Land Adjoining Radstone Fields

Halse Road, Brackley

Design & Access Statement on behalf of

MintondaleDevelopmentsLtd

November 2020



CONTENTS

Introduction	05
Assessment	09
Design	4 1
Access	65
Conclusion	69



Introduction

This document outlines proposals to build a new development to the northern edge of Brackley, with its own community and identity, that draws inspiration from the neighbouring development at Radstone Fields, and that also provides open space for new and existing residents.

1.1 Statement of Purpose

This Design and Access Statement (DAS) accompanies the submission of an outline planning application for development comprising up to 450 homes, playing fields, informal open space, landscape and sustainable drainage areas, access, footpaths, infrastructure and associated engineering works. The application is prepared on behalf of Mintondale Developments Ltd. with all matters reserved for future detailed consideration except access.

This DAS has been prepared in accordance with section 6 of the DCLG published document 'Guidance on information requirement and validation' (April 2010). It has also been written in accordance with the CABE guidance 'Design and Access Statements - how to write, read and use them' (2006).

The design responds to the policies of South Northamptonshire Council (SNC) and guidance contained within the National Planning Policy Framework (NPPF). The NPPF stresses the importance of good design and its relevance in determining planning applications. The design for the Site reflects best practice guidance and the guidance contained within the NPPF.

1.2 Design Approach

The DAS explains how the characteristics of the scheme have been informed by a methodical process taking the following steps:

- assessment: consideration of the full context including physical, social and economic characteristics of the Site and surroundings, as well as planning policies and best practice;
- evaluation: demonstration of how the information gained from the assessment process, together with advice received from consultees, has been evaluated to inform the development of the scheme; and
- design: identifying and explaining the use, layout, scale, landscape and appearance of the scheme.

1.3 Access

The DAS also explains the approach adopted towards access and movement:

- how the Site responds to the wider public highway network and public transport services and how specific access points and illustrative circulation has been defined;
- how the movement network promotes walking and cycling, with emphasis on connectivity and safety; and
- how people can get to and from the Site and move through the proposed development on equal terms regardless of age, disability, ethnicity or social grouping.

1.5 Planning Application

This is an outline application which means that it is only required to provide information on the approximate location of buildings, routes and open spaces and is not required to provide any specific information on appearance.

The junctions and a series of design parameters have been fixed to provide certainty that the scheme can be delivered, and to enable environmental impacts to be robustly assessed.

The DAS has been informed by the various technical assessments carried out by specialist consultants, which are submitted as separate documents that accompany this application:

- transport and access;
- flood risk and drainage;
- noise and vibration;
- landscape, and visual amenity;
- ecology, aboriculture and biodiversity;
- archaeology and heritage;
- air quality;
- land contamination;
- agriculture; and
- climate change / energy

Consultant Team

- Urban Design Savills
- Planning Frampton Town Planning
- Landscape Aspect Landscape Planning
- Ecology Griffin Ecology Ltd.
- Flooding and Drainage Armstrong Stokes & Clayton Ltd.
- Access & Highways Cotswolds Transport Planning
- Archaeology Crow Archaeology
- Aboriculture Aspect Landscape Planning
- Noise and Vibration inacoustic





Assessment

This section of the DAS examines the environmental issues relating to the Site and the surrounding area and explores in detail the character and typologies seen in the neighbouring development.

2.1 Local Design Policy

As previously aforementioned, design is a critical part of all development. The design policies relevant to the proposals include the national policies already referred to in Section 1.1 of this document. This section highlights design policies relevant at the local level.

In South Northamptonshire it is required that there be particular approach to design in order to deliver exceptional standards in quality which uphold the distinctive character of the local area. In 2017, the South Northamptonshire Design Guide was published. This is a document which reiterates the importance of high quality design and encourages new developments to respond sensitively to the existing built character within the district and reinforces additional attributes such as landscape character and heritage. The most significant chapter related to the prosed development Adjoining Radstone Fields are:

- Residential Design Guide; and
- Open Space, Landscape and Surfacing for Highways, Parking and Public Space Design Guide.

The South Northamptonshire Part 2 Local Plan was adopted in July 2020, and sets out in greater detail more specific requirements for developing a sustainable community in South Northamptonshire. This plan provides specific guidance on the planning and design principles which prioritise place shaping and design quality. The policies relevant to the proposals are:

- Policy LHI: Residential Development Inside and Outside
 Settlement Confines;
- Policy LH8: Affordable Housing
- Policy LH10: Housing Mix and Type:
- Policy GSI: Open Space, Sport and Recreation;
- Policy GS2: Local Green Spaces; and
- Policy NE3: Green Infrastructure Corridors.

In addition, there has been an analysis of the Radstone Fields Design Code, which was submitted along side the planning application for a sustainable urban extension at the north of Brackley. This document was formulated with reference to the Brackley Masterplan (adopted 2011) which reiterated the need for a design code in order to deliver high quality housing which responded appropriately to Brackley's townscape character and surrounding landscape, and green infrastructure network. The Radstone Fields Design Code sets out in detail, specific urban design, architectural and landscape principles deemed suitable for a high quality development tailored for Brackley. Details of the relevant principles outlined in the Design Code will be explored later in this document.

2.2 The Site

Location

The Site is located at the north of Brackley and borders the new Radstone Fields development. Radstone Fields has recently provided 1000 new homes to the local area and was delivered by a consortium of developers including Taylor Wimpey, Barratt Homes and David Wilson Homes.

The Site's boundary has been carefully considered in relation to the basis for the application, namely, to improve the housing land supply for the local district.

The development is proposed to deliver 450 dwellings in the next 5 years. The application area has been subject to extensive design iterations in order to optimise the development land needed to deliver the required quantum of homes and accompanying infrastructure, including open space. The delivery of two access points to Halse Road is considered optimum for a development of this scale, to allow for good permeability and an option of connecting bus routes through the Site.

The location of these access points and the design requirement to deliver development on each side of the main access road (in order to provide better placemaking through good street enclosure) has more specifically informed the northern Site boundary. Individual housing plots to the north of the site would 'back' onto the countryside. Future development (should it come forwards in this location) would complete these plot to form perimeter development blocks.

Site description

The Application Site covers an area of 29.87 hectares (ha). The existing land use comprises mainly agricultural land. The Application Site is configured of 6 areas:

- Parcel A;
- Parcel B;
- Parcel C;
- Parcel D;
- Halse Road; and
- North of The Worlidge

Parcels A and B form the southern area of the application Site, and are divided by an existing hedgerow that runs in a north to south direction. Both parcels also abut the new Radstone Fields expansion, their boundary defined by an existing hedgerow.

Parcel C lies just north and comprises a section of existing agricultural field; its inverted "L" shape is defined by the proposals outlined later in this document. The southern boundary of Parcel C is characterised by an extensive semi-mature tree plantation. This belt of planting runs in a south west to north east direction across the Site. The north-eastern boundary along Parcels C and B is also defined by a mature hedgerow characterised by a range of mature trees and a drainage ditch.

Parcel D is almost triangular in its shape and forms a section of agricultural land located further north. It is accessed from Halse Road, via the Worlidge. Its eastern and western boundaries are defined mostly by existing hedgerows whilst its northern boundary is defined by the edge of a 15m offset from a high voltage overhead power line that runs in a north-west to south east direction.

The Worlidge is a small agricultural track with a bridleway and is bound by hedgerows on its northern and southern sides. There is a piece of land North of the Worlidge that is anticipated to facilitate vehicular and pedestrian access routes to Parcel D. Consequently this small strip is long and narrow and has been designed with an offset of 10m away from the Worlidge's northern hedgerow boundary.

Halse Road defines the southern boundary for the majority of the Site. It is a small rural road with a small draining ditch and hedgerows on either side.

The land further north of the Site at Hall Farm is mostly agricultural, but contains two large solar farms. Other nearby land, south of Halse Road, is also mostly agricultural and rural in character.

Figure 2: Site Location Plan



2.3 Site Photographs

Site Visit

A site visit was undertaken in June 2020. The following images illustrate the significant physical features currently present on the Site.



View across Parcel A looking north east towards the existing tree belt and hedgerow boundary that transects Parcels A and B.



View across Parcel B looking east towards the existing hedgerow boundary and new development at Radstone Fields





View looking south towards Parcel C and the existing tree belt planting



The Worlidge is defined by an agricultural grade access track and provides Public Right of Way access to the surrounding public footpath network



View across Parcel D looking north towards the existing surrounding landscape



Existing boundaries are characterised by well established trees and hedgerows

2.4 Site Context

Surrounding uses

Figure 3, opposite shows that within an approximate 10 - 15 minute walk there are a range of facilities that are accessible for the local community.

Local facilities and services

The nearest local centre is situated at Springfield Way, approximately 0.9km (approx. 9 min walk) from the Site. There is a local store, GP surgery, pharmacy and a small eatery as well as access to Brackley Leisure Centre. The Springfield local centre is well connected being situated on a local bus route and locally designated cycle route.

It is expected that a new local centre will be built out at Poppyfields Park in Radstone Fields, where there is a new primary school (see below) and a multifunctional community hall. This future development will provide access to house professional services, cafes, food and drink outlets and a small supermarket within an estimated 5 min walk from the Site.

Education

The nearest school is approximately 400m away from the Site. The Radstone Primary School was recently delivered in the Radstone Fields extension scheme. It is a 1 form entry school, but was designed and built out with potential to deliver a significant expansion in order to provide a 2 form entry for the local area.

Secondary Schools are located further south in Brackley Town. These are approximately 7 – 9 minutes away using the local bus network.

Wider facilities

Brackley Town Centre is located approximately 2.4km away and can be access by a 10 minute bus ride the Site. There is a collection of various chain and independent retailers, supermarket stores as well as a variety of leisure and health facilities.

Further south of the town centre is the Buckingham Road Industrial Estate, Brackley's largest employment area. This can be accessed on the same bus route through the town centre. There are a range of business that specialise in a range of services from professional motor sport to food production and distribution.

Movement

Public Transport

Brackley Town Centre is accessible from a short bus ride from the Site. The nearest bus stop is located at Poppyfields Park approximately 400m away within the new Radstone Development. At this stop, a regional bus service is provided by Stage coach delivering access to Banbury via smaller satellite villages. The 500 and 500c offers this service and can connect residents with Banbury via Brackley Town Centre in approximately 50 minutes. Additional access to Milton Keynes via Buckingham is also available from Brackley Town Centre.

In the Radstone Fields Design Code it has been specified that there would be an opportunity to provide an extended bus route and link into the Application Site. This would ensure that the bus network is able to service any further development at the Site and provide ongoing connectivity to Brackley and its surrounding settlements.

Public Rights of Way

Public Rights of Way (PRoW) are present around the Site. The Worlidge, a bridleway (VA16) begins at the Site boundary, along Halse Road and forges the connections with Brackley's surrounding PRoW network.

Open Space Network

There is strong network of local green infrastructure and open spaces that facilitate walking and cycling to and around Brackley via informal recreational walking and cycle routes, identifies in Figure 3..

Proposed New Homes	
Existing Bus Routes & Stops	o»
Existing Public Rights of Way	****
Locally Designated Cycle Routes	\rightarrow
Informal Walking Routes	*******
Open Space	
Extent of Built Environment	
Employment Sites	
Education Sites	
Leisure Facilities	0
Allotments / Community Gardens	0
Primary Schools	\odot
Community Buildings	0
Healthcare & Assisted Living	0
Public Houses	0
Local Shops / Supermarkets	0
Cemetery	0



2.5 Character

Landscape Character

At a regional level, the Site is located on the boundary of two National Character Areas.

The majority of the Site is situated in the context of the Cotswolds whilst the Site's northernmost area is located in the Yardley Whittlewood Edge, as shown in Figure 4.

The local Northamptonshire Landscape Character Assessment identifies that the Site is located within the Landscape Character Area, The Tove Catchment Character Area. This is characterised by

- broad, elevated undulating landscape that is more elevated to the west shelving eastwards and drained by numerous broad, gentle convex sloped valleys;
- hedgerows are often low and well clipped emphasising the undulating character of the landscape with scattered hedgerow oak and ash trees; and
- a productive rural landscape with an equal balance of arable and pastoral farming with the former predominating on more elevated land and often larger in scale, although arable land can be found along valley bottoms where sand and gravel deposits are located.





Figure 4: Landscape Character Analysis

Radstone Development

A review of the neighbouring Radstone Fields expansion has been carried out to help inform the progress of the layout, density and appearance of the proposed scheme. Radstone Fields was consented on the condition that a thoroughly considered design code was established to inform the characteristics of development in north Brackley.

The design code was produced with input from local stakeholders, and approved by the South Northamptonshire Council Development Control Committee in order to ensure a level of certainty for the South Northamptonshire Council that the delivery of high quality design and the promotion of sustainable communities is at the forefront of Brackley's future urban development. Consequently, this code has also been used to inform the proposals outlined in this document. In particular, street hierarchy has been extensively reviewed along with how streets intersect and relate to key opens space typologies. This will assist in ensuring continuity between the two sites, and that the high quality established at Radstone Fields is reflected in this application.

The following pages explain the analysis that has been undertaken to understand the existing character of Radstone Fields.





Figure 5: Radstone Fields Character Areas

Overview & Key Features / Design Principles:

- Size: 41.41 ha
- 1000 homes
- Net density: 35-40 units/ha
- The structure of the site is a combination of blocks of development formed by a network of streets and open space.
- 1 form entry primary school with sufficient expansion area for a 2 form entry with playing fields behind.
- The Central Park is located at the heart of the development, linked to key facilities such as the Local Centre and Primary School.
- The Country Park is the largest area of open space within the site and serves a variety of amenity, recreational, ecological and attenuation functions.
- The Country Park defines the edge of Brackley providing a transitional area from the Northamptonshire countryside to the settlement edge.
- The majority of the site is built to a medium development density, with low density housing framing the parkland edge.

Analysis of Character

Analysis into the character of this development has uncovered a set of common characteristics typical of this area and based on Radstone Fields Deisgn Code. These will be used to inform the proposals for the Site.

The following pages explore the key character areas present in Radstone Fields, and those which greatly influence the proposals outlined in this document.





Trees planted 10m apart in the centre of grass verges on both sides of the main carriageway Main macadam carriageway approx. 6.5m wide to accommodate bus route Grass on both side, 2m wide minimum

On both sides, 1.8m min for one side (pedestrian only), 3m min for other side (pedestrian and cycleway combined) Primary avenue forms direct connections to focal / central open spaces



centre of grass verges on both sides of the main carriageway lain macadam carriagewc approx. 6m wide ass on both side, 2m wid minimum Footpath width at 1.8m on both sides of main carriageway

Parking directly off street - on plot parking and occasional courtyard parking





Land Adjoining Radstone Fields Design & Access Statement



Properties front onto central open space in order to increase natural surveillance 1.2m black painted metal railings define formal boundary treatment Specimen and groups of trees planted within amenity grassland, creating attractive setting for the Central Park. Different tree species have been used to define the boundaries between the public open space and the residential landscape.

2m black macadam paving



Dwellings front onto open space in order to create rural edges to the development Bitumen / gravel footpath and cycleway network

Specimen tree planting using appropriate large native species to secure a parkland character overtime Shared private drives define the formal edge to urban development

Summary of Common Characteristics

Analysis of the Radstone Fields character has uncovered a set of common characteristics which can be found within the Brackley area. These will be used to inform the proposals for the Site. These key characteristics include:

- A Main Avenue: Strong primary street with regular tree planting providing a bus route and footpath / cycleway
- A Secondary Avenue: A street with regular tree planting which provides footpaths on either side
- Lanes: Smaller intimate streets with strong frontages and denser in character that are enhanced by slightly curvaceous road geometry
- Shared Private Drives: Intimate streets with shared surfacing that is defined by sting residential frontages and opens out onto open space
- Central Park : A parkland area which provides
 multifunctional amenity open space and a children's play
 area
- Country Park: A landscaped parkland that forms the rural boundary edge to development edge that provides ecological enhancement and drainage
- Materials: Red brick, Ironstone, painted rendering (on brick) casement windows, brown and brindle plain tiled roofs, slate roofs
- Building Heights: Mostly 2 to 2.5 storey buildings with a few key 1.5 stories
- Boundary Treatments: brick wall with piers or brick wall with piers and hedging and hedging with timber bollards
- Front Gardens: 2-4m minimum front gardens

Materials







Boundary treatments









Architectural details















2.6 Technical Studies

Landscape and visual appraisal

A landscape character and visual appraisal was undertaken by a chartered landscape architect.

In terms of landscape character, it is considered that while the Site currently has a rural character, the presence of the Radstone Fields development influences the Site and extends the perception of the built up area. The presence of the solar farm and overhead pylons also reduce the perceived tranquillity of the Site and while it is acknowledged that such features are not uncharacteristic within the countryside, these elements, alongside the existing settlement edge influence the character of the Site. It is considered that the key landscape features associated with the Site are the established vegetation cover and public rights of way. However, there are no physical attributes associated with the Site that elevate it above ordinary countryside and, as such, it is considered that the Site and its immediate setting do not represent a "valued landscape" within the context of para 170 (a) of the NPPF.

Views of the Site are highly localised as a result of the undulating topography, existing townscape to the south and established vegetation structure that characterises the localised landscape setting. The compartmentalised character of the localised landscape setting reduces opportunities for middle and longer distance views towards the Site. Some middle distance views towards the Site are possible from the more elevated landscape to the north and north east, however, the Site is not apparent within the context of these views and is often seen within the context of the settlement edge created by Radstone Fields. The built environment to the south curtails longer distance views from this direction, while the more undulating and wooded landscape to the west contains views from this direction.

It is recommended that the proposals adopt a sensitive, landscape-led approach that has been informed by the Radstone Fields Design Codes and which retains and reinforces the existing boundary landscaping, adopts a sensitive approach to design and elevational detailing and reflects the mass, scale and height of residential built form associated with Radstone Fields.

It is concluded that the landscape to the north west of Radstone Fields, of which the Site forms part, has the capacity to accommodate a sensitively designed development which will not give rise to significant landscape or visual effects and would represent a logical addition to Brackley to accommodate future growth in South Northamptonshire

The vast majority of existing landscape features, such as trees and hedges, will be retained. The loss of a limited number of existing trees will be compensated for by extensive native tree planting across the Site. Gaps in hedgerows will be planted with a species rich mixture of hedge plants which will provide the appropriate level of visual mitigation.





Application Boundary





Short distance views from Halse Road towards the Site



Long distance views towards the Site from a public footpath approx. Ikm north of the Site



Eastern boundary of southern site

Middle distance views from the east looking towards the Site from Radstone Road

Figure 8: Photograph viewpoints from LVIA

Ecology

There are no internationally designated areas within the Site boundary. Helmdon Dismantled Railway SSSI is located some 600m to the east of the Site boundary. This statutory designated site is considered to offer interest to nature conservation and has been designated for the value of its habitats to a range of protected and notable species. As such this SSSI is considered to offer both national and county value. Helmdon Dismantled Railway SSSI is considered to be connected to the application Site via a good network of hedgerows. The habitats on Site are not considered to offer similar value to those offered by this SSSI with species composition significantly less diverse. When considering the scale, extent and location of the proposed development no direct impacts to this SSSI are foreseen.

The findings of the field survey have indicated that the majority of the Site, dominated by arable farmland, is of negligible nature conservation value in its own right. There are, however, opportunities to improve habitat and biodiversity, and the assessment work goes on to identify potential biodiversity and habitat enhancement management measures that have informed the proposals submitted.

An ecoological assessment of the Site has established the following:

Bats

The data search reveals there to be a significant summer roost for Natterer's bats (Myotis nattereri) within Radstone church and it is considered likely that at least some of these bats would travel southwards along the disused railway towards other roosting sites and foraging grounds. Vegetated corridors linking the Site to Helmdon disused railway are present via existing hedgerows, however, these are bisected by Radstone Road. Common pipistrelle, noctule, Leisler's and brown long-eared bats were all recorded within the 2km search radius.

As such the Site was afforded a moderated to high suitability for roosting bats with low to moderate suitability for foraging bats based on the presence and quality of habitat features present within the landscape.

Nesting Birds

The data search reveals a number of bird records within the 2km search radius, these records include a range of red and amber listed (BTO) species.

A search of the habitats on Site during the PEA survey visits revealed no evidence of active bird nesting. A historic, likely wood pigeon nest has been observed within the canopy of an ash tree located centrally within the shelterbelt during the updated PEA visit of 1st October 2020. The mature boundary hedgerows and associated standard trees and the shelterbelt provide the dense canopy foliage and structure likely to offer suitable habitat for use by breeding birds likely to be in the locality of the Site.

The grassy field margins and arable land is also considered to offer opportunities for ground nesting species such as skylark. These habitats for the most part will be retained and enhanced

Reptiles

Arable land does not typically offer good habitat for reptiles, therefore suitability on Site is generally confined to the grassy field margins and hedgerows with associated ditches. These habitats for the most part will be retained and enhanced as part of the proposals with only the western boundary hedgerows requiring removal to facilitate the widening of Halse Road. On balance, it is considered that any population present is likely to be limited to low numbers and/or transient individual grass snake using the Site boundaries as part of a wider home range, with likely links to habitats along the Wolridge and to the north. On the basis that small amounts of suitable habitat occur on-Site, it is on a precautionary basis considered that reptile populations on-Site are important at the Local level.

Badger

Badger walkover surveys have been undertaken in May 2019 and then updated on 1st October 2020. The updated survey confirmed the presence of five badger setts within the survey boundary with one of the setts observed in 2019 no longer in existence as a result of human interference. The setts which remain within the survey boundary include one main sett, one annex, one subsidiary and two inactive, likely outlier setts. It is concluded, given the available foraging, evidence of activity and field signs, these setts are most likely to relate to a single clan territory. The lack of any territorial or boundary scent marking suggests that it is unlikely the Site is used by more than one clan of badgers. As such the Site and habitats within it are likely to offer ecological value to badger at a Local Level.

Notable Mammals

The farmland and open countryside within the Site and surrounding the Site to the north, east and west is likely to offer value to species such as brown hare (Lepus europaeus) and hedgehog (Erinaceus europaeus). During the survey of March 2019 two brown hare were observed within the southern-most arable field which had not been cultivated. No further siting were recorded across the duration of the survey period. As such the Site is considered to offer value to hedgehog and brown hare at a Local Level.

Offsetting Biodiversity Net Gain

The ecological strategy for the development has also concluded that offsetting Biodiversity Net Gain (BNG) would be the most effective approach in assuring that the development gains a reasonable amount of habitat and ecological value. An area that abuts the north of Parcel D has been identified as the most appropriate for delivering BNG. This will be explored in a later chapter in this document.

Enhancement opportunities

Where appropriate, development proposals should seek to provide new opportunities for wildlife in accordance with national and local planning policy and guidance and the 2006 NERC Act. A selection of measures (for enhancement) were considered in the preparation of this application and the strategies informing the outline application, which will then need to be considered in further detail at the reserved matters stages.

Some enhancement measures proposed to increase the nature conservation of the Site are:

- Extension of the Radstone Fields Country park into the Site, in order to strengthen ecological corridors across the local area and benefit species such as bats, badgers and local birds
- Retention and enhancement of existing hedgerows where possible through sensitive management and infilling of gaps using native species appropriate to the local area;
- Creation of new habitats as part of the landscaped SuDS proposals, in the north-east corner of the Site which will encourage new amphibian activity which is currently dormant;
- Inclusion of habitats of high nature conservation interest including meadow grassland, native species-rich scrub and woodland habitats within most areas of open space,
- Establishment of a gradation of scrub to grassland along existing woodland edges to create 'ecotone' habitats;
- Provision of new opportunities for movement of wildlife within and across the Site through strengthening of existing or creation of new hedgerows, treelines and corridors of semi-natural habitat;
- Provision of bat roosting opportunities and bird boxes on retained and new buildings and retained mature trees; and
- Use of native species of local provenance within planting schemes wherever possible.



Figure 9: Biodiversity Assessment Plan

,,	Application Boundary		Existing Dry Ditch		Proposed Offset Location for Biodiversity Net Gain
ng	Survey Area		Existing Wet Ditch		
	Arable Field	Α	Probable Main Badger Sett	TNI	
	Existing Hedgerows with Trees		Larger Grassy Field Margin	TN2	
Plantat	ion Shelterbelt (Existing Treebelt)	//////	Rød Kitø Pair	TN3	



Arboriculture

A tree survey was undertaken in relation to design, demolition and construction, of all trees within and adjacent to the Site that may be affected by the proposals. The findings of the tree survey are set out in the 'Arboricultural Impact Assessment' which accompanies this application.

The survey found that the tree cover within influence of the Site can be described as three distinct cohorts:

- Firstly, the existing fields are surrounded by maintained agricultural field boundary hedgerows;
- the second cohort is formed of dense shelter belt buffer planting, located on the northwestern and western extents of the southern two fields; and
- thirdly, occasional more established broadleaved trees are set within the boundary hedgerows – primarily defining the eastern boundary, adjacent to Halse Road, and also lining The Worlidge.

As is typical for both site elements' current agricultural usage, the existing tree cover is primarily limited to the boundaries and offsite, where it is incidental to the current land use.

The majority of the tree cover present on the Site, falls under the 'Category B' and 'Category U' designations. There is one 'Category A' tree present along the Sites north eastern boundary, north of the Worlidge.

Masterplanning of the development has been informed by arboricultural recommendations throughout and has sought to retain all trees where applicable. However, in order to implement the development proposals, some items would be lost. Losses will mostly occur within the internal tree belt to facilitate a new primary loop road, and along the southern boundary along Halse Road to provide two new access points into the Site.

New planting will be undertaken in order to mitigate for the loss of these items as demonstrated in the Green Infrastructure Strategy, shown within Section 4.3 (pg.59). The proposed planting will enhance the setting of the new development, whilst improving the species and age structure of the tree stock and will also contribute to the local areas overall green and ecological infrastructure.



Figure 10: Aboriculture Constraints Plan

Archaeology

A geophysical survey has recorded anomalies indicative of archaeological activity across all parts of the Site.

An assessment has concluded that the Site does not contain any World Heritage sites, scheduled monuments or registered battlefields where there would be a presumption in favour of their physical preservation in situ and against development.

Based on the information from the Northamptonshire Historic Environment Record and a consideration of the known history of the Site it is considered that the Site has high potential for archaeological remains associated with the Neolithic and especially the Iron Age to survive below ground. Surviving remains are considered likely to be of low or medium importance. Previous archaeological works undertaken within a part of the Site confirm the presence of sub-surface archaeological remains in the areas surveyed. On the basis of available evidence, it is considered that the Site is likely to contain a range of subsurface archaeological remains. It is considered that the archaeological potential of the Site is likely to be suitable for mitigation through the normal planning process.

At the pre-application stage an evaluation trench layout (Figure 11) and commitment to make all reasonable efforts to undertake and report on archaeological evaluation works during the determination period has been agreed with the Assistant Archaeological Advisor.







Flood Risk & Drainage

Local Watercourses

There are currently no watercourses present within the Site boundary. However the nearest potential source of fluvial flooding is represented by the unnamed watercourse located to the northeastern boundary of the Site. In the proposed Radstone Fields Country park, at its north-westernmost corner is a small spring which forms an unknown watercourse that flows east away from the Site.

Fluvial flooding

The Site is identified as lying outside of the fluvial and tidal flood risk zone according to the Environment Agency's published floodplain map. The EA floodplain map indicates that the level of flood risk to the Site corresponds to a Flood Zone 1 – Low Probability in Table 1 of NPPF Technical Guidance. This zone has less than a 1 in 1000 year annual probability of flooding and therefore the Site is not considered to be at risk of fluvial flooding.

Pluvial flooding

As shown in Figure opposite, the EA risk of flooding from surface water map shows a corridor within the Site, identified as an area at variable risk of surface water flooding. This strip of flooding follows the gradient currently present on the undeveloped Site. The development proposals and accompanying new drainage networks will alleviate the risk of flooding in this area.

Topography

The Site's highest point is located where Halse Road and The Worlidge intersect each other; the trajectory of the Bridleway follows a local ridge-line. From the Worlidge the topography slopes gently towards the south and culminates at the Site's lowest point which is located at the north-eastern most corner



Figure 12: EA Fluvial Flood Risk Map



Figure 13: EA Pluvial Flood Risk Map



Noise

It is anticipated that the route for High Speed 2 Rail Link (HS2) will run approximately 0.9km from the Site's northern boundary. Consequently, a noise assessment has been submitted with the outline application. The noise effects of (and on) Land north of Radstone Fields Brackley, have been established in accordance with published guidelines and best practice.

The assessment considers both the existing noise environment at the site, plus the future noise environment, taking account of the HS2. The effects have been considered on an open site basis; without the screening effects of the built form of a masterplan layout. This approach is considered to represent a worst-case scenario and can be used to steer the design of any eventual development layouts on the site. The assessment has identified that:

- The Site is unconstrained by noise under both baseline and future HS2 conditions;
- all areas of the site are able to achieve BS8233-compliant external amenity levels during the day, without the need for acoustic mitigation; and
- no parts of the Site will require acoustic mitigation, with the vast majority of the site being capable of providing BS8233-compliant internal sound levels, during both the daytime and night-time, with windows partially open for ventilation.

The noise effects of existing and proposed non-transport related sources potentially affecting the Site have also been considered and discussed individually. It has been concluded that none of the identified existing or proposed non-transport related sources currently have nor are considered to have the potential to adversely affect the acoustic environment of the site under future conditions.

It is therefore considered that noise should not be considered an impediment to the approval of this Outlined Planning Application of residential development at the Site.

Utilities

Local service providers have been approached to obtain asset information and maps detailing any utilities services which run through the Site. The plan opposite shows that there are numerous utilities that transect the Site. Each of these utilities have been evaluated to see the potential impact on development.

The key findings are:

- The Medium Pressure Gas Main:Easements of 6.0m either side of the gas main crossing the development required (12m total) before any permanent structures are built
- The 33kV Overground HV Cable: Overhead 33kV line crossing the site required to be diverted and installed as underground cable along the southern site boundary and Halse Road.
- Clean Water Mains: Diversion of the clean water main within Halse Road may be required to facilitate the site access points.
- Underground BT Cable: Diversion of the underground BT cable within Halse Road may be required to facilitate the site access points.

Full details of all technical studies undertaken on the Site can be found in the supporting documentation submitted with this application.





Figure 14: Existing Utilities Plan

Air Quality

The air quality impacts associated with the construction and operation of the proposed residential development at Land Adjoining Radstone Fields, off Halse Road, Brackley have been assessed.

The construction phase will have the potential to create dust. It will therefore be necessary to implement mitigation measures to minimise dust emission. With these measures in place, it is expected that any residual effects will be insignificant.

Concentrations have been modelled at 15 existing receptors and at the application site boundary closest to Halse Road, representing locations where the impacts are expected to be greatest.

It is concluded that concentrations of NO2, PM10 and PM2.5 will remain below the AQALs at the receptors in 2022, whether the scheme is developed or not, and the impacts will be negligible.

The overall operational air quality impacts are judged to be insignificant. This conclusion is based on the impacts all being described as negligible and total concentrations being below the air quality objectives at existing receptors.

The air quality effects of the development have been assessed and found to be insignificant. There should be no constraints to the development of the Site, with regard to air quality, as the proposed development is consistent with the relevant parts of:

- the NPPF;
- Policy BN9 of the West Northamptonshire Joint Core Strategy Local Plan (Part 1); and
- Policy SS2 of the South Northamptonshire Part 2 Local Plan.





Figure 15: Location of Measured Air Quality Receptors

Sustainability, Climate Change & Energy

A Sustainability Statement has been prepared to support the planning application in response to the local, regional and national legislation. The main aim of the assessment is to provide an evaluation of the sustainability credentials for the proposed development and to describe how the applicable sustainability

policies and standards can be met by the proposed design.

The sustainability approach has been developed to meet the targets and standards set by the relevant national and local planning policies. The proposed development has incorporated a number of key sustainability measures and features which are summarised in the accompanying Sustainability Statement.

This Statement demonstrates that the proposed development is targeting good standards of design and build-quality. Much attention has been given to reducing the environmental impact throughout the lifetime of the development and not just during occupation.

Energy

A key part of the Government's commitment to meet climate change targets is to reduce carbon emissions through greater use of energy efficiency in building construction and by increased use of low or zero carbon and renewable energy. The use of low carbon and renewable energy represents a significant opportunity over the plan period to reduce carbon emissions, help reduce fuel poverty and contribute to energy security. The Government has been working towards a target to achieve 15% of its total energy to be generated by renewable sources by 2020 and therefore, supports low carbon and renewable energy development across the UK, where the technology is viable and environmental, economic and social impacts are addressed satisfactorily

An overarching objective is to maximise the reductions in total CO2 emissions through the application of the energy hierarchy with a cost-effective and technically appropriate approach and to minimise the emission of other pollutants.

The development will significantly reduce regulated CO2 emissions by incorporating a range of passive design and energy efficiency measures, including improved building fabric standards beyond the requirements of building regulations and energy efficient mechanical and electrical plants. These measures will enable the proposed development to exceed Part L 2013 Target Emission Rates (TER) and Target Fabric Energy Efficiency (TFEE) minimum standards through energy efficiency measures alone.

In addition, electrical panels and direct hot water cylinders will be installed to supply hot water and space heating to the residents.

It is anticipated that by implementing the energy efficient design, by incorporating enhanced building fabric standards and by using energy efficient systems, the Site has a potential to reduce the regulated CO2 emissions below the carbon baseline without contribution from low carbon or renewable energy sources.

Water

In response to the West Northamptonshire Policy, all dwellings and within the proposed development will be provided with water efficient fixtures and fittings to reduce water consumption. The dwellings will be designed to reduce their water consumption to 105 litres of water per person per day. Potable water reduction measures such as flow restrictors to taps and showers, and dual flush toilets will help reduce water consumption, place less of a burden on the fresh water infrastructure and reduce water bills for the home owners.

Materials

The energy that has been used during manufacture, processing and the transportation of the materials to Site, contributes to embodied carbon emissions. These emissions shall be minimised by selection of materials for walls, floors and windows that are characterised by reduced environmental impact. Brick is made from some of the earth's most abundant and natural materials, is100% recyclable and is frequently retained on buildings when renovated. It can also be reused in other buildings. All timber and timber-based products used on the project will be legally harvested and traded timber. Any opportunities to re-use and/or recycle demolition materials will be identified and pursued, where feasible.

2.7 Constraints & Opportunities

A Site analysis supported by technical studies has allowed a detailed assessment to be made, including the identification of potential opportunities and constraints which have informed the design proposals.

Constraints

- Extensive ecological corridors, habitats, trees and hedgerows present on the Site;
- Sloping topography from the north west to the south east;
- Various utilities cross the Site;
- There may be sporadic views especially in the winter months towards the nearby solar farm which sits on a gently rising slope opposite the Site towards the north;
- There have been numerous trees identified to have a significant ecological and characteristic value;
- An existing and newly built out urban edge fronts onto the Site; and
- Halse Road is a small and narrow rural road that will need to be reconfigured to provide adequate access for vehicle and pedestrians into the Site.

Opportunities

- Provide up-to 450 dwellings
- Preserve and enhance the existing vegetation on the Site; integrate the existing tree belt and surrounding hedgerows into the design and development of public open space;
- Expand the local area's extensive open space network by providing extensions of surrounding country parkland into the Site, particularly along the northern edge of the proposals in order to preserve the Site's most prominent ecological assets;
- Provide landscaped sustainable drainage at the Site's lowest point utilising the Site's topography to facilitate water collection from run-off from the developments hardstanding areas;
- Provide access from the Radstone Development via Miranda Lane into the Site, in order to provide an extended bus route through the proposed development;
- Provide two vehicular access point from Halse Road;
- Retain an area of land to provide a cemetery / allotment gardens;
- Incorporate new walking and cycling routes that strengthen the existing network and connect the proposal to the wider Brackley area and countryside;
- Create a primary walking / cycle corridor that strengthens the proposals connectivity to Radstone Fields, especially to the the Radstone Primary School;
- Offset Biodiversity Net Gain in an area situated further north (still within land owners control) to enhance surrounding local habitats and ecological interconnectivity;
- Provide sports pitches at the Sites northern most parcel where there is the least topographic variation; and
- Provide a potential access track that runs north of the Worlidge to the proposed sports pitches with an associated car park.



36


Proposed Secondary Vehicular Access Points Proposed Residential Development Area Proposed Open Space Proposed Main Roads & Bus Route Potential Existing Bus Route Extension Protected / Enhanced Existing Vegetation Proposed Primary Pedestrian Walking / Cycle Route 🛶 🧄 Proposed Pedestrian Access Points **Proposed Location of SuDS Features** Proposed Cemetery / Allotment Gardens **Proposed Location of Sports Pitches** Proposed Town-wide Sports Provision Proposed Location of Car Park associated with Sports Pitches Proposed Children's Play Area Proposed Area for Biodiversity Net Gain

Proposed Primary Vehicular Access Points

Figure 16: Constraints & Opportunities Plan

2.8 Concept design

An initial design concept was produced to help discussions and possible development options for the Site. The sketch was based upon analysis of the Site and local surroundings, as well as local and national planning policy and guidance. Various concepts were considered for the Site, taking account of the opportunities and constraints identified in previous stages. Alternative access strategies off of Halse Road were considered.

In addition various types of road layouts were explored as well as the ratio of open space to built form. These initial sketches alongside analysis into the existing character and typology of the local area informed an illustrative sketch framework around an approach that reflects, the existing morphological character currently present at Radstone Fields.

The concept strategies further developed the broad principles for development including potential character areas, street hierarchies and disposition of densities. In addition, the integration of existing and proposed landscape and ecology features into the scheme has been explored through the inclusion of a broad green infrastructure network that encourages pedestrian connectivity. Key concept principles involve:

- Vehicular access from Radstone Fields in order to extend existing bus network;
- An extensive green infrastructure network that provides access to the neighbouring Country Park at Radstone Fields and integrates the existing tree belt corridor as a strong ecological and landscape feature;
- A central park which enhances the pedestrian connectivity and provides play facilities for children;
- Provision of landscaped SuDS features at the Sites lowest point.







Design

Our vision for the Site, is to create a high quality, sustainable development which draws influence from the identity and character of the nearby Radstone Fields development.

4.1 Illustrative Masterplan

Key Design Principles

A series of design principles have been established to help inform the Illustrative Masterplan. These principles comprise the core rational which underpins the development proposals.

- Community The new development should provide facilities commensurate with the size of development, with facilities that can be shared with surrounding neighbourhoods.
- Character The character of development will be based on elements found in the Radstone Fields development, with an extensive open space network connecting to central park area at the heart of the proposals. Detailed designs will take cues from surrounding landscaping, colours, materials and architectural features.
- Movement A Main Avenue will provide the primary access routes into the residential areas and deliver a connection to Radstone Fields in order to ensure the deliverability of an extended bus route. Addition vehicular access points will be delivered at Halse Road. An organic street hierarchy will provide dispersed access to the edges of the development, and a network of footpaths and cycle ways will maximise the ability to travel on foot or by bicycle.
- Legibility the street hierarchy, and key places (such as the central park area) will inform legibility, together with key buildings or public realm details to aid navigation.
- Scale and massing The scale and density of development will respond to the existing character study of the Radstone Fields development. Densities and heights will be lowest at the edges of the development, responding to the surrounding countryside.
- Public realm and open space Green infrastructure will include areas for drainage and natural habitat enhancement to the north east and sports pitches to the north with pedestrian access provided from the Worlidge. The existing three belt will be retained and enhanced as a primary ecological feature. The central park area will for the core communal areas where children can access a play area, or the community can use the open space here for local event and other communal activities.

Layout

The Illustrative Masterplan and parameter plans that accompany this planning application show how up to 450 new residential properties together with all associated open space, landscape and infrastructure can be accommodated within the Site,.

Perimeter Blocks/Designing out crime

Housing will be arranged in a traditional 'perimeter block' style where fronts of properties overlook streets and public spaces, and back gardens are kept private within the block in order to maximise safety and security. The approach is consistent with principles established in 'Security by Design' because it maximises active frontages on the street.

Biodiversity Net Gain

Securing Biodiversity Net Gain (BNG) is critical in achieving sustainable design principles. A condition assessment of the existing habitats on Site was undertaken by an experienced ecologist in line with DEFRA guidelines to aid in determining the measurable impacts to biodiversity and securing a BNG through delivery of the proposals. Consequently, offsetting has been identified as a strategy favoured for achieving BNG in the context of delivering 450 house at this Site. There is additional land available that falls outside the application boundary, that has been identified as the most appropriate place for securing BNG in addition to implementing the enhancement opportunities outlined in Ecology section of this DAS (pg.29). It has been estimated that providing a BNG area (in order to offset impacts by providing enhancement opportunities) will provide a net overall gain of nearly 12% in biodiversity habitat.

The BNG area has been located north of the proposed sports pitches, adjacent to the wider countryside, linking to bat foraging areas and is crossed by an existing Overhead HV Cable 132kV. This area of land equates to approximately 4 hectares and has been designed to deliver an extension of woodland, scrubland and meadow grasslands in order to create an uplift in encouraged ecological activity within the local area. Further details of BNG and ecological measures can be found in the Ecological Impact Assessment that accompanies this application.



Proposed Location of SuDS Features



4.2 Use and Amount

The proposal is to develop the Site for up to 450 dwellings, along with the provision of sports pitches, open space and land safeguarded for a cemetery and/or allotment gardens. The areas proposed for these uses are set out in the table below.

Housing

The development will comprise a mix of tenures, which will help create a balanced new community that can accommodate a range of households. The exact provision and mix of housing, including affordable housing, will be a matter for discussion with the Council, and reserved matters applications. Affordable housing will be in accordance with South Northamptonshire Council policies (40%), subject to discussions with the Council.

Pre-application discussions have identified a local need for bungalows, which will be addressed in the mix of units through reserved matters applications.

Approximately 5% (14 dwellings) of the housing provision will be single storey dwellings. This will ensure that the development proposals cater for a varied community, as well as supplying architectural diversity throughout the various streetscapes and 'roofscapes'.

Single storey dwellings have been provided in the Radstone Fields development and have been used in a variety of ways to enhance the character of the development. In particularly bungalows have been used to 'loosen' the tight geometry along the lanes and also to provide positive and distinctive frontages onto proposed open space.

Green Infrastructure

The structure of development has been established through a comprehensive assessment of the Site and evaluation process as set out in previous sections of the DAS. The proposed development will be set within a strong green infrastructure framework, which has been informed connectivity with the existing Country Park area at Radstone Fields, as well as the extensive mature hedgerow planting and tree belt present on the Site.

The amount of open space required for new developments is set out in The South Northamptonshire Local Plan Part 2: 2011 – 2029 under Policy GS 1: Open Space, Sport and Recreation. This policy sets out the appropriate quantum of open space required in relation to the proposed amount of residential development.

Based on these requirements a development of 450 homes with 2.5 occupants per dwelling, requires a total of 5.3ha of open space.

The proposals provides 14.92ha of accessible public open space, accounting for nearly 50% of the Site. This is far in excess of the 5.3ha required by South Northamptonshire Council's open space requirements and provides a significant benefit to both existing and new residents in the area.

There is a surplus in open space provision due to the various spatial constraints present on the Site. The majority of the open space is already accounted for given the extensive size of the existing tree belt, the required area for SuDS and the various easements and offsets required from the gas and water mains.

Drainage Provision

A sustainable drainage strategy including both attenuation and infiltration elements has been designed to work with the varying infiltration rates across the Site.

Surface water storage is proposed within the green space by use of an attenuation basin within the north-eastern corner of the Site. An infiltration and attenuation basin has been considered for the Site, however, due to the existing ground conditions and poor infiltration results in this area an attenuation basin has been deemed the most appropriate solution.

It is therefore proposed to incorporate SuDS such as permeable paving and individual soakaways where possible to supplement the attenuation elements as part of the overall drainage strategy.

At the detailed design stage the inclusion of additional SuDS will be considered, including further investigation into the specific locations of SuDS to confirm their suitability across the Site.

Full details of the drainage strategy can be found in the Flood Risk Assessment and Drainage Strategy Report within the supporting documents of this application.

SCHEDULE 02: OPEN SPACE PROVISION

ТҮРЕ	AREA	
	PROPOSED	REQUIRED
Amenity Green Space	3.81 ha	0.68 ha
Parks & Gardens	0.70 ha	0.45 ha
Natural / Semi-natural Open Space	3.16 ha	1.30 ha
Children's Play Area	0.31 ha	0.28ha
Additional Cemetery Land / Allotments	0.50 ha	0.34ha
Outdoor Sports Facilities	3.02 ha	2.25 ha
Proposed Town-wide Sports Provision	4.61	na
TOTAL:	14.92	5.30 ha

SCHEDULE 01: LAND USE

Application Boundary	29.87 ha	
Proposed Residential Development Area	12.87 ha	
Proposed Highway Infrastructure	0.89 ha	
Proposed Land required for SuDS	1.19 ha	
Proposed Open Space	14.92 ha	

4.3 Parameter Plans

Morphology and Land Use

The proposals consist of residential development and a variety of types of open space including a cemetery and / or allotment gardens and sports pitches. The layout and development structure has been designed to embody morphological similarities to the Radstone Fields development.

Residential parcels splay from the looping Main Avenue and are split by winding lanes. These provide access to private drives which enfold around the edge of development parcels and front onto open space.

The open space network frames as well as transects the Site in linear directions. The open space intersects near the centre of the main residential development area, creating an easily navigable and legible set of pedestrian corridors within the extensive landscape fabric.

Distinctive pedestrian movement corridors are enhanced by the landscape structure and design which provide a range of safe and reliable routes to various parts of the Site and inform connections to the surrounding areas. The qualities and character of these key open spaces are explored later in this document.

It is proposed within this development that the provision of sports pitches and a cemetery (or allotment garden) will also form part of the open space network.





Density & Building Heights

There are two density areas across the site:

- Low density between 25 35 dwellings per hectare; and
- Medium density between 35 40 dwellings per hectare.

The highest of these densities is provided mostly along the primary loop road (the Main Avenue) and proposed bus route, creating a strong rhythm of frontage and enhancing the perceptive scale of the development.

This will further aid legibility for pedestrians by demarcating the hierarchy of the road structures. The location of the medium density will ensure that there is a distinctive difference in character along the streets that radiate from primary roads.

Lower densities can allow the urban form to be 'loser' and more variable creating a steady transition of character from that which is formal and regular to something that is more rural and sensitive at the edges of development, where new homes will be designed to sit within carefully considered landscape proposals.

The Radstone Fields Design Code specifies that building heights and density are closely related. The regular use of 2.5 storey development will underpin key reference points and define landmark buildings particularly at junctions along the primary loop road and mostly within the Medium density area.

However, there is opportunity to ensure that visual variety is consistently present throughout the site by occasionally allowing 2.5 storey buildings within the medium density area. Taller buildings should be used to conclude vistas, frame views and define key spaces and areas.





Movement

The movement strategy and hierarchy focuses on the following key requirements:

- encourage sustainable modes of transport;
- provide a vehicular point of access to and from the Site which links effectively into the existing road, cycleway and pedestrian network;
- provide a permeable footpath and cycle network linking in to the surrounding routes; and
- retain and improve the existing Public Rights of Ways as an integral part of the scheme.

The proposals have been designed to maximise permeability and access on foot and by bicycle. The public rights of way network surrounding and passing through the site has been integrated within the illustrative masterplan.

It is anticipated that there will by a major pedestrian corridor between the development and the Radstone Primary School in Radstone Fields. Consequently an extensive pedestrian network has been proposed in order to promote sustainable modes of transport through and between the Site.

The primary loop roads will accommodate footpaths wide enough to allow cycling, which will hook into the existing locally designated cycle routes which further forge connections with Brackley Town and surrounding villages. The primary loop road will also provide an extended bus network with bus stops proposed at key spaces. Access to Brackley Town Centre and additional facilities such as secondary schools is a short 5 - 10 minute bus ride.

Informal recreational footpaths will provide access to the surrounding public open space and ensure connectivity to nearby country parks or access to the local Public Rights of Way network.

The PRoW along the Worlidge towards the north of the Site connects the development with the surrounding countryside. AV14 will also facilitate pedestrian connectivity to the proposed sports pitches.



Figure 21: Pedestrian Movement Plan

Character and Street Hierarchy

In section 2.5 of this document, the character of the adjacent Radstone Fields extension was analysed in order to establish the key design principles which have been used to fashion its built character of. Consequently, the character of the proposed development is predominantly informed by the street hierarchy seen at Radstone Fields. The street types and character of the proposed development are:

- The Primary & Secondary Avenue: prominent wide street that delineates the primary access route through the development. There is an established clear rhythm of movement and hierarchy defined by regular avenue tree planting, footpaths and cycle paths on either side of the road, and strong buildings lines which provide natural surveillance.
- **The Lanes:** narrower and irregular streets that are defined by buildings with shorter front gardens and are more irregular and loser in their orientation. This is creates a more intimate and organic streetscape, which is further characterised by a greater range of materials and intricate architectural detailing.
- **The Shared Private Drives:** these streets wrap around the edges of development parcels and open out onto open space to create a rural character. The built form has a lower density along these drives and dwellings front onto the open space with prominent architectural detailing.



Figure 22: Street Hierarchy Plan

Key Open Space Character

Illustrated in the Radstone Fields Design Code was a clear a set of distinguishable open space typologies, each embodying a specific type of character dependant on their use and relation to the built form. The proposals have been developed with the intent to provide an extensive green infrastructure network with each enhancing the character of the built form and providing a range of amenity and ecological uses. The range of open space typologies are:

- **Central Park Area:** A focal 'village green' which provides a children's play area, and multifunction open space, available for the local community. This space will be fronted on by surrounding dwellings in order to provide natural surveillance and will be characterised with formal parkland and garden planting.
- **The Country Park Extension:** a larger area of landscaped parkland which forms an extension to the Country Park Present at Radstone Fields. This area will priorities ecological diversity and activity with areas of grassland, groups of specimen and woodland tree planting, as well as landscaped SuDS areas. Pedestrian access will be informal and provided by gravel and mown paths.
- **Central Woodland Belt:** an area which preserves and enhances the existing tree belt; a semi-mature body of native woodland and thicket planting which has many ecological and amenity benefits. The ecological qualities will be further enhanced my meadow planting, with footpaths provided mostly along its southern border (where more access space is provided, above the medium pressure gas main).
- **Gateway Village Green:** a linear and formal parkland area which prioritises pedestrian movement from Radstone Fields into the Site. The landscape will focus on enhancing the existing mature native hedgerow with specimen and group tree planting as well as ornamental shrub and bulb planting to form an attractive gateway feature into the Site.



Figure 23: Open Space Typologies

Primary & Secondary Avenues

The Primary Avenue form the main movement routes into and through the development. These will run from two primary vehicular access points located along Halse Road.

The buildings fronting on to the road are to be of the local vernacular, with design principles derived from the Primary Avenue at Radstone Fields.

The Primary Avenue plays an important function within the public transport network, as the bus and cycle routes will be accommodated along these road.

The streets are of varying widths, with a carriageway of 6.5 -7.3m.

Properties abutting the pavement with minimal setback and a strong and continuous building line.

Use

• Main residential streets providing access to the rest of the development.

Form

- Higher density development with a strong frontage and areas of continuous built form in order to create a sense of rhythm and enclosure.
- Predominantly 2 storey with 2.5 storey in key locations terminating views.
- Dwelling Types Predominantly semi-detached and short terraces with few detached units in key locations
- Dwelling Setbacks Informal building line with variation in setbacks generally 1 4m from back edge of footpath
- Dwelling Spacing Irregular gaps between buildings, max 4.1m for single driveway or max 7.3m for double driveway
- Variety in the design of the houses but a consistency of architectural style

Landscape and public realm

- The Primary Avenue can be defined by a tree lined avenue with trees planted within a 2 metre grass verge adjacent to the carriageway.
- A variety of green spaces up from the central avenues, providing focal open green space within the predominantly hard surfaced main street.
- Boundary treatments are mainly brick walls with piers or brick walls with piers and hedging
- Green verges will at times separate the carriageway from the footpath, widening the streets and introducing areas of green space within the predominantly hard-surfaced street.

Prominent Materials





The Lanes

The Lanes are accessed directly off of the Primary and Secondary Avenues. These streets are more intimate in character and facilitate the gradation of a development that is more dense and urban along its main roads, through streetscapes that embody characteristics present in surrounding villages and the historic grain at Brackley.

These roads are intentionally designed with subtle curves and kinks to create a varied building line that provides variation in the urban form and suggests a transition into more rural areas. This irregularity also provides glimpsed views out towards open space and visually demarcates more pedestrian friendly areas of the development.



Use

• Solely residential areas of the proposal.

Form

- Informal building line with minor variations in setbacks, generally following the line of the road
- Variation in building types generally set out in small terraces interspersed with semi -detached dwellings to add variation to the streetscape
- Changes in the carriage width will assist in limiting vehicle speeds.
- Lanes will have a footpath on one side of the carriageway and a service strip on the other side
- Informal building line with set backs varying along the curves of the road.
- Dwelling heights predominantly 2 storey with occasional 2.5 storey in key locations terminating views
- Vehicular access to property Directly off street.
- On plot parking and occasional parking courtyard and

Landscape and public realm

- Footpaths vary on either side of the vehicle carriageway; 1.8m on one side, 1m service strip on the other
- Boundary treatments are generally hedges with occasional shrub planting
- Parking courtyards are defined permeable block paving

Prominent Materials



Red brick









Shared Private Drives

Shared Private Drives occur at the end of Lanes where the development meets open space.

Private drives are demarcated as a shared surface with a change in surface materials to define their extent. Each drive serves no more than five residential units.

These shared streets provide access to the residential areas within the development off the Lanes, with a looser pattern of development.

These streets are designed to give pedestrians and cyclists priority over vehicular traffic and possess a greener and more rural character.

Use

Lower density, large houses served mainly from private drives. Well landscaped linear parkland overlooked, forming rural edges.

Form

- Informal building line with variety in the design of the houses and architectural style
- Mainly 2 storey with the occasional 2.5 storey
- A less dense scale and development that opens out onto the Country Park.
- Detached with the occasional semi detached
- Local vernacular style with the occasional Georgian style
 house

Landscape and public realm

- Rural and open in nature
- Plot frontage is level to ground, consisting of mainly timber bollards with beds of shrub planting and grass.
- Key units defined by the use of hedgerow planting to demarcate front garden
- Occasional tree planting breaks up dominant built form
- Open space is separated from the drives by a timber knee rail



Prominent Materials





Central Park

As seen at the Radstone Fields development, a focal green space known as the Central Park will also be provided at the heart of the development. Although not as extensive as Poppyfields Park in Radstone Fields, it will form a key node in the open space network and provides additional facilities such as a play area and communal open space for the local community. All surrounding dwellings will front onto the space providing natural surveillance which provide a a formal and well defined urban edge to space.

The configuration and domestic character of the Central Park will reflect respond to the surrounding architectural styles with winding, formal footpaths characterised with specimen and grouped tree planting to establish an attractive parkland setting.

As seen in Radstone Fields, a more natural approach to the design of the play spaces will be utilised incorporating tree and shrub planting, gentle mounding and play boulders encouraging exploration and interaction with the natural environment and allowing more imaginative play.

Key Hard Landscaping Materials

- Play apparatus: Locally equipped area for play (8yrs +)
- Railing and gated access to play area
- Surfaced footpaths and cycleways: Generally 2 metre wide pedestrian footpath; 3 metres wide for combined pedestrian and cycle way
- Surfaced seating/ meeting areas: Feature paving areas
- Boundary railings & gated access: Metal estate railings to boundary of the Central Park with gated access points
- Street furniture
- Timber bollards: Chunky timber bollards to prevent parking along the road
- Public art: Possible location for public art piece
- Lighting: To Highway network

Key Soft Landscaping Materials

- Feature trees: Distinctive and notable tree species to identify key junctions/ elements within the Central Park.
- Parkland trees: Groups of 3-5 trees planted within amenity grassland, creating attractive setting for the Central Park. Used to define the boundaries between the public open space and the residential landscape.
- Shrub planting: Mix of deciduous and evergreen shrub planting which aims to provide a vaisual connection for users with the seasons; stimulate the senses; provide wildlife value; and create a visually pleasant setting.
 Sensory (fragrant, colourful, variety of textures) lower growing shrubs for use in and around the play space.
- Bulbs: Spring and autumn flowering bulbs, planted in linear drifts to the boundaries of the Central Park, offering seasonal colour and texture beneath tree canopies.
- Grass: Perennial rye-grass based, hardwearing and low maintenance grass sward. Maintained to have a well keep and smart appearance.







Country Park Extension

The Country Park area is an extension of the Radstone Fields Country Park. This will form the largest area of open space within the Site and will provide a variety of amenity, recreational, ecological and attenuation functions. The character of this space will be significantly different to the other open space areas. The country park will define the new edge of Brackley providing a transitional area from the Northamptonshire countryside to the settlement edge.

To the northern boundary existing tree and shrub cover will be reinforced through new planting to enhance and strengthen the landscape setting. The main body of the park will comprise a network of footpaths with seating opportunities, meadow grasslands, native trees and structural planting. The strategy will expand on the local distinctiveness, biodiversity and sustain and enhance wildlife value. The footpath network will include a primary network of tar spray and chip surfaced paths with a secondary network of mown grass paths to provide excellent circulation opportunities. The park will contain a large attenuation basin area, which will be sensitively set within the landscape and create a variety of habitat types such as wetland meadows, and seasonally/permanent wetland areas. In combination with the existing resources that will be enhanced the country park will promote numerous ecological benefits to the local environment creating a variety valuable wildlife habitat types.

Key Hard Landscaping Materials

- Surface Footpaths: 2 metre wide pedestrian leisure footpath.
- Street Furniture
- Timber Knee Railing: used to define the edge of the parkland to residential areas

Key Soft Landscaping Materials

- Existing Trees, Hedgerows and Vegetation: retain where possible
- Trees Planting; Parkland trees, native tree planting at 3 metre centres within native shrub mix, attenuation basin edge tree planting
- Native Mix Hedgerow. New infill hedgerow planting where required along boundary
- Native shrub mix planting: A mix of native shrub species to further enhance existing vegetated boundaries and provide habitat. Plant with native feathered trees as detailed above.
- Grass: Perennial rye-grass based hardwearing and low maintenance grass sward.
- Meadow Grassland: Wildflower meadows will create a more diverse and rich habitat for local wildlife and provide a visually pleasant environment for users.
- Basin Meadow Grassland: Wildflower meadows will create a more diverse and rich habitat for local wildlife.







Gateway Village Green

At the new entrance point from Radstone Fields, a formal village green will provide an attractive gateway into the Site.This space will provide a safe transitional corridor for pedestrians to walk or cycle to Radstone Fields, in particular the primary school and incoming local centre approximately 0.4km away (see Movement pg 49).

This area of open space will have a formal parkland character and fronted by surrounding dwellings to enhance its formal setting. An existing hedgerow will be retained and enhanced by additional tree planting and meadow grassland planting in order to encourage biodiversity. A series of formal paths will connect the space with highway network and forge further connections with the open space network.

Key Hard Landscaping Materials

- Surfaced footpaths and cycleways: Generally 2 metre wide pedestrian footpath; 3 metres wide for combined pedestrian and cycle way
- Surfaced seating/ meeting areas: Feature paving areas
- Street furniture
- Timber bollards: Chunky timber bollards to prevent parking along the road
- Public art. Possible location for public art piece
- Lighting: To Highway network

Key Soft Landscaping Materials

- Existing Trees, Hedgerows and Vegetation: retain where possible
- Parkland trees: Groups of 3-5 trees planted within amenity grassland, creating attractive setting for the Central Park. Used to define the boundaries between the public open space and the residential landscape.
- Bulbs: Spring and autumn flowering bulbs, planted in linear drifts to the boundaries of the Central Park, offering seasonal colour and texture beneath tree canopies.
- Grass: Perennial rye-grass based, hardwearing and low maintenance grass sward. Maintained to have a well keep and smart appearance.
- Meadow Grassland: Wildflower meadows will create a more diverse and rich habitat for local wildlife and provide a visually pleasant environment for users.







Central Woodland Belt

The existing woodland belt is a very unique existing feature present within the Site. This semi-mature woodland offers a good diversity of tree species including occasional oak, ash, dogwood, hazel, blackthorn and willow. This habitat is considered to offer value to a range of species, with fruiting trees providing a source of forage for birds, invertebrates and mammals alike. The structure of the canopy also offers good opportunities for nesting birds. Lowland mixed deciduous woodland is listed as a priority habitat (NERC Act, 2006) and provides a valuable resource for a range of wildlife.

The central woodland belt will be further enhanced by additional meadow and grassland planting. Additional tree planting is not viable as an existing medium pressure gas main runs along the south. Meadow planting will encourage a range of biodiversity and enhance the tranquil setting of the woodland.

A path will be provide along to the south of the woodland in order to improve pedestrian circulation through the site and encourage connections between the range of different open spaces.

Key Hard Landscaping Materials

- Surface Footpaths: 2 metre wide pedestrian leisure footpath.
- Timber Knee Railing: used to define the edge of the woodland belt to residential areas

Key Soft Landscaping Materials

- Existing Trees, Hedgerows and Vegetation: retain where
 possible
- Grass: Perennial rye-grass based hardwearing and low maintenance grass sward. Maintained to have a well keep and smart appearance.
- Meadow Grassland: Wildflower meadows will create a more diverse and rich habitat for local wildlife and provide a visually pleasant environment for users.







Green Infrastructure Strategy

The GI strategy seeks to retain as much of the existing green infrastructure within the Site as possible and to enhance the existing vegetation. The proposed design measures have been expanded on the approach to landscape design as shown in the Radstone Fields Design Code.

The Green Infrastructure strategy has also been designed to provide new opportunities for locally recorded wildlife through the retention, creation, management and enhancement of habitats within the Site boundary and provide an opportunity to maintain and enhance the Site's long-term value for a range of wildlife.

Additional principles have been conceived in order to respond to the Site's specific ecological and landscape context which have been identified in the assessments shown earlier in this document. The GI strategy is based on the following key landscape principles:

- **a varied landscape** The development includes a substantial landscape framework providing an excess of over 9ha of open space, including public open areas, children's play areas, sports pitches, a cemetery (allotment garden); existing hedgerows, trees and woodland; a surface water attenuation area and a Country Park extension;
- a new Country Park extension The provision of an ecological parkland along the northern boundary of the Site would comprise a mosaic of semi-natural habitats including rough and meadow grassland, native shrub, woodland and tree planting as well as wetland habitats;
- **SuDS and supporting habitats** A large SuDS area within the Country Park will support a range of habitats, whilst also providing an attractive and new setting for leisure walks for both new and existing residents;
- enhancement of existing features the proposals have been designed to ensure that the loss of hedgerows, trees and scrub habitats are limited and where possible these features will be retained and enhanced within the Country Park extension and other areas of informal open space across the development;
- new edge planting the development proposals will include the provision of 'ecotones' along proposed and existing woodland. Ecotones comprise a gradation from woodland to scrub to rough and meadow grassland habitats which are noted for their high biodiversity; and
- integration The development proposals provide the opportunity for new forms of ecological enhancement including such features as:
 - hedging for boundary treatments to residential
 - dwellings to provide new opportunities for wildlife;
 - planting of a diverse range of flowers and shrubs, including fruiting trees and shrubs, nectar and pollenrich plants, providing possible food sources for birds, invertebrates and mammals;
 - inclusion of features for wildlife on new buildings, such as bat and bird boxes and bee bricks; and
 - provision of box-style compost bins, providing habitat for amphibians and invertebrates.

Cemetery / Allotment Gardens

Provision of a new cemetery which has the potential to be utilised as an allotment garden in the first years post development. Approximately half a hectare of space has been safeguarded for this which is compliant with the council's open space standards. There is opportunity to expand on the Sites biodiversity network by planting new hedgerows in order to define the borders between land uses as well as improve on the developments overall biodiversity gain.

Sports Pitches

Formal sports provision will be provided and accessed using the existing PRoW network and proposed informal footpaths. Additional vehicular access will be provided off of Halse Road via a rural access track which will lead to a car parking area. The character of this space will be open given the nature of its usage for various team sports. Existing hedgerow boundaries to this area will be further enhanced by reparative and additional planting in order to encourage a level of biodiversity and promote habitat interconnectivity with the surrounding countryside.

Additional tree group planting and specimen trees will also visually integrate this area into the surrounding landscape.



Key Strategies:

- 1. Retain where appropriate existing trees, hedgerows and grassland edges
- 2. Provide a clearly defined footpath network through the proposed open space network
- Provide new areas of native tree and shrub planting to strengthen Site boundaries and enhance the ecological and biodiversity potential of the Site
- 4. Install new attenuation pond area, to create a varied and attractive landscape and sustainably control drainage from hardstanding materials
- 5. Plant specimen trees using appropriate large native species to establish a parkland character overtime
- 6. Create a less formal and organic landscape edge utilising native species to provide an appropriate transition between the housing area and wider countryside
- Develop a strong 'ecotone' of habitats creating a gradation from woodland to scrub to grassland particularly along existing woodland edges
- 8. New species-rich hedgerows will be established along Halse Road, whilst boundaries and gaps in existing hedgelines will be re-planted to enhance the local hedgerow network and wildlife connectivity
- 9. Existing grassland of low wildlife value will be seeded and managed to create species-rich grassland in the Country Park extension area
- 10. The existing public right of way along the Worlidge will be maintained on its current alignment and will be connected to surrounding informal footpaths
- 11. New informal routes across the area would consist of gravel paths and mown grass
- 12. A range of new opportunities for wildlife will also be provided within the housing area including native planting, bat boxes, bird boxes, and bee bricks
- 13. Robust semi-mature tree planting along the Main and Secondary Avenues
- 14. Provision of a new cemetery / allotment garden and access
- 15. Provision of formal sports pitches, associated car park and access
- 16. Offset Biodiversity Net Gain by planting woodland, scrubland and meadow grasslands in an area further north within land owners control

Drainage: Design & Integration

A sustainable drainage strategy including both attenuation and infiltration elements has been designed to work with the varying infiltration rates across the Site.

To support the use of Sustainable Drainage Systems (SuDS), the recently completed Radstone Fields development does, for the large part of its development area, utilise SuDS. The use of SuDS was also outlined in the design code when formulating the development's Country Park design and character.

Surface water storage is proposed within the country park area by use of an attenuation basin within the north-eastern part of the Site. It is at this point where the Site's topography is at its lowest.

With respect to the proposed attenuation, open features are always preferable to below ground structures as they offer wider ecological and biodiversity benefits. In this instance, the development layout has sufficient area to permit the inclusion of open balancing ponds which can be landscaped to include tree and wetland planting.

The development will incorporate additional drainage features such as permeable paving and individual soakaways where possible to supplement the attenuation elements as part of the overall drainage strategy. Consideration will also be given to the incorporation of water butts on individual rainwater pipes, with overflows draining to the surface water network. Whilst the incorporation of water butts will not reduce the design criteria of the receiving system, their inclusion will delay the time of entry and provide the facility for some surface water run-off to be stored and used for irrigation.

At the detailed design stage the inclusion of additional SuDS will be considered further, including additional investigations into the specific locations of SuDS to confirm their suitability across the Site.

Full details of the drainage strategy can be found in the Flood Risk Assessment and Drainage Strategy Report within the supporting documents of this application.











Access

This section of the DAS provides a summary of the access strategy for the proposals. Further details can be found within the supporting documents of the outline application.

5.1 Site Access and

Movement

The planning application is in outline form with all matters reserved, except for means of access. However, in principle the proposed street hierarchy is based on current best practice and the Manual for Streets, and seeks to achieve the following aims:

- provide a slow speed environment safe for pedestrians and cyclists;
- provide safe, sufficient and adequate vehicular access; and
- adequate levels of parking in appropriate locations.

Main access details

There are three main vehicular access points into the development Site. There are two off Halse Road and one that merges off Miranda Lane, a specifically considered road in Radstone Fields that was designed to provide a possible extension route into the development Site. Miranda Lane and Juno Crescent were identified within the Radstone Fields Design Code to be potentially upgraded to a Primary Avenue roads, wide enough to accommodate a bus service, and characterised by avenue street planting, grass verges and footpaths.

In addition, the two access points from Halse Road will be provided via the instalment of two three-armed roundabouts. This will involve the widening of Halse Road.

The new configuration of Halse Road will see the 30mph speed limit extended further north, closer to the cemetery.

Other vehicular access

Two secondary vehicular access points will also be provided from Halse Road. One north of the Worlidge, to provide access via a rural track to the proposed sports pitches and associated car park. The access track will be 3.7m wide (5.5m at junction) with passing bays and mid point constructed in bound gravel.

Another access point will be provided to facilitate an entry point into the cemetery / allotment gardens. This will take form of a priority junction.

Junction Form

The exact form and geometric parameters of each of the access junctions discussed above will be determined in due course and will be a subject to land ownership, capacity requirements and other constraints.

The concept design of these junctions were subject to a Stage 1 Road Safety Audit (RSA 1) recommendations of which were incorporated into the proposed configuration. The finalised concept design is shown in the following Cotswold Transport Planning drawings:

- CTP-20-564—SK-001 Rev B;
- CTP-20-564—SK-002 Rev A;
- CTP-20-564—SK-003 Rev A;
- CTP-20-564—SK-004 Rev A; and
- CTP-20-564—SK-005 Rev B

Further details regarding the access strategy and details can also be found along with the additional supporting documents submitted with this application.

Pedestrian and Cycle Access

With the widening of Halse Road to a 6.5m carriageway width a 3m footway / cycleway will be provided on the eastern side of the road from the Worlidge bridleway to link into development and further south hooking into the Brackley roadside footpath network. Additional pedestrian / cycleway connections will be provided onto Halse Road, with one located directly north of the tree belt corridor and another in the southern most corner of the Site.

There will also be a pedestrian access point within the Country Park extension in order to expand the pedestrian network through to the Radstone Fields Country Park.

Bus Links

New bus stops can be provided within the proposed development, particularly at key spaces. Stops at the Central Park and the Gateway Village Green provide an appropriate catchment areas for the whole community to access a bus stop within a 400m (up to 5 minute walk) from their front doors.

A bus shelter, timetable display and bus boarder kerbs will be provided at the proposed bus stops. The proposed bus stop connections has been developed in order to expand the local bus network. There will be an extension of the local:

- 500 bus: Brackley Market Place -Middleton Cheney
 -Chacombe Banbury Town Centre Banbury Bus and Rail Station; and
- X9i: Brackley Silverstone Towcester Central Milton Keynes

Both bus services run through Brackley town centre and main residential areas. The majority of the existing secondary schools, retail, and sports facilities is located near the town centre and within walking distances to these bus routes.





Conclusion

7.1 Summary of Proposal and Benefits

The vision for the Land Adjoining Radstone Fields has been developed through a rigorous process of technical analysis, design, consultation (via pre-app submissions) and redesign. A clear vision has emerged through the analysis process, identifying an opportunity to develop a proposal that draws on the character and identity of the recently completed Radstone Fields and maximise the benefits of a new development in this location on the edge of Brackley.

The Land Adjoining Radstone Fields provides an opportunity to deliver a well-designed, high quality environment with the following credentials:

- A new community containing 450 new dwellings;
- Provision of extensive and a diverse green infrastructure that combines SuDS features to control surface water run-off as an integral part of the open space strategy, utilising the existing topography; to provide new varied wildlife habitats with a new ecologically enriched Country Park extension;
- An area dedicated to providing an offset of biodiversity net gain;
- Provision of sports pitches and children's play facilities;
- Potential for a new cemetery / new allotment gardens;
- Retention and enhancement of existing landscape and ecology features, offering wildlife benefits and creating green links throughout the development;
- Integration of the existing Public Right of Way into the scheme and providing new informal walking and cycling routes linking the scheme to the wider countryside;
- Appropriate and safe access for vehicles and pedestrians including an extend footpath network along Halse Road that ensures pedestrian connectivity to the existing PRoW network and sports provision.





