NORTH EAST KGV

5.0

PROPOSALS AND DESIGN

5.1 Illustrative Masterplan - Site A

5.1.1 The Proposed Development

The information contained within this chapter is for illustrative purposes only. The Illustrative masterplan is based on the Site appraisal and design evolution outlined in chapters 2 & 3 and will inform the content of the parameter plans outlined later in this document.

Use

The proposed use for Site A is residential (C3). Site B is proposed for a change of use from agricultural land to an extension of King George V playing fields.

Amount

The number of dwellings applied for is up to 121 and the illustrative layout reflects this figure. The proposed density for the site at 121 dwellings is 25 dwellings per hectare.

Scale

The scale of the proposed development is appropriate for the site as it respects and reflects the existing residential buildings in the surrounding area. The majority of the buildings across the site will be 2 to 2.5 storeys, with heights restricted to 2 storeys along the northern boundary, which is adjacent to existing residential buildings and also the higher part of the site. The maximum heights have been set out on the Storey heights Parameter Plan in Section 6.

Layout

The main features of the illustrative layout are:

1. Vehicle entrance to site
2. Existing building line to north of site maintained
3. Apartment blocks at 2.5 storeys high
4. Parking courts serving apartments
5. Pedestrian access from site to public car park
6. Tree lined avenue
7. Pedestrian friendly ‘green’ route linking South Drive with King George V playing fields
8. Open space to respect existing building to north overlooking site
9. Apartment blocks at 2.5 storeys high providing focal point in layout
10. ‘Lower’ road with frontage from houses towards public footpath
11. Open space at upper level with potential for new planting to screen buildings
12. Pedestrian routes providing access to surrounding open space
13. Areas for potential inclusion of Sustainable Urban Drainage system
14. Public open space
15. Attenuation pond with ecological features

5.2 Illustrative Tenure

In accordance with Council policy, up to 30% of the units would be provided as Affordable housing.

The units would be designed ‘tenure blind’ and could be spread across the site to avoid concentration of social housing.

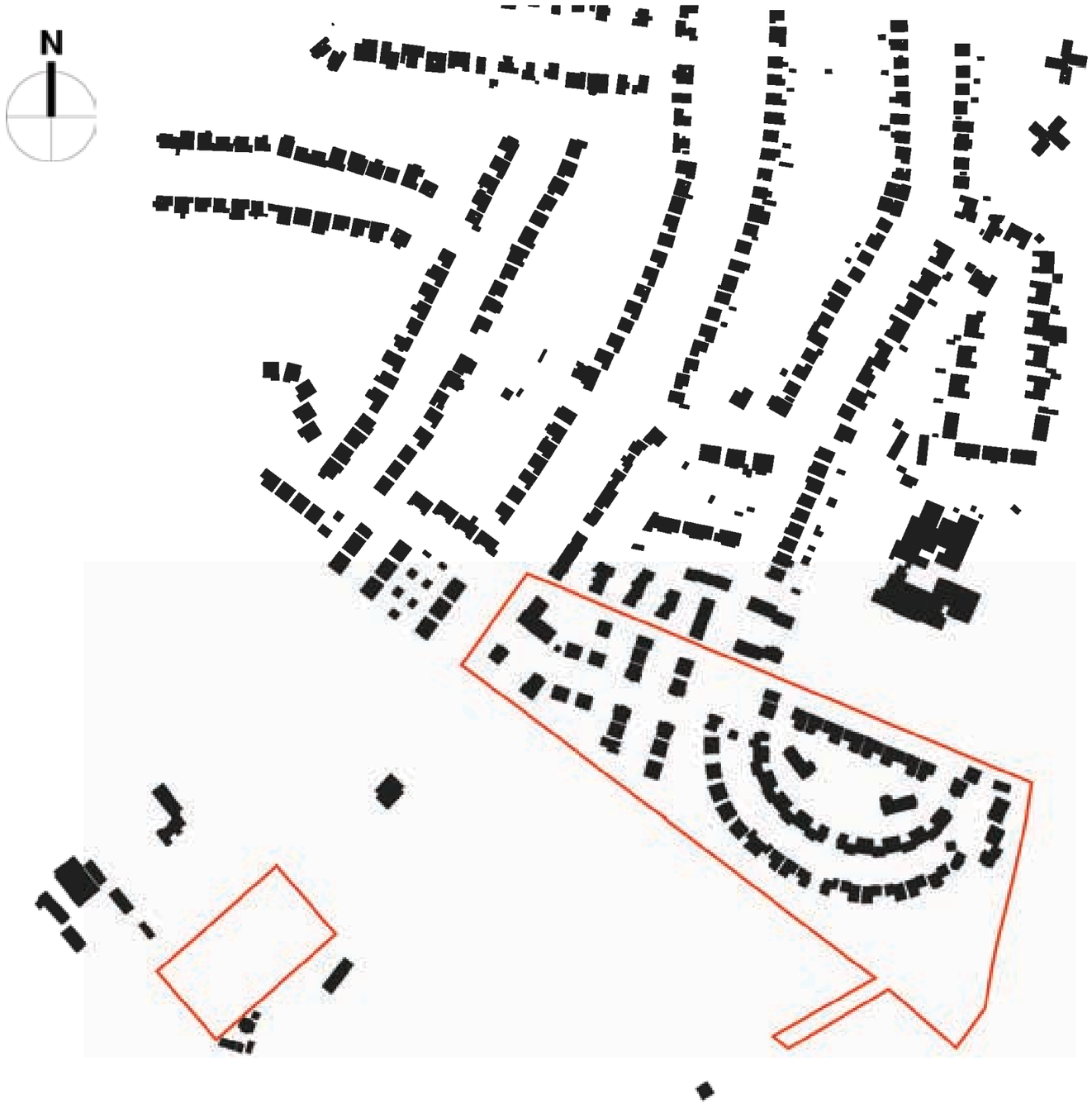
Allocation of affordable units could be spread across the site to promote ‘pepper potting’ and resist concentration in one area.

5.3.1 Illustrative Development Pattern

The figure ground diagram of the south of Cuffley shows a clear pattern to the surrounding urban grain, with Northaw Road East, Theobald's Road and Burleigh Way all running north-south with properties aligning these roads provided with east-west aspect.

The western half of the illustrative layout seeks to extend this grain into the site with buildings set out north-south perpendicular to the spine road running through the centre of the scheme.

The eastern half of the layout then makes a clear attempt to provide a softer rural edge to the settlement, with a formal line of buildings to the north providing a secure boundary to the Primary School and then a curved frontage facing onto the open fields and landscape to the south.



5.3.2 Hierarchy of Routes

The internal layout has been designed to promote sustainable travel choices while maintaining vehicular access to each unit within the Site. Each route will have footways and will be suitable for cyclists due to the low volume of traffic.

The development provides an attractive pedestrian route from the King George V Playing Fields car park through the Site to South Drive. There will also be a pedestrian route through the Site from South Drive to the playing fields.

The street network is made up of a hierarchy of streets to create a permeable and legible layout which is attractive to all users.

The provision of footpaths aligning the street network reflects the spaces and plot distribution for each area of the illustrative layout.

5.3.3 Active Frontage

Key principles of the illustrative framework is to provide active frontage from dwellings facing onto all key streets and spaces.

The perimeter block approach has been adopted with corner buildings providing aspect to both sides and attempts to limit the amount of visible boundaries.

Focal buildings have been placed around the site to provide visual markers along key routes and promote wayfinding through the site.

An illustrative example of where these focal buildings could be is shown below.

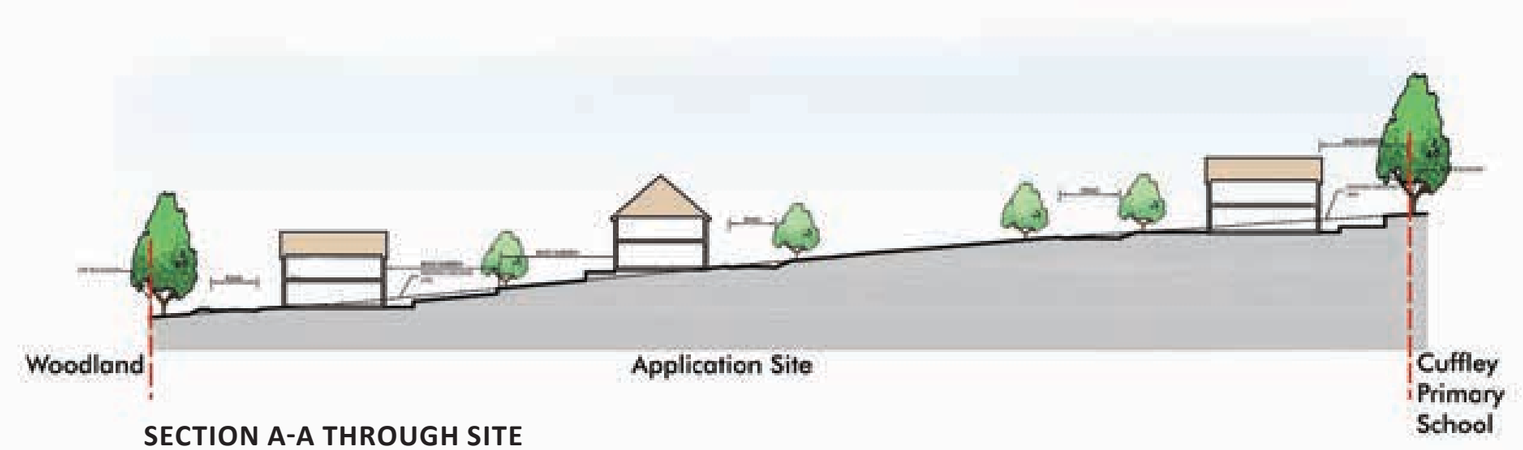
5.3.4 Topography

To mitigate the changes in levels across the site, Vectos (LIH's appointed Highways Engineers) have designed the entrance junction to ensure road gradients entering the site are to approved standards and meet existing site levels as quickly as possible.

In the eastern half of the site, where the level change is greater, the layout could be designed to accommodate 'lower' and 'upper' roads. The difference in level between these roads, roughly 3-4m, could be mitigated by small 1m retaining walls in rear gardens and between properties, as demonstrated by a section through the site.

Building heights have been indicated at 2 or 2.5 storeys in height. Due to the topography the main constraint is height, and therefore restricting development to 2 storeys, at the higher points of the site.

An illustrative example of how this could be achieved is shown on the right.



SECTION A-A THROUGH SITE

5.3.5 Open Space

Key to the illustrative masterplan is the integration of new built form with open space and green routes.

0.5 hectares of open space is required to serve the development. It should be provided in the following way in order to protect views from the Green Belt and to provide high quality amenity spaces.

Principles influencing the location and provisions of open space are as follows;

- Green frontage along Northaw Road East
- Secure boundary to southern edge where wooded
- Green fingers from countryside into site
- Open boundary to southern edge where openings are apparent.

PLAY STRATEGY

The play strategy for the development is to augment the existing play facilities in the existing recreation ground to the south of the proposed housing development. Contributions will be made for the provision of additional play equipment.

In addition an area of agricultural land to the south-west of the existing fields will be given over to the King George V recreation ground. The extension of the recreation ground will provide enough space for an additional junior pitch or the expansion of other sporting provision within the recreation ground in the future.

5.4 Illustrative Landscape Plan (Site)

Within the proposed development, new links have been created to link the new housing to the Hertfordshire Way – an existing public right of way to the south of the site. In addition new permissive routes would be created within the recreation ground and the arable field to the south of the site, to allow improved pedestrian links to the wider footpath network and create new routes for local dog walkers. These new permissive routes would link into Chain Walk, a public right of way to the west of the site and would provide additional links to the Hertfordshire Way, which links to an extensive footpath network to the east of the site.

KEY

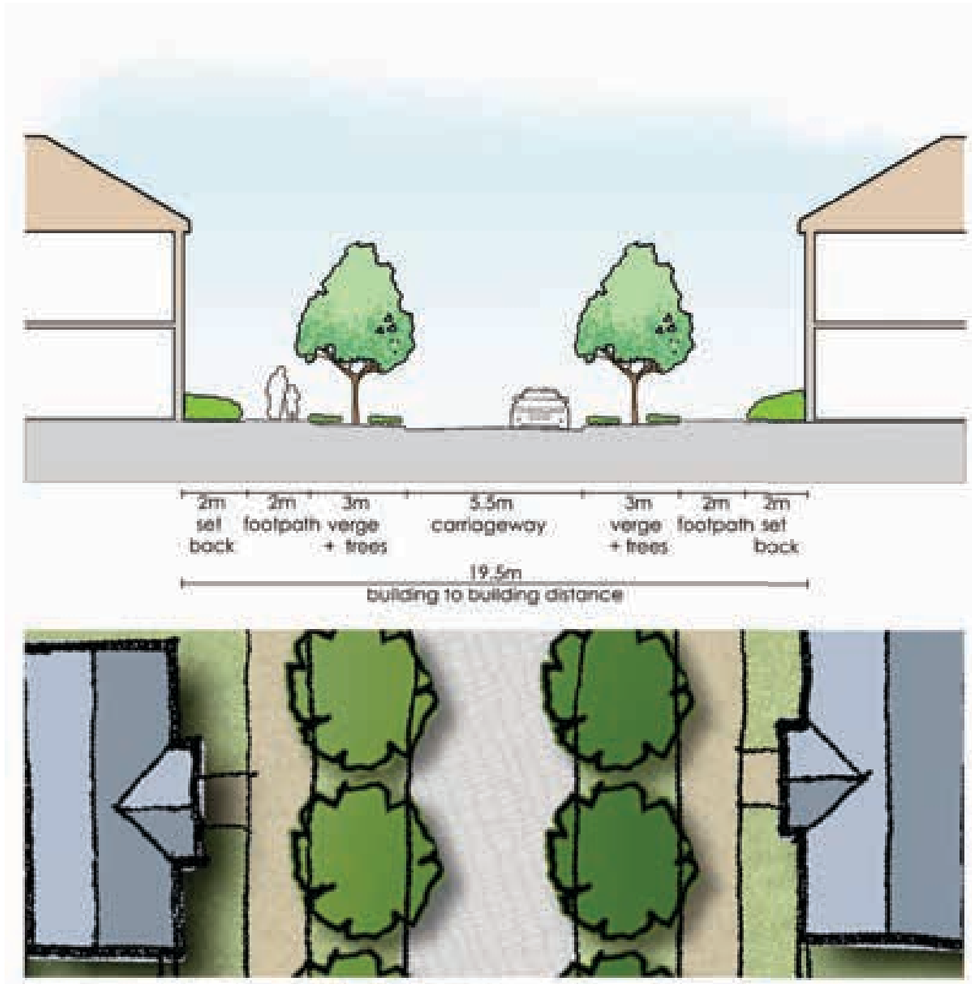
- Red Line Boundary
- Existing trees to be retained
- Existing scrub to be retained
- Existing hedgerow to be retained
- Proposed native woodland trees
- Proposed street trees and structural planting
- Proposed native scrub planting within open space
- Proposed rough grassland and wildflower grassland
- Proposed amenity grassland
- Proposed wetland and marginal planting to water features
- Garden boundaries eg. hedges & tree planting within gardens
- Ornamental shrub / groundcover / herbaceous & bulb planting (NB Only larger planting beds are illustrated. Additional areas would be located to built frontages and alongside grass verges)
- Existing definitive right of way
- Proposed permissive paths
- School link

NOTE: The plan is illustrative only

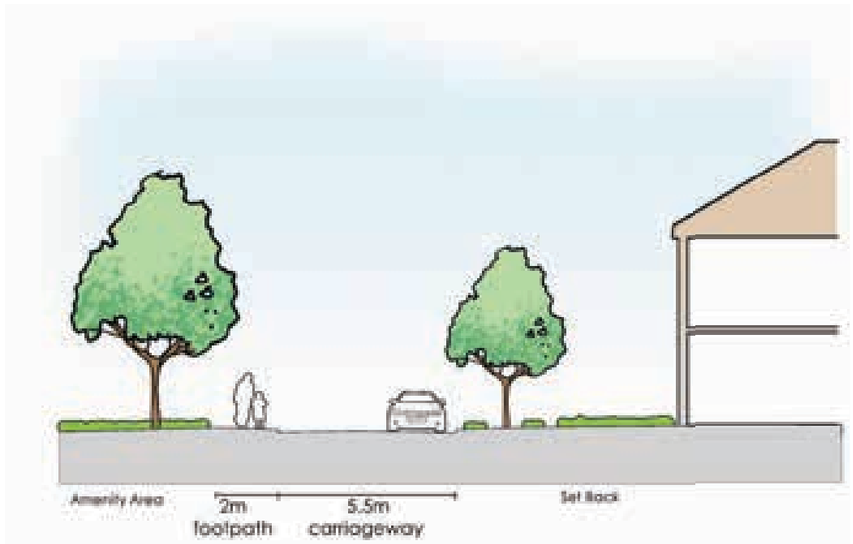
5.5.1 Illustrative Sections - Street Typology

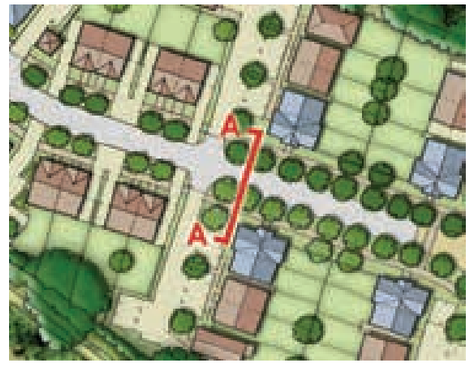
Where the differing road types are used on the Illustrative layout the following general principles shall apply;

BOULEVARD - This section is across the main spine road into the site. The street width allows for a tree lined boulevard stretching into the centre of the site.



UPPER SECONDARY ROAD – buildings should be set back from the road to allow for a strong green edge and introduction of trees.



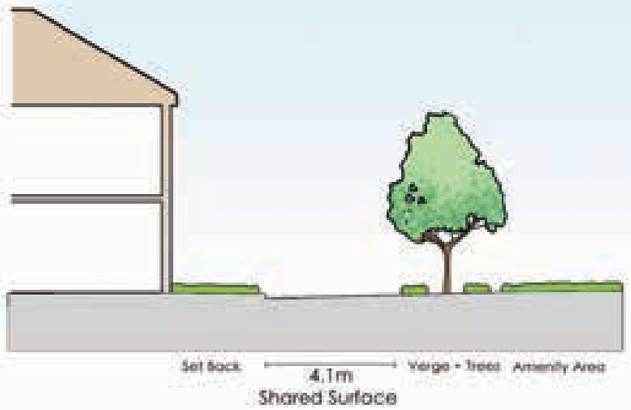


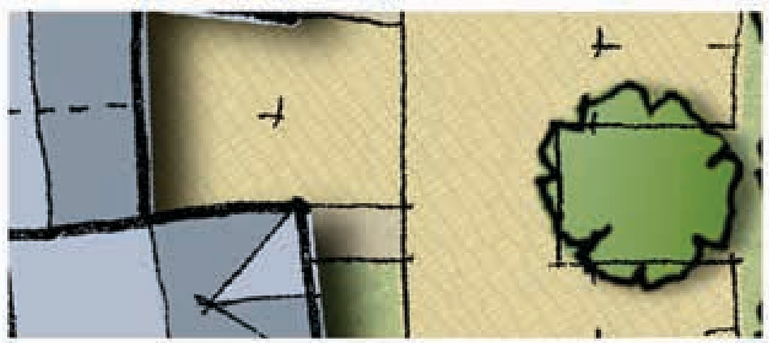
BOULEVARD KEY PLAN

UPPER SECONDARY ROAD KEY PLAN

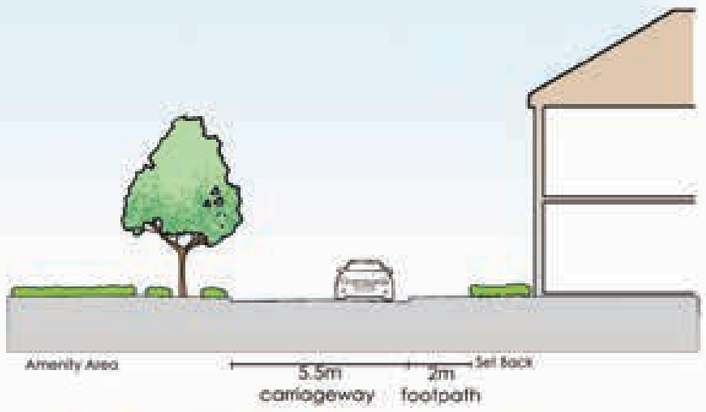
5.5.1 Illustrative Sections - Street Typology

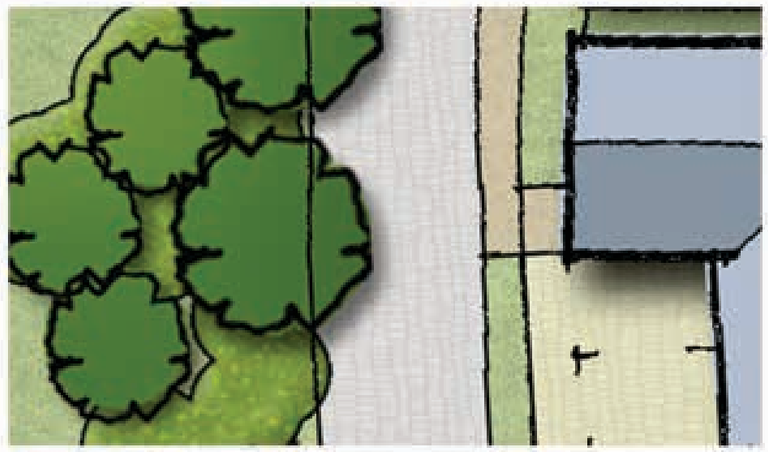
SHARED SURFACE – a shared surface approach can be adopted to soften the junction between road and green space.

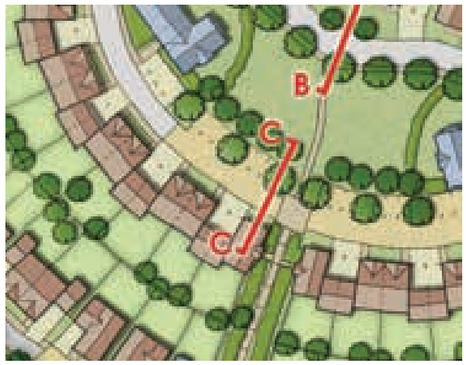




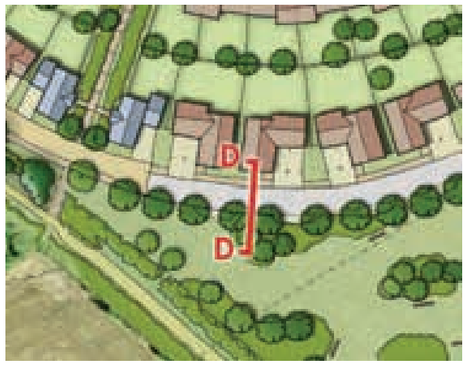
LOWER SECONDARY ROAD - a shared surface could be adopted to soften the impact of the road in this sensitive area.







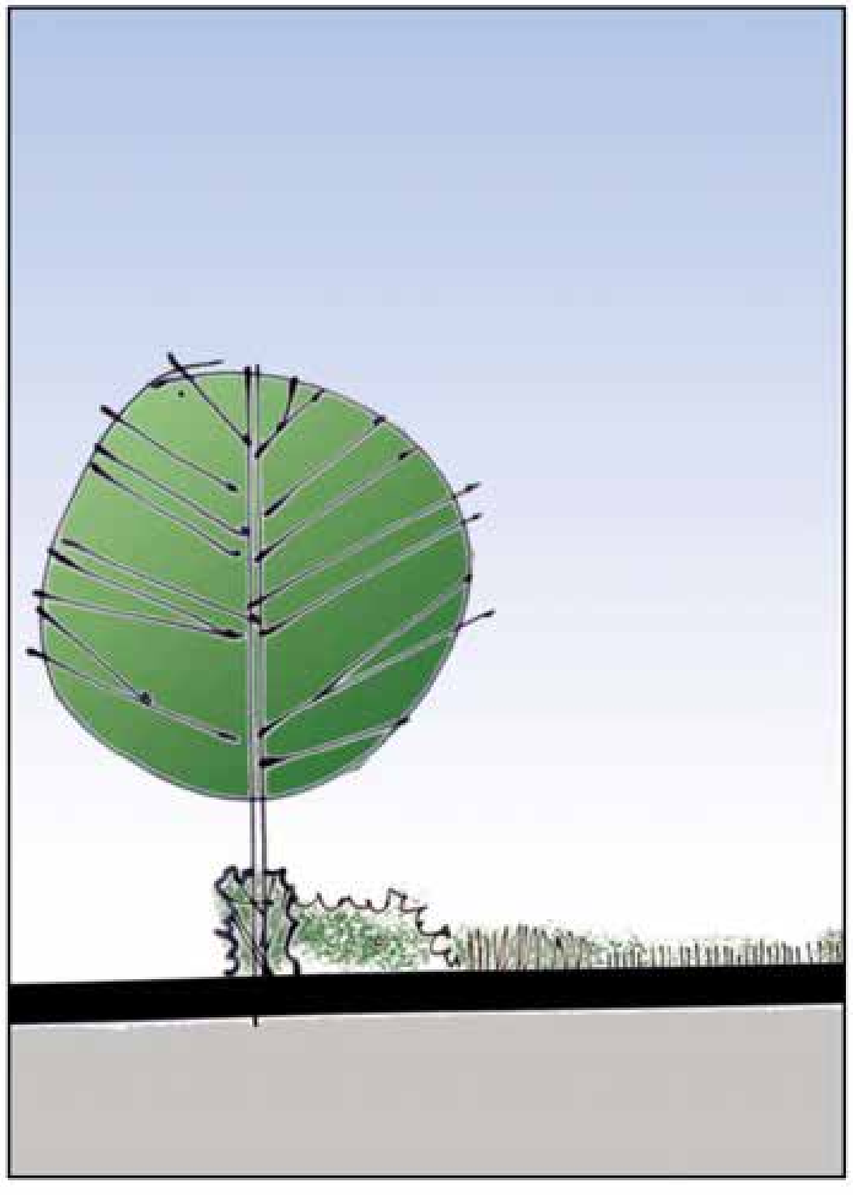
SHARED SURFACE KEY PLAN



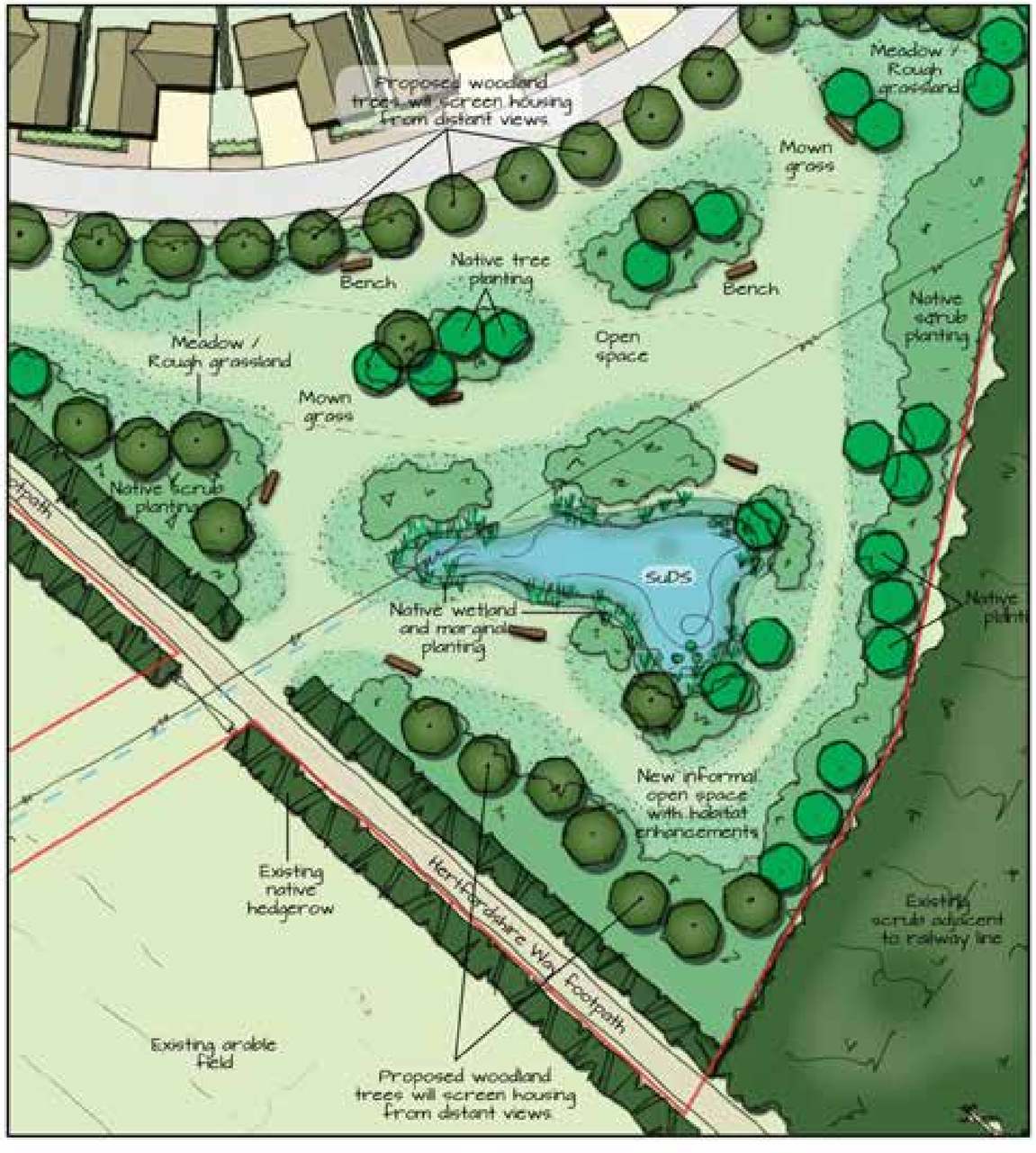
RURAL EDGE KEY PLAN

5.5.2 Landscape Sections

Typical Section Illustrating a gradation of habitats from tree/hedge planting, scrub, rough grass, meadow grass, amenity grass.

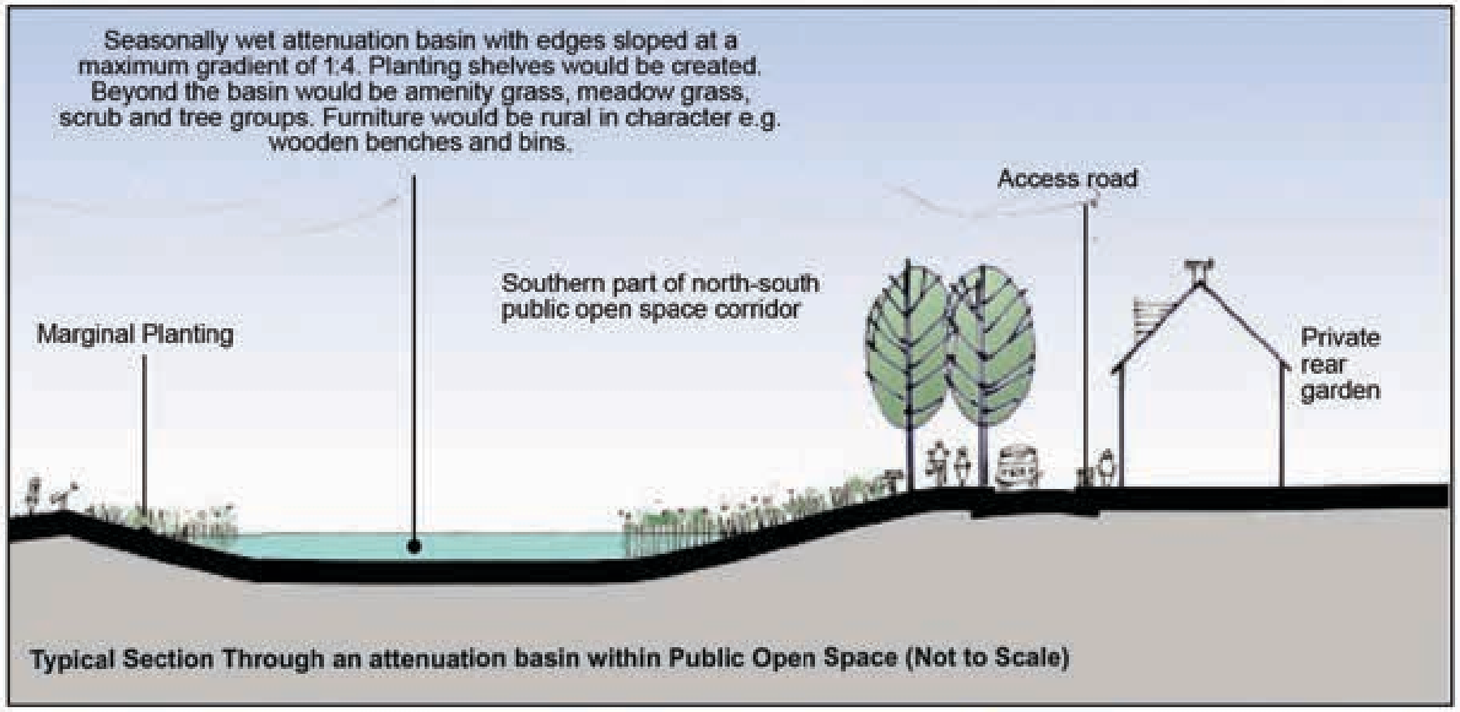


Illustrative Plan of south-eastern open space



5.5.2 Landscape Sections

Balancing Ponds and Adjacent Planting



Typical Section Through an attenuation basin within Public Open Space (Not to Scale)

- Ponds: Banks would be graded at a maximum of 1:4 to aid management and prevent accidents.
- Ponds: Aquatic shelves would be created within the banks and be planted with marginal plants
- To pond edges a wetland wildflower mix would be used
- Interpretation boards to explain flora and fauna associated with water features.
- Grading up from the pond edges there would be a change in habitat from grasses to scrub to tree planting.
- Plant species would be native and of local provenance where possible.

5.6 Appearance - Philosophy

With a scheme of this size it is important that the residents can identify with their immediate neighbourhood.

Primarily, the character of an area will be defined by the site topography and the layout, streets, squares, boulevards, the views out to open space or woodland will all contribute to the creation of a sense of place. This can then be reinforced by the design of the buildings themselves so that they will evolve within a framework, set primarily by the layout.

Adjacent are a number of photographs of the approach to the design of the scheme as proposed, which include key focal buildings, dwellings facing out onto surrounding open space and landscaped areas and clearly identifiable features for the buildings which enhance the street typology.

Our objective in this section is to identify characteristics for the buildings from the local vernacular which can then inform the architecture and seek to provide a realistic approach to the design if the new development which will provide for a holistic approach to the design code for the development.

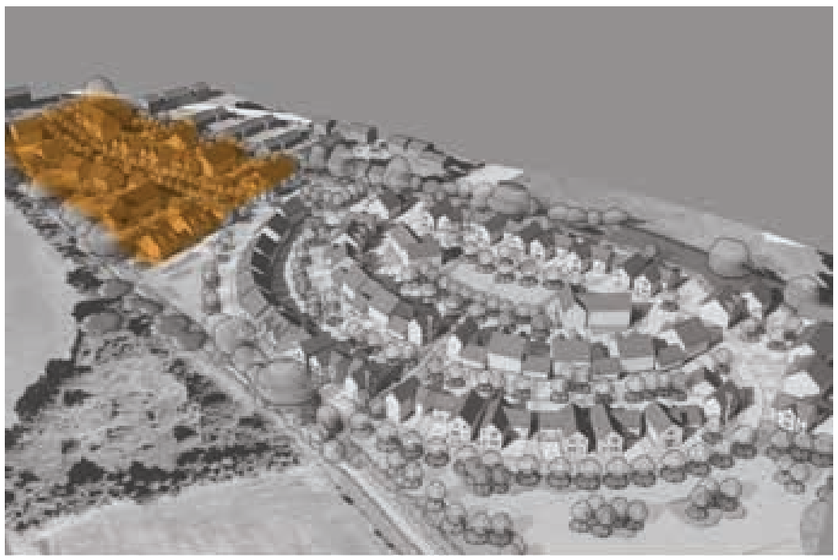
5.6.2 Character Areas

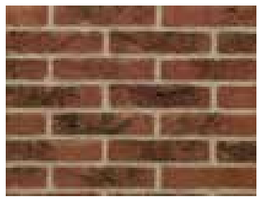
Rather than split the development into distinct character areas, a holistic design approach is proposed with building and landscape design that seeks to tie the development together, whilst recognising that due to the differing layout pattern to the east and west of the site there will be subtle differences to the character of place in these two areas.

AREA 1 – SOUTH BOULEVARD

A holistic design approach is proposed with building and landscape design that seeks to tie the development together, whilst recognising that due to the differing layout pattern to the east and west of the illustrative layout, there will be subtle differences to the character of place in these areas.

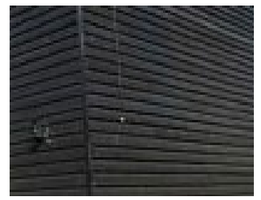
The western half of the site encompassing the entrance to the development could be known as the South Boulevard. The tree-lined spine road running from the entrance to the centre of the scheme will be overlooked with gable fronted houses, using materials local to Cuffley, such as red brick and tile hanging, with a feature material of boarding on focal buildings in prominent locations.



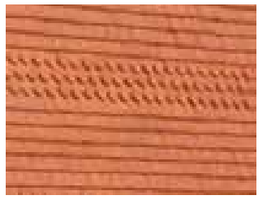


Red stock brick

Off white render



Horizontal feather edged boarding



Vertical tile hanging

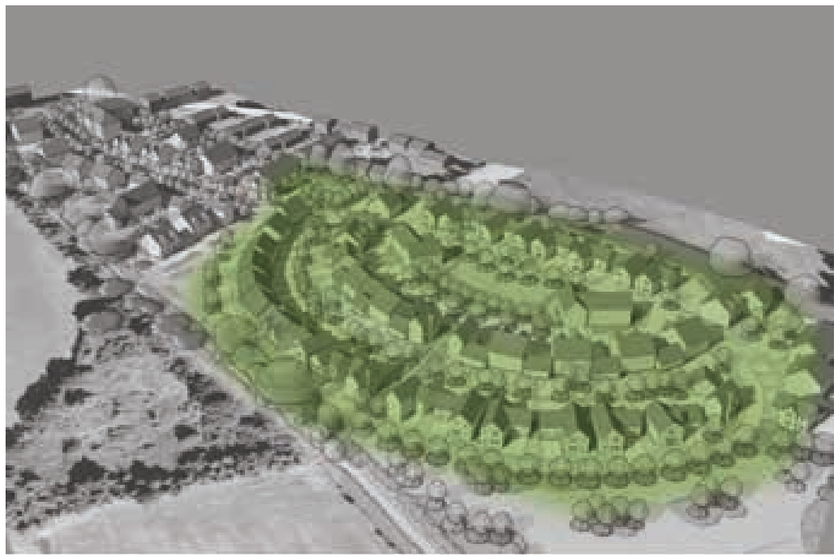
Plain red roof tile / Simulated slate roof tile

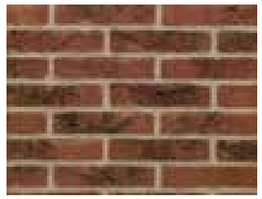
5.6.2 Character Areas

AREA 2 – RURAL FRINGE

The eastern half of the site could be known as the Rural Fringe, with its location overlooking the countryside to the south and the lower density nature of this area. Houses could incorporate gables or terraces overlooking the public open space within the site and public footpath to the south, with 'softer' materials proposed such as off-white render and an increased use of boarding.

The main material proposed for the roofs would be red clay tile, with slate effect used sparingly on buildings in prominent locations as a feature.

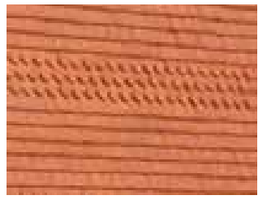




Red stock brick

Off white render

Horizontal feather edged boarding



Vertical tile hanging

Plain red roof tile / Simulated slate roof tile

5.6.3 Materials and Detailing

Examples of features that can provide queues for the proposed style of architecture on the new development are apparent in the older buildings of Cuffley. Commonly used materials in these areas are red brick and render, either used separately or in combination, and red clay tiles to roofs. Buildings are given symmetry whether they are detached or semi-detached, and features such as corner windows, catslide roofs, large window openings, dormer windows and casement windows are readily apparent.

Steep pitched gables to historic housing

Catslide roofs

Dormer windows serving rooms within roof space

Shallow pitched roofs to new housing

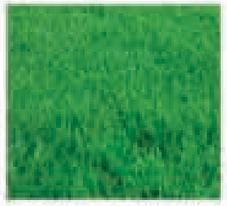
Tudor boarding on historic housing

Brick detailing

5.6.4 Surface Materials

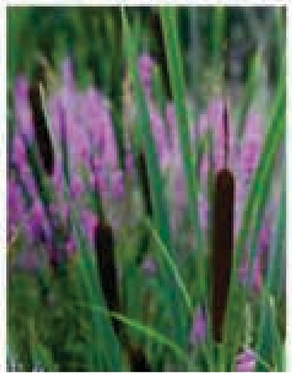






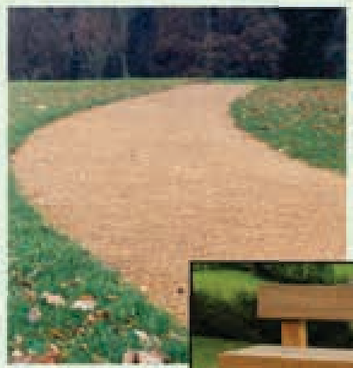





Categories:

- Pedestrian routes and footpaths
- Street furniture and lighting
- Planting

5.6.5 Illustrative Soft Landscape Strategy

Open spaces	*Planting Design Principles*	*Precedent Images*
Central Space	• Use of ornamental species. • Trees, shrubs and grasses form a visually attractive landscape. • Incorporate timber street furniture. • Incorporate safe and effective pedestrian routes accross the open space from south to north. • Space overlooked by dwellings. • Incorporate large scale trees ion higher ground to create a layered screening effect to the proposed development.	
North-South Corridor	• Use of ornamental and native species • Trees, shrubs and grasses form a variety of habitats and a visually attractive landscape. • Incorporate timber street furniture. • Incorporate safe and effective pedestrian and cycling routes accross the main Site junction. These would be lined with areas of grass, shrubs and trees and be appropriately lit. • Attenuation pond incorporated. • Space overlooked by dwellings.	  
South East Section	• Retain and enhance existing habitats. • Wildflower meadow established beneath trees with grass paths mown through • To open space edges - meadow grass would grade to rough grass, scrub and hedgerows with some tree planting in informal groupings. • Use of native species. • Trees should include a diverse range of species and provide allyear interest. • Provide bird and bat boxes and habitat piles. • Timber benches and bins. .	

5.6.5 Illustrative Soft Landscape Strategy

Entrance and Streets	*Planting Design Principles*	*Precedent Images*
Entrance & Main Access into the Site	• Strong line of good avenue trees with good even form and 3m clear stem along main access route • Relatively narrow form to suit street environment. A single species should be selected to form a visually strong entrance route.	
Streets off the Main Access and Parking Areas	• Generally street trees to be selected for their upright and regular form and for their being suited to a streetscape. • Trees to be located an appropriate distance from buildings. • Trees and shrubs to be ornamental, with seasonal interest. • Street furniture kept to a minimum and carefully placed to avoid 'clutter'.	
Boundary treatment to the site	• Retain and enhance existing boundary vegetation. The southern edge of the Site would be protected as a bat corridor. • Fill gaps in the northern boundary vegetation with native evergreen species (e.g. holly), to protect the visual amenity of residents to the north. • Enhance the vegetated boundaries to the south and east with new native tree and shrub planting. To include some larger native tree species e.g. Oak. This would soften development edge and at maturity would screen the development from rural views beyond site to the south and west. • Where space allows have a graduation of habitats from the wooded buffer: scrub and grasses. • To southern edge of Site, connections would be made to the existing footpaths and to proposed permissive paths.	

NORTH EAST KGV

6.0

PARAMETER PLANS

6.3 Parameter Plans - Land Use

Planning Application Boundary

Main Access Zone
(20m wide containing road)

Residential Use including Suds, Open Space, Roads and associated infrastructure

Open Space / Amenity Land including buffer, Landscaping & Suds

6.1 Parameter Plans - Storey Heights

Red Line Boundary

Building Heights Up To

Up to 2 Storeys - 3m minimum to 10m maximum ridge height above adjacent ground level (+0.5m)

Up to 2.5 Storeys - 3m minimum to 13m maximum ridge height above adjacent ground level (+0.5m)

6.2 Parameter Plans - Green Infrastructure

Red Line Boundary

Main Access Zone
(20m wide containing road)

Existing and Reinforced buffer zone

Open Space / Amenity Land

Existing Trees with root protection areas

Tree from Topographical survey

6.4 Proposed Levels Plan

Planning Application Boundary

FFL 64.00 Finish Floor Level : +/- 0.5m

+ 64.00 Road Level : +/- 0.5m

64.00 Existing Contour

NORTH EAST KGV

7.0

TECHNICAL ASSESSMENT

7.1 Access and Transport

Public transport accessibility to the Site is provided by a bus stop directly outside the Site on Northaw Road East. Bus routes 242 & 312 stop here which provide access to Welwyn Garden City, Potters Bar and Hatfield. Cuffley Railway station is located 0.8 mile (10 minute walk) from the Site, and provides a stopping service to central London terminating at Moorgate, and also stations to the north terminating at Hertford North and Letchworth Garden City.

Once within the site, road and footpath levels should be designed to ensure that no gradient is greater than 1 in 20, therefore providing level access to all parts of the site. Any footpath links between upper and lower levels could have steps to navigate a steeper gradient, however level access to all areas of the site should be available via the loop road and adjacent footpath.

Access between footpaths and parking spaces to front doors will be in full accordance with Building Regulations Part M, and internally all the external spaces serving dwellings will be designed to accommodate ambulant disabled and wheelchair access with ramps to meet those requirements.

Driveways should be wide enough to accommodate cars with doors open to enable a wheelchair user to disembark.

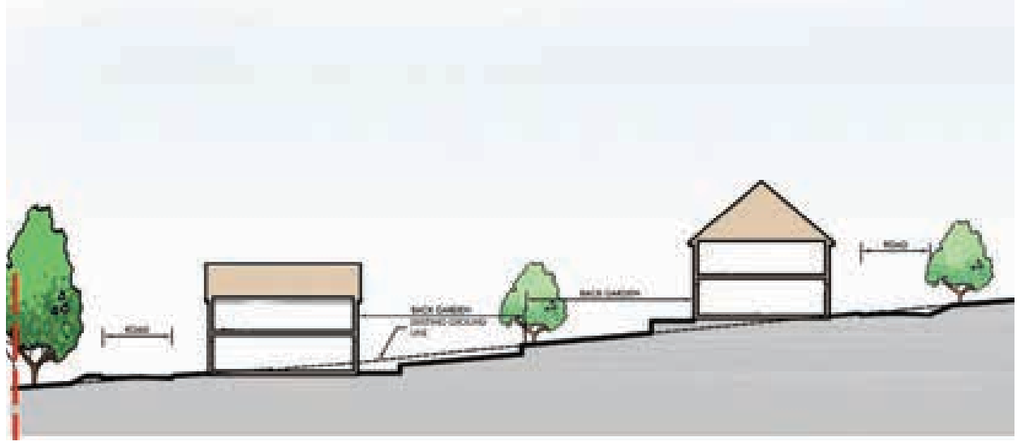
7.2 Planning Policy Compliance

BUILDING PLACEMENT

The Council does not have prescribed standards in terms of maintaining amenity levels between neighbouring properties.

A general approach has therefore been adopted in line with Case Officer guidance that direct overlooking between properties in close proximity is avoided. The majority of houses on the development are proposed to be 2 storeys, and as such a general rule of 20 metres back to back has been proposed.

Where the ground levels drop and the back to back relationship is affected by one property being higher than the other, this dimension has been extended to account for increased potential of visibility.



GARDEN SIZES AND AMENITY STANDARDS

The Council's 2005 SPD does not have prescribed standards regarding Amenity provision. It is therefore proposed that all homes are in accordance with general guidance and will have access to private open space.

For flats this will be provided by way of communal garden space clearly segregated from public areas (by either landscaped or physical boundaries), and in some locations private balconies or terraces.

For all houses, private rear gardens are provided and are generally proportionate to the dwelling size, however many units are also in very close proximity to areas of open space that can further serve the occupants.

As a rule a minimum depth of 10 metres has been proposed for gardens.

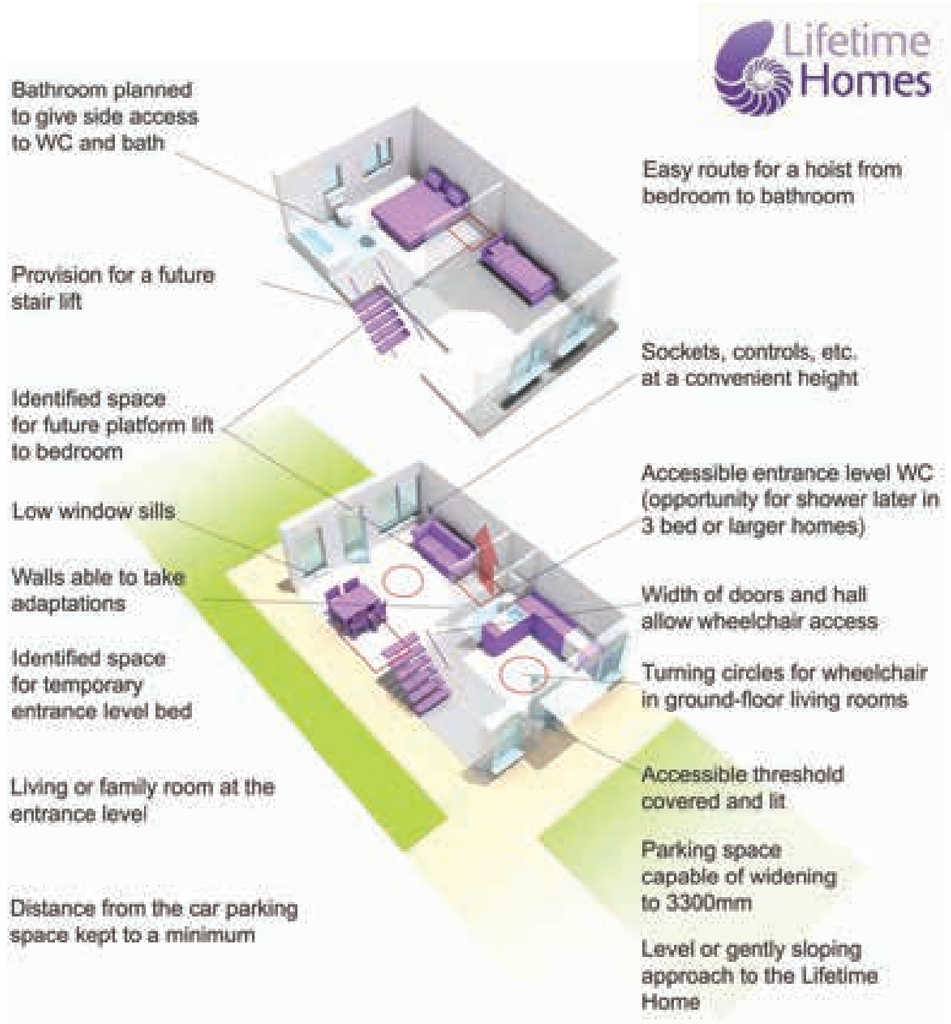
7.2 Planning Policy Compliance

INTERNAL SPACE STANDARDS

The Council do not have prescribed standards regarding internal space for dwellings. Affordable units will be designed to meet minimum HQI standards, and private units will be designed to ensure all relevant furniture and usable space can be accommodated within each habitable room.

LIFETIME HOMES STANDARDS

In line with the Council's Planning Obligations Toolkit a proportion affordable dwellings would be design to Lifetime Homes Standards; this would then ensure that the Council's Policy H10 is also addressed regarding the provision of an undefined proportion of the new dwellings to Lifetime Homes Standards.



7.3 Parking

Parking will be provided for all residential units in line with the Council's maximum demand-based car parking standards contained with Appendix A of the District Plan Review – Car Parking Standards (January 2004), stipulated as follows:

C3 Residential Use Class:

1 Bed Dwellings	-	1.25 spaces per dwelling
2 Bed Dwellings	-	1.5 spaces per dwelling
3 Bed Dwellings	-	2.25 spaces per dwelling
4+ Bed Dwellings	-	3 spaces per dwelling

At its meeting on 14 August 2014, the Cabinet Housing and Planning Panel agreed to treat all car parking standards as guidelines rather than maximums. This has been taken into account as part of the preparation of the illustrative layout which provides parking provision higher than the standard set out above.

The illustrative layout proposed that parking is located away from main routes around the site but still well overlooked.

Flat blocks have parking courts to their rear and houses are served generally by on-plot spaces or small parking courtyards.

7.4 Refuse and Recycling

A service strategy has been outlined for the illustrative masterplan which demonstrates how a refuse vehicle could navigate the development and ensure all proposed dwellings could be adequately serviced for refuse and recycling collection.

The adjacent diagram illustrates how the refuse vehicle can move around the illustrative masterplan and shows potential refuse collection points, where roadside collection is not achievable, and how a maximum drag distance of 25 metres between these points and the refuse vehicle has been provided.

In line with the Local Authority's Planning Obligations SPD, bins would be provided to meet table 3 regarding 'Provision of Waste and Recycling Bins', as follows:

	Waste and recycling bins to be provided
House or flat (flat with space/ storage for individual bins)	Household waste bin Compost bin Recycling bin
Flats/dwellings with shared bin store area	In flatted developments the council require a combination of the following refuse and recycling bins: **Refuse:** Either 1100 litre containers or alternatively we also offer 180, 240 or 360 litre bins, depending on the size of the development, access to recycling facilities and the likely recycling rates, as assessed by the council. **Recycling:** As a standard, two 360 litre bins on a lockable frame are provided, but again this is dependant on the size of the development. In some cases however residents could be provided with 240 litre bins for recycling and composting depending on the nature of the development. Developers will be advised of the exact numbers of bins/ bin specification they will need to provide as part of pre-application discussions.

7.5 Crime Prevention and Community Safety

NATIONAL GUIDANCE

The attributes of sustainable communities have been acknowledged which are of particular relevance to crime prevention within Safer Places: The Planning System and Crime Prevention. These seven attributes are;

- Access and Movement
- Structure
- Surveillance
- Ownership
- Physical Protection
- Activity
- Management and Maintenance.

Initial advice on the illustrative layout has been sought from the Hertfordshire Constabulary CPDA, with the following items being raised:

- From a security point of view, back to back gardens with active frontages are good
- Access to the rear of the homes should be secured with gates at the building line
- Most parking is in-curtilage, which is supported
- Parking courts should be as small as is possible and must be well overlooked by live rooms - Living rooms, dining rooms and kitchens. There must also be good even dusk to dawn lighting; no bollards, which get knocked down too easily.
- Open space and green areas will need to have some form of earth bunding or ditching or appropriate boundary treatment to prevent unauthorised use by motor and other vehicles.
- Any play areas must be fenced and well overlooked by live rooms
- There is a need to consider traffic calming measures around the internal loop road
- Paths leading in and out of the site will need gates to deny access to motor cycles etc.

7.6 Drainage

In terms of fluvial flood risk, the development area lies within Flood Zone 1; being an area of Low Probability of flooding, outside both the 1 in 100 (1% AEP) and 1 in 1,000 (0.1% AEP) year flood events. Assessments completed within the FRA also find the land to lie in an area that has a Low Probability of flooding from most other sources from mechanisms such as ground water, sewer and artificial water bodies.

Baseline assessments have confirmed that the watercourses within the site boundary are the most appropriate receptors of storm water from the proposed development, having the potential to employ source control measures and detention features to control peak discharges to no greater than the baseline conditions.

Given the site characteristics, it is possible for the development to utilise a SuDS strategy with a number of attenuation features such as swales and open channels throughout the site. Coupled with the storm water control benefits, the use of SuDS can also provide a betterment on water quality. National guidance in the form of CIRIA 609 outlines that by implementing SuDS, storm water from the site can be polished to an improved standard thus ensuring the development proposals have no adverse effects on the wider hydrology.

The following paragraphs outline a number of the potentially available features for the site:

PERMEABLE PAVING

Permeable Paving is approved by many Local Authorities for implementation on the development road network and can act as a receptor for surface water run-off from nearby house roofs. However, the system is perhaps best suited to managed parking areas and shared surfaces where block paving is typically used as the surface treatment and ongoing maintenance can be ensured by way of a management company or the like.

FILTER STRIPS

Filter strips have been used in the drainage of highways for many years. The absence of traditional pipe work in such a system frees the drainage design to employ shallow gradients on both channels and drains, which in turn also act as a means of passive treatment to improve water quality.

DITCHES

Ditches may be used along highways and in common areas to infiltrate, attenuate and convey flows from hard surfaces across the development before being discharged in to the secondary system. Linear features, such as ditches and filter strips provide an efficient means of improving water

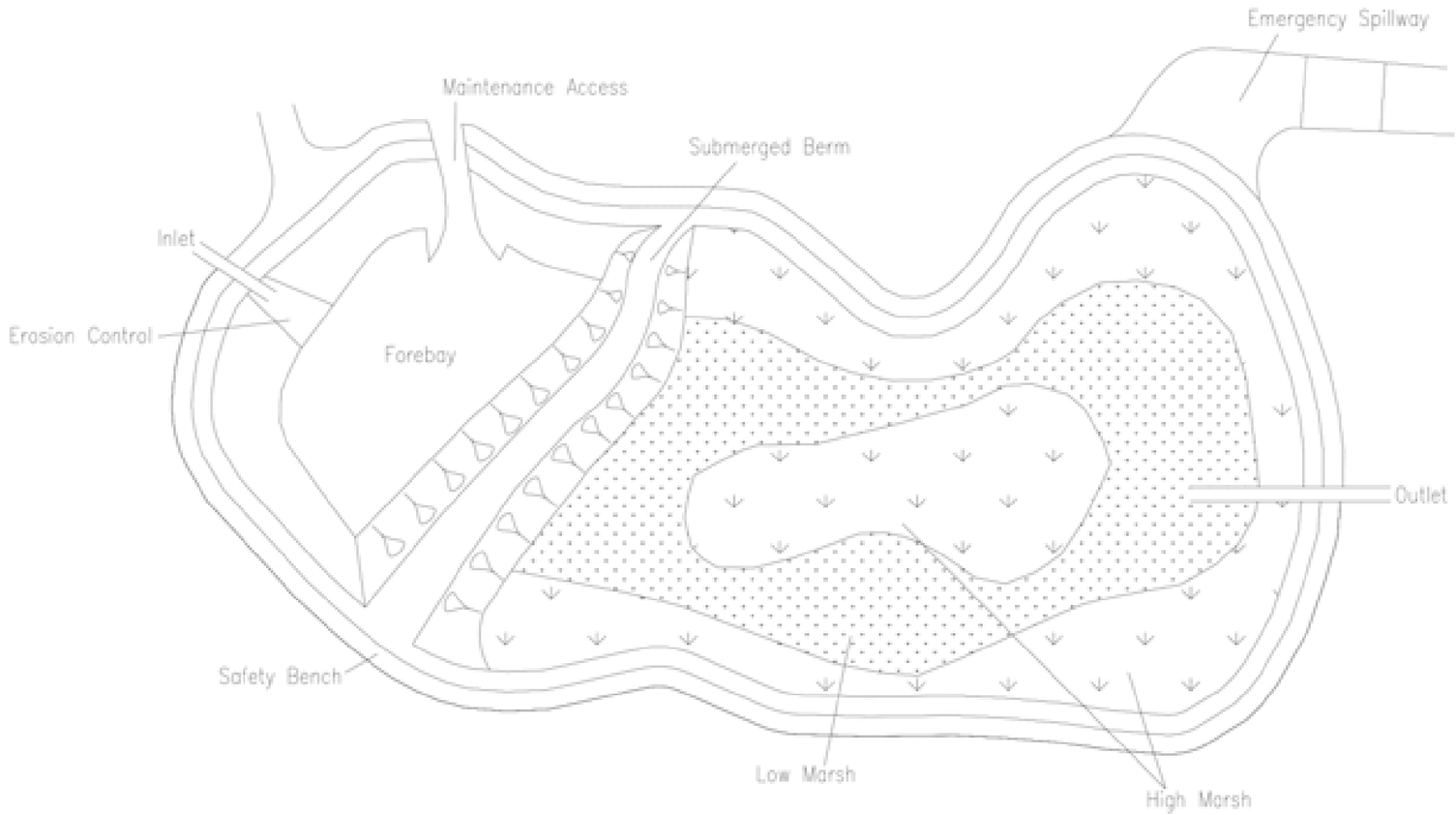
7.6 Drainage

SWALES

While swales implemented at development parcel level can be very land hungry, costly to maintain and provide difficulties with frontage access, the opportunity potentially exists to implement swales through the green infrastructure within the development. Green space being incorporated along the highways could be designed to allow 'over the edge' flows to be directed into the swale for infiltration, attenuation and conveyance.

ATTENUATION DRAINAGE SYSTEMS

Attenuation drainage systems collect partially treated excess water from the primary source control systems at a local level, thereafter providing both flow and water quality attenuation and flow conveyance through the site towards the main outfall.



Typical layout of attenuation drainage system

NORTH EAST KGV

8.0

ENERGY STRATEGY & SUSTAINABILITY

8.1 Energy Strategy

The illustrative masterplan has evolved with principles of the Local Pan central to the scheme, in particular in respect of 10% energy reduction.

As part of a subsequent reserved matters applications details relating to measures to decrease energy consumption from the development should be provided in accordance with the energy hierarchy. Broadly this would include:

- Demand – high levels of insulation, low air leakage rates. All lighting to be low energy and all appliances to A rated
- Supply – efficient gas boilers will provide the majority of thermal demand
- Low carbon and renewables – either a gas CHP or solar hot water is proposed to reduce carbon emissions and meet 15% of energy from low carbon sources

DRAINAGE STRATEGY AND WATER CONSERVATION

The proposals will minimise the risk of flooding both to the site and the surrounding area by:

- Diverting existing surface water flows entering foul sewers to new surface water systems
- The implementation of swales to treat the runoff and attenuate flows to rates below existing rates to reduce the risk of off-site flooding
- Designing infrastructure to accommodate forecast increased rainfall rates predicated as a consequence of climate change.

It is possible for the development to utilise a SuDS strategy with a number of attenuation features such as swales and open channels throughout the site.

At reserved matters stage detailed consideration will be given to measures to increase water conservation on site.

EARTHWORKS

Attempts should be made to ensure on site cut and fill earthworks will be balanced, removing the need for the import or export of additional material.

Demolition materials should be crushed for re-use / recycled, with some used on site. The remaining materials should be used elsewhere reducing the demand for new materials from quarries and new metals.

8.2 Sustainability

A summary of Sustainable criteria that could be considered moving forward is given below:

PHILOSOPHY

The creation of a sustainable development should be reflected in all aspects of the development. New and emerging guidance related to climate change has led to a review of specific guidance for the development.

LAYOUT AND URBAN FORM

The pattern and orientation of development should be designed where possible to:

- take account of wind flow to promote pollution removal, natural ventilation and pedestrian comfort;
- provide shelter and minimise heat loss;
- provide summer shade; and
- optimise solar exposure, promote good levels of daylight and provide adequate shading as appropriate.

The following measures have been considered in the design of the layout plan and incorporated where possible:

- The use of street trees to provide shelter
- Widely distributed green spaces for summer cooling
- A perforated building edge to allow the movement of air into and through the development
- Spaces, streets, squares and courtyards to have a suitable height to width ratio and
- Trees and shrubs to be planted within the first planting season following completion of each area of each Phase

WATER CONSERVATION & SURFACE WATER RUNOFF

Each dwelling could be equipped with a number of water saving features, which may include;

- Low flush WC's, and water butts; and
- Restricted flows to all taps by mixing

BUILDING DESIGN

Sustainable building design for dwellings can address the following issues:

- Energy
- Water Conservation / Drainage Strategy
- Construction and Materials
- Waste and Recycling
- Pollution
- Transport
- Communication

CONSTRUCTION AND MATERIALS

Materials should focus on using sustainable sources and complying with the considerate construction scheme. The following specific measures could be implemented:

- Responsible sourcing and specification of materials and constructions
- Site construction policy to minimise waste and recycle site waste
- Each dwelling to have facilities to recycle. Both internal and external storage facilities to be provided.
- Restricted flow to showers
- All installed appliances to have low water usage.

PROTECTION AND ENHANCEMENT OF THE ENVIRONMENT

The proposals include measures to protect and enhance surrounding trees and woodland. Trees to the south of the site will be protected through the sensitive treatment of the site boundary and the management of future access to the woods.

PROMOTING SUSTAINABLE TRANSPORT

The site is sustainable in transport terms, being located on the edge of the urban settlement of Cuffley and accessible by walking, cycling and public transport.

The proposals incorporate positive mitigation measures to promote and maximise the uptake of sustainable travel including:

- Provision of Travel Plan packs for the residential dwellings, including bus taster tickets
- Provision of a shared footpath /cycleway from the site to connect with the existing cycle network

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