Planning and Design Brief
May 2007

Blackhorse Lane
Sutherland Road
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This document, the Interim Planning Policy Framework, other planning and design briefs and background documents can be downloaded from:
www.walthamforest.gov.uk/blackhorselane
1. Introduction

Urban Practitioners and Allies and Morrison have been commissioned by the London Borough of Waltham Forest to develop a Planning and Design brief for the Sutherland Road area in Waltham Forest as part of the Council’s wider initiative for the regeneration of the Blackhorse Lane area.

The vision for the Sutherland Road area is of a new residential community focused around a public garden square in the northern half of the site, and a business park to the south with a new access road linking Blackhorse Lane to Sutherland Road.

This brief should be read in conjunction with the recently adopted Blackhorse Lane Interim Planning Policy Framework (September 2006), and is aimed at identifying principles to guide future development on the site, derived from a thorough analysis of the site and its attendant opportunities and constraints. It is hoped that the brief will be utilised as a promotional tool to attract potential future investors and as a development strategy by existing landowners.
1.1 The vision for Blackhorse Lane

Creating a thriving, more attractive place for both residents and businesses

This design brief should be read in conjunction with the recently adopted Blackhorse Lane Interim Planning Policy Framework (IPPF) (September 2006). The IPPF provides a clear framework to support the regeneration of the Blackhorse Lane area over the next 10 years. The IPPF is the culmination of two years of analysis, options appraisal, and consultation. It outlines a vision for the future of the area which is not only supported by the local Council (London Borough of Waltham Forest), but also enjoys widespread support from other public agencies, landowners and the local community.

The IPPF identifies three growth areas for development (see Figure 1.1):
- The Station Area;
- Sutherland Road; and
- Billet/Kimberley.

This planning and design brief relates to the Sutherland Road area and sets out the following:
- Site context;
- Urban design analysis;
- Issues and opportunities; and
- Design principles.
1.2 The vision for Blackhorse Lane

Six key objectives

The vision for the Blackhorse Lane area, as outlined in the Blackhorse Lane IPPF, describes an area which has great potential for improvement for becoming a thriving, attractive place for both residents and businesses with significant community facilities. Blackhorse Lane is in an excellent position adjacent to the reservoirs and the beautiful natural assets of the Lee Valley Regional Park, with good rail and tube connections to London and the surrounding boroughs. The area also has a strong base of small and medium sized businesses and a substantial young population, and all of their needs must be taken into account in this revitalisation process in order to fully benefit from the area’s existing strengths as a well-established industrial and residential community.

The planning framework outlines six objectives for the future of the area:
- **Objective 1** – A new centre around the station
- **Objective 2** – Bringing the country into the city
- **Objective 3** – Meeting housing need
- **Objective 4** – A 21st century business area
- **Objective 5** – New horizons for local people
- **Objective 6** – Managing traffic and encouraging sustainable transport.

**Objective 1: A new centre around the station**

Blackhorse Road station marks the entry into Waltham Forest and has the potential to become an impressive gateway into the borough and a vibrant local hub. With its good public transport connections and its strategic location within the London-Stansted-Cambridge-Peterborough corridor, there is an opportunity for new development to be focused around the station. A high density, mixed use development with retail, leisure and housing is proposed, focused around a new public square opposite Blackhorse Road station.

**Objective 2: Bringing the country into the city**

Blackhorse Lane is located adjacent to a tremendous natural resource, the Lea Valley Regional Park, which incorporates the reservoirs to the west and Tottenham Marshes to the north. Views of the reservoirs and Marshes are currently restricted by barriers such as the extensive industrial area and a lack of information and signage.

A range of proposals for the wider Blackhorse Lane area seek to address these issues, including new ‘green’ routes leading from Blackhorse Lane to the reservoirs and from Billet Road to Banbury Reservoir and the adjacent playing fields in the...
north of the area, and a new linear park along the eastern edge of the High Maynard Reservoir. These proposals have been considered through partnership working with the key stakeholders such as the Lee Valley Regional Park Authority, the Environment Agency and Thames Water.

**Objective 3: Meeting housing need**
There is a London-wide housing shortage and Blackhorse Lane has significant housing deprivation. The planning framework will enable the development of up to 2,000 new homes in the area, including a high proportion of affordable homes to rent or buy. The emphasis for development in the Blackhorse Lane area, in accordance with the London Plan, is for sustainable mixed use development which offers high quality living for new residents and contributes positively to the quality of life of existing residents by accommodating new public spaces, walking and cycling routes, shops, services and leisure opportunities.

**Objective 4: A 21st Century business area**
Blackhorse Lane forms part of an industrial location of regional importance, the Upper Lee Valley. Proposals for the area which seek to emphasise this strength include increasing commercial floorspace by increasing development densities on existing sites, and renewing and modernising industrial areas. In addition, it is important that the needs of residents living close to industrial areas are taken into account when considering access for heavy goods vehicles, security and noise levels.

**Objective 5: New horizons for local people**
The future development of the Blackhorse Lane area must take into account and provide for the current and future needs of local people, particularly young people. A range of service developments are either planned or in development including a new children’s centre, a health centre and new schools offering the local community greater use of their facilities outside school hours.

**Objective 6: Managing traffic and encouraging sustainable transport**
Based on the findings of a detailed Transport Access and Infrastructure study, the planning framework seeks to improve conditions for pedestrians, cyclists, and users of public transport, whilst ensuring the efficient servicing of businesses and homes. Proposals include increased housing and employment densities around the area’s key transport node, Blackhorse Road station, improved pedestrian access to the station, new walking and cycling routes, and new access roads for industrial traffic.
2. Site context

Section 2 provides a brief description of the site and its location within the wider context of the Blackhorse Lane area.
2.1 Sutherland Road

Setting the scene

Sutherland Road is located in the western portion of the London Borough of Waltham Forest, immediately east of the Blackhorse Lane industrial area, Blackhorse Lane itself (the B179) and the Lockwood and Maynard Reservoirs which form part of the Lee Valley.

The site is located within the Upper Lee Valley Opportunity Area and is in close proximity to a number of regeneration areas which will be undergoing major change in the near future, including the Lower Lea Valley and the site of the Olympic Park and Tottenham Hale, amongst others.

The wider Sutherland Road industrial area covers an area of some 7.5ha and is located between Blackhorse Lane and Higham Hill Road. The industrial area is approximately 500m from the Blackhorse Road transport interchange. Only part of this area is covered by this planning brief and is shown overleaf in Figure 2.2.
2.1 Sutherland Road

Setting the scene

As Figures 2.2 and 2.3 show, the site covered by this planning brief is bounded by residential properties to the north, south, northwest and northeast, and bounded by industrial premises to the southeast and Blackhorse Lane to the southwest. Most of the Northern section of Sutherland Road (site BHL4) is designated in the Unitary Development Plan as a Borough Employment Area. However, this area currently offers a poor business environment with older industrial premises a number of which are vacant or underused and a cluster of ‘difficult neighbour’ businesses. Many of these older premises are no longer fit for purpose and are ripe for redevelopment. An element of mixed use has emerged on part of the site which has resulted in an unsatisfactory conflict of amenity between residential and business occupiers.

In the north-eastern corner, the planning and design brief site includes the Aldgate site which has planning permission for a 240 unit residential development which is now on site. The plans for the eastern portion of the site include a new north-south pedestrian and access-only route through the Aldgate site, along the alignment of Stirling Road, which will help to increase the permeability of the area, whilst also helping to create a finer grain, residential area which integrates well with the existing fabric.

The Sutherland Road site is currently characterised by a mixture of modest one to two-storey light industrial units containing a range of tertiary industries, larger warehousing and manufacturing units, and a handful of more contemporary office buildings. Units range in size from 1,000 sq. ft studios to larger buildings of over 40,000 sq. ft.

Figure 2.2 Boundary of the Sutherland Road site

Sutherland Road itself is relatively narrow and suffers from severe access and parking problems which can cause congestion at busy times. The Council views the improvement of traffic circulation in Sutherland Road as a key catalyst in its regeneration.

The Council will seek to secure the regeneration of the Sutherland Road area by encouraging proposals that promote a comprehensive and co-ordinated approach to redevelopment with appropriate phasing to ensure the necessary infrastructure is in place to facilitate business relocations, safeguard jobs and provide a high quality residential environment. This will require site assembly and support for businesses to help them stay within the local area.
Land use policies
The planning and design brief site covers three development sites as specified by IPPF Policy BHLP1 and shown on Figure 2.3 outlined in red. Sites BHL4 and BHL5, currently in employment use, are identified for residential development (site BHL5 already has permission for a 240 unit residential development). The release of these sites for residential development is part of a strategy set out in the IPPF for Borough Employment Areas (as designated in the UDP). Section 9.1 of the IPPF notes that there is falling demand for industrial/warehousing land in London (particularly East and North East London) and the London Plan supports the managed release of such land for other uses. Section 9.5 of the IPPF states that the northern section of Sutherland Road (site BHL4) has been selected to be released for residential development because the area “offers a poor business environment, several vacant or underused industrial sites/premises and a number of difficult neighbour businesses and suffers from severe access and parking problems.”

While proposing a reduction in the overall amount of employment land, the IPPF Section 9.6 sets out a strong strategy for the retained employment land which seeks to protect it and enhance the economic and employment benefits it provides. As part of this strategy, Site BHL6 (Webs Industrial Estate) is identified for a new business park incorporating an access road linking Blackhorse Lane with Sutherland Road. This is supported by IPPF Policy BHLP7 which extends the Blackhorse Lane Strategic Employment Location boundary to cover site BHL6 and other industrial properties to

Figure 2.3 Development sites in the Blackhorse Lane area (extract of Figure 9, taken from the adopted IPPF)
the east and north (see Figure 2.4). Strategic Employment Locations are protected for employment use only by the Mayor of London through the London Plan and associated guidance. As such, any development proposed on this portion of the Sutherland Road site must be for employment uses only. The requirement for a new access road is supported by IPPF Section 11.3.5 which notes that the Council will actively pursue UDP Policy INBS that promotes the construction of such a road to improve vehicular access to businesses in the Sutherland Road area.

Industrial properties to the east of BHL6 are generally well occupied with Unity Works having benefited from significant investment in recent years. However, some limited redevelopment will be required to complete the implementation of new access arrangements for the industrial area and any opportunities for the renewal of older industrial stock within this area may be taken forward in conjunction with the implementation of access and highway improvements.
This section sets out the urban design analysis for the Sutherland Road site which has informed the design principles and proposals set out in the following section. In particular, the analysis highlights the opportunities the site presents for re-introducing a finer urban grain into the area and clearer demarcation of residential and industrial uses.
3.1 Blackhorse Lane area context

Urban grain, existing nodes of activity and character areas

Figures 3.1 to 3.4 here show an overview of the urban design analysis for the wider Blackhorse Lane area. The key findings were as follows:

- there is a seamless urban grain across the wider area;
- there is a fine, human-scale east-west grain across the wider Blackhorse Lane area and across Sutherland Road;
- at present, the majority of industrial activities are focused west of Blackhorse Lane with some at Sutherland Road; and
- the Sutherland Road industrial area is bounded to the north and south by a mix of residential development including terraced housing and modern cul de sac housing to the east, with industrial development to the west.

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3.2 Existing built context and local land use patterns

Land uses in and around Sutherland Road

Sutherland Road is an industrial estate that stretches approximately 0.5km north to south, and is positioned to the east of Blackhorse Lane.

The land uses on the site itself are shown here in Figure 3.5. The key points to note are as follows:

• B2 industrial uses are the predominant use within the site;
• the wider Sutherland Road industrial area is also characterised by a dominance of B2 uses, with some B1 business and B8 storage/distribution uses;
• the Aldgate site in the north-eastern corner of the site covered by this planning brief has permission for a 240 residential units and is currently on site;
• there are two areas of under-utilised space on the Aldgate site and between Sutherland Road and Stirling Road at the centre of the Sutherland Road area; and
• the area around the Sutherland Road industrial area is predominantly residential, with the Blackhorse Lane industrial area to the west.
Figure 3.6 shows the storey heights of buildings in the Sutherland Road area. The key points to note are as follows:

- the site comprises a mixture of mainly one to two storey buildings and warehouses, with a small number of three storey buildings;
- the tallest and largest building in terms of massing is the Paper Mill building on the eastern portion of the Aldgate site; and
- the surrounding residential area is predominantly two storey terraced housing with two to three storey modern cul de sac residential buildings (a mix of houses and flats) to the east and south of the Sutherland Road area.
3.3 Key urban design issues

Key areas for improvement in the Sutherland Road area

Figure 3.7 shows the key urban design issues for the Sutherland Road area. These key issues, some of which are shown on Figure 3.7, are set out below.

1. **Conflict between residential and industrial traffic and parking**, particularly in the surrounding residential areas such as St Andrews Road, Stirling Road and Hillyfield.

2. **Poor quality pedestrian environment**, with a poorly defined Sutherland Path (connecting Blackhorse Lane to Stirling Road via Sutherland Road). Sutherland Road itself is cluttered with waste bins, goods and vehicles parked on both sides of the pavement, and overall, the quality of the public realm and streetscape throughout the site is poor. Together, these factors serve to create an unwelcoming pedestrian environment.

3. **Poor quality interface between industrial and residential uses**, particularly within the Stirling Road area with blank facades or backs of industrial buildings facing houses.

4. **Lack of east-west connections** on the Webbs site in the south-western corner of the planning and design brief boundary - this is particularly important given the extension of the Strategic Employment Location boundary to include this area, as set out in Policy BHLIP7 in the IPPF.
4. Issues and opportunities

This section sets out the issues and opportunities identified for the Sutherland Road area, as highlighted by the urban design and analysis as well as the extensive research that has been undertaken to inform the IPPF and this brief.
4.1 Key issues

Key issues for the Sutherland Road area

1. Land assembly
The site is currently fragmented. Ownership will need to be rationalised and a unified, coherent and deliverable vision for the site needs to be formulated.

2. Access arrangements
The incremental nature of much of the industrial/commercial development on the site, and the irregular shape of many of the component plots, means that it is difficult to access many of the individual sites within the estate, or to traverse the site. However, the proposed new east-west access road through the current Webbs site in the south-western portion of the Sutherland Road area, will improve access in this area in the future and help to separate industrial and residential traffic (see Policy INBS in the 2006 Waltham Forest UDP). Access arrangements must be addressed as part of a comprehensive and co-ordinated approach to the redevelopment of Sutherland Road.

3. Poor quality of the industrial area
Buildings in the Sutherland Road industrial area are of a low quality and the area includes parcels of under-utilised land. The street environment is also poor and cluttered with waste bins and goods vehicles parked on both sides of the road and on the pavement. Overall, the industrial area provides a negative contribution to the amenity value of the surrounding residential areas in terms of streetscape and traffic.

4. Relocation of existing occupiers
The site currently provides accommodation for a significant number of local businesses, which provide services in the local area and beyond, whilst providing a range of employment opportunities. It is important that existing occupiers are helped to stay within the local area, to ensure they continue to provide employment opportunities and service provision into the future.

5. Surrounding residential uses
There is some conflict between residential and industrial/commercial land uses on the site, particularly with regard to heavy goods vehicles entering the residential area. Making improvements to this interface would have to be prioritised if other land uses such as residential were to be introduced onto the site.
4.2 Key opportunities

Key opportunities for the Sutherland Road area

1. An opportunity to create a new residential quarter with a high quality public realm
The introduction of residential accommodation within the Sutherland Road industrial estate would benefit both the immediate locale and the wider neighbourhood, particularly by improving the quality of life by removing ‘bad neighbour’ industrial uses and low quality industrial buildings. New development would provide contributions to local infrastructure through Section 106 agreements, whilst new residential accommodation would make valuable contributions to the borough’s affordable housing stock. It is important that any new development should also contribute towards the provision of a high quality, unified public realm and public spaces in the Sutherland Road area, again potentially through Section 106 agreements.

2. Position within an already well-established residential area
The residential character of the surrounding area would ease the introduction of residential uses on the site, as residential amenity levels would only be enhanced. The new access road proposed through the current Webbs site to connect Blackhorse Lane to Sutherland Road would also serve to enhance the existing residential areas as well as the new development, by removing industrial traffic from the northern portion of the Sutherland Road area.

3. Potential to enhance existing pedestrian connections through area
In addition to the new road proposed to connect Blackhorse Lane with Sutherland Road, the local area would benefit from enhanced pedestrian access through the Sutherland Road industrial area. This would afford greater permeability and would re-connect the residential areas surrounding the industrial site.

4. Potential to consolidate the industrial area
Given that IPPF Policy BHLP7 changes the boundary of the Strategic Employment Location so that it extends to the east to cover the southern portion of the wider Sutherland Road area (see Figure 2.4), this clearly represents an opportunity to consolidate industrial/workspace accommodation to the south of this planning and design brief site, in order to separate it from the new residential quarter to the north.

5. Proximity to Blackhorse Road transport node
Sutherland Road is within easy walking distance of the Blackhorse Road transport interchange, which provides access to central London, Walthamstow Town Centre and locations on the Barking-Gospel Oak route. This invaluable resource would be further enhanced by a new Neighbourhood Centre, providing local services in and around the station site, which could potentially include retail, leisure, food/drink, and residential land uses (see planning brief for the station hub and waterfront site).

6. Proximity to areas undergoing major transformation
Tottenham Hale is located immediately to the west of the reservoirs which bound the western edge of the wider Blackhorse Lane area, and is identified in the London Plan as an Opportunity Area. As such, it is expected to undergo significant redevelopment in the next five to ten years which will also benefit local people in Waltham Forest. There may also be benefits from the Olympic Park site which is under construction for the 2012 Olympic and Paralympic Games to the south, in the Lower Lee Valley, as well as the development of Stratford City.

Overall, the Sutherland Road site presents an excellent opportunity to bring forward a comprehensive scheme with mutual benefits from the different parts of the site. A new dedicated industrial access road serving industrial premises in the southern part of the area would facilitate development of a new high quality business park. The new business park could accommodate displaced firms which would enable the existing poor quality industrial premises in the northern part of the area to be replaced by residential use. This new residential use would also benefit from the access road in terms of an improved environment secured by the elimination of industrial traffic from the northern part of the road.
This section sets out the design principles identified for the Sutherland Road area. It sets out the following:

- a vision for the site;
- design principles;
- public realm proposals;
- development plots and building layout;
- building heights; and
- entrances and access routes.
The vision for Sutherland Road

The vision for the Sutherland Road site is for a new business park on the southern portion of the site with a new, attractive residential community on the northern portion, focused around a new public garden square. The new business park will significantly address the barriers that are preventing businesses in the area from fulfilling their potential by bringing derelict and underused land back into use and providing premises fit for the 21st century. At the same time land released in the north part of Sutherland Road will support the development of a high-quality new residential community bringing significant environmental benefits for residents and businesses in Sutherland Road and the surrounding areas.

An illustrative concept drawing of this vision is shown here in Figure 5.1.

A new business park

It is envisaged that a new business park will be created at the Southern end of Sutherland Road and that this will provide a mix of good quality workspace for local businesses. The Council will seek to secure the redevelopment of the Webbs Industrial Estate bringing significant renewal to the industrial infrastructure and providing modern workspace to support the relocation of businesses from the northern part of Sutherland Road and other development sites in the Blackhorse Lane Area. In this way we will seek to protect existing jobs at the same time as extending opportunities for business growth and new investment. Other opportunities for renewal of older industrial stock within this area may be taken forward in conjunction with the implementation of Highway and access improvements.

Fig. 5.1 Proposed character of the area - concept drawing
5.1 The vision for Sutherland Road

A new business park and a new residential community

At present, most of the Sutherland Road area is a designated Borough Employment Area (BEA), aside from the Aldgate site. With the revision to the SEL boundary as set out in Policy BHLP7 in the IPPF and Figure 2.4 in this document, it is envisaged that industrial units to the south of the Sutherland Road area will become incorporated into this clearly defined business park.

Access for heavy goods and service vehicles for this new business park would be via the proposed, new access road leading from Blackhorse Lane (as set out in UDP Policy INB5), leading eastwards through the business park, parallel with Blenheim Road to the south. Industrial vehicles would therefore only be able to access the southern half of the Sutherland Road area (including the retained Unity Works) and will be restricted from entering the northern, residential area by traffic management measures.

A new residential community

The northern portion of the Sutherland Road area will accommodate this new residential community. The development will take place largely along the western edge of Sutherland Road (from the Webbs site north to St Andrews Road) and on the eastern edge of Sutherland Road (north of Unity Works and including the Aldgate site).

The new residential development must also be integrated carefully and sensitively into the existing urban fabric - this will be reinforced by the re-introduction of a finer urban grain with the clearer demarcation of Sutherland Path east-west across the site, and the new pedestrian/access-only route linking Stirling Road north to St Andrews Road through the Aldgate site.
5.2 Design principles

Principles for new development in the Sutherland Road area

A unified approach
To achieve this vision and address the severe environmental and access constraints while protecting and enhancing local employment opportunities and increasing the supply of homes, a comprehensive and co-ordinated approach to redevelopment is required. Proposals should address the need for site assembly and demonstrate appropriate phasing to ensure that the planning and design principles set out in this brief are realised (see Section 6.1).

In order to help achieve the vision articulated for Sutherland Road, it is vital that development follows a number of design principles which flow directly from the vision statement. These design principles are set out in the next section and further guidance is provided in Section 12.3 of the IPPF. Detail on the phasing of the delivery of the vision and the identified proposals is also provided in Section 6 of this brief.

Following the urban design analysis and site context for the Sutherland Road area, a number of development and design principles have emerged which should be read in conjunction with relevant UDP policies. Figure 5.1 illustrates in broad terms, the nature and character of the redeveloped site. The rest of this section sets out the design principles for the site in more detail.

1. High quality public realm and streetscape
In order to create an attractive residential quarter in which people will want to live, it is essential that the quality of the public realm is of a high standard as well as sustainable. At present, the streetscape is cluttered and creates an unwelcoming environment which is unsuitable for a residential quarter.

Public and private open spaces (including pedestrian footpaths) should be created using planting, high quality materials and lighting which will be hard-wearing, durable and attractive, whilst also providing the maximum amount of natural surveillance possible in order to create a safe residential community. A limited palette of materials and a limited range of street furniture and lighting should be used throughout the Sutherland Road area to create a sense of coherence, but materials may also be used carefully and subtly to differentiate the new residential quarter from the business park.

It is also proposed that Sutherland Road will ‘flare’ out to the south before it turns east to join Stirling Road - the pavement on the eastern side will be widened to create a more attractive streetscene as it leads into the new business park (see Section 5.3 for further detail).
5.2 Design principles

Principles for new development in the Sutherland Road area

2. A public garden square at the heart of the new community
Acting as a focus for the new community on the northern portion of the Sutherland Road site, a public garden square is proposed for the eastern side of the road. The area of new greenspace provided will be approximately 25m x 50m in size and should provide significant amenity value to local residents. It will be overlooked by new residential development.

It is also envisaged that this new garden square will connect at its southern end with the east-west Sutherland Path which links Stirling Road to Blackhorse Lane (see Section 5.3 for further detail).

3. Re-introduction of the east-west urban grain via Sutherland Path and the new access road through the Webbs site
As shown in section 2, there is a strong east-west urban grain which is found in the surrounding residential areas around Sutherland Road. As such, it is important that any new development – particularly residential in the northern portion of the site - seeks to re-introduce this pattern of urban grain, with the clearer definition of the existing Sutherland Path (see Section 5.1). These linkages will help to ensure that the new development integrates well with the existing, surrounding urban fabric and will help to encourage pedestrian movement towards the reservoirs in the west.

With regard to the new access road through the business park as proposed in the Waltham Forest UDP, this road will also help to contribute to the re-introduction of the east-west urban grain for the southern portion of the Sutherland Road area.

4. Sustainable development
Whilst the Sutherland Road area is considered to be within Flood Zone 1 and not at risk from fluvial flooding, developments should still seek to reduce the risk of flooding to this site and further downstream.

New development should therefore have the potential to incorporate features that will have both ecological and amenity value, and reduce flood risk through for example, the use of sustainable urban drainage systems (SUDS). SUDS collect and store run-off in order to allow natural cleaning before infiltration or controlled release to watercourses.

SUDS can maximise water retention, prevent pollution, control flooding, recharge groundwater and encourage wildlife whilst providing amenity value. They can also enhance the environment by creating attractive water features such as implemented at the Oxford and Hopwood motorway service areas, and the Council is keen to encourage the incorporation of SUDS on the Webbs site in particular where Highams Sewer is located as it could be de-culverted and used as a water feature (subject to the quality of the water). SUDS is promoted by UDP Policy WPM19.

Other features of new development which could have ecological and amenity value include ‘green’ or ‘living’ roofs (particularly extensive roof systems), bat roosting and bird nesting boxes and native planting. Residential developments are therefore encouraged to incorporate a range of measures such as those mentioned above, using high quality design to create an attractive and ecologically beneficial solution.

Energy efficiency
All new development, both residential and commercial, should be energy efficient in terms of design, density, location and orientation (see UDP Policy WPM20) and include:

- passive solar design - designing a building to take maximum advantage of sunlight and minimise unwanted solar heat gain;
- natural ventilation to reduce the need for cooling; and
- centralised heating and cooling infrastructure to improve the feasibility of the renewable energy technologies - these should be incorporated into a scheme’s cost assumptions; and
- Combined heat and power (CHP)/combined cooling, heat and power (CCHP) - it should be noted that if gas-fired CHP/CCHP is used, whilst not a renewable energy technology it will make meeting the 10% target easier by lowering the baseline carbon dioxide emissions.

An example of a green roof (image credit: Environment Agency, 11 April 2006)
**Renewable energy sources**

Proposals should also incorporate and include 10% of total predicted energy consumption to be in the form of renewable energy sources (see UDP Policy WPM21). This should be through on-site generation for all new developments greater than 1,000sq.m and housing developments of 10 or more units, and could include:

- Biomass heat or CHP plants serving the whole development;
- Solar water heating;
- Solar electricity photovoltaic (PV) and active solar heating systems: both could be incorporated into south facing roofs or units;
- Ground source heat pumps;
- Passive solar design – designing a building to take maximum advantage of sunlight which reduces overall energy consumption, making 10% an easier target to meet; and
- Borehole cooling – where a suitable ground water source exists.

With all new development proposals it is important to note that the Council expects active involvement of developers in the promotion and use of these technologies. In particular, the opportunities exist to improve the technical and economic feasibility of technologies, particularly CHP and CCHP - gas or biomass fuelled - by ensuring all new developments contain centralised heating and cooling infrastructure, and the potential to combine power, heating and cooling demands are exploited. The Council expects developers to engage in discussions as early in the planning process as possible.

**5. High quality new residential development**

This sets out a number of general design principles for residential development in the Sutherland Road area - further detail on issues including suggested heights, location of entrances, servicing and number of units are set out in Sections 5.3 to 5.7.

**Location of new dwellings**

Residential development on this site should be focused in the northern portion of the Sutherland Road area and centred on the proposed public garden square on the eastern edge of Sutherland Road. Residential uses have been located facing Sutherland Road and facing the new east-west pedestrian link. Residential properties should therefore be designed with their principal rooms facing the street or public/private open spaces.

Whilst part of the proposed area for residential development will be situated adjacent to existing industrial premises at Higham Lodge Business Centre and at Unity Works, the uses on these sites are relatively clean, light industrial uses and are therefore considered suitable to be in close proximity to residential dwellings. Residential blocks closest to the existing, retained industrial premises named above should be designed such that the principal rooms do not overlook the industrial premises where possible.

For new residential development, the following needs to be taken into consideration:

a) Where new residential development is to be located alongside existing industrial land uses, it is important to consider the treatment of the interface between the two different land uses and their differing needs. As such, it may be important to use soft landscaping by means of tree planting to create a ‘buffer zone’ or screen between residential dwellings and industrial premises for both security and amenity purposes; and

b) Where new residential development is to be located alongside existing residential uses, it is important to consider the development of new residential dwellings alongside existing homes in terms of their proximity, frontages and facades.
5.2 Design principles

Principles for new development in the Sutherland Road area

**Design quality**

New residential development in this location, as with all locations in Waltham Forest, must be of the highest quality as stated in the UDP and in Section 8.3 of the IPPF. Policy BHE2 in the UDP requires that proposals for sites over 0.25 ha or in sensitive locations must be accompanied by an Urban Design Statement. New development must consider carefully the existing urban fabric and relationship to streets and public spaces in terms of materials, heights, massing and frontages/entrances, in order to help create a sense of a neighbourhood environment in the northern portion of the Sutherland Road area.

Implementation of the desired design quality and the wider vision of the Sutherland Road area is most likely to be achieved through the comprehensive redevelopment of the site as emphasised throughout this brief. This would require site assembly and the application of coherent and consistent design principles across the whole site.

**Block layout**

The majority of the new residential development and their principal rooms should be designed facing Sutherland Road wherever possible, as well as the east-west Sutherland Path (see Section 5.4 for further detail). The Council is keen to encourage the development of ‘urban villas’ in the Sutherland Road area, rather than continuous, monolithic, linear blocks of flats. This effectively means that the frontages of residential buildings should be permeable wherever possible, thus helping to reduce overshadowing on Sutherland Road and in private amenity spaces.

**Affordable housing**

UDP Policy HSG6 states that the intention is to achieve 50% affordable housing from all sources. UDP Policy HSG7 also states that the target for affordable housing in private development is 40% of individual schemes of a minimum of 0.5ha and above or of 15 units or greater - this target will be applied sensitively by the Council. More detail on the detailed housing mix for affordable housing is set out in Section 8.4 of the IPPF.

**‘Lifetime’ homes**

As stated in Section 8.3.1 in the IPPF and in line with UDP Policy HSG10, all new housing should be built to ‘lifetime homes’ standards and 10% of new housing should be designed to be wheelchair accessible or easily adaptable for wheelchair users.

6. Industrial development

Industrial development in Sutherland Road will be concentrated within the revised SEL area as shown in Figure 2.3 of this brief and in more detail in Section 9.6 in the IPPF. The area of industrial development within the Sutherland Road area will be located in the ‘vibrant core of the SEL’ as stated in Section 9.6 of the IPPF and will offer ‘a range of flexible-space units’ to accommodate ‘a variety of business uses, with particular clusters in print, design, media and related fields; food production (in purpose built premises that comply with all health and safety regulations) and some warehousing and distribution.’

Any new industrial development in the Sutherland Road area should consider its relationship to:

a) New residential development (or the area proposed for new residential development);

b) Existing residential development;

c) Other industrial premises; and

d) Its relationship to the new access road proposed to link Blackhorse Lane to Sutherland Road.

Policy BHL9 in the IPPF in Section 9.6.2 states that business activities in the business park in Sutherland Road will not be permitted which produce excessive noise, emissions or detrimental visual impact on sites in order to help protect the adjacent residential areas. Therefore, new industrial development should be designed such that entrances are located away from main residential entrances and that storage/waste areas and loading bays are located away from residential properties.

In addition, new industrial development should incorporate soft landscaping by means of planting to create a ‘buffer zone’ or screen for security and amenity purposes and to define/reinforce boundaries. Defensive planting i.e. Berberis or similar may be used to achieve this purpose.
5.2 Design principles

Principles for new development in the Sutherland Road area

With regard to other industrial premises, new industrial development should seek to ensure that it does not negatively impact upon the existing service and access arrangements of the other industrial premises. In addition, the Council is particularly keen to encourage new industrial development in the identified business park with more intensive uses which could imply higher employment densities.

7. Positive contribution of new development to Sutherland Road

Any new development in the area should relate positively to Sutherland Road with frontages and entrances facing directly on to the street wherever possible, in order to create a safer community (see Section 5.6 for further detail). Large blank façades should therefore not face onto the street or any public spaces.

8. Inclusive design

Any new development in the area should be fully accessible to all sections of the community including disabled people as set out in IPPF paragraph 8.3.1. Developers will be expected to follow best practice in terms of inclusive design principles as set out in Council guidance in the IPPF and the ‘Access for All’ guidelines and London Plan Supplementary Planning Guidance: ‘Accessible London: Achieving an Inclusive Environment.’

With regard to public realm and pedestrian route enhancements in the Sutherland Road area, it will be essential that the designs include step-free access wherever possible, high quality paving, clear signage and lighting and street furniture which ensures there are clear visual markers for those with partial sight.

9. Designing out crime

New development should be designed such that their design and layout should reduce the opportunities for crime in line with the aims and principles of ‘secured by design’ and ‘designing out crime.’ Further guidance is provided in UDP Policy BHE7, Section 8.3.2 in the IPPF and from Secured by Design. Additional sources of information are provided in the appendix of this document.

Key issues to consider for this area include:

- the proposed greenspace should be overlooked on all sides by residential development, lighting and planting should not obscure any areas from view;
- the enhanced Sutherland Road path should be visible from all nearby buildings and have good quality lighting which is well-maintained;
- underground and semi-basement parking should be well-lit and all access points should be clearly visible from the street and nearby buildings;
- access to flats should be from either Sutherland Road or St Andrew's Road wherever possible to ensure that entrances are on the main roads;
- communal gardens should be clearly defined and access through controlled entry points (e.g. lockable gates);
- seating and other furniture/objects in the garden square should be designed such that they cannot be used for lying on or sleeping on; and
- access to industrial premises should be designed such that they are located away from main residential entrances wherever possible.

10. Parking standards

The Sutherland Road area has a Public Transport Accessibility Level (PTAL) of 2 which is considered to be low although it is just over 10 minutes walk to Blackhorse Road station. As such, new residential development should apply the standards as set out in Section 11.3.6 in the IPPF:

- 1-2 bed units: a maximum of 0.8 spaces per unit
- 3-4 bed units: a maximum of 1 space per unit.

Generally, parking should be handled within the plot boundaries and in underground or semi-basement car parks where feasible to avoid large amounts of surface car parking as this does not contribute positively to the streetscape. A limited amount of controlled on-street parking for visitors will be provided for in the residential quarter. Further detail is provided in UDP Appendix 1.

With regard to cycle parking, a minimum of 1.3 spaces per unit (flats only) should be provided. Further detail on cycle parking standards is set out in Section 11.3.6 of the IPPF and UDP Appendix 2.
5.3 Public realm

Proposed public spaces and routes

As already stated in the previous section on design principles, it is vital that the quality of the public realm is of a high standard in the redeveloped Sutherland Road area, in order to create an attractive residential community and a thriving business park. As such, new developments in the area will be required, through Section 106 agreements, to contribute to public realm and infrastructure improvements.

Figure 6.1 shows the public realm proposals for Sutherland Road as follows:

1. **Road narrowing at the northern end of Sutherland Road** to restrict entry for industrial traffic/heavy goods vehicles into the new residential quarter.

2. **A new public garden square** to the east of Sutherland Road (with the actual green, soft landscaped area measuring approximately 25mx 50m) set back from the street. It is envisaged that this greenspace will provide an area for people to enjoy and relax in, as well as for children to play. This new greenspace will also be at the crossing point of Sutherland Road and enhanced Sutherland footpath.

3. **Enhanced Sutherland Path** linking Blackhorse Lane in the west to Stirling Road in the east. This footpath will be a high quality, hard-landscaped route with new paving and lighting. It will also be overlooked by new residential development to increase natural surveillance, with key frontages and entrances facing on to it, on both sections either side of Sutherland Road.
4. **Road narrowing/pavement widening** to calm residential traffic in the northern stretch of Sutherland Road, and a raised table to enhance east-west movement for pedestrians. A change of materials at this crossing point should be used to create a sense of continuity for the east and west parts of the footpath, and also with the new greenspace. The crossing should contribute to the greenspace’s position and role as the focus of the new residential quarter.

5. **Widening of pavement and soft landscaping on the eastern side of Sutherland Road**, stretching from the new greenspace southward to the junction with the new access road. This will help to enhance the pedestrian and neighbourhood environment for this new residential quarter with planting.

6. **Road narrowing** to prevent industrial traffic entering the new residential quarter whilst still allowing the northern units at Unity Works to be accessed.

7. **High quality, hard landscaped areas, junction of Sutherland Road and the new access road** - this junction can be seen from either end of Sutherland Road and as such, it should create a visual point to draw people in from both ends of Sutherland Road as a new residential community and business park. The hard landscaped areas, particularly the one to the west of Unity Works, should be designed in such a way that deters car parking, storage and dumping of rubbish and should be well-maintained.

In addition, it is recommended that the western facade of the Unity Works building be remodelled and realigned to follow the line of the new residential blocks to the north.

8. **New access road through the business park** - this road will provide servicing access for industrial units in the new business park and the other premises at the southern end of Sutherland Road, and will effectively remove industrial traffic from the residential quarter to the north and houses along St Andrews Road.

   It is envisaged that the new road should be lined with plants or bushes along its length to enhance the business park environment as an attractive place to work. In addition to this, there is the possibility of integrating Highams Sewer which runs under the Webbs site with the road development, or it could be de-culvertised and used as a water feature (subject to water quality) as part of a SUDS.

9. **Road closure and turning head at the southern end of Sutherland Road** to prevent industrial traffic from leaving or entering this area at this point, and to remove industrial traffic from the adjacent residential areas. This would mean that Sutherland Road South would be an access and turning only, no-through road except for cyclists and pedestrians.

10. **New north-south pedestrian/access only route through Aldgate site** to enhance the permeability of this site and to continue the existing urban grain.
5.4 Development plots and block layout

Suggested plot boundaries, block layout and indicative uses

Figure 5.3 shows the suggested development plots in the Sutherland Road area and Figure 5.4 overleaf shows indicative block layouts and uses. It should be noted that BHL5 already has planning permission for the development of 240 residential units. Section 5 in the IPPF sets out the key development sites for the whole Blackhorse Lane area which includes BHL4, BHL5 and BHL6. In this section, BHL4 has been subdivided into five small sub-areas and BHL6 has been split into two parts.

BHL4a - Residential development, St Andrews Road/ Sutherland Road
This development should take into consideration its relationship to existing dwellings on St Andrews Road, and the dwellings on Blackhorse Lane, and should contribute positively to the new greenspace. It should also provide frontages on to Sutherland Path to enhance natural surveillance (see Section 5.6 for more detail).

This development should be attractive and of a high standard as it stands at the northern entrance to the new residential quarter. Communal and private amenity space should be provided to the west of the plot with basement/semi-basement/undercroft parking. The development should provide ‘breaks’ in its form to create a sense of permeability and the Council is keen to see the development of ‘urban villas’ in this location. This will require a degree of permeability in building frontages and will seek to discourage continuous, monolithic buildings along the length of the road.

BHL4b - Residential development, St Andrew's Road/Sutherland Road
New development on this site should face onto St Andrew’s Road and Sutherland Road and help attract people into the new residential area around the northern part of Sutherland Road. Development should take into consideration the existing character of the residences on the northern side of St Andrew’s Road and the new development proposed for site BHL5 in particular which is likely to come forward in the first phase of development.

BHL4c - Residential development, Sutherland Road East facing the new greenspace
New development on this plot must contribute positively and enhance the proposed public greenspace fronting Sutherland Road as the focus for the new community. The development should also provide frontages on to Sutherland Path to enhance natural surveillance (see Section 5.6 for
5.4 Development plots and block layout

Suggested plot boundaries, block layout and indicative uses

more detail) and relate positively to the Aldgate site redevelopment. A central courtyard to the east should be incorporated to provide a mixture of communal gardens and possibly some small private amenity spaces.

**BHL4d - Residential development, Sutherland Road West**

New development should demonstrate a positive contribution to Sutherland Road and Sutherland Path, as well as to neighbouring industrial units, particularly the units closest to its western edge. A mixture of communal and some private amenity space could be provided to the west, and the development should be a series of ‘urban villas’ as above.

**BHL4e - Residential development, Sutherland Road East**

New development should relate positively to Sutherland Path and the new public greenspace, existing residential dwellings on Stirling Road, Unity Works to the south and the widened pavement to the west. ‘Buffer’ zones between the new development, Unity Works and Stirling Road dwellings should be provided through the use of planting as effective screening to enhance privacy and noise reduction for residential units. Small backyards could also be provided to the south of the development as part of such a buffer zone.

**BHL5 - Residential development, St Andrews Road/Hillyfield/Stirling Road**

New development planned for the eastern portion of the former Aldgate site will contribute positively to St Andrews Road, Hillyfield and Stirling Road, as well as the new residential development and existing industrial development to the west. Development on BHL5 is already on site.

**BHL6a - Workspace development, New Road North**

Workspace units on this plot should front the new access road and consider its proximity to residential development on BHL4d. Development on its eastern edge should present a positive contribution to Sutherland Road itself.

**BHL6b - Workspace development, New Road South**

Workspace units should relate to the new access road, and consider its proximity to existing residential development to the south with the provision of a buffer zone or appropriate screening. Development on its north-eastern corner in particular should present a positive frontage to Sutherland Road itself, as well as the industrial units to the east.

Loading/unloading areas should be provided along the northern edge of any new development to reduce noise for residents on Blenheim Road to the south.
Figure 5.5 shows an illustrative drawing of the proposed building masses for the Sutherland Road area from the southwest and serves to give an indication of the quantum of development and scale of regeneration that is envisaged for the area.
**5.5 Building heights**

*Suggested building heights of new development*

Figure 5.6 shows an illustration of how building heights across the site could vary within their plot boundaries. The key points to note are as follows:

- The tallest buildings (mostly five storeys high with one seven storey building) are clustered at the centre of the site and the proposed greenspace;
- Four-storey buildings are envisaged on the eastern side of the area, particularly around the existing Aldgate warehouse building;
- Lower buildings of two to three storeys are proposed for the northern end of Sutherland Road, fronting the two storey terraced houses that are found on St Andrews Road;
- The remainder of the residential development could be up to four storeys high across the site; and
- Commercial/industrial development on the business park could be a mixture of two to three storeys high with the potential for five storey office buildings at the eastern end.
5.6 Access arrangements and parking

Access routes, entrances for new developments and parking

Figure 5.7 sets out the proposed access arrangements for the area and shows the following:

1. Residential traffic only and access to all plot parking along Sutherland Road
   This route will serve to separate industrial traffic from the new and existing residential areas (particularly on St Andrews Road).

2. Access only routes for parking
   These routes would provide access for parking and would lead off Sutherland Road.

3. Access to residential development
   This route will provide access to parking and new housing on the eastern portion of the Aldgate site and will enhance site permeability.

4. Enhanced east-west footpath
   The existing Sutherland Road Path connecting Blackhorse Lane to Stirling Road will be enhanced and upgraded as part of the redevelopment.

5. Retained access for northern units, Unity Works
   Industrial access for units on the north side of Unity Works will be retained via the new access road. However, industrial traffic will be restricted from entering the residential area to the north by the road narrowing on Sutherland Road.

6. Access to the station hub and Forest Road (West)
   A new signal-controlled junction is proposed at the junction of Priestley Way/Blackhorse Lane to allow traffic to access the new Station Hub development and Forest Road.

7. New access road through business park
   This will provide access for industrial traffic from Blackhorse Lane to the business park and sites south of Sutherland Road. There will be no through movements of industrial traffic through Sutherland Road South.

8. Turning head and road closure
   As access to industrial units on this site will only be from Blackhorse Lane via the new road (with road closure at the southern end of Sutherland Road), a turning head will need to be provided for industrial traffic to allow them to exit the area. The proposed location is shown on Fig. 5.7.
5.6 Access arrangements and parking

Access routes, entrances for new developments and parking

Figure 5.8 shows the suggested location of the main entrances for the new development on each plot. The key points to note are as follows:

- Key frontages for residential development should face on to Sutherland Road, the footpath and the new public greenspace - this also means that the main entrances for these buildings should be part of these key frontages, and that the principal rooms in these developments should be designed to face the road, square or footpath. This will help to ensure maximum natural surveillance of the new greenspace and to create a focal point for the area;

- Key frontages on the eastern portion of the Aldgate site should front St Andrews Road, Stirling Road and Hillyfield to ensure integration with the existing residential dwellings;

- Part of the key frontage for development on BHL4a on the corner of Sutherland Road and St Andrews Road should include an entrance on the latter to help act as a marker or gateway for the new residential quarter;

- Key frontages for the new workspace development should be at the western edge facing Blackhorse Lane, and at the eastern edge of the business park facing Sutherland Road; and

- Buffer zones or screening should be provided between existing and new residential development, and between residential and workspace development - preferably through defensive planting. Buffer zones could also incorporate some degree of private amenity space for residents, perhaps in the form of small backyards for ground floor residents.
5.6 Access arrangements and parking

Access routes, entrances for new developments and parking

Figure 5.9 illustrates an indicative parking strategy for the plots. The key points to note here are as follows:

- Basement/semi-basement/undercroft parking should be incorporated into the new development on plots east of Sutherland Road;
- On-street car parking with cars parked nose-to-kerb could be provided on the western edge of Sutherland Road; and
- Basement/semi-basement/undercroft parking should be provided for residential development on the western side of Sutherland Road.
6. Phasing

This section sets out some of the key issues surrounding the delivery of the vision for Sutherland Road in terms of phasing.
The Sutherland Road site presents an excellent opportunity to bring forward a comprehensive scheme with mutual benefits from the different parts of the site. IPPF Policy BHL17 states clearly that ‘a comprehensive and co-ordinated approach is required to developments in the Sutherland Road growth area. The correct phasing of developments and infrastructure improvements will be vital to achieve the vision for the area while minimising disruption to existing businesses and residents.’ It also notes that ‘residential development will not be permitted on site BHL4 until the necessary enabling infrastructure has been put in place to secure a high quality residential environment.’

As such, the Council is likely to reject proposals for piecemeal development in Sutherland Road unless a proposed development is part of a comprehensive development strategy for the whole area and it can be demonstrated that the section of the site in question must be developed first in order to enable subsequent development on the rest of the site.

Consent for residential development on site BHL5 was possible because the Aldgate site had been redesignated for mixed use in the Unitary Development Plan. BHL5 is accessed from St Andrews Road and does not have a direct frontage on to Sutherland Road itself. Hence the issues pertaining to access and poor street environment did not arise.

The key phasing issues for the Sutherland Road area are as follows:
- The Webbs Industrial Estate (site BHL6) will need to come forward as part of the first phase of any development to ensure that the necessary new industrial and highway infrastructure are in place;
- initial phases of development should contribute to the implementation of highway and access improvements through planning obligations;
- initial phases should enhance the Sutherland Path to improve the area’s permeability;
- the first phase of development should contribute to the creation of the proposed greenspace on Sutherland Road through planning obligations;
- initial phases must minimise any adverse impacts on the functioning of businesses in premises that will either be redeveloped or, in the southeastern part of Sutherland Road, retained within future phases. In particular, as stated in the IPPF Section 11.3.5 “new developments and infrastructure improvements should not prevent access to commercial units”
- the Council will seek contributions towards business relocations from any phase of development which displaces existing occupiers; and
- careful consideration should be given to the interface between new residential properties and business premises that will be redeveloped within future phases, perhaps through the effective use of substantial screening in the form of planting or shrubs.

All of these phasing issues must be considered from the earliest design phase of any planning application for development in the Sutherland Road site.
Appendix: additional sources of information

Useful internet links

London Borough of Waltham Forest:
- Relevant planning documents
  www.walthamforest.gov.uk/blackhorselane

Good practice case studies:
- Commission for Architecture and the Built Environment (CABE)
  www.cabe.org.uk/casestudies.aspx
- Fenelon Place, Kensington, London
  In Housing for a Compact City (GLA, February 2003)
  Available to download from the GLA website:
  www.london.gov.uk/gla/publications/planning.jsp
- Housing Design Awards
  www.designforhomes.org/hda

Designing out crime:
- Secured by Design
  www.securedbydesign.com

Sustainable design guidance:
- Beddington Zero Energy Development (Bed2Ed)
  www.zedfactory.com/bedzed/bedzed.htm
- Green roofs
  www.livingroofs.org
- London Climate Change Partnership
  Adapting to Climate Change: A Checklist for Development (November 2005)
  Adapting to Climate Change: Lessons for London (July 2006)
  Adapting to Climate Change Impacts: A Good Practice Guide for Sustainable Communities (October 2006)
  Available to download from the GLA website:
  www.london.gov.uk/climatechange/partnership/index.jsp

Inclusive design guidance:
- Department for Communities and Local Government
  Planning Policy Statement 3: Housing
  Available to download from the DCLG website:
  www.communities.gsi.gov.uk/index.asp?id=1504591
- Greater London Authority (GLA)
  Supplementary Planning Guidance to the Mayor’s London Plan ‘Accessible London: achieving an inclusive environment’
  Available to download free of charge from the GLA website:
  www.london.gov.uk/mayor/strategies/sds/accessible_london.jsp

Sustainable drainage guidance:
- General information
  www.sustainabledrainage.co.uk
- Environment Agency
  Available to download from the Environment Agency website:
  www.environment-agency.gov.uk/commoditydata/acrobat/a5_suds_v3.pdf
- Construction Industry Research and Information Association (CIRIA)
  Designing for Exceedance in Urban Drainage: Good Practice: C635 (By C. Digman, D. Balamforth, R. Kellagher, B. Butler, May 2006).
  Also available to download from the CIRIA website:
  www.ciria.org/downloads.htm
  Sustainable Drainage Systems: Hydraulic, Structural and Water Quality Advice: C609 (S Wilson, R. Bray, P Cooper, March 2004)

- Environment Agency
  Available to download from the DFT website:
  www.dft.gov.uk/stellent/groups/dft_mobility/documents/page/dft_mobility_503282.hcsp
- Disabled Persons Transport Advisory Committee (DPTAC)
  Commitment to Inclusive Design
  Available to download free of charge from the DPTAC website:
  www.dptac.gov.uk/inclusive/commitment/index.htm
- Centre for Accessible Environments
  www.cae.org.uk