# Development Brief for the Gedling Colliery and Chase Farm site

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# **1 INTRODUCTION**

# Purpose of the Brief

- 1.1 The Gedling Colliery and Chase Farm site is a key development site in meeting the districts housing requirements up to and beyond 2011. The site will also contribute towards the provision of employment land within the Borough and, as part of the overall development of the site, community facilities are required. The development will also fund the construction of the Gedling Access Road. The purpose of this Development Brief is to establish development aims and principles and to clarify the planning requirements relating to the site. It sets out the nature of how the site and accompanying access road are to be developed and includes details of what will be required as part of the development scheme. The preparation of this development Scheme (March 2007) and, through it's preparation, the local community and other stakeholders have been invited to influence the future development of the former colliery and Chase Farm.
- 1.2 The Gedling Borough Replacement Local Plan (adopted 12th July 2005) allocated land at Gedling Colliery and Chase Farm for a new housing and employment development. The site, which extends to 38 hectares (ha), is allocated for 1120 residential units in total under Policies H2 (Distribution of Residential Development) and H3 (Land at Gedling Colliery and Chase Farm) of the Gedling Borough Local Plan. Additionally, Policy E1of the Local Plan allocates 6 ha/15 acres for employment generating uses. These key policies are fully stated in Annex 2 of this document.
- 1.3 The proposed Gedling Access Road (GAR) will link Mapperley Plains and the A612 Burton Road. An indicative alignment for the road is provided by Figure 2. This road is required in order to mitigate the transport impact of the development proposals. It will also have wider benefits for traffic movements between these two key radial routes in and out of Nottingham as well as improving the general environment of Gedling Village. This road can only be funded by the development and therefore consideration may have to be given to the timing of the road construction provided that the transport impact can be contained within acceptable environmental limits.
- 1.4 The principle of developing this site for housing and employment uses has already been subject to extensive consultation as part of the Local Plan process. An independent Inspector appointed by the Secretary of State who carried out a Public Inquiry into the Local Plan during 2003 has endorsed its allocation.

relating to the site. The key developer requirements for bringing forward the site are set out in section 4 of this development brief.

1.6 Due to the size and nature of the site, any planning application to develop it will require an Environmental Statement (ES) under the Town And Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999. Such an ES will provide a comprehensive assessment of the likely affects of the proposed development, taking into account recommended mitigation measures where appropriate, be supported by the provision of a Transport Assessment, Flood Risk Assessment and outline Reclamation Strategy. The Borough Council will require that any future planning application be supported by appropriate evidence, as follows:-

# Information to be submitted in support of planning application for the development area

Transport Assessment – The Department for Transport's document 'Guidance on Transport Assessment' should be referred to in relation to the content and preparation process.

Open Space Assessment – Assessment of how the likely recreational needs arising as result of the development should be carried out and how these needs will be met. 'Planning Policy Guidance note 17: Planning for Open Space, Sport and Recreation' and its companion guide should be referred to for guidance.

Statement of Community Involvement – This should set out how the applicant has complied with the requirements for pre-application consultation set out in Gedling Borough Council's adopted Statement of Community Involvement. Environmental Impact Assessment (as per scoping request received October 2007), to include information on:-

- Air Quality
- Noise and Vibration
- Soil Conditions and Contamination. The contaminated land assessment should include a landfill gas remediation strategy (including a monitoring regime)
- Water Quality, Hydrology and Drainage. It should incorporate Flood Risk Assessment – 'Planning Policy Statement 25: Development and Flood Risk' and its associated Practice Guidance provides comprehensive guidance in relation to undertaking Flood Risk Assessment. The Flood Risk Assessment should also consider surface water drainage in relation to the Gedling Colliery Country Park and likely effects on the proposed residential development, as well as the likely surface water drainage impacts of the proposed residential development on the surrounding area. The assessment should also incorporate Foul Sewage and Utilities Assessment – This should include a full assessment of the site, its location and suitability for storing, transporting and treating sewage. If a non-mains connection is required then guidance on what should be included in a non-mains drainages assessment is given DETR circular 03/99 and Building Regulations Approved Document Part H and in BS6297.
- Landscape and visual impact assessment, should also include

assessment of the impact of proposed lighting on the surrounding area.

- Nature Conservation this should include surveys of vegetation, birds and invertebrates. Guidance prepared by the Association of Local Government Ecologists (AGLE) 'Validation of Planning applications – template for biodiversity and geological conservation' should be followed in relation to the preparation and content of an ecological survey.
- Cultural heritage to include potential archaeological and other heritage interest.
- Land use impacts to include agricultural impact.
- Public access this should include information on the impact of the developments on public rights of way in the area.
- Trees Full guidance on the survey information, protection plan and method statement should be provided in accordance with current BS5837 'Trees in relation to Construction – Recommendations'. Using the methodology set out in the BS should ensure that the proposed development is suitably integrated with existing trees on the site and conflicts are avoided.
- Socio-economic impacts.

Outline reclamation strategy (to be developed in conjunction with the Environment Agency and GBC's Environmental Health section).

The Design and Access statement should include a demonstration of how the proposed development will contribute to the Key Planning Objectives set out in 'Planning Policy Statement: Planning and Climate Change' (Supplement to Planning Policy Statement 1) (December 2007). It should set out the design parameters that will guide the future development of the site and show how the following guidance will be considered and taken account of in the proposed design of the development: CABE/HBF criteria 'Building for Life', English Heritage guidance 'Suburbs and the Historic Environment', Code for Sustainable Homes – Setting the Standard in Sustainability for New Homes (CLG February 2008), Nottinghamshire's Sustainable Developer Guide (2004) and Manual for Streets (Department of Transport and Communities and Local Government 2007).

Planning Obligations - Draft Heads of Terms.

# Information to be submitted in support of planning application for the proposed Gedling Access Road

Topographical Site Plan for the proposed road showing existing site levels and proposed levels, 3D image of the site would also be useful.

Transport Assessment Topographical Site Plan for the residential development showing existing site levels, 3D image of the site would also be useful.

Flood Risk Assessment – 'Planning Policy Statement 25: Development and Flood Risk' and its associated Practice Guidance provides comprehensive guidance in relation to undertaking Flood Risk Assessment. The Flood Risk Assessment should also consider surface water drainage in relation to the Gedling Colliery Country Park and likely effects on the proposed residential development, a well as the likely surface water drainage impacts of the

proposed road on the surrounding area.
Environmental Impact Assessment (as per scooping request received October
2007), to include information on:-
Air Quality
Noise and Vibration
<ul> <li>Soil Conditions and Contamination</li> </ul>
<ul> <li>Water Quality, Hydrology and Drainage</li> </ul>
<ul> <li>Landscape and visual impact assessment</li> </ul>
<ul> <li>Nature Conservation – this should include surveys of vegetation, birds and invertebrates</li> </ul>
<ul> <li>Cultural heritage – to include potential archaeological and other heritage interest</li> </ul>
<ul> <li>Land use impacts – to include agricultural impact</li> </ul>
<ul> <li>Public access – this should include information on the impact of the developments on public rights of way in the area</li> </ul>
<ul> <li>Impact of road on vehicle travellers</li> </ul>
<ul> <li>Trees – Full guidance on the survey information, protection plan and method statement should be provided in accordance with current BS5837 'Trees in relation to Construction – Recommendations'. Using</li> </ul>
the methodology set out in the BS should ensure that the proposed
development is suitably integrated with existing trees on the site and
conflicts are avoided.
Socio-economic impacts
Contaminated land assessment – to include a landfill gas remediation strategy
(including a monitoring regime).
Outline reclamation strategy (to be developed in conjunction with the
Environment Agency and GBC's Environmental Health section).
The Design and Access statement should include a demonstration of how the
proposed development will contribute to the Key Planning Objectives set out
in 'Planning Policy Statement: Planning and Climate Change' (Supplement to
Planning Policy Statement 1) (December 2007).
Statement of Community Involvement – This should set out how the applicant has complied with the requirements for pre-application consultation set out in

has complied with the requirements for pre-application consultation set out in Gedling Borough Council's adopted Statement of Community Involvement. Planning Obligations – Draft Heads of Terms.

- 1.7 In order to ensure that the aspirations of the Council are met and that there is a focus on quality, a development team has been set up comprising representatives from all of the sections of the Council that will be involved in the determination of the planning applications. These representatives include Development Control, Planning Policy, Leisure, Environmental Protection, Design, Building Control and Communications.
- 1.8 Throughout the processing of the planning applications, external advice will be sought from OPUN (the Architecture and Built Environment Centre for the East Midlands), CABE (Commission for Architecture and the Built Environment). Nottinghamshire County Council as the highways authority will be consulted on the planning applications relating to the development site and the Gedling Access Road. It is anticipated that meetings would be held

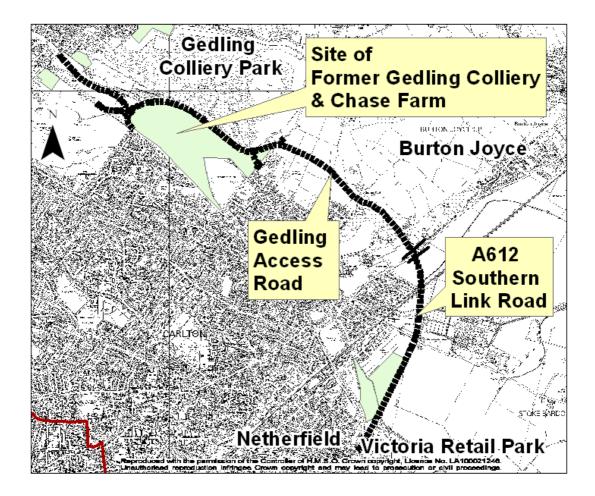
throughout the application process to discuss issues, both with County Highways and the applicants. The County Council will also input into the process with regards to landscaping and nature conservation issues.

- 1.9 It is anticipated that initially an outline planning application will be submitted for the development area accompanied by a detailed planning application for the Gedling Access Road. The outline application for the development area will need to provide indicative layouts, scales, appearance, access and landscape and parameters should be set and defined as part of the outline application Design and Access Statement. The Design and Access Statement should prompt discussion and evolve through to the reserved matters stages. The Design and Access Statement and the parameters set as conditions at outline stage will be used to inform the preparation of the reserved matters applications. Design codes may need to be devised to deal with the likely sub-division of the site to different developers.
- 1.10 The process and timing of the arrangements for delivering the aspects of the development that are to be funded, planned or delivered by different parties (ie the residential component, highways, employment land, education, retail, community facilities, open space and recreation) will be addressed by the Section 106 agreement attached to the grant of planning permissions.



Figure 01: Location Plan

Reproduced with the permission of the Controller of H.M.S.O. Crown copyright, Licence No. LA100021246. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Figure 02: Gedling Access Road



# 2. THE SITE

### Location

- 2.1 The site extends to approximately 38 hectares in area. Roughly two thirds of the site was occupied by Gedling Colliery which closed in 1991. The remaining land comprises a former mineral railway, a Civic Amenity site, low grade grazing land and a large district electricity sub-station. Some of that land is known to require remediation works to address contamination, landfill gas and other related issues. The development of the site for mixed use development provides an opportunity to remediate the site as well as maximising the opportunities provided by brownfield land and so minimising requirements for greenfield development. The development also offers opportunities for promoting the creation of sustainable communities.
- 2.2 The site is located on the eastern edge of Nottingham conurbation, within close proximity to the local shopping centres provided at Gedling (0.75 km) and Mapperley Plains (2km) which provide a good range of local facilities. Arnold District Shopping Centre is a 5 minute drive or 30 minute bus journey. Nottingham City Centre is approximately 5/6km from the development site.
- 2.3 The site is bounded by Arnold Lane, Lambley Lane, Spring Lane and Mapperley Plains. Along the Arnold Lane boundary and between the allocated site and the adjacent recreation ground there are established hedgerows and trees. The proposed development area is restricted on its northern boundary by the former tipping complex that arose out of the former colliery workings. This is subject to on going restoration works undertaken by UK Coal and discussions are ongoing regarding the creation of a Country Park on the former Gedling colliery pit tip site.
- 2.4 Mapperley Golf Course is situated to the south of Arnold Lane. To the north of Spring Lane is open countryside inter-dispersed with small villages such as Lambley. East of Lambley Lane again there is open arable farmland as far as the A612. The development area would adjoin the current Gedling residential areas.

# **Local Facilities**

2.5 Secondary schools are nearby at Gedling Comprehensive and Arnold Hill. Existing sports pitches and play areas are provided at the Lambley Lane Recreation Ground and adjoining the southern corner of the development site. Within the site there is a Civic Amenity Site that would be relocated within the development area and a electricity sub station which is likely to remain in its current location.

#### **Public Transport**

2.6 Bus services are provided from Gedling and Mapperley Plains to Nottingham City Centre and Arnold district shopping centre which provide a wide range of employment opportunities and leisure/retail/entertainment services, all within reach of the site. The existing 44/45 bus service adjacent to the southern part of site at Arnold Lane provides a frequent but circuitous route that takes 30 minutes to City Centre.

### Topography

- 2.7 At its western boundary contours are approximately 85m adjacent to Arnold Lane. The ground falls from this point in a south-easterly direction to about 55m at the household waste recycling centre. From here the ground falls gently across the recreation ground to approximately 45m at Lambley Lane. A topographical plan is attached as Annex 7.
- 2.8 The spoil tip is a distinctive landscape feature rising steeply to the north and thus restricting most views of this section of the site from that direction. To the south, however, the urban edge of Gedling rises to a ridge of high ground along and beyond Westdale Lane, Carlton, with many views from properties some 750m to 950m beyond Arnold Lane. Beyond Mapperley Plains Golf Course land rises to over 120m.
- 2.9 The site largely sits below the tipping complex on its north-eastern boundary and in a basin with higher ground provided by Mapperley and Gedling Village. Arnold Lane from Mapperley Plains descends rapidly towards the site before rising again to Gedling Village. This topography combined with the back-drop provided by the tipping complex conceals much of the site from the north and eastern areas. Views into the site are limited to the residential areas around Gedling Comprehensive School and the residential properties that wrap around Mapperley Golf Course.

#### Land Ownership

2.10 The site is in the following ownerships; East Midlands Development Agency, Nottingham City Council, Nottinghamshire County Council, UK Coal Ltd. A small piece of land off Lambley Lane is in private ownership. Several private landowners own land affected by the Gedling Access Road, between Carltonle-Willows School (Burton Road, A612) and Mapperley Plains (B684).

# Ecology

2.11 Part of the former colliery site is a Site of Interest for Nature Conservation (SINC) the interest of which derives from having a variety of wildlife habitats. The landscaping proposals for the site should incorporate as much of this habitat as possible and not be compromised by inappropriate planting. A full ecological appraisal of the site will be required as part of planning application submissions.

#### Heritage

2.12 The historical industrial use over much of the site will have severely impacted upon the potential archaeological interest of the land. Consequently, it is considered that the potential impact of any development upon this landscape, and on as yet undiscovered archaeological resources, is more likely to range from neutral to slight adverse in significance. An Environmental Statement will be required to support planning applications for the development of the site which will give full consideration to the potential archaeological and other heritage interest provided by the site.

#### **Public Rights of Way**

- 2.13 The site has no public access, other than the roadway which serves the household waste and recycling area. Indeed, the general area is characterised by relatively few statutory rights of way linking the Carlton / Gedling urban area to the surrounding countryside. The closest registered right of way is Carlton Footpath No.2, which runs from the Jessops Lane area in a generally northerly direction, roughly parallel to Lambley Lane, some 500m to the east of the site.
- 2.14 Slightly further away from the urban fringe, beyond the proposed road, there is a more extensive network of statutory rights of way, including footpaths and bridleways in the Burton Joyce and Lambley Lane areas.

# 3. PLANNING POLICY CONTEXT

- 3.1 The development of the Gedling Colliery/Chase Farm site will be guided by national and regional planning policies, the Development Plan and other relevant policy guidance, strategies, design guidelines and technical reports, including:
  - National Policy Guidance (PPG) notes and Planning Policy Statements (PPSs), specifically:
    - PPS1: Delivering Sustainable Development
    - Planning Policy Statement: Planning and Climate Change (Supplement to PPS1)
    - PPG3: Housing;
    - PPG13: Transport;
    - PPG17: Planning for Open Space, Sport and Recreation;
    - PPS9: Biodiversity and Geological Conservation
    - PPS22: Renewable Energy
    - Planning for Renewable Energy a companion guide to PPS22
    - PPS23: Planning and Pollution Control
    - PPS25: Development and Flood Risk
    - The Planning Response to Climate Change (ODPM 2004)
    - Regional Spatial Strategy Guidance for the East Midlands (RSS8) which is currently in the process of being updated.
    - The Development Plan which comprises:
      - The adopted Joint Structure Plan (JSP) for Nottingham City and Nottinghamshire. The JSP will be replaced by the East Midlands Regional Plan, when adopted.
      - Gedling Borough Replacement Local Plan adopted 12th July 2005.
  - Other relevant policy guidance, strategies, design guidelines and technical reports and guidance including:
    - By Design: Urban Design in the Planning System (DETR and others);
    - By Design: Better Places to Live (DTLR and others);
    - Safer Places the Planning System and Crime Prevention (ODPM April 2004);
    - Urban Design: Compendium (English Partnerships and others);
    - Better Streets, Better Places: Delivering Sustainable Environments (ODPM);
    - Supplementary Planning Guidance 'Residential Design Guide' (SPG Note D1 Gedling Borough Council);
    - Interim Planning Guidance Affordable Housing (Gedling Borough Council, adopted April 2005);
    - Supplementary Planning Guidance 'Recreation Planning' (Gedling Borough Council, 2000);
    - Housing Land Availability 2004, Gedling Borough;

- Parking Provision for New Developments (Gedling Borough Replacement Local Plan)
- Interim Transport Planning Statement Integrated Transport Measures and Developer Contributions (Nottinghamshire County Council). The ITPS has now been incorporated by the County Council into the Planning Contributions Strategy, which was adopted by the County Council in March 2007;
- Guidelines for Public Transport in Developments, IHT;
- Guidelines for Providing for Journeys on Foot, IHT;
- Sustainable Developer Guide for Nottinghamshire, 2004.

# National and Regional Planning Guidance

- 3.2 Key themes running through National and Regional Planning Guidance, which housing development at Gedling Colliery/Chase Farm, can address are:
  - Ensuring that sufficient housing is provided which is affordable having regard to local circumstances;
  - Providing housing and employment development to a high standard of design and landscaping which will contribute to the enhancement of the environment, biodiversity and geological conservation;
  - To locate new development in sustainable locations on the edge of the urban area where it is accessible to local services, including public transport, schools and shops;
  - Ensuring that housing is provided in a way which facilitates access by non car modes to employment opportunities, shopping centres and other facilities;
  - Providing a mix of house types which appeals to all sections of the community;
  - Enhancing community safety.

# The Development Plan

3.3 The Nottinghamshire and Nottingham Joint Structure Plan (2006) sets out an overall strategy for development and the use of land in Nottinghamshire for the period 2001 – 2021. It also sets out the housing provision for each District. For Gedling Borough, there is a need to provide 5000 dwellings for this period, which can only be achieved by releasing sites such as this former colliery site on the edge of the urban area. The East Midlands Regional Assembly is reviewing the Regional Spatial Strategy for the East Midlands (RSS8) which is due to be adopted in 2008 and will set new housing requirements.

- 3.4 The Local Plan was adopted on 12th July 2005. This contains more detailed policies than the Structure Plan. Set out below are the main policies of the Local Plan that are considered to be of importance to the proposed development and guidance on how the proposed development should respond to the requirements of each policy. A fuller list of all policies that may be relevant to the proposal is given in Annex 2.
- 3.5 **Dwelling Provision (Policy H1):** This policy states that out of the total dwelling provision of 8,000 dwelling units to be provided in the Plan period 1991-2011, 3,030 will need to identified on allocated sites.
- 3.6 **Distribution of Residential Development (Policy H2):** This policy identifies the allocated sites, which include Gedling Colliery/Chase Farm.
- 3.7 **Gedling Colliery and Chase Farm (Policy H3):** This is a site-specific policy regarding the detailed planning requirements for Gedling Colliery/Chase Farm provided in full in Annex 3 of this document. The site is allocated (under Policy H3) for mixed use to accommodate 1120 residential units in total, of which 700 units are assumed would be completed by 2011 (this being the current structure plan period) with the remaining 420 units to be built post 2011.
- 3.8 **Density (Policy H8):** For this site the net density within the developed area will be a combination of 50, 40 and 30 dwellings per hectare. A density of 30 dwellings per hectare will be the minimum, rising to 40 per hectare where dwellings are within 800 metres of facilities identified in the housing density policy (H8), and 50 per hectare within 400 metres of such facilities. The policy seeks to increase the densities of development around certain facilities, in order to maximise the opportunities to reduce car based journeys. Thus the density across the site will vary, and will be dependent upon proximity to the existing facilities in the area and the new facilities to be provided as part of the development, as well as the site's physical constraints.
- 3.9 **Comprehensive Development (Policy H15):** Only comprehensive proposals for the development of the whole site will be considered.
- 3.10 **Design (Policy H16):** The Borough Council wishes to ensure a high standard of design for new housing development. Designs should have regard to the surroundings, reduce the risk of crime, and have regard to energy conservation. The document, "Safer Places the Planning System and Crime Prevention" provides a companion to PPS1, setting out seven attributes of sustainable communities:
  - Access and movement places with well defined routes, spaces and entrances that provide for convenient movement without compromising security;
  - Structure so that different uses do not cause conflict;
  - Surveillance public spaces overlooked;
  - Ownership places promoting respect, responsibility, community;
  - Physical protection well designed security features;

- Activity appropriate to the location, creating reduced risk of crime and sense of safety;
- Management and maintenance places designed to discourage crime.
- 3.11 The development would need to incorporate the design principles set out in 'Gedling Design Guide' (September 2003). This provides further guidance in respect of:
  - Character
  - Linkages and ease of movement
  - Mixed use and variety
  - Legibility
  - Form, massing and layout
  - Landscape and public realm
  - Design quality, adaptability and innovation, and
  - Sustainability principles, including

Ecohomes/BREEAM (Building Research Establishment Environmental Assessment Method) (replaced by the Code for Sustainable Homes: setting the standard for sustainability for new homes, February 2008).

- 3.12 **Visitability (Policy H17):** The layout and design of buildings should ensure that people with mobility problems can access premises and dwellings in accordance with the latest Building Regulations;
- 3.13 **Employment (Policy E1):** The employment land area to be 6ha/15 acres. This being achieved by the relocation of the employment aspect of the colliery to the north of the Gedling Access Road (GAR) to increase the overall site area of the employment land.
- 3.14 **Community Facilities for new development (Policies H3 and C2):** Community provision includes a primary school on-site, financial contribution toward secondary school provision, and need for appropriate health provision.
- 3.15 Transport and Gedling Access Road (GAR) (Policy H3): The GAR should incorporate a satisfactory junction at Mapperley Plains (including any traffic management measures on the approach roads to that junction). Policy H3 states that the GAR should be completed prior to the occupation of new dwellings or employment units provided within the development. However, extensive discussions have taken place regarding the economic viability of the scheme and the transport impact of building and occupying up to 300 dwellings while the GAR is being constructed. Whilst there will clearly be an impact in terms of increased traffic, this would only be for a short period of time whilst the road is being constructed (up to 3 years). As such, if this is the only way that the provision of the road can be completed then this approach will be considered. If accepted, no dwelling should be constructed until the construction of the GAR has begun and once it has started its construction must be completed to a timescale agreed with the local planning authority in conjunction with the highway authority. The timing of the road construction

would be controlled through condition or S106 following negotiations at the application stage and evidence would be required to support any proposed timescale for the completion of the road. The County Council, as highway authority, would be required to comment on this approach - it is understood that the approach may be supported at officer level.

- 3.16 **Green Belt:** Following the adoption of the Gedling Borough Replacement Local Plan, the Green Belt boundary follows Spring Lane, Lambley Lane and the edge of the existing development to the south-east of Lambley Lane.
- 3.17 **Affordable Housing (Policy H18):** Policy H18 requires that 20% of all new houses are provided as affordable housing. Further guidelines are contained in GBC's Interim Planning Guidance on Affordable Housing (adopted 7<sup>th</sup> April 2005).
- 3.18 Since 1st April 2007, all local planning authorities are required to have regard to Planning Policy Statement 3 on Housing (PPS3) as a material consideration when making decisions on planning applications and one of the effects of this is to reduce the site threshold for seeking provision of affordable housing to 15 dwellings (or 0.5 ha). This new threshold will now be used as the affordable housing trigger rather than 1 hectare as stated in Policy H18 of the Replacement Local Plan and the Interim Planning Guidance on Affordable Housing (April 2005). As the Borough Council's Core Strategy is unlikely to be adopted until 2010, it is intended to produce revised Interim Guidance on Affordable Housing that accords with PPS3 in due course.
- 3.19 The provision of affordable housing will be the subject of a legal agreement and the precise type and tenure, timing of its provision and the mechanism for bringing it forward will be a matter for negotiation between the interested parties. At the time of writing, the Council suggests that 65% of the dwellings should be provided for 'social rent' and administered through a Registered Social Landlord. The remaining 35% should be 'affordable ownership' and made available for sale in perpetuity at a discounted rate of 30% below market value, or other terms to be agreed between the developer and the Council, including shared ownership. This will require review prior to planning applications to reflect potential changing housing needs over time. The update of the Council's Interim Planning Guidance will also take on board the guidance in PPS3 and the emerging Regional Spatial Strategy. The draft RSS contains a 30% target for the Nottingham Core area and gives a split between social rented and intermediate of roughly 75:25. The Nottingham Core Strategic Housing Market Assessment states that around 46 % of houses within Gedling are required to be affordable in order to address base and future need over a 7.5 year period. Both of these figures are considerably higher than the 20% contained within the Local Plan. It is therefore likely that the percentage figure contained in the updated Interim Planning Guidance will increase from the figure of 20% currently in place. In the light of the government's drive to increase the amount of affordable housing provided on new developments and of our own emerging analysis of housing needs, we would urge the developer of the site to accept that they

have a responsibility to provide for more than 20% affordable housing on this site and to reflect this in any planning application.

- 3.20 Affordable housing should be integrated within the development, not all in one place. In design terms, it should not stand out from market housing and should have no lesser design quality to assist in creating balanced communities.
- 3.21 **Landscaping (Policy ENV2):** Gedling Colliery/Chase Farm contains a number of hedgerows within and adjacent to the site, which as far as practicable should be retained and integrated into the development proposals for the site. As set out in section 1, a tree survey should be provided with the planning applications in accordance with current BS5837 'Trees in relation to Construction Recommendations' in order to ensure that the development is suitably integrated with existing trees on the site and conflicts are avoided.
- 3.22 A hollow containing a rich vegetation belt surrounds the Lambley Lane Recreation Ground, formerly separating the recreation ground from Gedling Wharf coal stocking yard. This forms an important local biodiversity site and should be safeguarded as part of any development, as is indicated in the master plan for the Gedling Colliery/Chase Farm site (Page 14). Other important existing local features include the Arnold Lane hedgerow, which must be retained and enhanced with the planting of additional native species characteristic of the surrounding area. Boundaries and green corridors created within the development should be characteristic of the 'Mid-Nottinghamshire Farmlands' landscape character area and ideally consist solely of native species characteristic to the area. This will help to create a sense of place and continuity with the natural environment within which the site merges to the north.
- 3.23 **Energy Efficiency (Policy ENV6):** Proposals for major new development will be required to incorporate energy efficient layouts and designs and, where possible, heating schemes and exploit the potential of renewable resources. The Borough Council will require proposals to be energy efficient in terms of layout, siting and design of buildings and. As far as practicable the scheme should exploit the potential of renewable energy resources. For example, houses should be sites to maximise 'solar gain' by having habitable rooms on the south facing elevations.
- 3.24 Planning Policy Statement (PPS) 22 on Renewable Energy (2004) gave local authorities the opportunity to introduce targets in renewable energy generation and this is reflected in Planning Policy Statement: Planning and Climate Change (Supplement to Planning Policy Statement 1) (December 2007). Merton Borough Council was the first authority to do this, requiring 10% energy from renewable sources. Gedling has no such policy at the present time, but as this figure is widely used by other authorities, the developer of the Gedling Colliery/Chase Farm site is encouraged to similarly have a 10% target. This can be in two forms, either (a) 10% of projected energy demands, or (b) a reduction of 10% in carbon emissions. PPS22 also stresses that waste reduction, energy efficiency and low carbon technology

and these should be incorporated into new buildings wherever possible and could form part of target (b) above. In any event, houses that are eco-friendly are likely to increase their marketability.

- 3.25 The '2016 Commitment' (DCLG, August 2007) is an agreement by signatories to all new homes being zero carbon by 2016. There is guidance for developers in the Code for Sustainable Homes (DCLG, 2006), the consultation document 'Building a Greener Future: Towards Zero Carbon Development' (DCLG, 2006), and Nottinghamshire's Sustainable Developer Guide (2004).
- 3.26 The developer will be encouraged to follow the principles laid out in the Code for Sustainable Homes. In this, new homes are rated against nine criteria, being energy/CO2, water, materials, waste, surface water run-off, pollution, health and well-being, management and ecology. Minimum standards exist for a number of categories to gain a 1\* rating. Ratings will allow buyers to know the sustainability performance of their new home and provide the developers with a means of differentiating themselves in quality and sustainability terms. The Sustainable Developer Guide has additional criteria that the developer should consider; land use, layout and landscape, travel and transport, and the historic environment.
- 3.27 The supplement to PPS1 'Planning and Climate Change' adds to the 'Code for Sustainable Homes' and 'Building for a Greener Future' and gives guidance to local authorities on what to consider in determining planning applications. Authorities should consider environmental performance and the PPS supplement clarifies for developer what environmental performance is expected if the UK is to meet its target of reducing carbon dioxide emissions by 20% below 1990 levels by 2012.
- 3.28 The Design and Access statement submitted in support of the planning applications relating to the site should demonstrate how the proposed development will contribute to the Key Planning Objectives set out in Planning Policy Statement: Planning and Climate Change (Supplement to Planning Policy Statement 1) (December 2007).
- 3.29 **Contaminated Land (Policy ENV3) and Aquifer Protection (Policy ENV42):** The site is contaminated from the prior colliery activity. The scale and type of contamination will be established through intrusive site investigations. From this investigation an appropriate reclamation strategy will be developed in conjunction with the Environment Agency and the Borough Council's Environmental Health Department. The recreation ground of Lambley Lane and the former mineral railway are known historic landfill sites. Consequently a key consideration will be landfill gases. A suitable remediation strategy will be required including a monitoring regime. However the development of the site fundamentally provides opportunity to address existing contamination through remediation to the benefit of the local community.

- 3.30 The site is immediately adjacent to an actively gassing former landfill site; Lambley Lane recreation ground as well as the tip for Gedling Colliery and other fill in disused railway cuttings. The historic uses of the site have resulted in a significant legacy of contamination, these relate to the former pit head area, areas of spoil disposal and extensive marshalling yards. All these historic uses have a potential to be a source of sub surface gas.
- 3.31 At least 24 months of subsurface gas monitoring results must be submitted to the local planning authority prior to the assessment of any planning application, because of the potential risks associated with sub surface gas as a result of the site's former uses. The design and management of the scheme (including the location of gas monitoring wells) shall be agreed before commencement of the monitoring.
- 3.32 Any development will include a 50m zone around Lambley Lane recreation ground where no building will be permitted. Any development will require gas remediation measures to be applied, these may need to include treatments to buildings and or the installation of subsurface barriers and or a programme of ongoing gas monitoring. This proposal shall be included within the scheme to address contamination and shall be submitted for assessment prior to any planning application for any development on the site has been submitted. This includes any infrastructure works such as roads, landscaping, pipework etc.
- 3.33 The site is underlain by the Sherwood Sandstone Aquifer, which is vulnerable to contamination from pollutants by direct discharges into groundwater and indirect discharges into or onto land. Aquifer remediation is difficult, prolonged and expensive and therefore the prevention of pollution is important. The Environment Agency will assess the proposed development to assess its impact on groundwater quality.
- 3.34 Due to the likely contamination issues, potential need to remove soil/debris from site and the likely volume of material to be brought to and from site - a site waste management plan will be required and should also be covered as part of any land remediation proposals. It is likely that conditions requiring a site waste management plan will attached to any planning permission granted for both the new road and the development site.
- 3.35 **Drainage and Flooding (Policy ENV41):** Although the site is not at risk of fluvial flooding, development will increase surface water run-off rates that will need to be attenuated to greenfield run-off rate. There is an identified flooding problem downstream of the site and the flood risk assessment should investigate source and identify possible alleviation measures.
- 3.36 Water conservation measures should be included and advice sought from the Environment Agency.
- 3.37 Given that the site is identified to be on contaminated ground, it may not be appropriate for soakaways which could remobilise contaminants and threaten the quality of groundwater. Sustainable drainage principles should be applied

which may require the on-site attenuation of surface water in balancing ponds (to be identified in the flood risk assessment). Provision will need to be made for the adoption or future maintenance of the any surface water drainage systems provided as part of the scheme.

- 3.38 **Noise (Policies ENV9, ENV10):** Housing development adjacent to industrial areas (i.e. proposed Gedling Colliery pit-head employment area) and roads should take account of the possible impact of these noise sources on residents, to ensure a low level of noise in properties and gardens. Further guidance may be found in PPG24 "Planning and Noise".
- 3.39 Air Quality (Policy ENV11): This development is likely to lead to a significant increase in car usage/ road transport in the area. In accordance with PPS23: Planning and Pollution Control, an Air Quality Impact Assessment should be carried out to take account of the effects of additional car journeys on the surrounding area. This should clearly indicate the likely change in pollutant levels relevant to the objectives arising from the proposed development. Any developer should contact the Borough Council's Environmental Protection Section to discuss this matter further. Further guidance may be found in PPS23 and "Development Control: Planning for Air Quality" (National Society for Clean Air, 2004).
- 3.40 Local Nature Conservation Designations (ENV36): In considering proposals <u>having</u> an adverse effect upon a Site of Importance for Nature Conservation, the Borough Council will weigh the reason for the proposal against local ecological and community value of the site and the need to maintain biodiversity. Any damage to the ecological interest of the site will be minimised through mitigation measures secured through conditions and/or planning obligations. As set out in section 1, a landscape and visual impact assessment, and surveys of vegetation, birds and invertebrates should be submitted in support of the planning applications'.

#### 3.41 Sustainable Transport (Policy T2);

The Borough Council in line with government and regional policy wishes to encourage alternative means of transport to the private car. The development site is served by the 44/45 bus service that provides a frequent but circuitous route from Arnold Lane that takes 30 minutes to the City Centre. Developers will be required to include proposals to allow for bus companies to penetrate the development with local services. Developers will be required to meet the costs of improvements to public transport to directly serve the development site (Policy T1 of the Replacement Local Plan and the County Council's 'Planning Contributions Strategy') The County Council and City Council will be responsible for promoting this infrastructure and securing the funding to support its implementation. The developer will therefore be required to reserve an appropriate area of land as agreed with the County Council to allow the future construction of the park and ride, interchange and rail terminal/station.

- 3.42 **Highway Design and Parking Guidelines (Policy T10):** These are contained in two documents: Highway Design Guide (January 1999) and Parking Provision for New Developments (May 2004). The latter is included as Appendix 5 of the Gedling Borough Replacement Local Plan. In formulating the layout for the site, prospective developers should address the issues raised in the joint Department of Transport and Communities and Local Government's "Manual for Streets" (2007) which demonstrates how well-designed streets and spaces can strengthen the whole community and shifts the emphasis from just the car-centred transport function.
- 3.43 **Open Space (Policy R3):** Policy R3 requires that a minimum of 10% of the gross site area be provided as open space or a minimum of 20sqm per dwelling, whichever is the greater. To meet this requirement, two attractive and function open spaces should be provided, each to include a Local Equipped Area for Play (LEAP) and public art. The public art should be integral to the open space and the rest of the public realm. The possibility of developing some joint use facilities with the proposed school should be investigated to obtain maximum facilities for the community. As far as practicable these facilities should be provided on flat level ground within 5 10 minutes walking distance (i.e. 400 -700 metres of the dwellings). Links between the open spaces should be designed to encourage walking and cycling.
- 3.44 In order to meet the remainder of the requirement of Policy R3, opportunities for improving the existing recreation ground at Lambley Lane in lieu of provision of new sports pitches on site should be considered as a more appropriate measure for the local community. Improvements should include levelling, drainage and changing facilities, the details of which will be a matter for discussion and agreement with the Council's Leisure Department. A commuted sum will be negotiated with the developer for maintenance (at 2008/09 prices these equated to £4.17 / sqm for play areas and Informal Sports Facilities and £0.61 /sqm for amenity open space. Further guidelines are contained in the Borough Council's Supplementary Planning Guidance: 'Recreation Planning (Final Edition 2000).

# 4. DEVELOPMENT REQUIREMENTS

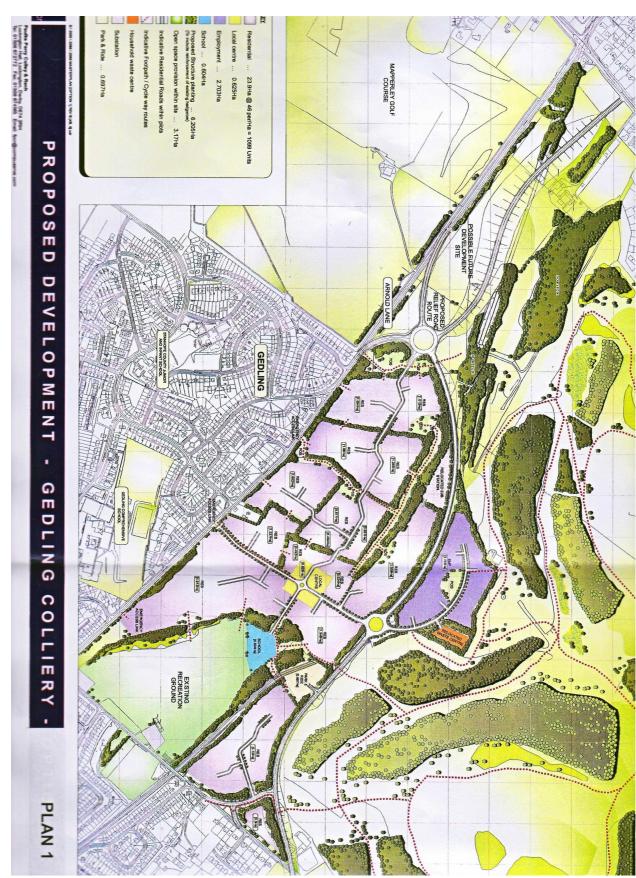
- 4.1 An illustrative masterplan was produced by East Midlands Development Agency in October 2002. This is included as Figure 3 of this document for indicative purposes only. It reflected the developing policies for the site through the Local Plan process but it should be remembered that this masterplan was produced prior to finalising the Local Plan proposals for the site. Future planning applications for the site will need to fully take account of the adopted Local Plan policies and the content of this development brief (which supersedes the illustrative masterplan). For instance, the employment land allocation has opportunity to be expanded to 6 hectares north of the proposed alignment of GAR. Planning application submissions are <u>not</u> expected to conform to the illustrative masterplan.
- 4.2 The illustrative masterplan is therefore useful in identifying a development framework and key development guidelines for the site. It illustrates how the following key requirements can be accommodated within the site:
- 4.3 **Housing** the masterplan shows a housing layout that accommodates approximately 1100 dwellings with an average density of 46 dwellings per hectare. The requirement for affordable housing is addressed in the previous section.

The Government advises in it's 'Lifetime Homes, Lifetime Neighbourhoods: A National Strategy for Housing in an Ageing Society' document (February 2008) that it's aspiration is for all new housing to be to Lifetime Homes Standards by 2013. The Standards are to be made a mandatory part of the Code for Sustainable Homes and the government is to support industry to encourage take-up on a voluntary basis over the next few years. A review of take-up will be undertaken in 2010, with a view to bringing forward regulation in 2013 if take-up in the private sector has not matched market need or expectations. Given this context, all dwelling constructed on the Gedling Colliery/Chase Farm site should meet the Lifetime Homes Standards. The 'Lifetime Homes, Lifetime Neighbourhoods' document suggests that through design and access statements developers have the opportunity to identify how Lifetime Homes have influenced their approach to density and layout on a site. The design of houses to achieve the appropriate rating level under the Code for Sustainable Homes (see Section 3) offers an appropriate opportunity to prospective developers to incorporate the Lifetime Homes Standards.

4.4 **Employment land** – the masterplan provides 2.7 hectares of employment land north of the proposed GAR. This allows the GAR to provide clear separation between the housing and employment areas. To meet the Local Plan requirement of 6 hectares, consideration will need to be given in the first instance to the potential for expanding this area north of GAR within what was the former colliery yard, served by a separate/ self-contained access. If there is insufficient developable land, consideration could be given to the use of land south of GAR. Areas such as between GAR and the former mineral railway which if retained would provide a natural buffer to the housing area. An alternative location would be between the recreation ground and GAR.

- 4.5 **Education** the Local Education Authority have indicated that a new primary school would be required to service the new population and a 1.2 hectare site would be required. The masterplan suggests that an area at the western edge of the recreation ground would be suitable offering opportunity to utilise the adjoining playing fields (it is recognised that school will require its own formal play space including junior sports pitch and providing a potentially quieter and calmer environment). The LEA has indicated that financial contributions will be required from the developer to extend places within the local secondary schools and improve facilities within those schools.
- 4.6 **Public Transport** the development will retain land for a potential park and ride site and a heavy or light rail interchange. The delivery of the infrastructure will be the responsibility of Nottinghamshire County Council. The development should be designed to allow and encourage the extension of bus services within the site.
- 4.7 **New Local Centre** – the development should provide a local centre that includes, as a minimum, the provision of small convenience store (up to 500 sq m) plus a range of small retail units; and a health centre. The provision of the new health centre will require agreement with the Primary Care Trust.' The Greater Nottingham Retail Study (January 2008) was undertaken to assess the need and capacity for additional retail floorspace in Greater Nottingham. The report concludes that, in Gedling, there is capacity for a new food superstore to be located in the general area between Mapperley Plains and Carlton Square. Any new comparison goods floorspace should be provided on the edge of Arnold Town Centre or in a new district centre also incorporating the new food superstore. Potential sites to accommodate the identified capacity between Mapperley Plains and Carlton Square are recognised as limited, given the built up nature of the area. However, it may be that the Gedling Colliery/Chase Farm development site would offer an opportunity to address this issue.
- 4.8 **Access** The principal access for private vehicles will be from the GAR. However, limited vehicular access into Arnold Lane/ Gedling village will be maintained, though this will be primarily for public transport, cyclists and pedestrians. This arrangement should ensure the development integrates with existing urban area.
- 4.9 **Open space and play provision** the illustrative masterplan shows significant structural planting making use of existing hedgerows and provides a series of linked spaces and play facilities. The requirement for open space and play provision is addressed in the previous section. In meeting this requirement and in all elements of the overall layout, full consideration should be given to the benefits of encouraging and supporting physical activity as set out in the National Institute for Health and Clinical Excellence document 'Public Health Guidance 8: Promoting and creating built or natural environments that encourage and support physical activity.' (January 2008).

- 4.10 **Infrastructure Requirements** there is an electricity substation within the development site. This is a potential source of noise which could become more noticeable following the extension of residential properties towards the substation. The developer will therefore be responsible for adopting any measures necessary to ensure that the noise remains within acceptable levels. In addition, 24 hour safe access to the substation is required for routine inspections, maintenance or repairs. Central Networks therefore either require the cables diverting or an easement for the plant and purchase of the substation site. In addition, 11,000 volt overhead lines and cables cross the proposed development which will require diverting.
- 4.11 **Ecology** An Environmental Statement under the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 should be prepared as part of planning application submissions. This ecological appraisal should include references to structure and local plan policies and address the following points:-
  - Identify the current land use and review the existing landscape and features of the site.
  - Undertake phase 1 habitat survey followed by more detailed botanical surveys if necessary.
  - Survey for all protected species at an appropriate time of year in addition to consulting with local wildlife recording groups for information.
  - Identify all nature conservation sites within 2km of the development, eg Sites of Special Scientific Interest, Local Nature Reserves, Regional Important Geological Sites, Sites of importance for Nature Conservation and areas affected by Tree Preservation Orders.
  - Assess the impact of the development on the existing ecology of the sites and the surrounding area.
  - Establish the potential for landscaping and tree planting with native species.
  - Identify opportunities for the creation and restoration of habitats appropriate to the locality, include plans to retain existing landscape features such as mature trees, hedgerows and ponds within the development site.
  - Explore opportunities for avoiding damage to, and enhancing biodiversity on this site, and the nearby Site of Importance to Nature Conservation, with reference to the 'Nottinghamshire Biodiversity Action Plan.'



# Figure 03 –Illustrative Masterplan

# **DESIGN GUIDELINES**

4.12 The Building Design Partnership in September 2003 produced a "Gedling Design Guide" which provides some key design guidelines that should be adopted by the development. The document is provided in full in Annex 4. A summary is set out below but it should be noted that this summary has been extended to incorporate comments made on the draft Development Brief.

### **Character**

(see also page 27 of the Sustainable Developer Guide (July 2004))

- 4.13 To create a distinct 'sense of place' the following character factors should be considered in addition to the retention of the existing hedgerow boundaries along Arnold Lane and adjacent to Lambley Lane recreation ground:
  - Use the landmark feature of Gedling Church as a reference point, for example, at the termination of a vista to aid in orientation and to distinguish the locality;
  - Front facing development is a characteristic of the surrounding area and all development within and on the edges of the site must address the street and not present blank or inactive frontages;
  - Seek inspiration from local historic precedents, in terms of form and local details rather than the replication of historic styles;
  - The use of innovative and high quality contemporary design solutions are encouraged.

# Linkages and Ease of Movement

- 4.14 An accessible, well-connected and pedestrian friendly environment should be created by addressing the following objectives. These objectives should not be at the expense of footpaths to the rear of buildings or excessive permeability to increase the risk of crime.
  - Achieve a high level of connectivity with existing facilities on Wollaton Avenue, including Gedling Comprehensive and the residential areas to the south and east by creating a number of safe and convenient routes for pedestrians and cyclists, across and along Arnold Lane;
  - Create direct and well-connected routes through the development area, with development blocks of approximately 100m in depth close to the local centre, to minimise walking and cycling distances;
  - A high level of connectivitiy should be achieved between the new residential area and the existing recreation ground at Lambley Lane, as well as the proposed Gedling Country Park to the north east of the development site;

- Consideration should be given to the short term use of the safeguarded railway line as a footpath and/or cycleway, to link the development with the Local Nature Reserve at Stoke Bardolph Lagoons and the River Trent (subject to the approval of Network Rail, as landowner);
- The County Council's preferred option is segregated rather than shared routes, except where limited by physical/ highway constraints. Priority will be given to pedestrians and cyclists along the network of green routes;
- Provision must be made for a bus service to run through the site, building on existing services, with:
  - Consideration given to the creation of a bus route that follows a high density route through the area drawing on the widest catchment possible within easy walking distance; and
  - The potential for linking the bus service to the proposed Park and Ride facility should be considered. The delivery of the Park and Ride is dependant on the re-opening of the rail link to the City Centre and is considered to be a longer term aspiration.

# Mixed Use and Variety

(see also page 25 of the Sustainable Developer Guide (July 2004))

- 4.15 The most stimulating, enjoyable and convenient places meet the demands of all their uses and also combine different uses, building forms, textures and densities. At Gedling, the following requirements should be addressed:
  - Open space, community, employment and small scale shopping facilities to serve the needs of the proposed development;
  - These uses should be co-located in order to support each other and to create a varied and animated centre to the new development;
  - It is also essential that that there is convenient and safe access to local community, shopping and healthcare facilities, aiming to achieve walking times of less than 15 minutes between all parts of the development and these facilities (15 minutes walk equates to 1.2km approx.);
  - Within the range of open spaces to be created on site consideration should be given to the creation of a focal point for community activity, which could be a central green or square.

# <u>Legibility</u>

- 4.16 A readily understandable and easily navigable environment should be created by considering the following issues:
  - All routes and streets should have an identifiable character, created by street widths, building heights, the extent of built frontage, landscape and boundary treatments, and imaginative parking provision;

- The development should create its own identity, using a range of character areas or neighbourhoods within the development;
- Gateway features should be used to mark key entrance points to the site and to present a distinctive image onto adjoining roads;
- Signage and the more subtle guides, such as the use of lighting, memorable sculpture and street furniture to create a legible environment are encouraged.

#### Form, Massing and Layout

(see also page 7 of the Sustainable Developer Guide (July 2004))

- 4.17 Successful and well-defined public places should be created by adopting the following principles of continuity, enclosure and overlooking:
  - Spaces and streets should be defined and enclosed by buildings. The building line will combine with boundary features to create a sense of enclosure to the street;
  - All streets and public spaces should be overlooked, with front facing development providing an active frontage and natural surveillance;
  - Densities should be higher (around 50 dph) around the local centre and along main transportation routes, in accordance with Policy H8 of the Replacement Local Plan. The more outlying and well vegetated areas will be better suited to lower density development, although this should be in excess of the PPG3 recommended minimum of 30 per ha;
  - By developing dual aspect buildings of more than 2 storeys, parts of the proposed green corridors could also be overlooked.

#### Landscape and Public Realm

- 4.18 A system of safe, attractive and functional open spaces should be created, meeting the following requirements;
  - 10% public open space to serve the development should be provided in line with local plan and NPFA standards, and be designed to complement the existing provision;
  - The range of open spaces to be considered should include a central public open space, formal recreation space, neighbourhood play space and more informal neighbourhood incidental open space;
  - Public art and public realm works provide an opportunity to create a high quality environment with a distinct sense of place. Public art should be an

integral part of the public realm works and the means of delivering and maintaining these works should also be considered at an early stage.

 The existing entrance feature at the junction between the access road to the household waste centre and Arnold Lane that reads 'Gedling Colliery 1899 –1991' should be retained as a reminder of the site's previous use.

#### **Design Quality, Adaptability and Innovation**

(see also page 11 of the Sustainable Developer Guide (July 2004))

- 4.19 The Partners view the quality of the development as being one of the most important attributes of the project, which involves considering all of the following aspects:
  - A high standard of design quality must be reflected throughout in the design of buildings, streets and spaces to create an attractive environment.
  - Innovative approaches (for example promoting best practice and contemporary architecture) from developers to all aspects of the design and development of the site are invited and encouraged.
  - An integrated approach that considers building design, hard landscaping, planting, street furniture and structures must be taken. All public realm features must be adoptable by the local authority and use self-maintaining materials.
  - Distinctiveness, variety and vibrancy are the key attributes of design quality. In achieving high quality design colours, textures, details, the patterns or rhythm in the streetscape and local inspirations should all be considered. These considerations apply to all buildings and public areas.
  - Safety and security are vital to any development. Thoughtful design is an important element in enhancing everyone's sense of wellbeing and making places more user friendly, easy to understand and secure. Use should be made of the Association of Chief Police Officer's 'Secured by Design' initiative to seek to minimise crime using design measures.

#### **Sustainability Principles**

- 4.20 The Code for Sustainable Homes should be used to review and improve the environmental performance of all buildings on the development against the 6 key issues of energy efficiency/CO<sub>2</sub>; Water efficiency; surface water management; site waste management; household waste management; and use of materials. Each housing unit should achieve a minimum of level 3.
- 4.21 The key objectives for achieving sustainable development that should be addressed by this scheme are:

# Construction

- A lifetime approach must be taken to the design of buildings and spaces to ensure that they are adaptable over time, including the consideration of system build construction techniques. (See also paragraph 4.3 of this Development Brief).
- The construction process should have minimal impact upon the existing site ecology and waterways.
- A waste management strategy should set out how waste will be kept clean and separated to ensure opportunities for reuse or recycling.
- Natural and biological remediation methods should be used where possible.

#### Microclimate

• South and north elevations of built structures should be treated in a different ways to minimise excessive solar gain and solar glare in summer and to respond to the prevailing wind directions in order to assist a natural ventilation strategy.

#### Infrastructure

- The potential to utilise underground storage tanks, drainage ditches and lagoons for surface water drainage of the site should be investigated;
- The installation of a separate pumped main for recycled rainwater, as a low cost option, should be considered.

#### Renewable Energy

(see pages 13 and 15 of the Sustainable Developer Guide (July 2004))

- Developers should demonstrate that alternative energy sources have been fully investigated and consideration given to the installation of a community based or district heating system, utilising renewable sources.
- Careful consideration should be given to slope, orientation, micro climate and new planting/ landscaping etc to allow passive solar design solutions to minimise the overall energy requirements of homes and places of employment.
- The potential for a number of sources to be provided within the development including solar panels and solar collectors should be considered.
- The use of sustainable means of power generation is encouraged, for example using photovoltaic panels to generate power.

#### Ecology

(see page 23 of the Sustainable Developer Guide (July 2004))

- Existing biodiversity and natural habitats should be protected and enhanced wherever possible;
- Where habitats or features of nature conservation interest will be damaged or destroyed as a result of the proposals, compensation and/or mitigation measures may be required;
- The proposals should seek to integrate biodiversity throughout the development, ultimately providing pleasant amenity features of nature conservation value which enhance the residents quality of life;
- The ecological value of landscaped areas can be greatly enhanced in a number of ways, for example through the installation of bird boxes and bat boxes and through the planting of native plant or tree species to create hedgerows, wildflower meadows, woodlands and/or wetland areas.

#### Drainage

(see page 21 of the Sustainable Developer Guide (July 2004))

- Consideration should be given to surface water drainage systems, eg balancing ponds. The Environment Agency will assess feasibility and establish standards though recent indications are that due to on-site contamination, soakaways may be inappropriate;
- A rainwater mains system can be provided across the development.

#### Waste Recycling

- To seek solutions other than landfill especially, as this has unsustainable impacts in the form of leachate and methane;
- A priority will be to reduce the waste at source;
- The re-use of waste should be considered, including for example refilling containers and repairing and reconditioning consumer products wherever possible;
- Waste management systems could be usefully located within a central and secure depot.

#### Ambient Environment

- Pollution from roads and buildings should be minimised where possible;
- Retention and enhancement of existing hedgerows along Arnold Lane and Lambley Lane Recreation ground boundaries;

- Installation of equipment with low emissions and limiting traffic in common public spaces;
- Where feasible, roads should be lined with trees and shrubs;
- Measures should be taken to reduce noise pollution both internally and externally, during and after construction.