harburn House Garden and Designed Landscape (GDL) is located within the southern part of the study area. Due to their national importance, GDLs are assessed as having a high overall susceptibility and value.

## Areas of Great Landscape Value

The study area includes most of the Almond and Linhouse Valleys Area of Great Landscape Value (AGLV) and a very small part of the Pentland Hills AGLV.

AGLVs are currently defined in the West Lothian Local Plan, which states that they are designated “because of their special landscape character and special appearance”. The plan indicates that development will generally be resisted either within an AGLV, or in an adjacent location where development may impact upon the setting of an AGLV. This protection is formalised in policies ENV 19 and ENV 20.

The local plan goes on to propose that AGLVs will be used as a vehicle for ongoing landscape management and enhancement. The local plan states that “The council will promote further woodland planting [and] the management and enhancement of natural and built features and practical conservation measures” The recreational importance of the Bathgate Hills and Pentland Hills is also recognised.

Due to its regional importance, the designation is assessed as having a medium-high susceptibility and value.

## Areas of Special Landscape Control

The study area includes several parcels of an Area of Special Landscape Control (ASLC). ASLCs are also defined in the West Lothian Local Plan, which states that they are “landscapes of character and of local importance”. It is stated that intrusive development within these areas would be inappropriate. The local plan also notes the potential for environmental enhancement. Policy ENV 21 states that the Council “will promote opportunities to enhance [these areas] and their accessibility to the public.” The ASLCs range in size from 634 ha (Breich Valley) to 87 ha (Barbauchlaw Glen), though several of the individual parcels of the Livingston ASLC, focused along the ‘greenways’ within the town, are much smaller still. The six ASLCs cover a total of 1,985 ha, equivalent to 5% of the West Lothian administrative area.

In comparison to AGLVs, the ASLCs are smaller and represent less distinctive landscapes. They generally occur in association with settlements, representing accessible areas used by local populations for informal recreation. While most of the ASLCs represent coherent areas, the Livingston ASLC is very diverse, occupying a large number of interstitial spaces within the town.

Considering their local landscape value, ASLCs are assessed as having a medium susceptibility and value.

## Special Landscape Areas

AGLVs and ASLCs designations have evolved over the preceding decades, and limited detailed explanation is available for their extent and boundaries. Scottish Planning Policy advocates a single tier of local landscape designations, supported by clearly explained reasons for designation. Considering this need to ensure local designations are more robust, West Lothian Council have recently undertaken a review of review of local landscape designations and identified seven candidate Special landscape Areas (SLAs). Given their robust justification, this assessment is therefore based on these revised designations rather than AGLVs.

## Country Parks

A small part of the Almondell & Calderwood Country Park is within the study area. As a local recreational designation, Country Parks are assessed as having a medium susceptibility and value.

## Summary of landscape designations within the study area

The following table sets out a description and associated susceptibility and value of landscape designations that forms the basis for assessment of landscape effects.

**Landscape designation**  
**Harburn House GDL**

**Description**

Harburn House is an early 19th century landscaped park and provides an important contribution to the local landscape. It lies to the south of Livingston New Town, and south-east of West Calder. The B7008 forms the south-west boundary and policy plantations make up the south-east boundary. The estate occupies low, gently undulating ground which is inclined to be boggy. The surrounding countryside is open hill and moorland. The Pentlands lie to the south-east. Bents Burn bisects the estate from south-west to north-east. Harburn is completely enclosed by woodland belts and as a result views out of the landscape are restricted.

**Distance to site**  
1.9 km

**Susceptibility & Value**  
High

**Landscape designation**  
**Almond and Linhouse Valleys cSLA**

**Description**

The River Almond flows through a deeply incised valley between Livingston and Illieston, with steep wooded valley sides and occasional gorge-like cliffs. Between these narrow sections are more open areas of floodplain, though still framed by deciduous woodland. The estate landscape of the former Almondell House has been designed to exploit these natural features to dramatic effect.

The tributary valley of the Linhouse Water has some similar sections, but becomes progressively more open and upland in character going upstream. Woodlands along the river are predominantly native in this valley and along the adjacent Murieston Water.

Calderwood is a more natural area, managed for biodiversity interest, located on what is almost an island between the Linhouse and Murieston Waters. Valuable native habitats abound, including the native woodlands at Calderwood and continuing towards Linhouse Glen, and two extensive Sites of Special Scientific Interest are designated within these areas. The mixed woodlands at Linhouse and Almondell relate to the relatively intact designed landscapes.

The Almond valley is enhanced by some impressive bridges and aqueducts, particularly the Nasmyth Bridge at Almondell and the Union Canal aqueduct. Remains of mills and weirs and the presence of A listed buildings enhance the cultural quality of the landscape. Both the Almond and Linhouse Valleys play important roles in the setting of East Calder and Mid Calder.

These connected valleys are intimate and picturesque, with a high scenic value. The area cuts through the eastern part of West Lothian from upland to settled lowland, and is directly adjacent to several communities. Despite this there is often a remote character: Calderwood in particular is a valued tranquil resource on the 'doorstep' of Livingston. Almondell and Calderwood Country Park and Linhouse Glen Nature Reserve provide a variety of outdoor activities and accessible routes.

**Distance to site**  
1.2 km

**Susceptibility & Value**  
Medium-high

**Landscape designation**  
**Pentland Hills cSLA**

**Description**

The Pentland Hills form a distinct and recognisable landscape feature of West Lothian, within the wider landscape of south-east Scotland. The area comprises an upland landscape of rounded hill tops and sweeping slopes cut by steep upland streams and covered with grassland and heather moorland. Several reservoirs occupy localised dips in landform between the hills. The combination of the outlying Auchinoon and Corston Hills with Harperrig Reservoir and the backdrop of West Cairns and East Cairns Hills, have a high scenic value. The attractive views and features can be appreciated from the A70 as well as from adjacent higher ground. The south-east section of the A70 is bounded by attractive rows of mature beech trees around Crosswoodhill. The landscape offers long, unobstructed views northward, and the Pentland skyline is visible from the majority of West Lothian providing a setting for the whole region.

The area has a strongly undeveloped character, with a high degree of naturalness despite some extensive coniferous plantations at West Cairns. The candidate SLA contains no villages or large settlements, only scattered farms and properties along the A70. The general lack of human activity, minimal vegetation and openness of the undulating grassland enhance the sense of remoteness and wildness,

particularly when considered in the context of the population centres close by.

The Pentland Hills Regional Park covers part of the area, and is a very popular and highly valued recreational resource. The area encourages high levels of use across the hills and offers several routes for walkers accessed from the car park at Harperrig Reservoir which is a key location within the park. There is access from here across the Cauldstane Slap, an ancient drove road, and the remains of the 15th-century Cairns Castle attest to the historic importance of the area.

**Distance to site**  
2.7 km

**Susceptibility & Value**  
Medium-high

**Landscape designation**  
**Livingston ASLC**

**Description**

The framework of greenway routes, including the River Almond, Bellsquarry Plantation, North Wood, Wilderness Plantation, Murieston Water, the Murieston Trail, and Livingston Old Wood and Elburn Reservoir, are of considerable importance for their wildlife and amenity value.

**Distance to site**  
0.01 km

**Susceptibility & Value**  
Medium



## Landscape character: the site and study area

The landscape character of the study area has been mapped and described based on the West Lothian Landscape Character Classification (West Lothian Local Development Plan: background paper August 2014).

As illustrated in **Figure 3**, the site is located in north-eastern part of the Harburn / Hartwood Fringe landscape character area (LCA) that forms part of an extensive lowland plateau landscape type.

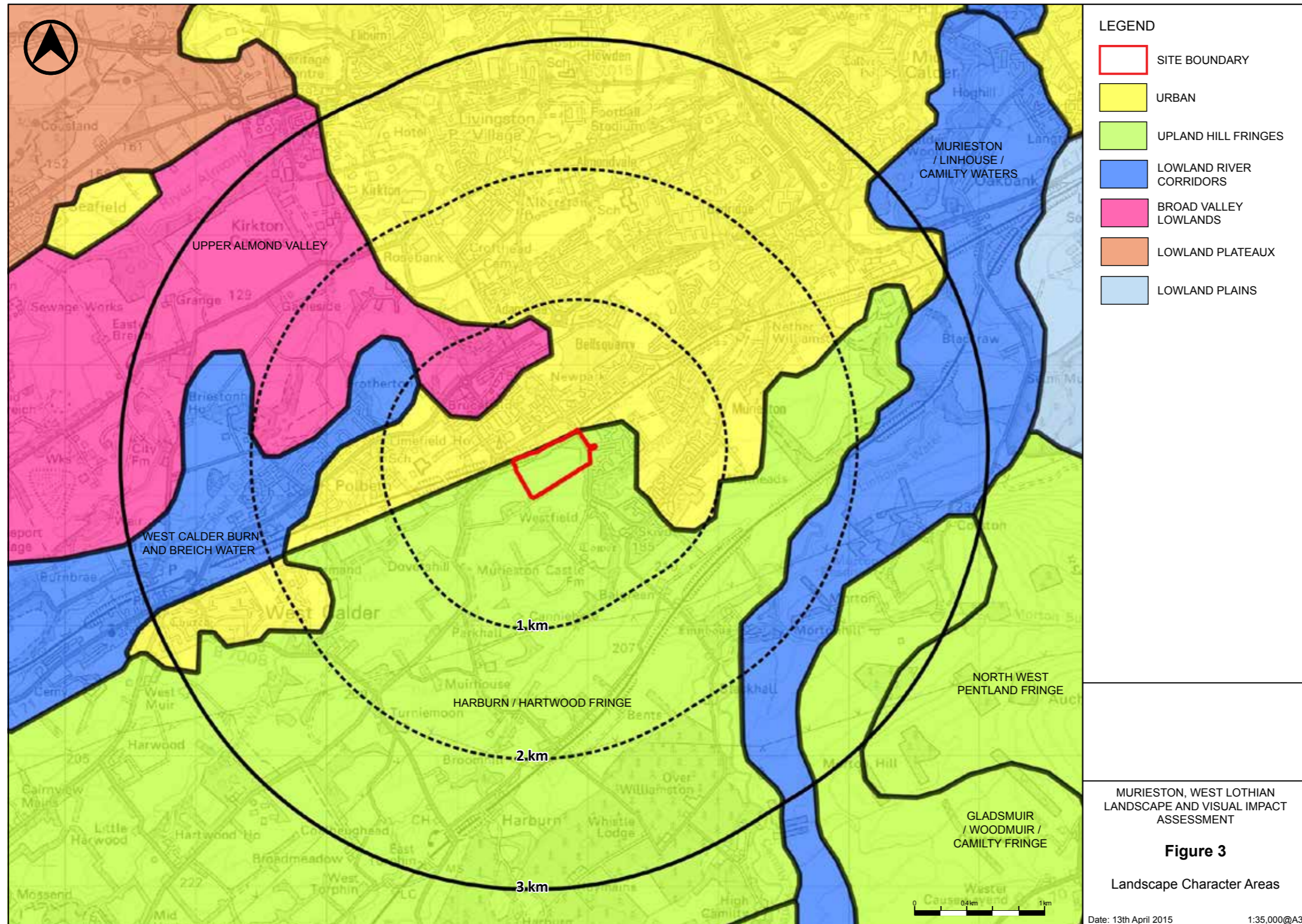


Fig.3 - Landscape Character Areas

At a broad level, the lowland plateau is a heavily-modified lowland plateau landscape which shelves gently eastward to merge gradually with the farmland plain of the lower Almond. The valley of the Almond barely registers as a topographic feature in this broadly undulating and predominantly open terrain. However a number of its southbank tributaries, including the Linhouse Water, Breich Water, Murieston Water and West Calder Burn form narrow and deeply-incised features which link the upland fringe of the Pentlands to the Lowland Plain. The plateau is formed of folded sedimentary rocks of Carboniferous age, holding extensive oil shale and coal bearing measures. To the east, igneous intrusions create a strongly rolling terrain which peaks at Dechmont Law (217 m) to the north of Livingston.

The land cover of the area consists almost entirely of improved pasture, divided by a mixture of fences, thin fragmented hedgerows, small shelterbelts and broken lines of hedgerow trees. Woodland is generally scattered and small to medium-scale, comprised of coniferous, broadleaved and deciduous species. Significant areas of woodland and shelterbelts define the layout of Livingston and enclose its edges. Stretches of wetter, less cultivable land throughout the valley support rough grasses, scrub and marshy hollows. At Tailend Moss, on the edge of Livingston, heather, cranberry and cotton-grass constitute an important raised bog community. Further fragments of lowland peatland are also of nature conservation value.

The powerful influence of extensive industrial and residential developments from the 19th and 20th centuries has pervaded the agricultural plain. The oil-shale and mining boom of the 19th century drastically reshaped the settlements of the area including Armadale, Addiewell and Bathgate, although the cores of the villages of Mid and East Calder have remained relatively intact. The remaining bings, the most prominent of which is the Five Sisters near West Calder, provide visible reminders of the oil - shale industry, forming distinctive landmarks. Where oil-shale and colliery bings have been reclaimed, e.g. at North Addiewell, they have begun to form valuable islands of woodland and associated semi-natural habitats. More recently, 1960s and 1970s housing estates and a shopping precinct have transformed the town of Blackburn. Livingston New Town sprawls north and south of the River Almond, its layout of low-density housing and industrial estates has engulfed the original village, along with farmhouses and mansions which were scattered across this area prior to the 1960s.

The effects of the last two centuries, due to large-scale industrial and residential development, have heavily modified the agricultural landscape, through degradation of farmland and engulfment of older settlements. Despite being an open landscape, the visual horizon is often dominated by modern architectural or infrastructural features. The minor roads and access tracks which once served the area have been overlain by a highly prominent and often visually intrusive transport and communications network consisting of parallel and intersecting major roads, a railway line, the M8 motorway and associated structures and pylons.

There are a further five LCAs within the study area that include:

- Gladsmuir / Woodmuir / Camilty Fringe LCA
- Upper Almond Valley LCA
- Murieston / Linhouse / Camilty Waters LCA
- West Calder Burn and Breich Water LCA
- North West Pentland Fringe LCA

**Table 2** (Page 11) identifies the key characteristics and features of the Harburn / Hartwood Fringe LCA and its associated value and susceptibility to change. The value and susceptibility assessment is based on the findings of the West Lothian Local Landscape Designation Review (2013) which sets an out assessment of various landscape character and value criteria for each LCA. As views of the proposed development are very unlikely to be experienced from other LCAs within the study area, only details of the Harburn / Hartwood Fringe LCA have been provided.

## Landscape Character

### LCA

Harburn / Hartwood Fringe LCA

### Landscape character & features

- This northern area of the wider LCT is more settled, with farms and other dwellings evenly distributed.
- General SW-NE grain of the landscape is strongly reinforced by the linear pattern of burns and minor roads which criss-cross the area with extensive, wide shelterbelt planting including beech.
- Regular pattern of hedges around improved grazing and occasional poor quality arable fields gives vertical relief and a smaller more enclosed and in parts intimate scale to the landscape than the wider LCT.
- Manicured appearance of the golf course at Harburn and extensive designed parkland landscape at Harburn House give this part of the area an even smaller, enclosed, managed character (included in Historic Scotland's Inventory of Gardens and Designed Landscapes).
- Harwood Water, Murieston Water and Bog Burn in particular cut in part meandering incised courses through the area, with native trees on steeper slopes. The natural sinuous shapes contrast with the straight angular shelterbelts.

- The Murieston Trail is an important recreational facility.
- Relatively undisturbed by modern industry, noise or heavy traffic, but electricity pylons and overhead lines are an obvious intrusion.
- Northern edge close to the Edinburgh to Glasgow railway and Addiewell is more unsettled with reminders of previous coal and oil shale industries, including disused mines and other infrastructure from the Addiewell Oilworks and disused quarries, opencast workings and tips at Longford.
- Approved lowland crafting scheme at Nether Longford Farm will provide local softening and screening as trees and woodland matures.
- Views up to the Pentlands from the local road network and the Edinburgh to Lanark railway where on embankment or where they bridge over the watercourses.

### Susceptibility & Value

Medium

Table 2 - Landscape Character Summary

## Individual dwellings and settlements

**Table 3** identifies the residential receptors within 3 km of the proposed development. Residential receptors are assessed as having a high susceptibility and value. It should be noted that individual dwellings have not been assessed as this is beyond the scope of this assessment. However, those dwellings in close proximity to site have been assessed as part of the Viewpoint Assessment. The following settlements have been identified to assess any visual effects on residents:

Settlement	Distance from site (km)	Susceptibility & Value
Murieston	0.01	High
Bellsquarry	0.1	High
Skivo	0.3	High
Polbeth	1.3	High
Livingston Centre	1.3	High
Almondvale	1.6	High
West Calder	2.3	High
Harburn	2.5	High
Dedridge	2.8	High

Table 3 - Residential Receptors

## Road, rail & recreational routes

Within the study area, there is a busy network of main, local and minor roads, and recreational routes. The routes that are assessed for visual effects on their users are identified in **Table 4**. These have been identified through field survey as likely to have some visibility of the proposed development (please also refer to **Figure 4** on Page 13).

Route	Distance from site (km)	Susceptibility & Value
Edinburgh to Glasgow Railway	0.01	Medium
Murieston Road	0.01	Medium
Murieston Way	0.2	High
Local road to west of site	0.3	Medium
National Cycle Route 75	2.5	High

Table 4 - Viewpoints: Routes

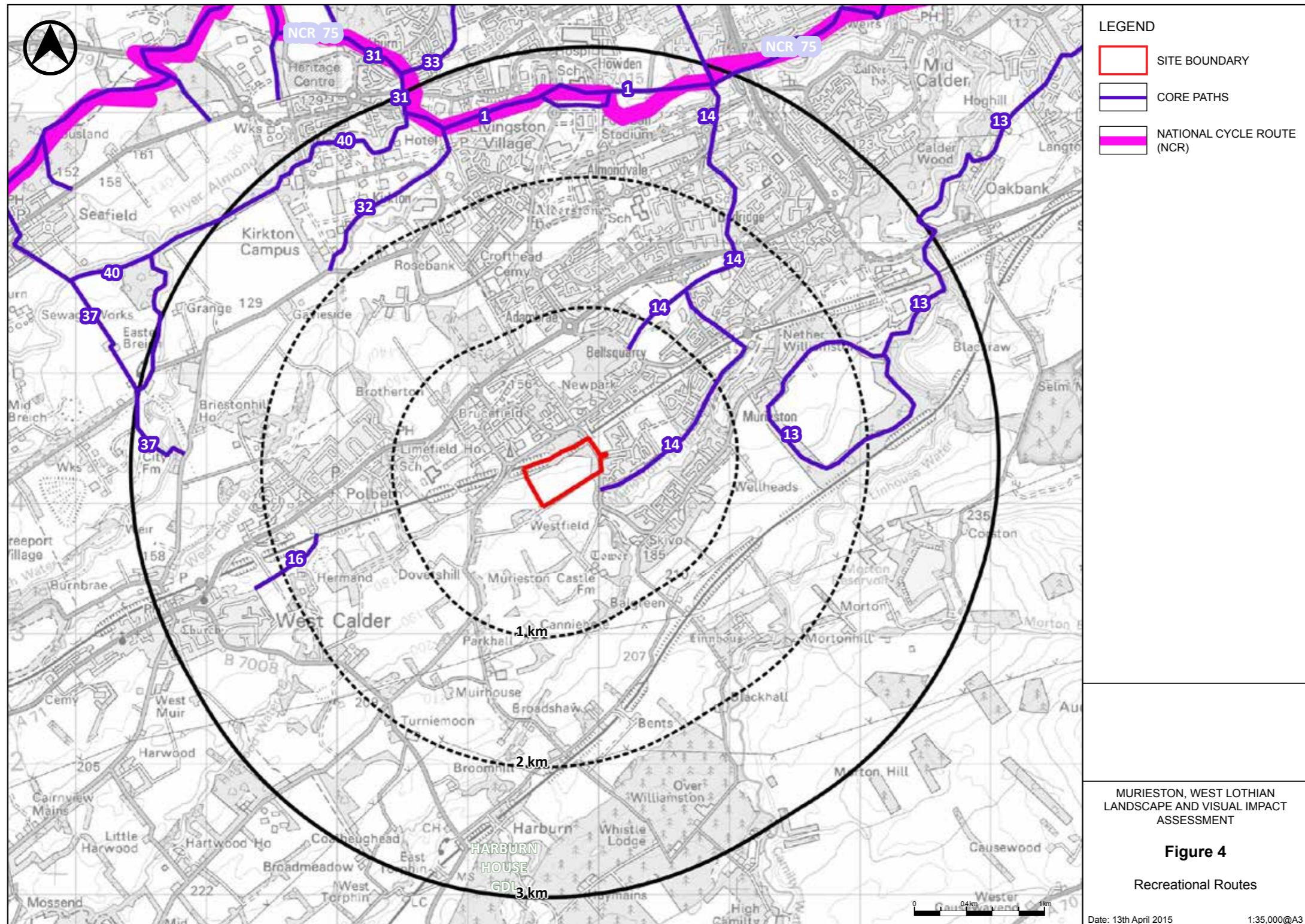


Fig.4 -Viewpoints: Routes

## Viewpoints

As illustrated in **Figure 5** (Page 14) and detailed within **Table 5**, the following eleven viewpoints have been selected as a basis for further investigation of landscape and visual effects. All viewpoints are within the Harburn/Hartwood Landscape Character Area.

VP	Dist.(km)	LCA	Visual Receptor & Susceptibility & Value	Susceptibility & Value
1. <b>Campbridge</b>	<b>0.42</b>	<b>Medium</b>	<b>Walkers Local road users</b>	<b>High Medium</b>
2. <b>Skivo Wynd</b>	<b>0.45</b>	<b>Medium</b>	<b>Residents</b>	<b>High</b>
3. <b>Murieston Trail 1</b>	<b>0.39</b>	<b>Medium</b>	<b>Walkers &amp; residents</b>	<b>High</b>
4. <b>Murieston Trail 2</b>	<b>0.29</b>	<b>Medium</b>	<b>Walkers</b>	<b>High</b>
5. <b>Murieston Road 1</b>	<b>0.10</b>	<b>Medium</b>	<b>Walkers Local road users</b>	<b>High Medium</b>
6. <b>Murieston Road 2</b>	<b>0.01</b>	<b>Medium</b>	<b>Residents &amp; walkers Local road users</b>	<b>High Medium</b>
7. <b>Murieston Road 3</b>	<b>0.01</b>	<b>Medium</b>	<b>Residents &amp; walkers Local road users</b>	<b>High Medium</b>
8. <b>Murieston Road 4</b>	<b>0.01</b>	<b>Medium</b>	<b>Local road users</b>	<b>Medium</b>
9. <b>Balgreen</b>	<b>1.08</b>	<b>Medium</b>	<b>Residents Local road users</b>	<b>High Medium</b>
10. <b>Blackmyre Hermand East</b>	<b>0.46</b>	<b>Medium</b>	<b>Local road users</b>	<b>Medium</b>
11. <b>Beechwood House</b>	<b>0.26</b>	<b>Medium</b>	<b>Residents Local road users</b>	<b>High Medium</b>

Table 5 - Viewpoints Summary

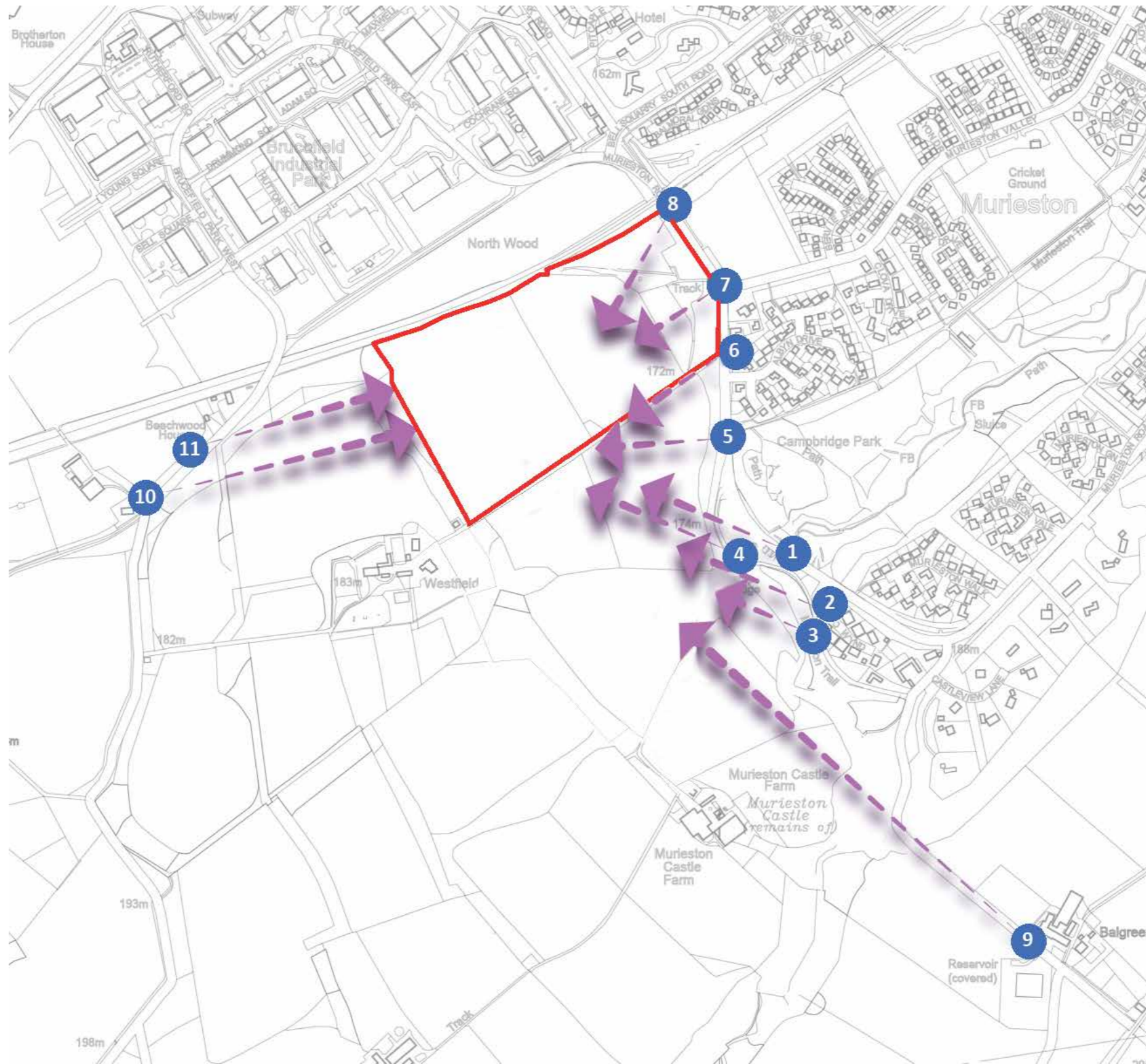


Fig.5 - Viewpoint Locations

## LANDSCAPE DESIGN STRATEGY

In the context of other technical and environmental constraints, objectives to minimise the landscape and visual effects of the proposed development have been primary considerations. A review of relevant policy, the landscape character assessment, and the findings of a field survey have all been considered in the site selection and outline design. Within this, the following landscape design aims have been adopted during this iterative design process to minimise any adverse effects:

### Design Aim 1:

Selection of a site that benefits from a good degree of enclosure and containment by surrounding woodland thus limiting the extent of landscape and visual effects;

### Design Aim 2:

Selection of a location and scale of development which avoids any significant adverse effects on important landscape features such as trees and woodlands;

### Design Aim 3:

The selection of an appropriate scale of development that respects the topography and the setting of nearby landscape features;

### Design Aim 4:

The incorporation of Amenity Open Space with potential linkage to Murieston Valley;

### Design Aim 5:

The selection of a location that is well screened and set back from nearby roads, footpaths and residential dwellings;

### Design Aim 6:

The incorporation of proposed planting to reinforce boundaries with additional planting to further reduce the visibility of the development within the local landscape; and

### Design Aim 7:

Selection of a location that avoids significantly affecting the views of nearby residents.

## IMPACT ASSESSMENT

### Overall pattern of likely visibility

Through undertaking field survey, it is evident that the pattern of woodland, development and

other landcover in close proximity to the site would significantly limit the extent of visibility of the proposed development and overall, nearly all of the study area is outside of any visibility. From all areas to the north of the site, the proposed development would be screened from view by the dense broadleaved woodland of North Wood that runs along the northern edge of the Edinburgh to Glasgow railway line. This includes views from the Brucefield industrial Park and the residential areas of Adambrae, Bellsquarry and the centre of Livingston.

From areas to the east of the site, visibility would be restricted by mixed woodland along the eastern boundary of the site. During winter months, it is likely that from some sections of Murieston Road and several dwellings along the western edge of western of Murieston, limited views of the proposed development filtered by intervening trees would be experienced. During summer months however, nearly all of the proposed development is very likely to be screened from view.

From a short section of the Murieston Trail and some areas of mostly agricultural land to the south of the site, part of the proposed development would be visible although intervening trees and woodland blocks would provide some screening. To the west of the site, visibility is also restricted by intervening trees and woodlands although from sections of the nearby local road that leads towards Brucefield Industrial Park, parts of the proposed development would be visible through intervening trees.

### Viewpoint Assessment

The following section provides an assessment of the static landscape and visual effects predicted at the eleven representative viewpoints. The accompanying photographs (see **Figures 6-16**) have been prepared at A3 and indicate the extent of the development that is likely to be visible.

It should be noted that every effort has been made to provide clear views of the proposed development and the viewpoint locations have been selected to demonstrate the worst case scenario of landscape and visual effect. However, due to the pattern of intervening trees and woodlands that surround most of the site, this has not always been possible. Where this is the case, the representative viewpoints have been retained to demonstrate the limited nature of any effect.

At each viewpoint, a detailed assessment was undertaken to identify any landscape changes and visual effects that are also used to inform the general assessment of landscape and visual effects. For the landscape effects discussed at each viewpoint, no conclusion on the overall effect on a Landscape Character Type/ Aspect Area is identified at this stage as this requires an analysis of the extent of any changes experienced across a whole landscape area (see the Landscape Assessment for details).

**Viewpoint Distance** I. Cambridge  
0.56 km

**Context**

Looking northwest towards the site, the viewpoint located is alongside Mureiston Road near to Cambridge Park. There is a footpath alongside the road with nearby access to the Murieston Trail that leads through Cambridge Park (ASLC). The viewpoint represents the views experienced by walkers along a short section of the footpath and the oblique views of local road users experienced in very short duration.

**LANDSCAPE EFFECTS**

**LCA** Harburn / Hartwood Fringe  
**Susceptibility & Value** Medium  
**Local effects** Minor (Not significant)  
**Magnitude of Change** Negligible

From here, most of the proposed development would be screened by intervening trees and woodland. During winter months, it is possible that some occasional glimpse of built development through trees might be experienced although during summer months, it is likely that all of the proposed development would be screened from view. Considering the surrounding pattern of pockets of residential development set amongst woodland belts, any changes are characteristic to the local area and any effects on the wooded character of the road would be hardly discernable. The intimate setting of the adjacent Camperdown park (ASLC) would also remain unaffected.

**VISUAL EFFECTS**

Receptor	Susceptibility & Value	Magnitude of Change	Effect
<b>Walkers</b>	<b>High</b>	<b>Negligible*</b>	<b>Moderate-minor (Not significant)</b>

\*Walkers travelling north along the footpath might experience some occasional glimpses of a very small part of development through intervening trees. However, any change is very limited and the primary view along the wooded road corridor would remain unaffected.

<b>Local road users</b>	<b>Medium</b>	<b>Negligible:**</b>	<b>Minor (Not significant)</b>
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\*\*Local road users travelling north would experience similar views to walkers (see above) although shorter duration and oblique in nature.



Fig.6 - Viewpoint I Image



**Viewpoint** 2. Skivo Wynd  
**Distance** 0.45 km

**Context**

Looking northwest towards the site, the viewpoint is located on Skivo Wynd within a small housing estate. It represents the direct of views of residents from the front facing rooms and parts of curtilage of two or three nearby dwellings.

**LANDSCAPE EFFECTS**

**LCA** Harburn / Hartwood Fringe  
**Susceptibility & Value** Medium  
**Local effects** Minor (Not significant)

**Magnitude of Change** Negligible

Nearly all of the proposed development would be screened by intervening trees and woodland. During winter months, occasional glimpse of built development through the trees might be experienced although during summer months, it is very likely that all of the proposed development would be screened from view. Considering the surrounding context of nearby housing, any changes are characteristic to the local area and the wooded backdrop would remain intact.

**VISUAL EFFECTS**

<i>Receptor</i>	<i>Susceptibility &amp; Value</i>	<i>Magnitude of Change</i>	<i>Effect</i>
<b>Residents</b>	<b>High</b>	<b>Negligible*</b>	<b>Moderate-minor (Not significant)</b>

\*During winter, residents might experience views of a very small proportion of the proposed development through nearby intervening trees although nearly all would be screened from view. The prevailing short range view of the nearby wooded backdrop would remain largely unaffected.

Proposed Development Site



Fig.7 - Viewpoint 2 Image

**Viewpoint** 3. Murieston Trail I  
**Distance** 0.39 km

**Context**

Looking northwest towards the site, the viewpoint is located on the Murieston Trail that leads from the southern edge of Skivo Wynd towards Cambridge Park. It is representative of the views experienced by walkers along a very short section of path when heading north and the views of residents from the upper north facing rooms of one nearby dwelling.

**LANDSCAPE EFFECTS**

**LCA** Harburn / Hartwood Fringe  
**Susceptibility & Value** Medium  
**Local effects** Minor (Not significant)  
**Magnitude of Change** Negligible

Nearly all of the proposed development would be screened by intervening trees and woodland. During winter months, occasional glimpse of built development through the trees might be experienced although during summer months, it is very likely that all of the proposed development would be screened from view. Considering the surrounding context of nearby housing, any changes are characteristic to the local area and the wooded nature of the path and associated rural character of the foreground would remain unaffected.

**VISUAL EFFECTS**

Receptor	Susceptibility & Value	Magnitude of Change	Effect
Walkers/Residents minor	High	Negligible*	Moderate- (Not significant)

\*Walkers travelling north along the footpath might experience some occasional glimpses of a very small part of development through intervening trees. However, any change is very limited and the primary view along the path corridor would remain unaffected. It is very likely that the view of residents would also remain largely unaffected.



Fig.8 - Viewpoint 3 Image

**Viewpoint** 4. Murieston Trail 2  
**Distance** 0.29 km

**Context**

Looking northwest towards the site, the viewpoint is located on the edge of the Murieston Trail that leads from the southern edge of Skivo Wynd towards Cambridge Park. It is representative of the views experienced by walkers along a very short section of path when heading north.

**LANDSCAPE EFFECTS**

**LCA** Harburn / Hartwood Fringe  
**Susceptibility & Value** Medium  
**Local effects** Minor (Not significant)

**Magnitude of Change** Negligible

Nearly all of the proposed development would be screened by intervening rising ground and woodland although an occasional glimpse of built development above rising ground might be experienced. Despite the undeveloped nature of the local landscape, any changes to the wooded setting and associated rural character of the foreground would remain largely unaffected.

**VISUAL EFFECTS**

<i>Receptor</i>	<i>Susceptibility &amp; Value</i>	<i>Magnitude of Change</i>	<i>Effect</i>
<b>Walkers</b>	<b>High</b>	<b>Negligible*</b>	<b>Moderate-minor (Not significant)</b>

\*Walkers travelling north along the footpath might experience some occasional glimpses of a very small part of development above intervening rising ground. However, the extent of any possible change is very limited and the visual focus along the path corridor would remain unaffected.



Fig.9 - Viewpoint 4 Image

<b>Viewpoint Distance</b>	<b>5. Murieston Road I 0.10 km</b>
<b>Context</b>	Looking west towards the site, the viewpoint is located alongside Murieston Road at south-eastern corner of Murieston and adjacent to Camperdown Park (ASLC). It represents the oblique view of road users when travelling in both directions and walkers along the footpath.
<b>LANDSCAPE EFFECTS</b>	
<b>LCA Susceptibility &amp; Value</b>	<b>Harburn / Hartwood Fringe Medium</b>
<b>Local effects</b>	<b>Minor (Not significant)</b>
<b>Magnitude of Change</b>	<b>Negligible</b>
Most of the proposed development would be screened by intervening trees and woodland although during winter months, a small part of the proposed development would be visible through intervening trees. Considering the surrounding pattern of pockets of residential development set amongst woodland belts, any changes are characteristic to the local area and any effects on the wooded character of the road would be hardly discernible. The intimate setting of the adjacent Camperdown park (ASLC) would also remain unaffected.	

<b>VISUAL EFFECTS</b>			
<i>Receptor</i>	<i>Susceptibility &amp; Value</i>	<i>Magnitude of Change</i>	<i>Effect</i>
<b>Walkers</b>	<b>High</b>	<b>Negligible-low*</b>	<b>Moderate-minor to moderate (Not significant)</b>
*Walkers travelling in both directions would experience some occasional glimpses of a very small part of development through intervening trees although most of the development would be screened from view by nearby woodland. The extent of change is very limited and the primary view along the wooded road corridor would remain unaffected.			
<b>Local road users</b>	<b>Medium</b>	<b>Negligible:**</b>	<b>Minor (Not significant)</b>
**Local road users travelling in both directions would experience similar views to walkers (see above) although in shorter duration and oblique in nature.			



Fig.10 - Viewpoint 5 Image

<b>Viewpoint</b>	<b>6. Murieston Road 2</b>
<b>Distance</b>	<b>0.01 km</b>
<b>Context</b>	
Looking west towards the site, the viewpoint is located alongside Murieston Road. It is adjacent to the western edge of Murieston and at the entrance to an access track that leads along the southern boundary of the site towards Westfield. It represents the oblique view of road users when travelling in both directions and walkers along the footpath. There are also several dwellings alongside the road and residents would experience similar views from some west facing rooms.	
<b>LANDSCAPE EFFECTS</b>	
<b>LCA</b>	<b>Harburn / Hartwood Fringe</b>
<b>Susceptibility &amp; Value</b>	<b>Medium</b>
<b>Local effects</b>	<b>Moderate-Minor (Not significant)</b>
<b>Magnitude of Change</b>	<b>Negligible-low</b>
A small part of the proposed development would be visible through intervening trees although during summer months, nearly all of the proposed development would be screened from view. Considering the surrounding influence of nearby residential development, any changes are characteristic to the local area and any effects on the wooded character of the road would be very limited.	

<b>VISUAL EFFECTS</b>			
<i>Receptor</i>	<i>Susceptibility &amp; Value</i>	<i>Magnitude of Change</i>	<i>Effect</i>
<b>Residents/Walkers minor to moderate</b>	<b>High</b>	<b>Negligible-low*</b>	<b>Moderate- (Not significant)</b>
*Walkers travelling in both directions would experience views of a small part of development through intervening trees although most of the development would be screened from view by nearby woodland. The extent of change is very limited and the primary view along the wooded road corridor would remain largely unaffected. Residents would also experience similar views through intervening trees.			
<b>Local road users</b>	<b>Medium</b>	<b>Negligible:**</b>	<b>Minor (Not significant)</b>
**Local road users travelling in both directions would experience similar views to walkers (see above) although in shorter duration and oblique in nature.			



Fig.11 -Viewpoint 6 Image

<b>Viewpoint</b>	<b>7. Murieston Road 3</b>
<b>Distance</b>	<b>0.01 km</b>
<b>Context</b>	
Looking west towards the site, the viewpoint is located alongside Murieston Road, adjacent to the northwest edge of Murieston. It represents the oblique view of road users when travelling in both directions, walkers along the footpath and the filtered views of residents from a nearby dwelling.	
<b>LANDSCAPE EFFECTS</b>	
<b>LCA</b>	<b>Harburn / Hartwood Fringe</b>
<b>Susceptibility &amp; Value</b>	<b>Medium</b>
<b>Local effects</b>	<b>None (Not significant)</b>
<b>Magnitude of Change</b>	<b>None</b>
It is very likely that the proposed development would be screened from view by nearby intervening woodland and no changes to character of the local landscape are predicted.	

<b>VISUAL EFFECTS</b>			
<i>Receptor</i>	<i>Susceptibility &amp; Value</i>	<i>Magnitude of Change</i>	<i>Effect</i>
<b>Residents/Walkers</b>	<b>High</b>	<b>None*</b>	<b>None (Not significant)</b>
*It is very likely that the proposed development would be screened from view and no changes to views of walkers, road users or residents are predicted.			
<b>Local road users</b>	<b>Medium</b>	<b>None:**</b>	<b>None (Not significant)</b>
**As above			



Fig.12 - Viewpoint 7 Image

<b>Viewpoint</b>	<b>8. Murieston Road 4</b>
<b>Distance</b>	<b>0.01 km</b>
<b>Context</b>	
Looking southwest towards the site, the viewpoint is located alongside Murieston Road, adjacent to the southwest edge of Bellsquarry. It represents the oblique view of road users when travelling in both directions and walkers along the path.	
<b>LANDSCAPE EFFECTS</b>	
<b>LCA</b>	<b>Harburn / Hartwood Fringe</b>
<b>Susceptibility &amp; Value</b>	<b>Medium</b>
<b>Local effects</b>	<b>None (Not significant)</b>
<b>Magnitude of Change</b>	<b>None</b>
It is very likely that the proposed development would be screened from view by nearby intervening woodland and no changes to character of the local landscape are predicted.	

<b>VISUAL EFFECTS</b>			
<i>Receptor</i>	<i>Susceptibility &amp; Value</i>	<i>Magnitude of Change</i>	<i>Effect</i>
<b>Walkers</b>	<b>High</b>	<b>None*</b>	<b>None (Not significant)</b>
*It is very likely that the proposed development would be screened from view and no changes to views of walkers or road users or residents are predicted.			
<b>Local road users</b>	<b>Medium</b>	<b>None:**</b>	<b>None (Not significant)</b>
**As above			



Fig.13 - Viewpoint 8 Image

**Viewpoint Distance** 9. Balgreen  
1.08 km

**Context**

Looking south towards the site, the viewpoint is located alongside a local road with a nearby residential dwelling and farmstead to the east, and reservoir to the west. It represents the direct views view of road users when travelling in south in short duration and the direct views of residents from north facing rooms and parts of the curtilage.

**LANDSCAPE EFFECTS**

**LCA** Harburn / Hartwood Fringe  
**Susceptibility & Value** Medium  
**Local effects** Moderate-Minor (Not significant)

**Magnitude of Change** Low

From here, a small part of the southern edge of the proposed development would be visible amongst intervening trees and additional planting along the southern edge of the site edge would help to integrate built development into the surrounding wooded context. Although views of the proposed development would detract from the rural character of the foreground, it would be viewed against an extensive backdrop. The scale of the proposed development would relate to its landscape setting, reflecting the inherent pattern of pockets of residential development set amongst woodland belts.

**VISUAL EFFECTS**

Receptor	Susceptibility & Value	Magnitude of Change	Effect
Residents	High	Low-medium*	Moderate to moderate-major (Not significant)
Local road users	Medium	Low:**	Moderate-Minor (Not significant)

\*The residents of one dwelling would experience direct and open views of part of the proposed development across undulating fields. This would bring development closer within a long range view although intervening shelter belts would screen most of the development. Where visible, it would only occupy a small proportion of a wide view.

\*\*The views of road users would be similar to residents (see above) although experienced in much shorter duration along approximately a 100 m section of the route.



Fig.14 - Viewpoint 9 Image



**Viewpoint Distance** 10. Blackmyre Hermand East  
0.46 km

**Context**

Looking east towards the site, the viewpoint is located near to a residential dwelling and alongside a local road that heads north towards Brucefield Industrial Park and. It represents the oblique views of road users when travelling north although views from the nearby dwelling are very likely to be screened by garden vegetation.

**LANDSCAPE EFFECTS**

**LCA Susceptibility & Value** Harburn / Hartwood Fringe  
**Local effects** Medium  
Minor (Not significant)

**Magnitude of Change** Negligible

A small part of the proposed development would be visible through intervening trees although during summer months, nearly all of the proposed development would be screened from view. Any changes to the wooded nature of the road and the surrounding rural character would be very limited, particularly when the proposed planting along the western edge of the site matures.

**VISUAL EFFECTS**

Receptor	Susceptibility & Value	Magnitude of Change	Effect
Local road users	Medium	Negligible:**	Minor (Not significant)

\*Road users when travelling north might experience some occasional glimpses of a very small part of development through intervening trees. However, any change is very limited and the primary view along the wooded road corridor would remain unaffected.



Fig.15 - Viewpoint 10 Image

**Viewpoint** 11. Beechwood House  
**Distance** 0.26 km

**Context**

Looking east towards the site, the viewpoint is located near to a residential dwelling and alongside a local road that heads north towards Brucefield Industrial Park and. It represents the oblique views of road users when travelling north although views from the nearby dwelling are very likely to be screened by garden vegetation.

**LANDSCAPE EFFECTS**

**LCA** Harburn / Hartwood Fringe  
**Susceptibility & Value** Medium  
**Local effects** Minor (Not significant)

**Magnitude of Change** Negligible

A small part of the proposed development would be visible through intervening trees although during summer months, nearly all of the proposed development would be screened from view. Any changes to the wooded nature of the road and the surrounding rural character would be very limited, particularly when the proposed planting along the western edge of the site matures.

**VISUAL EFFECTS**

Receptor	Susceptibility & Value	Magnitude of Change	Effect
Local road users	Medium	Negligible:**	Minor (Not significant)

\*Road users when travelling north might experience some occasional glimpses of a very small part of development through intervening trees. However, any change is very limited and the primary view along the wooded road corridor would remain unaffected.



Fig.16 - Viewpoint 11 Image

## LANDSCAPE EFFECTS

### Direct landscape effects

Although the definitive street design, landscape/open space design and building types and forms are the subject of the detailed design stage, it is anticipated that the proposed development would be set within the surrounding wooded framework. Any loss of woodland is likely to be limited to small section as part of the construction of an access road and no other important landscape features are likely to be lost as result of the proposed development.

Given this relatively limited nature of disturbance, it is predicted that the proposed development will have no more than a moderate-minor (not significant) effect upon the physical fabric of the landscape.

### Indirect landscape effects

**Table 6** sets out a summary of the predicted effects on all landscape designations and landscape character areas within 3 km from the proposed development. The findings have been informed by the detailed viewpoint assessment and through further field survey assessment.

LANDSCAPE DESIGNATIONS	
<b>Receptor</b>	<b>Harburn House GDL</b>
<b>Susceptibility &amp; Value</b>	<b>High</b>
<b>Magnitude of Change</b>	<b>None:</b>
As noted in the baseline assessment, Harburn House is completely enclosed by woodland belts and as a result; views out of the landscape are very restricted. Considering this and the screening effect of intervening woodlands, no views of the proposed development are likely to be experienced from the GDL. Furthermore, given the degree of separation and pattern of intervening woodlands, the proposed development is not predicted to affect the setting of the GDL.	
<b>Effect</b>	<b>None (Not significant)</b>

<b>Receptor</b>	<b>Almond and Linhouse Valleys cSLA</b>
<b>Susceptibility &amp; Value</b>	<b>Medium-high</b>
<b>Magnitude of Change</b>	<b>None:</b>
Considering the screening effect of intervening woodlands and built development across Mureiston, no views of the proposed development are likely to be experienced from across any part of the designation and no changes to the landscape quality are therefore predicted.	
<b>Effect</b>	<b>None (Not significant)</b>
<b>Receptor</b>	<b>Pentland Hills cSLA</b>
<b>Susceptibility &amp; Value</b>	<b>Medium-high</b>
<b>Magnitude of Change</b>	<b>Negligible:</b>
Only a small proportion of the Pentland Hills are within the study area although from some parts of the site, some of the open north facing slopes and summit are within visibility (although these are beyond 3 km from the site). From small areas of the designation, parts of the development would therefore be visible within a wooded context. Considering this would be experienced within a backdrop of extensive urban development, any changes to remote and undeveloped experience of the hills would be very limited.	
<b>Effect</b>	<b>Moderate-minor to minor (Not significant)</b>
<b>Receptor</b>	<b>Livingston ASLC</b>
<b>Susceptibility &amp; Value</b>	<b>Medium</b>
<b>Magnitude of Change</b>	<b>None:</b>
No views of the proposed development would be experienced from any areas of the Livingston ASLC and their wooded setting would remain unaffected.	
<b>Effect</b>	<b>None (Not significant)</b>

Table 6 - Landscape Effects

**Receptor** Almondell & Calderwood Country Park

**Susceptibility & Value** Medium

**Magnitude of Change** None:

Considering the screening effect of extensive intervening woodlands and built development, no changes to the enjoyment of the park would result.

**Effect** None (Not significant)

### LANDSCAPE CHARACTER AREAS

**Receptor** Harburn / Hartwood Fringe LCA

**Susceptibility & Value** Medium

**Magnitude of Change** Negligible-low:

The site is located within the Harburn / Hartwood Fringe LCA and a relatively small proportion of the landscape surrounding the site would have views of the proposed development.

All viewpoints are within the area and the highest magnitude of change is predicted to be negligible-low. From most locations, woodlands that surround the site would screen nearly all of the proposed development from view and changes to inherent wooded character would be hardly discernible. However, there are some areas of more open landscape in close proximity to the south of the site where a greater proportion of the proposed development would be visible and this would contrast with the surrounding rural character of the landscape.

However, boundary planting would help to screen parts of the development and overall, the scale of the proposed development would relate to its landscape setting, reflecting the inherent pattern of pockets of residential development set amongst woodland belts. Considering the very limited extent of change across the entire unit, the overall change is predicted to negligible-low.

**Effect** Moderate-minor to minor (Not significant)

**Receptor** Gladsmuir/ Woodmuir/ Camilty Fringe LCA

**Susceptibility & Value** Medium

**Magnitude of Change** None:

Considering the screening effect of intervening woodlands and built development, no changes to the character of the landscape are predicted.

**Effect** None (Not significant)

**Receptor** Upper Almond Valley LCA

**Susceptibility & Value** Medium

**Magnitude of Change** None:

Considering the screening effect of intervening woodlands and built development, no changes to the character of the landscape are predicted.

**Effect** None (Not significant)

**Receptor** Murieston/ Linhouse/ Camilty Waters LCA

**Susceptibility & Value** Medium-high

**Magnitude of Change** None:

Considering the screening effect of intervening woodlands and built development, no changes to the character of the landscape are predicted.

**Effect** None (Not significant)

Table 6 - Landscape Effects

<b>Receptor</b>	<b>West Calder Burn and Breich Water LCA</b>
<b>Susceptibility &amp; Value</b>	<b>Medium-high</b>
<b>Magnitude of Change</b>	<b>None:</b>
Considering the screening effect of intervening woodlands and built development, no changes to the character of the landscape are predicted.	
<b>Effect</b>	<b>None (Not significant)</b>
<b>Receptor</b>	<b>North West Pentland Fringe LCA</b>
<b>Susceptibility &amp; Value</b>	<b>Medium-high</b>
<b>Magnitude of Change</b>	<b>None:</b>
Considering the screening effect of intervening woodlands and built development, no changes to the character of the landscape are predicted.	
<b>Effect</b>	<b>None (Not significant)</b>

Table 6 - Landscape Effects

### Summary landscape effects

Overall, no significant effects are predicted on of any landscape character areas or on any designated landscapes within the study area.

This is primarily due to the following factors:

- The development is in scale with the landscape setting and the surrounding fabric of trees and woodlands would remain intact and with planting, strengthened over time;
- From nearly all parts of the landscape within the study area, the pattern of trees and woodland blocks that surround the site and extensive areas of built development and woodlands throughout the wider landscape, would screen the development from view;
- Where views would be experienced from some areas in close proximity to the site, most of the development would be screened from view and where visible, the additional changes within an existing context of pockets of residential development set amongst woodland belts are relatively limited; and
- The development would relate to the urban fringe character and strong sense of wooded enclosure.

## VISUAL EFFECTS

### Residential dwellings and settlements

**Table 7** provides an assessment of visual effects on the residents of clusters, villages and towns within 3 km of the site. This has been informed by field survey from those locations that are publically accessible and further informed by findings of the detailed viewpoint assessment.

<b>Settlement</b>	<b>Murieston</b>
<b>Distance</b>	<b>0.01 km</b>
<b>Magnitude of Change</b>	<b>Negligible:</b>
<p>During winter, the residents of several dwellings along the western edge of the settlement might experience views of a very small proportion of the proposed development through nearby intervening trees although nearly all would be screened from view. The prevailing short range view of the nearby wooded backdrop would remain largely unaffected.</p>	
<b>Effect</b>	<b>Moderate-minor (Not significant)</b>
<b>Settlement</b>	<b>Bellsquarry</b>
<b>Distance</b>	<b>0.1 km</b>
<b>Magnitude of Change</b>	<b>None:</b>
<p>Considering the screening effect of intervening woodlands and built development, no changes to views of residents are predicted.</p>	
<b>Effect</b>	<b>None (Not significant)</b>

<b>Settlement</b>	<b>Skivo</b>
<b>Distance</b>	<b>0.3 km</b>
<b>Magnitude of Change</b>	<b>Negligible:</b>
<p>As indicated by the visual assessment at viewpoint 2, residents from two or three dwellings would have some views of the site. These would be limited to views of a very small proportion of the proposed development through nearby intervening trees during winter months. However, nearly all would be screened from view and during summer months, it is very likely that all would be screened by nearby trees.</p>	
<b>Effect</b>	<b>Moderate-minor (Not significant)</b>
<b>Settlement</b>	<b>Polbeth</b>
<b>Distance</b>	<b>1.3 km</b>
<b>Magnitude of Change</b>	<b>None:</b>
<p>Considering the screening effect of intervening woodlands and built development, no changes to views of residents are predicted.</p>	
<b>Effect</b>	<b>None (Not significant)</b>
<b>Settlement</b>	<b>Livingston Centre</b>
<b>Distance</b>	<b>1.3 km</b>
<b>Magnitude of Change</b>	<b>None:</b>
<p>Considering the screening effect of intervening woodlands and built development, no changes to views of residents are predicted.</p>	
<b>Effect</b>	<b>None (Not significant)</b>

Table 7 - Effects on Settlements

**Settlement** Almondvale

**Distance** 1.6 km

**Magnitude of Change** None:

Considering the screening effect of intervening woodlands and built development, no changes to views of residents are predicted.

**Effect** None (Not significant)

**Settlement** West Calder

**Distance** 2.3 km

**Magnitude of Change** None:

Considering the screening effect of intervening woodlands and built development, no changes to views of residents are predicted.

**Effect** None (Not significant)

**Settlement** Harburn

**Distance** 2.5 km

**Magnitude of Change** None:

Considering the screening effect of intervening woodlands and built development, no changes to views of residents are predicted.

**Effect** None (Not significant)

**Settlement** Dedridge

**Distance** 2.8 km

**Magnitude of Change** None:

Considering the screening effect of intervening woodlands and built development, no changes to views of residents are predicted.

**Effect** None (Not significant)

Table 7 - Effects on Settlements

Due to screening effect of the pattern of trees and woodland blocks that surround the site and extensive areas of built development and woodlands throughout the wider landscape, no significant visual effects are predicted on the views of residents from any of the settlements assessed.

Although a detailed assessment from individual dwellings is beyond the scope of this assessment, there are several individual dwellings and farmsteads in relatively close proximity to the site. From Westfield and Mureiston Castle Farm, part of the proposed development would be visible and an overview of the likely views from these is as follows.

From Mureiston Castle Farm located 560 m to the south of the site, residents would experience direct and open views of part of the proposed development across gently undulating fields. This would bring development closer to the viewer within a relatively long range and framed view but one already affected by extensive development in the backdrop. Intervening trees would soften the contrast of built development against an undeveloped foreground. It would occupy a moderate proportion of the view and intervening woodland would partially screen some of the development.

From Westfield, the residents of one dwelling would experience direct open views of part of the proposed development in close proximity. This would bring development closer to the viewer, occupying a moderate proportion of the view. However, the proposed planting along this edge is likely to screen most of the development from view in the longer term.

Table 7 - Effects on Settlements

## Road, rail and recreational routes

Considering the screening effect of woodland blocks that surround the site and extensive areas of built development and woodlands throughout the wider landscape, those routes with likely visibility include the following:

### Edinburgh to Glasgow Railway

For approximately a 500 m section, rail users would experience glimpsed views of the proposed development through intervening trees. Considering the settled context of this route, the overall change is predicted to be negligible with a minor (not significant) effect.

### Murieston Road

As indicated by the findings of viewpoints 1, 5-8, road users travelling along this route would experience oblique and glimpsed views of the proposed development through intervening trees. These would be in very short duration and in the context of the nearby housing at Murieston. The primary view along the wooded corridor of the road would be unaffected and any change is predicted to be negligible with a minor (not significant) effect.

### Local road to west of site

As indicated by the findings of viewpoints 10 & 11, road users travelling along this route would experience oblique and glimpsed views of the proposed development through intervening trees. These would be in very short duration the primary view along the wooded corridor of the road would be unaffected. Any change is predicted to be negligible with a minor (not significant) effect.

### Murieston Way

Only a very short section of this route has views of the proposed development, most of which is through intervening trees. From viewpoints 3 & 4, a negligible change is predicted. Walkers travelling north along the footpath might experience some occasional glimpses of a very small part of development above intervening rising ground and through intervening trees. However, the extent of any possible change is very limited and the visual focus along the path corridor would remain unaffected. Considering this and the short duration of views, the effect is predicted to be minor (not significant) overall.

### National Cycle Route 75

Taking into account the screening effect of dense nearby intervening built development, no changes to views of cyclists would be experienced and the effect would therefore be none.

## MITIGATION AND ENHANCEMENT STRATEGY

Although the definitive street design, landscape/open space design and building types and forms are the subject of the detailed design stage, it is evident that there is some potential to mitigate adverse landscape and visual effects.

Although any effects are unlikely to be significant, further woodland planting along the southern and western boundaries would help to further screen the development from view and improve its integration into its wooded setting. This would be particularly beneficial in minimising effects on the nearby dwellings at Murieston Castle Farm and Westfield.

## CONCLUSIONS

### Summary of Effects

This Landscape and Visual Impact Assessment has demonstrated that:

- The proposed development would not result in any significant direct changes to the physical landscape;
- From the eleven viewpoints assessed, no significant landscape or visual effects are predicted;
- No significant effects are predicted on the integrity of any landscape character areas or on any designated landscapes within the study area;
- No significant visual effects are predicted on the residents of any settlements; and
- No significant visual effects are predicted on any road, rail or recreational trail users.

### Statement of Significance

In summary, development plan policy supports meeting housing need and demand in the most sustainable locations and as part of this; the landscape capacity of the site and surrounding is an important consideration.

The site of the proposed development is within a Countryside Belt and in close proximity to an Area of Special Landscape Control. In addressing these sensitivities, local plan policy provides criteria for the assessment of the acceptability of the proposed development in landscape and visual terms including:



- the suitability of the location of the proposed development in relation to its wooded landscape setting;
- the protection and enhancement of valued landscapes, particularly the ASLC and AGLV (cSLA) designations;
- the conservation and enhancement of the characteristic features and qualities of the wider landscape; and
- Where possible, any mitigation measures of any adverse landscape and visual effects are identified and incorporated into the proposals.

In response to the iterative design process, the following design aims have been incorporated to minimise any adverse landscape and visual effects:

- i. Selection of a site that benefits from a good degree of enclosure and containment by surrounding woodland thus limiting the extent of landscape and visual effects;
- ii. Selection of a location and scale of development which avoids any significant adverse effects on important landscape features such as trees and woodlands;
- iii. The selection of an appropriate scale of development that respects the topography and the setting of nearby landscape features;
- iv. The incorporation of Amenity Open Space with potential linkage to Murieston Valley;
- v. The selection of a location that is well screened and set back from nearby roads, footpaths and residential dwellings;
- vi. Selection of a location that avoids significantly affecting the views of nearby residents; and
- vii. The incorporation of proposed planting to reinforce boundaries with additional planting to further reduce the visibility of the development within the local landscape.

In determining the overall landscape acceptability of the proposed development in relation to planning policy criteria and associated guidance, the following factors as identified in this LVIA should be considered:

- The development is in scale with the landscape setting and the surrounding fabric of trees and woodlands would remain intact and with planting, strengthened over time;

- From nearly all parts of the landscape within the study area, the pattern of trees and woodland blocks that surround the site and extensive areas of built development and woodlands throughout the wider landscape, would screen the development from view;
- Where views would be experienced from some areas in close proximity to the site, most of the development would be screened from view and where visible, the additional changes within an existing context of pockets of residential development set amongst woodland belts are relatively limited; and
- The development would relate to the urban fringe character and strong sense of wooded enclosure.

**In conclusion therefore, the proposed development is acceptable in landscape and visual terms.**

## APPENDIX – LVIA METHODOLOGY

The approach taken for the assessing the landscape and visual effects follow the best practice principles and methods undertaken for a typical EIA development. Primarily, this is based on the approach as set out in the Guidelines for Landscape and Visual Impact Assessment (GVLIA): Landscape Institute and Institute of Environmental Assessment, (2013).

It should be noted that there is a degree of professional experience and judgement exercised during the LVIA process. Professional opinions are given within the framework of “clear and transparent methods so that the reasoning applied at different stages can be traced and examined by others.” (p. 21, GLVIA, 2013)

### Evaluation of the Existing Environment – the Baseline

The baseline review for the landscape and visual resource has three elements:

1. Description – a systematic review of existing information and policy relating to the existing landscape and visual resource;
2. Classification – analysis of the data to subdivide the landscape resource into discrete areas of recognisable character and identification of the visual receptors; and
3. Evaluation – Use of professional judgement to apply susceptibility criteria to a landscape or visual resource with reference to specified criteria.

The baseline review is undertaken through desk-based data review followed by a site survey to verify the findings, and then analysis of the data. This process is described in detail in the following paragraphs.

#### Desk Based Data Review

Existing mapping, legislation, policy documents and other written, graphic and digital data relating to the proposal and broader study area was reviewed. This included the following documents:

- SESPlan Strategic Development Plan (2013);
- West Lothian Local Plan (2009);
- West Lothian Landscape Character Classification - West Lothian Local Development Plan: background paper August (2014);
- West Lothian Local Landscape Designation Review (2013);
- Ordnance Survey maps; and
- Digital sources of mapping and aerial photography.

The desk study also establishes the main users of the area, key viewpoints and key features, thus defining the visual baseline which requires to be verified on site. The potential visual receptors are identified and classified according to their associated use (settlements, footpaths, roads etc.). The aim of the baseline review of visual resources is to ensure that an appropriate range of viewpoints is included in the visual assessment. The potential extent of visibility of the proposed development as identified by field survey provides the basis upon which the potential visual receptors are initially identified.

The desk study informs subsequent site work, which allows the confirmation of the Landscape Character Types (LCTs) and Landscape Character Areas (LCAs) where applicable.

#### Site Survey

Field survey work is carried out to identify viewpoints and to gain a full appreciation of the relationship between the proposed development and the surrounding landscape. It is important to ensure that the viewpoints remain a representative selection of views and demonstrate the worst case scenario of any likely effect.

#### Data Analysis

Analysis and reporting of the baseline resource took place after the completion of the desk and field surveys. The baseline landscape and visual review provides a description, classification, and evaluation of the landscape and visual resource of the study area.

The baseline review provides a robust description of the landscape and visual resource from which to assess the landscape and visual effects of the proposed development and to advise, in landscape and visual terms, on the development’s acceptability in principle and upon its siting, layout and design. This involves identification of all the landscape and visual receptors and analysis of the sensitivity of each of these receptors to the Proposed Development.

#### Extent of the Study Area and Viewpoint Selection

Through the initial stages of the desk study, eleven viewpoints were chosen to represent views experienced from a variety of receptors, within different landscape character types and at a variety distances from the Proposed Development where the view may be apparent.

A study area centred on a 3 km radius from the proposed development has been used for the study of landscape and visual effects. Given the relative scale of the development, the limited extent of likely visibility and the character of the landscape, significant effects are very unlikely to be experienced at distances over 3 km.

## Landscape Susceptibility and Value

The GLVIA indicates that landscape receptors need to be assessed firstly in terms of their sensitivity, combining judgements of their susceptibility to the type of proposal and the value attached to the landscape.

## Landscape Susceptibility & Value

This LVIA includes an assessment of factors affecting the susceptibility of the landscape to the changes brought about by the Proposed Development. In terms of landscape value, the assessment takes as its starting point the recognised value of the landscape, for example, as identified by landscape designations.

The value and susceptibility and assessment also take into account the findings of the West Lothian Local Landscape Designation Review (2013) and where relevant, the findings of field survey to identify any variation at the local scale. This included a review of the following criteria:

Susceptibility Criteria	Value Criteria
Scale	Condition/intactness
Enclosure	Scenic quality
Landform	Perceptual aspects
Diversity	Rarity
Landcover pattern and line	Representativeness
Settlement and infrastructure	Conservation interests
Perception of landscape change	Recreational value
Tranquillity	Associations
Settings and skylines	

## Sensitivity of Visual Receptors

The sensitivity of each visual receptor is assessed in terms of susceptibility to change in views or visual amenity as well as the value attached to particular views.

## Susceptibility to Change

People generally have differing responses to views and visual amenity depending on the context (e.g. location, time of day, degree of exposure), and their purpose for being in a particular place (e.g. whether for recreation, travelling through the area, residence or employment). Susceptibility to change is therefore a function of:

- The occupation or activity of people experiencing the view or visual amenity; and
- The extent to which their attention or interest may be focused on the landscape around them.

The following table illustrates some examples of the relative susceptibility of some of the key visual receptors within the Study Area. Note that different individuals or groups of people at one location may have different levels of susceptibility.

High	Medium	Low
Residents within dwellings or curtilage	People at their place of work, where views are an important part of the setting, such as a countryside ranger	People at their place of work whose attention is likely to be focused on their work or activity, not on their surroundings
Users of recognised national trails, whose attention or interest is likely to be focused on the landscape or on particular views		People engaged in active outdoor sports or recreation and less likely to focus on the view
Road and rail users where appreciation of the landscape is an important part of the experience, such as recognised scenic routes	Road and rail users likely to be travelling for other purposes than just the view, such as commuter routes	
Visitors to heritage assets or to other attractions, such as recognised beauty spots, where views of the surroundings are an important part of the experience		

## Value attached to particular views

Judgments are also be made about the value attached to views, based on the following considerations:

- Recognised value – such as views from heritage assets or designated landscapes;
- Inclusion in guidebooks or on tourist maps, the facilities provided for visitors or references to the view in literature or art; and
- The relative number of people who are likely to experience the view.

People that are more susceptible to change at viewpoints of recognised value are more likely to be significantly affected by any given change.

## Assessing Effects

The impact assessment aims to identify all the potential landscape, visual and cumulative effects of the development taking account of any proposed mitigation measures. This is carried out by:

- Assessing the magnitude of change brought about by the proposed development on each of the receptors identified in the baseline review;
- The effect is then predicted by combining the sensitivity and importance of the receptor (as identified in the baseline review) with the magnitude of change; and
- Lastly, the significance of the predicted effect is assessed in a logical and well-reasoned analysis.

The assessment aims to describe the changes in the character and the landscape resources that are expected to result from the proposed development. It covers both landscape effects (changes in the fabric, character and key defining characteristics of the landscape); and the visual effects (changes in available views of the landscape and the significance of those changes on people).

As every development and its interaction with the landscape are unique, there will be situations where predefined criteria will not accurately reflect the potential residual effects. In such cases, professional judgement takes precedence.

## Magnitude of Landscape Change

Each effect on landscape receptors is also assessed in terms of its size or scale, the geographical extent of the area influenced and its duration and reversibility.

## Size or Scale of Effect

This is judged using the factors set out in the following table:

Rating	Criteria
Very large	Highly obvious change, affecting the majority of the key characteristics and defining the experience of the landscape
Large	Obvious change, affecting many key characteristics and the experience of the landscape
Medium	Noticeable but not obvious change, affecting some key characteristics and the experience of the landscape
Small	Minor change, affecting some characteristics and the experience of the landscape slightly
Negligible	Little perceptible change

## Geographical Extent of Effect

The geographical area over which the landscape effects would be experienced (regional, local or restricted to the site) is also taken into account. This is distinct from the scale of the change. For example, a small change to the landscape over a large geographical area could be comparable to a very large change affecting a much more localised area.

## Magnitude of Visual Effect

Visual effects result from the changes in the content or character of views and visual amenity, due to changes in the landscape. The assessment of visual effects takes account of both the sensitivity of the visual receptors (individuals or groups of people) and the magnitude of the change on their views and visual amenity.

The magnitude of the visual effect resulting from the Proposed Development is evaluated in terms of size or scale, geographical extent, duration and reversibility.

## Size or Scale of Effect

This is based on the interpretation of a combination of a range of factors. Some of these are largely quantifiable and include:

- Distance and direction of the viewpoint from the Proposed Development;
- Extent of the Proposed Development visible from the viewpoint

- Scale of the change in the view, including the proportion of the field of view occupied by the Proposed Development;
- Degree of contrast with the existing landscape elements and characteristics in terms of background, form, pattern, scale, movement, colour, texture, mass, line or height;
- The relative amount of time during which the effect would be experienced and whether views would be full, partial or glimpses; and
- Orientation of receptors in relation to the Proposed Development, e.g. whether views are oblique or direct.

Rating	Description	Appearance in field of vision
Very High	Dominant	Commanding, controlling the view Creation/removal of a dominant visual focus Highly uncharacteristic elements or pattern introduced Most of the view affected
High	Prominent	Major change to the view, striking, sharp, unmistakable, easily seen Creation/removal of major visual focus Uncharacteristic elements or pattern introduced Large proportion of the view affected
Medium	Conspicuous	Noticeable change to the view, distinct, clearly visible, well defined Creation or removal of a visual focus that may compete Some elements of the Proposed Development fit the existing pattern Some of the view affected
Low	Apparent	Minor change to the view but still evident Little change to focus of the view Fits intrinsic visual composition Little of the view affected
Negligible	Inconspicuous	No real change to perception of the view Weak, not legible, hardly discernible

## Geographical Extent

The extent over which the changes would be visible is also taken into account.

The magnitude of visual change arising from the Development is described as High, Medium, Low or Negligible based on the overall extent of visibility (see the following table). For individual viewpoints it will depend upon the combination of a range of factors:

- The distance of the viewpoint from the development;
- The duration of effect;
- Extent of the development visible from the viewpoint;
- The angle of view in relation to main receptor activity;
- The proportion of the field of view occupied by the development;
- The background to the development; and
- The extent of other built development visible, particularly vertical, elements.

Other factors may also influence the visual effect. These relate to both human perception and to the physical environment itself. Factors which tend to reduce the apparent magnitude include the following:

- An absence of visual clues;
- A complex and varied scene; and
- High relative elevation of view.

Factors which tend to increase the apparent magnitude include the following:

- Visual clues;
- A simple scene; and
- Low relative elevation of view

## Sequential Visual Effects

Sequential visual effects typically occur when moving along a linear route, as the observer moves from one point to another and gains views of other developments or a different view of the same development.

## Significance of Effects on Landscape and Visual Receptors

### Significance of Landscape Effects

The assessment of significance is based on professional judgement, considering both the

sensitivity of the receptor and the predicted magnitude of effect resulting from the Proposed Development.

Major loss of landscape features or characteristics across an extensive area that are important to the integrity of a nationally valued landscape are likely to be of greatest significance. Short-term effects on landscape features or characteristics over a restricted part of a landscape of lower value are likely to be of least significance.

The degree of significance of effects on visual receptors is determined from a combined evaluation of the sensitivity of the visual receptor and the magnitude of the visual effect.

Effects are more likely to be significant on people who are particularly sensitive to changes in views and visual amenity, or who experience effects at recognised and important viewpoints, or from recognised scenic routes. Large scale changes which introduce new, discordant or intrusive elements into the view are also more likely to be significant than small changes or changes involving features already present within the view.

The significance of any identified landscape or visual effect has been assessed as Major, Moderate, Minor or Negligible effect. These categories have been determined by consideration of viewpoint or landscape sensitivity and predicted magnitude of change as described above, with the table below used as a guide to correlating sensitivity and magnitude to determine significance of effects. It should be noted that this is a guide only, and there will be times when the combination of sensitivity and magnitude yield a slightly different result from that predicted by the table. Where this discrepancy leads to prediction of significant effect, it is explained in the text.

Magnitude of Change				
Susceptibility & Value	High	Medium	Low	Negligible
High	Major	Major/moderate	Moderate	Moderate/minor
Medium	Major /moderate	Moderate	Moderate/minor	Minor
Low	Moderate	Moderate/minor	Minor	Minor/None
Negligible	Moderate/minor	Minor	Minor/none	Minor

Where overall effects are predicted to be moderate-major or greater (dark grey), these are considered to be equivalent to significant effects, as referred to in the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011. Overall effects of major-moderate (mid grey) may be significant if experienced over an extensive proportion of a receptor, area or route. Changes of moderate or less are not likely to be significant.

**Clarendon Planning and Development Ltd**

**Exchange Place 2  
5 Semple Street  
Edinburgh EH3 8BL**

**T/F 0131 306 0115  
info@clarendonpd.co.uk  
www.clarendonpd.co.uk**

**On behalf of BDW Trading Ltd and H&J Russell**

