Development of Waste Treatment Facility, comprising Reception and Recycling Hall; Mechanical Biological Treatment (MBT) Facility; Advanced Conversion Technology (ACT) Facility; Power Generation and Export Facility; Education and Office Accommodation; Landscaping and Access.

Sinfin Lane, Derby

Resource Recovery Solutions (Derbyshire) Ltd.

Environmental Statement

Chapter 8

Landscape and Visual

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8 Landscape and Visual

8.1 Introduction

8.1.1 This chapter comprises the landscape and visual impact assessment of the proposed development, identifying the existing landscape/townscape character and visual amenity resource, assessing the likely effects of the proposals, and predicting the residual impact of the proposals on landscape character and visual amenity during the operational period.

8.1.2 The proposed development is described in detail in Chapter 4 and its layout shown in Drawing 4.1. It is proposed to construct a new Waste Transfer Facility on the site that comprises reception facilities, Mechanical Biological Treatment plant and Advanced Conversion Technology plant. The three main elements of the design include new buildings, hard standing areas and landscaping.

8.1.3 The principal structure associated with the development is situated in the centre of the site, with a total footprint covering approximately 1 hectare of the 3.4 hectare site.

8.1.4 Existing vegetation cover on the site is limited to invasive self seeded trees, a line of poplars and shrubs and is unlikely to be a significant constraint to development. The surrounding area comprises mixed land use typical of an urban fringe location including predominantly industrial and some residential properties.

8.1.5 The site lies at approximately 50m AOD and is the location of a former tannery although there are no structures remaining on the site from its former use.

8.1.6 The development will be accessed from Sinfin Lane immediately to the south of Railway Cottages. The entrance has been relocated from its original location in order to create an entrance with a clearer sightline. The proposal comprises the primary building in the main body of the site and an education centre closer to the entrance of the site, with adequate parking and a planted acoustic bund.

8.2 Legislation and Planning Context

8.2.1 A detailed review of the development plan documents and planning context in relation to the development proposals is provided in Chapter 3.

8.2.2 This section summarises those policies that are directly relevant to landscape and visual impact issues.

National Policy and Legislation

Planning Policy Statement 1 (PPS1): Delivering Sustainable Development, February 2005

8.2.3 With respect to the consideration of design by all those in the development process, paragraph 35 states:-

> *"High quality and inclusive design should be the aim of all those involved in the development process. It means ensuring a place will function well and add to the overall character and quality of the area, not just for the short term but over the lifetime of the development. This requires carefully planned, high quality buildings and spaces that support the efficient use of resources."*

And paragraph 38 adds:-

> *"Design policies should avoid unnecessary prescription or detail and should concentrate on guiding the overall scale, density, massing, height, landscape, layout and access of new development in relation to neighbouring buildings and the local area more generally."*

The high quality of design and integration with its setting has been a consideration and aim throughout the development of the proposed scheme.

Planning Policy Statement 10 (PPS10): Planning for Sustainable Waste Management PPS10, July 2005

8.2.4 PPS 10 sets out location criteria to test the suitability of sites for waste management activities, one of which is 'visual intrusion.' Criteria specifically include:

"'The setting of the proposed location and the potential for design-led solutions to produce acceptable development"

Regional Policy

East Midlands Regional Plan (March 2009)

Policy 4 – Promoting Better Design

8.2.5 Interested parties should work together to ensure standards of design and construction are constantly improved. This should be achieved by promoting local natural and historical character through a design led approach, design and construction that efficiently uses energy and water and reduces waste, pollution and sources sustainable materials. It is also important that architectural design which is functional still respects local natural and built character and the biodiversity is preserved or increased where appropriate.

Policy 15 – Development in the Three Cities Sub-Area

8.2.6 Development Plans, Local Development Frameworks, Local Transport Plans and economic development strategies should support the continued regeneration of Derby and maintain and strengthen the economic, commercial and cultural roles of all three cities. This will be achieved by ensuring that provision is made to regenerate deprived inner urban areas and outer estates.

Policy 16 – A Sub-Regional Spatial Strategy for the Three Cities Sub-Area

8.2.7 The Regional Planning Body, working with the relevant interested parties should develop a Sub Regional Spatial Strategy for the Three Cities Sub-area as part of the next RSS Review. The Strategy should contain long term policies and proposals that will promote an improvement to the quality of the environment, including the provision of semi-natural green space in urban areas.

Local Policy

Local Development Framework to be adopted by June 2010

General Development Strategy 2: Scale and Nature of Development

8.2.8 New developments will be at a scale that accounts for need, demand, Regional Planning Guidance, strategic planning policies of Derbyshire and neighbouring authorities. Conserve or enhance the quality and local distinctiveness of the natural and built environment. Be well related to its surroundings and be subject environmental safeguards including the domination of large areas by one land use.

General Development Strategy 3: Location and Density of Development

8.2.9 New development will be located within settlements, using derelict or underused land. Avoid prominent intrusion into the countryside and where appropriate, contribute to the environmental regeneration of the former coal mining areas and deprived areas of Derby.

Environment Policy 1: Landscape Character

8.2.10 The character of the landscape will be conserved and enhanced, as appropriate. Development that would have an unacceptable effect on landscape character and diversity will not be permitted. Where development is permitted, opportunities will be taken, as appropriate, to conserve, enhance and restore the local distinctiveness, character and diversity of the landscape.

Environmental Policy 16: Trees and Woodland

8.2.11 Protect important trees, hedgerows and woodland and any management or felling to take account of landscape character, natural heritage, amenity and recreational significance. Provision will be made for the planting of trees and woodland through the use of tree planting schemes and conditions on planning permissions.

Environmental Policy 17: Design Quality

8.2.12 Development should be of high quality design. Proposals should be appropriate to the character of the locality as planning permission will not be granted for proposals for new development that would be detrimental to the local distinctiveness of the area. A design statement may be required for development proposals.

City of Derby Local Plan Review (January 2006)

EP9 – General Business and Industrial Opportunity Sites

8.2.13 (j) – describes the land at the former Sinfin lane Tannery Site and makes particular reference to the residential dwellings adjacent to the western boundary of the site. It is stated that development should not have a detrimental impact on the amenity of these properties.

E9 – Trees

8.2.14 Planning permission will be dependent on the protection of trees before and during development and Tree Preservation Orders will be placed on appropriate trees.

E17 - Landscaping Schemes

8.2.15 In granting planning permission, conditions will be applied requiring the undertaking of landscaping schemes where these are necessary to meet the following objectives to incorporate the development into its local environment, minimise adverse visual impact, retain and incorporate any natural features and provide ecological and visual links from the surrounding landscape.

E23 – Design

8.2.16 Proposals submitted for planning will be of a high standard of design. Planning Authority guidance will concentrate on broad matters of overall scale, density, massing, height, landscape, layout and access.

8.3 Assessment Methodology

Guidance

8.3.1 The assessment has been undertaken in accordance with the following published guidance:

- Guidelines for Landscape and Visual Impact Assessment, 2nd Edition (2002) Landscape Institute and the Institute for Environmental Management and Assessment.
- Guidelines for Landscape Character Assessment, (2002) Countryside Agency
- Guidelines for Environmental Impact Assessment (2004) Institute for Environmental Management and Assessment.

Approach to the Assessment

Study Area

8.3.2 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 forms. The Study Area is verified by a site visit and a series of representative viewpoints have been identified.

Consultation

8.3.3 The locations of potential Key Viewpoints were discussed and agreed with the Planning Officer from Derby Borough Council, in February 2009, and have been considered within the visual impact assessment.

Desktop Study

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

- Ordnance Survey Explorer Map 259 at 1:25,000 scale
- The Google Earth website at www.earth.google.com
- The Multi-Agency Geographical Information for the Countryside website at www.magic.gov.uk

- Countryside Character Volume 4: East Midlands (1999) Countryside Agency. The proposed development lies within Joint Character Area 69:Needwood and South Derbyshire Claylands
- Relevant legislation and national planning policy guidance
- City of Derby Local Plan

8.3.5 The following organisations were contacted during the assessment and have provided baseline data or have confirmed data already gathered.

- Derby City Council

Field Survey

8.3.6 The site was initially visited on the 21st January 2009 to take photographs from proposed Key Viewpoints and to corroborate the findings of the desktop review and obtain additional information on landscape features, views and localised screening barriers. The surveys were undertaken from public highways and publicly accessible areas including open space.

Distinction between Landscape and Visual Effects

8.3.7 Landscape and visual effects are two distinct but related areas which have been assessed separately in accordance with the guidance above. For the purposes of this report, the word landscape will also encompass townscape. 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. Townscape impacts deal with the interrelationship between buildings and open spaces, plants and other elements combining to create the urban landscape.

Visual impacts relate to the effects on views experienced by visual receptors (e.g. residents, footpath users, workers, tourists etc) and on the visual amenity experienced by those people.

Assessment Criteria

8.3.8 The detailed methodology used for the assessment is described in this section of the report. The methodology describes the criteria used to establish the sensitivity of landscape and visual receptors, the magnitude of landscape or visual change brought about by the development proposals, and the significance of any resulting landscape and visual impacts.

8.3.9 The sensitivity of landscape features, landscape character and visual receptors is described as high, medium or low and is based on the general criteria in Table 8.1. Magnitude of change

is described as high, medium, low or negligible and is based on the general criteria in Table 8.2.

8.3.10 The significance of the landscape and visual impacts is determined by cross-referencing the sensitivity of the landscape or visual receptor with the magnitude of change brought about by the proposals. Landscape and visual effects have been recorded as adverse, neutral or beneficial. Where the beneficial elements of the development offset the adverse elements, or where a significant change in the view is neither adverse nor beneficial, the overall effect has been recorded as neutral. In determining the significance of residual effects all mitigation measures are taken into account. At all times, professional judgement is used to determine the overall significance of effects (informed by judgements made regarding sensitivity and magnitude).

Landscape Assessment Methodology

Landscape Sensitivity

8.3.11 The assessment combines both objective and subjective appraisal of the townscape. The appraisal consists of three stages, which include a desk study, a field survey and an analysis of the results.

Objective Appraisal

8.3.12 This appraisal records dominant townscape elements, which, depending on their prominence and importance, contribute to the overall character of the area. Typical elements include topography, grain, scale, layout, landmarks and permeability. Special values attributed by others, such as heritage designations, Conservation Areas, Listed Buildings and local planning designations are also recorded.

8.3.13 This information, collected during the desk and field survey stages, comprises existing information from statutory agencies and local planning authorities, Ordnance Survey maps, aerial photographs and other relevant data to enable a comprehensive understanding of the site and its surroundings to be formulated.

8.3.14 The information is verified during the field survey stage when additional data on land use, built development, pattern and scale can been gathered. The main townscape elements will be described in the text, and illustrated by figures, for example in respect of topography, character, legibility, permeability, views and planning designations.

Subjective Appraisal

8.3.15 This appraisal considers aesthetic factors, which collectively describe the impression of the townscape gathered during the field survey stage. These include a record of the degree of balance,

enclosure, texture, colour, diversity, movement, form and unity of the townscape. The application of a subjective appraisal is based on professional judgement and experience.

Analysis

8.3.16 The results of the objective and subjective field and desk study appraisals will be analysed alongside photographic records to identify the characteristic qualities of the townscape and to identify those urban areas with broadly similar townscape characteristics.

8.3.17 Photographs will be taken with a 56mm lens, in landscape format, using a digital camera (Canon EOS 20D). Photographs will be taken at eye level from public viewpoints. No access to private properties will be obtained, and where impact to residential and commercial occupiers is given, this will necessarily be estimated. The photographs illustrating the site will be reproduced in the assessment, together with a photo viewpoint location plan, and a description of the views reproduced.

8.3.18 The analysis sets out the character of the townscape and identifies distinctive elements, the pattern of their arrangement and dominant features and, where applicable, identifies the results of any existing townscape assessments of the site and surrounding area. The analysis process provides a comparative value of the quality of the affected townscape.

8.3.19 The condition of the townscape and its overall sensitivity, in terms of constraints upon development and the degree of tolerance to change of the receptors will be identified at this stage.

Criteria and Thresholds

8.3.20 The need to establish thresholds of significance is fundamental in order to standardise the subjective input to the assessment. Impacts on the townscape can be defined as the relationship between the sensitivity of the townscape receptor and magnitude of the change which the proposals would create. Impact may be positive or negative.

8.3.21 Tables 8.1 and 8.2 set out a scale of townscape classification alongside a scale of the extent of influence of change. This allows a relative value to be attributed to both the townscape sensitivity and to the magnitude of change. Table 8.3 describes the significance thresholds derived from the combination of these two factors. As sensitivity and magnitude of change can vary between the categories of high, medium and low, so the degree of impact can vary between substantial, moderate and slight. Impacts may also be adverse or beneficial in nature.

Table 8.1: Examples of Townscape Receptors	
Townscape Receptor Type	**Townscape Sensitivity**
Townscape of national or regional importance, of distinctive character worthy of conservation or of exceptional quality. Townscape has few detractors and is susceptible to relatively small changes.	High
Townscape of moderately valued characteristics/components. Local designated or recognised distinguishing features. Diversity results in some capacity for change.	Medium
Townscape which may include damaged or derelict elements. Partially degraded with no features of recognised value. Tolerant of change and capable of enhancement.	Low

Table 8. 2: Examples of Magnitude Effect	
EXTENT OF INFLUENCE (Magnitude of Change)	**MAGNITUDE OF CHANGE**
Changes in townscape character may be unavoidable and permanent. Development is at odds with existing landform, scale and pattern.	Usually high
Obvious, long term changes in townscape character. Noticeable in vicinity due to prominent elements or visible from a wider area.	Medium to high sensitivity, depending on local characteristics
Partial changes in townscape character may range from moderate to slight. Proposed development will be noticeable due to contrast with existing topography, grain, scale and pattern.	Usually medium
Changes in townscape character may be slight or temporary. Localised impact, does not affect character of wider area.	Medium to low
Changes in townscape character and quality may be virtually imperceptible.	Low/ Negligible

Table 8.3 describes the significance thresholds derived from the combination of these two factors which will be used to complete the landscape assessment. Impacts may be positive or negative, expressed as adverse or beneficial.

Table 8.3: Significance Thresholds – Townscape Receptors				
	TOWNSCAPE SENSITIVITY			
MAGNITUDE of CHANGE		**LOW**	**MEDIUM**	**HIGH**
	HIGH	Moderate impact	Substantial impact	Substantial impact
	MEDIUM	Slight to moderate impact	Moderate impact	Moderate to substantial impact
	LOW	Slight impact	Slight impact	Slight to moderate impact
	NEGLIGIBLE	No effect	No effect	No effect

Visual Assessment

8.3.22 A comprehensive visual assessment will be undertaken to determine the degree of visual impact the proposed development would have upon visual receptors in the surrounding townscape.

Key Viewpoints

8.3.23 Within the extent of a Visual Envelope, it would not be practical to illustrate the visual impact on every individual visual receptor affected by a scheme. Representative viewpoints will therefore be used to assess the impacts on the different range of views towards the site. Viewpoints are illustrated photographically using a 50mm lens digital camera.

8.3.24 In order to establish a visual envelope i.e. the area within which the development may be visible, a preliminary scheme layout will be assessed in relation to Ordnance Survey Maps. This provisional visual envelope will then be refined by subsequent fieldwork, at which stage visual receptors identified that may experience an impact will also be confirmed from the desk study. These include highways, public footpaths, residential properties, work places and publicly accessible locations.

8.3.25 The assessment will also consider a number of factors, including:

- Location of the viewpoint and nature of existing view
- Distance between the observer and the scheme
- The context within which the development is observed
- Sensitivity of the observer

8.3.26 Impacts can be defined as the relationship between the sensitivity of the visual receptors, and the degree of the magnitude of the change in the view.

8.3.27 Existing views from these locations will be compared with those that would result if the scheme were to be constructed. The comparative changes in the views will be recorded in the winter of the first year and in the summer of the fifteenth year following the development, taking into account mitigation that would be provided as part of the scheme. Changes in views are recorded as adverse or beneficial impacts, representing either deterioration or improvement in visual amenity terms.

8.3.28 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.

8.3.29 For each viewpoint, the sensitivity and magnitude factors will be determined according to the classification scales set out in Tables 8.4 and 8.5 below.

Table 8.4: Examples of Visual Receptor Sensitivity

VISUAL RECEPTOR TYPE	**VISUAL SENSITIVITY**
For example, public areas with open views of the development site and residential properties with full views of the development. Important and popular views from within nationally or internationally designated townscape. Views from or within the setting of a Grade I or II* listed building. Widely visited sites important for tourism and/or urban identity.	High
For example, public areas and residential properties with limited views of the development site. Also outdoor recreational facilities, main roads and local roads with open views of the development. Views from locally designated townscape.	Medium
Ordinary views with little local significance. For example, industrial and commercial premises with open views of the development. Also main roads and local roads with restricted views of the development. Poor quality townscape not recognised as having local interest or covered by local townscape designation.	Low

Table 8.5: Examples of Magnitude of Change on Visual Receptors	
EXTENT OF INFLUENCE ON VISUAL RECEPTOR	**MAGNITUDE OF CHANGE**
The proposed development becomes an important and immediately obvious or dominant new feature within the urban scene; may affect and change townscape character. For example, majority of viewers affected or major change in the view.	High
The proposed development is visible and identifiable within the view; readily detected by the majority of viewers. For example, many viewers affected, or moderate change in the view.	Medium
The proposed development constitutes a minor feature in the view within which it is neither framed nor prominent and therefore not readily noticeable. Activities associated with the development are not obvious in the view. For example, few viewers affected or minor change in the view.	Low

8.3.30 Table 8.6 describes the significance thresholds derived from the combination of these two factors which will be used to complete the visual assessment. Impacts may be positive or negative, expressed as adverse or beneficial.

Table 8.6: Significance Thresholds – Visual Receptors				
	VISUAL SENSITIVITY			
MAGNITUDE of CHANGE		**LOW**	**MEDIUM**	**HIGH**
	HIGH	Moderate impact	Substantial impact	Substantial impact
	MEDIUM	Slight to moderate impact	Moderate impact	Moderate to substantial impact
	LOW	Slight impact	Slight impact	Slight to moderate impact
	NEGLIGIBLE	No effect	No effect	No effect

Approach to Assessment

Study Area

8.3.31 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 forms. The Study Area has been verified by a site visit. The rolling landform of the surrounding area may result in longer distance views of individual elements of the proposals. In view of the townscape context of the site these views would only be considered where the proposals were likely to have a significant impact on views.

Consultation

8.3.32 The locations of Key Viewpoints were agreed with the Planning Officer from Derby City Council, in February 2009, and have been considered within the site assessment. These representative viewpoints have been used in the production of photomontages to illustrate the LVIA.

8.4 Existing Baseline Conditions

Landform and Drainage

8.4.1 Derby lies in the Trent Valley which is defined by the many rivers that run through it and the open floodplain that they create. The floodplain is predominantly a heavy clay loam with a sandy loam on the gravel terraces that rise above the valley floor. The whole valley is defined by a rise in land (30 to 40m) formed by Mercia Mudstone to the north and Triassic clays to the south and east. The Blithe, Dove, Derwent, Erewash Rivers and the Trent drain from the North and the Tame, Mease and Soar Rivers drain from the South.

Landcover, Vegetation and Land Use

8.4.2 The Washlands comprise a disjointed mix of pastoral and arable landscape intermixed with urban development.

8.4.3 The urban developments comprise of housing, retail, light industry and services are common along the valley floor. A dominant feature of the valley is the road network, as well as the large power stations which take up extensive areas with their cooling towers, stores of coal, heaps of ash, railway sidings and associated buildings.

8.4.4 The site itself is situated in an urban area with mainly a mix of industrial and housing development surrounding it. There is however a significant amount of surrounding green space provided by a large allotment garden opposite the site, tree planting in private gardens, a green corridor along the embankments of the adjacent railway line and overgrown derelict land.

Settlement Pattern, Townscape and Cultural Associations

8.4.5 Derby began as a Roman fort but the main period of growth resulted from the development of the cloth industry during the 17th Century. By the 18th Century Derby had become a substantial market town and the first silk mill opened 1717. However, the coming of the railway in 1839 increased the prosperity of the town with the Midland Railway Company building railway workshops from the mid 19th Century onwards. The railway workshops became a major employer together with the numerous iron foundries and the railway engineering continued through into the 20th Century. The rapid growth continued through the 19th and 20th centuries with the Pear Tree area adjacent to the site seeing significant new house building in the late 19th Century. Rolls Royce opened a factory in 1907 for both car and aircraft engines and this factory has since expanded to cover the area to the south and south-east of the site under consideration.

8.4.6 There are no areas or buildings of significant historic or cultural interest in the vicinity of the site which is typical of a suburban location. The historic City centre is located to the north whilst the area to the site forms part of a 'Green Wedge' comprising the Municipal Golf Club and the edge of Sinfin Moor.

Landscape Character Assessment

National Level – Countryside Character Volume 4: East Midlands, Natural England formerly Countryside Agency (1998)

8.4.7 The National Landscape Character Area, as identified by the Countryside Agency, which is applicable to this site is JCA 69: Trent Valley Washlands. The key characteristics of LCA 69 which are relevant to the study area are as follows:

- Flat broad valleys contained by gentle side slopes, with wide rivers slowly flowing between alluvial terraces.
- Constant presence of urban development, mostly on valley sides, in places sprawling across the valley and transport corridors following the valley route.
- Open character punctuated by massive cooling towers of power stations and strongly influenced by pylons, sand and gravel extraction, and roads

NOTE: The site borders onto JCA 69: Needwood and South Derbyshire Claylands, however there are no relevant key characteristics from that character area that relate to the site.

Local Level – Derbyshire County Council Landscape Character Assessment

8.4.8 The existing local character assessment is constrained by the urban edge of the city of Derby. A townscape assessment has been commissioned by the city council but is unlikely to be ready to inform this LVIA.

8.4.9 As part of the site survey work carried out for the LVIA, the area around the site was classified into character types largely dictated by land use. These character types are illustrated on Figure 8.3 and described below:

Retail and Recreation

8.4.10 Where the railway splits and divides to the north of the site lies Foresters Park Leisure Park. A dominating feature in the area which comprises of a Show Case Cinema, Gala Bingo hall and bowling alley which are housed in large fairly new grey units along Foresters Way. The Oast House pub with hotel is of distinctive character in the area and fast food restaurants occupy single storey units. Grassed areas separate the units and car parking with few newly planted trees, providing no screening. Over the eastern side of the railway is a large B&Q development along with a Sainsbury's supermarket with adequate car parking for both. None of these developments reflect the local vernacular in either design or detail and are typical of urban retail development nationwide.

Railway corridor

8.4.11 The railway line splits and divides to the north of the site, creating the boundary to the north west and north east. The line to the west runs along the base of an embankment and is effectively hidden from view, with a mix of scrub vegetation with mainly birch trees as screening. This separates the site from the leisure/retail area. To the north east the line is more exposed to the site with an embankment separating the railway line from the B&Q development. It is a single track line which terminates in the Rolls Royce development. This line suggests that it is used for the soul purpose of Rolls Royce to carry freight by rail. The embankment also benefits from newly planted whips to eventually screen the railway from view.

Industrial Areas/Commercial

8.4.12 The area is largely dominated by the needs of the surrounding Rolls Royce development which stretches to the south of the site and occupies large areas between Sinfin Lane and Victory Road on both sides of the north eastern railway. It is one of the largest and best-known employers in the East Midlands. The leisure area benefits greatly from the workers who use the facilities mainly around lunchtime with constant pedestrian movement along Victory Road. The Rolls Royce Heritage Trust exhibition area hold a selection of aero engines and

sectioned parts which visitors are able to see how Rolls Royce has developed into the company it is today. The buildings are a mix of new developments with the use of glass and reflective surfaces along with the original brick built units as the site has expanded and grown over the years allowing up to date building trends and materials to be used in their expansion.

8.4.13 To the south of the site, older brick built industrial buildings stand, contrasting from the leisure facilities units and newer Rolls Royce developments to the north. Vegetation is sparse around these industrial developments, making them clearly visible.

Residential Areas

8.4.14 Industrial and leisure facilities encompass the site with the A5111 to the north acting as a divide between these areas and residential area of Pear Tree. No residential units are situated next to the site apart from a row of terraced brick cottages, Railway Cottages, which have rear facing views directly onto the site. The main residential clumps are situated around the buffer of the leisure and industrial areas. In the 1970's Sinfin developed a huge housing development.

8.4.15 The area of Sunny Hill to the north west of the site comprises of a post war residential development which lies next to a village type character of housing and setting to the south of the A5111. A pub, church and recently closed retail unit run along the street, which is aptly named, Village Street. There are statutorily protected cultural heritage receptors along Village Street which are three Grade II listed dwellings, approximately 0.7kn north west of the proposed development area. The dwellings date back to the 18th and 19th century. In addition, three buildings are Locally Listed including two churches and Normanton House (now part of Homelands Grammar School). Rows of terraces line the north of the A5111 which would have been built to serve the Ordinance Factory which has now been demolished.

8.4.16 The 1950s era semi-detached houses that edge Victory Road all benefit from large front gardens while street trees and numerous grass verges also border the wide pavements. The material palette for these houses is a predominately brick and render combination, with either a red or grey concrete tiled roof scheme. To the rear of these properties the gardens are also larger than normal for the area and there is a high level of tree and established hedgerow planting which provides a green buffer to any adjacent houses.

Open Areas

8.4.17 Allotments lie to the west of the site on the adjacent side of Sinfin Lane providing a private and enclosed area of green space. Allotment gardens are scattered throughout the area providing pockets of varying vegetation cover. Further south westerly of the site there is a recreation area which serves the needs of Sunny Hill residents and is closed off from the developments east due to the railway line passing alongside it.

8.4.18 Osmaston Park lies to the east of the site with mature woodland blocks which breaks up the sports facilities creating sheltered ground for outdoor sports. South of the site lies Sinfin municipal golf course which has a fairly flat terrain with tree lined fairways.

Landscape Receptors

8.4.19 Landscape Features

In order to assess the impacts on the landscape resulting from the proposed development the main landscape features within and adjacent to the site are summarised below:

- Landform/topography
- Landcover/vegetation
- Trees

8.4.20 Landscape/townscape Character

In order to determine the impacts resulting from the proposed development on townscape character, the effects of the proposals on the following landscape character types and area will be assessed:

Countryside Agency Landscape Character Assessment

- Character Area 69: Trent Valley Washlands

Local Townscape Character Assessment

- Areas identified as part of the site survey

Baseline Visual Amenity and Views

Zone of Visual Influence

8.4.21 The Visual Envelope and principal viewpoints were confirmed in the field by visiting specific locations within the urban area. Landscape features, which form visual barriers and restrict views towards parts of the site, such as landform, built form and vegetation, were evaluated and significant barriers identified. The visual envelope as it relates to surrounding properties is illustrated in Figure 8.3.

8.4.22 The following broad descriptions help to identify and characterise visual receptors in the local and wider landscape.

Views from residential properties

8.4.23 The influence of local topography and the surrounding industrial and leisure developments surrounding the site obscure the potential for open views from any properties other than those with rear facing views onto the adjacent allotments and the row of cottages directly on the site boundary.

Views from Public roads

8.4.24 Views from public roads are largely limited due to the narrow site entrance opening onto Sinfin Lane and from the cottages which obscure views of the site behind. Views from the main road are obscured by leisure developments and from the dense scrub vegetation on the outer areas of the site boundary.

Views from Other Publicly Accessible Locations

8.4.25 Views have been indentified from leisure facilities and allotment space surrounding the site. Views of the existing site are not possible from the south due to the area of industrial development partly associated with Rolls Royce. Views from footpaths in the area are largely obscured from the site due to the wider industrial context.

Visual Receptors

8.4.26 In order to provide an assessment of the impacts on visual amenity resulting from the proposals, the main visual receptors affected by the scheme are identified below (specific receptors are listed in the Landscape and Visual Impact tables contained in the Appendix.

- Adjacent residential properties within the local area
- Commercial and industrial properties adjacent to site
- Users of roads and footpaths

Key Viewpoints

8.4.27 Eight key viewpoints have been selected from the visual receptors within the study area of the proposals and are listed below. The viewpoint locations are shown on Figure 8.6. Viewpoints have been approved after consultation with Paul Clarke, Head of Development Control along with Isabel Howdon-Bancroft, Planning Support Services Officer at Derby City Borough Council on 2/2/09. The viewpoints are to also be presented as photomontages of the proposed scheme and are considered representative of the views of the proposals from all types of the visual receptors within the study area.

Key Viewpoint 1: Sinfin Lane railway bridge looking east

Key Viewpoint 2: Allotment entrance along Sinfin Lane looking south west

Key Viewpoint 3: Browning Street looking south east

Key Viewpoint 4: Kitchener Avenue looking south west

Key Viewpoint 5: Oast House car park looking south

Key Viewpoint 6: A5111 railway bridge looking south west

Key Viewpoint 7: A5111 roundabout near Sainsbury's development looking south

Key Viewpoint 8: Victory road through break in housing looking west

8.5 Incorporated Enhancement and Mitigation

Scheme Outline

8.5.1 The scheme comprises a Waste Treatment Facility with educational and office building with access onto Sinfin Lane.

8.5.2 The proposals include a vehicular access road into the site from Sinfin Lane. The road will largely follow the existing site levels. The access road is proposed further south than the original site access to improve visibility.

8.5.3 A landscaping scheme is proposed as part of the development which will provide a green buffer to the facility and address views from surrounding residential, leisure and industrial units. Existing trees will be kept and maintained where possible to give immediate height in the landscaping in keeping with the height of the proposed facility.

8.5.4 The landscape proposals are as shown on Figure 4.19

Potential Effects

8.5.5 The following effects are anticipated in Year 1

- Loss of scrub vegetation and scattered trees within the site;
- Changes to the streetscape/appearance of Sinfin Lane
- Changes to the appearance of the derelict land with the removal of the existing rough grass surface and the construction of new buildings.
- Changes to the appearance of the site boundaries

8.5.6 The following effects are anticipated in Year 15

- Maturation of the new landscape scheme for the site, in particular the site boundaries and green roof;

8.5.7 The main elements of the scheme design which seek to address landscape and visual issues include the following concepts:

Careful siting and massing of the proposed built form.

8.5.8 The main structure is set back from Sinfin lane and avoids being an overly dominant feature of the existing streetscape by means of the proposed site mounding which has been designed as part of the scheme proposals. The lower structure of the education centre has been designed at a more domestic scale.

Zoning of the site to reduce the impact on the adjoining land uses.

8.5.9 The main bulk of the structures are located to the rear of the site and allowance has been made to includes buffers on all boundaries between the new structures and adjacent land uses. The public zone is focussed on the street frontage with an allowance for parking and outdoor space for use as part of the education centre.

Choice of materials to ensure integration.

8.5.10 The main structure is designed to be compatible with the local industrial/commercial buildings. The use of 'Goose Wing Grey' is sympathetic to the adjacent properties and is generally more recessive in views although the textured surface reflects light differently and appears slightly darker in views. This is intended to reduce the visual impact of the structure particularly in more distant views whereas the education centre has a greater variety and range of colours and materials to appeal on a more domestic scale as a publicly accessible building.

Retention and management of the existing vegetation.

8.5.11 The layout retains the strongest area of planting already present on the site which provides an important buffer between the industrial land to the south and the recreational uses to the

north. The existing woodland is associated with the railway line and comprises both on and off-site planting to provide additional benefit. The landscape proposals build upon the existing landscape structure to integrate and enhance.

The introduction of a 'Green Roof'.

8.5.12 The education centre includes proposals for a 'Green Roof' as part of the design. This will assist with integration of the structure into the landscaped setting.

8.6. Identification and Evaluation of Effects

Assessment of Effects

A. Landscape Effects

8.6.1 The significance of the impact of the proposals on landscape and townscape receptors (individual landscape features within the site and local character) is a function of the sensitivity of the receptor to the particular type of development and the magnitude of change resulting from the development. The sensitivity and magnitude criteria used for this assessment are described in the methodology within Section 3 of this report and the detailed landscape impact assessment is described in the tables contained at Appendix 1

8.6.2 The following effects are anticipated in Year 1:

Landscape features

There will be an impact on the site vegetation due to changes in level and the need to create a new development platform for the proposals. Much of the boundary vegetation is associated with the adjacent railway cuttings and will be unaffected by the proposals. The site vegetation falls into two main types namely a herb layer, with intermittent scrub and small trees, and unmanaged self seeded trees and undergrowth. The main impact will be the removal of individual trees and areas of scrub within the site.

The impacts are expected to range from No Effect on landform to Moderate Adverse on the existing site vegetation.

Landscape Character

The development proposals will not impact on the wider character area of JCA 69: *Trent Valley Washlands.* The scheme is not anticipated to have a major impact on local character and has been assessed as having an impact of Slight Adverse in Year 1 reflecting the changes to Sinfin Lane and the character of the site itself in the short term.

8.6.3 The following effects are anticipated in Year 15:

Landscape features

It is anticipated that there will be a range of impacts from No Effect to Moderate Beneficial resulting from the site boundary improvements and the opportunities for enhancement of the site through the landscape proposals.

Landscape Character

There will be 'No effect' on landscape character resulting from the proposals.

B. Visual Effects

8.6.4 The visual effects of the proposals on Key Viewpoints and individual receptors are described within the Landscape and Visual Impact Tables contained within the Appendix. It must be noted that the selection of Key Viewpoints seeks to represent the views experienced by a range of visual receptor groups at specific locations from which the site is visible. The visual effects of the proposals are such that the resulting ZVI covers a high proportion of highly sensitive receptors such as residential areas and few lower sensitivity receptors such as places of work. The actual magnitude of change experienced by a given receptor group will determine the assessment at different locations and includes the numbers of viewers affected. The visual assessment necessarily under-represents those receptor groups of lower sensitivity, and those locations from which views of the site are to a large extent restricted.

8.6.5 The following effects are anticipated in Year 1 (Winter):

It is anticipated that there will be a range of visual impacts resulting from the development. Viewpoints 4 and 7 will experience a Moderate/Slight adverse impact whereas the remaining viewpoints will experience a Slight adverse visual impact. The residential properties located in surrounding streets are predicted to experience a range of impacts from Slight to Moderate adverse. The properties expected to experience a Moderate adverse impact are those located close to the site (Railway Cottages) or in an elevated location with open ground floor views in Osmaston Park Road, Victory Road and Dryden Street. Impacts of Moderate to Slight adverse are predicted from other public locations with the most significant being the predicted impact of Moderate Adverse from the allotments on Sinfin Lane. Local roads are anticipated to experience either a Slight adverse effect or No Effect.

8.6.6 The following effects are anticipated in Year 15 (Summer):

It is anticipated that the visual impact of the development will be significantly reduced by the proposed mitigation measures. By Year 15 the selected viewpoints will experience either No Effect or a Slight Adverse effect which is expected to reduce over time as the vegetation matures. Following mitigation all of the residential properties are predicted to experience impacts of Slight adverse although this is expected to reduce over time as the vegetation

matures and the buildings become a familiar part of the overall townscape. Local roads are predicted to have no residual impacts.

C. Construction Effects

8.6.7 The construction impacts are likely to include some or all of the following:

- Site clearance;
- Storage and stockpiling of materials;
- Location of welfare facilities;
- Removal of vegetation and protection of retained trees;
- Security measures including lighting and fencing;
- Additional heavy vehicle movements

8.6.8 The specific construction impacts relating to this site are as follows:

- Removal of vegetation and relocation of site entrance.

Landscape: During the construction phase, there will be Slight adverse impacts on Land use and Site vegetation. Slight adverse impacts will be experienced by landform, boundary vegetation and the surrounding skyline.

Visual: During the construction phase, Slight adverse impacts are predicted from 7 of the viewpoints. Viewpoint 7 is predicted to experience a Moderate to Slight adverse impact during construction due to the elevation of the viewpoint.

Individual properties/groups: Generally, residential properties will experience a range of impacts from No Effect to Moderate adverse during construction. The exception will be Railway Cottages experiencing a Substantial Adverse impact through construction of both the proposed buildings and the 4m high acoustic bund to the rear of the properties.

Local Roads: Local roads surrounding the site are predicted to experience Slight adverse impacts during construction.

Mitigation: Mitigation of construction impacts is anticipated to take the form of:

- Fencing/screening of clearance, storage and construction works;
- Regulation of working hours;
- Routing of construction vehicles; and,
- Regulation of security lighting.

8.7. Mitigation

Strengthening of Boundary Planting

8.7.1 Boundary tree planting will be enhanced by the addition of new native trees to reinforce the boundary screen planting. Some existing trees along the boundary, mainly close to the railway embankment on the north side of the site will be retained and managed to achieve sufficient height to filter views of much of the waste facility buildings. The new planting will enhance this boundary vegetation by introducing trees which will create a 'buffer' at a domestic scale, replacing existing self seeded trees which have become 'drawn' as they compete for light and space against the other shrubs and scrub along the boundary.

8.7.2 The existing vegetation will be maintained along the northern boundary which runs along the main railway line. On the southern boundary of the site, native boundary trees and shrubs will be planted with a native hedge mix, retaining all the mix planting against the boundary fence. The eastern boundary along the railway line has a native hedge mix with intermittent tree planting.

Enhancement of Sinfin Lane streetscape near entrance

8.7.3 Planting will be introduced along the Sinfin Lane boundary. The new planting is intended to soften the entrance area and to create an attractive green edge to the new development. A mix of trees and shrubs will be located to both enhance and frame the Education and Office building in views. As well as softening for travellers along Sinfin Lane, the green buffer will benefit the appearance of the view from residential properties and allotment users.

Planting on the acoustic bund

8.7.4 Incorporating planting onto the bund creates extra height to act as a softening influence on the slopes. The bund is to be 4m in height (1:25 slope) with a 15m wide structured planting mix with intermittent trees. The purpose for the bund is to provide acoustic mitigation but it will also serve to enhance potential views into the waste facility development from residential properties as well as creating a green buffer between users of the site and travellers along Sinfin Lane. The location of the bund creates a visual separation between the Education and Office building and the main Waste Facility Building. This divide separates the more domestic scale of building near the entrance with the more substantial Waste facility building behind.

8.8. Residual Impact

8.8.1 Potential effects, their magnitude and significance are summarised in the table below:

Table 9.9: Summary of Residual Effects

Phase	Effect	Type	Magnitude	Significance	Geographical Level of Importance of Issue				
					I	N	R	D	L
Construction	Landscape	Adverse	Low - Medium	Slight - Moderate					*
Construction	Visual amenity	Adverse	High - Low	No effect - Substantial					*
Operation Yr0	Landscape	Adverse	Negligible - Medium	No effect - Moderate					*
Operation Yr0	Visual amenity	Adverse	Low - High	Slight - Moderate					*
Operation Yr15	Landscape	Beneficial	Negligible - Medium	No effect - Moderate					*
Operation Yr15	Visual amenity	Adverse	Negligible - Medium	No effect - Slight					*

Key: I: International N: National R: Regional D: District L: Local

8.8.2 The landscape masterplan Figure 4.19 identifies areas of additional tree and shrub planting to help integrate the new development into the existing vegetation on site. This addition is to strengthen the boundary buffer planting already present on site and also filter views of ground level activity and the lower curtilage of the proposed building. New tree planting will take some years to mature for assessment purposes and in line with good practice an assessment 15 years after planting is used, at which trees have generally reached an acceptable height to be considered as a screen in Summer. In carrying out the visual assessment, consideration has been given to any reduction in the visual effects over the fifteen years following completion of the development arising out of the establishment, growth and maturing of both existing and proposed planting.

8.8.3 In general terms, the main visual effects of the development relate to the visibility of the upper mass of the main facility building and, in particular, the stack over varying distances. Whilst the proposed tree planting will help to reduce the visual effects of the development in closer views, there would overall be limited changes to the significance of the visual effects of the development between its year of competition and fifteen years hence. This reflects that the focus of the mitigation of the scheme has been upon the siting of the building and its appearance. (i.e its colour and the detailed design of its elevations) in the limited views in which it will be visible (principally to the north west and north east of the development). The most visible element of the proposals will be the stack which will be a new feature in views.

8.9 Conclusions

A. Landscape Impact

8.9.1 The landscape assessment of the proposed development has shown that there will be no long term impact on the character of the area around the site. The proposals do not conflict with the character in either local or regional terms and have been shown to have little impact on the wider townscape.

8.9.2 The landscape assessment also indicates that the scheme will present an opportunity to enhance the landscape features within the site boundary with the planting of native trees and hedges. The landscape proposals present opportunities to enhance the existing landscape features resulting in benefits to the tree cover and 'greenness' of the surrounding area.

B. Visual Impact

8.9.3 The main factors affecting the visual assessment are the reintroduction of built form within the site and the impact of the development on the existing boundary vegetation. The site has been shown to be visually contained by the high level of boundary vegetation and the urban context of the site itself. Many of the surrounding views are limited to upstairs windows due to garden vegetation and boundary fences screening ground floor living areas. This boundary vegetation helps to soften and filter views throughout the year.

8.9.4 The scheme introduces new built form and structures into an area of previously derelict land use.

8.9.5 The main impacts are:

- New main Waste Facility building;
- New Visitor/Education Centre;
- New site entrance off Sinfin Lane;
- Vehicle and pedestrian movement;
- New green areas for outdoor education and seating space,
- Enhanced boundary vegetation.
- New acoustic bund which also provides separation.

8.9.6 The site is largely only visible from properties to the north east of the development and to the north west. It is anticipated that the majority of visual impacts will be limited to these areas and glimpsed views from surrounding leisure and industrial land use. Although the changes to Sinfin Lane involve the provision of a new access road, it is clear that the proposals will replace an unattractive, derelict area of land which currently detracts from the surrounding residential development and built up area of the immediate surrounding area.

8.9.7 The scheme does not impact on significant or valued local views or landmarks.

8.9.8 In summary, the proposed development has been shown to have low residual townscape and visual impacts.

8.9.9 The landscape proposals are in accordance with the local landscape planning framework in terms of mitigation of the scheme and enhancement of the existing situation. The scheme does not have impacts on any townscape designations.

8.9.10 In visual terms, the site has been shown to be well contained by vegetation and largely appropriate to the local visual context due to the extensive boundary vegetation and the scale of development directly adjacent to the site boundaries. The site can absorb a degree of change due to the well-developed northern site boundary vegetation, the local topography and the existing redundant commercial land use. The proposals utilise elements of the existing site, including topography and boundary vegetation, to integrate the scheme into the surrounding urban context without significant visual impacts other than on site boundaries in the short term.

8.10. References

- Guidelines for Landscape and Visual Impact Assessment, 2nd Edition (2002) Landscape Institute and the Institute for Environmental Management and Assessment.
- Guidelines for Landscape Character Assessment, (2002) Countryside Agency
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- Planning Policy Statement 1 (PPS1): Delivering Sustainable Development, February 2005
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- East Midlands Regional Plan, March 2009-05-01 City of Derby Local plan review, January 2006
- Local Development Framework (to be adopted June 2010)