GatewayEast

Strategic mixed use development:
Concept Masterplanning
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Vision

To deliver the transformation of a regional airport into a major intercontinental gateway, alongside a significant mixed use growth area to create an aerotropolis and sustainable living and working community which fully reflects the high levels of ambition of the Sheffield City Region Economic Plan.

Introduction

The Peel Group (“Peel”) are proposing a significant expansion and growth of Doncaster Sheffield Airport (DSA). Its vision is enshrined in the draft Airport Masterplan which has been the subject of consultation and the Council are proposing that the Masterplan (and its constituent parts) be incorporated into the Strategic Policy Framework of the emerging Doncaster local Plan. Peel are also seeking to deliver various elements of the Masterplan ahead of the LP through the preparation and submission of individual planning applications.

The purpose of this document is to articulate how the urban design strategic principles and concepts that have informed the DSA Masterplan document (with a particular focus on more recently acquired land to the west of the airport) have been integrated into this concept masterplan to create a high quality sustainable and integrated community around the airport.

The underlying principle in the creation of this community is to optimise the co-location of uses such that interconnectivity between residential, employment and supporting amenity uses is maximised. This co-location of uses is the single most effective way of creating the conditions for a sustainable community.

In this case, this approach will have the added benefit of providing the existing communities such as Hayfield and Audley with a new central facility and integrate these communities with additional significant employment areas.
Strategic mixed use development area extending in excess of 200ha within a wider airport masterplan, and integrating the following strategic development zones:

1. High quality strategic airside and landside employment development maximising proximity of airport and transport links.

2. A new mixed use central plaza adjacent to the airport and at the heart of the masterplan area and immediately adjacent to the potential mainline rail station will link and service existing and proposed new communities.

3. A new residential community providing high quality homes within a rich landscape setting.
Strategic principles

1. Green infrastructure

1.1 Enhancing wider relationships

Woodlands

The existing area is characterised by both large areas of high quality woodland and pockets of smaller, lower quality tree clusters. Opportunity for new development to help strengthen and consolidate the integrated woodland corridor to the north, that:

1. Connects and enhances the wider green infrastructure network
2. Provides a high quality, mature setting to future development
3. Is of high amenity value and enhances quality of life
4. Preserves important wildlife corridors.

It is important to integrate the woodland corridor as a feature adding character and value to the new development whilst connecting new and existing communities. These connections will provide safe and segregated connectivity for pedestrians, cyclists and vehicles.

There is potential for a new rail line to be constructed through the development area. The necessary alignment would impact on the woodland although the aim should be to minimise impact as far as possible.

The impacts of the rail line will be assessed within a comprehensive EIA for that specific piece of infrastructure. There will be opportunities for appropriate compensation/mitigation where this is shown to be necessary along its route.
Strategic principles

1. Green infrastructure

1.2 Ecological network

Enhancing ecological connections

The existing area is characterised by an ‘arc’ of Local Wildlife Sites (LWS) to the north and west of the development area. There is opportunity for new development to incorporate green links which help to enhance connectivity of LWS into and through the site.

In addition there is an opportunity to create an ecological connection with the Marr Flatts to the north, a retained woodland at the heart of the Pembridge Park residential development.
The new residential community will be set around existing mature woodland – a green heart at the centre of the neighbourhood.

Development here can be designed to allow green corridors to radiate from this highly distinctive central environment, enhancing wildlife habitats, creating pedestrian and cyclist movement corridors to fully integrate and connect with the wider mixed-use development areas.

Additional key movement corridors can pass around and through these radiating corridors: i.e. the strategic north-south links to and from the A638 Great North Road and the existing community of Hayfield Green.
The site’s existing mature woodland, hedgerows and ponds form the landscape structure for the development. A series of public open spaces and recreation spaces are located along the green corridors which run through the site and connect to the wider woodland beyond.

These green spaces are connected physically by the site’s green infrastructure and by pedestrian/cycle links, creating highly accessible spaces for both new residents and existing residents of the wider community.
The road structure follows the established green network and reinforces the connectivity and integration with the surrounding area.

A range of key access points from the surrounding highways is proposed; forming key gateways into the development area and creating a resilient network which can facilitate logical and efficient phasing.

A key spine route through the residential development area would create a distinctive Main Street – an attractive key corridor passing through a varied mix of residential and green/woodland environments. This spine road could easily accommodate a local bus service to further promote sustainable transport.

A network of connected secondary routes in the residential area would create attractive and legible connections, and promote pedestrian and cyclist priority.

The strategic employment zone to the south east is provided with a dedicated vehicular access to ensure appropriate separation of residential traffic.

Pedestrian and cycle links into the employment area are focussed towards the south western boundary with the residential area, where the topography and changes in ground levels (needed to form large format platforms) allow.

Mixed use central plaza located to the north designed to maximise both vehicular and ped/cyclist connections, and to promote ped/cycle connectivity towards the airport.

Potential for a future rail station adjacent to the mixed use plaza represents a key opportunity to deliver transformational connectivity. The adjacent plan illustrates how multi-modal connections could be designed to access the station.
There are four key destinations within the residential site each forming a distinct character area:

1. **Mixed-use Plaza** - This is the entrance to the site from the north. It is characterised by retail and other amenity and community uses (including airport hotels) to serve the whole of the masterplan area and introduce facilities which existing residential areas lack, within a pedestrian friendly high street. The development is set within a structured landscape providing amenity space for all users.

2. **Northern Gateway** - This node demarks the entrance to the residential area from the central plaza to the north. This area has the potential to combine high quality public realm and formal landscape with a local primary school and high density residential units.

3. **Central Woodland** - This area is shaped by the adjacent woodland. The homes here could be lower density with more verdant landscaping. The highway landscape could be more informal around an area of public open space leading into the woodland.

4. **Southern Gateway** - This character area is located at a key junction close to the adjacent employment site, it has the potential to create a meeting place between residents and workers. The area also has the potential for another primary school to serve the southern portion of the site if required.
The adjacent masterplan illustrates how the green structure and movement network combine to create a connected mixed use neighbourhood with a rich landscape setting.

The residential scheme will comprise a range of residential parcels to coordinate with the proposed movement network and optimise efficient use of land at the most accessible locations. Housing density is higher along key roads and within close proximity to sustainable transport (potential bus route through the site and new rail station).

The proposed mixed use central plaza is designed to serve and facilitate access through to both the existing residential community at Hayfield Green and the new residential area to the south. The connection is created via a distinctive ‘high street’ which aims to enhance the gateway function of this area whilst encouraging trips by residents on foot / cycle for shopping, leisure and employment.

The strategic employment area to the south east may, subject to market requirements, deliver smaller format buildings to the most prominent viewpoint (west) with larger format blocks towards the north.

The design principles articulated in this document (green structure, movement network and urban structure) and the resulting masterplan are all designed to connect and integrate the existing community of Hayfield, creating a mixed use neighbourhood with a unique sense of place.
4. Urban catchment areas and sustainable design
Mixed-use centre

Placemaking principles

The mixed-use central plaza is likely to be designed around three key principles:

1. Movement - Retail, commercial, office, hotel and residential uses all accessed from a pedestrian friendly high street.

There are two destinations within the site, the main entrance which comprises a cluster of uses (drive-through restaurants, local pub and convenience retail). The second destination is around the approach to the potential new station, where there is an opportunity to create quality public space surrounded by new offices, hotels and apartments.

2. Character - The layout comprises four main character areas: Convenience and early phase food uses at the main entrance, primarily accessed by vehicular traffic. This leads into the new residential neighbourhood to the south with potential for complementary uses such as a local creche. The central area is designed to accommodate a diverse blend of retail, restaurant and other service uses at ground floor, creating activity and animation around the new station.

3. Landscape - The landscape structure is clear and designed to benefit all occupiers of the site. Radial green routes run through the sites connecting the site with the woodland to the south. High street planting further animates and softens the main route.

The masterplan on the following page illustrates how these principles could be delivered.
Character

Airport
Retail uses

Residential

Retail uses

Vibrant mixed-use

Landscape
All site dimensions shall be verified by the Contractor on site prior to commencing any works.

Do not scale from this drawing.

Only work to written dimensions.

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NB: All landscaping is indicative.

Typical Upper Floors 1:1000

Apartment No.s:
- E (3 Floors)
  - 1 Bed = 6
  - 2 Bed = 21
  - Total = 27 Apartments

F (3/4 Floors)
- 1 Bed
- 2 Bed
- 3 Bed
- Core

Mixed-use Masterplan
Produced by Fletcher Rae Architects