

Sustainability at Fairham



Fairham

the region's finest place to live, work and flourish



Fairham will create a thriving new community and neighbourhood that is well-planned, safe and friendly; a place that has a vibrant mix of residential and commercial sites designed and built to the highest standards.

Due to bring thousands of new homes, jobs and opportunities to Nottingham, Fairham will be the East Midlands' most significant mixed-use development.

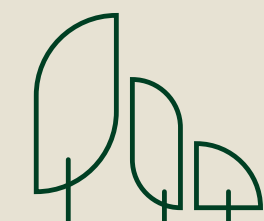
The 606-acre site on the southern edge of the city boasts world-class connectivity and will become the region's prime commercial and residential destination.

Homes England and Clowes Developments have partnered to deliver a scheme which will help provide new employment opportunities across the region as well as assisting Rushcliffe Borough Council in meeting its new homes target of 13,500 dwellings by 2030.

Collectively, Homes England and Clowes are fervent believers that sustainability is more than just a box to be ticked. Whether through property development, land development or contaminated land reclamation, the construction industry has a major responsibility to develop sustainably.

In designing and delivering developments, the partnership does all it can to deliver a balanced approach to sustainability. Wherever possible, they make sure they're accountable environmentally, socially and economically. That way, Fairham will play its part in ensuring a better quality of life for everyone – now and for generations to come.

Our team of experts have collated all the information we have relating to sustainability at Fairham and summarised it here in one place.



Our Commitment

Design Briefs

The Fairham development team have been instrumental in introducing design briefs and codes which will help house builders and commercial occupiers to design not only buildings, but also the locality in which they sit. The briefs and codes have been developed to incorporate several sustainable initiatives including an attempt to orientate as many houses as possible so they enjoy a southern aspect.

The location and interconnectivity of green spaces and parks has also been factored into the Masterplan, design codes and briefs including guidance on which types of trees and shrubs to use - where there is an emphasis on native trees and shrubs to encourage wildlife.

These documents also promote the use of sustainable drainage systems (SuDS) and have incorporated design principles which attempt to discourage the use of private cars through the introduction of pleasant, safe and efficient public footpaths and cycle routes; along with encouraging the use of public transport by incorporating both tram and bus stops within the development.

Fairham
Business
Park



Clowes Developments commitment to sustainability goes far beyond commercial property development and the design and construction of buildings.

Clowes have investigated the area's history and surroundings and have explored how they can enhance the local environment. This has been achieved by incorporating carefully considered landscaping within the development, which accords with the local environment wherever possible.

Experience and a sharp awareness of our responsibility has shown us many ways and opportunities to contribute to the health of the wider environment, from improving the ecology of the site to creating new amenities for local people.

Clowes carefully consider all measures to mitigate and improve the overall efficiency of the buildings.

1. U-values are significantly better than required within Building Regulations.
2. Air leakage statistics are half the value required within Building Regulations.
3. The internal M&E strategy considers energy efficiency, using effective condensing units to provide heating & cooling facilities.
4. LED lighting and PIR sensors improve the overall energy output of the buildings.

Clowes strive to achieve an EPC rating of 'A' for all of their new commercial buildings. The above considerations are made as standard to ensure Clowes' buildings have a significantly lower carbon footprint than current regulations expect.



BREEAM Accreditation

BREEAM is the most widely used system for assessing the environmental performance of buildings. It sets the standard for best practice in vital areas such as construction process management, energy and water use, the responsible sourcing of materials, and the health and well-being of a building's occupants.

Naturally, Clowes Developments design and build all their facilities with the aim of achieving BREEAM accreditation. To Clowes, it's more than a level to reach, it's an expectation to surpass.



EV Points

Within the Fairham Business Park development there will be several EV spaces provided as part of the 'day one' provision with an infrastructure duct being provided for more connections. The neighbourhood centre will also have several EV charging points which will range from trickle charging to faster chargers to facilitate all users.



Public Transport

Fairham is located within a 5-minute walking distance of Clifton South Park and Ride. There are 6-7 buses per hour calling at the Park and Ride Site, taking account of buses travelling in both directions. Destinations include Nottingham City centre, Nottingham rail station, West Bridgford, Clifton village centre, East Midlands Airport, Kegworth and other local areas.

There is a strategy to deliver bus routes within the wider Fairham development. The Fairham site is accessible by public transport. As the site evolves a further; improved walk, cycle and public transport infrastructure will be provided.

A Travel Plan Co-Ordinator shall be appointed to implement delivery, monitor and promote sustainable public transport initiatives throughout the lifetime of the project.



Tram

Fairham is ideally placed to take full advantage of the existing Nottingham Express Transit (NET) which offers a green, convenient and affordable way to travel into the city and the surrounding areas. The Fairham Business Park, the residential area and the complimentary neighbourhood centre will all benefit from close proximity to the existing south Clifton station. In addition, there are proposals to extend the tram network out to Parkway Station adjacent to the Ratcliffe on Trent power station then on to East Midlands airport. The Fairham Masterplan makes full allowance for a new route to pass through the site offering the potential for at least one new station at the Neighbourhood Centre which will further improve public transport links into and out of the City Centre and also on to Parkway Station and ultimately East Midlands airport.

The NET is the first Tramway in the country to be fully accessible, meeting the capital Disability Discrimination Act guidelines. Adding to the sustainability credentials every new household will be given a complimentary one-year tram pass to encourage the use of public transport.

The tram offers a 15-minute frequency service running between 6am and midnight during weekdays and Saturdays and 7am to 11pm on Sundays. A typical journey into the City Centre from Clifton South takes approximately 22 minutes.



Cycle Paths

Strategic cycle routes have been considered within the development along with off-site destinations. Sustainable travel and connections to wider facilities such as the Tram at Clifton ensure that Fairham will benefit from multi modal links with the wider Nottingham conurbation.



Footpaths

A network of footpaths within the development has been master planned to ensure consideration of wellbeing and practical sustainable walking routes to both amenities and open spaces. Links to the key neighbourhood centre at the heart of the development and to off-site amenities such as the Tram at Clifton have been integrated.



Fairham



Edge of Urban Area

Fairham is a new breed of development often referred to as a Sustainable Urban Extension. In creating this new part of the city, the Fairham team have seized the opportunity to incorporate a new community which will integrate with the existing adjacent communities, and which will create its own identity and living and working environment.

By developing on the edge of Nottingham the proposed development is able to take advantage of existing infrastructure - this not only ensures that the existing infrastructure is efficiently used, but also provides opportunities to repair and improve existing infrastructure where it has become tired or lacks capacity for future growth.

This is particularly the case with regard to electricity. As the City and indeed the whole country moves away from carbon energy such as gas in houses and petrol and diesel in cars, the demands on the local electricity network will increase.

The decision to develop land on the edge of the city has provided the opportunity for the Fairham development to bolster and add to the existing electricity supply serving the wider area.

Siting the development in this location will also enable it to take full advantage of public transport services and existing social services including education, refuse collection/disposal and emergency services. That's not to say that the development will not be contributing to the these, indeed the development is providing a brand new Primary School, Medical Centre and will contribute in terms of additional council tax for the Local Authority.



Protection of Badgers/Wildlife

The Fairham design team have been very keen to not only ensure that the existing wildlife is safeguarded but is supplemented by creating new wildlife friendly corridors to help nature flourish. The site does contain a number of protected species and the proposals incorporate runs, tunnels and crossing points to enhance their environment and ability to move through the site, both during construction and once developments have been completed.



Protection of Birds

As well as new areas of enhancement to allow birds to thrive within Fairham, Clowes take all appropriate measures to minimise impact on existing habitats during development. This is done by avoiding areas affected by nesting season, or to ensure appropriate professional assistance is on site during construction (by way of an ecological consultant). Measures are also being implemented around the site to encourage nesting post-development. Planting will include significant areas of native woodland and scrub habitat that will provide nesting and feeding opportunities for a range of species, as well as other ruderal grassland areas that should support ground nesting species.



Disposal of excess soil

As part of the essential enabling works at Fairham, there will be a substantial increase in slow moving vehicles transporting excess topsoil from one location to another. The soil will be moved from Fairham Business Park to vacant land on the other side of the A453. This necessary work will be undertaken in accordance with planning conditions set by the local authority to correctly dispose of the excess soil on the site, hence reducing the carbon footprint of transporting soil further afield. It is also proposed to plant native species woodland belts and establish wild flora as another zone of habitat creation.



Landscaping

Landscape architects have been instructed to undertake the landscaping strategy for the entire site. Whilst good landscaping can be very pleasing aesthetically, when well thought out it can work to further enhance biodiversity by retaining historic green corridors as part of the overall strategy. FIRA have worked hard to be sympathetic to the existing landscape and surrounding vistas, whilst developing a cohesive Green Infrastructure framework containing a diverse range of open spaces that are closely integrated as part of the new Fairham community.



Ecological Area

By clever utilisation of surface water attenuation areas, these engineering features can act as more than just surface water storage by helping to establish new marginal aquatic habitats carefully assimilated with existing ones such as the Fairham Brook. These work in tandem with green corridors, mitigation zones and species rich grasslands throughout the site allowing new and existing ecology to thrive away from the built environment.

Fairham



Green Parks

There are a number of parks located around the site to service both the residential and commercial areas. These are a mixture of LEAPs, NEAPs and purpose-built sports playing fields. All of these are linked by foot paths and cycle routes to enhance sustainable and healthy internal connectivity. Street furniture will be provided to allow parents to supervise younger children and older children spaces to socialise. The parks will also include structured planting areas that provide wildlife habitat as well as offer amenity value with seasonal interest around key locations such as play areas.



Allotments

The Fairham development will provide additional new allotments adjacent to the well-used and established existing allotment site at Clifton. The allotments will be available to new and existing residents who wish to grow their own produce.



Produce Market

In addition, the Fairham development team are considering ways to enable local allotment holders to sell their produce within the new Neighbourhood Centre creating a sustainable food chain for local residents.



Exercise Circuits

The possibility of introducing exercise circuits into the layout of the development is being explored and could include signed and measured walking, jogging and cycling routes interspersed with exercise areas.



Play areas & Playing Fields

Fairham will deliver playing pitches and fully equipped play areas alongside formal and informal open space for local residents to enjoy. These areas will be managed and maintained as part of the wider management agreement.



Mental Wellbeing

Mental wellbeing has been considered as part of the master planning process providing healthy spaces. Consideration has been given to open spaces with clear walking and cycling routes and avoiding the use of cul-de-sacs.



Biodiversity Gains

We will incorporate where possible areas of ecological restoration with the aim of allowing areas to develop in a more naturalistic character that contrasts with the former, low diversity intensive arable farming. Along with the creation of new green areas, Fairham offers an opportunity to aid nature to re-colonise the former agricultural land with carefully considered management strategies.



New Hedgerows

Within Fairham, proposed hedgerows will play a vital role in providing visual amenity, contributing to a sense of place, supporting biodiversity and habitat connectivity, acting as dust filters, improving local air quality and screening vehicular traffic routes. Unlike fences and walls, hedges provide benefits for us and the wildlife that live in our gardens. They have the natural ability to capture pollution, mitigate flooding and provide food and shelter to wildlife. At Fairham we intend to plant a variety of hedge species to extend flowering and fruiting times providing nutrition to important species throughout the year.



New Water Courses

Sustainable drainage systems are incorporated within the development. These include the introduction of new ditches and swales which act as water breaks, slowing surface water generation and providing a purification process.



Water Butts

It is recommended that all house builders now incorporate a water butt into the house design. This is a very simple and cheap solution to catch rainwater via the house guttering and downpipes, which is stored in a container, allowing the water to be reused for watering the garden and washing the car.



Bat Friendly Lighting

Much of the site provides limited habitat suitable for bats. However, we will encourage house builders to investigate the possibility of bat friendly lighting where possible through development. Habitat screening can be installed to prevent light trespass e.g., from illuminated roads to surrounding bat habitats. Screens such as hedgerows can reduce the negative effects of artificial lights on bats.



Solar Orientation

Through careful review of the masterplan and appropriate design codes and discussions with housebuilders, “passive” solar energy collection has been considered. This is a process that involves harnessing solar energy to heat a building without the use of panels or other instruments. The ideal orientation for buildings to harvest solar energy is within five degrees of true south, though placement within 30 degrees still garners a considerable solar contribution. While also considering covering instruments over windows in homes utilising passive solar energy reduces cooling costs in the summer because of the sun’s higher trajectory.

During discussions with prospective house builders to Fairham, all form of sustainability options are being explored including solar orientation.



Tree Planting

Planting throughout the site will allow a layered approach ranging from informal, naturalistic planting through to formal avenues and parklands.

Different species will be used; to provide year-round interest and colour, define and enclose spaces, screen views, create neighbourhood character and improve the biodiversity across the site.

Planting will provide connections to the wider landscape and link the site via a “green corridor”.

The impact of the large buildings that make up the business park adjacent to the A453 will be softened using extensive planting and topography.

Specimen trees (point of focus in a landscape) will be used in the Central Park and within village greens. Street trees will be used to formally line secondary roads.



High Speed Fibre

A wide network of utilities including three provisions for high-speed fibre ducts have been included within the development; provided by BT, Virgin and one other to ensure future proofing of high-speed network connection provisions.



SUDS

The masterplan incorporates sustainable drainage systems to control the surface water generated from the development and to manage surface water efficiently by both mimicking and improving the pre-development surface water flows.

A series of comprehensive features such as, ditches, attenuation basins and seasonal water bodies have been incorporated within the development. A number of these features have permanent water to improve biodiversity and help define the character of public open spaces. Others will intentionally fluctuate in water level and become drier during summer months but in doing so will support a different range of marginal vegetation.

These features have a number of benefits:

- Improve run off rates from the proposed development and manage extreme events
- Provide improved biodiversity for the development in key locations
- Create public amenity and help define the character zones within the masterplan
- Provide an integrated drainage and water feature plan which compliments the wider green infrastructure of the development

The existing Fairham Brook will be improved increasing its capacity with additional channels, which alongside the provision of wildlife ponds and scrapes will provide further wildlife habitats and maximise biodiversity benefits.



Part L of Building Regulations

In December 2021 the Department of Levelling Up, Communities and Housing published the latest revisions to the approved Part L of the Building Regulations. Effectively this forms a steppingstone towards the target of building zero carbon homes. It sets an ambitious target of a 31% reduction in CO2 emissions over the 2013 Building Regulations insofar as they apply to new dwellings.

All new houses will have to be built to meet the new Part L standards. In summary the key changes include the need to give greater consideration to the thermal performance of the building fabric of new homes ensuring the majority of the thermal performance is dictated by the way they are built. In real terms the U-Value requirements for external walls on new homes will be 0.18W/m2K.

In addition to targeting the fabric of the buildings the new regulations will encourage the use of low or zero carbon heating systems including photovoltaic panels. Greater attention through design will be brought to the way that new homes are constructed to avoid thermal bridging this is where poor detailing or incorrect construction where different materials create compromises to the thermal performance of the building. Air pressure tests will also have to be carried out on every new home to ensure that new homes perform well in terms of air tightness thereby avoiding draughts and heat loss. The above changes to the building regulations must be considered alongside government’s future homes standard which comes into effect in 2025 and is expected to mirror the international agencies aim that no new gas boilers should be sold after 2025 if net zero targets are to be achieved by 2050. A number of house builders on the Fairham development are already considering alternatives to gas boilers in advance of these dates.



Local Workforce

Our strategy seeks to ensure that our investment in the site benefits the local community and businesses wherever possible. We propose to work with the Council to implement a target based programme to support the principles of the local area to provide jobs, training, apprenticeships and work experience with us and our supply chain.

Working with our established local supply chain, we will also identify opportunities to work with other businesses in the neighbouring area.

New Employment development on site will offer an environment that will nurture small innovative businesses.



Neighbourhood Centre

The Neighbourhood Centre is the heart of Fairham, providing a critical link between the employment and residential areas but also being a key feature for all those entering Fairham. The Centre will provide key social infrastructure for Fairham, including a new Primary School, Health Centre along with retail provision.

The intention is for the neighbourhood centre to be mostly pedestrianised and linked to the various walkways and cycle routes around the site, truly allowing those at Fairham to live, work and play.



New Primary Substations

A new integrated primary sub-station has been constructed for the overall development. The power generation from the sub-station is approximately 30MVA and is derived from the local National Grid over head power lines. Consideration is currently being given to the use of battery storage facilities running alongside the primary sub-station. This will provide an opportunity to store power in low demand periods and utilise this power storage in peak demand periods.



House Builder Requirements

The development at Fairham will follow the principles of good design set out in "Building for Life" which is a document developed by the Commission for Architecture and the Built Environment (CABE) the Home Builders Federation (HBF) and the Civic Trust to assess the design quality of homes and neighbourhoods.

The Building for Life Quality Mark is the sign of a good place to live with new well designed homes and neighbourhoods.

The accreditation acknowledges connections, facilities, street layouts, parking, mix of housing with distinctive identities and injecting character into new buildings.

The sustainability at Fairham will seek to achieve the following:

- The use of locally sourced or recycled construction building materials and aggregates
- The preference for using environmentally friendly and more sustainable materials and products such as recycled timber
- The use of environmentally friendly surfaces for some streets, driveways and spaces
- Low flow showers and dual low flow flush toilets as part of controlled water demand and use
- Low carbon lighting, energy controls and management
- Double and triple glazing and improved insulation
- Conservation and enhancement of natural resources
- Ground level "Urban greening" with the use of street trees, open space, private spaces and gardens
- The planting and setting out of grassland, native trees, shrub and hedgerow species that will encourage wildlife and sustainable drainage
- Plots to provide suitable facilities and storage for recycling and waste.

