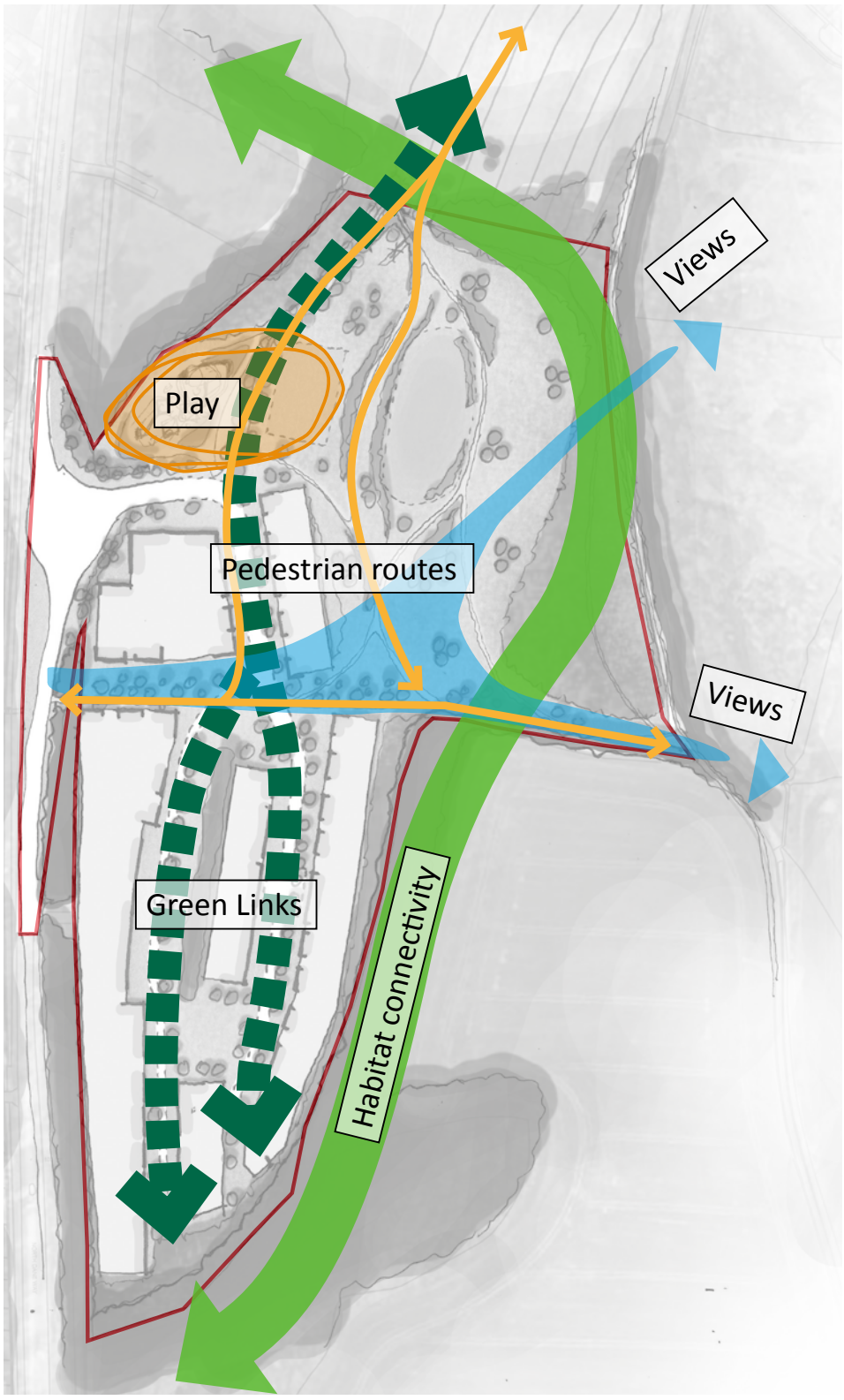


Landscape Concept Plan

Landscape Strategy Plan

Legend

- Site Boundary
- Development Parcel
- Existing Vegetation
- Proposed native vegetation buffers to include woodland and hedegrows
- Opportunity for community orchard
- Tree lined streets to provide key green links to wider green infrastructure and filtering of views
- Proposed Footpath
- Main Road
- Key entrance to development parcel
- Indicative swale locations
- Indicative SUDs basins
- School Site
- Allotments
- Kick-about Space
- Play Area
- Community green space and or informal playable space

06 Public Spaces

NATIONAL PLANNING POLICY FRAMEWORK CHAPTERS 8, 9, 12

> *"The quality of the spaces between buildings is as important as the buildings themselves. Public spaces are streets, squares, and other spaces that are open to all. They are the setting for most movement. The design of a public space encompasses its siting and integration into the wider network of routes as well as its various elements. These include areas allocated to different users – cars, cyclists and pedestrians – for different purposes such as movement or parking, hard and soft surfaces, street furniture, lighting, signage and public art."*
>
> *(Para. 99, NDG 2021)*

Landscape Concept

6.1 The landscape strategy has been developed alongside the residential site layout to create an attractive and welcoming place to live and a legible environment for visitors.

6.2 The application proposes a strong landscape strategy that has impact from 'day one' - taking the opportunities to reintroduce and reinforce habitats and species, with a connected and accessible network of public open spaces and paths to encourage physical activity and social interaction - providing residents with opportunities to interact with nature on a day-to-day basis. The key landscape elements and features are illustrated on the following pages and can been read in more detail on 3057 3057-APA-ZZ-00-LA-L-1007 (Landscape Masterplan)

Sustainability

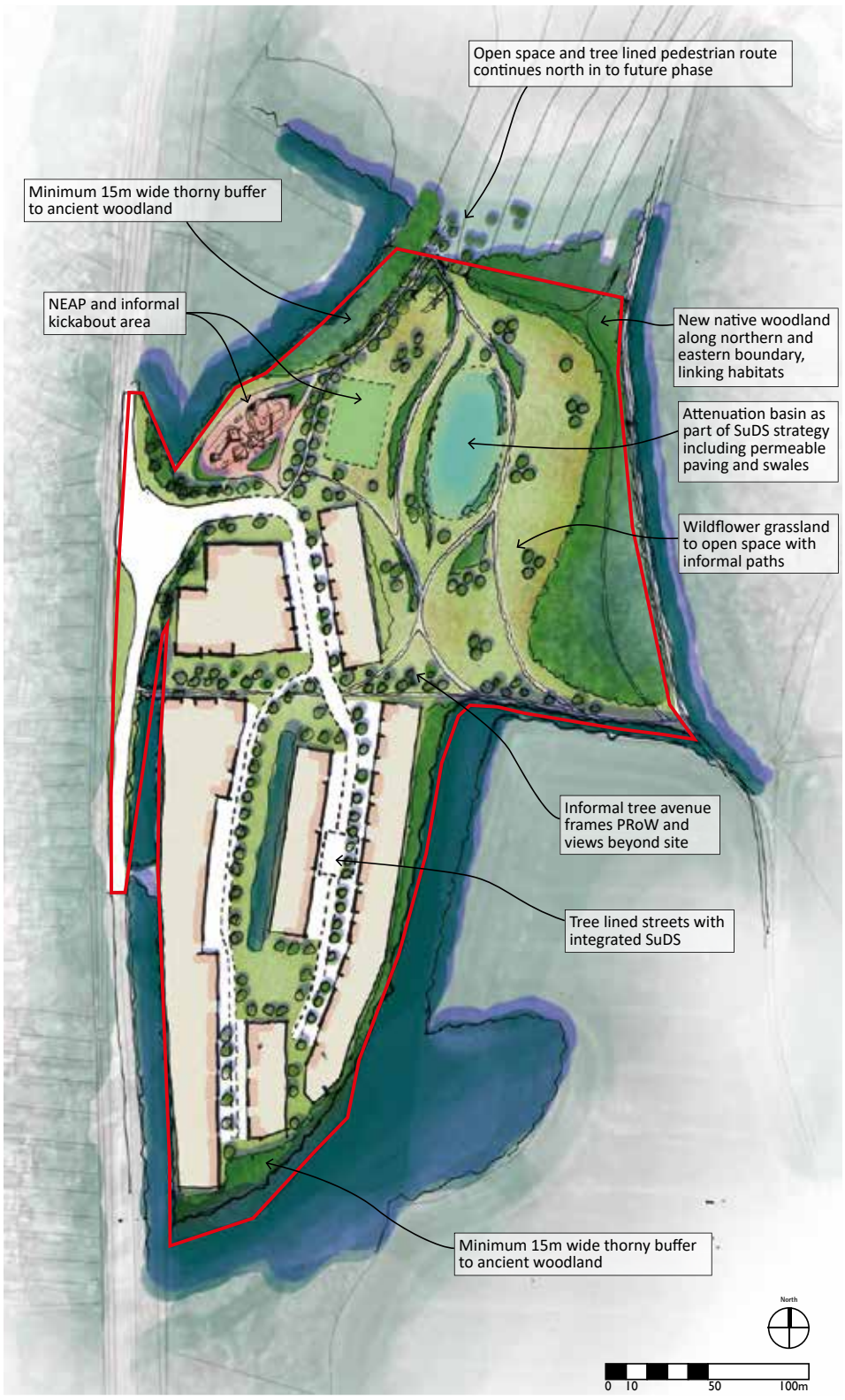
6.3 Measures to address issues of sustainability are embedded within the principal concept for the design of the landscape. This will be considered at every stage of the project from design through to construction and future management.

6.4 These principles include:

- Early consideration of long term landscape management and maintenance operations and responsibilities;
- Consideration of hard a soft materials in terms of sustainability and carbon footprints.
- Creating places that are inherently flexible, taking account of the future impacts of climate change, and adaptation measures that may need to be retrofitted.
- Considering the implementation of water management through Sustainable urban Drainage Systems and how these can benefit the scheme both aesthetically and ecologically.

6.5 At a detailed level the proposals will:

- Seek to select materials from sustainable sources where fit for their purpose;
- Seek to maximize the design life of projects by optimising the use of durable materials that last longer, reducing the volume of water used over the developments' life time.
- Specify Forest Stewardship Council (FSC) certified timber or timber certified under the Pan European Forest Certification Scheme.



Concept Landscape Masterplan

Inclusive Design

6.6 Essential to achieving a successful public realm and open space is to the creation of an inclusive environment in which people will feel comfortable and enjoy spending time, where they will participate in social activities and help to promote a sense of pride in their own place.

6.7 The landscape proposals will provide a clear and inclusive environment suitable and safe for everyone, including people with disabilities, the elderly, and children in pushchairs. Access to the properties will be in accordance with Part M of the Building Regulations and will respond to the existing site topography and avoiding steps where possible.

6.8 The site topography is challenging and access through out the parkland areas will follow the natural contours of the hillside where possible. Steps will be integrated in to the routes where the hillside is at its steepest and where slopes or ramps would not be appropriate or would be at detriment to the space.

Illustrative Landscape Masterplan

Landscape Masterplan

6.9 The detailed landscape masterplan will provide an attractive setting for the residential areas with ornamental planting within the streetscape offering seasonal interest, cohesion through the scheme and individuality to each character area.

6.10 A dynamic parkland landscape setting will cater for a wide range of recreational activities encouraging outdoor activity with exciting and accessible playable features and play equipment offering a wide range of experience to all age groups with formal and informal well designed play spaces.

6.11 The landscape proposals will;

- Create a strong landscape strategy that has impact from 'day one' with a range of sizes being specified to create a sense of maturity. The creation of a varied meadow and a woodland habitat to the parkland will be an opportunity for local species diversity.
- Create an overall network of different spaces where opportunities for habitat creation will be weaved throughout the development, such as the meadow mixes to swales and the extensive planting of native woodland linking existing pockets of ancient woodland. These will become enhanced movement corridors to support local biodiversity.
- Fruiting trees will be planted throughout to encourage foraging
- Have sustainable drainage at the heart of the scheme with rain water captured as close as possible to where it falls, from permeable paving and conveyed through swales to a series of ponds that form an important amenity and recreational feature.
- Have well-overlooked public open spaces with strong levels of natural surveillance.
- Have robust management and long term stewardship delivering a biodiversity net gain.
- Create movement and feeding corridors for wildlife, such as hedgehog highways ensuring the garden boundaries do not form a barrier to wildlife.
- Provide nesting and roosting opportunities with bird boxes, swift nesting bricks and bat bricks where appropriate.
- Have well designed spaces where the function and character of public open spaces is clear, plans will identify the character of new spaces, such as:
  - » Connect these routes to the existing network to provide connection beyond the development
  - » Establish a new species rich grassland.
- Clearly define private spaces with defensible space and strong boundary treatments that add ecological value and/or reinforce distinctive local characteristics.
- Manage changes in level in a way that does not compromise the qualities of the street.
- Avoid pieces of 'leftover' land that serve no useful public or private function.
- Provide front garden spaces that create opportunities for social interaction.
- Create a variety of circular routes and a habitat network to encourage physical activity and interaction with the natural environment on a day to day basis.

Engineering Strategy

6.12 The topography for Phase 1 is particularly challenging in relation to managing a solution that defines an attractive end-product but also allowing for the functionality of roads, drainage and levels to be accommodated while ensuring the buildability of such a development.

6.13 The existing topography slopes between 1 in 12 and 1 in 5 across this area of Phase 1 and creates difficulties in terms of road adoptions, garden levels, finished floor levels and retaining structures. To obtain road adoption and to accord with Building Regulations, road gradients should be kept to a maximum of 1:20. On steep sites this gradient can be steepened to 1:12 or 1:10, however the safety of pedestrians, disabled users and vehicles must be considered while being sensitive to the site layout. Cars can start to slide on icy roads at gradients steeper than 1:12 whilst pedestrian access must be considered on footways and access to houses while remaining Part M compliant.

6.14 The road design was reviewed and to ensure the road gradients remained as shallow as possible it was most suitable to align roads along the existing contours in a north-south orientation. Various iterations of the site layout were reviewed between the design team to optimise the space and levels whilst ensuring connectivity between the upper and lower areas of the site. The original layout proposed a site entrance accessing the most easterly area of the site. The level difference of 10m would require a road gradient of approximately 1:12 which was considered unacceptable due to a large retaining structure required to the outer edge of the road and would raise safety issues for vehicles travelling around the bend. This would have also raised concerns for pedestrian access to the development and road adoption.

6.15 Had this gradient been taken to detailed design, there would be more significant impacts elsewhere across the development. Connecting roads between the lower and upper areas of the site would have to be set at 1:6 when orientated in an east-west direction. This would not be acceptable for any engineering solutions and would require large retaining structures between each plot and create safety issues for all site occupants as well as delivery vehicles, refuse and emergency vehicles.

6.16 Numerous site layout designs were considered, and any roads located in an east-west direction were unsuitable for the reasons noted above.

6.17 The proposal of 2 main access roads, being served by one entrance way whilst set in a north-south direction ensures that earthworks for retaining is kept to a minimum and roads are maintained at a safe gradient.

6.18 When designing adoptable and private roads there are several factors that have to be taken into account; the comfort factor of road users, highway guidance, visibility from junctions, guidance set out in Manuals for Streets and overall gradients and access to private plots. To accommodate these factors, the layout was carefully chosen to ensure a compliant design.

6.19 Earthworks for the development have been carefully considered to provide as close to a cut and fill balance as possible while reducing the need for high retaining structures. Cutting will be required to the west of the main site roads, this will be utilised for fill to the eastern area, balancing the overall height of retaining structures and excess waste material. Gardens will be tiered to maximise usage also reducing the number of larger retaining structures that would be required if plots were placed on roads directed east-west or if site roads were situated to the outer edges of the site as proposed in the original layout.

6.20 The kickabout and NEAP have been considered in relation to the earthworks strategy and to provide a relatively level area with minimal earth moving and are located on the flattest area of the site.

6.21 Retaining walls across the site have been kept to a minimum by utilising stepped gardens including green solutions such as timber sleeper walls and vegetative retaining where possible to enhance biodiversity and to blend the development into the surrounding landscaping. Retaining wall heights vary from 0.25m brick walls to 2.9m high vegetative walls to rear gardens. Orientating the roads in a north-south direction with plots facing east-west has provided a solution for reducing the number and height of walls across much of the development.

6.22 There are several steep areas within the development where access was not possible via standard road or path construction due to level differences. To provide M4(2) affordable plots, levels have been designed to allow for wheelchair access despite the challenges in topography. Stepped access from the Courtyard area is to be provided to allow pedestrian access to the Public Right of Way and a 'Stramp', a combination of stairs and ramps is to be used within the landscape area to the south of the site to ensure that all members of the public can make use of the amenity space and link the upper and lower areas of the site for all residents.

6.23 The Public Right of Way is accessed by a set of steps from North Dane Way and therefore cannot provide for wheelchair access from outside of the development, however, a ramped approach has been adopted to ensure the open spaces and landscaped areas can be accessed by all.

6.24 Another over-riding factor is the ability to drain the site of surface water and manage exceedance flooding. On a steep site it is important to identify at an early stage where water can be attenuated and discharged. The site is situated over chalk and has the benefit of infiltration. Infiltration rates have been identified as average and as such attenuation is required to allow for the slower infiltration rate. Where possible, permeable paving is to be utilised, however is only possible within cut zones, generally located to the western plots along the access roads. Infiltration within swales is not possible due to the nature of the underlying chalk strata and instability issues if placed adjacent to houses. Therefore, the swales proposed will be for exceedance flooding only and will be utilised for wild meadow planting and ecology rather than deep unattractive grass depressions. The swales are proposed for managing exceedance flooding rather than part of the overall drainage strategy and have been placed strategically in areas of concern.

6.25 Consideration has been given to earthworks for attenuation. The location had to be carefully chosen to be at the lowest point of the site possible, but with the shallowest gradient of existing slope. The location of roads and plots was determined to ensure that drainage was not directed to the steepest part of the site located below the 90m contour. The design incorporates a 2m deep infiltration basin located along the 92m contour. This will require a 2.8m high vegetated wall to the west of the basin and indicates the level of retaining required with Street 03 located through the central area of the eastern extent of the site.

6.26 By providing roads with houses either side this provides a better surface water management strategy as all exceedance flooding is retained within the highway and directed to the infiltration basin in the landscape area. Keeping gradients at an acceptable level also manages surface water by not allowing it to run off at high velocity down the slope and cause issues to land down gradient.

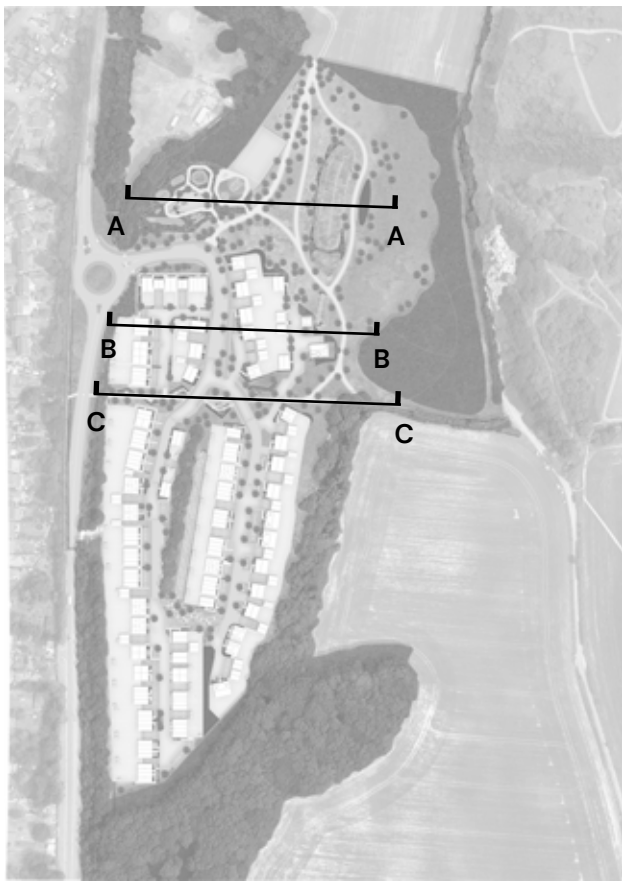
6.27 Swales have been strategically placed to ensure any exceedance flooding is intercepted and managed on site rather than allowing water to shed from the site causing damage to any properties or land downstream of the development.

6.28 All aspects of engineering including road and drainage adoption, gradients, Building Regulations, highway design, external levels, retaining, surface water and foul drainage have been closely considered and co-ordinated between all disciplines of the design team including the Architect, Engineer and Landscape Architect to provide the most sensitive approach to ensure a usable, yet attractive site that utilises green solutions to blend into the surrounding environment while considering the practical solutions to the challenging topography whilst managing an overall earthworks balance.

Timber sleeper retaining features in rear gardens

Example of a swale running parallel to the street

Example of attenuation area with planted edges



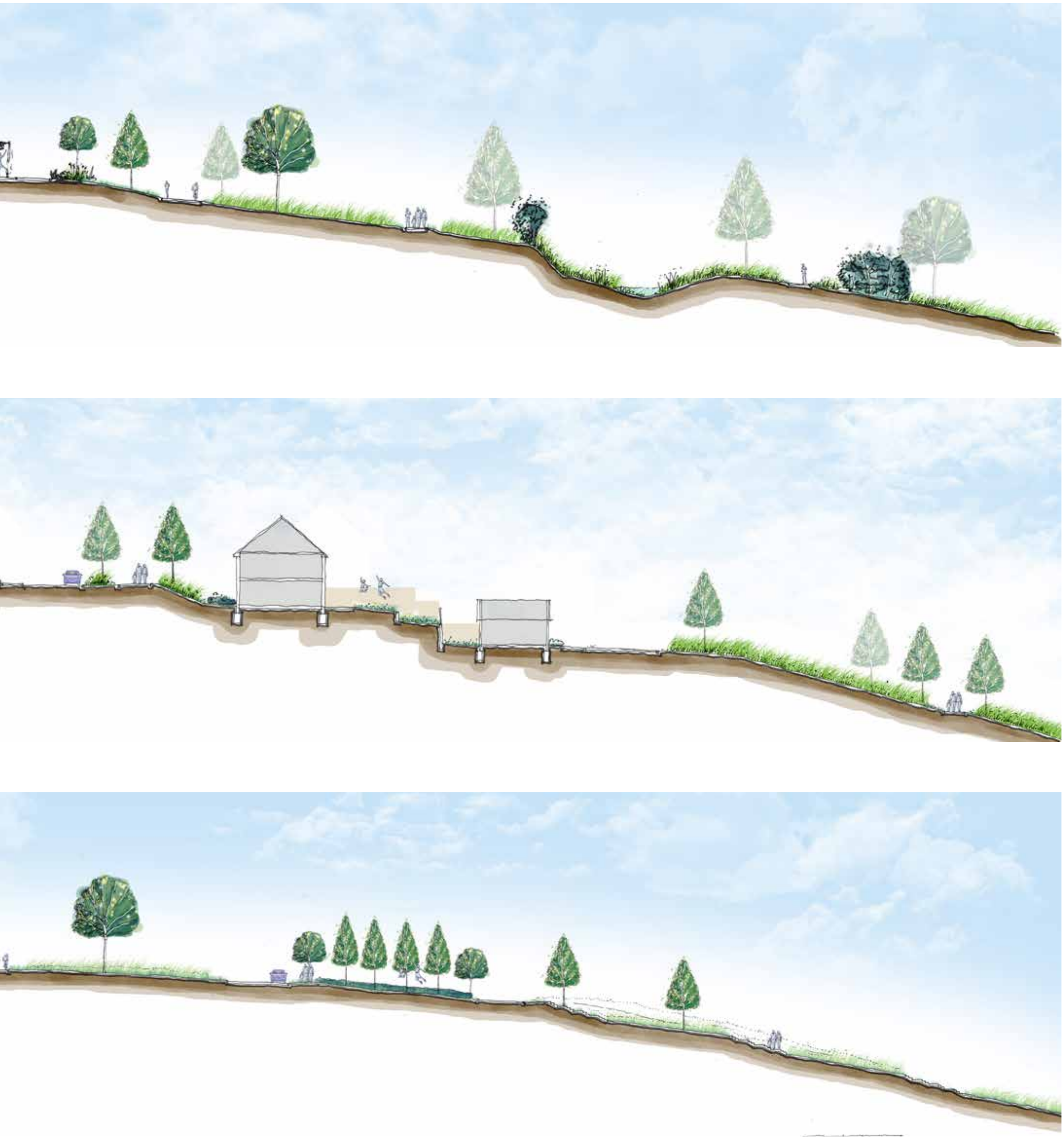
Section Key Plan

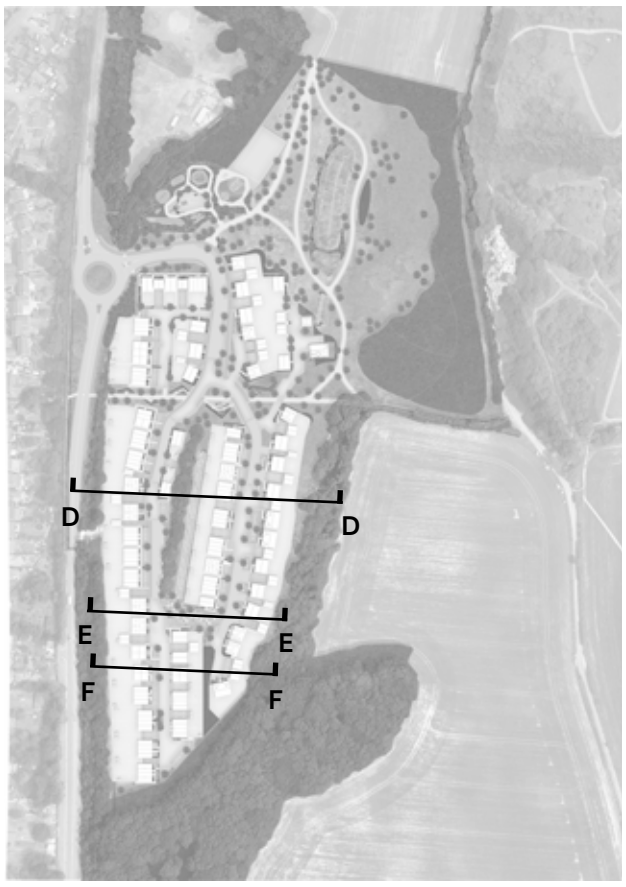
Section AA

Section BB

Section CC

Site Sections

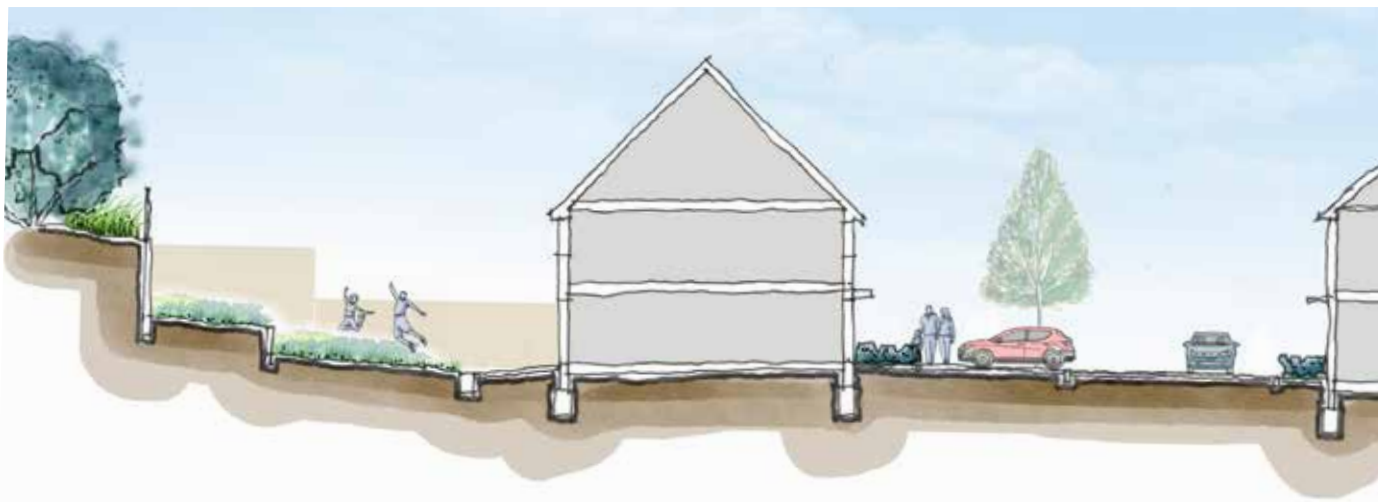




Section Key Plan

Section DD

Section EE



Section FF

Site Sections

Landscape Character Area Plan

Landscape Character

Street and Open Space Hierarchy

6.29 The primary route through the site is defined by a wide carriageway often with a green verge with tree planting and adjoining larger areas of amenity landscape (Street 01). It provides a 'green' vista through proposals and to the landscape beyond. This route narrows through the proposals at key junctions, becoming secondary routes (Street 02 and 03) as they transition into different character.

Character Areas

6.30 Character areas will be created to reflect the public realm hierarchy with materials and soft landscape treatments helping to define the priority of routes and function of spaces

6.31 While the landscape will be more formal along primary and secondary routes with strong tree planting in verges, the character will loosen and become more informal towards the edges, particularly where the proposals transitions in to the relative 'natural' of the pocket parks and parkland landscape to the north and the site boundaries.

6.32 At a finer grain, changes in tree and boundary planting will give each street a unique difference throughout the seasons. Hard landscape will also transition from asphalt to block paving to reflect the more informal character.

6.33 Within the parkland itself the main PRoW network will be surfaced, but will transition to softer material and mown paths beyond as the character become increasingly informal and semi natural.

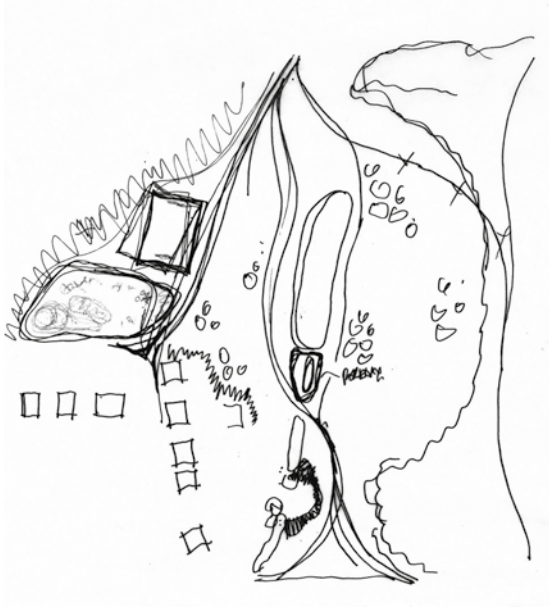
Parkland

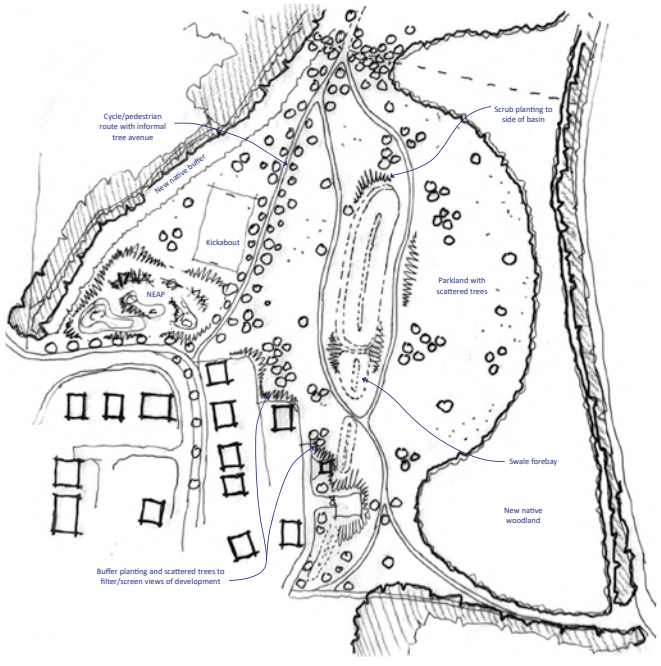
Tree Lined Streets (Street 01)

Tree Lined Streets (Street 02 and 03)

Pocket Parks

Parkland





Design development of the park

Key Public Open Spaces

The Parkland

6.34 The Parkland will provide a range of recreational opportunities including a Neighborhood Equipped Area of Play (NEAP), an informal kickabout space. The large open parkland will provide opportunities for circular walks through meadow and woodland areas and provide space for people to relax and appreciate the landscape or undertake other forms of outdoor activities.

6.35 The parkland will bring significant biodiversity benefits and encourage interaction with the landscape and education of local biodiversity with varied routes through the open spaces, informal seating and the use of interpretation boards.

Scattered or individual trees

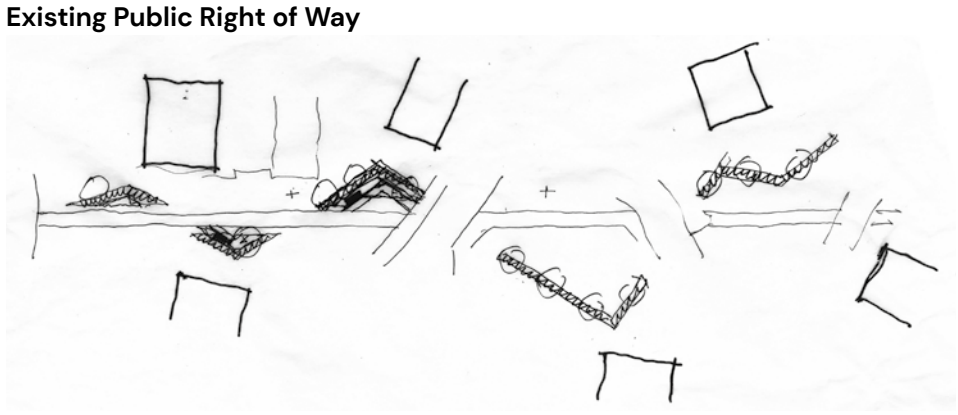
Woodland

Paths through meadow grassland

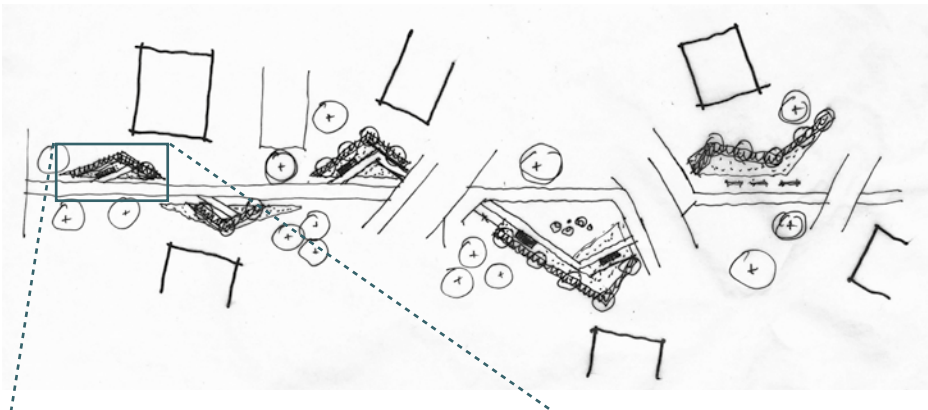
Play areas

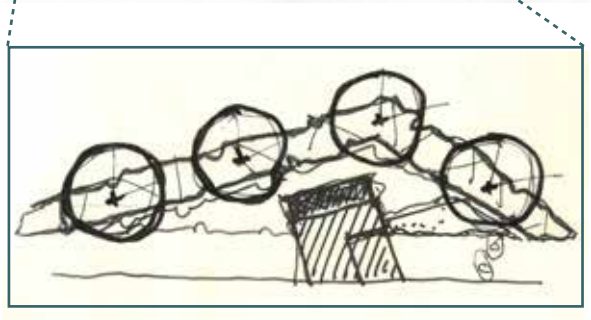
SuDS and ponds

Existing Public Right of Way

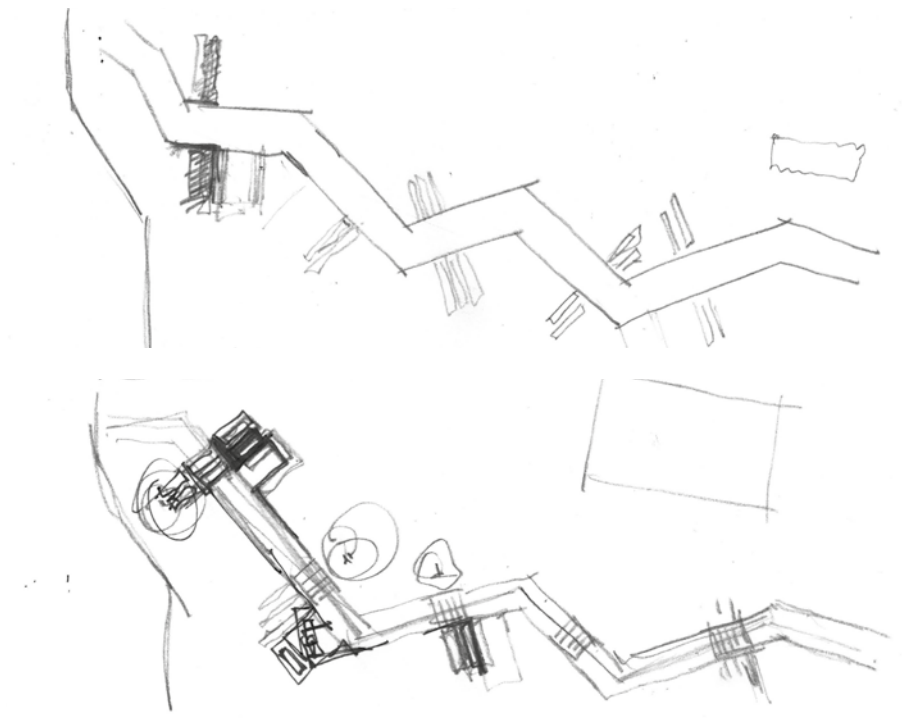


Sketch options for the PRoW





Sketch detail for bench in planting



Sketch options for terraced steps

Terraced steps

Key Public Open Spaces

Existing Public Right of Way

6.36 The route of the existing PRoW through he site (RC9) is maintained in its current location, but will be surfaced, improving its function as accessibility as a public route. Seating will be added at intervals set back from the main path and within pockets of planting and angled to allow views out through and over the landscape. There will also be opportunities for informal play at these locations.

Southern Pocket Park

6.37 This area of steeply sloping ground provides an additional pedestrian connection between the two main levels within the residential area. A sloped or ramped option was considered but would have resulted in a hard landscape area with limited planting opportunities.

6.38 There is level access where these two streets converge so as a compromise, the space has been designed to include a series of terraced steps that integrate benches with planting at intervals along the route. Tree planting is positioned to avoid a services easement and to create a view out over the landscape.

Seating along a footpath

Tree planting alongside a footpath

Steps through meadow grasland


LEGEND
NEAP
Informal Kickabout
Informal seating/playable space
Interpretation board
Fruiting trees
Indicative foraging trail

Play and Activity Strategy

6.39 Phase 1 of the wider masterplan will deliver the largest area of open space and it has therefore been designed to provide a range of activities for all abilities and ages that can also be used by residents of future phases. The recreational potential within this phase will also provide opportunities for the wider community and will be part of a wider activity trail to be taken forward on future phases.

6.40 The outline scheme included a NEAP and informal kickabout area which will be delivered as part of Phase 1. The details of these spaces are explained below and illustrated on the following pages.

The NEAP

6.41 The NEAP has been carefully located to be easily accessible, set back from the main road access and residential buildings but still well overlooked at the entrance to the parkland and off the main shared pedestrian and cycle route.

6.42 An area of hard standing with an irregular half basketball court framed with a skate trail, offers play and exercise opportunities for older children and teenagers. A circular path around the play area provides level access for all. A dry 'riverbed' meanders through the play space, bringing both definition and play opportunities to the space with the gravel bed, boulders, logs and ornamental grass planting to the verges. Located south the river bed, the play area transitions into a space more suited to toddler and smaller children, with play elements such as playable animals. The layout utilities the natural topography the add more challenging play equipment such as a zipline, slide and climbing net. Swings and climbing structures provided more traditional, but fun experiences.

Kickabout Area

6.43 An area of mown grass set within the meadow areas north of the NEAP provides an informal space for football or other all sports on grass.

Pocket Parks

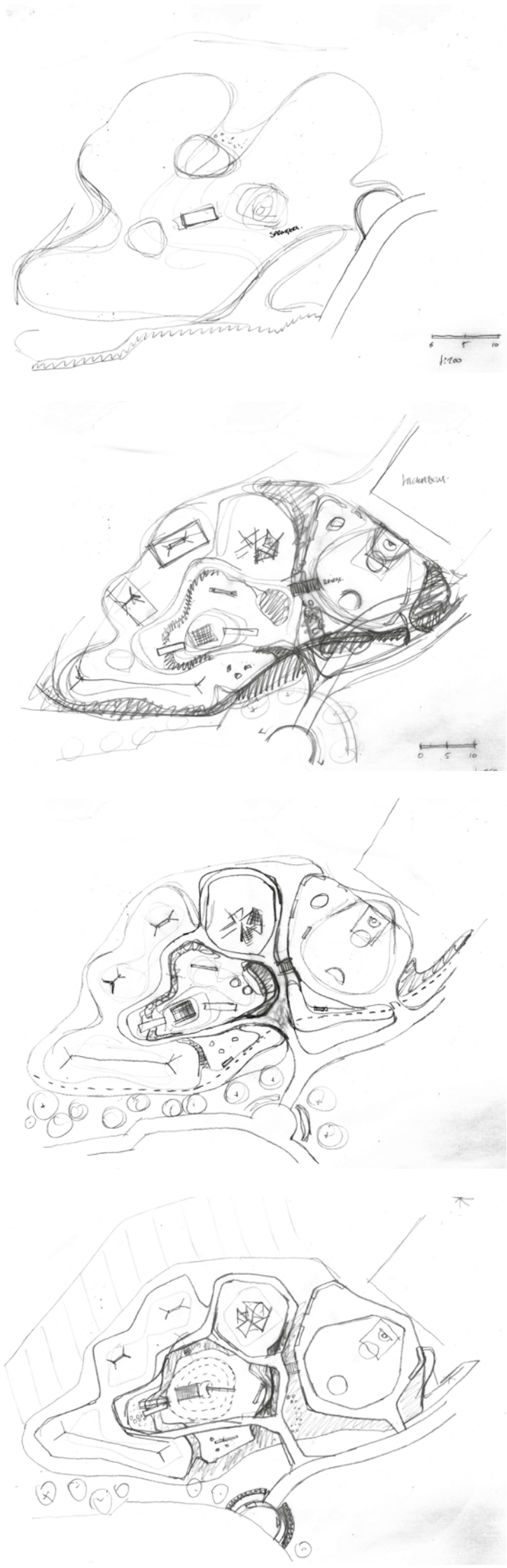
6.44 Two areas of public open space provide further play opportunities in the form of pocket parks. The wide spaces alongside the PRoW provides informal opportunities for play with benches overlooking the spaces set with pockets of ornamental planting.

6.45 At the southern end of the development a sloping area of meadow between two streets provides seating areas to relax and admire views.

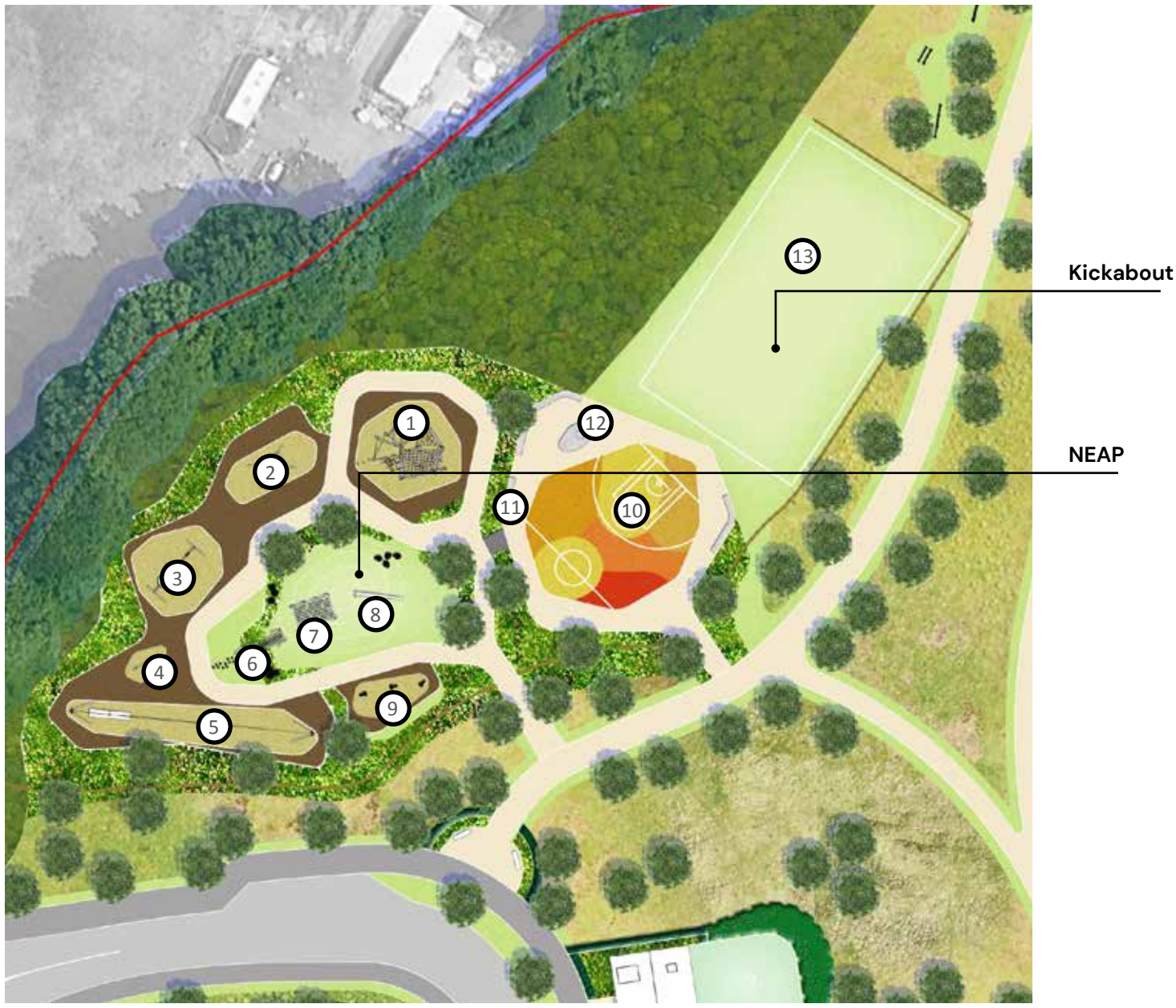
Activity Strategy

6.46 The activity strategy will focus on playable landscape and exploratory features, interaction with nature and education of key flora and fauna.

6.47 Interpretation boards and features will be provided at key locations, where they will enhance the educational value of the landscape. Residents and visitors will be able to understand details of the landscape design, key flora and fauna as well as what can be safely foraged from the landscape via a marked trail. The foraging trail will utilise existing landscape features such as hedgerows and newly planted fruiting trees.



Design development of the NEAP



NEAP and Kickabout Plan

NEAP and Kickabout Plan

NEAP and Kickabout Plan

NEAP and Kickabout Plan

NEAP and Kickabout Plan

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NEAP and Kickabout Plan

NEAP and Kickabout Plan

NEAP and Kickabout Plan

NEAP and Kickabout Plan

NEAP and Kickabout Plan

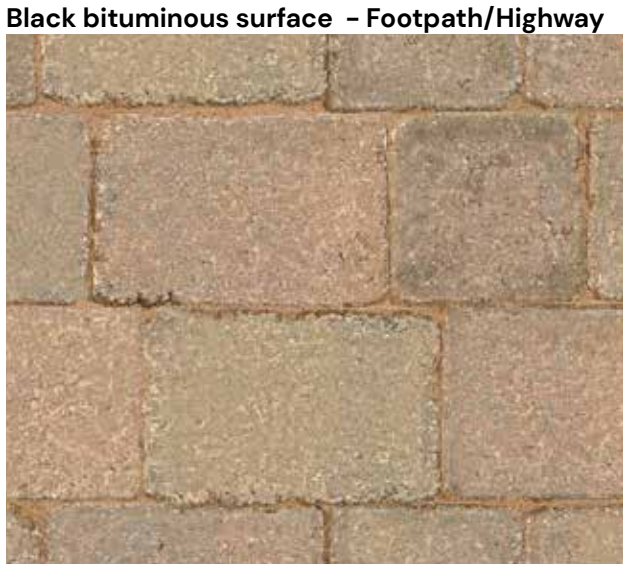
NEAP and Kickabout Plan

Informal kickabout

Black bituminous surface - Footpath/Highway

Self binding gravel - Open space footpaths

Flag Paving - Buff



Block paving - Harvest

Block paving - Burnt Ochre

Block paving - Traditional

Setts

Smooth Concrete

Rubber Surfacing to play areas

Bins

Seat with back and arm rest

bench

Materials and Boundary Treatment Strategy

Hard Landscape

6.48 A simple palette of hard landscape materials will be used throughout the development to aid legibility, reduce maintenance requirements and define public and private spaces.

6.49 The main carriageway and footpaths will be designed and built to adoptable standards and surfaced in a black bituminous material. Key junctions will be raised in a contrasting block paving which will also help create nodes or focal points and define pedestrian/vehicle priority.

6.50 Shared access roads/drives, parking courts and private drives will be a mixture of block paving and black bituminous material.

6.51 At the centre of the site where the PRoW crosses two proposed roads a raised table will be block paved to create a large shared surface. The PROW itself will upgraded with a hoggin surface along its entire length through the site.

6.52 A hierarchy of routes through the open spaces provide a variety of access. A black bituminous surfaced shared cycle and footpath is the main route through the open space and will connect through to future phases. Linking to this are narrow paths through the parkland along key desire lines. Informal mown paths off these routes will provide additional access throughout the parkland.

Furniture

6.53 Furniture will be selected to form a robust and coordinated palette that compliments the new architecture and open spaces, delineating movement hierarchy and enhancing the experience of the public realm.

6.54 Benches will provide back and arm rests where appropriate.

Boundary Treatments

6.55 Plot boundaries will be timber fencing with the additional use of brick walls to key public realm facing areas, all boundaries will be hedgehog friendly where possible.

6.56 Timber bollards will be used to protect verges adjacent to roads and railings will secure the play area and provide a safe barrier to the attenuation basin in the parkland where there is a high embankment.

Integrated bench in steps

Bollard in verge

Anti-trap bow top fencing

Planting character plan

Planting Strategy

Overarching Planting Strategy

6.57 The planting palette features native, ornamental and herbaceous planting selected for their seasonal interest, robustness and known wildlife value. Flowering and fruiting species will support wildlife and enhance habitat connections to the wider setting and through the retained woodland and hedgerows. Orchard trees and other edible berry and nut bearing native planting will bring foraging opportunities, for the residents and visitors as well as local wildlife.

Tree Strategy

6.58 Tree species will be selected for their form and consideration will be given to the proximity to buildings. Where necessary, trees with narrow canopies and low water demand will be selected.

6.59 A largely native palette will be proposed to the parkland and open spaces, augmented with more ornamental feature parkland trees such as purple beech.

6.60 The streets and residential parcels including parking courts will feature more ornamental species including cultivars of native species. Different species will be used to define the character areas and provide a variety foliage colour, shape, bark colour and texture.

Play Area (NEAP)

Prunus serrula

Salvia rosmarinus

Lavandula angustifolia

Rudbeckia fulgida

Miscanthus sinensis

Begenia

Boundary and Shrub Planting

6.61 Several native woodland, shrub and whip mixes are proposed along the site boundaries and within the parkland. Supplemented with more mature tree specimens, it will establish new woodland and scrub habitats and a buffer to the areas of Ancient Woodland.

6.62 Front garden treatments will consist of low-medium height shrub planting with hedges proposed to the front where gardens are deep enough and specimen shrubs will add structure. The species selection will help to define the character areas.

6.63 Focal properties throughout the layout will feature enhanced planting with a combination of contrasting hedgerows and feature shrubs set within pockets of herbaceous ground cover.

Play Areas

6.64 Around and within the play areas, planting will be considered as being part of the play experience. Ornamental grasses, colourful and fragrant species will be proposed to offer a range of sensory experiences for all users.

Meadow Planting

6.65 Apart from the play and amenity areas, the open spaces will be seeded with a general purpose wildflower meadow mix. Pockets of special mixes will be incorporated through the parkland such as within swales, attenuation basins and areas within the new woodland.

6.66 A selection of the typical species proposed in the different areas are illustrated in the following pages. Refer to the planting plans for a tree and plant schedule.

Parkland

Ulmus 'New Horizon'

Quercus robur

Lavandula angustifolia

Corylus avellana

Leucanthemum vulgare

Lythrum salicaria

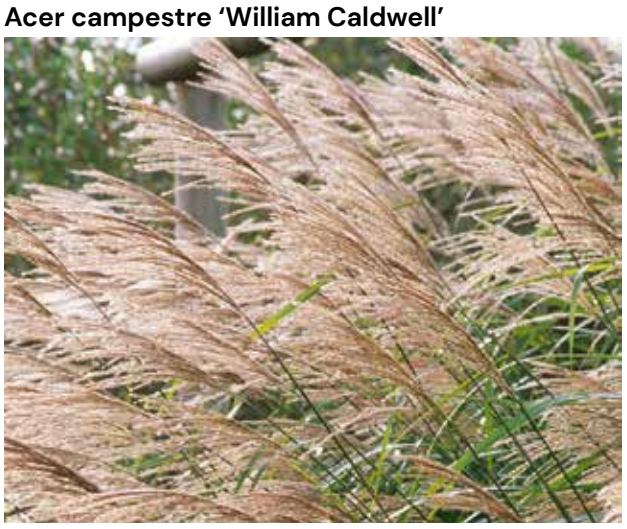
Pocket Parks

Fagus sylvatica purpurea

Acer campestre ‘William Caldwell’

Lavandula angustifolia

Hedera helix ‘Green Ripple’



Miscanthus sinensis

Anemone × hybrida ‘Honorine Jobert’

Street 01

Acer campestre ‘Streetwise’

Acer rubrum ‘Armstrong’

Cistus purprea ‘Alan Frad’

Sarcococca ghorepani

Mahonia eurybracteata subsp. ganpinensis

Skimmia japonica ‘Fragrans’

Street 02

Amelanchier lamarckii

Malus ‘Evereste’

Cistus purpureus

Choisya x dewitteana ‘Apple Blossom’

Rosa ‘Kent’

Epimedium perralchicum ‘frohnleiten’

Street 03

Fagus sylvatica ‘Dawyck Gold’

Malus ‘Evereste’

Cistus purpureus

Choisya x dewitteana ‘Apple Blossom’

Hebe ‘Midsummer Beauty’

Luzula nivea

NATURE. Enhanced and optimised

NPPF CHAPTERS: 8, 12, 14, 15

> ***"Nature contributes to the quality of a place, and to people's quality of life, and it is a critical component of well-designed places. Natural features are integrated into well-designed development. They include natural and designed landscapes, high quality public open spaces, street trees, and other trees, grass, planting and water."***
>
> ***(Para 90, NDG 2021)***

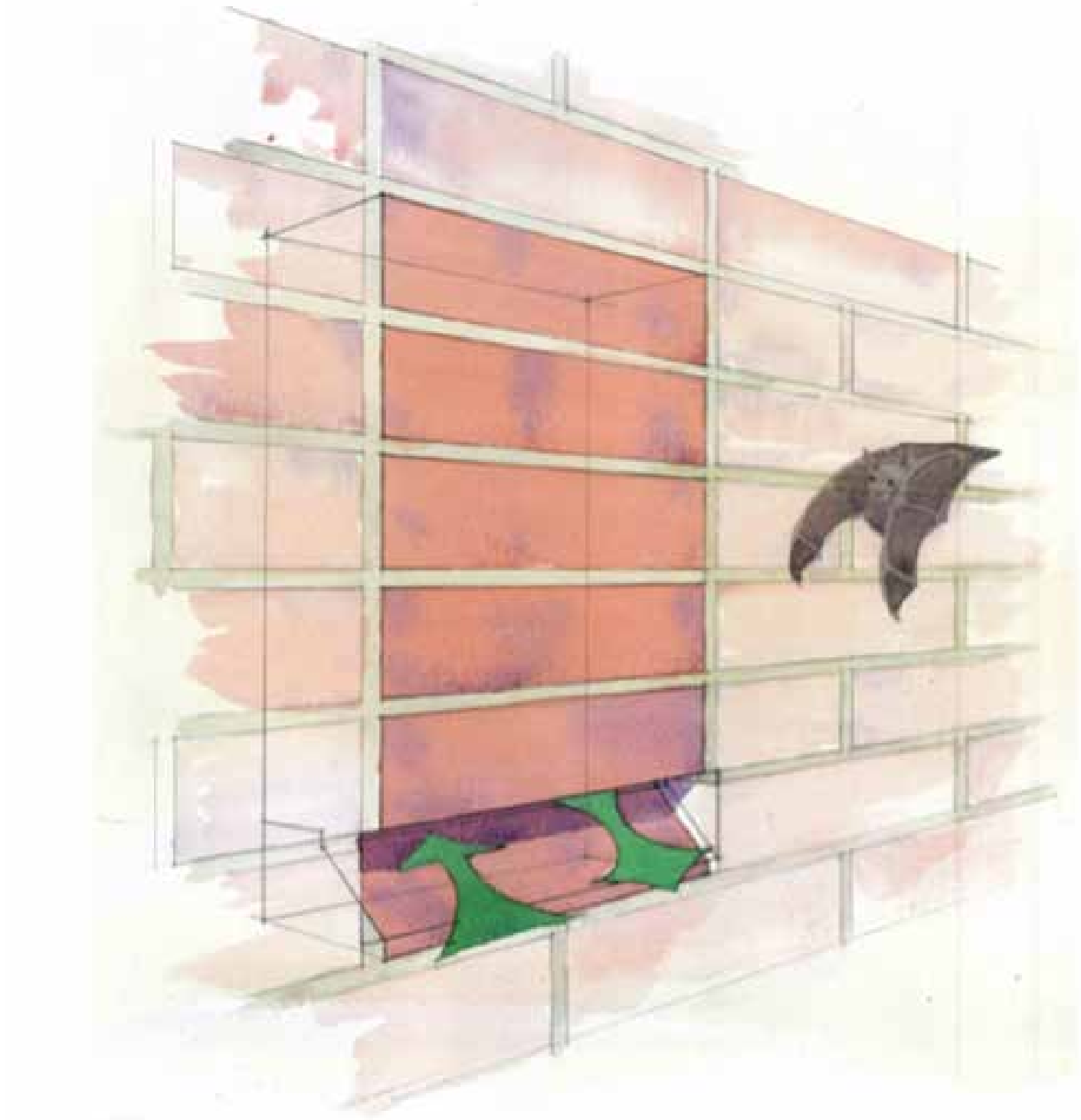
6.67 Surveys have been conducted between 2017 – 2022 to ensure that the value of the site has been identified. The site is an actively managed arable field and is of limited ecological value due to the monoculture and management processes. However, a range of habitats, including ancient woodland, woodland, hedgerows and tree lines are present within the red line boundary and surrounding the site, and are all considered to be of ecological value. The proposals have been designed to retain the habitats of higher ecological value and new landscape features have been included to offset any losses, enhance habitat linkages, and provide new habitats such as wetlands. These created habitats have been designed specifically to provide new opportunities for a range of species which have been recorded.

6.68 Further protected species surveys have been conducted across the site to ensure protected species are carefully considered as part of the proposals and that the development provides enhanced opportunities for these species post-development. Surveys recorded: dormice throughout the site, bats utilising woodland edges and tree lines for foraging and commuting, no reptiles were recorded within the site, although are present in the wider development, great crested newts are not considered to be present due to the negative results recorded and skylark and badgers were recorded within the site. The site-wide mitigation strategy will ensure all protected species are not impacted during construction and post-development. The significant enhancements via habitat creation, offsite management enhancements and improved management of existing habitat will enhance opportunities for protected species post-development.

6.69 The baseline biodiversity of the site is largely arable, which is of limited value in terms of biodiversity units. Higher-value habitats have been designed within the development to help achieve a 20% net increase in the value throughout the site and wider development. Habitat creation including species-rich grassland, meadow planting, new woodland and scrub habitat, creation of tree lines and hedgerows and wetland habitats provides robust ecological networks supporting landscape linkages and ensures a biodiversity net gain post-development.

6.70 Other enhancements include bird, bat and insect boxes, hedgehog highways and other features such as log pile homes and hibernacula, which will all be included within the scheme.

6.71 The parkland includes meadow grassland and native woodland planting, along with a number of individual trees, scrub and wetland habitat creation. The woodland and scrub habitat has been designed to provide habitat for dormice as well as a range of wildlife. Management of the proposed grassland will encourage wildflowers, to provide enhanced opportunities for insects and other species. The wetland to offer habitat not currently present within the site and will increase the biodiversity value of the site.



07 Resources

RESOURCES. Efficient and resilient

NATIONAL PLANNING POLICY FRAMEWORK CHAPTERS 12, 14

> ***"Well-designed places and buildings conserve natural resources including land, water, energy and materials. Their design responds to the impacts of climate change by being energy efficient and minimising carbon emissions to meet net zero by 2050."***
>
> ***(Para. 135 NDG, 2021)***

7.1 The NPPF states at para. 8 that the planning system has three interdependent and overarching objectives:

- An economic objective – to build a strong, responsive and competitive economy;
- A social objective – to support strong, vibrant and healthy communities; and
- An environmental objective – protecting and enhancing the natural, built and historic environment

7.2 To achieve a sustainable development, that reduces reliance on natural resources and offers a long-term solution for the area the development proposals have been designed with these three key objectives in mind.

7.3 At a very high level, the objective of sustainable development can be summarised as meeting the needs of the present without compromising the ability of future generations to meet their own needs. The presumption in favour of sustainable development is at the heart of the planning system, as set out in Para. 11 of the NPPF.

Sustainable Building Techniques

7.4 Condition 34 of the Outline planning permission seeks to ensure that new homes at East Hill are sustainable and is set out below:

7.5 Housing accounts for approximately 15% of UK greenhouse gas emissions. Different houses, in terms of age, design and maintenance, vary considerably in terms of emissions. In the vast majority of cases more modern homes are far more energy efficient than older housing stock.

7.6 The Government are introducing significant changes to Building Regulations as part of its commitment to reducing the UK's carbon consumption to net zero by 2050.

7.7 Carbon reduction in house building is to be achieved through a staged approach in order to allow the Industry time to adapt to what are considerable changes and challenges. This will be achieved in two stages:

7.8 Parts L & F – This is an interim stage that will apply to all houses that commence after 15 June 2023, i.e., all 91 homes on Phase 1 and all homes across the wider East Hill site. These changes require a 31% reduction in CO2 beyond the 2013 Building Regulations.

7.9 The second stage is the introduction of Future Homes Standards (FHS), and this is going to apply to all homes commenced in January 2025 at the earliest. The Government has not yet consulted on the introduction of the FHS, but is expected to consult on FHS in 2023. It is possible that the Government will establish a transition period for the introduction of FHS. Whilst, FHS may change through consultation, the Government are currently stating that FHS will require a 75-80% reduction in CO2 beyond the 2013 Building Regulations.

Parts L & F

7.10 All homes on Phase 1 will be designed to comply with parts L & F and include the following:

- Photovoltaic Panels (PV) to all roofs – quantum to vary per house type and orientation, however, these will reduce homeowners take from the grid with any surplus electricity either being stored or returned to the grid.
- Triple glazing to all windows and French doors.
- Hi-therm lintels (to replace steel lintels), which will deliver much improved thermal performance at the window and door heads.
- Wastewater Heat Recovery (WWHR) to recover heat from the warm shower wastewater before going into the drainage system.
- 100mm cavity between brick and blockwork filled with high quality blown fibre insulation. This maximises the fabric first approach, which provides a very comfortable living and working environment, significantly reduces fuel bills and does not require behavioural change of occupants.
- Low energy lighting used throughout.
- Installation of energy efficient appliances.
- Electric vehicle charging point to on curtilage parking – this is also a requirement of condition 16 of the Outline planning permission that also requires one EVCP per 10% parking spaces within communal areas.

7.11 The image below shows the measures that will be incorporated into each house at East Hill:

7.12 Phases 2-4 at East Hill will not be served by Gas. Depending on the timescales for introduction of FHS, it may be that some of the homes on Phase 1 could be served by Gas. At this stage, no final decision has been made on whether boilers on Phase 1 will be Gas or Electric. However, should gas boilers be used on Phase 1 they would comply with condition 46 of the outline planning permission which is set out below for ease of reference:

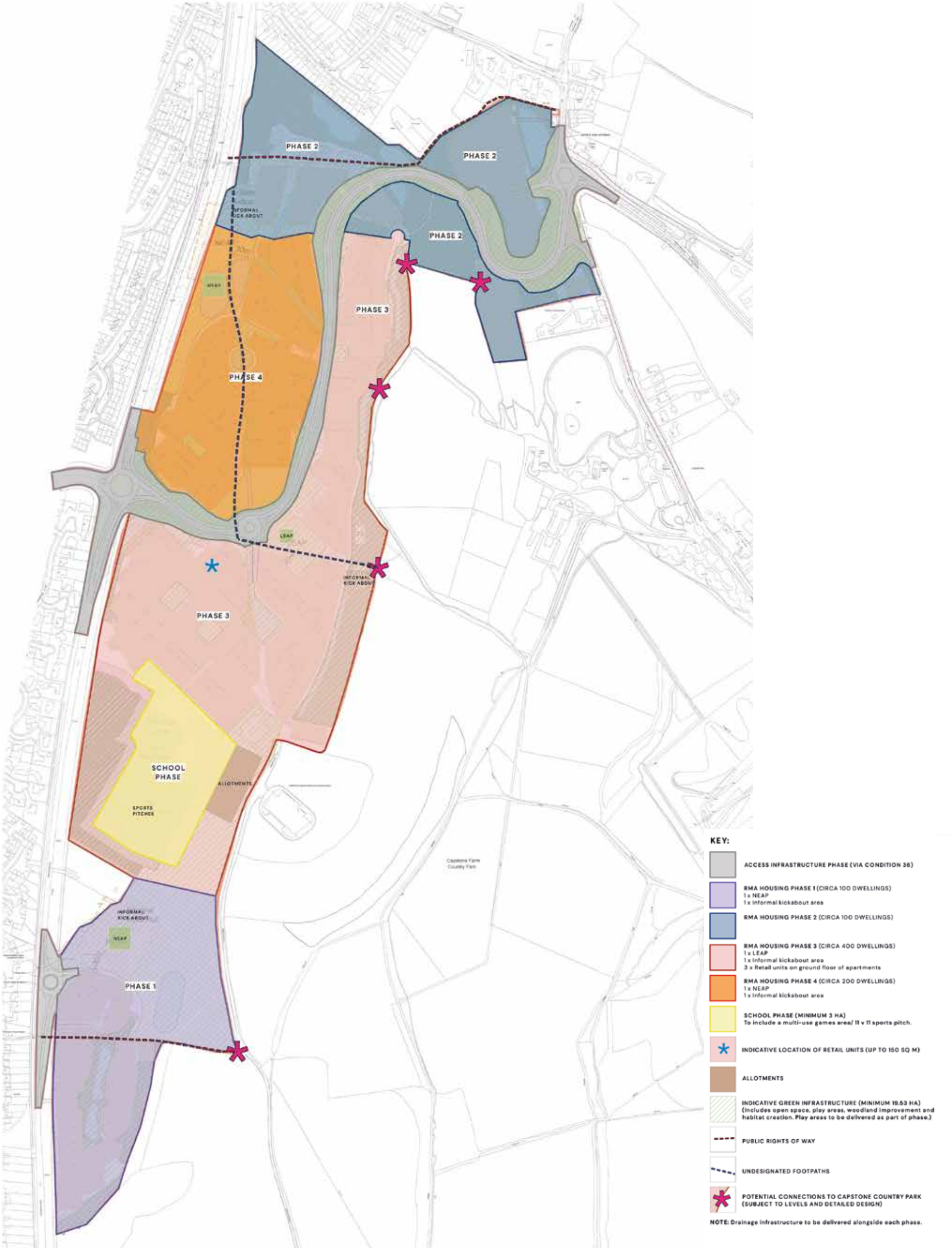
7.13 All gas fired boilers installed in the dwellings hereby approved shall meet a minimum standard of <40mgNOx/kWh or higher where the standard is exceeded by the requirements of Building Regulations.

Future Homes Standard (FHS)

7.14 In addition to the measures to secure compliance with L & F, the following measures will be accommodated once FHS is in place:

- Alternative heating system to gas – options include electric boilers or air source heat pumps. This will be determined by technology, cost, availability, reliability etc.
- Potential cavity width increases to further increase insulation.
- Underfloor heating.

7.15 TW are currently aligning with the projections of the FHS trajectory, in that homes on Phase 1 are designed to parts L & F of the Building Regulations, as the agreed interim step towards the FHS. The actual requirements of the FHS, including its implementation, are not yet known because this is not due to be consulted upon until the spring of 2023 at the earliest. We are therefore unable to commit to any specific designs or standards to meet the FHS because none currently exist. However, Taylor Wimpey will align with the FHS, and its implementation timescales once finalised and published.



Phasing Plan

08 Lifespan

LIFESPAN. Made to last

NATIONAL PLANNING POLICY FRAMEWORK CHAPTERS 8, 12, 14, 15, 16

> ***"Well-designed places sustain their beauty over the long term. They add to the quality of life of their users and as a result, people are more likely to care for them over their lifespan."***
>
> ***(Para. 151, NDG 2021)***

A sense of ownership

8.1 The proposals create areas that are attractive and with clearly defined public and private areas that relate well with one another to help promote a sense of community identity. The development should enable residents to take pride in their surroundings, which in turn will help create a sense of shared ownership and social responsibility.

Adoption areas

8.2 When completed responsibility for long term management and maintenance will typically be separated into areas including:

- Highway adoption areas;
- Public open space areas (put forward for management company maintenance, subject to relevant S106 agreement);
- Private property ownership; and
- Shared maintenance areas such as shared private drives.

Adapting to changing circumstances

8.3 The development can potentially accommodate a range of changing needs of the users over time. This includes changes in the health and mobility of the user, as well as potential changes in lifestyle due to developing technologies, such as use of electric vehicles, remote working and general changes to the way in which people live.

Phasing

8.4 The Indicative Phasing Plan opposite sets out the proposed delivery and phasing of the residential development. The development will commence in the south and then progress in the east with the final phase in the west. The detail of each phase is set out below:

Phase 1 – Western Access from North Dane Way, Residential Parcels (Phase 1) and associated green infrastructure. Including a NEAP and informal kickabout area.

Phase 2 – Eastern Access from capstone Road, Residential Parcels (Phase 2) and associated green infrastructure.

Phase 3 – Residential Parcels, Retail units and associated green infrastructure. Including a LEAP and informal kickabout area and allotments.

Phase 4 –Access from North Dane Way, Residential Parcels and associated green infrastructure. Including a NEAP and informal kickabout area.

School Phase- To include Primary School, a multi-use games area/11 v 11 sports pitch.


APPROVED ROUNDABOUT
SWALE
STREET 02
STREET 03
SHARED SURFACE
SHARED DRIVE
SWALE
STREET 03

09 Conclusion & Building for a Healthy Life Assessment.

Conclusion

> ***"Well-designed places and buildings come about when there is a clearly expressed 'story' for the design concept and how it has evolved into a design proposal. This explains how the concept influences the layout, form, appearance and details of the proposed development. It may draw its inspiration from the site, its surroundings or a wider context. It may also introduce new approaches to contrast with, or complement, its context. This 'story' will inform and address all ten characteristics. It is set out in a Design and Access Statement that accompanies a planning application."***
>
> ***(Para. 16, NDG 2021)***

9.1 This Design and Access Statement has set out a clear explanation of the design process and pre-application stage undertaken. The design process has also included a comprehensive and thorough assessment of the site and its immediate context, the development of a clear set of principles to guide the design of the site.

9.2 The plans and deign approach together with the supporting illustrative strategies demonstrate how the vision for East Hill, Chatham can be delivered to meet the three key NPPF objectives of sustainable design

- A **social** objective;
- An **economic** objective
- An **environmental** objective.

9.3 The development provides a unique opportunity to create a new neighbourhood with a distinctive character. Creating housing choice and provide areas of truly accessible public open space, whilst improving public access across the site and the wider pedestrian network.

9.4 The site layout is founded on best practice urban design principles, community integration and sustainable development, with strong links to the wider area.

9.5 East Hill, Chatham will be a highly desirable place to live for the 21st century and beyond, reflecting the desirable elements of the local vernacular. The proposals respect the local character but also move the community towards a more sustainable future, through a significant increase in housing choice. Development will accord with the principles of high-quality design and best practice to create a townscape that is both varied, and yet sympathetic to its environment. The aim is to achieve a development with a strong identity and distinct sense of place, whilst at the same time integrating with the existing community.

9.6 The development proposals will offer the following main benefits:

- The delivery of up to 91 new homes in a range of dwellings types, sizes and tenure, offering an accessible and acceptable choice of lifestyles;
- The creation of an integrated and sustainable residential community with a sensitive relationship to the existing settlement;
- Delivery of new open spaces or the benefit of both new and existing residents in the area.
- Providing a development that is well connected, readily understood and easily navigated, with the delivery of a new pedestrian links to Capstone Country Park;
- The creation of legible routes through the development, complementing existing routes and providing sustainable transport choices;
- The creation of a strong landscape structure, focused around the existing vegetation and sympathetic to the retained woodland, responding to the local area, and enhancing and optimising the immediate locality; and
- Promoting the objectives of sustainable development through layout and design.

9.7 The Building for a Healthy Life Assessment follows in the next section and demonstrates how the proposals achieve a high standard of design through the 12 criteria.

Building for a Healthy Life Assessment

Building for a Healthy Life (BHL) is the latest edition of and new name for Building for Life 12. The original 12 point structure and underlying principles within Building for Life 12 are at the heart of Building for a Healthy Life.

BHL uses a traffic light system, as shown on the right to demonstrate a schemes compliance with the 12 considerations.

INTEGRATED NEIGHBOURHOODS	
1. NATURAL CONNECTIONS (NPPF 91A; 102C AND E; 104D; 127B; 127F)	
	Access to existing local facilities and services east and west of the East Hill, have been carefully considered at masterplan stage through the provision of a new spine road and series of pedestrian and cycle ways. Not only will this serve the new community but provide direct links for the existing community to Capstone Country Park. The existing PRoW RC9 connects the existing settlements to the west through Phase 1 to the Capstone Country Park to the west via a proposed green axis. From this axis proposed pedestrian and cycle links connect Phase 1 with the wider development to the north including the Proposed Primary School site. These routes follow the existing contours of the site, where possible, to ensure safe and accessible connections. The proposals respect the sites' location, proposing lower density development to the green edges of the site. The proposals form a sensitive transition to the countryside and surrounding existing settlements. All homes will benefit from good access to public open space that will provide a range of recreational opportunities, both formal and informal catering for a range of age groups. The open spaces will be linked by a series of pedestrian and cycle routes connecting places and people as well as providing general recreational routes promoting a healthy and vibrant community.

2. WALKING, CYCLING AND PUBLIC TRANSPORT (NPPF 20C; 91A; 91C; 127E)	
	Central to the wider Masterplan will be the delivery of a new link road transporting vehicles, including public transport, cyclists and pedestrians and connecting them with the surrounding environments providing access to services and facilities. Within the Phase 1 development public rights of way (RC9) will be maintained and reinforced. Improving access to the Capstone Country Park for existing residents to the west of North Dane Way. Phase 1 also provides clear pedestrian/cycle links to the wider site, including direct access to the school and community facilities. It is proposed that all houses (with on curtilage parking) will benefit from EV charging points to encourage the use of sustainable vehicles. In later phases the use of e-scooters, parcel collection points and car clubs could be incorporated into the detailed design.

Green = Go ahead

Amber = Try and turn to green at future stage when outline proposals are developed in detail

Red = Stop and rethink

3. FACILITIES AND SERVICES (NPPF 102; 103)	
	At the heart of the wider development will be a primary school, retail floor space and community facility/ nursery, which will be a focal point for activity in the Site alongside the open space which will be defining feature of the development. This new community will be set within extensive areas of open space providing a significant recreational resource, biodiversity net gains and transition to the Capstone Country Park to the east. It will not only benefit residents of the development but will of benefit to the wider community as an accessible open space resource, encouraging people into the development and increasing access through to the Country Park through securing new points of connection. Phase 1 aims to deliver 91 dwellings, large areas of public open space, including an informal kick about area, a NEAP and attenuation basins. Open spaces will be well surveyed, so they feel safe, with homes being orientated to look over them and to optimise views towards the Country Park. Phase 1 will provide pedestrian and cycle links through the open space to connect with the wider development and Primary School site. To enhance biodiversity, different landscaped environments will be provided within the open space supporting a more varied range of ecology, as well as conserving existing ecology. 20% Biodiversity Net Gain will be achieved on Phase 1. Features to promote and support ecology will also be incorporated into houses. Sustainable urban drainage features will be integrated into the open spaces to manage surface water. Where appropriate these will also be incorporated into development areas as a positive design feature.

4. HOMES FOR EVERYONE (NPPF 60-62)	
	A high-quality, mixed-use development will deliver 800 new homes overall, including affordable homes primarily designed to support families. Phase 1 will deliver 91 of these homes with a mix of 2,3, 4 and 5 bedroom houses. The majority of homes provided are in the form of family housing i.e., terraced, semi-detached or detached with their own amenity space. However, apartments of up to 4 storeys will be provided in the latter phases, particularly in higher density areas and close to proposed services and facilities. It is proposed that 25% of the dwellings provided are to be affordable housing. The development proposes 23 dwellings as affordable, with 14 to be affordable rented and 9 to be shared ownership. All affordable homes in Phase 1 will be M4(2) compliant. The affordable housing is dispersed in clusters within the site, to ensure they are appropriately placed and integrated into the overall site to achieve social integration and cohesion, with clusters further broken down by the tenue mix. All homes will meet Nationally Described Space Standards with a proportion of homes being wheelchair accessible. Each house will be provided with good levels of private amenity space. All homes will be designed with energy sustainability in mind, and a fabric first approach will be taken to the design of all new homes to optimise energy efficiency. Energy saving appliances will also be fitted and all homes will have a renewable energy source provided to help address energy needs.

DISTINCTIVE PLACES

5. MAKING THE MOST OF WHAT'S THERE (NPPF 122D; 127C; 127D; 153B; 184)

Served by its own separate access, Phase 1 is uniquely positioned to be designed as a stand-alone parcel only connected with the rest of the development via public open space and the pedestrian and cycle routes that run through it.

Phase 1 will be designed to take advantage of the unique topography, existing woodlands and views out to the Country Park to the east, The houses will sit within a significant amount of publicly available open space to be used for attenuation, recreation and biodiversity improvements. This initial phase will be well connected to existing development and the Country Park and provide strong connections to future phases of East Hill to the north. This phase will have a distinctive, individual character set within the wider design framework of East Hill.

6. A MEMORABLE CHARACTER (NPPF 122D; 127C; 127D)

The proposals aim to deliver a high-quality range of housing with a distinct character. Proposed materials and architectural detailing aim to minimise the impact of the new development on the countryside to the south and east of the site.

The proposed character areas were set out at an early stage and are detailed in the Design Development Guide. These character areas set out the design principles for the public realm, both open space and development parcels. The built form, materials, architectural treatments, and boundary treatments will vary in the character areas and enable distinct neighbourhoods to be formed.

Phase 1 is situated in the Whites Wood Character area. Phase 1 aims to deliver a sustainable and contemporary, high-quality development which will deliver 91 new homes including affordable homes primarily designed to support families. A mix of homes will be provided with the largest proportion being family sized homes (3 beds +) to meet identified needs.

The proposals have responded to the site's unique topography, working with the steep slopes to create a series of street and spaces along the contours. The PRoW has been retained and enhanced to provide pedestrians walking this route with breathtaking views across the Capstone Valley.

7. WELL DEFINED STREETS AND SPACES (NPPF 102; 103)

The Planning Layout and accompanying Street Hierarchy demonstrate how the streets and spaces have been well enclosed and are predominantly fronted by built form. Further details on the Street typologies can be found within this document.

Frontage to the public open space will create a sense of enclosure, offering natural surveillance and increasing the quality of the public realm. These frontage boundaries will be in the form of low hedge planting and soft landscaping to provide a soft, green edge to the public open space.

The existing landscape features and site topography have played a key role in shaping the layout.

The internal road network with Phase 1 has been designed to encourage low vehicular speeds (circa 10-20mph) and streets will be defined by the building layout, so that buildings and spaces, instead of roads, dominate the street scene. The design promotes safe walking and high permeability through the site and aims to limit the potential for anti-social behaviour.

The proposed street hierarchy recognises the need to combine the function of the street as a movement corridor, alongside its placemaking function. The importance of each of the street types in terms of its movement and place function varies within the hierarchy.

8. EASY TO FIND YOUR WAY AROUND (NPPF 91B; 127B)

A number of features are included within the scheme to enhance its legibility. Changes in surface materials demonstrate different pedestrian, cyclist and vehicular priorities, whilst keys spaces, landscaped squares and existing landscape features will act as focal points within the site.

The proposed built form and landscape character areas will aid movement through the site, by providing contrasting approaches to architecture, materials, tree species and boundary treatments.

Landmark or key buildings and spaces will be utilised to aid legibility, playing a vital role in making the proposals easy to navigate. The design of these buildings will be determined at the detailed design stage and as part of architectural competitions to ensure the highest quality delivered.

The masterplan has been subject to a Design Review. This process allows independent design professionals to comment and guide the design to ensure the masterplan adheres to the highest standards of urban design.

As you enter Phase 1 of the development you approach the Gateway Entrance, cars are removed from the Street Scene and Built form given priority. The Street alignment allows views out across the Capstone Valley and is open to a large area of public open space giving the scheme a rural feel. As you enter the site a series of green links from north to south and east to west provide views out and direct pedestrian routes connecting to the surroundings.

STREETS FOR ALL

9. HEALTHY STREETS
(NPPF 91B; 102C AND E; 110A-D)

One of the key design principles for East Hill was to ensure that new residents are encouraged to use active modes of transport over the car. This has been delivered through a clear hierarchy of streets where pedestrian and cycle movements are prioritised over the car. At Masterplan stage the spine road was designed so that cycleways and footpaths are segregated from the road.

Within the development parcels the streets have been designed to encourage movement by foot or bike. The primary street into Phase 1 has a 3m wide foot/cycle way, the majority of this is separated from the street with a green verge, allowing space for large trees. It also provides direct links to the Public Right of Way leading to Capstone Country Park and to the Primary School and northern part of the development.

10. CYCLE AND CAR PARKING
(NPPF 101E; 127F; 105D)

One of the key design principles for this scheme is to promote active modes of transport. A bus route is proposed to go through the site and walking and cycling are encouraged. Cycle improvements will also be delivered as part of the S106 contributions.

Car parking will be delivered in accordance with local guidance as set out within this document. A variety of parking typologies will be implemented to enforce this, this will predominantly be in the form of On-plot parking.

In Phase 1, it is proposed that all houses (with on curtilage parking) will benefit from EV charging points to encourage the use of sustainable vehicles.

11. GREEN AND BLUE INFRASTRUCTURE (NPPF 20D; 91B; 91C; 127F; 155; 170D; 174)

The Indicative Masterplan and design proposals have very much been landscape led, from the initial site assessment and design concept, the existing landscape features have shaped the development.

The existing vegetation has been integrated into the design at Masterplan stage and detailed design stage. Boundaries have been sensitively designed to respect the existing ancient woodland and vegetation.

Drainage attenuation basins have been carefully considered across the scheme. The attenuation basins have not just been located at the bottom of the slope, they have been integrated into the development parcels wherever possible to ensure proposed dwellings have views not only of green infrastructure, but green and blue infrastructure, through attenuation basins and swales. Throughout Phase 1 the swales have been carefully designed into the street typologies to create linear green corridors adding to the rural nature of the site.

12. BACK OF PAVEMENT, FRONT OF HOME (NPPF 127A-B; D; F)

The use of strong building lines and front garden landscaping treatment will contribute towards clearly defining public and private space. Proposed boundary treatments could include post and rail fencing with planting to the site entrance but predominantly the use of low hedges and soft landscaping to the front and brick walls, timber close board fences to rear gardens.

Variation in the use of surface materials will also help to define public and private areas, and buildings have been designed and orientated so that residents will be able to see these streets and spaces from within their homes.

Dwellings will benefit from private amenity space and will also provide the opportunity for residents to store bins and recycling boxes away from the street. The design of landscaping to individual dwellings will be set out at the detailed design stage.

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