enzygo
environmental consultants

Landscape and Visual Impact Assessment

Planning Application for the Development of Houghton Main Renewable Energy Park (comprising a Timber Resource Recovery Centre and an Anaerobic Digestion Facility) Including Associated Infrastructure

Peel Environmental Management (UK) Limited and Houghton Main Waste Limited

'Experience and expertise working in union'

enzygo.com

Contact Details:

Enzygo Ltd.
STEP Business Centre
Wortley Road
Deepcar
Sheffield
S36 2UH

tel: 0113 290 3677
fax: 0113 290 3688
email: paul.beswick@enzygo.com
web: www.enzygo.com

Landscape and Visual Impact Assessment

Project:	Houghton Main
For:	Peel Environmental Management (UK) Limited
Status:	Final
Date:	May 2014
Author:	Lucy Key BA[Hons] Dip LA – Landscape Architect
Reviewer:	Paul Beswick- BA[Hons] Dip LA – Technical Director

Contents

FIGURES

9.1 Introduction

9.1.1 The Brief

9.1.1.1 The aim of this chapter is to provide an assessment of the proposals by Peel Environmental Management (UK) Limited and Houghton Main Waste Limited (Peel) for an Anaerobic Digestion Facility and Timber Resource Recovery Centre development on land adjoining the Houghton Main Colliery Roundabout on Park Spring near Great Houghton, Barnsley on the landscape, townscape and visual amenity. This chapter forms Chapter 9 of Part Two of the Environmental Statement (ES).

9.1.1.2 Enzygo Limited (Enzygo) have been commissioned by Peel to prepare a 'Landscape and Visual Impact Assessment' (LVIA) for an Anaerobic Digestion (AD) Facility and Timber Resource Recovery Centre (TRRC) which will henceforth be referred to as the 'Facility' or 'Development'.

9.1.2 The Site

9.1.2.1 The subject site is located approximately 1km west of Little Houghton and 6.5km east of Barnsley town centre on National Grid Reference SE 4168 0641 (Full Grid Reference: 441681,4064171), Access to the site is from a spur off a roundabout (known as Houghton Main Colliery Roundabout) on the A6195 Park Spring Road.

9.1.2.2 The proposed development site is 4.14 hectares in area and is shown edged red on the attached drawing 'Site Boundary Plan'. The site is brownfield land and is allocated as an 'Employment Policy Area' (Policy DA3) and an 'Area of Investigation for Potential Employment Development' (Policy DA4) in the Barnsley Unitary Development Plan (UDP) (December 2000) (Saved Policies).

9.1.2.3 The proposed REP comprises a 150,000 tonne per annum (tpa) Timber Resource Recovery Centre (TRRC) and a 60,000 tpa Anaerobic Digestion (AD) facility.

9.1.2.4 The development of the site will create two distinct but compatible energy generation facilities with the potential to generate 23MW of electricity (20MW (net) from the TRRC and 3MW from the AD facility) and to provide a direct heat and/or electrical supply to appropriate offtakers in the local area.

9.1.2.5 The site is brownfield land primarily vegetated with rough restored grassland. Some scattered shrubs and small trees are also present on the site. The site is relatively flat except for bunding at its northern and western boundaries.

9.1.2.6 The site was historically part of the Houghton Main Colliery Site and was reclaimed some time ago. The colliery was subsequently open cast mined by UK Coal in the late 1990s. Open casting mining was completed and the land was reclaimed and compacted to provide a platform suitable for industrial development.

[1] Lat:53.5530808 Lng:-1.3722400

9.1.2.7 There is a large distribution centre, currently occupied by a clothing retailer, on adjacent land to the east and south east of the site. The warehouse was developed by Prologis and was constructed under Reserved Matters Approval 2005/1441 (which followed Outline Planning Permission B/03/0762/HR granted in 2003 for Class B1, B2 and B8 development of the site). The warehouse is now operated by ASOS and has recently been granted planning permission for an extension (ref: 2012/1018).

9.1.2.8 Land uses on adjoining sites include the following:

- ASOS, a large distribution centre;
- Mine Gas Utilisation Development
- Dismantled Railway Line;
- A6195 Park Spring Road;
- RSPB Nature Reserve;
- Agricultural land; and
- Dispersed settlements and scattered farmsteads.

9.1.2.9 The surrounding land uses are predominantly agricultural in nature, with the village of Darfield approximately 1.1km south, Little Houghton is approximately 0.9km south east and Great Houghton 1.5km east.

9.1.2.10 There are two access point from the A6195, a track cuts along the northern site boundary, linking the bridge that crosses the A6195 to the dismantled railway, and an access track that is accessible from the Houghton Colliery roundabout that links the roundabout to the dismantled railway.

9.1.2.11 The access from the roundabout is shared with the mine gas utilisation development, adjacent to the site's southern boundary. This track roughly forms the southern site boundary. Neither of the access routes are Public Rights of Way, although one is a 'de facto' access route for local people to access the dismantled railway.

9.1.3 The Proposed Development

9.1.3.1 The proposed development consists of an AD Facility within the eastern side of the site located directly next to Park Spring Road, which would comprise of a number of storage tanks, a water storage lagoon and a process building with associated car park and access road. The highest elevation of the AD Facility would be 12 metres.

9.1.3.2 The western part of the site a TRRC would be constructed, consisting of one large unit that would house a reception hall, a process building with associate access roads and a separate condenser unit. The highest elevation of the roof of the TRRC would be 30 metres, with a stack between 45 metres in height.

9.1.3.3 There would be areas of landscaping on the periphery of the development, to the north of the AD facility and to the south of the AD facility next to the Houghton Main Colliery Roundabout. Existing areas of planting on the western and northern boundaries of the site would be supplemented also.

9.1.4 Aims and Objectives

9.1.4.1 The aim of this study is to undertake a landscape and visual impact assessment (LVIA) of the proposed development. The objectives are to identify the existing landscape/ townscape character and visual amenity resource, identify the likely effects of the proposals on this baseline situation and determine the residual impact of the proposals on landscape character and visual amenity of the proposed AD Facility.

9.1.5 Structure of the Chapter

9.1.5.1 **Section 9.2** of the chapter describes the methodology and approach taken to the assessment, the detailed assessment criteria is contained in **Appendix 9.1.**

9.1.5.2 **Section 9.3** considers landscape and visual planning policy and designations that are relevant to the site.

9.1.5.3 **Section 9.4** describes the existing landscape features, landscape/townscape character, visual amenity and views of the study area which comprise the baseline situation.

9.1.5.4 **Section 9.5** describes the potential effects of the proposals. This is supported by detailed landscape and visual impact assessment tables contained in **Appendix 9.2.**

9.1.5.5 **Section 9.6** describes mitigation proposals for the site and **Section 7** considers the residual effects following establishment of mitigation proposals.

9.1.5.6 The landscape and visual impacts of the proposals are summarised in **Section 8**.

9.1.5.7 **Section 9.9** provides a list of the references cited in the chapter and provides a glossary of terms.

9.2 Methodology

9.2.1 Introduction

9.2.1.1 The Landscape and Visual Impact Assessment (LVIA) will consider the potential effects of the development upon:

- Individual landscape/townscape features and elements;
- Landscape/Townscape character and quality (condition); and
- Visual amenity and the people who view the landscape.

The full landscape and visual impact assessment methodology can be found in **Appendix 9.1.**

9.2.2 Distinction between Landscape and Visual Effects

9.2.2.1 Landscape and visual effects are two distinct but related areas, which will be assessed separately in accordance with the approach outlined below. Landscape and visual impacts do not necessarily coincide and can be beneficial or adverse. A clear distinction will be drawn between landscape and visual impacts as follows:

- **Landscape impacts** relate to the effects of the proposals on the physical and other characteristics of the landscape and its resulting character and quality.
- **Visual impacts** relate to the effects on views experienced by visual receptors (e.g. residents, footpath users, tourist's etc.) and on the visual amenity experienced by those people.

9.2.3 Guidance

9.2.3.1 The LVIA of the proposed scheme will be undertaken by a Landscape Architect with experience of similar types of development. The assessment will be undertaken in accordance with best practice outlined in published guidance:

- *Guidelines for Landscape and Visual Impact Assessment*, 3rd Edition (2013) Landscape Institute and the Institute for Environmental Management and Assessment;
- *Landscape Character Assessment Guidance for England and Scotland* (2002); The Countryside Agency and Scottish Natural Heritage; and
- *Guidelines for Environmental Impact Assessment* (2004); Institute for Environmental Management and Assessment.

9.2.4 Approach to the LVIA

9.2.4.1 The LVIA will be broadly undertaken in the following stages:

- Baseline data collection via desk-top, consultation and fieldwork;
- Description of the baseline landscape character and visual amenity of the site and surrounding area which identify the relevant landscape and visual receptors (including key viewpoints) and determine their sensitivity to change;

- Description of the magnitude of change in the landscape and visual amenity as a consequence of the proposals;
- Description of the potential landscape and visual effects arising from the proposals; and
- Development of strategic mitigation proposals to assist in reducing adverse landscape and visual effects or provide compensation where unavoidable, and where possible enhance and safeguard beneficial effects.

9.2.4.2 Baseline information regarding landscape features and sensitive visual receptors, and the likely change in the landscape character and visual amenity of the site and its surroundings, will be used to identify potential effects and inform the final scheme as appropriate.

9.2.4.3 Strategic mitigation measures will be developed in tandem with the proposals to minimise adverse effects as part of an iterative design process. Options for screening various components of the scheme will be investigated and adopted as mitigation measures where appropriate.

9.2.4.4 Criteria thresholds for assessing the degree of change as a result of the scheme will be established and the final layout of the scheme will be reviewed to ascertain the magnitude of change in the landscape and in views. Visual effects on historic features of interest may also need to be assessed.

9.2.5 Sensitivity of Receptors, Magnitude of Change and Significance of Effects

9.2.5.1 The significance of effects of the proposals on both the landscape and visual receptors within the study area are ascertained by cross-referencing the sensitivity of the baseline landscape or visual receptor and the magnitude of change as a result of the development.

9.2.5.2 The sensitivity of landscape and visual receptors is judged as high, medium or low. The magnitude of change is also judged to be high, medium, low or negligible. Significance of effects is expressed as either slight, moderate or substantial, which may be either beneficial or adverse, or neutral.

9.2.6 Study Area

9.2.6.1 For the purposes of this LVIA, a 2.5km study area from the centre of the site has been used as a boundary to assess the effects of the proposals. 2.5km has been considered in acknowledgement of the scale of the proposals, the undulating nature of the local topography and the extent of built form and vegetation cover within the immediate environs. This is not to say that there will not be views of the site from outside this study area; however, it is considered that more distant views are likely to be limited and in any event the development would only be seen as a small element of a wider panorama.

9.2.7 Visual Envelope

9.2.7.1 The visual envelope of a scheme defines the broad area from within which it may be possible to see the whole or part of the proposed development, and helps to establish the potential for sensitive visual receptors. The development is not considered to be visible outside this area or would be very difficult to perceive, except from occasional higher elevations. However, there will still be pockets within the visual envelope from which there are no views of the study area, due to the local screening effects of vegetation and topography or other

features such as buildings. Landscape features, which form visual barriers and restrict views towards parts of the study area, such as landform, settlements and woodland, can then be evaluated and significant barriers identified to refine the baseline visibility of the proposals.

9.2.8 Representative Viewpoints

9.2.8.1 Within the extent of the visual envelope, it would not be practical to illustrate the visual impact on every individual visual receptor affected by a scheme. Therefore, representative viewpoints will be used to assess the impacts on the different range of views towards the site. Viewpoints will be illustrated photographically using a 56mm lens digital SLR camera and the site location and significant features will be identified together with landmarks and features in the surrounding area. All photography carried out as part of this assessment is in accordance with LI Advice Note 01/11 (March 2011).

9.2.8.2 A provisional list of representative viewpoints and a plan demonstrating their locations were provided to Andrew Burton, the Senior Planning Officer at Barnsley Metropolitan Borough Council (BMBC) (e-mail dated 17.02.2014). The correspondence with Mr Burton included a request for an opinion on the suitability of the viewpoints. Mr Burton replied stating that the viewpoints were appropriate, however he asked that we included a viewpoint in the northern extents of Darfield as this is anticipated to be a sensitive receptor.

9.2.9 Temporal Scope

9.2.9.1 2013 has been taken as the baseline year for defining the existing landscape.

9.2.9.2 The relevant impacts of the development will be assessed at the following times:

- During construction;
- Year 1:- one year after opening (Opening Year) to assess the impacts once the major construction is complete; and
- Year 15:- fifteen years after opening (Design Year) to allow for any mitigation planting and other landscape schemes to mature to give the intended effect.

9.2.10 Approach to the Assessment

Study Areas

9.2.10.1 The Study Area for the landscape assessment comprises the regional context of the area surrounding the site (but ultimately limited by a 2.5km radius from the centre of the site as appropriate reference to consider the context in sufficient detail). The Study Area for the visual assessment is defined by the visual envelope of the proposals – the broad area over which any part of the scheme components would be seen – and is arrived at following an analysis of landscape features such as topography, significant vegetation and built form. The Study Area was verified by a site visit undertaken on 19th December 2014.

9.2.10.2 As stated in paragraph 2.8.2, a draft set of viewpoints was provided to BMBC as part of the preparation of this report.

Desk Studies

9.2.10.3 The baseline landscape and visual assessment comprised a desktop study of the following data sources:

- Ordnance Survey Explorer Map; 1:2500, Sheffield and Barnsley 278
- The Google Earth website at www.earth.google.com;
- The Multi-Agency Geographical Information for the Countryside website at www.magic.gov.uk;
- National Planning Policy Framework (NPPF); Department for Communities and Local Government (2012);
- Barnsley Unitary Development Plan [2000], Barnsley City Council
- The Regional Spatial Strategy for Yorkshire and The Humber [2008]
- National Character Area Profile 38: Nottinghamshire, Derbyshire and Yorkshire Coalfield [2013], Natural England

Field Studies

9.2.10.4 The site was visited on December 19th 2013 and March 3rd 2014 to obtain the following data:

9.2.10.5 Photographs from proposed Representative Viewpoints;

9.2.10.6 A corroboration of the findings of the desktop review; and

9.2.10.7 To obtain additional information on landscape features, views and localised screening barriers.

9.2.10.8 Site surveys were all undertaken during periods of clement weather from public highways, Public Rights of Way (PRoW) and publically accessible areas, including areas of public open space.

9.3 Landscape Policy Review

9.3.1 Introduction

9.3.1.1 The planning policy for the study area is covered in greater detail in the Policies and Plans Chapter, however, in this section we identify policy and designations of direct relevance to the landscape. The landscape planning constraints are illustrated on Figure 9.1.

9.3.2 European Landscape Convention, Council of Europe, 2000

9.3.2.1 The context of landscape policy in the UK can be placed within the broad framework provided by the European Landscape Convention (ELC). The ELC was signed by the Government in February 2006 and signals a commitment to support the aims of the Convention which include promoting landscape protection, management and planning. It suggests that *"Landscape means an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factor"* and covers rural and urban situations.

9.3.3 National Planning Policy

9.3.3.1 The most relevant source of national landscape policy guidance is as follows:

- National Planning Policy Framework (NPPF); Department of Communities and Local Government [DCLG] 2012.

9.3.3.2 The NPPF provides support for sustainable development principally through its 12 core planning principles, two of which are set out below:

> "*support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change, and encourage the reuse of existing resources, including conversion of existing buildings, and encourage the use of renewable resources (for example, by the development of renewable energy)*"

> "*encourage the effective use of land by reusing land that has been previously developed (brownfield land), provided that it is not of high environmental value*"

9.3.3.3 The NPPF also addresses meeting the challenge of climate change, flooding and coastal change, it states that Local Planning Authorities should; "consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure the development of such source's." [Bullet 3, Para 97, Page 22].

Good Design

9.3.3.4 Paragraph 65 relates to requiring good design stating: "*Local planning authorities should not refuse planning permission for buildings or infrastructure which promote high levels of sustainability because of concerns about incompatibility with an existing townscape, if those concerns are mitigated by good design."*

9.3.3.5 Paragraph 66 continues: *"Applicants will be expected to work closely with those directly affected by their proposals to evolve designs that take account of the views of the community."*

9.3.3.6 The site is within a landscape with comparable large scale units and design considerations therefore need to take account of this context. As such, the design approach is operationally-led and results in an industrial form that reflects the character of the area and the requirements of the technological process and site shape and constraints.

9.3.4 Local Landscape Policy

9.3.4.1 The site falls within the boundary of BMBC where the most relevant source of local landscape policy guidance is as follows:

- Barnsley Local Development Framework Core Strategy, Barnsley Council, [Adopted Sept 2011]
- Yorkshire and Humber Regional Spatial Strategy [2008]
- Barnsley, Doncaster and Rotherham Joint Waste DPD [2012]

Barnsley Local Development Framework (LDF)

9.3.4.2 The LDF is will gradually replace the existing Unitary Development Plan and be adopted alongside the Regional Spatial Strategy. The Core Strategy was adopted in September 2011 and forms part of the statutory development plan. It sets out the council's vision for the next 15 to 20 years.

9.3.4.3 The Core Strategy sets out a number of Policy Statements for Barnsley. Policy Statements of particular relevance to this proposal include:

CSP 6 Development that produces renewable energy

We will allow development that produces renewable energy as long as there is no significantly harmful effect on:

- the character of the landscape and appearance of the area
- living conditions
- biodiversity, geodiversity and water quality
- historical and cultural features and areas
- highway safety, and
- infrastructure including radar

Proposals must be accompanied by information that shows how the local environment will be protected, and that the site will be restored when production ends.

CSP 1 Climate Change

Development will be expected to:

- Reduce and mitigate the impact of growth on the environment and carbon emissions

- Ensure existing and new communities are resilient to climate change
- Harness the opportunities that growth, and its associated energy demands, brings to increase the efficient use of resources through sustainable construction techniques and the use of renewable energy
- We will take action to adapt to climate change by:
- Giving preference to development of previously developed land in sustainable locations
- Locating and designing development to reduce the risk of flooding
- Promoting the use of sustainable drainage systems
- Encouraging environments that promote biodiversity and improve the Borough's green infrastructure

Yorkshire and Humber Regional Spatial Strategy (RSS), 2008

9.3.4.4 Although the RSS was revoked in 2010 by central government, preceding a legal challenge the revocation of the RSS results in it forming part of the development plan. It aims to guide development within Yorkshire and Humber till 2026.

9.3.4.5 The Core Strategy sets out a number of Policy Statements for South Yorkshire and Yorkshire and Humber as a whole. Policy Statements of particular relevance to this proposal include:

ENV5 Energy

9.3.4.6 The Region will maximize improvements to energy efficiency and increases in renewable energy capacity. Plans, Strategies, investment decisions and programmes should reduce greenhouse gas emissions, improve energy efficiency and maximise the efficient use of power sources by:

9.3.4.7 Maximising the use of combined heat and power, particularly for developments with energy demands over 2MW, and incorporating renewable sources of energy where possible

9.3.4.8 Providing for new efficient energy generation and transmission infrastructure in keeping with local amenity and areas of demand

Landscape and Cultural Heritage Designations

Landscape Designations

9.3.4.9 There are a small number of historic designations within the study area to the site (refer to Figure 1) and these are as follows:

Conservation Areas:

9.3.4.10 There is one conservation areas within the study area:

- Darfield Conservation Area, which is located 2 km south-west of the site; and

Scheduled Ancient Monuments:

9.3.4.11 There is one scheduled ancient monuments within the study area:

- Cross in churchyard of All Saints Church, Darfield, which is located approximately 2km south of the proposal site.

Listed Buildings

- Church of St Michaels and All Saint a Grade II* Listed , which is located approximately 1.26 km from the eastern boundary of the site;
- Middlewood Park a Grade II Listed buildings, which is located approximately 1.3km south of the proposal site;
- Middlewood Lodge a Grade II Listed, which is located approximately 1.5km south of the proposal site;
- Milepost opposite junction in Darfeld, Grade II listed, which is located approximately 1.6km south of the proposal site; and
- All Saint Church, Darfield, Grade I Listed, which is located approximately 2km south of the proposal site.
- Parish Church of Emmanuel is a Grade II Listed church, which is located approximately 1.1 km east of the site (List Entry No. 217732).

9.3.4.12 There is one Regional Trail within the study area and these are as follows:

- The Dearne Way, which is located 0.8km to the west of the site. This is a route of regional importance that follows the River Dearne from the water course's source to its confluence.

Landscape Policy Summary

9.3.4.13 It is clear from the policy review that the landscape within the study area is afforded protection through both specified designations and policies. Although the site itself does not lie within a landscape designation, there are some designated areas which have the potential to be affected within the wider study area. To comply with policy the effects on their setting due to the proposals will be considered and clearly stated in this report.

9.4 Landscape and Visual Baseline

9.4.1 Landscape Character

9.4.1.1 The following published landscape character assessment documents are considered to be relevant to this assessment:

National Character Area

9.4.1.2 National Character Areas divide England into 159 separate areas. Each character area is defined by its unique combination of landscape features, amongst other factors. The boundaries of the areas are based upon naturally occurring features rather than administrative boundaries. Therefore they provide a good framework to begin to assess the character of a particular site. However the Character Area profiles are mostly concentrated on the rural character of a landscape.

National Character Area Profile 37: Yorkshire South Pennine Fringe

9.4.1.3 The site is located within Character Area 937: Yorkshire South Pennine Fringe, the key characteristic which is illustrative of the study area is identified as:

- *A transitional landscape dissected by steep-sided valleys, dropping from the high gritstone hills in the west to lower land in the east, and thus creating an important backdrop to the many industrial towns and villages within and beyond the NCA.*
- *Predominantly pastoral farming, especially in western areas, with a shift to more arable land in the drier eastern areas.*
- *Close conjunction between rural landscapes and the rich industrial heritage of the urban areas, including settlements associated with the textile industry, with large mills and tall chimneys, and large factories and forges associated with the iron, steel and manufacturing industries.*
- *Extensive and dramatic views from higher land out over lower-lying land to the east, even from within urban areas.*
- *In places a dense network of roads and urban development, with many road, rail and canal routes crossing the NCA, and a high density of footpaths throughout.*

Local Landscape Character

Barnsley Borough Landscape Character Assessment, 2002

9.4.1.4 The Barnsley Landscape character assessment was produced in 2002 by Landuse Consultants and the Environmental Consultancy of Sheffield Metropolitan Borough Council. It was undertaken to inform the borough's reviews of the Unitary Development Plan.

9.4.1.5 The site is located within Landscape Character area C2 Lower Dearne Lowland River Floor the key characteristics of which are:

- *Flat valley floor of varying width and degrees of enclosure, framed by sloping valley sides outside the character area.*

- *Diverse range of land use including agriculture, recreation, residential, industry, commercial, communication, landscape renewal and nature conservation.*
- *Substantial areas of agricultural land both in arable and pastoral use, intermixed and surrounded by other land uses and linear features.*
- *Large areas without built development or without a dense covering of trees, giving a sense of openness in much of the character area.*
- *Small areas of scrub and trees scattered throughout the character area, often associated with reclaimed or abandoned land, dismantled railway lines, watercourses and newly landscaped areas.*
- *Disused and active linear transport/communication routes running along and across the valley floor including dismantled railways, pylons, the River Dearne and the newly constructed A6195 road.*
- *Immature, newly created landscapes in the form of open grass areas and young tree planting, associated with reclaimed industrial areas and the A6195.*
- *Localised clusters of new warehouse style buildings bringing large scale buildings into the relatively open landscape.*
- *Open water in the form of the River Dearne, streams, dikes, flashes and manmade lakes.*

Settlement Pattern, Townscape and Cultural Associations

9.4.1.6 The study area is characterised by the combination of agricultural and industrial land uses. The industry in the area comprises of former open cast workings and many modern industrial developments are located on the valley floor.

9.4.1.7 The valley floor of the River Dearne that characterises the study area is located approximately 100 metres to the west of the site.

9.4.1.8 The site is defined by its location between the A6195 Park Spring Road and the dismantled railway. There is an embankment adjoining the railway siding, which forms the western boundary of the site.

9.4.1.9 There are a number of settlements within the study area, there are some villages in close proximity to the site, these are; Little Houghton located approximately 1km to the south east, Middlecliffe located approximately 1.5km south east, Billingley, located approximately 1km further east. The hamlet of Edderthorpe is located approximately 0.7km to the south west.

9.4.1.10 The settlement pattern in the study area however, is dominated by larger towns such as Great Houghton located approximately 1.1km to the east, Grimethorpe located 1.5km to the north, Cudworth located 2km to the north and Darfield located 1km to the south.

9.4.1.11 There are a few sparsely scattered farms and properties within the study area, namely:

- Crook House Farm located approximately 0.8km to the west;
- Store Mill Farm located 1.5km to the north west;
- Tyers Hall Farm located 1.8km to the south west; and
- A housing development located on Doncaster Road, located 1.8km south west of the site.

9.4.1.12 The landscape within the study areas is defined by agriculture, industry or naturalised areas for nature conservation. The site itself if located on part of the former Houghton Main Colliery, there is an open cast working and other industrial development within the study area.

Landform and Drainage

9.4.1.13 The site itself is located between 25 metres and 35 metres AOD approximately

9.4.1.14 The study area is predominantly flat with minor undulations, ranging between 142m and 104m AOD. The site predominantly flat with slight undulation. The banking that flanks the dismantled railway forms the western boundary of the site, there are some undulations formed by spoil heaps.

9.4.1.15 The topography of the surrounding area is predominantly flat due to the nature of the valley floor. The topography of the study area is defined by the river, the ground rises to the west and to the east across the study area, with higher ground located to the east of Great Houghton at 80 metres AOD, approximately 2.7km from the site, an intervening hill, located to the east of Ardsley at 93 metres AOD approximately 2.2km west of the site.

Landcover, Vegetation and Land Use

9.4.1.16 The existing site is has been left to naturalise, typical roadside and railway side scrub vegetation has become established.

9.4.1.17 There are two tracks that cross the site, one along the northern and one along the southern boundary. Both connect the A6195 to the dismantled railway, neither of which are definitive rights of way. There is also a track located on the elevated railway siding.

9.4.1.18 The rest of the site is soft landscape, mostly naturalised grassed areas with areas of young to semi mature woodland and scrub. There is more formalised hedgerow planting that flanks the A6195 on the eastern boundary.

Landscape Receptors

9.4.1.19 To assess the potential impacts on the townscape resulting from the proposed development the main townscape features within and adjacent to the site have been identified and the most relevant landscape receptors are considered to be:

- Landform;
- Landcover; and
- The Landscape Character of the site and study area

9.4.2 Visual Baseline

Visual Envelope

9.4.2.1 The visual envelope of the site is shown on Figure 9.6. Features that restrict the visual envelope include:

- The large scale ASOS building adjacent to the eastern boundary of the site;
- Rising landform to the east of Great Houghton and intervening vegetation;
- Rising land to the west blocks some views from Ardsley towards the site, the roof of the industrial shed would be visible from some locations.
- Areas of built form, including Houghton Main, Grimethorpe, Darfield and Middlecliff.
- Areas of woodland:
  - To the west of the site intervening in views from Edderthorpe
  - Linear woodland flanking the River Dearne and the Dismantled Railway
  - To the north west of the site there is some significant areas of woodland following field boundaries that connects to the River Dearne vegetation.
  - To the south of Grimethorpe, although the topography rises up towards the southern extents of the residential areas of Grimethorpe views are generally blocked by the woodland.

9.4.2.2 The ASOS Fulfilment Centre is a focal element within the study area. The building has a total height of 18 metres to the building's apex. Therefore the proposed TRRC building elevation of 30 metres would be visible above the roof of the ASOS Fulfilment Centre for receptors to the east, particularly those located in Great Houghton and Little Houghton.

Visual Receptors

9.4.2.3 The principal groups of visual receptors identified within the study area are summarised as follows:

- Residential receptors, including towns, villages and isolated properties;
- Public rights of way, including: Footpaths; local roads; and major roads; and
- Recreational areas and visitor attractions (the Local Nature Reserve)
- Listed buildings

9.4.2.4 Due to the predominant industrial and commercial land uses surrounding the site, there is a low density of sensitive receptors.

Representative Viewpoints

9.4.2.5 A set of key viewpoints have been selected to represent the views experienced by surrounding receptors and these are shown on Figure 9.4. The viewpoints are as follows:

Table 1–Representative Viewpoints

No.	Name	Receptor Type	Distance & Direction from Site
1	Ings Lane Bridge	Public Rights of Way users, Residents	0.7km SE
2	Edderthorpe, Dearne Way PRoW Platform 1	Public Rights of Way users, Residents, Users of B Road	0.7km SW
3	Tyers Hall Farm/ Dearne Way	Residential properties with restricted views, place of work, Public Rights of Way users.	1.5km W
4	Ardsley	Public Rights of Way users, Residential properties with restricted views.	2.3km W
5	Park Spring Nature	Users of outdoor recreational facilities	0.6km NW

No.	Name	Receptor Type	Distance & Direction from Site
	Reserve		
6	Chapel Lane, Great Houghton	Residential properties with open views, Listed building- Church of St Michael, Public Rights of Way Users	1.2km W
7	Darfield	Residential properties with open views, Public Rights of Way users	1.5km S

9.5 Assessment of Effects

9.5.1 Construction Impacts

Landscape Impact during Construction

9.5.1.1 During construction, the significance of effects upon the townscape would be similar to those in Year 1 (opening year). Any changes to the landscape of the site made during the construction phase would be permanent, and would therefore be in evident in Year 1, following opening of the development.

9.5.1.2 Wider awareness of construction activity is likely to be limited to the visibility of the construction equipment, such as cranes, and the movement of construction vehicles. The construction works are only temporary and the landscape of the site and immediate surrounding area does include existing industrial land uses which do reduce the sensitivity of the landscape and as such landscape impacts during construction are considered to be neutral.

Visual Impact during Construction

9.5.1.3 The significance of visual effects during construction would also be limited by the factors outlined previously within 'Landscape from the same receptors which the Year 1 and Year 15 assessments have identified effects'. The predominant visual effect during construction is also likely to be associated with the visibility of construction equipment and the appearance of the partially constructed buildings. However, the immediate surrounding area does include existing industrial land use which does reduce the sensitivity of the landscape, all of which are visible features to receptors within the visual envelope. Visual impacts during construction are therefore considered to be slight adverse.

9.5.2 Landscape Impacts

9.5.2.1 The identification of key effects will be considered at Year 1 (Opening Year)

Landscape Features and Land Cover

9.5.2.2 The features and landcover on the site will change from a disused area of scrub to a predominantly hard surfaced area, including large scale built form, access roads and perimeter landscaping.

9.5.2.3 The proposed built form on site would be similar in height and form to the adjacent ASOS building, located approximately 85 metres to the east of the proposal site. Although some of the elevations would be higher, the footprint of the proposed development would be substantially smaller than the existing ASOS building.

9.5.2.4 The introduction of building within the site will therefore have a **moderate to slight adverse** impact at Year 1 Landscape elements that would be incorporated in to the scheme would reintroduce naturalised features, therefore the significance of impact upon landscape features would improve from moderate adverse to **slight adverse** as planting matures.

Landform

9.5.2.5 The existing landform is relatively flat. The undulation on the site are predominantly man made, there are a number of spoil heap, a product of the site's former use a colliery. The bund that forms the site's western boundary was formed as a railway siding.

9.5.2.6 The site will be levelled to allow for the development, however the bund flanking the dismantled railway would be retained.

9.5.2.7 There will therefore be a neutral impact on landform due to the predominantly man- made nature of the site's landform.

Landscape Character

9.5.2.8 The surrounding landscape is influenced, in part, by its former and more recent industrial uses. The scale of the development and the grain of built form is therefore in keeping with the character of the surrounding landscape.

9.5.2.9 The proposals include some areas of landscaping which will improve the character of the site. It is advised that planting of trees is incorporated wherever possible.

9.5.2.10 The change of land use on site from disused naturalised land to the proposed facility, change the character of the site itself. However within the context of the study area, the proposal would have a **slight adverse** impact on the landscape character of the site and immediate surrounding area due to the low increase in influence that 'industrial' development has on this area.

Visual Impact

9.5.2.11 The proposed development would be more prominent within views than the existing site. The tallest element of the development would be the stack which would be approximately 45 metres in height. The other buildings associated with the development would be between 12 metres and 30 metres in height.

9.5.2.12 Views from the majority of receptor points within the visual envelope include other existing visual detractors within their view. The ASOS Fulfilment Centre, the open cast mining site, and the large scale commercial units that are located along the A6195 are all detracting features within close proximity to the site which would be viewed in combination with the proposed development from a large number of local receptors within the study area. However, whilst the proposed development has a much smaller footprint than the adjacent ASOS Fulfilment Centre it would be taller and would break the horizon within views from some receptors. These include residential receptors located in Edderthorpe and residences on Doncaster Road in Darfield who currently experience views towards the site and residences located on and adjacent to Crook House Farm.

9.5.2.13 The residential receptors which would have the most visual impact created by the proposed development would be:

- Crook House Farm has views towards the site, some views would be blocked by intervening features, such as built form and vegetation. The woodland that borders the River Dearne would block most views of the development. The stack and higher elevations within the development would be intermittently visible.
- Residences on the western extents of Great Houghton (demonstrated by representative viewpoint 6, see **Figure 9.5.3**) who currently experience views of the ASOS fulfilment centre. Views of the proposed development from receptors on the south western edge of Great Houghton would be partially obscured by the rise in landform approximately 0.7km to the east of the proposal site.
- Residences within the northerly extents of Darfield located along the A635 (demonstrated by representative viewpoint 6, see **Figure 9.5.3.**) Views would intermittently be filtered by roadside vegetation on the northern side of the A635, there will be some views available towards the site from ground floor windows. The ASOS Fulfilment Centre is prominent within the existing view from Darfield.
- Residences within Edderthorpe would experience views of the proposed facility (demonstrated by representative viewpoint 2, see **Figure 9.5.1**). Some views would be filtered by the area of woodland to the west of the proposal site but from some windows of residences the majority of the proposed development and the stack would be visible.
- Storrs Mill Farm would experience views of the top of the stack, views are otherwise well mitigated by the significant areas of woodland bordering the River.
- Middlewood Park may experience intermittent views of the top of the stack. Views from the hall itself towards the site are mostly obscured by mature boundary vegetation.

9.5.2.14 The closest and potentially most prominent views of the site would be for road users of the A6195 as the road borders the eastern side of the site. These receptors would see the proposed development in the context of the ASOS Fulfilment Centre that occupies land on the opposite side of the road. Other large scale commercial buildings along the A6195 are also detractors within the view due to the sequential nature of the receptor as they move along the road. Therefore the magnitude of change is reduced.

9.5.2.15 There will be close range views of the development for workers within the distribution centre, adjacent to the site. The view is currently of the proposal site, the roundabout, the mine gas utilisation scheme and the surrounding agricultural land. Mitigation measures are being introduced in the form of landscaped areas bordering the road and the roundabout. The visual impact of lower elements within the proposed development would be lessened. The sensitivity of the receptors is low, as they are only located here during the day and their primary activities are located within the building.

9.6 Mitigation

9.6.1 Incorporated Enhancement and Mitigation

9.6.1.1 Mitigation measures include:

- The retention of boundary hedgerows, worthy of retention, wherever possible;
- The retention of hedgerow trees, worthy of retention, wherever possible;
- Maintain, wherever possible, the existing topography of the site;
- Woodland, tree, shrub and grassland planting to the 'rural' northern and western boundaries, mirroring the existing linear planting along the former railway lines associated with the former colliery workings;
- Ornamental tree and shrub planting along the 'urban' southern and eastern boundaries fronting Park Spring Road;
- Provision of a pond/wetland area providing landscape and ecological betterment for the site and the adjacent Dearne Valley Country Park; and
- The careful selection of building materials and colour palette ensures that the facility would be sympathetic to its surroundings.

9.6.1.2 The Landscape Masterplan (**Figure 9.7**) outlines the landscape proposals of the site. Significant areas of woodland screen planting are proposed to the north of the AD facility and along the railway siding on the northern western boundary. Therefore impact upon views of the facility from receptors in the north and the north west would be reduced.

9.6.1.3 There would be additional tree planting to the east of the AD Facility, bordering the A6195 and the roundabout. There would also be an area of ornamental and shrub planting located next to the site's entrance, accessible from the Houghton Main Colliery roundabout. These areas of ornamental planting would facilitate in lessening the impact of the proposed development upon receptors, particularly road users, and workers in the distribution centre adjacent to the proposal site.

9.6.1.4 The nature of these close up views from the road mean that the development would form a substantial element in any view and could not be screened from view. To this end the mitigation proposed have been designed to celebrate the development through the selection of building materials and colour palette, which ensures that the facility is sympathetic to its surroundings.

9.6.1.5 The landscape mitigation on this boundary, in contrast to the northern and western boundaries, would be more human scale, with the use of low level shrubs and groundcover and ornamental trees. There is also the potential to include some form of art installation, be it sculptural or informative, which would celebrate the sites current and former uses.

9.6.1.6 There are currently areas of vegetation on the boundary of the site that would be retained as the vegetation currently mitigates views of the site, and would provide significant mitigation opportunities for the proposed development. These areas of existing tree cover would be supplemented with additional tree planting where possible, particularly along the western boundary.

9.6.1.7 Views from sensitive residential receptors from the vicinity of Doncaster Road have been fully considered, from which it is accepted that the facility would be visible above the surrounding landscape.

9.6.1.8 Whilst it is accepted that a facility of this nature cannot be screened by conventional landscape mitigation, the location of the facility adjacent to an existing, and much larger structure [ASOS], as well as the careful selection of building materials and colour palette have ensured that the facility would, as far as possible, be sympathetic to its surroundings. Furthermore, the retention, improvement and replacement of landscape boundary treatments would provide screening of low level activities [such as vehicle movements and lights etc.] as well as softening the development with the introduction of a landscape framework.

9.6.1.9 Other mitigation measures include:

9.6.1.10 The use of sympathetic materials such as the use of non-reflective materials with low lighting incorporated. The materials used within the design of the building should attempt to camouflage the buildings into the surrounding landscape to reduce the visual impact of the built form.

9.6.1.11 In the Landscape Masterplan CRM.066.001.D.017 there is detail of significant tree planting and landscape works. There would be planting of vegetation on the northern boundary of the site bordering the dismantled railway. The hedgerow to the west of the site would be supplemented with additional screen planting. There will be additional tree planting to the east of the proposed process centre within the AD Facility, bordering the A6195 and the roundabout. There would also be an area of ornamental and shrub planting bordering site's entrance accessed from the roundabout. These areas of planting would facilitate in lessening the impact of the proposed development upon receptors, particularly road users, and workers in the distribution centres adjacent to the proposal site.

9.7 Residual and Cumulative Impact

9.7.1 Residual landscape and visual impact will be considered fifteen years after opening (Design Year) following the establishment of the proposed landscape mitigation.

Residual Landscape Impact

9.7.2 The landscape impact is unlikely to change greatly after fifteen years. The areas of tree planting will mature and will assist in integrating the buildings into the landscape. The landscape mitigation proposals are primarily intended to screen the lower level activities on the site, such as traffic movements, as well as integrating the proposals in to the landscape.

9.7.3 In respect to landform the significance of effect in the opening year will remain as **neutral** as per the opening year.

9.7.4 By the design year [Year 15] the proposed mitigation planting will have matured sufficiently to have replaced any lost trees and shrubs as well as enhancing the appearance of the development and mitigating

9.7.5 The landscape/ townscape of the site is considered to be fairly robust given its previous industrial usage and the surrounding large scale industrial and commercial built form and as such it is capable of accepting most forms of development.

9.7.6 Overall the landscape impact at Year 15 is considered to be **slight- moderate adverse.**

Residual Visual Impact

9.7.7 In consideration of the proposed planting works, the visual impact would lessen as the area of tree planting matures. The landscape mitigation would screen the lower level activities and features within the facility and also lighting at night; however, views of the higher elevations would remain.

9.7.8 Whilst the proposed development would be visible to a number of receptors within the study area there are numerous visual detractors within the landscape that would be viewed in combination with the proposed development.

9.7.9 The most sensitive receptors in close proximity to the site would continue to experience residual visual impacts.

9.7.10 Once mitigation planting [Year 15] has matured the visual effects on the most sensitive receptors in close proximity to the site would be reduced such that the significance of effects are considered to be **moderate- slight adverse.**

9.8 Summary and Conclusion

9.8.1 The development would not result in any significant landscape or visual adverse effects.

9.8.2 The application site is situated within a landscape characterised by former, and continued industrial land uses. Therefore the landscape is reasonably robust in nature and has a low sensitivity to development, although the proposed buildings would be visible, it is not out of character with its setting.

9.8.3 The site itself is brownfield and has been utilised for industrial operations in the past. Therefore the change of use is not incongruous with the history of the proposal site.

9.8.4 The inclusion of landscape elements would be beneficial to the site itself and the study area. The landscape will also facilitate in the mitigation of some lower level activity and features within the facility, particularly in the summer months.

9.8.5 It is unlikely that any residential receptors would be significantly affected by the proposed development, and where there are oblique or partial views of the development these would be seen as in combination with other detracting features within the view, predominantly the ASOS building.

9.8.6 Overall, the development is expected to have a **slight adverse** landscape impact and **slight – moderate adverse** visual impact.

9.9 References and Glossary

References

The European EIA Directive (Directive 85/337/EEC as amended by Directive 97/11/EC and Article 3 of Directive 2003/35/EC);

Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 (SI 1999 No 293) as amended;

Guidelines for Landscape and Visual Impact Assessment, 3rd Edition (2013) Landscape Institute and the Institute for Environmental Management and Assessment;

National Character Area Profiles (2012) Natural England

Guidelines for Environmental Impact Assessment (2004) Institute for Environmental Management and Assessment;

Topic Paper 6: Techniques and Criteria for Judging Capacity and Sensitivity (The Countryside Agency and SNH, 2004);

Landscape Institute Advice Note 01/04 as Amended (August 2008);

Ordnance Survey Explorer Map; 1:2500, Birmingham 220

The Google Earth website at www.earth.google.com;

The Multi-Agency Geographical Information for the Countryside website at www.magic.gov.uk;

National Planning Policy Framework (2012) Department for Communities and Local Government

Planning Policy Statement 10 (PPS10): Planning for Sustainable Waste Management, DCLG (March 2011);

Barnsley Local Development Framework Core Strategy, Barnsley Council, [Adopted Sept 2011]

Yorkshire and Humber Regional Spatial Strategy [2008]

Barnsley, Doncaster and Rotherham Joint Waste DPD [2012]

APPENDIX 9.1: LANDSCAPE AND VISUAL IMPACT ASSESSMENT METHODOLOGY

2.1.2 Introduction

The Landscape and Visual Impact Assessment (LVIA) will consider the potential effects of the development upon:

- Individual landscape/townscape features and elements;
- Landscape/Townscape character and quality (condition); and
- Visual amenity and the people who view the landscape.

2.1.3 Distinction between Landscape and Visual Impacts

Landscape and visual effects are two distinct but related areas, which will be assessed separately in accordance with the approach outlined below. Landscape and visual impacts do not necessarily coincide and can be beneficial or adverse. A clear distinction will be drawn between landscape and visual impacts as follows:

- Landscape impacts relate to the effects of the proposal on the physical and other characteristics of the landscape and its resulting character and quality; and
- Visual impacts relate to the effects on views experienced by visual receptors (e.g. residents, footpath users, tourist's etc) and on the visual amenity experienced by those people.

2.1.4 Guidance

The LVIA of the proposed scheme will be undertaken by a Landscape Architect with experience of similar types of development. The assessment will be undertaken in accordance with best practice outlined in published guidance:

- Guidelines for Landscape and Visual Impact Assessment, 3rd Edition (2013) Landscape Institute and the Institute for Environmental Management and Assessment;
- Landscape Character Assessment Guidance for England and Scotland (2002) The Countryside Agency and Scottish Natural Heritage; and
- Guidelines for Environmental Impact Assessment (2004) Institute for Environmental Management and Assessment.

2.1.5 LVIA Methodology

The LVIA will be undertaken in the following stages:

- Baseline data collection via desk-top, consultation and fieldwork;

- Description of the baseline landscape character and visual amenity of the site and surrounding area which identify the relevant landscape and visual receptors (including key viewpoints) and determine their sensitivity to change;

- Description of the magnitude of change in the landscape and visual amenity as a consequence of the proposal;

- Description of the potential landscape and visual impacts arising from the proposal; and

- Development of strategic mitigation proposals to assist in reducing adverse landscape and visual effects or provide compensation where unavoidable, and where possible enhance and safeguard beneficial effects.

Baseline information regarding landscape features and sensitive visual receptors, and the likely change in the landscape character and visual amenity of the site and its surroundings, will be used to identify potential impacts and inform the final scheme as appropriate.

Strategic mitigation measures will be developed in tandem with the proposal to minimise adverse impacts as part of an iterative design process. Options for screening various components of the scheme will be investigated and adopted as mitigation measures where appropriate.

Criteria thresholds for assessing the degree of change as a result of the scheme will be established and the final layout of the scheme will be reviewed to ascertain the magnitude of change in the landscape and in views. Visual impact on historic features of interest may also need to be assessed.

2.1.6 Sensitivity of Receptors, Magnitude of Change and Significance of Effects

The significance of effects of the proposal on both the landscape and visual receptors within the study area are ascertained by cross-referencing the sensitivity of the baseline landscape or visual receptor and the magnitude of change as a result of the development.

The sensitivity of landscape and visual receptors is judged as high, medium or low. The magnitude of change is also judged to be negligible, low, medium or high. Significance of effects is expressed as either slight, moderate or substantial, which may be either beneficial or adverse, or neutral.

2.1.7 Study Area

For the purposes of this LVIA, a 2.5km study area from the centre of the site has been used as a boundary to assess the effects of the proposals. 2.5km has been considered in acknowledgement of the scale of the proposals, the undulating nature of the local topography and the extent of vegetation cover within the immediate environs. This is not to say that there will not be views of the site from outside this study area; however, it is considered that more distant views are likely to be limited and in any event the development would only be seen as a small element of a wider panorama.

2.1.8 Visual Envelope

The visual envelope of a scheme defines the broad area from within which it may be possible to see the whole or part of the proposed development, and helps to establish the potential for sensitive

visual receptors. The site is not considered to be visible outside this area or will be very difficult to perceive, except from occasional tall buildings or higher elevations. There will however still be pockets within the visual envelope from which there are no views of the study area, due to the local screening effects of vegetation and topography or other features such as buildings. Landscape features, which form visual barriers and restrict views towards parts of the study area, such as landform, settlements and woodland, can then be evaluated and significant barriers identified to refine the baseline visibility of the proposal.

2.1.9 Representative Viewpoints

Within the extent of the visual envelope, it would not be practical to illustrate the visual impact on every individual visual receptor affected by a scheme. Therefore, representative viewpoints will be used to assess the impacts on the different range of views towards the site. Viewpoints will be illustrated photographically using a 56mm lens digital SLR camera and the site location and significant features will be identified together with landmarks and features in the surrounding area. All photography carried out as part of this assessment is in accordance with LI Advice Note 01/11 (March 2011).

A provisional list of representative viewpoints and a plan demonstrating their locations were provided to Andrew Burton, the Senior Planning Officer at BMBC (e-mail dated 17.02.2014). The correspondence with Mr Burton included a request for an opinion on the suitability of the viewpoints. Mr Burton replied stating that the viewpoints were appropriate, however he asked that we included a viewpoint in the northern extents of Darfield as this is anticipated to be a sensitive receptor.

2.1.10 Temporal Scope

2013 has been taken as the baseline year for defining the existing landscape. The relevant impacts of the development will be assessed at the following times:

- During construction;
- Year 1:- one year after opening (Opening Year) to assess the impacts once the major construction is complete; and
- Year 15:- fifteen years after opening (Design Year) to allow for any mitigation planting and other landscape schemes to mature to give the intended effect.

2.1.11 Desk Studies:

The baseline landscape and visual assessment comprised a desktop study of the following data sources:

- The Google Earth website at www.earth.google.com;
- The Multi-Agency Geographical Information for the Countryside website at www.magic.gov.uk;

- National Planning Policy Framework (NPPF); Department for Communities and Local Government (2012);
- Ordnance Survey Explorer Map; 1:2500, Sheffield and Barnsley 278
- Barnsley Unitary Development Plan [2000], Barnsley Metropolitan Borough Council
- The Regional Spatial Strategy for Yorkshire and The Humber [2008]
- National Character Area Profile 38: Nottinghamshire, Derbyshire and Yorkshire Coalfield [2013], Natural England

2.1.12 Field Studies:

The site was visited on December 19th 2013 and March 3rd 2014 to obtain the following data:

- Photographs from proposed Key Viewpoints:
- A corroboration of the findings of the desktop review; and
- To obtain additional information on landscape features, views and localised screening barriers.

All site surveys were undertaken during periods of clement weather from public highways, public rights of way (PRoW) and publically accessible areas, including areas of public open space.

Landscape Assessment Methodology

Landscape Sensitivity

A judgement regarding the sensitivity of the landscape will be made based on the following general criteria:

Table 1: Landscape Sensitivity Criteria

Sensitivity	Criteria
Low	A landscape of few positive characteristics, poor condition or one that is not particularly valued for its scenic quality. The character of the landscape, existing land use, pattern and scale are tolerant of change and offer considerable opportunities for successful mitigation and landscape enhancement. The landscape may be a poor example of a locally abundant landscape type.

Sensitivity	Criteria
Medium	A landscape that exhibits some distinctive characteristics but may have been slightly degraded or one that is moderately valued despite its alteration. The character of the landscape, land use, pattern and scale offers some opportunities for successful mitigation and landscape enhancement. The landscape may be a poor example of a locally scarce landscape type or a good example of a locally abundant landscape type. Locally designated landscapes.
High	A landscape of particularly distinctive characteristics, maintained in a good condition or one that is particularly valued for its scenic quality. The character of the landscape, existing land use, landscape features, pattern and scale are intolerant of change and offer few opportunities for successful mitigation or landscape enhancement. The landscape may be a good example of a locally scarce landscape type. Nationally designated landscapes.

Magnitude of Landscape Change

A judgement regarding the magnitude of change to landscape features and character will be made based on the following general criteria:

Table 2: Magnitude of landscape Change Criteria

Magnitude of Change	Criteria
High	Total loss of or severe damage to key characteristics, features or elements of the landscape Introduction of highly unnatural or unattractive features into the landscape which do not fit well with the existing character Major improvement or removal of several notable existing features or characteristics

Magnitude of Change	Criteria
	that significantly detract from the existing character Introduction of major new features or elements into the landscape which significantly improve the existing character
Medium	Partial loss of or damage to key characteristics, features or elements of the landscape Introduction of some unnatural features into the landscape but which may be accommodated without major detriment to the existing character. Moderate improvement or removal of some existing features or characteristics that currently detract from the existing character Introduction of some new features or elements into the landscape which moderately improve the existing character
Low	Minor loss of or alteration to one or more key characteristics, feature or elements of the landscape Introduction of minor unnatural features into the landscape which do not detract significantly from the existing character Minor improvement or removal of a small existing feature or characteristic that slightly detracts from the existing character Introduction of minor new features or elements into the landscape which slightly improve the existing character
Negligible	No notable loss or alteration of any key characteristics, features or elements of the landscape No notable new features introduced into the landscape

Visual Assessment Methodology

Visual Sensitivity

The sensitivity of visual receptors will depend on a number of factors including: the location and context of the viewpoint, the expectations and occupation of the visual receptor, the number of receptors being represented by the viewpoint and distance from the scheme. The extent of visual

intrusion by any existing development may also affect the sensitivity of visual receptors in this vicinity. A judgement will be made regarding the sensitivity of baseline receptor views based on a combination of these factors. The sensitivity of the following visual receptors is given as a guide only and other factors may also affect their sensitivity:

Table 3: Visual Sensitivity Criteria

Sensitivity	Criteria
Low	Users of industrial sites, offices and commercial properties. Users of A and B roads (except on key tourist trails). Users of active recreational and leisure facilities where the focus is on the activity and not the landscape. Community buildings in an urban location.
Medium	Residential properties with restricted views, distant and panoramic views, oblique views, limited/partially screened views towards the scheme or surrounded by urban development. Community buildings with a rural view. Users of Public Rights of Way and local 'C' class roads, unclassified lanes, tracks used by non-motorised users and users of outdoor recreational facilities and public open space with restricted views towards the scheme, distant views or with views of existing urban development. Users of local and regional tourist routes ('A' and 'B' class roads).
High	Residential properties with predominantly open rural views from the curtilage, ground floor and upper floors directly towards the scheme. Users of Public Rights of Way and local 'C' class roads, unclassified lanes, tracks used by non-motorised users which traverse open countryside with predominantly open views towards the scheme. Users of recognised vistas and designated viewpoints. Users of outdoor recreational facilities and public open space with open views towards the scheme at close proximity.

Magnitude of Visual Change

A judgement regarding the magnitude of change to visual amenity and Key Views will be made based on the following general criteria:

Table 4: Magnitude of Visual Change Criteria

Magnitude of Change	Criteria
High	A significant deterioration or improvement in the existing view
Medium	A noticeable deterioration or improvement in the existing view
Low	A barely perceptible deterioration or improvement in the existing view
Negligible	No discernible deterioration or improvement in the existing view

Evaluation of Landscape and Visual Impact Significance

The evaluation of residual impact significance will take into account all agreed landscape and visual mitigation measures. The significance of impacts will be graded by relating the sensitivity of the baseline landscape or view to the magnitude of change as a result of the proposed development. The following matrix outlines approximately how the significance of adverse and beneficial impacts will be determined. The criteria thresholds are for approximate guidance only, the assessment of landscape and visual impact significance will rely upon clearly explained professional judgement.

Table 5: Significance of Landscape/Visual Impacts

	Magnitude of Change in the Landscape / View			
Sensitivity of Landscape / View	**High**	**Medium**	**Low**	**Negligible**
High	Substantial	Substantial/ Moderate	Moderate/Slight	Neutral
Medium	Substantial/ Moderate	Moderate	Slight	Neutral
Low	Moderate/ Slight	Slight	Slight	Neutral

APPENDIX 9.2 – VISUAL ASSESSMENT TABLE

Landscape Receptors

Landscape Receptor	Nature of Impact	Receptor Sensitivity	Magnitude of change	Impact Significance
Landscape Features				
Landform	The existing landform of the site is relatively flat, with man made undulations formed by spoil heaps. The bund that flanks the dismantled railway is to be retained. The site will be levelled to allow for the development, however the undulations on site are formed by spoil heaps, and therefore less sensitive to change.	**Low**	**Low**	**Slight adverse-neutral adverse**
Landcover	There are areas of scrub vegetation within the site boundary. The site is in poor condition. The proposals will introduce new areas of tree planting into the site and the surrounding landscape. The majority of the site would change from brownfield to industrial usage.	**Low**	**Medium**	**Slight adverse**
Landscape Character	The character of the site and immediate surrounding area is heavily influenced by industrial operations. Therefore the change of use from a brownfield site to industrial will not significantly affect the landscape character. The capacity of the landscape to accommodate development is high due to the sites proximity to existing detractors. The character of the proposals are similar to the ASOS Fulfilment Centre which is highly visible within the surrounding landscape. The addition of landscaping within the proposals will improve the character of the site and of the surrounding landscape.	**Low**	**Medium**	**Slight adverse**

Visual Receptors

Ref	Receptor	Existing Description of View / Type of Effect	Receptor Sensitivity	Magnitude of change	Significance of Impact
Key Viewpoints					
V1	Ings Lane Bridge, Little Houghton 0.7km to SE of the site	Existing: The view is from the Ings Lane Road Bridge which is elevated above the A6195 Park Spring Road. This viewpoint represents public right of way users and road users. The A road is classed as having a low sensitivity due to the speed of the receptor. The view of the site is mid- range. The site itself is hidden from view by vegetation bordering the road. Although there is a significant amount of woodland planting within this view, the predominant features are the large scale ASOS Fulfilment Centre, road related infrastructure and the electricity cables. The telegraph poles form a vertical element within the view. The hill to the west of Great Houghton is visible, approximately 650 metres to the north east, filtered by road side tree cover. Receptors located at road level would not have views of the surrounding landscape.	**Medium**		
		Construction: Views of the top of plant equipment and moving vehicles. Works are temporary and visible in the context of surrounding industrial landscape.		**Low**	**Slight adverse**
		Year 1: Mid range view of the new development from close to the site. Existing landscape features will screen views of low- mid features and activities within the facility. It is advised that appropriate materials are used for the building's façade which will enable the development to blend into its surroundings from this location. The higher elevations within the development would block longer distance view. The stack and plume would be visible.		**Low**	**Slight adverse**
		Year 15: Mid range view of the new development from close to the site. Existing tree planting would have matured and would facilitate in blocking some views of low – mid height activity and features within the development. During summer months views would be mitigated further. Tree planting proposed adjoining the road would further mitigate views of the lower mid height features and activities within the facility. The mitigation would be more beneficial for receptors located at the level of the road.		**Low**	**Slight adverse**

Ref	Receptor	Existing Description of View / Type of Effect	Receptor Sensitivity	Magnitude of change	Significance of Impact
V2	Edderthorpe/ Dearne Way 50m S	Existing: This is the view that would be experienced for residents within Edderthorpe and Public Rights of Way users. There are some residents with open views of the site who have windows orientated towards the proposal site. Some residences only have restricted views towards the site due to intervening features within the foreground such as built form or garden vegetation. The views is of the valley floor consisting of the River Dearne in the mid ground with the ASOS Fulfilment Centre behind. The eastern side of the valley forms the horizon of the view and the woodland to the west of Great Houghton, to the north longer distance views are afforded in the direction of Grimethorpe. The land use within the view is predominantly pasture land with scattered woodland being a prominent feature. The focus within the view is the large scale ASOS Fulfilment Centre that forms a predominant detracting feature within the views. The ASOS Fulfilment Centre forms a significant deterioration within the view from this location. The site itself is visible to the north west of the ASOS building, partially obstructed from views by the areas of woodland to the west of the site and scrub vegetation that intervenes within the view.	**High**		
		Construction: Views of the top of plant equipment and moving vehicles. Works are temporary and visible in the context of surrounding industrial landscape		**Low**	**Slight adverse**
		Year 1: Mid range view of the new development from close to the site. The existing scrub and woodland intervening within the view would mitigate some of the lower levels within the development, particularly during summer months. The majority of the proposed development would however be visible from this location. Some elevation within the proposed development would be higher than the ASOS Fulfilment Centre, however its footprint is significantly smaller and would therefore be less apparent within views. It is advised that appropriate materials are used for the building's façade which will enable the development to blend into its surroundings from this location. The proposed development would appear as an extension of the existing ASOS Fulfilment Centre from this location.		**Low**	**Moderate adverse**
		Year 15: Mid range view of the new development from close to the site. The existing mitigation blocks lower elements and activities within the development. The increase in tree cover proposed on the south western boundary would provide further mitigation of lower levels within the development. It is advised that appropriate materials are used for the building's façade which will enable the development to blend into its surroundings from this location.		**Low**	**Moderate adverse**
V3	Tyers Hall Farm 1.5km W of the site	Existing: The view is from the Dearne Way as it runs alongside Tyers Hall Farm and other public rights of way. The viewpoint represent views from the farm and for public rights of way users. The views is of undulating agricultural land, mid- long distance views are mostly obstructed field boundary vegetation. The electricity pylons that run from north to south through the study area are visible in the mid ground of the view and the ASOS Fulfilment Centre is barely visible through the field boundary vegetation.	**Medium**		
		Construction: Potential view of the top of plant equipment and moving vehicles. Works are temporary and visible in the context of a largely agricultural landscape.		**Low-Negligible**	**Slight adverse - neutral**

Ref	Receptor	Existing Description of View / Type of Effect	Receptor Sensitivity	Magnitude of change	Significance of Impact
		Year 1: Mid range view of the new development, filtered by field boundary vegetation. Existing elements within views would still limit views of the development however the stack may be visible intermittently. In summer months the existing tree cover would offer a higher level of mitigation. It is advised that appropriate materials are used for the building's façade which will enable the development to blend into its surroundings from this location.		**Low-Negligible**	**Slight adverse-neutral**
		Year 1: Mid range view of the new development, filtered by field boundary vegetation. Existing elements within views would still limit views of the development however the stack may be visible intermittently. In summer months the existing tree cover would offer a higher level of mitigation. It is advised that appropriate materials are used for the building's façade which will enable the development to blend into its surroundings from this location.		**Low-Negligible**	**Slight adverse-neutral**
V4	Ardsley 2.3km W of the site	Existing: The view is from a public right of way to the east of Ardsley. It is to represent users of the PRoW and also to represent views that would be available from residents within Ardsley. The viewpoint is located approximately 80 metres above the elevation of the proposal site. Therefore the site is not visible as it is blocked by intervening vegetation and landform. The roofs of agricultural buildings within Tyers Hall Farm are visible filtered by vegetation. However views of the ASOS Fulfilment Centrea adjacent to the site are not afforded.	**Medium**		
		Construction: Potential view of the top of plant equipment and moving vehicles. Works are temporary and visible in the context of surrounding industrial land use.		**Low-negligible**	**Slight adverse-neutral**
		Year 1: Due to the elevation of the viewpoint, views of the proposed development would not be afforded. Residences within Ardsley would not experience any changes in view, as views are obstructed by vegetation and landform. Occasional views may be possible of the higher elevations of the stack.		**Low-negligible**	**Slight adverse-neutral**
		Year 15: Occasional views may be possible of the higher elevations of the stack.		**Low-negligible**	**Slight adverse-neutral**
V5	Park Spring Nature Reserve 0.6km NW of the site	Existing: This viewpoint represents visitors to the nature reserve and views from the north west towards the site. The site itself is visible from this location, directly in front of the ASOS Fulfilment Centre. Some views towards the site are partially obstructed by vegetation within and on the periphery of the nature reserve. However the view is predominantly open and views of the site are afforded from most locations in the reserve. The existing ASOS Fulfilment Centre forms a predominant detracting feature within the view , the horizon of the view in the direction of the proposal site is dominated by the large scale ASOS Fulfilment Centre.	**Medium**		
		Construction: Lower level activity of plant equipment and moving vehicles visible. Works are temporary and visible in the context of surrounding industrial land use.		**Low**	**Slight adverse**

Ref	Receptor	Existing Description of View / Type of Effect	Receptor Sensitivity	Magnitude of change	Significance of Impact
		Year 1: The proposed development would be a new element within the view, it would be viewed in combination with the existing ASOS Fulfilment Centre, which forms an existing detracting feature within the views from the nature reserve. All of the development would be visible, the proposed tree planting would not be seen from this location. Although some of the elevation within the development would be higher than the existing ASOS Fulfilment Centre, the footprint would be significantly smaller and therefore the development would appear as a smaller feature within the landscape.		**Low**	**Slight adverse**
		Year 15: Proposed screen planting on the northern boundary of the site bordering the dismantled railway would have matured and would mitigate lower level views of feature and activities within the proposed development.		**Low**	**Slight adverse**
V6	Chapel Lane, Great Houghton 1.3km W of the site	Existing: The viewpoint represents residents within Great Houghton, this viewpoint represents the worst case scenario as only a few properties on the western edge of Great Houghton would have views towards the proposal site. The foreground of the view is mostly taken up by vertical urban elements, such as signage and fencing. The viewpoint is elevated on the eastern valley side, the view looks west to the valley floor. Long distance views extend to the west to Barnsley over 7 kilometres away. The ASOS Fulfilment Centre is located in the mid ground of the view, it is predominantly blocked from view by a hill directly to the east of the proposal site. The peak of this hill is approximately 75m AOD, it is defined by the woodland that covers it.	**Medium - High**		
		Construction: Lower level activity of plant equipment and moving vehicles visible. Works are temporary and visible in the context of surrounding industrial land use.		**Low**	**Slight adverse**
		Year 1: The proposed facility would be visible beyond the ASOS Fulfilment Centre, some higher elevations would be prominent, and the stack would be visible. The proposed development would be partially blocked from view by the rise in landform and areas of woodland, the development would be views as an extension of the ASOS Fulfilment Centre from this location. The development would be in the mid ground of the view, the distance from this location decreases the impact it will have upon the receptor. If appropriate materials used within the building's façade this could facilitate in blending the building into the landscape from this location.		**Low**	**Moderate-Slight adverse**
		Year 15: The proposed tree planting, located along Park Spring Road would have matured in a fifteen year time period. The trees would mitigate some of the visual effects of the low- mid levels within the proposed development.		**Low**	**Moderate-Slight adverse**

Ref	Receptor	Existing Description of View / Type of Effect	Receptor Sensitivity	Magnitude of change	Significance of Impact
7	Darfield A635 1.6km S	Existing: This viewpoint is to represent views from residences in the northern extents of Darfield and for users of the Dearne Way PRoW. The foreground of the views from windows of residences on the southern side of the A635 is taken up by street scene vertical elements such as road signs and lampposts. This viewpoint demonstrates a worst case scenario. From some location along the A635 road side vegetation bordering the northern side of the road blocks views to the north. However from this location there are open views across agricultural land. The mid ground of the view consists of agricultural fields divide by mature field boundary vegetation, the River Dearne river side vegetation is intermittently visible as it meanders northwards through the view. Mid- long distance views of the eastern side of the valley and the woodland to the east of Grimethorpe form the horizon of the view, approximately 3.5 kilometres from the receptor. The ASOS Fulfilment Centre forms a noticeable deterioration in the view from this location.	**High**		
		Construction: Mid- High level activity of plant equipment and moving vehicles visible. Works are temporary and visible in the context of surrounding industrial land use.		**Low**	**Slight adverse**
		Year 1: The development would be viewed as an extension of the existing large scale ASOS Fulfilment Centre. This buildings forms a detractor in the view. Although some of the elevations within the proposed development would be higher than those in the ASOS Fulfilment Centre, the footprint is far smaller. Also the materials to be used in the building façades would be darker in colour and would facilitate the development to blend in to the landscape. Therefore the proposed development would be less apparent within views. Some of the lower elevations of the buildings and activities would be obstructed from view by vegetation and landform.		**Low**	**Moderate adverse**
		Year 15: The screen planting vegetation that is proposed on the western boundary of the site would have mature by year fifteen and would facilitate in mitigating views of lower elevations and activities within the development.		**Low**	**Moderate adverse**
Individual Residential Properties					
1	Tyers Hall Farm 10m W of the site	Existing: The views is of undulating agricultural land, mid- long distance views are mostly obstructed field boundary vegetation. The electricity pylons that run from north to south through the study area are visible in the mid ground of the view and the ASOS Fulfilment Centre is barely visible through the field boundary vegetation.	**Medium**		
		Construction: Potential view of the top of plant equipment and moving vehicles. Works are temporary and visible in the context of a largely agricultural landscape.		**Low-Negligible**	**Slight adverse - neutral**
		Year 1: Mid range view of the new development, filtered by field boundary vegetation. Existing elements within views would still limit views of the development however the stack may be visible intermittently. In summer months the existing tree cover would offer a higher level of mitigation. It is advised that appropriate materials are used for the building's façade which will enable the development to blend into its surroundings from this location.		**Low-Negligible**	**Slight adverse-neutral**

Ref	Receptor	Existing Description of View / Type of Effect	Receptor Sensitivity	Magnitude of change	Significance of Impact
		Year 1: Mid range view of the new development, filtered by field boundary vegetation. Existing elements within views would still limit views of the development however the stack may be visible intermittently. In summer months the existing tree cover would offer a higher level of mitigation. It is advised that appropriate materials are used for the building's façade which will enable the development to blend into its surroundings from this location.		**Low-Negligible**	**Slight adverse-neutral**
2	Crook House Farm 0.26km W of the site	Existing: The farm house and two separate dwelling have similar views towards the proposal site. Some views are currently obstructed by gardens and roadside vegetation, however where views are afforded the view is of open agricultural fields. The woodland to the west of the site is visible, however due to the properties occupying a higher elevation within the valley, the whole of the ASOS building, located on the valley floor, is often visible from windows orientated towards the proposal site.	**High**		
		Construction: Potential views of the top of plant equipment and moving vehicles. Works are temporary and visible in the context of surrounding industrial land use and railway infrastructure.		**Low**	**Slight adverse**
		Year 1: Mid-range view of the new development. The woodland to the west of the proposal site would block some views of the low – mid level activities and features within the proposed development. However higher elevations and the stack would be visible from windows orientated towards the proposal site. Although the development would be adding a large new feature in to the landscape, there are already existing detractors within the view, such as the ASOS Fulfilment Centre. The proposed development would be viewed as an extension of the ASOS Fulfilment Centre from this location. Although some elevations within the proposed development are higher than the ASOS Fulfilment Centre, the footprint of the development is far smaller and would therefore be less prominent within views. Current proposal illustrate the development cladded in a green material, this would enable the development to blend into its surroundings from this location.		**Low**	**Moderate-slight adverse**
		Year 15: Existing woodland would have matured, this would slightly reduce the impact of the lower elevations within the development.		**Low**	**Moderate-slight adverse**
3	Middlewood Hall 1.1km S of the site	Existing: The main house is positioned within the southern extents of the Hall's grounds. Therefore the view towards the proposal site is mostly obstructed by buildings and vegetation within the grounds. The vegetation that borders the river 100 metres to the north would also intervene in views. Where vies are afforded the existing view includes the detracting feature of the ASOS Fulfilment Centre.	**High**		
		Construction: Potential view of the top of plant equipment and moving vehicles. Works are temporary and visible in the context of surrounding industrial land use.		**Low-negligible**	**Slight adverse-neutral**
		Year 1: Views of the stack may be afforded from the residence at his location above the canopy line of the tees that border the Hall's northern boundary. However the majority of the proposed development would be blocked from view due to intervening vegetation, buildings and landform.		**Low-negligible**	**Slight adverse-neutral**

Ref	Receptor	Existing Description of View / Type of Effect	Receptor Sensitivity	Magnitude of change	Significance of Impact
		Year 15: No change		**Low-negligible**	**Slight adverse-neutral**
Principal Public Rights of Way					
1	Path No 7 17 metres at closest point North and West of the Site	Existing: Views from the PRoW would be intermittently visible through road boundary vegetation There is existing new tree planting within the field that the PRoW is located within, these young trees filter views towards the site. The focus within the views currently is the large scale ASOS Fulfilment Centre as the footpath traverses around the building from the A6195 to the Middlecliffe Lane. The ASOS Fulfilment Centre forms a large and significant deterioration within the view. The ASOS buildings blocks views to the west from the PRoW towards the site.	**High**		
		Construction: Lower level activity of plant equipment and moving vehicles visible. Works are temporary and visible in the context of surrounding industrial land use.		**Low**	**Moderate adverse**
		Year 1: The development would be visible within views from some locations along the footpath, most of these views would be filtered by existing vegetation. Where the PRoW traverses to the east of the ASOS Fulfilment Centre, higher elevations within the proposed development would be visible above the roof of the existing ASOS Fulfilment Centre. The stack would be visible from most locations along the PRoW. The proposed development would be less apparent within views than the existing ASOS Fulfilment Centre.		**Low**	**Moderate adverse**
		Year 15: Existing vegetation would have matured and would facilitate in mitigating some visual impacts of the proposed development upon PRoW users. Proposed tree planting within the development would have matured and would block some views of low – mid levels of activity and features within the facility.		**Low**	**Moderate adverse**
2	Path No. 8 , Little Houghton. 0.8km S of the site	Existing: This footpath is part of the Deane Way, it runs from Edderthorpe to Little Houghton, it crosses the River Dearne. Viewpoint 2 represents views from this PRoW from Edderthorpe, the proposal site is visible from this location. The focus of the view however is the ASOS building. Views are similar for many locations along this PRoW. The ASOS Fulfilment Centre forms a large and significant deterioration within the view.	High		
		Construction: Lower level activity of plant equipment and moving vehicles visible. Works are temporary and visible in the context of surrounding industrial land use.		**Low**	**Slight adverse**
		Year 1: Mid range view of the new development. All of the proposed development would be visible from this public right of way; the existing vegetation would block views of lower activities within the development. It is advised that appropriate materials are used for the building's façade which will enable the development to blend into its surroundings from this location. The proposed development would appear as an extension of the existing ASOS Fulfilment Centre from this location. Although some elevations within the proposed development are higher than the adjacent ASOS Fulfilment Centre, the footprint of the development is considerably smaller; therefore it would be less prominent in views from the footpath.		**Low**	**Moderate – slight adverse**
		Year 15: Screen planting incorporated into the scheme along the western boundary would have matured by year fifteen and would facilitate in blocking views of lower level features and activities within the proposed development.		**Low**	**Moderate-slight adverse**

Ref	Receptor	Existing Description of View / Type of Effect	Receptor Sensitivity	Magnitude of change	Significance of Impact
3	Path No 4 2.4km W of the site	Existing: The view is of undulating agricultural land, mid- long distance views are mostly obstructed field boundary vegetation. The electricity pylons that run from north to south through the study area are visible in the mid ground of the view and the ASOS Fulfilment Centre is barely visible through the field boundary vegetation.	**Medium**		
		Construction: Potential view of the top of plant equipment and moving vehicles. Works are temporary and visible in the context of a largely agricultural landscape.		**Low-Negligible**	**Slight adverse - neutral**
		Year 1: Mid range view of the new development, filtered by field boundary vegetation. Existing elements within views would still limit views of the development however the stack may be visible intermittently. The proposed development would appear as an extension of the existing ASOS Fulfilment Centre from this location. Although some elevations within the proposed development are higher than the adjacent ASOS Fulfilment Centre, the footprint of the development is considerably smaller, therefore it would be less prominent in views from the footpath.		**Low-**	**Slight adverse**
		Year 15: Mid range view of the new development from close to the site. Existing elements within views would still limit views of the development however the tack may be visible intermittently		**Low**	**Slight adverse**
	Dearne Way 0.7km S of the site at its closest point.	Existing: The Dearne Way traverses from south to north west through the study area, although the Dearne Way follows the River Dearne, through the study area it follows footpaths to the west of the river, through Darfield to Edderthorpe, west towards Tyers Hall Farm then it heads directly north to re-join the river to the north of Storrs Wood. Views towards the site are most prominent within the section between Darfield and Edderthorpe and to the west of Edderthorpe. Views are wide and open and consist mostly of agricultural land within scattered woodland. The ASOS Fulfilment Centre is the most prominent feature within the view from the Dearne Way when in close proximity to the site. It is a significant detraction within the view.	High		
		Construction: Lower level activity of plant equipment and moving vehicles visible. Works are temporary and visible in the context of surrounding industrial land use.		**Low**	**Slight adverse**
		Year 1: The proposed development would be intermittently visible where there are no intervening features such as vegetation and landform. When in close proximity to the site, particularly close to Darfield and Edderthorpe, the proposed development would be visible. However it would be viewed in combination with the existing ASOS Fulfilment Centre. Although some of the elevations within the proposed building are higher, the footprint is far smaller and would therefore be less apparent within views than the ASOS Fulfilment Centre.		**Low**	**Moderate adverse**
		Year 15: Screen planting proposed on the western and northern boundaries of the site would mitigate lower level activities and feature within the development.		**Low**	**Moderate adverse.**
Settlements					

Ref	Receptor	Existing Description of View / Type of Effect	Receptor Sensitivity	Magnitude of change	Significance of Impact
1	Edderthorpe 0.7 km SW	Existing: This is the view that would be experienced for residents within Edderthorpe and Public Rights of Way users. The view is of the valley floor and the valley side rising to the east. The land use is mostly agricultural with scattered woodland being a prominent feature. The focus within the view is the large scale ASOS Fulfilment Centre which forms a detracting feature within the views. The ASOS Fulfilment Centre forms a significant deterioration within the view from this location. The site itself is visible directly in front of the ASOS Fulfilment Centre.	High		
		Construction: Views of the top of plant equipment and moving vehicles. Works are temporary and visible in the context of surrounding industrial landscape.		**Low**	**Slight adverse**
		Year 1: Mid range view of the new development from close to the site. All of the proposed development would be visible from this location; the existing vegetation would only block some views of lower activities within the development. The proposed landscaping scheme would not reduce visual impact form this location. It is advised that appropriate materials are used for the building's façade which will enable the development to blend into its surroundings from this location. The proposed development would appear as part of the existing ASOS Fulfilment Centre from this location. Although some of the elevations within the development would be higher, the footprint of the building is considerably smaller than that of the ASOS Fulfilment Centre. It would therefore, comparatively, form a much smaller feature within the view.		**Low**	**Moderate-slight adverse**
		Year 15: Screen planting incorporated into the north and western boundaries of the proposed development would have mature by year fifteen and would provide mitigation of the lower elevations of the development form this location.		**Low**	**Moderate-slight adverse**
2	Little Houghton 0.9 km SE of site	Existing: Little Houghton is the closest settlement to the site, however views towards the proposal site are not easily available as there is a significant area of vegetation that blocks views toward the ASOS Fulfilment Centre. The closest properties are those located on Middlecliffe Lane, however these residences are not orientated towards the proposal site. The residential streets further within the settlement are sheltered and are orientated towards the centre of the village, area of woodland to the outskirts of the settlement block any other views.	Medium		
		Construction: Views of the top of plant equipment and moving vehicles. Works are temporary and visible in the context of surrounding industrial landscape.		**Low**	**Slight adverse**
		Year 1: Views might be possible of higher elevations within the development, the stack would be visible from some residences. However the introverted aspect of the residences and the surrounding woodland means that views of the development from windows within the settlement would be minimal. Where views are afforded, the ASOS Fulfilment Centre already forms an existing detractor within the view. The proposed development would appear as a much smaller element within the landscape from this location. It is advised that appropriate materials are used for the building's façade which will enable the development to blend into its surroundings from this location.		**Low**	**Slight adverse**
		Year 15: The tree planting proposed within the development would have matured, the visual impacts upon residents entering or existing the villages would be lessened as low- mid level views of features and activities within the development would be obstructed.		**Low**	**Slight adverse**

Ref	Receptor	Existing Description of View / Type of Effect	Receptor Sensitivity	Magnitude of change	Significance of Impact
3	Great Houghton-South 1.1 km NE of site	Existing: Within the southern extents of Great Houghton streets that are more likely to have views are predominantly on the western extents. Residences located on Cross Street, Rodes Avenue, Cross Street and Chapel Lane who have windows orientated in the direction of the site would currently have the existing ASOS Fulfilment Centre within the view which is a prominent detracting feature within the landscape. The settlement is elevated on the eastern valley side, the view looks west to the valley floor. Long distance views extend to the west to Barnsley over 7 kilometres away. The ASOS Fulfilment Centre is located in the mid ground of the view, it is predominantly blocked from view by a hill directly to the east of the proposal site. The peak of this hill is approximately 75m AOD, it is defined by the woodland that covers it.	**Medium - High**		
		Construction: Lower level activity of plant equipment and moving vehicles visible. Works are temporary and visible in the context of surrounding industrial land use. .		**Low**	**Slight adverse**
		Year 1: . The proposed facility would be visible beyond the ASOS Fulfilment Centre, some higher elevations would be prominent, and the stack would be visible from many location in the west of Great Houghton. The proposed development would be partially blocked from view by the rise in landform and areas of woodland, the development would be views as an extension of the ASOS Fulfilment Centre from this location. The development would be in the mid ground of the view, the distance from this location decreases the impact it will have upon the receptor.		**Low**	**Moderate-Slight adverse**
		Year 15: The proposed tree planting, located along Park Spring Road would have matured in a fifteen year time period. The trees would mitigate some of the visual effects of the low- mid levels within the proposed development.		**Low**	**Slight adverse**
	Great Houghton-North 1km E of site	Existing: Within the northern extents of Great Houghton streets that are more likely to have views towards the site are predominantly on the western extents. Residences located on Milton Street, Park Lane, Peartree Close who have windows orientated in the direction of the site would currently have the existing ASOS Fulfilment Centre within the view, the building is more prominent within views from the northern extents of Great Houghton than the south, as the hill no longer intervenes in views to such an extent, therefore the ASOS Fulfilment Centre forms a more significant deterioration in the view and reduces the magnitude of change for these receptors. The settlement is elevated on the eastern valley side, the view looks west to the valley floor. Long distance views extend to the west to Barnsley over 7 kilometres away.	**Medium - High**		
		Construction: Lower level activity of plant equipment and moving vehicles visible. Works are temporary and visible in the context of surrounding industrial land use. .		**Low**	**Slight adverse**
		Year 1: . The proposed facility would be visible beyond the ASOS Fulfilment Centre, some higher elevations would be prominent, and the stack would be visible. The proposed development would be partially blocked from view by the rise in landform and areas of woodland, the development would be views as an extension of the ASOS Fulfilment Centre from this location. The development would be in the mid ground of the view, the distance from this location decreases the impact it will have upon the receptor.		**Low**	**Slight adverse**

Ref	Receptor	Existing Description of View / Type of Effect	Receptor Sensitivity	Magnitude of change	Significance of Impact
		Year 15: The proposed tree planting, located along Park Spring Road would have matured in a fifteen year time period. The trees would mitigate some of the visual effects of the low- mid levels within the proposed development.		**Low**	**Slight adverse**
4	Darfield 1.6km S	Existing: Views from within Darfield would be most apparent from the northern extents of the settlement, particularly the residences along Doncaster Road and Edderthorpe Road. Views of the existing ASOS Fulfilment Centre will be available from windows orientated in the direction of the proposal site., the building forms a noticeable deterioration in the view from any of the residence that currently have views towards the proposal site. The foreground of the views from windows of residences will often be taken up by street scene vertical elements such as road signs and lampposts. The mid ground of the view consists of agricultural fields divided by mature field boundary vegetation, the significant vegetation bordering the River Dearne river is intermittently visible. Mid- long distance views of the eastern side of the valley and the woodland to the east would be available from some residences.	**High**		
		Construction: Lower level activity of plant equipment and moving vehicles visible from some locations. Works are temporary and visible in the context of surrounding industrial land use.		**Low**	**Slight adverse**
		Year 1: The development would be viewed as an extension of the existing large scale ASOS Fulfilment Centre. This buildings form an existing detractor in the view. The higher elevations within the facility would appear higher than the exiting ASOS Fulfilment Centre. The proposed development would break the horizon within views from some locations in Darfield and would block some long distance views. However the footprint of the development is far smaller than the existing ASOS Fulfilment Centre and would therefore not be as predominant in views.		**Low**	**Moderate adverse**
		Year 15: Screen planting incorporated in to the western boundary of the site would have matured and would block views of the low level features and activities within the proposed development.		**Low**	**Moderate adverse**
Principal Transport Routes					
1	A6195 Park Spring Road Adjacent E of the site	Existing This road border the site, it is the closest receptor. The sensitivity of the receptor is reduced due to its sequential nature and the speed on which the receptor would be traveling. The receptor would be orientated in the direction of travel, therefore the focus of the view would be to the north or to the south. There are a number of large scale developments located adjacent to Park Spring Road, the ASOS Fulfilment Centre located on the eastern side of the road is a principal existing detractor within the view. It forms a significant deterioration within the view.	**Low**		
		Construction: Lower level activity of plant equipment and moving vehicles visible. Works are temporary and visible in the context of surrounding industrial land use. .		**Low**	**Slight adverse**
		Year 1: The proposed development would form a new feature within the landscape and would break the horizon for receptor located in some places along the road. However the building has a significantly smaller footprint than the existing ASOS Fulfilment Centre and therefore would be less prominent within the view. The development is in character within other developments located along Park Spring Road.		**Low**	**Slight adverse**

Ref	Receptor	Existing Description of View / Type of Effect	Receptor Sensitivity	Magnitude of change	Significance of Impact
		Year 15: Tree planting located along Spring Road would have mature by Year 15 and would mitigate views of lower feature and activities within the development.		**Low**	**Slight adverse**
2	Mill Lane, Orston 0.8km SE of the site	Existing: Ings Lane Road connects Middlecliffe Lane with a public right of way that crossed the River Dearne and some agricultural buildings. The lane crosses the A6195 by means of the Mill Lane Bridge that is elevated above Park Spring Road. Views of the site are most prominent from the bridge as the road form a corridor view towards the ASOS Fulfilment Centre. Views are also available from Ings Lane further to the west of the bridge. Views from the east of the bridge are mostly blocked by areas of vegetation bordering the road. The site itself is hidden from view by vegetation bordering the road. Although there is a significant amount of woodland planting within this view, the predominant features are the large scale ASOS Fulfilment Centre, road related infrastructure and the electricity cables. The telegraph poles form a vertical element within the view.	**Medium**		
		Construction: Views of the top of plant equipment and moving vehicles. Works are temporary and visible in the context of surrounding industrial landscape.		**Low**	**Slight adverse**
		Year 1: Mid range view of the new development from close to the site. Existing landscape features will screen views of low- mid features and activities within the facility. It is advised that appropriate materials are used for the building's façade which will enable the development to blend into its surroundings from this location. The higher elevations within the development would block longer distance view. The stack and plume would be visible.		**Low**	**Moderate adverse**
		Year 15: Mid range view of the new development from close to the site. Existing tree planting would have matured and would facilitate in blocking some views of low – mid height activity and features within the development. During summer months views would be mitigated further. Tree planting proposed adjoining the road would further mitigate views of the lower mid height features and activities within the facility. The mitigation would be more beneficial for receptors located at the level of the road.		**Low**	**Moderate-slight adverse**
3	A635 Doncaster Road Darfield 1.6km S of the site	Existing: The sensitivity of the receptor is reduced due to its sequential nature and the speed on which the receptor would be when traveling. The receptor would be orientated in the direction of travel, therefore the focus of the view would be to the west or to the east and is therefore orientated away from the proposed development. Views of the existing ASOS Fulfilment Centre will be available from some locations along the road, there are some significant bands of vegetation that border the northern side of the road as the A635 passes through Darfield. Further to the west there are open views towards the ASOS Fulfilment Centre as the land is predominantly flat and there are few intervening features. Mid- Long distance views would be afforded from some location along the road.	**Low**		
		Construction: Lower level activity of plant equipment and moving vehicles visible from some locations. Works are temporary and visible in the context of surrounding industrial land use.		**Low**	**Slight adverse**

Ref	Receptor	Existing Description of View / Type of Effect	Receptor Sensitivity	Magnitude of change	Significance of Impact
		Year 1: The development would appear as part of the development with the ASOS Fulfilment Centre from most locations along the road. Although some of the elevations within the proposed development are higher than the ASOS Fulfilment Centre, the footprint is significantly smaller and therefore the proposed development would have less visual impact upon receptor located along the road than the existing ASOS Fulfilment Centre. The proposed development would break the horizon within views from some locations. However materials used on the building's façade would allow the building to blend in to the landscape and therefore reduce its visual impact.		**Low**	**Slight adverse**
		Year 15: Screen planting incorporated in to the western boundary of the site would have matured and would block views of the low level features and activities within the proposed development.		**Low**	**Slight adverse**
Designated Sites					
1	Church of St Michaels and All Angels, Great Houghton Grade II 1.3km E of the site	Existing: The church is located on Chapel Lane in the south western extents of Great Houghton. Views from the church are represented in Viewpoint 5. The foreground of the view is mostly taken up by vertical urban elements, such as signage and fencing. The viewpoint is elevated on the eastern valley side, the view looks west to the valley floor. Long distance views extend to the west to Barnsley over 7 kilometres away. The ASOS Fulfilment Centre is located in the mid ground of the view, it is predominantly blocked from view by a hill directly to the east of the proposal site. The peak of this hill is approximately 75m AOD, it is defined by the woodland that covers it.	**Medium - High**		
		Construction: Higher level activity of plant equipment and moving vehicles visible. Works are temporary and visible in the context of surrounding industrial land use. .		**Low**	**Slight adverse**
		Year 1: The proposed facility would be visible beyond the ASOS Fulfilment Centre, some higher elevations would be prominent, and the stack would be visible. The proposed development would be partially blocked from view by the rise in landform and areas of woodland, the development would be views as an extension of the ASOS Fulfilment Centre from this location. The development would be in the mid ground of the view, the distance from this location decreases the impact it will have upon the receptor. If appropriate materials used within the building's façade this could facilitate in blending the building into the landscape from this location.		**Low**	**Moderate-Slight adverse**
		Year 15: The proposed tree planting, located along Park Spring Road would have matured in a fifteen year time period. The trees would mitigate some of the visual effects of the low- mid levels within the proposed development.		**Low**	**Moderate-Slight adverse**

Ref	Receptor	Existing Description of View / Type of Effect	Receptor Sensitivity	Magnitude of change	Significance of Impact
2	Middlewood Hall Grade II Listed 1.1km S of the site	Existing: The main house is positioned within the southern extents of the Hall's grounds. Therefore the view towards the proposal site is mostly obstructed by buildings and vegetation within the grounds. The vegetation that borders the river 100 metres to the north would also intervene in views. Where views are afforded the existing view includes the detracting feature of the ASOS Fulfilment Centre.	**High**		
		Construction: Potential view of the top of plant equipment and moving vehicles. Works are temporary and visible in the context of surrounding industrial land use.		**Low**	**Slight adverse**
		Year 1: Views of the stack may be afforded from the residence at his location above the canopy line of the tees that border the Hall's northern boundary. However the majority of the proposed development would be blocked from view due to intervening vegetation, buildings and landform.		**Low-negligible**	**Slight adverse**
		Year 15: No change		**Low-negligible**	**Slight adverse**
3	All Saint Church, Darfield, Grade I Listed 1.9km S of site	Existing: The church is well sheltered by significant areas of vegetation within the church grounds. Where views are available from within the church yard in the direction of the proposal site, the view northwards is mostly obstructed by intervening buildings and landform. Views from the church spire would be further reaching.	**High**		
		Construction: No views		**Negligible**	**Neutral**
		Year 1 No views		**Negligible**	**Neutral**
		Year 15: No views		**Negligible**	**Neutral**
4	Darfield Conservation Area 1.9km S of site	Existing: The conservation areas Is well sheltered by tree cover, landform and built form. Views of the site and the ASOS Fulfilment Centre are not currently afforded from within the conservation area.	**Low**		
		Construction: No change		**Negligible**	**Neutral**
		Year 1: The electronic ZTV (Figure 3) demonstrates that the conservation area is on the edge of the theoretical area of visibility. Although it is possible that there may be intermittent views of the stack, most views would be blocked by intervening tree cover, landform and vegetation		**Negligible**	**Neutral**
		Year 15: The electronic ZTV (Figure 3) demonstrates that the conservation area is on the edge of the theoretical area of visibility. Although it is possible that there may be intermittent views of the stack, most views would be blocked by intervening tree cover, landform and vegetation		**Negligible**	**Neutral**
4	Parish Church of Emmanuel, Grade II Listed 1.9km S of site	Existing The church is well sheltered by surrounding tree cover in the church yard, landform and built form. Views of the site and the ASOS Fulfilment Centre are not currently afforded from within the church grounds.	**Low**		
		Construction No change		**Negligible**	**Neutral**

Ref	Receptor	Existing Description of View / Type of Effect	Receptor Sensitivity	Magnitude of change	Significance of Impact
		Year 1: The electronic ZTV (Figure 3) demonstrates that the church is on the edge of the theoretical area of visibility. Although it is possible that there may be intermittent views of the stack, most views would be blocked by intervening tree cover, landform and vegetation		**Negligible**	**Neutral**
		Year 15: The electronic ZTV (Figure 3) demonstrates that the conservation area is on the edge of the theoretical area of visibility. Although it is possible that there may be intermittent views of the stack, most views would be blocked by intervening tree cover, landform and vegetation		**Negligible**	**Neutral**

APPENDIX 9.3 CORRESPONDENCE WITH THE LPA

From: Burton , Andrew [mailto:AndrewBurton@barnsley.gov.uk]
Sent: 18 February 2014 12:23
To: Lucy Key
Subject: RE: Houghton Main AD Facility

Lucy,

Looking at google maps/street view I was thinking the ideal location might be the position on the A635 in front of the junction of where it meets the B6096 Nanny Marr Road. There is a bus stop/road sign and utility boxes to guide you to this area on the google maps/street view image.

Kind Regards,

Andrew Burton

Senior Planning Officer (Outer Area Team)
Development Management
Barnsley Metropolitan Borough Council
Development Services
PO Box 604
Barnsley
S70 9FE
Tel: 01226 774718
E-Mail: andrewburton@barnsley.gov.uk

From: Lucy Key [mailto:lucy.key@enzygo.com]
Sent: 17 February 2014 15:31
To: Burton , Andrew
Subject: RE: Houghton Main AD Facility

Andrew,

Thank you for your quick response. As it happens I took a photograph from the A635, where the Dearne Way joins the road just to the south of Middleton Park. I have attached the photograph. The Prologis distribution centre is visible within the view. Does this represent the community you mentioned in your previous email?

Thanks

Lucy Key BA (Hons) Dip LA LMLI,
Landscape Architect

enzygo

STEP Business centre, Wortley Road, Deepcar, Sheffield S36 2UH
07590 446142 lucy.key@enzygo.com www.enzygo.com

Registered Office: Stag House, The Chipping, Wotton under Edge, GL12 7AD
Registered in England & Wales registered number: 08525159 VAT number: 931529846

From: Burton , Andrew [mailto:AndrewBurton@barnsley.gov.uk]
Sent: 17 February 2014 14:49
To: Lucy Key
Subject: RE: Houghton Main AD Facility

Lucy,

Thanks for this. I am due out on site one day this week and so may well take this plan out with me and take a look at the proposed locations. However my first thoughts were to see if you could fit in an additional viewpoint somewhere towards the north of the Darfield settlement near to the A635 as I think a bit of interest in the application will come from that community. I think that it is positioned on higher land contours with fairly uninterrupted views of the site.

2

Kind Regards,

Andrew Burton
Senior Planning Officer (Outer Area Team)
Development Management
Barnsley Metropolitan Borough Council
Development Services
PO Box 604
Barnsley
S70 9FE
Tel: 01226 774718
E-Mail: andrewburton@barnsley.gov.uk

From: Lucy Key [mailto:lucy.key@enzygo.com]
Sent: 17 February 2014 13:54
To: Burton , Andrew
Subject: Houghton Main AD Facility

Andrew,

I am working on behalf of Peel Environmental to produce the Landscape & Visual Impact Assessment for the proposed Anaerobic Digestion & Waste Wood Facilities at Houghton Main. I am contacting you to ask if you could cast an eye over our representative viewpoints and comment on their suitability. I would appreciate your thoughts regarding any other suitable receptors or locations that you believe may be sensitive.

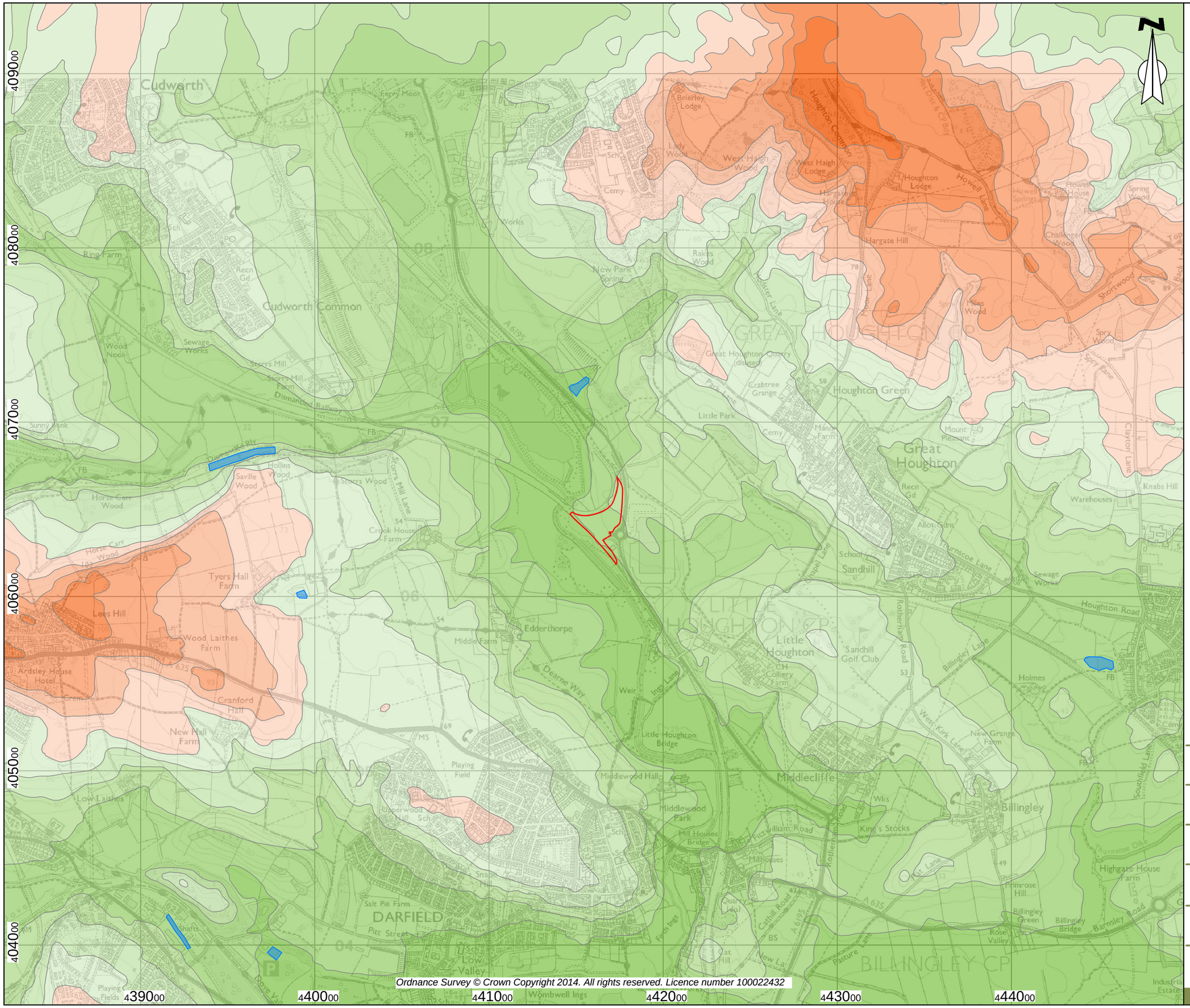
Kind Regards

Lucy Key BA (Hons) Dip LA LMLI,
Landscape Architect

enzygo

STEP Business centre, Wortley Road, Deepcar, Sheffield S36 2UH
07590 446142 lucy.key@enzygo.com www.enzygo.com

FIGURES



Key

- Site Boundary
- Drainage Features

Contours m(AOD)

- 20m - 30m
- 30m - 40m
- 40m - 50m
- 50m - 60m
- 60m - 70m
- 70m - 80m
- 80m - 90m
- 90m - 100m
- 100m - 110m
- 110m - 120m

enzygo environmental consultants

STEP Business Centre, Wortley Rd, Sheffield, S36 2UH

CLIENT: Peel Environmental Management (UK) Limited and Houghton Main Waste Limited

SCALE: 1:20,000@A3

PROJECT REF: CRM.066.001.D.001

DRAWN: MG

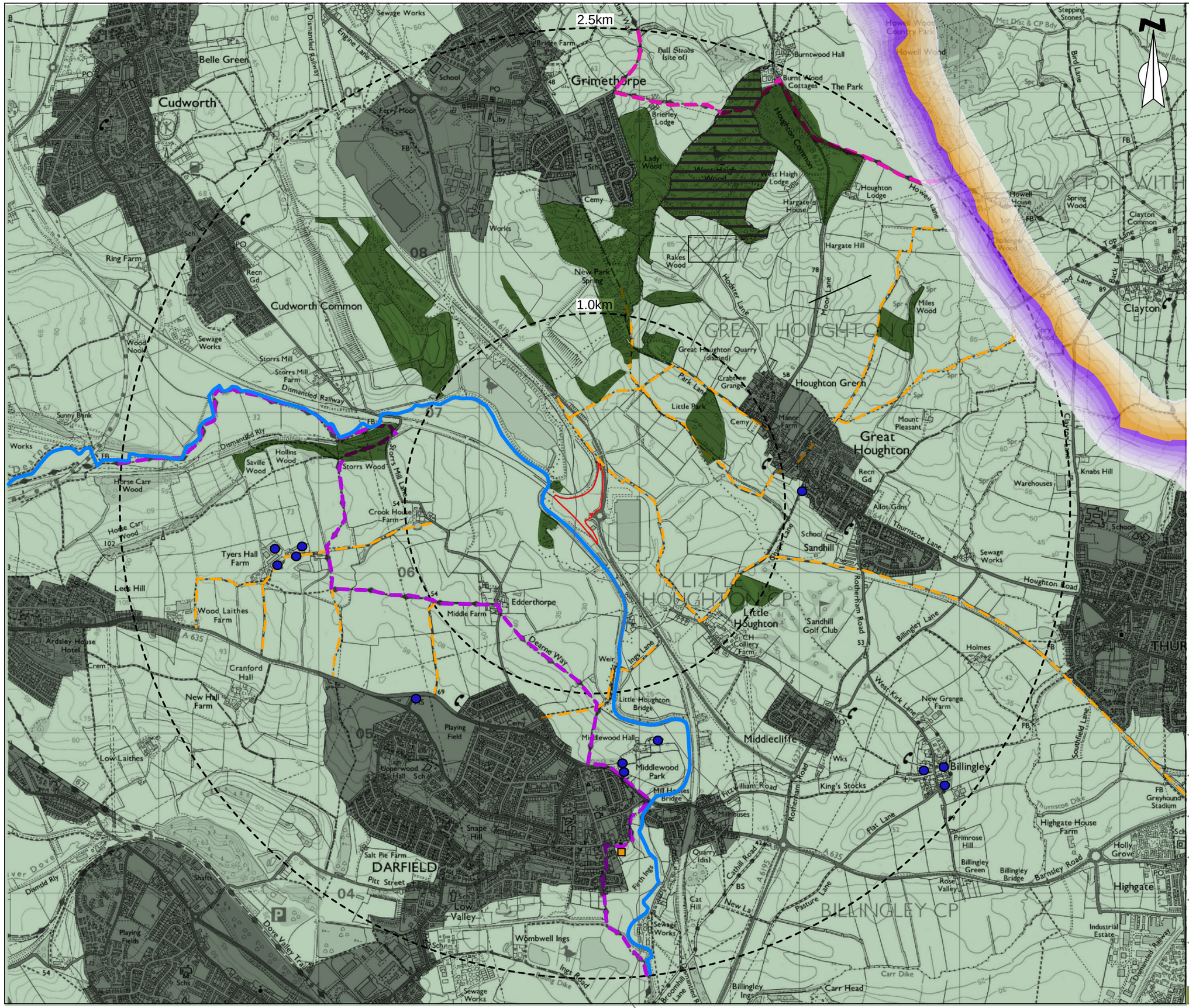
CHECKED: LK

DATE: Apr 2014

PROJECT: Houghton Main

TITLE: Topographical and Drainage Plan

FIGURE NO: 9.1



enzygo
environmental consultants
STEP Business Centre, Wortley Rd, Sheffield, S36 2UH

CLIENT: Peel Environmental Management (UK) Limited and Houghton Main Waste Limited

SCALE: NTS@A3

PROJECT REF: CRM.066.001

DRAWN: LK

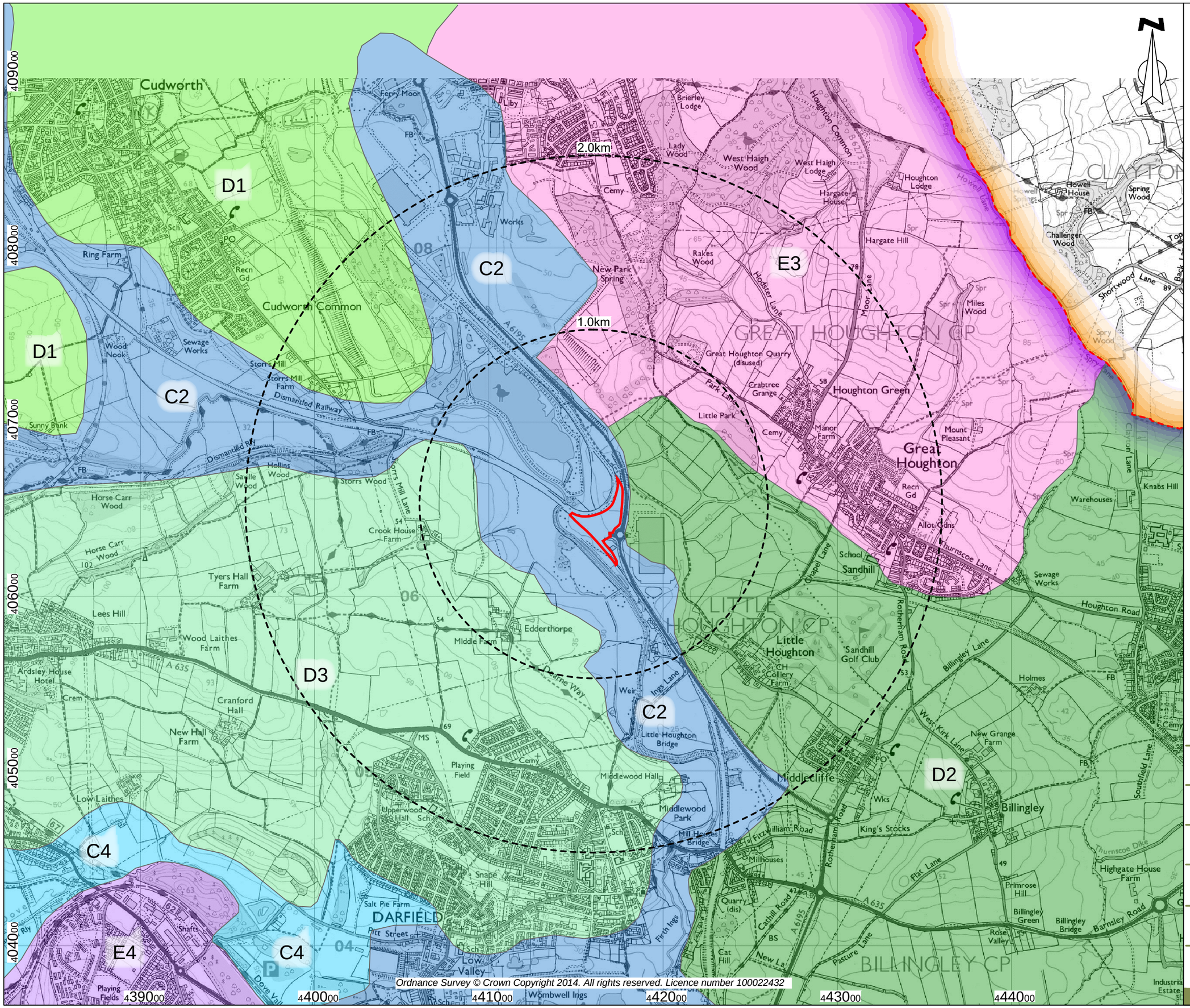
CHECKED: PWB

DATE: April 2013

PROJECT: Houghton Main

TITLE: Landscape Constraints

FIGURE NO: 9.2



Key

- Site Boundary
- Lowland River Floor — C2 - Lower Dearne Lowland River Floor
- Lowland River Floor — C4 - Dove Lowland River Floor
- Settled Arable Slopes — D1 - North East Barnsley Settled Arable Slopes
- Settled Arable Slopes — D2 - East Dearne Settled Arable Slopes
- Settled Arable Slopes — D3 - West Dearne Settled Arable Slopes
- Settled Wooded Farmland — E3 - Grimethorpe Settled Wooded Farmland
- Settled Wooded Farmland — E4 - Hoyland Settled Wooded Farmland
- Doncaster District Boundary
- Barnsley District Boundary

enzygo environmental consultants
STEP Business Centre, Wortley Rd, Sheffield, S36 2UH

CLIENT: Peel Environmental Management (UK) Limited and Houghton Main Waste Limited

SCALE: 1:20,000@A3

PROJECT REF: CRM.066.001

DRAWN: MG

CHECKED: LK

DATE: Apr 2014

PROJECT: Houghton Main

TITLE: Landscape Character Plan

FIGURE NO: 9.3

Key

Site Boundary

Viewpoint Locations 1 - 7

enzygo
environmental consultants
STEP Business Centre, Wortley Rd, Sheffield, S36 2UH

CLIENT:	Peel Environmental Management (UK) Limited and Houghton Main Waste Limited
SCALE:	1:20,000@A3
PROJECT REF:	CRM.066.001
DRAWN:	MG
CHECKED:	LK
DATE:	Apr 2014
PROJECT:	Houghton Main
TITLE:	Viewpoint Location Plan
FIGURE NO:	9.4

Approximate Site Location

Viewpoint 1 Taken at Ings Lane Bridge, Little Houghton, 0.7km south of the site (SE42080568, 46m AOD at ground level of bridge, 47.7m at eye level)

Approximate Site Location

Viewpoint 2 Taken at Edderthorpe on the Dearne Way, 0.8km south west of the site (SE41130574, 43m AOD at ground level, 44.7m at eye level)

enzygo environmental consultants

DATE OF PHOTOGRAPH: 19 December 2013					PROJECT: Houghton Main
WEATHER CONDITIONS: Clear	SCALE: N/A	PROJECT NO: CRM.066.001	CLIENT:	Peel Environmental Management (UK) Limited and Houghton Main Waste Limited	TITLE: Viewpoint 1 & 2
SURVEYOR: LK	DRAWN: LK	CHECKED: PWB	DATE: May2014		FIGURE NO: 9.5.1

Approximate Site Location

Viewpoint 3 Tyers Hall Farm 1.5km west of the site (SE40030574 63m AOD at ground level, 64.7m at eye height)

Approximate Site Location

Viewpoint 4 Ardsley, 2.4km west of the site (SE39220575, 90m AOD at ground level, 91.7m at eye height)

enzygo environmental consultants

DATE OF PHOTOGRAPH: 19 December 2013					PROJECT: Houghton Main
WEATHER CONDITIONS: Clear	SCALE: N/A	PROJECT NO: CRM.066.001	CLIENT: Peel Environmental Management (UK) Limited and Houghton Main Waste Limited		TITLE: Viewpoint 3 & 4
SURVEYOR: LK	DRAWN: LK	CHECKED: PWB	DATE: Dec 2013		FIGURE NO: 9.5.2

Approximate Site Location

Viewpoint 5 New Park Spring Nature Reserve 0.9km north west of the site (SE41200734 32m AOD at ground level, 33.7m at eye height)

Approximate Site Location

Viewpoint 6 Chapel Lane, Great Houghton 1.2km east of the site (SE43010653, 64m AOD at ground level, 65.7m at eye height)

enzygo environmental consultants

DATE OF PHOTOGRAPH: 19 December 2013				PROJECT: Houghton Main
WEATHER CONDITIONS: Clear	SCALE: N/A	PROJECT NO: CRM.066.001	CLIENT: Peel Environmental Management (UK) Limited and Houghton Main Waste Limited	TITLE: Viewpoint 5 & 6
SURVEYOR: LK	DRAWN: LK	CHECKED: PWB	DATE: April 2013	FIGURE NO: 9.5.3

Viewpoint 7 Darfield A635 1.5km south of the site (SE41620482 52m AOD at ground level, 53.8m at eye height)

enzygo environmental consultants

DATE OF PHOTOGRAPH: 3 March 2014

WEATHER CONDITIONS: Clear

SURVEYOR: PWB

SCALE: N/A

PROJECT NO: CRM.066.001

CLIENT: Peel Environmental Management (UK) Limited and Houghton Main Waste Limited

DRAWN: LK

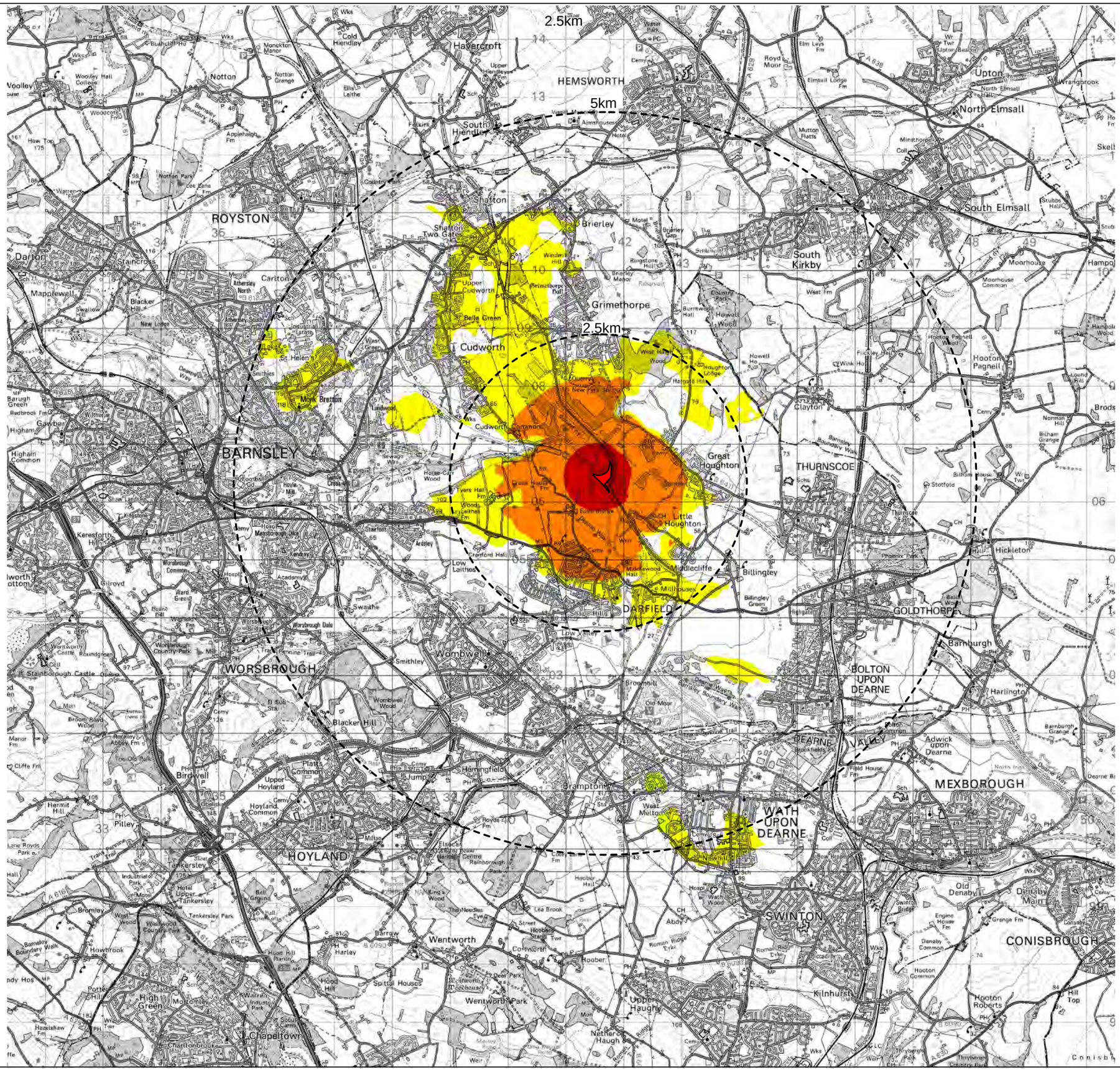
CHECKED: PWB

DATE: April 2014

PROJECT: Houghton Main

TITLE: Viewpoint 7

FIGURE NO: 5.5.4



Key

- Site Boundary
- Greater than 3 degrees visible vertical angle
- Greater than 1 and 3 degrees visible vertical angle
- Greater than 0.25 and 1 degrees visible vertical angle

enzygo
environmental consultants
STEP Business Centre, Wortley Rd, Sheffield, S36 2UH

CLIENT: Peel Environmental Management (UK) Limited and Houghton Main Waste Limited

SCALE: NTS@A3

PROJECT REF: CRM.066.001

DRAWN: LK

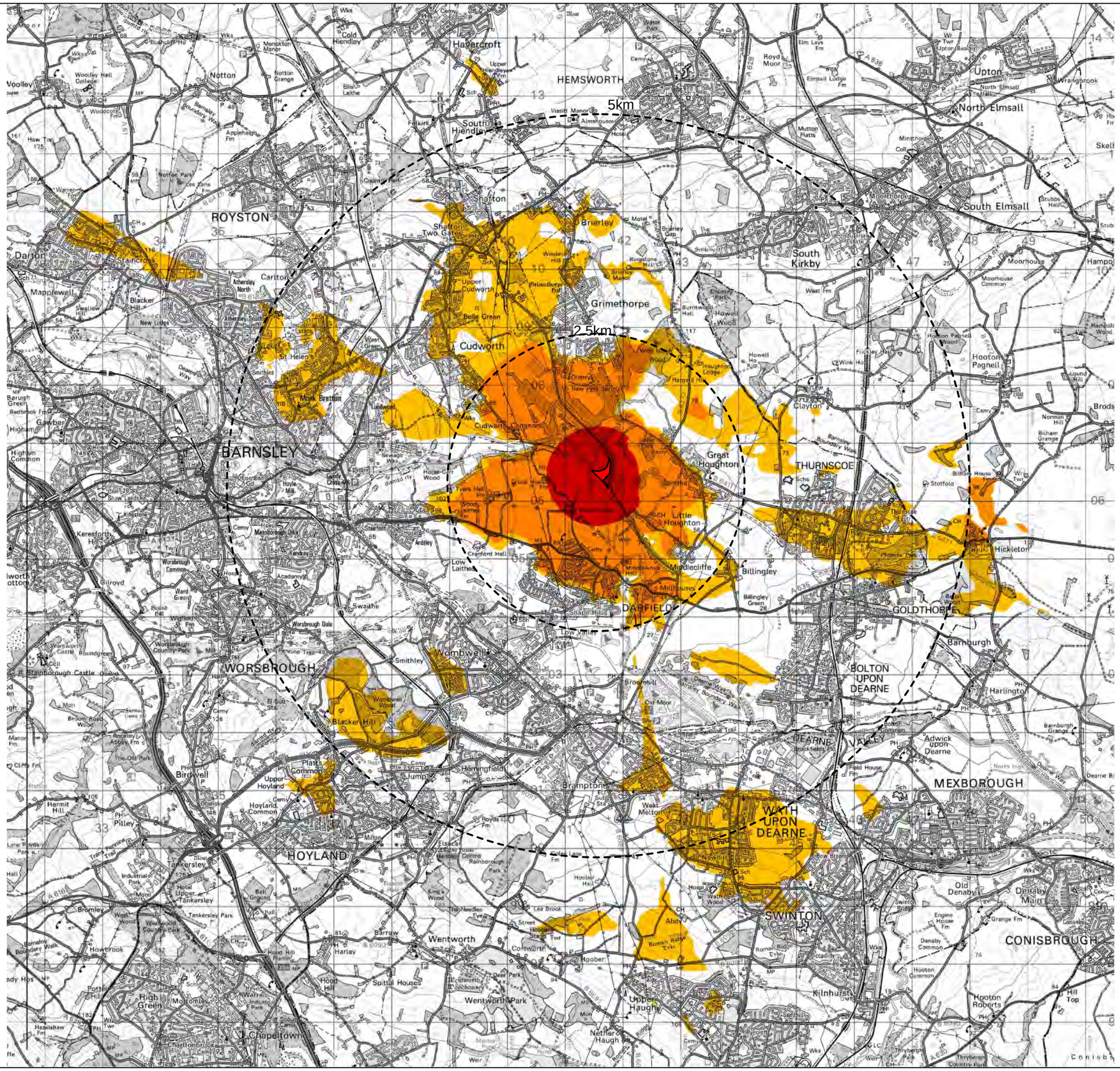
CHECKED: PB

DATE: April 2014

PROJECT: Houghton Main

TITLE: Zone of Theoretical Visibility of Buildings Only

FIGURE NO: Figure 9.6.1



Key

- Site Boundary
- Greater than 3 degrees visible vertical angle
- Greater than 1 and 3 degrees visible vertical angle
- Greater than 0.25 and 1 degrees visible vertical angle

enzygo environmental consultants

STEP Business Centre, Wortley Rd, Sheffield, S36 2UH

CLIENT: Peel Environmental Management (UK) Limited and Houghton Main Waste Limited

SCALE: NTS@A3

PROJECT REF: CRM.066.001

DRAWN: LK

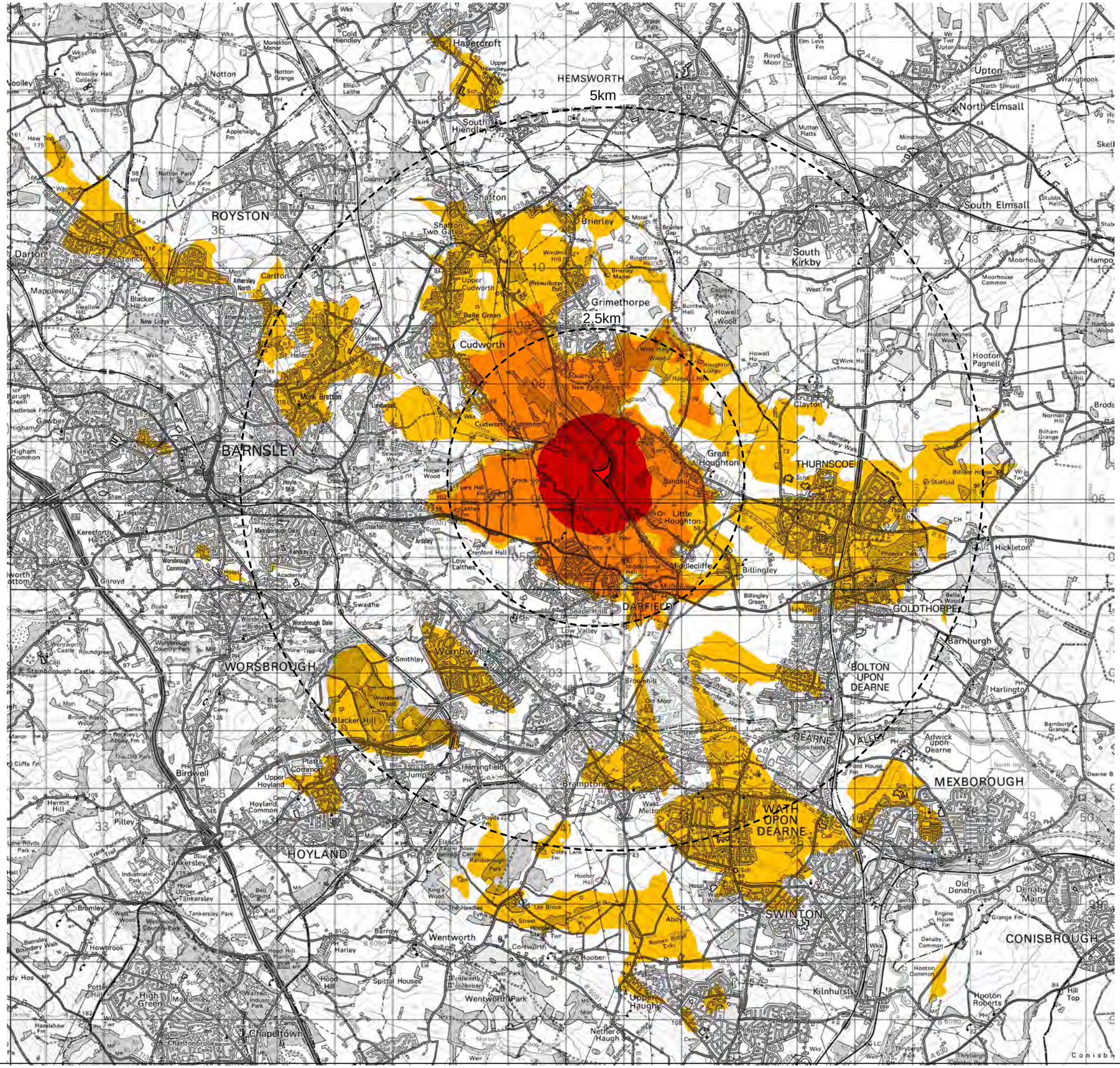
CHECKED: PB

DATE: April 2014

PROJECT: Houghton Main

TITLE: Zone of Theoretical Visibility with Chimney Stack @ 45 metre height

FIGURE NO: Figure 9.6.2



Key

- Site Boundary
- Greater than 3 degrees visible vertical angle
- Greater than 1 and 3 degrees visible vertical angle
- Greater than 0.25 and 1 degrees visible vertical angle

enzygo environmental consultants

STEP Business Centre, Wortley Rd, Sheffield, S36 2UH

CLIENT: Peel Environmental Management (UK) Limited and Houghton Main Waste Limited

SCALE: NTS@A3

PROJECT REF: CRM.066.001

DRAWN: LK

CHECKED: PB

DATE: March 2014

PROJECT: Houghton Main

TITLE: Zone of Theoretical Visibility with Chimney Stack @ 55m height

FIGURE NO: Figure 9.6.3

Screen planting along the railway siding to supplement and enhance existing vegetation and to integrate the site into it's surroundings, particuluarly with the RSPB nature reserve to the north.

Suite of small ponds and scrapes, planted with indigenous reeds, grasses and other marginal plants.

Woodland edge planting to include native species, it will provide a naturalistic and attractive edge to woodland screen planting. This under planting will offer habitat creation and improve biodiversity.

Screen planting to the west to supplement existing hedge line where possible, using native species to provide habitat and to mitigate views of the site.

Appropriate management techniques would be utilised to establish semi naturalised grassland with areas of wetland wildflower meadow to encourage the introduction of mosses and other indigenous wetland species.

Ornamental planting and grassed areas to provide an attractive entrance to the site and to complement and soften th buildings and the car park

HOUGHTON MAIN COLLIERY ROUNDABOUT

Electricity

Key

- Site Boundary
- Existing Vegetation
- Existing Soft Landscape
- Proposed Woodland Screen Planting
- Proposed Woodland Edge Planting
- Grassland
- Ornamental Planting
- Ponds and Marginal Planting

STEP Business Centre, Wortley Rd, Sheffield, S36 2UH

CLIENT:
Peel Environmental Management (UK) Limited and Houghton Main Waste Limited

SCALE: NTS

PROJECT REF: CRM.066.001

DRAWN: LK

CHECKED: PB

DATE: May 2014

PROJECT:
Houghton Main

TITLE:
Illustrative Landscape Masterplan

FIGURE NO:
9.7

Enzygo specialise in a wide range of technical services:

Property and Sites
Waste Planning
Waste Technologies and Renewables
Waste Technologies
Landscape Architecture
Environmental Co-ordination
Hydrology and Flood Risk
Waste Contract Procurement
Minerals Planning
Noise and Vibration
Permitting and Regulation
Environmental Planning
Ecology Services
Contaminated Land and Geotechnical

BRISTOL OFFICE
The Granary
Woodend Lane
Cromhall
Bristol GL12 8AA
Tel: 01454 269237
Fax: 01454 269760

kevin.parr@enzygo.com

SHEFFIELD OFFICE
STEP Business Centre
Wortley Road
Deepcar
Sheffield S36 2UH
Tel: 0114 2903677
Fax: 0114 2903688

matt.travis@enzygo.com

MONMOUTH OFFICE, WALES
Singleton Court Business Park
Wonastow Road
Monmouth
Monmouthshire NP25 5JA
Tel: 01600 714611
Fax: 01600 716744

chris.formaggia@enzygo.com