6. PHASING AND DELIVERY

It is expected that development of the site will come forward in a series of phases. Illustrative phasing is depicted in figure 27. It is noted that phases will not necessarily be delivered sequentially, however the delivery of certain phases will be dependent upon the availability of infrastructure networks (e.g. highways, drainage, utilities, etc.) to serve the respective parts of the site. The phasing strategy for the site has been developed as follows:

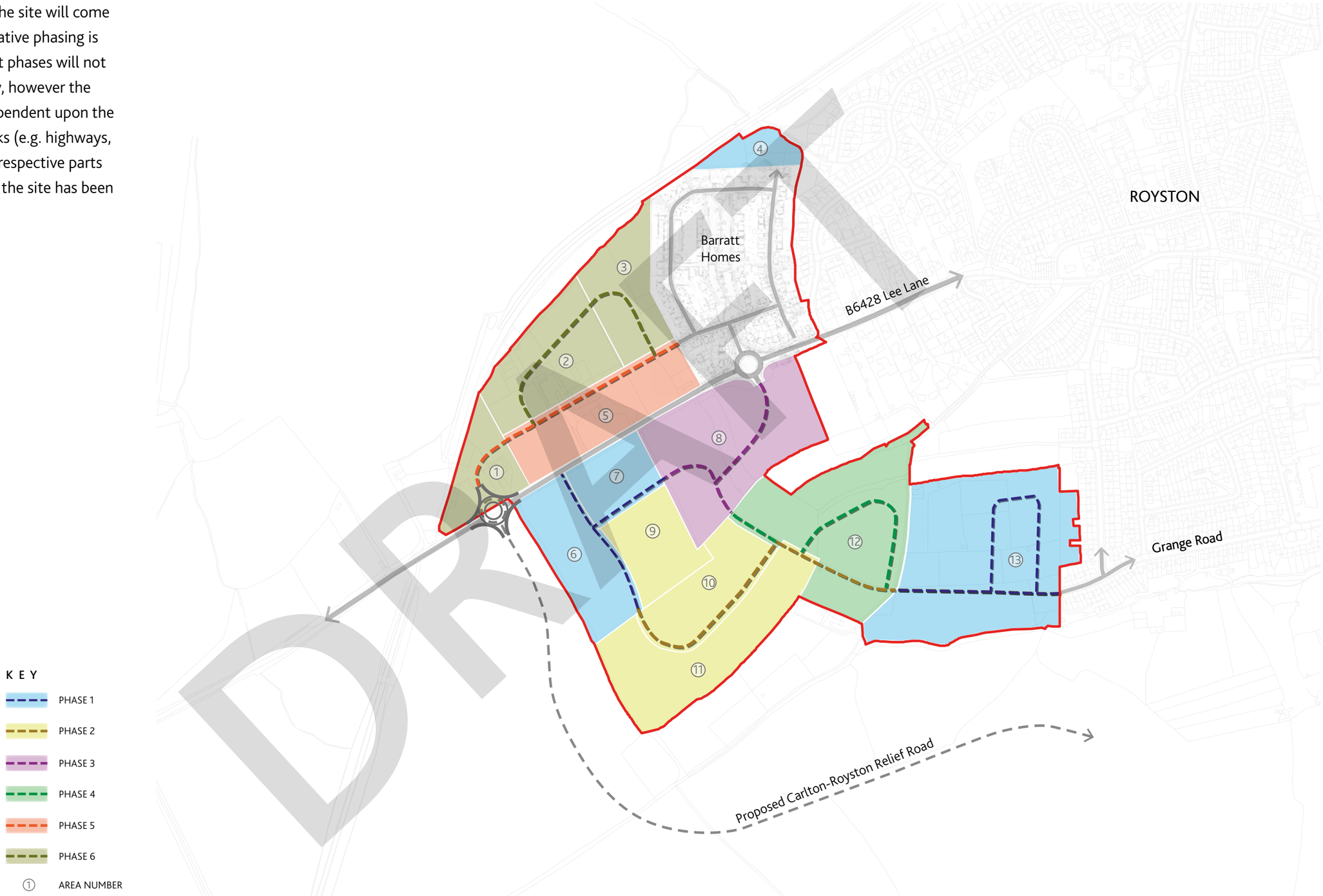

Fig. 27: Royston Phasing Strategy Plan

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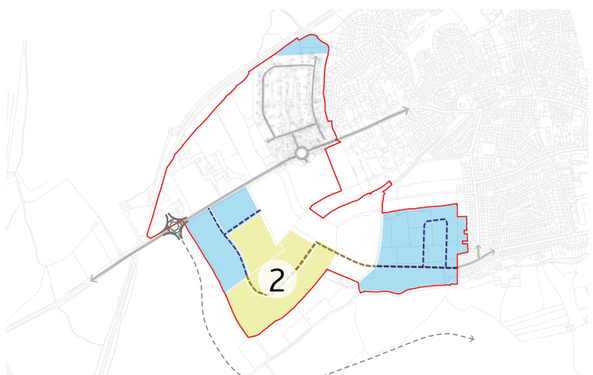
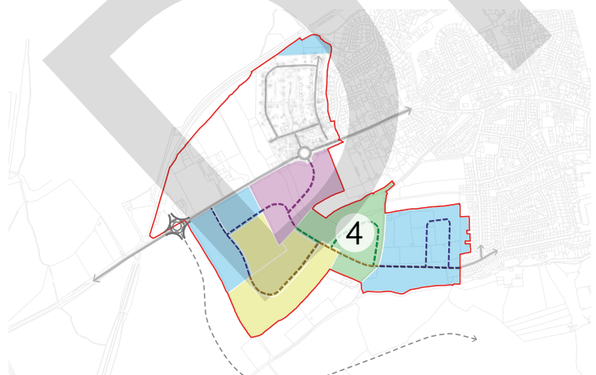
Phase 1
Plot 4 forms a natural extension to the Barratt Homes scheme already underway, and is therefore assumed to come forward early on. Bellway Homes is seeking to bring forward development of Plots 6, 7, 9, 10 & 11. Plots 6 & 7 are adjacent to existing infrastructure and therefore assumed to come forward first.
A primary school will be delivered on Plot 13 in tandem with the development of Plots 6 & 7 to serve this new housing. To support sufficient critical mass to enable the opening of the school, housing will be brought forward on Plot 13 concurrently.

Phase 2
Development of Plots 9, 10 & 11 will follow. The section of road linking Plots 11 & 13, through Plot 12, will be constructed in tandem with development of these plots to allow bus services to be delivered and provide safe access to the primary school and Royston.



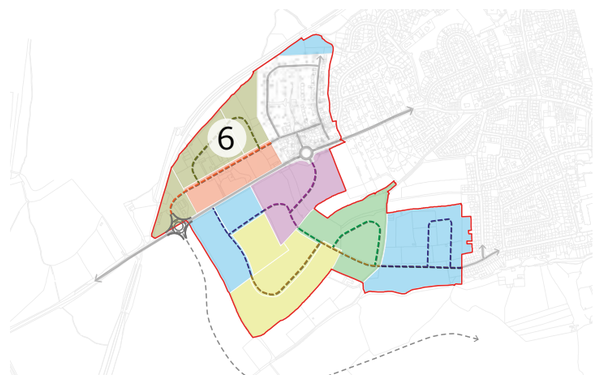
Phase 3
Plot 8 will form part of the next phase, benefitting from access off Lee Lane via the roundabout constructed by Barratt Homes.

Phase 4
Plot 12 will come forward thereafter, completing development south of Lee Lane.



Phase 5
The nature of the land ownership north of Lee Lane means that land assembly will be required to deliver a coordinated development in this area. For this reason, it is assumed that this area will come forward in later phases. However, should land assembly progress expediently, development in this area could feasibly occur in tandem with some of the phases listed above. Plot 5 is assumed to come forward in this area first, as it is closest to the existing infrastructure networks in Lee Lane.

Phase 6
Plots 3, 2 and 1 are assumed to follow Plot 5, working east to west away from the existing housing in the Barratt Homes scheme.



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7. DESIGN CODE

Purpose of the Design Code

This Design Code has been prepared by Gillespies and Arup to support the delivery of a development of quality in Royston (MU5 Site in the Local Plan). The purpose of this Design Code is to set out the key urban design, public realm, landscape and placemaking principles that should be applied across the site to create a distinctive and attractive place where people will want to live, work and visit.

The Design Code has been prepared in accordance with the Royston Framework Masterplan, and should be read and applied in conjunction with Local Plan policy and SPDs.

The Design Code seeks to provide the necessary guidance on how these placemaking principles can be developed and applied across the site to support the delivery of the overall vision. It does this by setting out the design principles that should be applied in relation to key elements of the Masterplan Framework and by providing guidance on how the character of different parts of the proposal should be developed in order to create distinctive places defined by their landscape and built form.

This Design Code reflects the placemaking objectives set out in the Masterplan Framework (see Section 2 of this document) and draws on the principles set out in many national urban design best practice documents as well as in Building for Life 12. The principles also reflect our appreciation of the placemaking characteristics observed in a range of attractive places within the Metropolitan Borough of Barnsley and located close to Royston.

The design principles that are considered to be fundamentally important to the development of Royston are listed below:

1. Character
2. Urban form
3. Homes
4. Facilities and Services
5. Connections
6. Streets
7. Landscape and Biodiversity
8. Parking and Accessibility

Homes - Well designed modern homes should be well integrated with open space and nature

Facilities and services - New local hub as gathering spot for the community

Connections - Well design green active travel links to connect with surrounding communities and facilities

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7. DESIGN CODE

7.1 CHARACTER

This principle ensures the new development will create a place with a locally inspired or otherwise distinctive character in its contextual setting. A number of character areas should be provided that respond to the specifics of the immediate vicinity in terms of form and materials.

1. Consider existing factors - surrounding development and existing GI

Royston is identified as a Principal Town in the Local Plan's defined Settlement Hierarchy, it has a rich variety of existing factors both within and around the site that should be used to create a locally inspired identity.

1.1 Barratt Homes Development

Located to the northeast of the site, this development accommodates a range of dwellings in similar monotonous architectural styles. A linear green space running north-south in the middle of the development with the properties at its perimeter fronting onto it. All future developments within the site are expected to be designed and delivered to a higher standard than this scheme.

1.2 Surrounding and historical influences

Local character will inform new development. Cues can be taken from surrounding buildings, towns and the landscape around Royston, including Carlton Conservation Area.

The site is directly adjacent to the western boundary of Royston, which is largely characterised by cul-de-sac residential development leading off more minor roads and streets. The properties along either side of Lee Lane to the east show a variety of ages and sizes with large front gardens. Dominating materials are red and buff bricks, white render and grey slate roof tiles.

Carlton Conservation Area is approx. 1.5 miles south-east of the site and contains many iconic Grade II listed buildings - these are a key part of Royston's heritage. General construction materials consist of stone, with a variance in roofing materials, including stone, slate and tile.

1.3 Landscape influences

Within the development, mature trees should be retained as much as possible and located within publicly accessible space to create focal points. Development should aim to promote the restoration and management of key hedgerows as described in the Local Plan and retain boundary walls, to better define roads and fields. Using trees and general planting helps define the boundaries of new developments and adds depth to the landscape setting, helping the development to blend into the landscape setting and provide distinctive features.

GI both within the development boundary and around the site should be used to influence the built character. Development should actively front onto GI to create safe, attractive and well used open space. The character of development fronting GI should change depending on the character of the GI. Naturalistic settings like the green belt and surrounding open fields should have a "softer" character with larger front gardens, more generous spacing between houses (garages or side parking) and a more informal appearance with a variety of natural materials and form. Development fronting more formal GI should create a strong sense of enclosure with defined building lines, similarity of materials and coherent boundary treatments.

2. Locally inspired identity and characters

By working with the existing factors, Royston has the opportunity to create a locally inspired identity that fits into the existing landscape.

The elevated disused railway along the northern periphery and the PRoWs along the south and west boundaries of the site create natural buffers between the development and Green Belt. The distinctive landscape character along these buffers should be retained, managed and promoted.

Key vistas are connected through the north-south landscape spine and east-west Lee Lane landscaped corridors to the open countryside and Notton Wood Local Nature Reserve. Dwellings should be designed with large windows to make the most of the views, benefit from solar orientation and provide a distinctive character to the built form. The existing topography within the site offers opportunities in providing areas for SuDS that should be incorporated within GI creating strong character within the development.

Recently completed housing by Barratt Homes - monolithic street scene of red bricks and grey tiled roofs

Historic street side buildings in gold and dark stones along Lee Lane, east of the site

Disused railway line along the northern periphery of the site

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3. Landscaping traditions and boundary treatments

Locally there are three main boundary treatments. Hedges make up the majority of field boundaries in rural locations, while stone walls and brick walls are predominantly used along road edges and urban areas. This principle should be adapted and applied to the boundary treatments of development.

Stone and brick walls should be used as the front boundary treatment along primary and secondary vehicle routes as well as around the main gateways to the site and along existing roads. Hedges should be used along rural frontages and tertiary streets, as well as dividing boundaries between properties. Hedges adjacent to rural fringe and designated habitats should include mixed native planting. Hedges dividing properties and located within development can be more formal and of single species.

4. Variations in density, built form and appearance

This design principle should correspond to Section 5.3 (Character Framework) of the Masterplan Framework, where the various character areas and local conditions provide a structure to create different densities of development. The density along Lee Lane around character area of 'Urban Gateway' should generally be higher, between 40 and 45 dph, the built form should be more formal with defined building lines and a strong limited palate of materials.

Residential development in other character areas such as 'Royston Green', 'Green Crescent' and 'Royston Common' should follow design guidance on materials and built form as set out in section 5.3, where high quality materials and detailing will be promoted. Towards the north, south and west of the site adjacent to the green belt, residential density will gradually reduce to around 35 dph with a more informal built form and a more varied palate of natural materials.

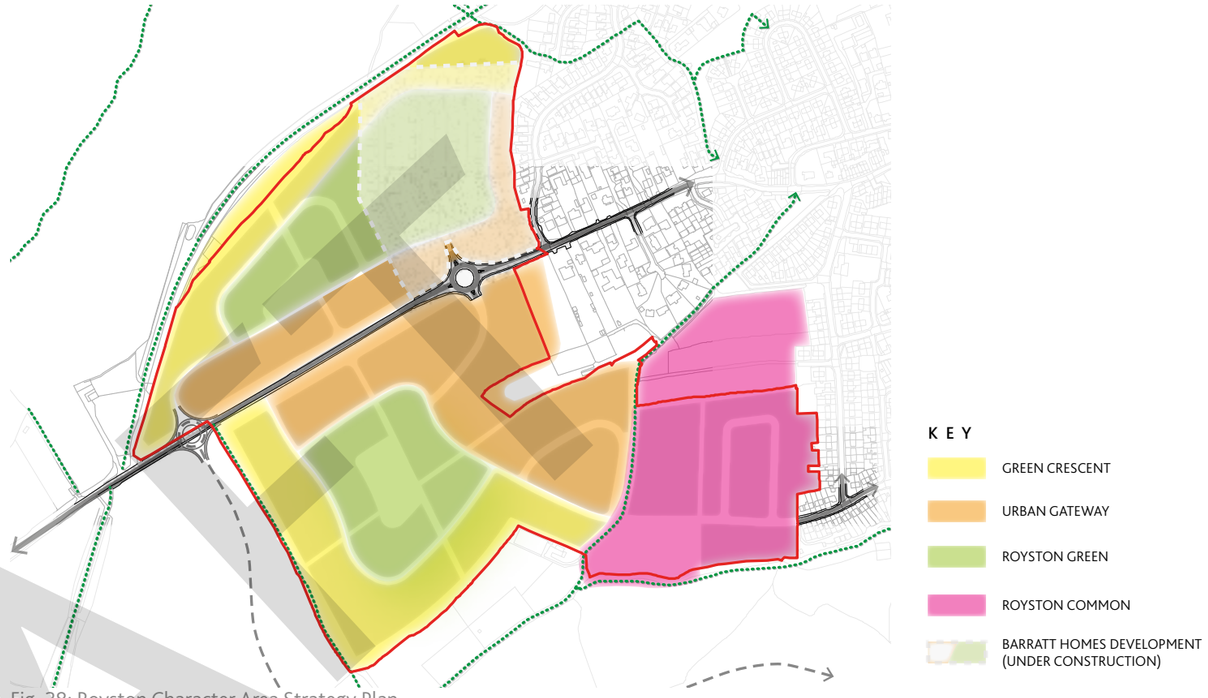

Fig. 28: Royston Character Area Strategy Plan

Local stone wall used as boundary treatment in Royston with wide street side grass verge

Example of integrated local shop on ground level of multi storey housing

DESIGN CODE SUMMARY - CHARACTER

- Residential development should follow principles set out in 'Character Area Framework' in Section 5.3 of the Masterplan Framework.
- High quality, locally historic and natural materials to be used for material pallet.
- Retain existing mature trees and hedgerows as set out in the local plan. Improve hedges with a mix of native species where gaps occur.
- Buildings fronting Green Belt to have a building set back of more than 15 metres from the front boundary.
- Buildings should actively front open space with main entrances or habitable windows overlooking open space.
- Boundary treatments should consist of stone walls fronting primary and secondary streets with a mix of hedge and stone walls for tertiary streets. Open space should be fronted with hedges.
- Native and local planting species should be used adjacent to existing hedgerows and open fields within Green Belt.
- Dwelling densities should be varied across the site with higher densities (45-50 dph) located closer to the local shop and public transport routes with lower densities (30-35 dph) located adjacent to the outskirts of the site facing Green Belt.
- Landscape and Visual Impact Assessments (LVIA) to be included in future planning applications

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7. DESIGN CODE

7.2 URBAN FORM

This design principle aims to influence the key aspects of the built environment of Royston. These are reflected in the Masterplan Framework at a strategic level and planning applications shall provide a further level of detail to demonstrate how these have been embedded in development proposals.

1. Development blocks

Development blocks can vary in shape and size according to the configuration of the Masterplan Framework layout (see Section 5.1 and Fig. 16 of this document). A perimeter block structure provides clarity between the fronts and backs of buildings, between public and private spaces, and enables continuous overlooking of the street or open space. Creating variation in the shape and size of perimeter blocks helps to generate interesting and distinctive character areas.

The use of perimeter blocks must be consistent throughout the Royston development. Their sizes and shapes should respond to the use, existing landscape features, topography, character and density.
Fig. 29 (Royston Framework Placemaking / Urban Design Strategy plan) shows the different configurations of perimeter blocks and how they respond to the surrounding context and characters in Royston.

2. Edges

The interface of development edges to Green Belt, open space, green links or boundaries of the site has a critical role in defining the character and quality of the place.

At all the edges of the Royston development, buildings must positively address the public realm, providing a natural surveillance. The building scale, mass and typologies must respond to the topography, existing landscape and its context. Architectural and public realm material should be chosen sympathetically to the existing landscape character. Where buildings face the Green Belt, a sensitive approach must be followed with appropriate setbacks, building heights, roof typologies and the use of materials (See Fig. 42, typical section of single sided development). Along the Green Belt edges, ecologically sensitive lighting must be used.

Three main types of development edges established in Royston (primary, green and countryside) can be found in Fig. 29.

3. Fronts and backs

Designing development blocks with a clear distinction between residential fronts and backs is crucial in order to achieve best practice in placemaking, and to create secure and coherent streets and places.

In Royston, a clear distinction should be made between public fronts and private/ semi-private backs. The primary access of the buildings should align with the public spaces to create activity, while private or semi-private frontages – such as service areas and gardens - should be located at the back. Fronting the public space with blank walls, high fences and hedges which block the view of the public spaces must be avoided. Ambiguous spaces that are neither fully public nor fully private should be avoided. Blocks that contain narrow lanes and pedestrian and cycle routes should ensure that they are overlooked in order to create natural surveillance and a sense of security.

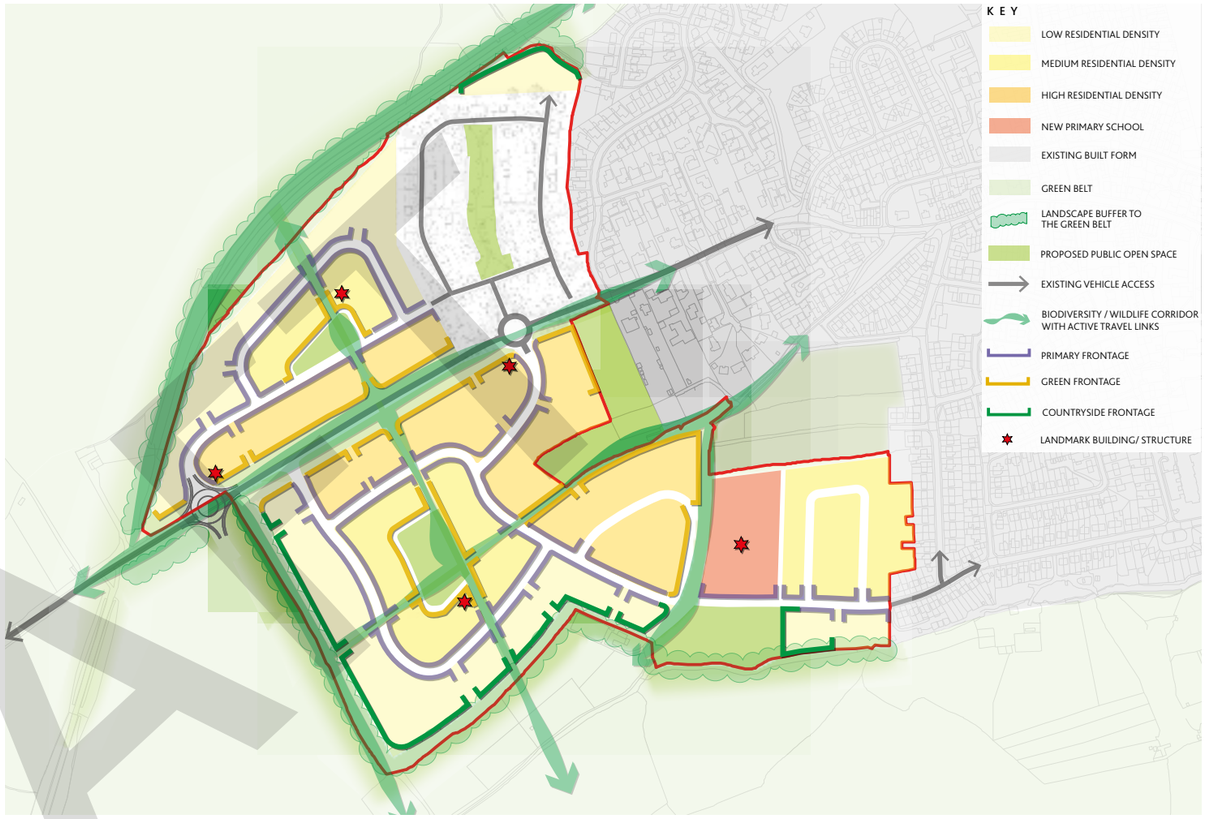

Fig. 29: Perimeter blocks and residential frontages as established in the Royston Placemaking/ Urban Design Strategy Plan

Urban fabric consists of perimeter blocks around Royston centre

Precedent of well designed active frontage and residential street

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4. Building lines and setbacks

Building lines and setbacks are important to the overall character of the area and the sense of enclosure of the streets and public realm. Continuous building lines with a minimum gap create a strong distinction between public and private spaces, and provide sense of enclosure to the public spaces. Where buildings step back from the building line, this should be designed in order to create usable and attractive spaces.

Neighbourhoods with higher residential density are proposed along Lee Lane and around the local shop. Building lines should be continuous with consistent small setbacks of a 1m to 3m private strip, to accommodate a small garden or area for plantation. The small local shop should be adjacent to the pavement edge without any setback. See Fig. 31 for example residential layout with high density.

The adjacent properties along either side of Lee Lane to the east of the site generally have large front gardens with building line setbacks up to 30m from the edge of Lee Lane. Responding to this context, the development setback along Lee Lane will be generous to accommodate wider public landscaped strips with minimum offset width of 10m and provide a safer and more attractive active travel route.

At low to medium density residential areas, setbacks can vary in width in order to accommodate wider front gardens or landscaped strips. This can also better respond to the character and the landscape context of the area. Front gardens can be much deeper along the peripheries of the development in order to create a softer transition between the Green Belt, POS' and built environment. See Fig. 32 and Fig. 33 for example residential layouts with medium and low density.

5. Well-defined public and private space

Buildings fronting the streets and open spaces give life to the public realm, therefore primary access and principal frontages should always face onto public spaces. In the Royston development, spacing between principal habitable rooms should be sufficient to avoid them being intrusively overlooked and avoid the need for curtains and blinds to be drawn. Setbacks from the street and front garden landscaping should seek to balance privacy for front living rooms with the need for a view of the streets.

The minimum distance between the backs of dwellings should be 21m to provide the required level of privacy. Where this is not achievable, the layout should be a back-to-side arrangement, or use single-aspect buildings to avoid creating overlooking issues.

Appropriate boundary treatments including hedges, low walls, fences and railings should be incorporated into design layouts to clearly distinguish public and private space.

6. Corner treatment

It is an important design principle on urban form to appropriately address the corner of a development block. In Royston where corners of development plots are visually prominent, dual aspect buildings - buildings with more than one entrance and two active frontages - should be implemented with prominent entrances and windows.

In lower-density areas closer to the peripheries of the development, continuous built frontage should address the corner by using a series of linked dwellings where possible. When a terrace, detached or semi-detached house faces out onto the corner, the buildings should have the main entrance and habitable room windows facing both sides to create activity, and will provide natural surveillance by overlooking the street. This building can also be taller or have a distinctive architectural element, to ensure a greater presence than the neighbouring buildings to articulate the corner.

DESIGN CODE SUMMARY - URBAN FORM

- Perimeter blocks should be used to ensure that there is a distinction between public and private space and to ensure that the public realm is overlooked.
- Buildings must positively address public realm by ensuring it is overlooked by windows from habitable rooms and / or access doors.
- Building setbacks should respond to the context. Dwellings fronting primary streets should have limited setbacks of up to 6 metres and provide strong building lines.
- Buildings fronting Secondary and Tertiary Streets can have a more varied building line with deeper setbacks.
- Buildings fronting Green Belt should have a building setback of at least 15 metres.
- Buildings located on street corners should be dual aspect and designed to address both streets spatially.

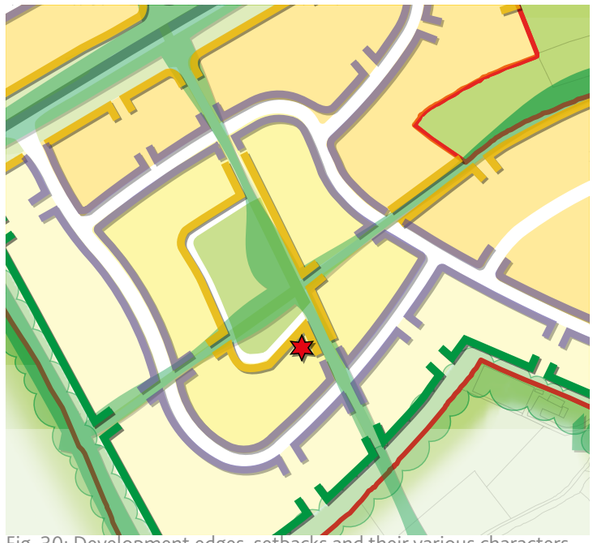

Fig. 30: Development edges, setbacks and their various characters as established Royston Placemaking/ urban design framework plan

Precedent of well designed corner typology in residential plot. It is taller, dual aspect and has a more distinctive presence

Precedent of residential frontages and appropriate setbacks from street

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Fig. 31: Example Royston Residential Layout (High Density)

Fig. 32: Example Royston Residential Layout (Medium Density)

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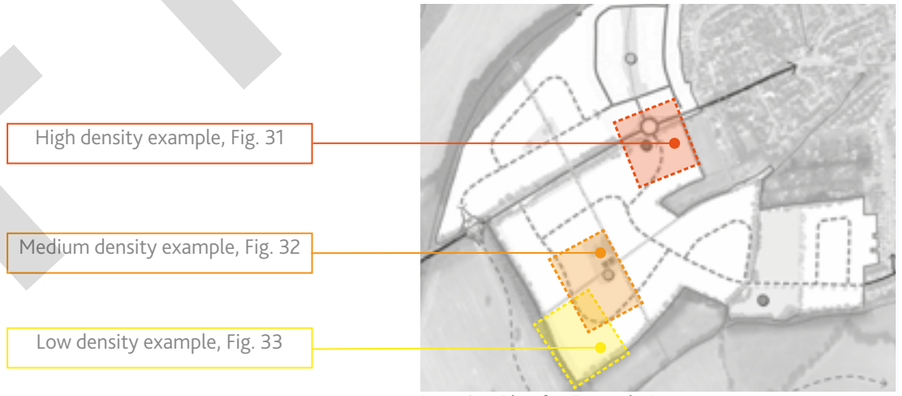
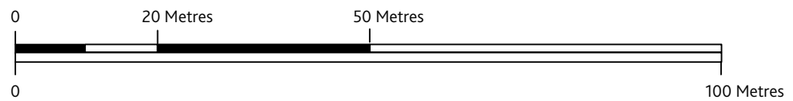
Fig. 33: Example Royston Residential Layout (Low Density)



Location Plan for Example Layout



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7. DESIGN CODE

7.3 HOMES

This principle will ensure the new development has a mix of housing types and tenures that suit local requirements, and therefore building a diverse and balanced community.

1. A suitable housing mix

Below are housing policies from the Barnsley Local Plan (2019) that are relevant to this site:

- Policy H6: Housing mix and efficient use of land - This policy states that a density of 40 dph will be expected in urban Barnsley and Principals Towns where the Royston site is situated.
- Policy H7: Affordable Housing - Housing developments of 15 or more dwellings will be expected to provide affordable housing. In Royston 10per cent affordable housing is expected.
- Barnsley Local Plan SPD Design of Housing Development (adopted May 2019)

The average residential density of the Royston development is 40 dph as proposed currently in the Masterplan Framework (Section 5.1 of this document), as suggested in the adopted Local Plan. Densities of individual residential parcels should vary in line with the various character areas within the development (see Fig. 17 for density strategy plan and Fig. 21 for character areas strategy plan). Parcels with higher densities (45-50 average dph) with 2.5 - 3 storey dwellings are located adjacent to existing development and along Lee Lane. Parcels with lower densities (35-40 average dph) are located at development edges facing the Green Belt, this helps to limit impact and create a "feather" edge to development.

2. Type and tenure

To fit within the surrounding residential context of Royston, the proposed dwellings within the development should vary in size from 2-2.5 storey detached, semi-detached and terraced housing. The majority of the dwellings should range from 2-4 bedrooms family houses, with some higher density 3 storey blocks along Lee Lane, allowing for smaller sized apartments (potentially 1-2 bedroom apartments) accompanied by local shop/ mixed use on the ground floor. These smaller homes close to the Lee Lane gateway can be suitable homes for starter homes or downsizing households. Brown and green roofs to be considered on buildings where appropriate.

The proposed dwellings within the development will provide a broad mix, offering a range of options such as Starter Homes, accessible and Lifetime Homes (LTH) and affordable homes for young people, families and the elderly. As per Policy H7 of the Barnsley Local Plan, 10 percent affordable housing is expected in the Royston development. The proposed Lifetime Homes should be of a high quality and well maintained with possibilities for elderly and specialist accommodation.

3. Tenure-blind neighbourhood

As suggested above, a mix of homes can help to provide a more diverse and balanced community. The proposed neighbourhoods within the Royston development should be tenure-blind and avoid differentiation of dwelling types. It is also recommended to avoid neighbourhoods that only provide homes for one market segment. Exterior features of dwellings, landscaped boundary treatment and parking provision should differ to prevent easy identification of various tenure types within the development.

DESIGN CODE SUMMARY - HOMES

- Building for Life standards should be applied to development
- Dwelling densities should be varied across the site. Higher densities (45-50 dph) located closer to local shop and public transport routes. Medium densities (40-45 dph) located adjacent to POS. Development along the out skirt of the site facing Green Belt should have low density (35-40 dph)
- The type and ratios of affordable housing are stated in Barnsley Local Plan SPD Design of Housing Development (adopted May 2019) and Affordable Housing (adopted May 2019).
- Affordable housing should be tenure blind and indistinguishable from other dwellings, they should be delivered to same spatial standard and high quality materials as the rest of the development.
- The development will provide a broad mix of housing options such as Starter Homes, accessible and Lifetime Homes (LTH) and affordable homes for young people, families and the elderly.
- Developers are expected to use house types that are location and site specific.

Officers Field, Dorset, where homes provide a modern take on traditional family homes in a variety of terraced, semi and detached types.

Derwenthorpe, York, where houses are designed to comply with the requirements of Lifetime Homes

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7. DESIGN CODE

7.4 FACILITIES AND SERVICES

Facilities and Services

This design principle will ensure provision close to new or existing community facilities, such as shops, schools, workplaces, parks, play areas, pubs or cafés. The new development should integrate into its surroundings by reinforcing existing connections and creating new ones, while also respecting existing buildings and land uses around the site.

Royston town centre is within 1,200 m of the site boundary and provides services and amenities within a 15 minute walk for most residents. In addition to this, the development will provide an appropriate bus route to Royston town centre and in the longer term to Mapplewell Centre to allow for improvements to the public transport network (See Fig. 8 for facilities mapping within local context).

Local Shop

As outlined in the Local Plan, the development should include provision of a small local shop of up to 500m^2 retail space serving new and existing residents. To ensure that this meets local needs and is viable, it should be located in close proximity to Lee Lane and existing neighbourhoods to the east, and should be well connected with the rest of the site with sufficient parking, drop off and loading area.

High quality design for the shop frontage, façades and signage is essential to improve the appearance and reputation of this new local shop.

Community Hub

A community hub is proposed to the southeast of the development, consisting of a new primary school, an informal recreational area and is adjacent to an existing allotment, all integrated by landscaped active travel routes to create a new community focus.

A community grow garden is proposed within the neighbourhood open space in the centre of the development south of Lee Lane. It is well connected to the allotment to the east by the east-west green corridor (along West End Crescent). It should be run as a community asset and managed and maintained by local residents.

The public realm around both the local shop and community hub should be high quality with a mixture of quality hard surfacing and landscaping to create more inviting and pleasant spaces where local residents would want to meet and socialise.

Parking

Designated off-street parking areas for both vehicles and bicycles should be provided at both the local shop and primary school with an emphasis on quality and secured cycle shelters to promote active travel both within the site and further afield.

Play

In addition to the permitted LEAP provision in Barratt Homes development, another area of NEAP/ LEAP should be provided within the development south of the Lee Lane. Residential frontages should be facing onto these new play areas to maximise natural surveillance, secure by design should be promoted and ensure play safe surfacing and equipment are being implemented.

Secure by design and natural surveillance should also be promoted in the informal recreational area, where flexible activities and sports can take place.

Trim trails and appropriate lighting should be provided around the perimeter of development and along the landscaped active travel links on Royston Masterplan Framework Plan (see Fig. 16) to promote active lifestyles.

DESIGN CODE SUMMARY - FACILITIES AND SERVICES

- Development is expected to provide a small local shop (up to 500 sqm of retail floorspace) as set out in the adopted local plan. This should be located close to the newly constructed roundabout on Lee Lane to provide good accessibility from Royston and rest of the site.
- A community hub should be located close to the existing allotment, integrated with the new primary school and informal recreational area to the south east corner of the site.
- This integrated community hub should be well connected with green active travel links and existing PRoWs in the surrounding.
- A community grow garden and LEAP/ NEAP should be included in the neighbourhood open space south of Lee Lane.

Example of informal recreational open space for flexible activities

Example of community grow garden for fruit and veg growing

Blacon community hub with designated off street parking area

Example of cycle parking facilities along active travel routes

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7. DESIGN CODE

7.5 CONNECTIONS

Connections
It is essential to ensure that the new development integrates into its surroundings by reinforcing existing connections and creating new ones, while also respecting existing buildings and land uses around the development site.

1 Ease of movement – permeability, walking, cycling, and accessibility with a clear hierarchy
A highly permeable active travel network is essential to encourage sustainable modes of transport within the site and to local facilities and services. Active travel routes should be provided to local services and facilities within the site and connect to existing routes around the site. See Fig. 18 active travel links for connections to off site.

2 Well-designed green network - Improve safe movements and recreational opportunities.
The existing PRoW network should be incorporated within the proposed GI network (see Fig. 23) through the site. The green network should be well overlooked by development with natural surveillance, creating a safe and pleasant green network connecting habitats, communities and facilities.

3 Improved connectivity to nearby centres and surrounding facilities
For this new community to integrate with the existing neighbourhoods, it is essential to ensure strong connection with existing centres and facilities as well as provide new facilities for existing residents. New vehicle access should be provided off Lee Lane, linking through the site providing a primary route for traffic. The existing PRoW network should be retained and improved to promote active travel for multi-users within and around the site. A key active travel route with wildlife landscape corridor should be provided along the north-south axis, linking the site with the disused railway link, the green belt, the existing PRoW network and surrounding neighbourhoods.

4 Landmarks, vistas and focal points
Well-designed open spaces, streets and public realm together with built forms are crucial for placemaking. Landmarks, vistas and focal points are the tools to help residents and visitors to easily orientate themselves within this new development. (See Fig. 34 Placemaking and Urban Design Framework plan)

4.1 Focal points
It is important to create rhythm in the urban fabric with sequences of spaces in order to ensure well designed places. This can be achieved by creating a number of focal points and gateways with landmarks, public realm and other landscaping features, or simply by pulling back the building line and increasing the green space. Residential areas should also include a number of focal points in order to create attractive and distinctive places. Focal points should be created at the gateways to the development at the two new roundabouts on Lee Lane, addressing the entry points in the east and west ends. The new small local shop opposite to Barratt Homes scheme and the new primary school should both be focal points within the development.

4.2 Landmarks
Landmarks are used to emphasise the hierarchy of a place and often form part of focal points, to create a visual guide to help users navigate through places and reinforce the sense of identity. They are not limited to taller or large scale buildings. Public art, a tree with

Fig. 34: Royston Placemaking/ Urban Design Strategy Diagram

Examples of active travel routes in park and alongside streets

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a distinctive quality, a strong landscape feature with quality materials and rich planting, an architectural element or an ornament on a building can be considered landmarks.

Within the development new landmarks should respect the existing landscape setting. Landmarks should be located at key positions throughout the site and will form part of the way-finding strategy. These will include the main gateways at the main access points to the developments to the north and the south of Lee Lane. There are also good opportunities to create landmarks along the north-south green/ wildlife corridor, especially at key corners overlooking the two central open spaces. See Fig. 34 Placemaking Strategy Diagram.

4.3 Vistas

Views and vistas should be used effectively to reinforce the distinctiveness and the legibility of the place. This can often be achieved by using higher structures on buildings, atypical architectural materials, a large distinctive tree or a public art feature.

Creating short-distance views broken by buildings, trees or landmarks helps to create memorable routes. Creating views and vistas allows easily usable links between places. Vistas should be aligned along green and wildlife corridors looking south, north and west to the open countryside. See Fig. 34 Placemaking Strategy Diagram.

DESIGN CODE SUMMARY - CONNECTIONS

- Existing PRoWs (footpaths and bridleways) should be retained. Where required, minor diversions (adding up to 10 percent additional overall distance when measured within the boundary of the site) may be permitted to accommodate development.
- New landscaped active travel routes should be created that link into the existing network.
- Vistas should be aligned along green and wildlife corridors looking south, north and west to the open countryside.
- If cul de sac's are proposed, they must be connected at both ends with foot and cycle paths to the wider foot and cycle network.
- Minimum widths for PRoW
- 2 metres for public footpaths
- 3 metres for unenclosed bridleways
- 4 metres for enclosed bridleways
- Active travel routes should have segregated cycle lanes of 2.5m in addition to the footpath

Example of open space, historic feature and distinctive tree as focal point

Example of key vista to open countryside with impact on topography

Example of pocket green space as connector for neighbourhood green links - Derwenthorpe, York

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7. DESIGN CODE

7.6 STREETS

Streets

Within the new development, buildings will be designed and positioned with landscaping to define and enhance streets and spaces. Well connected street formation with a clear and thematic street hierarchy is the fundamental structure of the Masterplan Framework.

1. Permeable and interconnected street network

New residential neighbourhoods must provide permeable layouts within the development sites, as well as connecting to the wider area and to active travel networks beyond. In particular, it will provide direct and secure connections between neighbourhoods and local facilities, such as the local shop, schools and public transport links, for pedestrians and cyclists. This will be through the provision of traffic free landscaped active travel corridors as well as the street network. A permeable layout generates a higher level of pedestrian/ cycle activity, which makes social interactions more likely and increases the level of security. Vehicular routes will provide access to residential neighbourhoods and facilities within the site but should not be direct; a more circuitous route will make driving less appealing and encourage the sustainable modes of travel.

The design of the street network should establish a clear and legible layout with a strong structure and avoid being formed around the technical demands of traffic. The layout should respond to the topography, natural desire lines and access to the site. It should avoid creating long cul-de-sacs and indirect pedestrian and cycle routes. The new streets should not create routes that attract through traffic, to ensure lower traffic levels on minor roads and to encourage the use of sustainable movement alternatives. Pedestrians and cyclists must be able to move freely between all parts of the development and have easy access to the surrounding street networks and key destinations. Space should be allocated within the highway corridor to create a functional balance between vehicles and pedestrians/ cyclists, avoiding domination of the streetscape by vehicles.

2. Active frontages

Active frontages are important in terms of bringing life and activities to streets and public realm. Introducing regular doors, windows, front gardens and front parking can stimulate activity and social interactions. Narrow frontages with a vertical rhythm can create a more attractive and urban streetscape, while articulation on façades and use of bays and porches can create a more residential feeling.

In the development, exposing blank walls to the public realm and use of passive and blank façades must be avoided. In residential areas there should be a minimum 6 to 10 doors and windows every 100m to achieve a good level of activity within the public realm.

3. Street design

To be read in congestion with section 5.2 Movement Framework in this document.

3.1 Lee Lane

Reconfigured Lee Lane will provide main access to the site parcels with a new bus stop and crossing provision. As described in the Movement Framework, design measures will be needed to manage vehicular speed on Lee Lane and to provide a better environment for other road users.

Fig. 35: Royston Movement and Access Strategy Plan

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3.2 Primary route

The circuitous primary route provides the main access route through the site connecting to the external network from Lee Lane.

- Design requirement = min 5.5m (6.75m where it is a Bus Route – see 3.2), 20mph design speed proposed.
- Pedestrian footways – min 2m width, to be provided on both sides of the carriageway.
- Cycle provision is on street (segregated cycle lanes to be provided along Lee Lane).
- Typical street section see Fig. 37

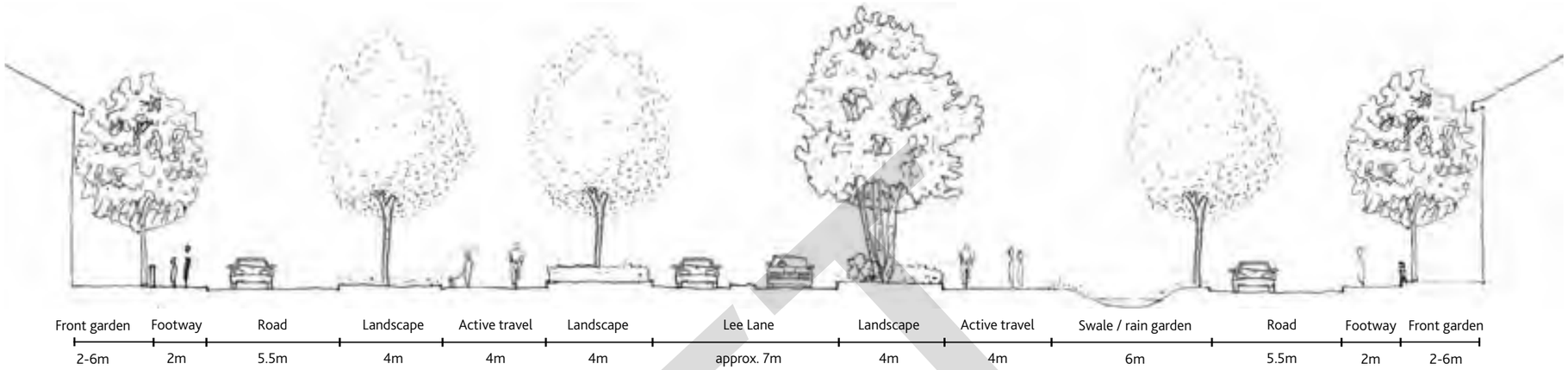

Fig. 36: Typical street section 01 - Lee Lane

3.3 Bus route

Additional to a new bus stop along Lee Lane, a new bus route through the development is also proposed to link with existing services east of the site, via Lee Lane and Grange Road. See typical street section in Fig. 38.

- Design requirement = 6.75m min width for buses.
- Bus stops are to be provided at regular intervals to ensure all dwellings are within 400m walking distance, preferably 300m.
- Guidance indicates bus stops to be provided on street, however SYPTE/ operators have indicated a preference for laybys – this to be confirmed as planning applications are progressed.
- Pedestrian footways to be min 3m at bus stops to cater for additional pedestrian movements.
- A bus gate is proposed at the connection to Grange Road to restrict general traffic and prevent potential rat running through the site.

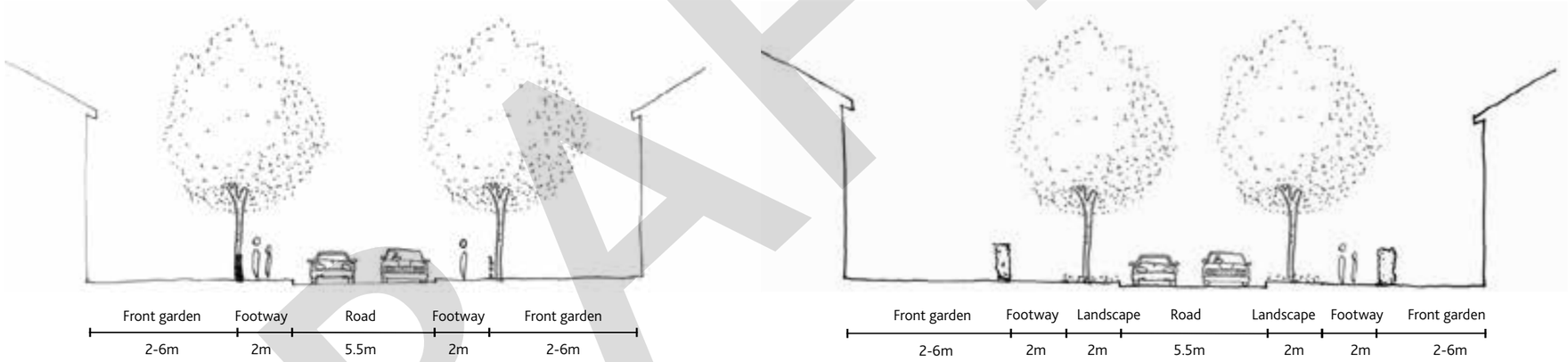

Fig. 37: Typical street section 02 - Primary Route without / with landscape strips

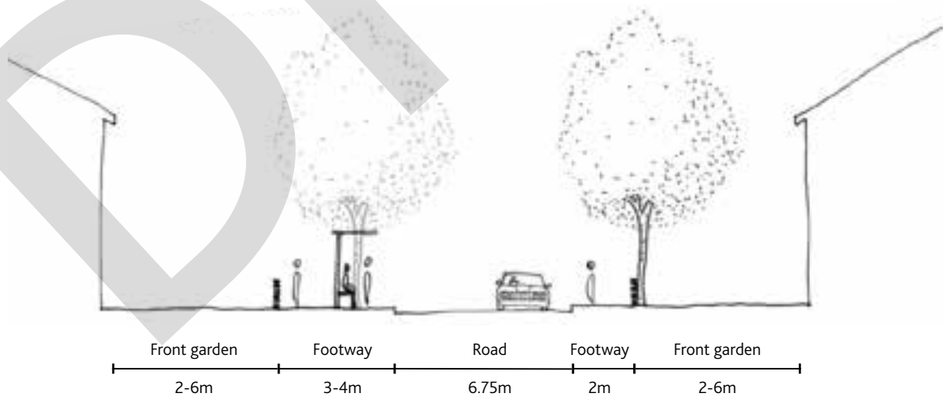

Fig. 38: Typical street section 03 - Bus Route

Fig. 39: Typical Section Key Plan

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3.4 Secondary route

Secondary Routes provide links to development parcels form the primary routes. See Fig. 40.

- Design requirement = 5.5m min, 20mph design speed.
- Pedestrian footways are to be provided on both sides – min 2m width.
- Trees should be provided within front gardens.
- A 20m max distance cul-de-sac can be provided without a turning head providing access for up to 5 properties from a private drive – requirement for emergency vehicle access.
- Cul-de-sacs along open space should be connected with active travel (Pedestrian and Cycle) links to improve permeability.
- Typical street section see Sections 10 and 11.

3.5 Tertiary route / local access

Tertiary routes provide local accesses to individual buildings/ driveways.

- Design requirement = min 5.5m, 20mph design speed.
- Pedestrian footways are to be provided on both sides – min 2m width.
- A 20m max distance cul-de-sac can be provided without a turning head – requirement for emergency vehicle access.

The site accesses and internal junctions will be designed to appropriate design standards (DMRB, MfS2, South Yorkshire Residential Design Guide, BMBC Design of Housing Development SPD) in agreement with BMBC.

3.6 Single sided development

Where PRoW are on the periphery of the site, the development should face the active travel routes to provide natural surveillance.

- Design requirement = min 5.5m, 20mph design speed.
- Pedestrian footways are to be provided on developed side – min 2m width.

3.7 On-street parking

Where on street parking is proposed (Fig.41), it should be in designated parallel bays maximum 5 bays long. Where on street parking is proposed it should be in combination with Street trees at not more than 5 bays apart based on urban design best practice.

The car parking provision will comprise a mix of curtilage and on-street parking to break up the linear nature of street design and act to reduce vehicle speeds.

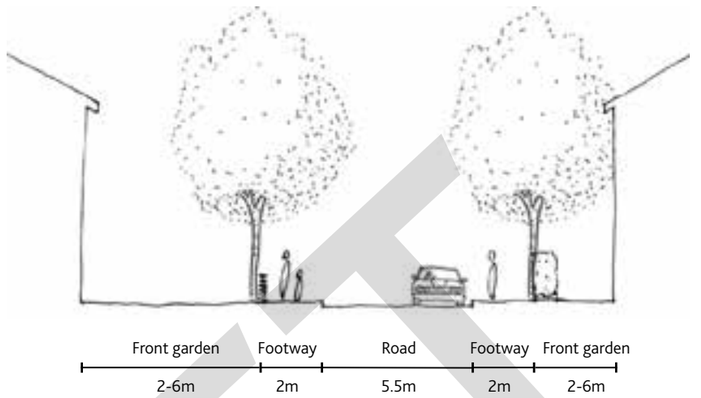

Fig. 40: Typical street section 04 - Secondary Route

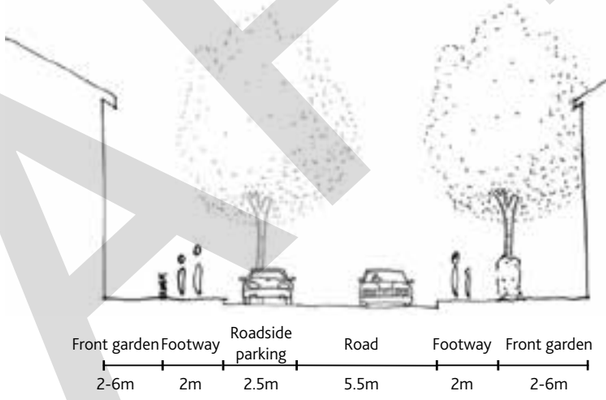

Fig. 41: Typical street section 05 - street with on-street parking

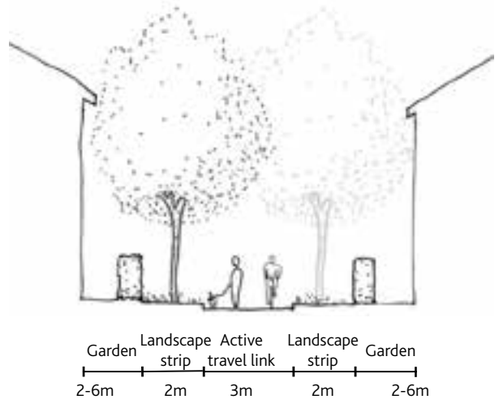

Fig. 42: Typical street section 06 - Active Travel Route

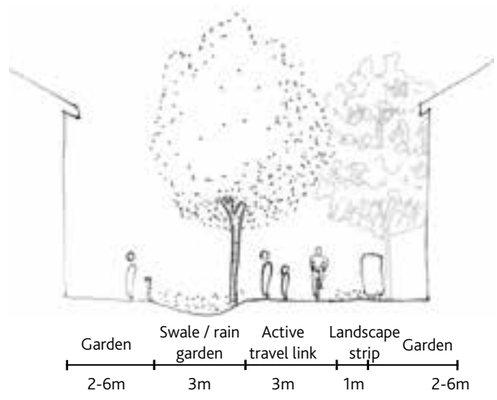

Fig. 43: Typical street section 07 - Active Travel Route

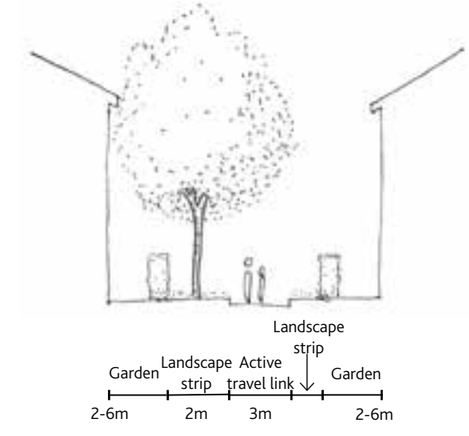

Fig. 44: Typical street section 08 - Active Travel Route

Precedents of development edge facing countryside or parklands

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4.0 Landscaped active travel routes

A network of landscaped active travel routes provides generous, attractive, safe and direct traffic free links throughout the development. The key active travel routes include:

- The north-south link: running centrally through the site, connecting the existing PRoW route along the north site boundary with the existing PRoW network to Royston, Carlton, Mapplewell and Athersley, crossing Lee Lane with proposed crossing provision. See Fig. 46.
- Lee Lane: segregated active travel routes running either side of the reconfigured Lee Lane provide an attractive alternative to connect the development to Royston town centre and the existing PRoW network. See Fig. 36
- East-west link: running centrally through the southern area of the site, connecting the development with the existing bridleway route along the west side of the site to the one adjacent to the existing allotment to the east of the site into Royston town centre. (Fig. 44, 45 & 47)

They should be:

- New walking/ cycling routes designed for multi-users and fully accessible for all abilities.
- At least 3m wide, include planting and provide segregation between pedestrians and cyclists.
- Routes overlooked by housing frontages and that are well lit.
- Active travel prioritised crossing provisions, rather than vehicles, within these routes.
- Varied widths with high quality landscape design, which will enrich users' travel experience.

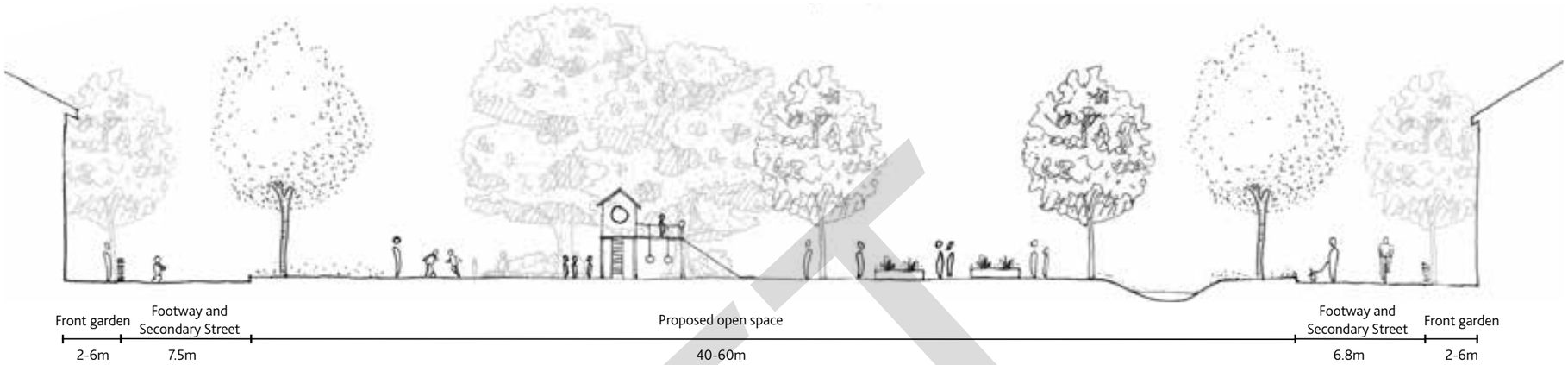

Fig. 45: Typical street section 9 - Active Travel Route linking proposed open space

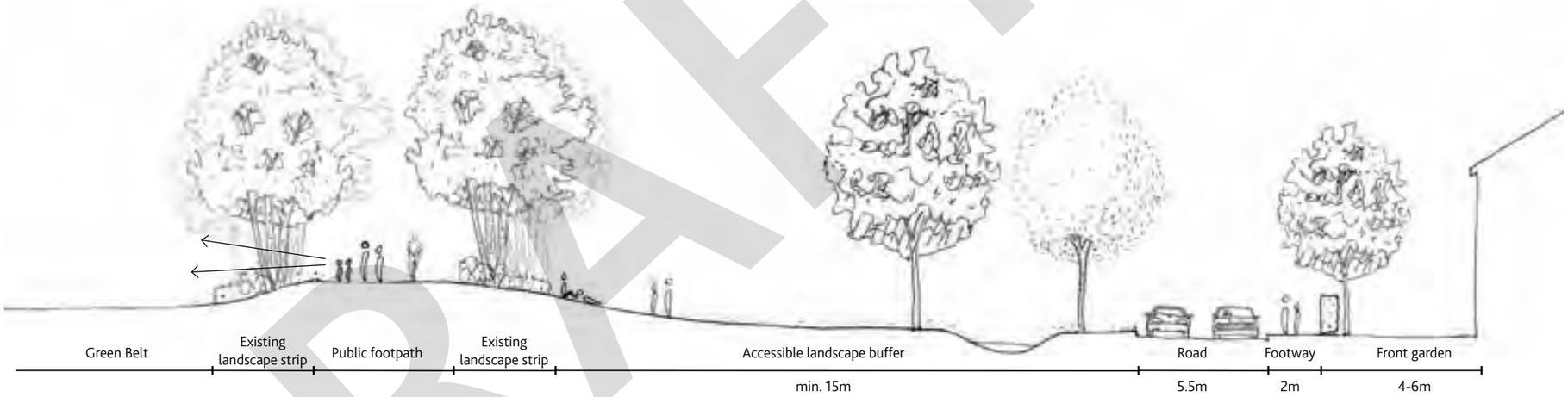

Fig. 46: Typical street section 10 - Active Travel Route linking the disused railway line at the north of the site

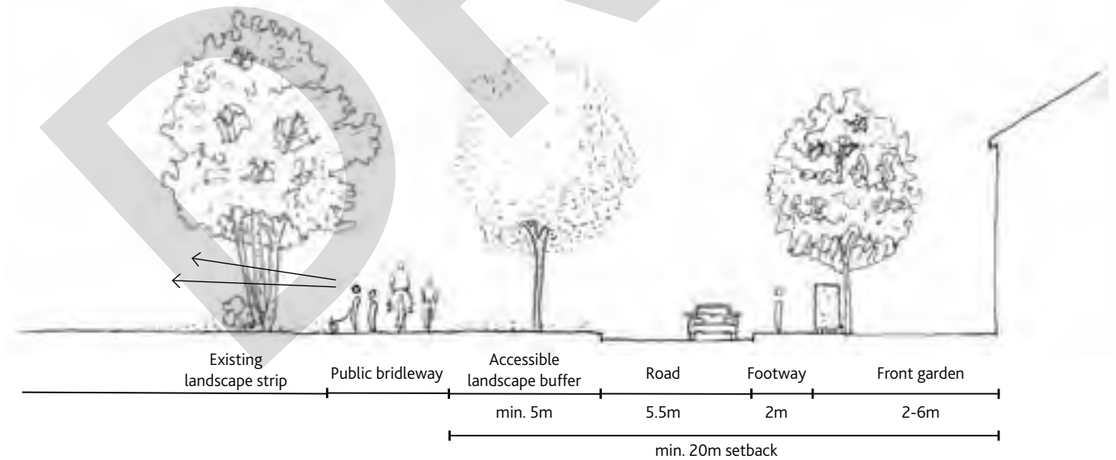

Fig. 47: Typical street section 11 - typical street section in Rural Fringe area.

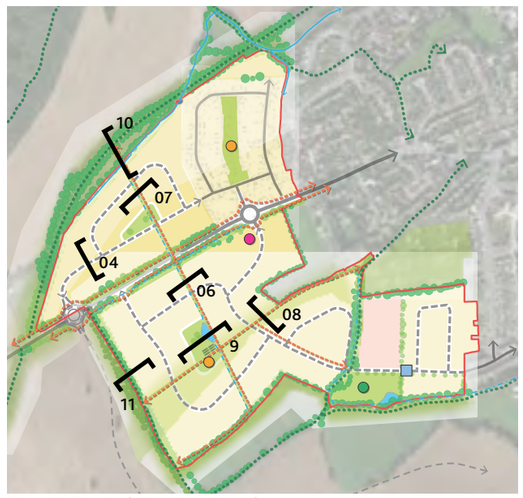

Fig. 48: Typical Section Key Plan

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7. DESIGN CODE

7.7 LANDSCAPE AND PUBLIC REALM

Royston is set within a landscape of surrounding Green Belt, Notton Wood Local Nature Reserve and protected hedgerows. A GI network of well vegetated active travel routes and semi-natural green spaces are provided across the site, promoting health and well being and a unique sense of place for any new development.

1. Strategic green/ wildlife links

A network of strategic green wildlife links is proposed in the Royston development. It connects streets, new local and community hub, open spaces and public transport routes with a series of active travel links extending out into the surrounding countryside. It also enhances existing landscape and wildlife features such as woodlands, hedgerows and trees to create connections across the area, reducing habitat fragmentation, enhancing biodiversity and providing recreation opportunities.

The strategic green links connect directly into the existing extensive network of footpaths, byways and bridleways beyond Royston, encouraging new and existing residents to use the multifunctional traffic-free routes to access the wider countryside and key facilities around Royston and nearby towns. See Fig. 50 for Royston GI/ public realm strategy plan.

For typical sections of green link see Fig. 42-44.

2. SuDS

The Blue Infrastructure Framework in the Royston Masterplan Framework Report identifies the recommended drainage hierarchy for discharging the site's surface water (see Section 5.7 blue infrastructure framework).

SuDS components are incorporated within the GI to increase the multi-functionality and benefits of green space. SuDS components incorporated within the GI network across Royston should include:

- Attenuation ponds
- Below ground water attenuation crates/ pipes
- Permeable paving.
- Green roofs should be applied onto flat roofed buildings where possible within the site, such as the new primary school.
- Small swales and rain gardens within open spaces and alongside roads and active travel links.

SuDS components should be designed into the GI network and public realm, this can help create suitable conditions to increase biodiversity. In Royston attenuation ponds are located within two of the neighbourhood open spaces. Rain gardens and shallow swales should be included alongside all green links and Lee Lane to collect surface run offs. Permeable paving and below ground attenuation systems should be located among development blocks and public realm, where hardscape materials are needed and ground conditions allow.

Management of SuDS is essential to ensure functionality and to maintain any associated habitat, particularly in rain gardens and attenuation ponds.

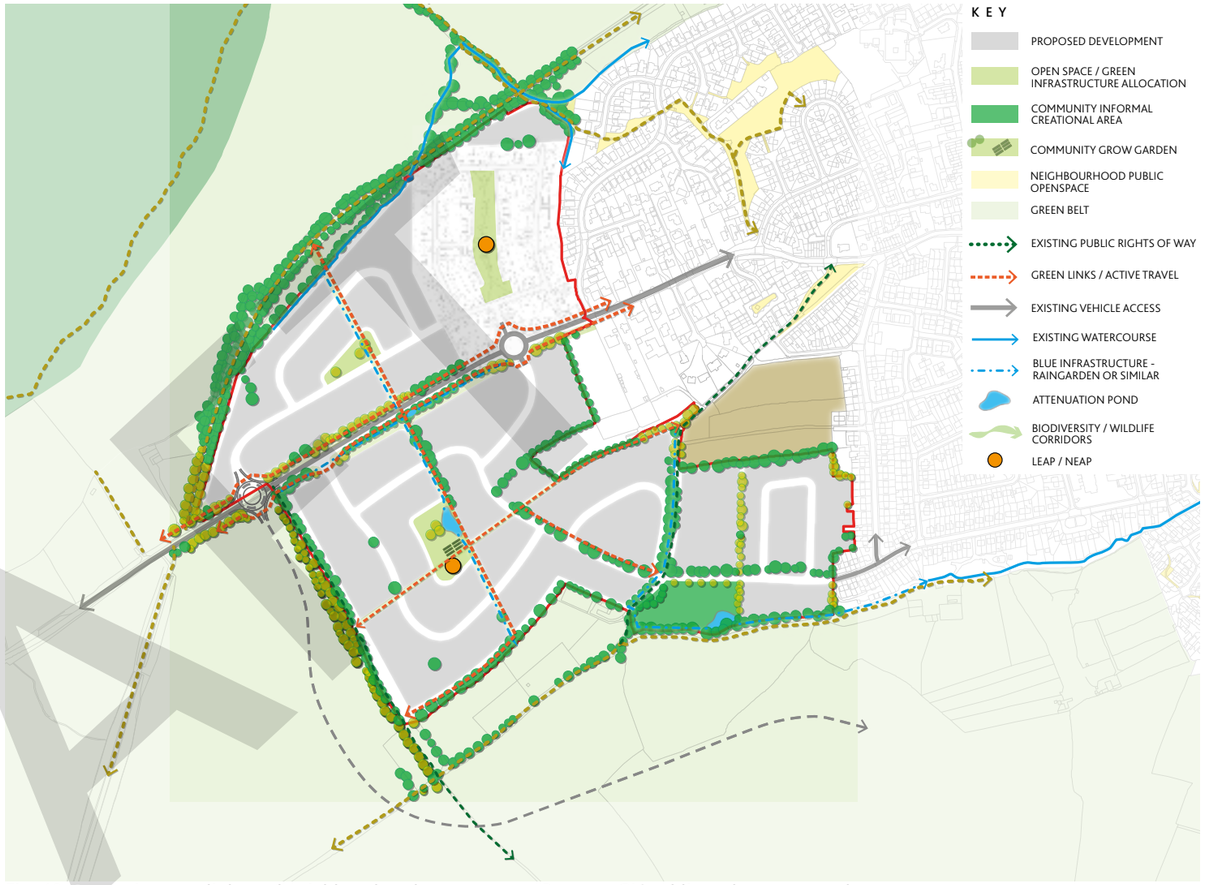

Fig. 49: Strategic green links and neighbourhood green spaces. Royston GI/ public realm strategy plan

Strategic green links and neighbourhood greenspaces. Royston GI/ public realm strategy plan (Contains information from Esri)

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3. Neighbourhood open spaces

Additional to the linear open space in Barratt Homes Development, three large neighbourhood open spaces are proposed in accessible locations providing multifunctional recreational uses.

Each of the open spaces should have a distinct identity to reflect the character area where it is located. All of them should be connected by GI and active travel links to the surrounding existing landscape setting:

- A NEAP/ LEAP and a community grow garden to the south of the Lee Lane;
- An informal recreational area as part of the community hub, located to the southeast of the development;
- A central POS to the north of the Lee lane.

All the proposed open spaces should retain and enhance the existing landscape where possible, integrating landscape features into the layouts, safeguarding existing habitats present and continuing wildlife corridors. The below design principles should be applicable to all new neighbourhood open spaces within the development:

- Retain, buffer and enhance the existing landscaped strip to the north and existing hedgerows and trees at the west side of the site, in line with the requirement for Site MU5 in Adopted Local Plan (2019).
- All existing good quality hedgerows, trees and shrubs to be retained within the layout of the parks and enhanced with improved management.
- New trees, grassland and shrubs to be planted to supplement existing vegetation. Planting mixes to be based on the species identified for the character area.
- Habitats to be enhanced through appropriate management and habitat creation.
- Wildlife corridors to be continued through the parks and green links and connected to corridors and habitats off site.
- Provide accessible landscape buffer between the development and surrounding green belt.
- SuDS features to be integrated into landscape and native aquatic and marginal planting in attenuation ponds to increase habitat diversity.
- Footpaths, benches, signs and other furniture including low level lighting to be installed to make accessible for all. Lighting shall be designed to consider sensitive adjacent habitats.
- Provide cycle parking in secure locations.
- Provide a small designated car parking area for the community informal recreational area.

Disused railway line north of site enhanced as multi use active travel route

Existing trees and plantings to be retained and enhanced as green and wildlife corridors

View of existing PRoW along trees and hedgerows to be preserved and enhanced

Example of landscaped active travel route alongside open space

Example of quality open space offering community recreational provision - Port Sunlight River Park, Wirral

Example of well overlooked open space with integrated recreational area - Croppings Park, Lightmoor

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4. Play areas

Areas for play are provided throughout Royston and consist of equipped play areas and informal play space located within neighbourhood and local open spaces. As identified in the 'Existing Recreational Facilities Map' in the Site and Contextual Analysis Report, there is a shortage in equipped play facilities in close proximity to the site especially to the south and west. This development will provide the opportunity to enhance play provision.

It is crucial to ensure all areas identified for play located within easy reach of the strategic green links, and have good levels of natural surveillance from neighbouring areas. Shaded areas with seating and cycle parking space should also be provided in all equipped play areas.

In addition to the permitted LEAP in Barratt Homes Development, a new equipped play area is proposed to the south of Lee Lane (see Fig. 50) and would require further confirmation by BMBC to determine whether it should be a NEAP or LEAP. A new community informal recreational area should be located to the southeast of the development as part of the community hub. They should be well connected to the green active travel network and in close proximity to neighbouring residential blocks. Specific definitions and requirements for NEAP/ LEAP are as below:

NEAP – Design Principles:

- A NEAP is an unsupervised site, equipped mainly for older children.
- NEAP to be located within 15 minutes walking time from every home (1,000m walking distance).
- An activity area of a minimum of 1,000m2 to be provided.
- A 30m minimum buffer zone to be created between it and the boundary of the nearest residential property, to minimise any disturbance to nearby houses.
- A kick-about area and opportunities for wheeled play to be incorporated.

LEAP – Design Principles:

- A LEAP is an unsupervised play area equipped for children of early school age (4-8 years old).
- LEAP to be located within 5 minutes walking time from every home (400m walking distance).
- An activity area of a minimum of 400m2 to be provided.
- A 20m minimum buffer zone to be created between it and the habitable room façade of dwellings. This buffer zone can include footpaths and planted areas.
- LEAP to be positioned in areas that enjoy a large degree of natural surveillance.

5. Gardens and green roofs

All dwellings within the development should include private/ communal outdoor spaces such as balconies, courtyards and gardens. Installation of green and brown roofs should also be promoted throughout the development.

New trees, grassland and shrubs should be planted where possible in private or communal gardens to supplement existing vegetation. SuDS features should be integrated into the proposed green roofs within the development. All these elements can help increasing the biodiversity of the area and maintaining continuous wildlife corridors.

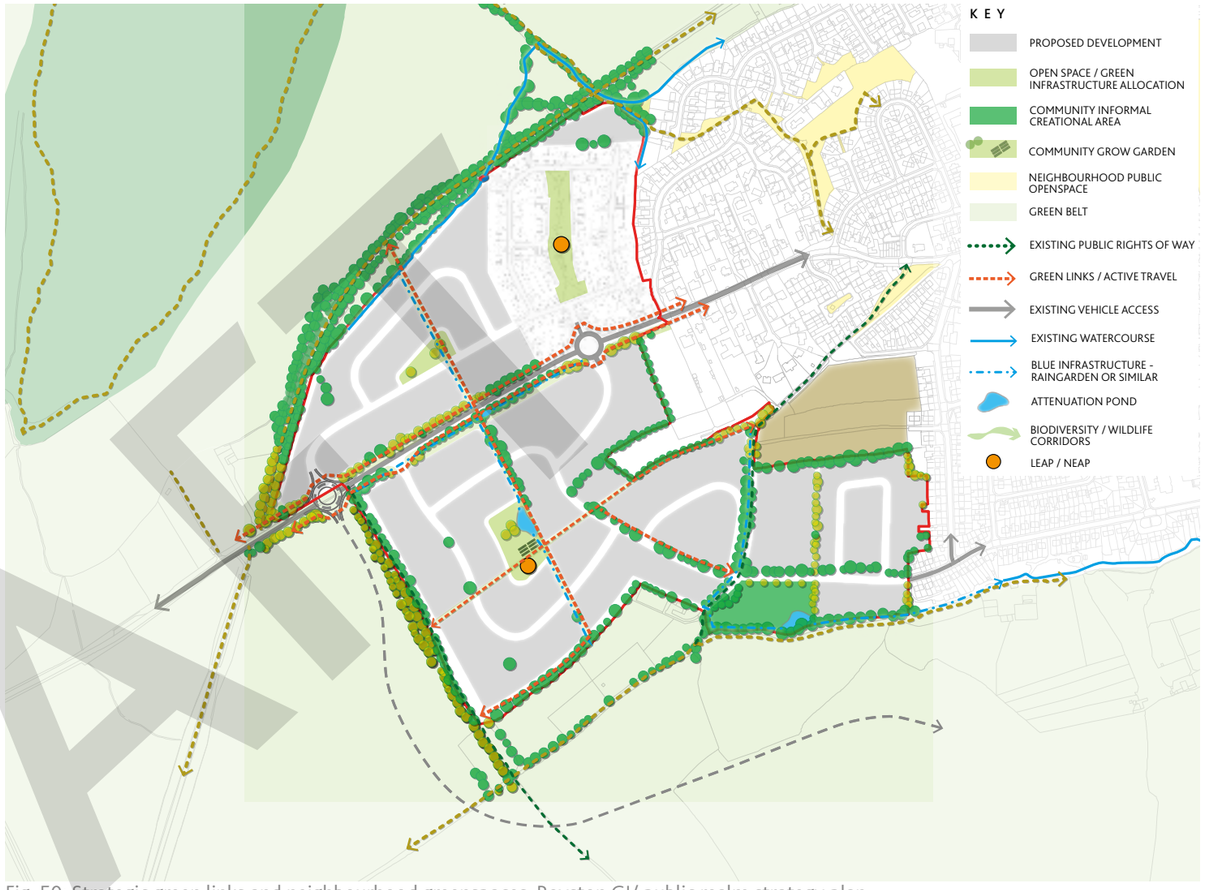

Fig. 50: Strategic green links and neighbourhood greenspaces. Royston GI/ public realm strategy plan

Informal play features in open space to allow flexible children's play and activities

Example of green equipped play area overlooked by housing - Accordia Cambridge

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6. Community Grow Garden

Together with the proposed equipped play facility, a community grow garden should be provided as part of the community offer in the central neighbourhood open space. It should connect with the existing PRoW and allotment east of the site. This is to encourage participation in food production and enhance a sense of well-being and community spirit within this new development. Managed vehicular access and cycle parking / storage area should be provided in close proximity. Management and maintenance of the existing allotment will be enhanced by a local community group to ensure security and tidiness of the area.

7. High quality public realm

A consistent approach for designing public realm within the streets and public spaces of Royston should be adopted. A robust and durable design language that draws on the characteristics of the character areas and local vernacular should be promoted. Sustainability should also be embedded where materials are sparingly used and recycled, durable and responsive to local conditions.

Design language of the public realm within the development should be consistent, and it should respond to key characteristics of the character areas within the development. It is also recommended to consider the whole life cost and embodied carbon in material choice to encourage sustainable use of natural resources, use of recycled materials and reducing quantity of materials and material waste.

Best practice guidance for inclusive design should be followed including furniture configuration which promotes accessible use by all. Materials, street furniture and lighting should require minimum maintenance to promote sustainability.

8. Lighting

The lighting strategy for Royston should promote the efficient and sustainable use of lighting in the public realm. Lighting design addresses the issues of security for vehicles and pedestrians, providing focused areas of illumination to highlight distinctive areas and features. Having lighting also enhances use of the public realm in the evenings, but should be controlled to limit light pollution and impacts on local habitat.

It is important to consider view of the night-time sky to limit or omit any light spill into the sky with design. Wildlife and sensitive habitats should be protected with lighting located to avoid disruption. For the disused railway line to the north of the site, appropriate low ground lighting for safe travelling rather than overhead lighting is recommended. Glare or light spill into private property should also be avoided.

DESIGN CODE SUMMARY - LANDSCAPE AND PUBLIC REALM

- All existing hedgerows should be retained within the site. Existing trees should be retained where possible.
- Across the development, a network of strategic green links must be provided to include active travel and biodiversity connections.
- SuDS should be implemented as part of the GI network across the development. Green and brown roofs should be implemented where possible on buildings with flat roofs.
- Two neighbourhood POS' should be provided within the site, one to the north and south of Lee Lane each. The one to the south should cover a larger area and include a NEAP/ LEAP and community grow garden.
- An Informal recreational space should be located south of the new primary school
- Residential frontages should face onto POS', informal recreational area and NEAP/ LEAP to provide natural surveillance.
- Maintenance arrangements for open space and SuDS will be required to determine planning applications.
- Consistent design language should be applied to all public realm areas across the site, and should be delivered to high quality with low carbon/ sustainable materials.
- Inclusive design should be implemented in all public realm areas.
- Appropriate lighting strategy should be considered across the development. Wildlife and sensitive habitats should be protected with lighting located to avoid disruption.

Examples of high quality and well designed public realm, neighbourhood pocket parks and grow garden

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7. DESIGN CODE

7.8 ECOLOGY AND BIODIVERSITY

The main areas of biodiversity interest are the hedgerows, tree, scrub and poor semi-improved grassland. These habitats are likely to support bats, breeding birds and badgers, as identified in the Evidence Base. The future development of the site should ensure key habitats are retained, or if lost, recreated. The following actions are required recommended to safeguard and enhance biodiversity. They will work in combination to inform future design.

Preliminary Ecological Appraisal (PEA)

A PEA will be undertaken of the site during the development of the masterplan for the site and will confirm the requirement for any further protected species surveys. This will inform design and appropriate mitigation as well as ensuring regulatory compliance and management of risk, in line with recommended guidelines and Policy BIO1 Biodiversity and Geodiversity, Barnsley Local Plan.

Biodiversity Net Gain (BNG)

BNG is an approach to development that leaves biodiversity in a better state than before. Habitat retention, enhancement and creation will be required within the scheme landscaping strategy to ensure a gain in biodiversity units post-development. Consequently, the main areas of biodiversity interest, as identified by the PEA, will be a key focus and the results of the BNG assessment will feed into the design. The BNG metric will be undertaken with regard to the good practice principles for development.

A habitat management plan will be provided to ensure the success and efficacy of mitigation. This will include planting at appropriate times of year to ensure successful establishment and growth. Species selected for planting will be native and of local provenance, where suitable. Any non-native species utilised will, where possible, provide a nectar resource for invertebrates. Flowering plants will provide sequential foraging resources throughout the year. Consultation must be sought from a suitably qualified ecologist to support the integration of ecological mitigation within the site design.

DESIGN CODE SUMMARY - ECOLOGY AND BIODIVERSITY

- Development is expected to achieve 10 per cent biodiversity net gain. This should be provided on site
- Mature hedge rows as defined in the local plan should be retained and enhanced. Where appropriate these should be included within the openspace network to provide wildlife corridors that are not blocked by boundary treatments.
- Mature trees should be retained as part of the openspace network to provide habitat and "Stop off" points for wildlife passing through.
- A number of trees and hedgerows are likely to merit retention in there own right and not just due to associations with other considerations and that all the trees and hedges will need to be properly assessed and the findings reflected in the final proposals put forward at the application stage with regards to proposed retention and removals.
- A Maintenance and Management plan shall be provided for the openspace and SuDS.

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7. DESIGN CODE

7.9 PARKING AND ACCESSIBILITY

This design principle ensures sufficient resident and visitor parking that are well integrated in the neighbourhoods, so that cars should not dominate the streets and it should be easy to find your way around within the development.

1.1 Policy compliance

The Parking SPD (2019) provides guidance in relation to the level of car parking, including disabled parking, for development land uses. These maximum levels must be adhered to. Disabled parking design standards are also specified. The level of car parking provision will be agreed with BMBC through the planning process.
In addition, the Parking SPD sets out that for 30mph streets any parking should be longitudinal, for 20mph streets parking can be longitudinal, echelon or at right angles. The car parking provision will comprise a mix of curtilage and on street parking to break up the linear nature of street design and act to reduce vehicle speeds.

1.2 On street parking

On street parking should be incorporated in areas around the local shop or around mid-terrace dwellings within the development. Street trees and SuDS plantings can prevent the streets from being dominated by cars. With tree planting and material changes the proposed street parking can make for a better street scene. This type of parking also allows for larger distances between the dwelling and road margin or the creation of tighter street frontage in certain areas.

1.3 On plot parking

Parking to the side of plots is a practical way of creating front gardens and distance between plots, usually allowing space for up to two cars. It also allows the properties to be brought forward to create a formal street, potentially broken up by a boundary treatment or planting.

1.4 Integral parking

Proposed dwellings in neighbourhoods of lower density may include integral garages, in which the drive will be running up to the house frontage, although this house type does not follow examples in the area it can densify a residential parcel due to its width and therefore create a fuller street scene; certain lower density areas within the development could respond well to this.

1.5 Electric Vehicle Charging

Electric Vehicle charging provision should be made for all dwellings. The Sustainable Travel SPD sets out the minimum requirements for charging points which will be required and must be adhered to. Additional charging points for visitors should be provided, at a level to be agreed with BMBC though the planning process.

1.6 Cycle parking

Secure covered cycle parking should be provided for all dwellings and for school students and staff. The Parking SPD sets out the minimum cycle parking requirements. In addition, short stay cycle parking provision will be made within the community hub and local shop areas. The level of cycle parking across the site will be agreed with BMBC through the planning process.

Designated off street parking area for mixed use local centres in Royston

Example of on plot parking and landscaped strips for privacy

Example of dwellings with well designed integral parking space

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2. Legibility and wayfinding

When places are legible and well signposted, they are easier for the public to comprehend and likely to both function well and be pleasant to live in or visit. It is easier for people to orientate themselves when the routes are direct, visual articulations and landmarks can also emphasise the hierarchy of the place.

The Royston development should have a clear and straight forward urban layout, enabling residents and visitors to easily navigate to where they live, work and play. It should contain memorable and recognisable landmark buildings, places and open spaces. Landmarks, gateways and focal points should be clearly identified in order to create visual links, and a clear hierarchy should be established between places. The street network and active travel routes should be direct and easy to navigate.

Residential areas should be designed around a series of nodal points, and variety in the types of articulations should help them to be more memorable. Landmarks should be created around gateways and key open spaces by using taller buildings/ structures and distinctive architectural elements.

The quality of signage for the new primary school and local shop should contribute to the identity and legibility of the areas.

Artwork can also be used throughout Royston to help create distinctive character areas. Community buildings such as a new primary school and a new small, local convenience retail facility should emphasise the identity of the area and create focus for community engagement.

A clear wayfinding system should be established throughout the whole development, especially along the key multi-user active travel routes and linking with existing PRoWs around the site to promote security and legibility. A range of signposts and public realm elements such as street furniture and lampposts should be introduced.

DESIGN CODE SUMMARY - PARKING AND ACCESSIBILITY

- Parking provision across the development should be compliant with the Parking SPD (2019).
- A range of parking provisions including on street and on plot should be considered across the development. Density and street scenes should be considered when designing parking for residential blocks.
- Electric vehicle charging provision should be made for all dwellings. Additional charging points for visitors to be agreed with BMBC.
- Secure covered cycle parking should be provided for all dwellings and school students and staff. Short stay cycle parking should be provided in the community hub and local shop areas.
- Public art can form part of the way-finding strategy providing identifiable locations throughout the development.
- A strategy for wayfinding signage shall be produced and implemented by developers and in line with any planning conditions imposed by BMBC.

Various examples of well designed signposts

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