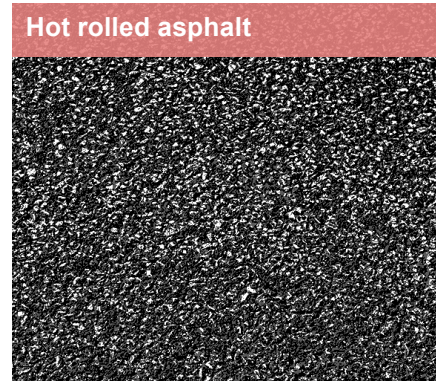
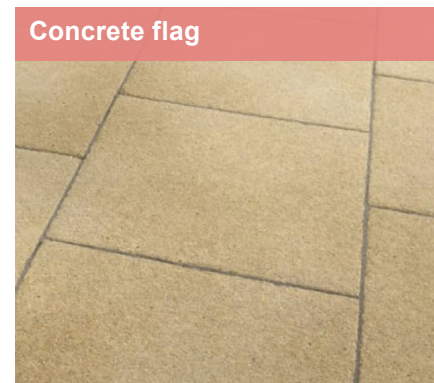
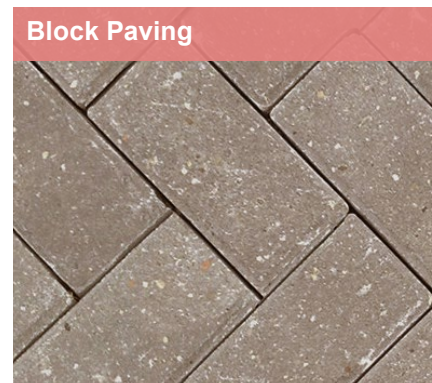


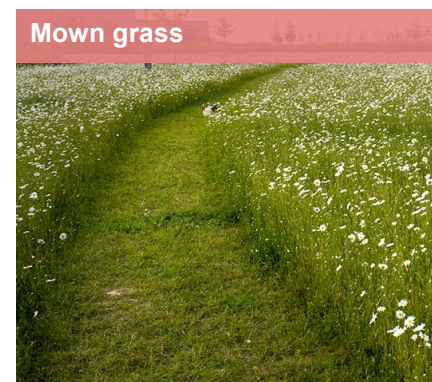
STC & Commuter Routes



Pedestrian/ Cycle Leisure Routes & Public Realm



Informal Public Realm



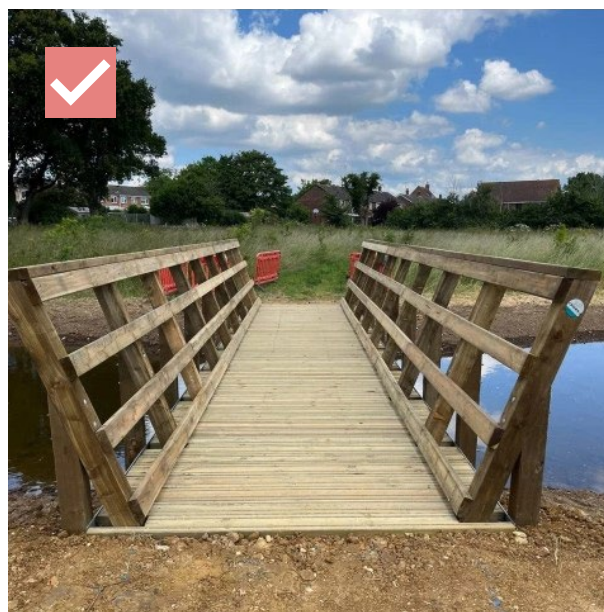
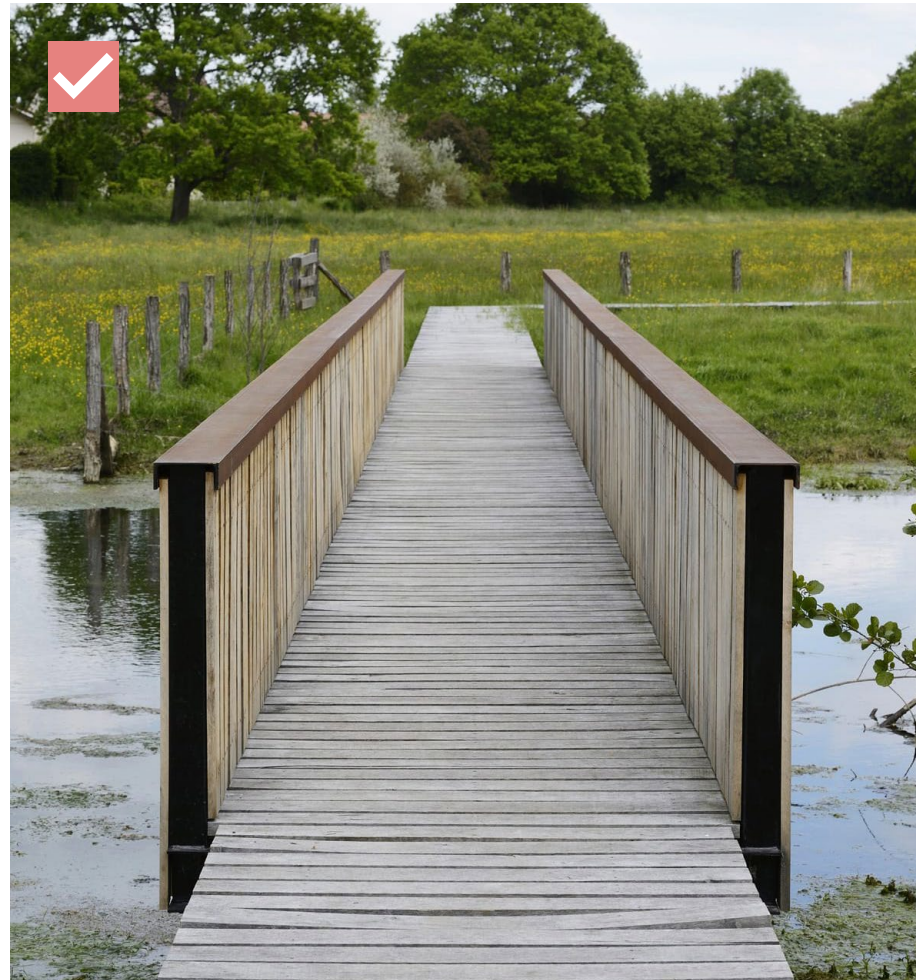
Detailing the Landscape

5.1.7 Hard Landscape Details

Footbridges

The Gilston Area contains several existing watercourses and main rivers. To deliver a high quality active travel network, additional crossings for pedestrians and cyclists should be delivered. The proposals for the bridges must comply with the following design guidance:

1. Bridges for pedestrians and cyclist (footbridges) **must** be of appropriate scale and **must** not be excessively large and **should** not include excessively large engineered features
2. The location and design of footbridges **must** be carefully considered to avoid adverse impact on water quality of the ecological connectivity of the watercourse. This may include
 - Removal or enhancement of existing culverts
3. The design of the footbridges **should** make a positive contribution to the public realm and should be sensitive to the existing rural character of the landscape
4. Footbridges **should** be constructed with durable materials with consideration of maintenance requirements



5.1.8 All Modes Parking

SLMP Parking Provision

Anticipated necessary car parking locations within the SLMP are identified in the Regulatory Plans for key community uses (see point 1 below). Further small scale car parking may be required at RMA stage. All parking must follow the requirement set out below.

Design Requirements

The OPP commitment to promoting 60% of all trips made by sustainable modes **must** be a key consideration in determining adequate car parking provision within the SLMP. An appropriate provision of car and cycle parking within the SLMP **must** be provided, with the necessary flexibility to reduce the available car parking and increase cycle parking based on the sustainable travel aspirations of the site.

1. Car parking **must** be provided at key locations within the SLMP where this is needed to support community uses:
 - Gilston Park community sports pitches and club-house
 - Gilston Fields community sports pitches and club-house
 - Hunsdon Airfield Park and Eastwick Woodland Park. This may be a combined provision associated with the Destination Play Space and the future uses of the Black Barns.
 - Football Hub located within Village 7
 - Maintenance vehicle parking
 - Sport pitches and allotments within Eastwick Valley Green Corridor
2. SuDS principles **must** be incorporated into all car parking proposals



3. Parking areas **must** be sensitively integrated into their landscape context.
4. Space provision for maintenance vehicles within the landscape **must** be discreetly integrated into the overall landscape design and consider potential for multi-functional use and use of low-impact surfacing. Use of permeable surfacing **must** be considered.
5. Allotments and Community Orchards. This provision **should** be centred on provision for disabled parking and drop-off loading / unloading requirements and assisted by facilities which support the choice of alternative options such as lockable shed provision for tools and a cargo-bike-hire scheme for transporting heavy and large items.

Coach Drop-off

Within Gilston Park and Gilston Fields and Hunsdon Community Park/ V7 Football Hub, coach drop-off for sports teams may need to be accommodated, either within the SLMP or potentially nearby Village facilities.

Cycle Parking

The quality of cycle parking provision is integral to supporting the new community of the Gilston Area in making the choice to use active travel modes.

The SLMP Character Area plans define key nodes within the landscape where cycle parking could be provided in order to provide a high level of convenience for people visiting and travelling through the various landscapes, in order to encourage the use of cycling for both leisure and as a comfortable and efficient means of undertaking daily activities. The provision within the SLMP landscape will typically be of an informal short-stay nature.

Design Requirements

1. Sufficient cycle parking provision **must** be allocated in order to support travel by sustainable modes. Appropriate levels of cycle parking **must** be provided at entrances and gateways to all Character Areas
2. Cycle parking provision **must** follow best practice principles of:
 - Conveniently located for access to key destinations
 - Located adjacent to key routes and in well overlooked locations
 - Cycle parking to be well integrated into the public realm and landscape to avoid conflict with other uses and visual clutter
 - Where night-time use of the space is anticipated the cycle parking should be well-lit
 - Robust stands which provide security and stability are to be used
3. A range of inclusive cycle parking arrangements are to be offered to support different types of cycle including those used for adapted mobility, and large-sized spacing to accommodate cargo bikes, including adequate surrounding space for manoeuvring of cycles.
4. Proposals **should** consider provision of cycle-hire / e-bike hire / e-scooter-hire within the landscape to provide a range of sustainable transport choices. Where such schemes are introduced adequate spacing of allocated drop-off areas **must** be incorporated into landscape proposals at key locations in order to avoid conflict with other uses of the public realm. Proposals for cycle-hire / e-bike hire / e-scooter-hire **should** take into account emerging strategies developed by HGGT
5. At key hubs within the SLMP landscape the provision of a pump and repair facility **should** be provided to support cyclists, in particular at Hunsdon Airfield Park and Eastwick Woodland Park which require longer journeys away from the STC.
6. Where RMA designs establish that cycle shelters or secure cycle parking facilities are required within SLMP areas, these structures **should** follow the principles set out in "5.5.8 Ancillary Buildings within the Landscape"

5.2 Green & Blue Infrastructure

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Detailing the Landscape

5.2.1 Introduction

Green and Blue Infrastructure - Background Context

THE GREEN & BLUE INFRASTRUCTURE STRATEGY WILL ACHIEVE:



The OPP Development Specification sets out the following key parameters in relation to Green and Blue Infrastructure:

Based on the existing site features and subject to any vegetation loss being justified at the Masterplan stage as described in respect of Parameter Plan 1, this Parameter Plan sets out the following buffer areas where no built development is to take place, subject to any exclusions indicated below:

- Existing Ancient Woodland – a 20m buffer comprising appropriate vegetation i.e. scrub, shrubs, grassland, etc. This buffer is to be free of any built intrusion, with the exception of footpaths, cycleways, SuDS and associated well-designed recreation furniture and play equipment to encourage residents to use the areas designed and managed for access and prevent trampling of sensitive habitat;
- Existing Non-ancient woodland – a 10m buffer comprising appropriate vegetation ie scrub, shrubs, grassland, etc. The buffer should be free of any built intrusion with the exception of footpaths, cycleways, SuDS and associated well-designed recreation furniture and play equipment;
- Existing Waterways – a 20m buffer from each side of the centreline of the watercourse. The buffer will comprise an area of semi-natural vegetation and will include one or more of the following; wetland, grassland, scrub and trees. The buffer should be free of any built intrusion with the exception of footpaths, cycleways, SuDS and associated well-designed recreation furniture, and the interface with the Sustainable Transport Corridor;
- Existing Hedgerows – a 5m buffer from the centre of existing hedgerows shown on Parameter Plan 2 (i.e. 5m each side) or to the edge of the root protection zone which can comprise shrubs and/or grassland. The buffer is to be free of any built intrusion with the exception of footpaths, cycleways, SuDS and associated well-designed recreation furniture and play equipment; and
- Existing Veteran Trees – buffer to be at least 15 times larger than the diameter of the stem of the tree (measured from 1.5m above existing ground level), or 5m from the edge of the tree’s canopy, whichever is greater. In respect of the veteran tree between Village 1 and 2 (listed as tree T324 in the Tree Survey Schedule in the ES Addendum) the buffer may be less than this as long as this is not detrimental to the health of the tree or its habitat value.

As recognised within the spatial masterplanning set out in the Gilston Area Concept Framework, some loss of hedgerows/vegetation will be necessary to deliver the proposed development and achieve the placemaking and other policy objectives of the Gilston Area. The exact quantum and location of any loss cannot be identified at this outline planning stage, and will be considered as part of the Strategic Landscape Masterplan and Village Masterplans.

Any loss should be kept to a minimum, and should be robustly assessed and justified having regard to the value of the asset, placemaking requirements, the character of the village, etc. Where possible any loss should be focused on those hedgerows/vegetation that are evidenced to have lesser ecology, biodiversity and/or heritage value. Where loss is proposed to higher value hedgerows/vegetation, justification will need to be evidenced.

Any loss will need to be compensated for appropriately and proportionately to the value and extent of proposed features to be removed through new planting and other enhancements and improvements to achieve an overall net biodiversity gain set out in Section 3.

The V7 DSS sets out the following key parameters in relation to Green and Blue Infrastructure: “Protection of existing vegetation and habitats through retention and protection of existing Veteran Trees and Notable Trees of amenity value; minimum 20m buffers to Existing Ancient Woodland; minimum 10m buffers either side of Existing Non-Ancient Woodland; retention of Existing Hedgerows as far as possible; and, Minimum 3m strip either side of Existing Watercourses for maintenance access. Respective strategies concerning Green and Blue Infrastructure to be prepared and submitted in support of Village and Strategic Landscape Masterplans.

5.2.2 Green and Blue Infrastructure

The Role of Green and Blue Infrastructure in the SLMP

The role of the SLMP green infrastructure is central to the Gilston Area development for it provides the vital ecosystem services which underpin a healthy sustainable community rooted in enjoyment of the natural environment. The range of benefits which the Green and Blue Infrastructure provide include:

- Movement corridors for active travel routes in particular, providing beautiful and varied walking and cycling routes to be incorporated into daily routines and leisure activities. To these routes the landscape provides natural sources of shade, cooling, clean air and wind protection.
- Space for sports and informal exercise, encouraging healthy lifestyles and social engagement
- Flood mitigation, and sustainable drainage of surface water from the Villages, including treatment of water quality, providing protection to watercourses
- Habitat connectivity and diversity and enhanced management, supporting biodiversity and its important role in maintaining healthy landscapes
- Visual screening, separation and integration, particularly in regard to the impacts on existing settlements
- Food production at different scales, from individual allotment plots to shared community orchards, and foraging hedgerows to opportunities for cooperative market gardens and regenerative agriculture
- Heritage protection through enhanced interpretation and managed access to important sites
- Sense of place through enabling people to access and connect with a landscape that offers many different characters and qualities and which can offer further engagement to those interested in conservation and landscape-based knowledge and crafts.
- Climate-change mitigation - through new planting, soil protection, carbon sequestration, resource management
- Employment and education. The long-term stewardship of the landscape requires considerable knowledge and input and these provide good opportunities for education and employment around land-based skills



Fig.138 Reference image of green infrastructure providing ecological connectivity, ecosystem services and movement and leisure opportunities for people through semi-natural landscape

5.2.3 Landscape Management

Landscape Management and Maintenance

Landscape management and maintenance will be integral to the success of the SLMP landscape proposal, both at detailed design and implementation stage and in the long-term.

As an overview it is envisioned that well-conceived RMA Designs and the Landscape Management and Maintenance Strategy will include the following considerations:

- Project objectives and clear guidance on how the appropriate balance of social, economic and environmental objectives for each area will be achieved
- Site-specific requirements based in detailed understanding of the site conditions and features including designated features (landscape and heritage), site soils and climate
- Full understanding of the anticipated types of activities proposed to take place in different areas and the frequency of use.
- Land-owner responsibilities and management requirements relating to safety, security, access, tidiness and cleanliness
- Environmental Management, including Sustainability, Water Resource Management, Soil Management, Waste Management, Environmental Impact, and clear guidance on Prohibited Products
- Biosecurity, including UK Guidance and Protocol, Notifiable pests & diseases
- Developing Resilience, particularly in relation to climate change and biosecurity threats
- Ecological Enhancement as a core theme influencing both design proposals, management strategies and maintenance regimes
- Developing a Dynamic Land Management approach to management of the Gilston Area land intended to remain in agriculture
- Consideration of maintenance outcomes through the design process, including material durability and life-cycle costs, suitable provisions for maintenance access and integrated Construction (Design and Management) (CDM) approach
- Strategy for ongoing collaboration between designers and maintenance teams to achieve best outcomes during design and post implementation.
- Softworks Strategy, outlining requirements for establishment, maturation period and long-term management

Further detail on the future planting proposals and landscape management and maintenance will be addressed through the RMA proposals and conditions discharges, together with the Stewardship proposals for the Gilston Area.

5.2.4 Topography and Levels

Levels Design

The natural topography of the site features significant undulations from the highest points at the Hunsdon Airfield plateau and Eastwick Woodland to the tributary valleys carved through the landscape by Eastwick Brook, Golden Brook and Fiddler's Brook. This undulating topography contributes to the strong character and diversity of the landscapes of the SLMP.

The SLMP is a landscape-led masterplan and has been designed to work with the existing topography. Elements of the proposals which require flatter sites such as sports pitches, are located on naturally flatter areas of land and graded as sensitively as possible to integrate into these areas, as illustrated in the indicative sports sections for Gilston Fields within "5.4.4 Sports and Recreation"

Design Requirements

The following requirements outline the approach to levels design and integration

1. All proposals within the SLMP **must** be developed with consideration to the natural topography and natural features and heritage of the landscape.
2. Proposals **must** be sensitive to the effect of topography on existing key views and should be designed with consideration to the existing landscape character of the location.
3. New features such as sports pitches, SuDS features, key infrastructure (e.g. substations) may require areas of earthworks and regrading. These features **must** be sensitively integrated into the landscape as far as possible, taking into consideration safety, accessibility, visual amenity, ecological benefits and maintenance.
4. Where possible earthwork material **should** be reused on site across the development to avoid importing material
5. New paths within the landscape **should** be designed to meet accessible gradients and cross-falls as described within "5.1.2 Active Travel Routes". Where existing topography for routes is particularly constrained, stepped access may be used on non-commuter routes, providing alternative step-free routes to key destinations are provided.
6. In constrained locations proposals may consider introducing terraced landform and or/ use of retaining elements such as gabion walls, to manage more significant level changes. Retaining elements may also be utilised to partially conceal features such as substations within the landscape. Such features **should** follow the principles set out within the section "5.5.2 Public Realm Design"
7. V7 Greenway noise mitigation bund **must** be constructed from site won soils subject to construction phasing, before additional material is brought on site. Noise bund **must** be planted and provide public amenity whilst adhering to requirements set out in Noise Impact Assessments

5.2.5 Existing Vegetation

Existing Ancient & Non-Ancient Woodlands

Design Requirements

1. Buffer zones to existing woodlands, as set out in the OPP Development Specification and Parameter Plans, **must** be respected. These **must** comprise of; 20m buffer to existing Ancient Woodland and 10m buffer to existing non ancient woodlands as set out in the Development Specification
2. Designs **must** demonstrate that the inclusion of any SuDS features within the buffer zones of Ancient Woodland will not negatively affect root protection zones, and that any changes in hydrology will not adversely affect Ancient Woodland. If adverse impacts cannot be avoided, adverse effects **must** be mitigated appropriately.
3. Proposed creation of new and enhanced paths within existing woodlands **must** be informed by a tree survey and designed to minimise changes to ground levels, impact on and compaction of root protection areas (RPAs), and permeability of the ground conditions.
4. Proposals **should** consider opportunities to connect people with nature through experiencing the Gilston woodlands, for example through introduction of forest school areas, woodland craft workshops and conservation education and volunteering opportunities
5. Buffer zones **must** be planted with native tree, shrub, herbaceous or grassland species typical of woodland edge habitats including:
 - A variety of species which **must** provide habitat value and seasonal interest
 - Tree planting **must** be proposed in a range of sizes for tree-stock, including standard trees, to produce early impact for integration
 - Species selection **should** be informed by arboriculturist and ecologist analysis of Ancient Woodland flora, fauna and enhancement opportunities.
 - Informal planting arrangement, creating a diffused edge to the woodland with structural complexity.

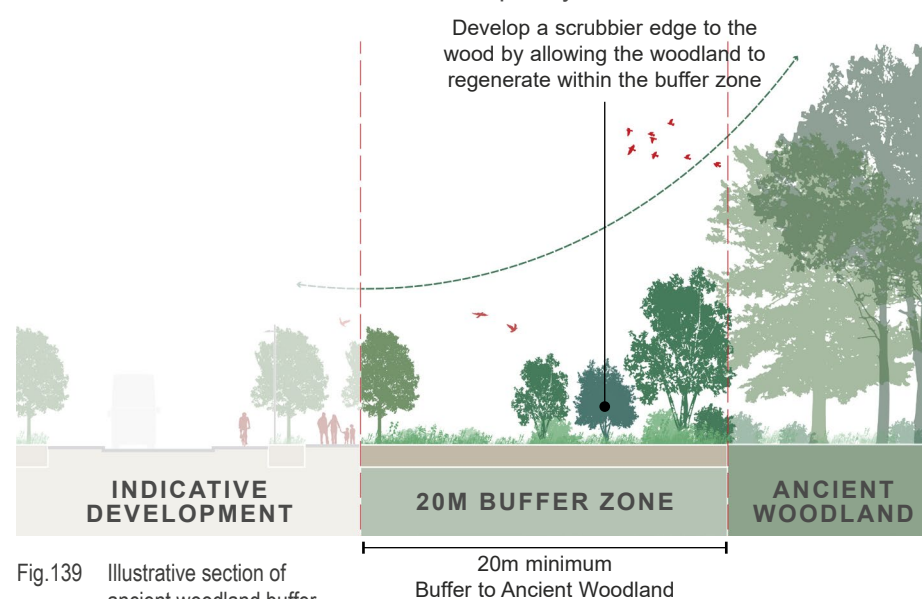


Fig.139 Illustrative section of ancient woodland buffer

Design Guidance

Existing Ancient and Non-Ancient Woodlands are protected through the commitments of the OPP Development Specification which defines a buffer zone to be observed to both.

The SLMP sets out the following ways in which the management of existing woodlands could be enhanced to increase diversity and resilience:

- Increasing proportion of fallen and standing deadwood within the woodland
- Increasing open space by widening selected routes & developing clearings where rides meet
- Developing a scrub and understorey edge to the woodland with diverse flora as part of the woodland buffer zone
- By supporting older trees to develop to veteran status
- By controlling deer & squirrel numbers to reduce damage to ground flora & tree regeneration & reducing invasive species through woodland management
- Employ temporary fencing measures where appropriate to protect sensitive flora and habitats from increased (recreational) use
- Maintaining wet ditches.

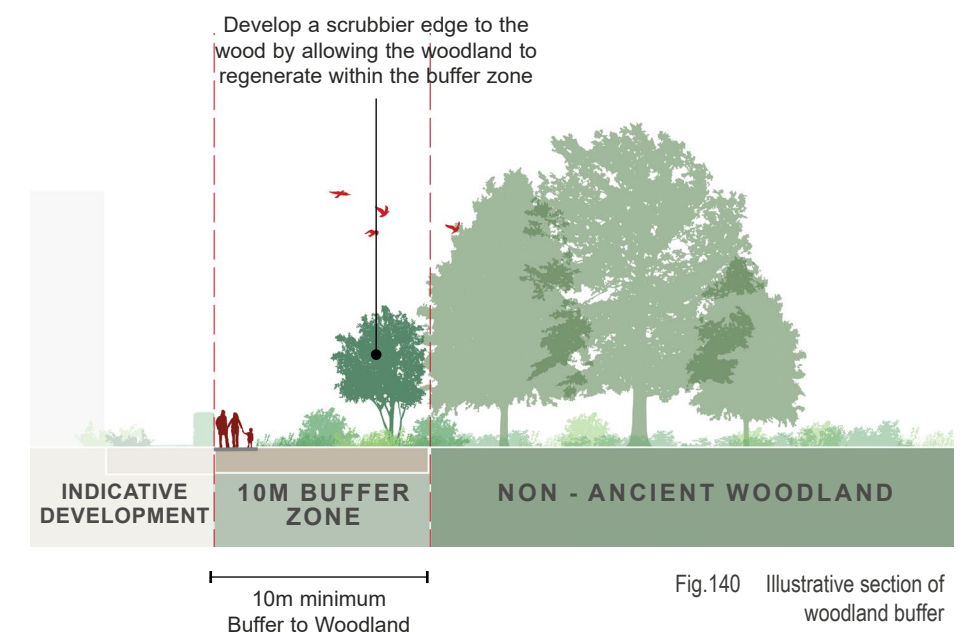


Fig.140 Illustrative section of woodland buffer

Existing Veteran Trees

Design Requirements

1. Buffer zones **must** be respected around all existing Veteran Trees, as set out in the OPP Development Specification and Parameter Plans.
2. In exceptional circumstances it may be necessary to undertake works within the exclusion zone associated with a Veteran Tree. In such incidences such proposals **must**:
 - Ensure that works are not detrimental to the health of the tree or its habitat value.
 - Be accompanied by an Arboricultural Method Statement
 - Minimise alteration to ground levels
 - Be designed utilising appropriate no-dig techniques to avoid disruption of the root zone
 - Ensure RPZ's during any construction works are strictly observed

Existing Hedgerows

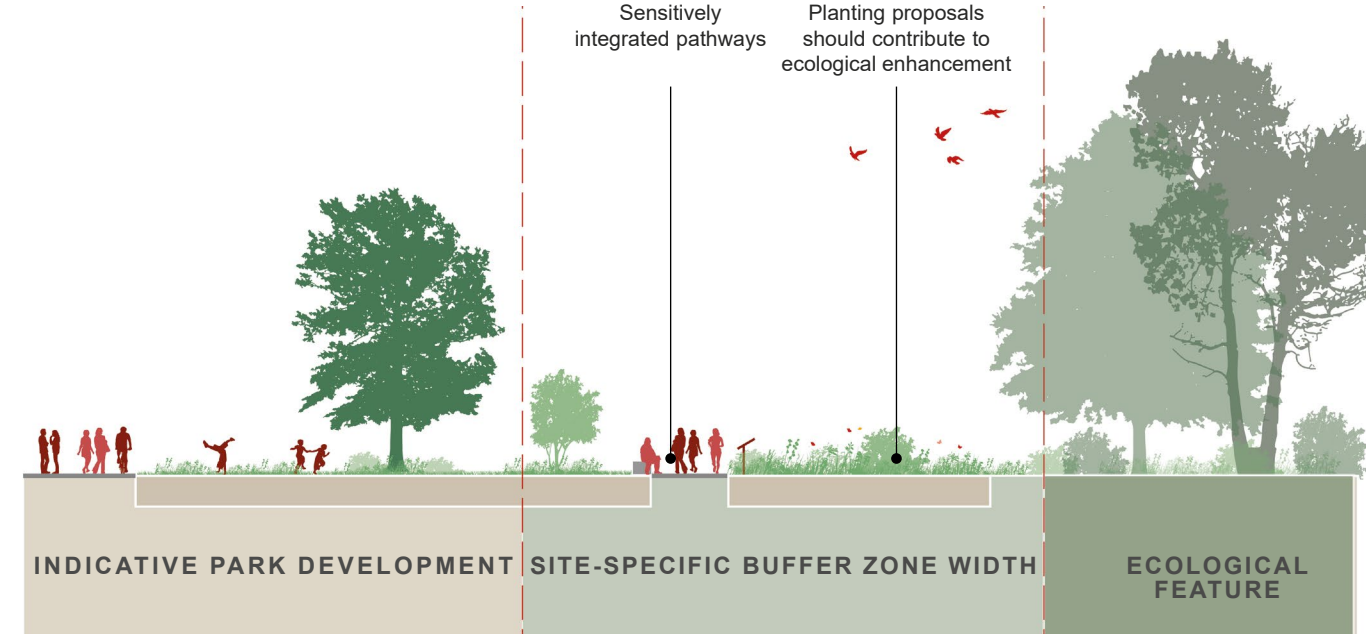
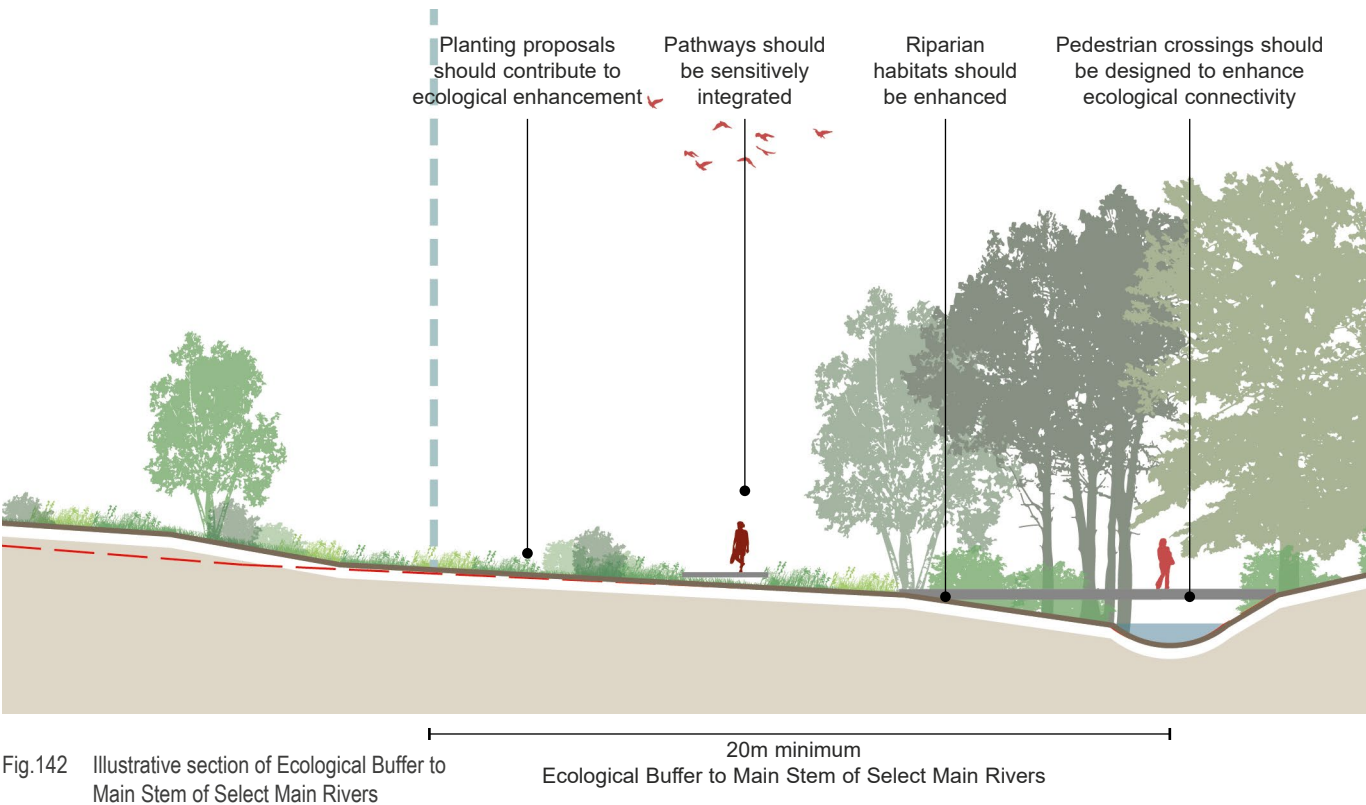
Design Requirements

1. Loss of hedgerows **must** be kept to a minimum in line with the OPP Development Specification. Where loss of hedgerows within the SLMP is unavoidable, appropriate compensation **should** be provided. This could include translocation of existing hedgerows where appropriate.
2. Buffer zones to existing hedgerow, as set out in the OPP Development Specification and Parameter Plans, **must** be respected. These **must** comprise of 5 meter buffer zones to either side of the centreline of the hedgerow as shown on the Parameter Plans.
3. Hedgerow interfaces **should** be planned to incorporate opportunities to reinforce and enhance the existing form, diversity and habitat value of hedgerows through supplementary hedgerow planting and, where space allows adjacent planted margins of woodland edge / species-rich meadow grassland.
4. Supplementary planting and selective maintenance **should** seek to develop individual and groups of standard-form trees within the hedgerow

Design Guidance

An extensive network of existing hedgerows across the site provides habitat connectivity and a landscape legacy to the future development. Hedgerows within the SLMP landscape:

- Could provide opportunities to develop site land-based skills through the introduction of traditional hedge-laying techniques
- Could provide opportunities for community foraging and associated seasonal activities as a way to connect with the countryside setting of the development



Detailing the Landscape

5.2.6 Ecology and Habitats

Protection of Existing Habitats and Ecological Assets - Background Context

The OPP Development Specification sets out the following key parameters in relation to Habitats and Biodiversity:
Development should protect & minimise harm to valuable ecological habitats & protected species through:

- Respect buffers set out on Parameter Plan 02 and described within the Development Specification
- Minimise loss / fragmentation of valuable habitat through detailed design. Compensate for loss through habitat creation / enhancement;
- Minimise number of watercourse crossings, ensure crossings are designed so they do not unreasonably impede movement of animals / water flow;
- Incorporate sensitive treatment of green edges, sensitive siting / design of public access & play areas. Include pollution prevention measures as part of SuDS, adhere to Lighting Principles to minimise disturbance.

The OPP Development Specification Statement for Village 7 sets out the following principles in relation to Habitats and Biodiversity for the detailed design and planning of Village 7:

- Protects (having regard to the details and minimum buffers shown on Parameter Plan 2) and enhances the most important assets within and immediately adjacent to the site to include Local Wildlife Sites, Ancient Woodland, woodland, retained hedgerows, veteran trees and open space along watercourses;
- Maintains ecological permeability through the development and links to the Stort Valley and surrounding context;
- Enables access to nature where appropriate being mindful of avoiding disturbance to existing sensitive species and ecologically sensitive sites both within and immediately beyond the application site boundary;
- Maximises opportunities to integrate appropriate biodiversity into the built development, landscape and active landscape management. Measures may include active woodland management, bat and bird boxes, green and brown roofs, land for grazing animals, creation of log and brash piles, utilisation of SUDS features, tree planting, creation of species-rich grassland and wetland and the restoration of existing maintained features where required such as hedgerows and watercourse;
- Has given due regard to any management and maintenance required to ensure all protection and enhancement measures will be effective in the long term.

To ensure Gilston Park Estate enriches biodiversity & delivers net gains, development should:

- Improve ecological function by ensuring green infrastructure enhances & connects with existing natural areas;
- Maximise biodiversity benefit (including within villages) & achieve a min net biodiversity gain of 10% or more for the Development as a whole with potential to deliver greater increases of up to 30% habitat and 19% hedgerow across village 7;
- Deliver ecological enhancement of Local Wildlife Sites, Ancient Woodland, woodland, retained hedgerows, veteran trees, & open space along watercourses within the Site;
- Select species which promote & support native diversity & are resistant to disease & changing conditions of climate & soil;
- Include interpretive, educational information where appropriate; &
- Secure management of areas of high ecological value & newly created habitats in line with the principles of the Outline Ecological Management Plan (appended to the ES).

Key ecological assets of the site are identified as:

- Local Wildlife Sites,
- Ancient Woodland,
- Non-Ancient Woodland,
- Waterways,
- Significant hedgerows,
- Veteran trees
- Other areas protected by Ecological Buffers (Stone Basin Springs, Gilston Valley Riparian Corridor & The Chase)

Strategies for protecting existing and enhanced habitats from the pressures of increased use include:

- Confirmation of types of activities acceptable in each type of landscape based on their biodiversity requirements in balance with other uses
- Definition of Nature Priority Zones within the landscape as defined within the Regulatory Plans
- Sensitive responses to lighting requirements in areas of ecological importance. Refer to section "5.5.5 Lighting"
- Provision for appropriate seasonal responses to increase protections during breeding seasons (e.g. temporary fencing) and strategies for protection of sensitive areas such as watercourses from dog walking through an informative wayfinding and interpretation strategy

Watercourse Habitat Enhancements Design Requirements

The following requirements set out the strategies intended to contribute to enhancement of riparian habitats and ecology

Landscape proposals:

1. **Should** provide ecological enhancements to existing watercourses by creating complementary riparian habitat features such as inset berms, lowered berms, floodplain scrapes, riparian wetlands and other riparian enhancements. In addition, in-channel features such as pools and riffles and woody habitats should be explored where appropriate.
2. **Should** explore removal and/or enhancement of existing culverts where appropriate and feasible as an opportunity at RMA stage to enhance connectivity

Nature Priority Zones Design Requirements

The Regulatory Plans and the strategy diagram adjacent identify indicative locations for Nature Priority Zones within the SLMP landscape. The primary aim is to create high quality ecological connectivity by creating a rich mosaic of habitats. To be coordinated with project ecologist at RMA stage. Within these areas the designs:

- 1. **Must** be designed to respond to the specific ecological conditions and enhancement opportunities of the location identified as appropriate by the project ecologist
- 2. **Should** be designed where possible to prioritise ecological requirements and sensitivity over other land-uses and activities, such as public access, leisure and recreational activities and infrastructure requirements.
- 3. **Should** consider appropriate boundary treatments to manage access needs and habitat protection, including, where appropriate, signage to enable understanding of the objectives for land-use and management for the area

KEY

SLMP Study Area

Existing Woodland

SLMP Areas

SLMP Areas - Strategic Parks & Strategic Green Corridors

Nature Priority Zones - Shown indicatively. Exact extent to be defined at RMA stage in coordination with Project Ecologist



Fig.144 Examples of appropriate boundary treatments to nature priority zones



Fig.145 Nature Priority Zone strategy - indicative

Habitat Enhancements

The following requirements set out the specific strategies intended to contribute to enhancement of site-wide habitats and ecology

Design Requirements

Landscape proposals:

1. **Should** connect existing habitat types where these are currently isolated and strengthen linear landscape features
2. **Should** increase habitat diversity through introduction of pond and wetland features where appropriate (including SuDS), varied vegetation structure, and planted landscape features such as banks and scrapes
3. **Should** include creation of habitat piles and hibernacula and creatively display arrangements within the landscape to promote understanding of the role of such features in wildlife conservation
4. **Must** develop planting strategies which support wildlife through including planting to provide food sources including seeds, berries, nectar, diverse native species
5. **Must** provide a variety of shelter for wildlife - including both built features such as bird boxes, bug hotels, and reptile hibernacula and through inclusion of areas of scrub and structurally dense planting within the landscape.
6. **Must** look for opportunities to incorporate ecological benefits into built form within the landscape where feasible e.g. bug hotel structures, swift bricks, hedgehog holes in fences etc.
7. **Must** encourage community engagement in local wildlife conservation through communal schemes and promotion of wildlife friendly gardening



Fig.146 Example of constructed habitat enhancement interventions

New Ponds

New ponds will be created within the Eastwick Wood Park, incorporating associated aquatic and marginal habitats. These features are to be designed to the following requirements:

Design Requirements

The Freshwater Habitats Trust provides details on successful creation of ponds. In order to achieve the ecological benefits intended for these ponds on this site the designs:

1. **Must** link existing known Great Crested Newt habitats as defined with the OPP Great Crested Newt Mitigation Strategy
2. **Should** incorporate appropriate fencing into the overall area to exclude dogs and grazing animals from wildlife ponds
3. **Should** consider potential future maintenance needs in regards to the basin shape and access
4. **Should** locate ponds within areas of natural depressions and low points and consider use of a clay liner to assist with water retention. Water supply options **should** also be considered including feasibility and suitability of potential supply from local watercourses, or by bringing in potable water supply for topping up.
5. **Must** include some deeper areas to reduce the risk of excessive warming and/or the ponds drying up completely in the warmer months of the year. The design **should** consider the ponds resilience to climate change. Deeper areas will also naturally control the advance of reeds etc. thus maintaining an open water pool with healthy ability for gaseous exchange with the atmosphere and a range of habitat biodiversity.
6. **Must** feature areas of very shallow water through including large areas of very gently sloping gradient
7. **Should** feature planting of a marginal aquatic 'hydrosere' around the pond will help buffer nutrients and fine sediment etc. from surrounding land and help keep the trophic status of the pond in check.
8. Public access **should** be restricted by planting to discourage feeding of wildfowl which can also be highlighted through signage. Appropriate access points **should** be designed-in through inclusion of structures to facilitate pond-dipping
9. Long linear pond shapes **must** be avoided as these attract large numbers of wildfowl.
10. Tree planting around the margins of the ponds **should** be avoided to reduce leaf litter entering the ponds.
11. Wildlife ladders **should** be provided to ponds



Fig.147 Example of constructed habitat interventions

5.2.7 Planting

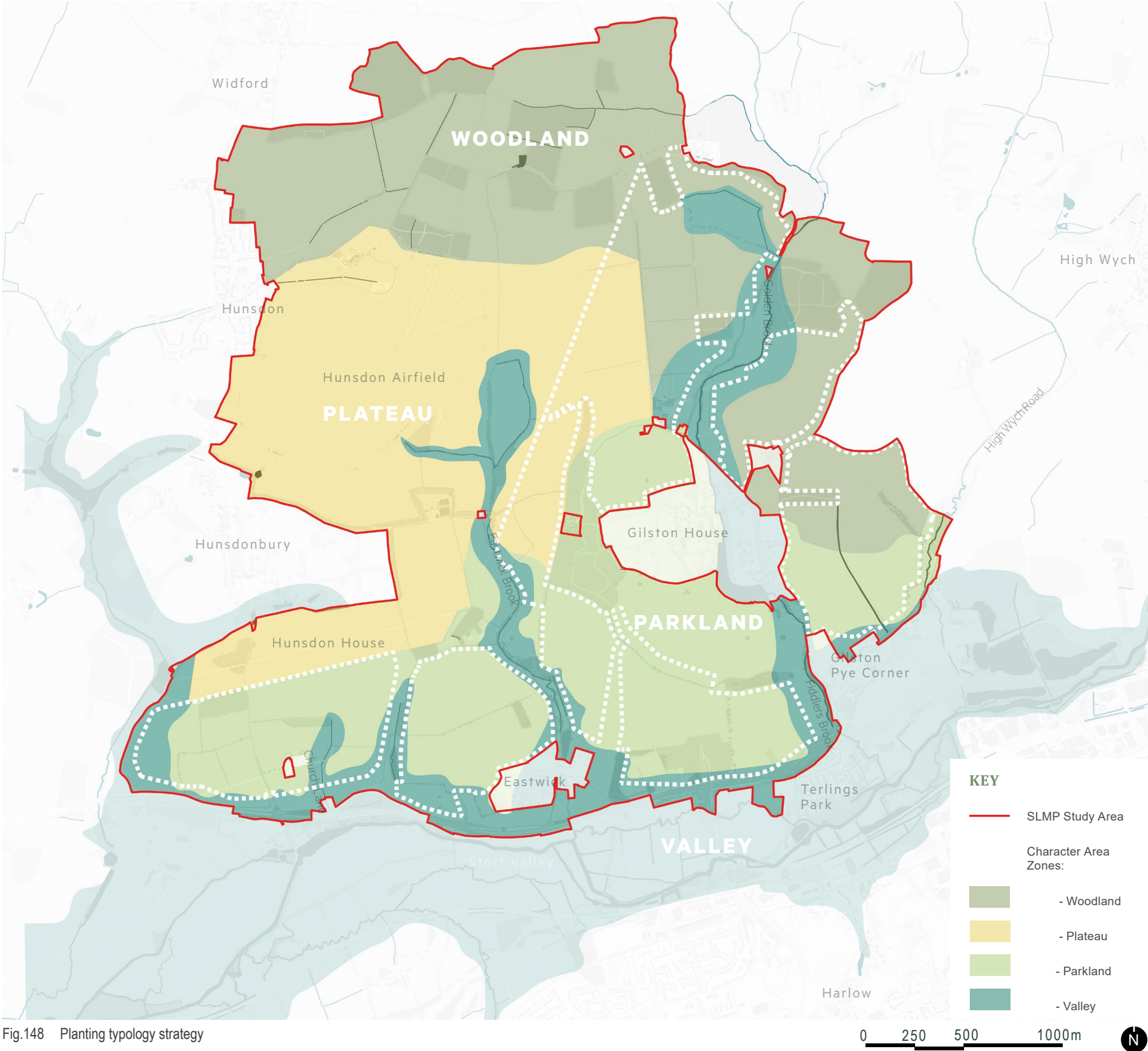
Planting Characters

The Gilston Area covers an extensive geographical area with distinct character areas. The proposed planting palettes will reflect and strengthen the existing character areas on site.

In addition, the Gilston Area need to respond to the climate and biodiversity emergencies. The planting proposals for the area play an important role in ensuring the Gilston Area is resilient to a changing climate, whilst improving habitat provision and delivering a net gain in biodiversity across the site.

Design Requirements

1. All planting proposals **must** consider the changing climate to ensure planting is climate resilient, including increasingly extreme periods of drought and, where applicable, flooding. Species selection **should** consider genetic provenance in regards to climate change adaptation.
2. All planting proposals **must** consider biosecurity and contribute to the overall Biodiversity Net Gain commitments of the development. Proposals must ensure vegetation has sufficient diversity and resilience
3. All planting proposals **must** respect sensitive habitats in surrounding areas and must ensure they create no adverse impacts
4. All planting proposals **must** ensure all species proposed are appropriate for the location proposed
5. The use of planting to provide climatic comfort **must** be considered, including use of trees and planting to provide shade, urban cooling, surface water management, and shelter from strong winds where needed.
6. Maintenance requirements **must** be considered when planting proposals are developed.
7. Planting proposals **must** create a wide variety of habitats across the study area
8. Planting **should** contribute to placemaking, character, amenity and wayfinding and create seasonal variety, structure, and interest. Opportunities for sensory planting and heritage influences **should** also be considered.
9. Biosecurity threats posed by pests and diseases **should** be minimised, including through appropriate landscape design approaches and plant control measures.
10. The spread of species listed as invasive (alien) plants of special concern, as listed in Schedule 9 of the Wildlife and Countryside Act 1981 (WCA 1981) **must** be prevented. All planting, soiling and earthworks **must** comply with the WCA 1981.
11. Planting **should** be sourced from nurseries with robust biosecurity practices.



Detailing the Landscape

5.2.8 Tree Palette

The SLMP will significantly extend the tree canopy cover of the Gilston Area. This framework will create the legacy of a characterful and varied landscape which engages people through seasonal changes and enhanced ecology. This section sets out design guidance and requirements to ensure the extended tree canopy of the Gilston Area follows a framework of appropriate typologies, establishing a sense of place and building a resilient tree structure suited to future use and designed to connect people with the natural environment.

The adjacent diagram provides the framework for tree species selection for the Gilston Area, ensuring that landscape proposals celebrate and enhance site character. Example species for each zone are provided within "Table 02 Character area zone and tree typology characteristics and example tree species" on the following pages. Species have been selected with consideration to existing species, ecological benefits, climate resilience and overall character, and seek to impart each landscape and Village with a strong sense of place and visible connection with their countryside context.

Design Requirements

1. Species selection **should** respond to the existing landscape characters on site, as set out on the diagram adjacent. This **should** include:
 - Woodland Character: Characterised by primarily native woodland species within SLMP areas and as a high % of tree cover within Villages. Where appropriate grouping of trees within Villages can be used to reflect woodland clusters.
 - Plateau: to complement the plateau character, a higher proportion of specimen tree species with sculptural qualities, e.g. pine trees and landmark poplars (within V1-6 only) and locally common species such as oak, beech, elm and lime within Village 7
 - Parkland: opportunity to introduce landmark and legacy trees with special visual qualities, these may be introduced species as long as they meet the mandatory features set out on previous page.
 - Valley: reflect the character of the valleys by introducing riparian species (e.g. willow, birch and alder species) in informal groupings, whilst maintaining a sense of openness within the valley
2. The specification of trees to be used within adopted Highways areas **should** be reviewed with the relevant Highways authority to ensure they meet adoption requirements in regards to size, species and detailing.
3. Consideration **should** be given to diversity of tree species in order to avoid transmission and spread of pests and diseases, for example, by avoiding large groups of trees of a single species.

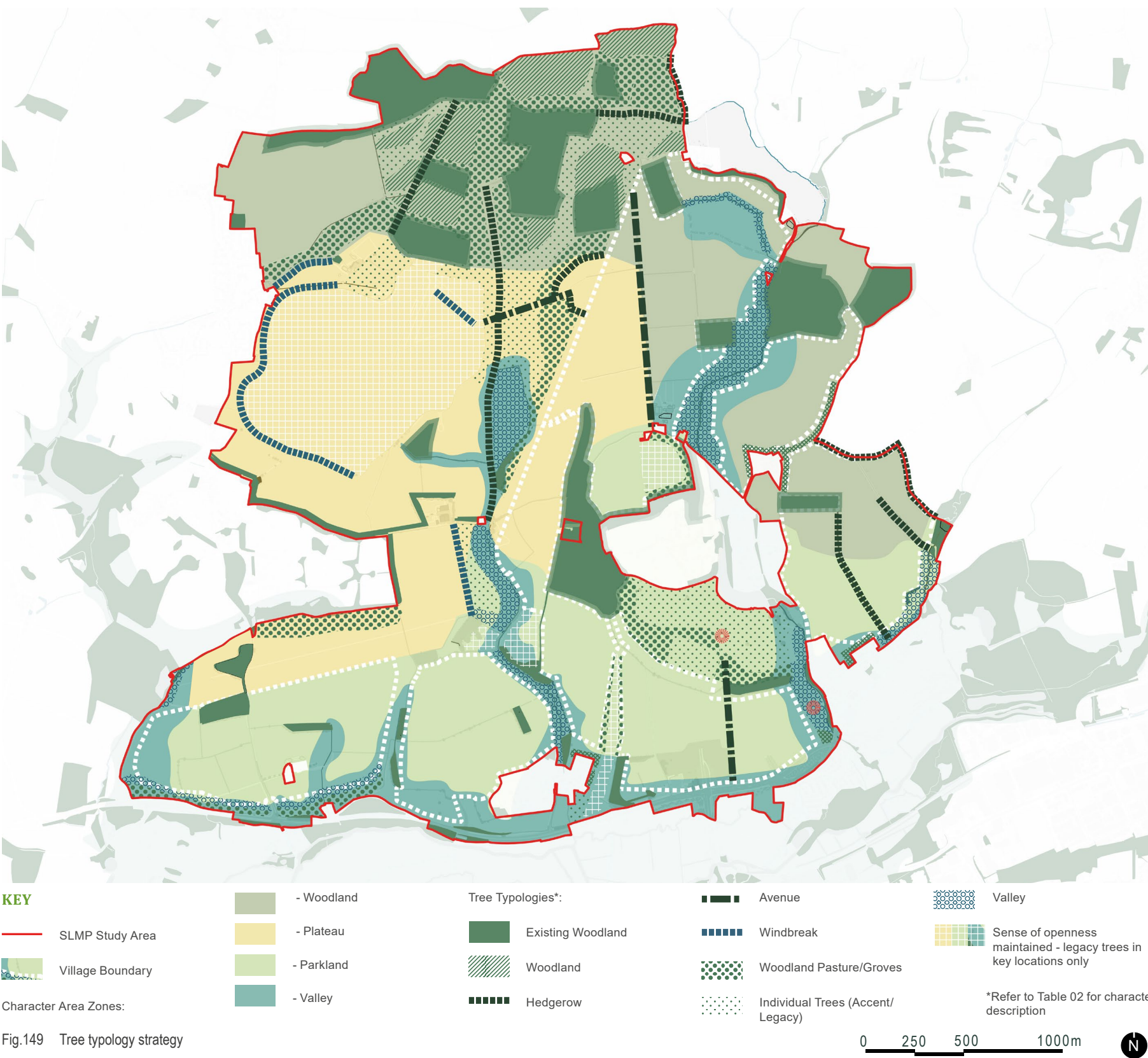


Fig.149 Tree typology strategy

*Non-native species - proposed in Village context only
**Subject to latest biosecurity guidance
***Neophyte included as per ecologist guidance

Tree Typology	Characteristics	Species Examples Woodland Landscape Zone	Species Examples Plateau Landscape Zone	Species Examples Parkland Landscape Zone	Species Examples Valley Landscape Zone
	OVERARCHING TREE PLANTING CHARACTER DESCRIPTION FOR CHARACTER AREA ZONE TREE TYPOLOGY CHARACTERISTICS	Emphasis on native woodland species where possible with strong form and large size to provide a ‘forest’ legacy and character, emphasised by planting in copses & groups where space allows	More open character with individual trees and tree-lines of striking form & good climatic resilience. Fruiting and foraging species with biodiversity benefits to be used	Scattered parkland trees of legacy native species, stately planted avenues of large-scale, complemented by gardenesque informal groupings with seasonal interest	Emphasis of the riparian character with use of native species, informal groupings and tree form, and light canopies mirrored within selected exotic species.
Woodland	Woodlands to consist of predominantly native tree species, with high diversity of species, planted as range of sizes to create a varied canopy a semi-natural character Typically > 70% tree canopy cover	<i>Quercus robur/petraea**</i> , <i>Tilia x europaea</i> , <i>Carpinus betulus</i> , <i>Fagus sylvatica</i> , <i>Corylus avellana</i> , <i>Crataegus monogyna</i> , <i>Taxus baccata</i> , <i>Ilex aquifolium</i> , <i>Sorbus aucuparia</i> , <i>Prunus avium</i> , <i>Acer pseudoplatanus***</i>	<i>Quercus robur/petraea**</i> , <i>Carpinus betulus</i> , <i>Populus tremula</i> , <i>Pinus sylvestris</i> , <i>Fagus sylvatica</i> , <i>Crataegus monogyna</i> , <i>Acer campestre</i> , <i>Sorbus torminalis</i> , <i>Betula pubescens</i>	<i>Quercus robur/petraea**</i> , <i>Fagus sylvatica</i> , <i>Tilia cordata</i> , <i>Acer campestre</i> , <i>Prunus avium</i> , <i>Taxus baccata</i> , <i>Sorbus aria</i> , <i>Betula pendula</i>	<i>Quercus robur/petraea**</i> , <i>Salix alba</i> , <i>Alnus glutinosa</i> , <i>Acer campestre</i> , <i>Corylus avellana</i> , <i>Sambucus nigra</i> , <i>Salix fragilis</i> , <i>Salix caprea</i> , <i>Populus tremula</i> , <i>Betula pubescens</i>
Hedgerow & Scrub	Linear planting with diversity of species to create biodiverse linear habitat. To consider inclusion of hedgerow trees within hedgerow for enhanced environmental, visual and ecosystem benefits.	<i>Crataegus monogyna</i> , <i>Prunus spinosa</i> , <i>Acer campestre</i> , <i>Quercus robur/petraea**</i> , <i>Corylus avellana</i> , <i>Sambucus nigra</i> , <i>Ilex aquifolium</i> , <i>Carpinus betulus</i> , <i>Euonymus europaeus</i> , <i>Malus sylvestris</i> ,	<i>Crataegus monogyna</i> , <i>Prunus spinosa</i> , <i>Acer campestre</i> , <i>Quercus robur/petraea**</i> , <i>Corylus avellana</i> , <i>Sambucus nigra</i> , <i>Ligustrum vulgare</i> , <i>Rosa canina</i> , <i>Viburnum opulus</i> , <i>Malus sylvestris</i> , <i>Ulex europaeus</i>	<i>Crataegus monogyna</i> , <i>Prunus spinosa</i> , <i>Acer campestre</i> , <i>Quercus robur/petraea**</i> , <i>Corylus avellana</i> , <i>Sambucus nigra</i> , <i>Taxus baccata</i> , <i>Cornus sanguinea</i> , <i>Rosa canina</i> , <i>Viburnum opulus</i> ,	<i>Crataegus monogyna</i> , <i>Prunus spinosa</i> , <i>Acer campestre</i> , <i>Quercus robur/petraea*</i> , <i>Corylus avellana</i> , <i>Cornus sanguinea</i> , <i>Euonymus europaeus</i> , <i>Rhamnus cathartica</i> , <i>Frangula alnus</i> , <i>Salix caprea</i> , <i>Salix cinerea</i> , <i>Sambucus nigra</i>
Avenue	Formal tree planting of regular spacing with significant clear stem. Consider opportunity for avenues to include more than one species to enhance resilience	<i>Tilia x europaea</i> , <i>Tilia cordata</i> , <i>Ulmus 'New Horizon'*</i> , <i>Fagus sylvatica</i> , <i>Acer campestre 'Elsrijk'*</i> , <i>Prunus avium 'Kordia'*</i> , <i>Liriodendron tulipifera*</i>	<i>Populus tremula</i> , <i>Pinus sylvestris</i> , <i>Sorbus torminalis</i> , <i>Malus tribolata*</i> , <i>Acer Platanoides*</i> , <i>Tilia x europaea</i> , <i>Tilia cordata</i> , <i>Ulmus 'New Horizon'*</i> ,	<i>Tilia cordata</i> , <i>Tilia tomentosa 'Brabant'*</i> , <i>Aesculus indica*</i> , <i>Acer campestre 'Elsrijk'*</i> , <i>Platanus x hispanica*</i>	<i>Alnus glutinosa</i> , <i>Alnus incana 'Laciniata'*</i> , <i>Acer campestre 'Elsrijk'*</i> , <i>Ulmus New Horizon*</i> , <i>Alnus cordata*</i> ,
Within Villages	To be defined through Village Masterplans	<i>Quercus robur/petraea**</i> , <i>Carpinus betulus</i> , <i>Fagus sylvatica</i> , <i>Acer campestre 'Elsrijk'*</i> , <i>Ulmus New Horizon*</i> , <i>Ostrya carpinifolia*</i> , <i>Corylus colurna*</i> , <i>Liriodendron tulipifera*</i> , <i>Crataegus x lavalleei*</i> , <i>Prunus avium 'Kordia'*</i>	<i>Malus tribolata*</i> , <i>Malus hupehensis*</i> , <i>Acer campestre 'Elsrijk'*</i> , <i>Cornus mas*</i> , <i>Corylus colurna*</i> , <i>Acer Platanoides*</i> , <i>Pinus nigra*</i> , <i>Acer monspessulanum*</i>	<i>Tilia cordata 'Winter Orange'*</i> , <i>Tilia tomentosa 'Brabant'*</i> , <i>Acer campestre 'Elsrijk'*</i> , <i>Aesculus indica*</i> , <i>Parrotia persica*</i> , <i>Paulownia tomentosa*</i> , <i>Quercus rubra**</i> , <i>Platanus x hispanica*</i> , <i>Nothofagus antarctica*</i>	<i>Alnus incana 'Laciniata'*</i> , <i>Alnus glutinosa</i> , <i>Alnus cordata*</i> , <i>Betula nigra*</i> , <i>Acer campestre 'Elsrijk'*</i> , <i>Alnus x spaethii*</i> , <i>Eleagnus angustifolia*</i> , <i>Maytenus boaria*</i> , <i>Ulmus New Horizon*</i> , <i>Salix x sepulcralis*</i> , <i>Acer saccharinum*</i>
Windbreak	Tree planting to create shelter from wind. Wind resistant species. Opportunity for sculptural, wind swept canopies	<i>Crataegus monogyna</i> , <i>Corylus avellana</i> , <i>Sambucus nigra</i> , <i>Carpinus betulus</i> , <i>Pyrus communis</i>	<i>Populus nigra</i> , <i>Populus alba*</i> , <i>Populus tremula</i> , <i>Pinus sylvestris</i> , <i>Pinus nigra*</i> , <i>Acer monspessulanum*</i> , <i>Acer campestre</i> , <i>Sorbus torminalis*</i>	<i>Tilia cordata</i> , <i>Acer campestre</i> , <i>Crataegus monogyna</i> , <i>Corylus avellana</i> , <i>Sambucus nigra</i> ,	<i>Populus nigra</i> , <i>Populus tremula</i> , <i>Alnus incana*</i> , <i>Alnus cordata*</i> , <i>Alnus x spaethii*</i> , <i>Crataegus monogyna</i> , <i>Eleagnus angustifolia*</i> , <i>Euonymus europaeus</i>
Open Wooded Habitat***/Copses	Different life stage trees along with native scrub and semi-improved grassland habitats Typically 20-70% tree canopy cover	<i>Quercus robur/petraea**</i> , <i>Corylus colurna*</i> , <i>Prunus avium</i> , <i>Acer campestre</i> , <i>Ostrya carpinifolia*</i> ,	<i>Malus tribolata*</i> , <i>Malus hupehensis*</i> , <i>Acer campestre 'Elsrijk'*</i> , <i>Cornus mas*</i> , <i>Prunus avium</i> , <i>Cydonia oblonga</i> , <i>Juglans regia</i>	<i>Tilia cordata 'Winter Orange'*</i> , <i>Pawlonia tomentosa*</i> , <i>Acer griseum*</i> ,	<i>Alnus incana 'Laciniata'*</i> , <i>Maytenus boaria*</i> , <i>Betula nigra</i> , <i>Populus tremula</i>
Individual Tree (Accent/ Legacy)	Generally consist of large tree species with significant clear stem and extensive canopy, located to provide visual/wayfinding marker	<i>Quercus robur/ petraea**</i> <i>Fagus sylvatica</i> , <i>Fagus sylvatica f. purpurea*</i> , <i>Ostrya carpinifolia*</i> , <i>Carpinus betulus</i> , <i>Liriodendron tulipifera*</i>	<i>Populus alba*</i> , <i>Pinus nigra*</i> , <i>Sorbus torminalis*</i> , <i>Acer Platanoides*</i> , <i>Quercus robur/petraea**</i>	<i>Quercus robur/petraea**</i> <i>Cedrus libani*</i> , <i>Tilia tomentosa 'Brabant'*</i> , <i>Aesculus indica*</i> , <i>Sorbus aria 'Magnifica'*</i> ,	<i>Populus nigra</i> , <i>Salix x sepulcralis*</i> , <i>Maytenus boaria*</i> , <i>Acer saccharinum*</i>
Valley & SuDS Areas	Riparian species in informal groupings	<i>Quercus robur/petraea**</i> , <i>Populus nigra</i> , <i>Alnus glutinosa</i> , <i>Alnus incana</i> , <i>Salix caprea</i>	<i>Populus nigra</i> , <i>Alnus glutinosa</i> , <i>Alnus incana</i> , <i>Salix caprea</i>	<i>Platanus x hispanica*</i> , <i>Nothofagus antarctica*</i> , <i>Alnus glutinosa</i> , <i>Alnus incana*</i>	<i>Populus nigra</i> , <i>Alnus glutinosa</i> , <i>Alnus incana*</i> , <i>Alnus incana 'Laciniata'*</i> , <i>Alnus x spaethii*</i> , <i>Acer saccharinum*</i> , <i>Salix sp</i> , <i>Betula sp</i> .
Orchards		<i>Prunus cvs*</i> , <i>Malus cvs*</i> , <i>Pyrus cvs*</i> , <i>Castanea sativa*</i> , <i>Corylus maxima*</i> , <i>Juglans regia*</i> ,	<i>Prunus cvs*</i> , <i>Malus cvs*</i> , <i>Pyrus cvs*</i> , <i>Cydonia oblonga*</i> , <i>Mespilus germanica*</i> , <i>Corylus avellana cvs</i> , <i>Corylus maxima*</i> , <i>Morus alba*</i> ,	<i>Prunus cvs*</i> , <i>Malus cvs*</i> , <i>Pyrus cvs*</i> , <i>Cydonia oblonga*</i> , <i>Mespilus germanica*</i> , <i>Morus alba*</i> , <i>Juglans regia*</i> ,	<i>Malus cvs*</i> , <i>Pyrus cvs*</i> , <i>Corylus maxima*</i>

Table 02 Character area zone and tree typology characteristics and example tree species

Design Requirements - Tree Pits

1. Tree planting within paved areas or areas with limitations on root-zone **should** use connected tree pit systems where feasible.
2. Enhanced tree pit systems incorporating SuDS attenuation and interception **should** be encouraged as appropriate to context
3. All trees **must** be planted in suitable tree pits, following latest best practice guidance, including from the Tree & Design Action Group (TDAG)
4. All trees in hard-landscaping **must** use tree pit system, such as structural soil systems (e.g. Stockholm Tree Pit Systems) or soil cells (e.g. Arbor Systems). Tree pit methods to be selected based on contextual requirements, e.g. SuDS, vehicle trafficking, adoption by local authority.
5. All trees **must** be provided with sufficient soil volume. This **must** be based on TDAG guidance and must take into consideration the tree pit system used and the mature size of the proposed tree.
6. Tree pits **must** not extend below carriageway - kerb edge represents edge of tree pit zone. If necessary to achieve required tree root zone, pits can extend beneath adjacent cycleways and footpaths, using a suitable tree pit system as per point 2 above (subject to adoptability).
7. Service corridors **must** be coordinated with tree planting
8. Tree staking methods **should** be appropriate to the size and specification of tree and the planting situation. In key locations consideration **should** be given to staking providing a function as a tree guard and/or positive architectural element in the landscape.
9. Tree irrigation and aeration systems **must** be provided as part of tree pit systems for trees within hard landscaping and **should** be provided for standard trees or larger, planted within areas of soft landscaping

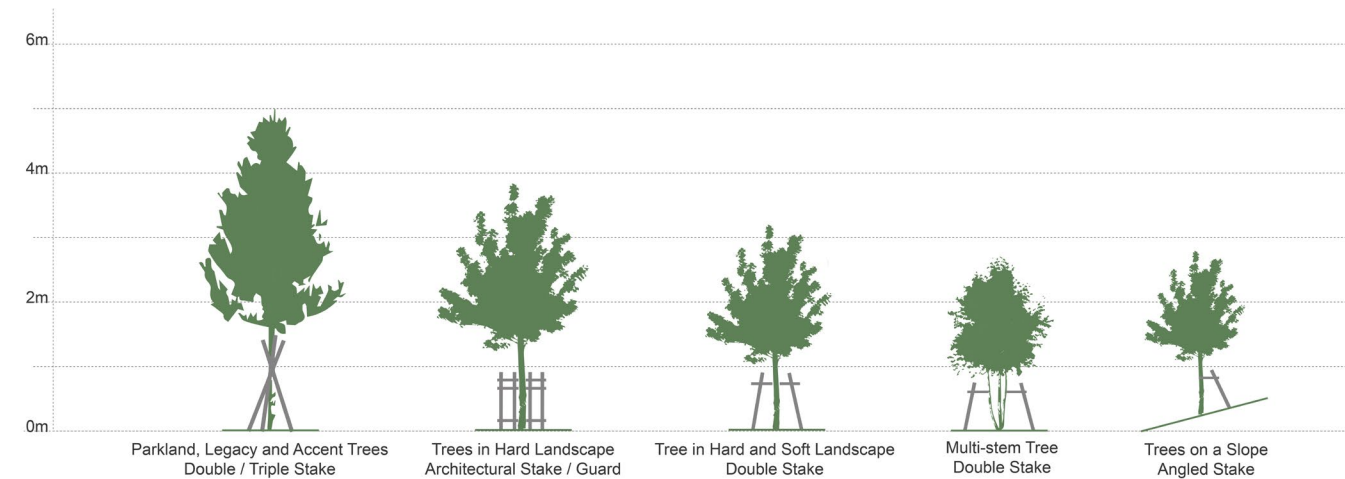


Fig.150 Example staking strategy according to different public realm conditions and specifications

5.2.9 Softworks Palette

Softworks Planting Character

As with the tree canopy, the softworks planting of shrubs, herbaceous plants, grasses and groundcover are to be informed by the overarching landscape character of the existing and historic countryside of the Gilston Area and the four character zones that the SLMP defines across the site.

In addition to the overarching design requirements stated in the Ecology section and Planting introduction, softworks proposals must be developed based on the following principles:

Design Requirements

1. Existing areas of ecological importance **must** be protected and enhanced with appropriate supplementary planting of native species only, informed by recommendations of an ecologist.
2. Planting palettes **must** take inspiration from the wider character area and specific ecological attributes of their location
3. Planting proposals **should** be developed as a primary design tool to impart character, structure and seasonal interest within the landscape.
4. There **should** be consideration of sustainable plant sourcing and nursery practices such as ability to return / recycle pots.
5. Planting incorporating a palette of both native and non-native species will be appropriate for use within Villages, Gilston Park, Gilston Fields, Hunsdon Community Park, STC, Community allotments and orchards, and localised garden spaces such as potential community market-garden spaces associated with opportunities for a diversified agricultural model at the Black Barns / Hunsdon Airfield. Elsewhere within the SLMP, planting **should** be comprised primarily of native species, subject to further ecologist's recommendations.
6. Soft landscape proposals **should** include a range of planting typologies for example: grassland, meadow, perennial mixes, hedgerows, shrub planting, trees, and woodland. Strategic planting **should** be structured with transitions between layers of plant communities, for example wildflower margins to hedgerows to contribute biodiversity benefits.
7. Large continuous blocks of single-species planting **should** be avoided in favour of a mixed mosaic of small single-species groups in order to support resilience to climate change, pests and disease.

KEY

	SLMP Study Area		- Plateau
	Character Area Zones:		- Parkland
	- Woodland		- Valley

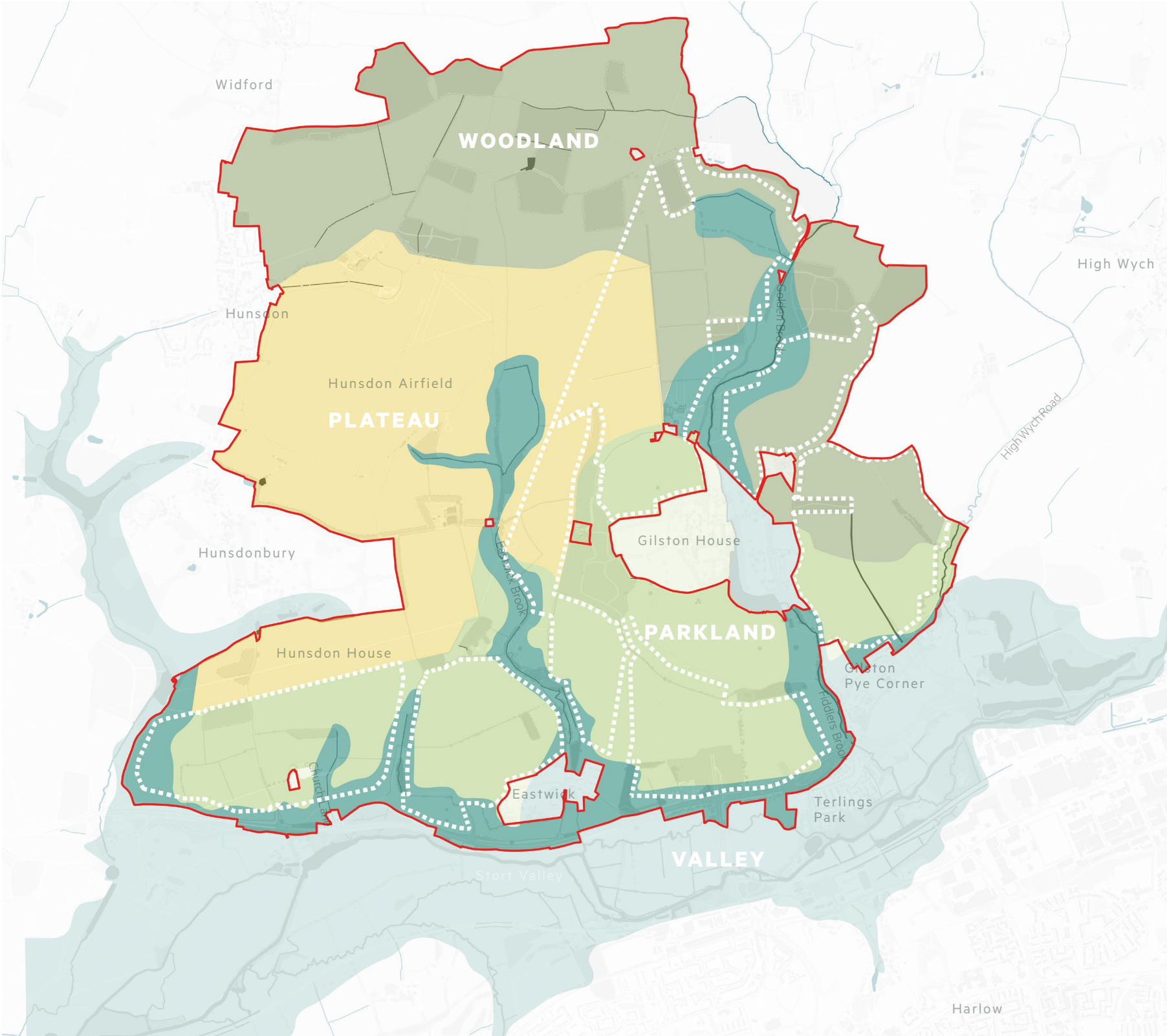


Fig.152 Planting typology strategy

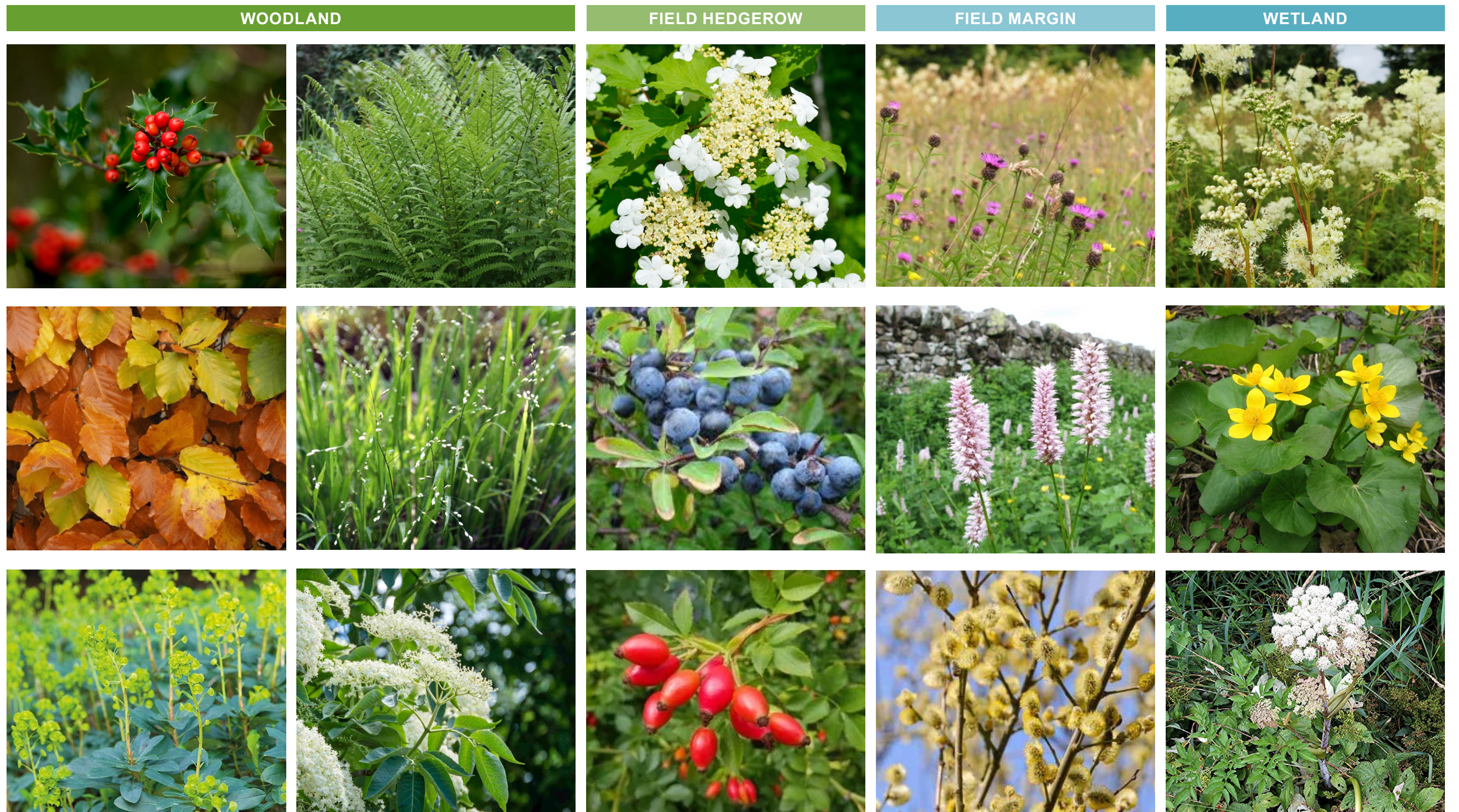


Fig.153 Example of native planting ranging from woodland to field hedgerow to meadow and wetland species

5.2.10 Sustainable Drainage Systems (SuDS)

SuDS in the SLMP

Water is a key theme in the landscape proposals of the SLMP and a sound drainage and surface water management strategy is integral to the layout and function of Gilston Area. The SLMP landscape will accommodate the majority of the strategic surface drainage features for the Villages and this open space plays a vital role in maintaining the water quality and flood mitigation commitments of the development.

The surface drainage infrastructure provides an opportunity to enhance the proposed high quality public realm and open green spaces by integrating a network of SuDS features such as rain gardens, swales, wet ponds and dry basins, that outfall to the tributary valleys. These features could be developed to have multi-functional benefits including enhancing amenity and biodiversity value.

The Regulatory Plans define the broad locations of strategic SuDS features within the SLMP areas. Where necessary and appropriate it is possible to locate associated earthworks outside of the defined SuDS areas. Whilst the SLMP focuses on strategic SuDS features, this does not preclude creation of appropriate localised SuDS features to manage surface water within the landscape. The RMA SuDS strategies will also include drainage of sports pitches, refer to section "5.4.4 Sports and Recreation".

The following design requirements provide guidance on successful integration of SuDS features within the Gilston landscape context. Technical specification and design, including capacity and development within watercourse buffers, is dealt with separately through the OPP condition discharges and the RMA detailed design.

The adjacent sections and plan illustrate indicatively the variety of ways in which SuDS features may be integrated, according to the specific character and constraints of their location.



Fig.154 Illustrative sections exploring various SuDS feature characters along Golden Brook and Fiddler's Brook Valleys

Design Requirements

1. SuDS features **must** be designed in accordance with CIRIA guidance (or equivalent/replacement guidance), following the principles of SuDS hierarchy designing multi-functional features for water quantity, water quality, amenity and biodiversity.
2. At RMA stage SuDS features **must** be designed holistically through coordination between the project drainage engineer, landscape architect and ecologist.
3. Wherever possible, SuDS features **must** be designed with sensitivity to their landscape context, including the wider landscape character of their setting, the existing natural environment (including topography, existing habitats, watercourses and vegetation), and their potential for amenity use and placemaking.
4. Designs **should** seek to create the shallowest gradients possible within the available space for the required volume of storage. The design **should** utilise methods such as inclusion of varying gradients of slopes, and adjusting basin profile at the base and top edges to achieve better integration, and where appropriate utilising low retaining elements in order to manage levels changes to achieve optimum gradients.
5. The relationship of the SuDS feature with areas of public access **must** be carefully considered in order to achieve benefits of successful integration. Extra space **should** be designed into the top and toe of slopes where these are to accommodate accessible routes so as to provide an appropriate width of path and adjacent landscape at a comfortable gradient, avoiding the need for protective features. These routes **should** allow for maintenance access where feasible.
6. Appropriate locations for seating and other amenity features such as paths, pontoons, and appropriate play elements, **should** be considered as part of a holistic SuDS design, ensuring that visual appearance, aspect, accessibility, safety and proximity to routes are key considerations in the design process.
7. Vegetation **must** be carefully selected to provide both ecological and landscape character enhancements as well as, where

possible, contribution to the technical performance of the SuDS feature, for example through water quality improvements, erosion protection, and their role in the treatment of pollutants. Mown amenity grass **should** only be used within SuDS features where this provides an amenity function

8. Fencing of SuDS features **should** be avoided where appropriate. Designs **must** be informed by appropriate health & safety reviews at RMA stage, and where protection for safety is required, this **should** be incorporated through use of careful landform and planting, ensuring that the selected species and arrangement do not obscure necessary visual observation.
9. Hardworks components of SuDS features such as headwalls **must** be considered as visible elements of the public realm and designed to integrate well into landscaped slopes, utilising an appropriate palette of materials as set out within "5.5.2 Public Realm Design".
10. The SuDS designs developed at RMA stage **should** consider creation of a range of typologies and habitats, ranging from dry, to seasonally wet to permanently wet SuDS features.
11. In addition to the strategic SuDS provision identified in the regulatory plan, smaller scale drainage features **should** be provided at a localised scale to reduce flow rates, attenuate, intercept and treat surface water. This may include, but not limited to, features such as: bio-retention, filter strips, raingardens, swales and tree pits, as appropriate
12. Wherever possible, the final discharge from SuDS to natural watercourses **should** be via a vegetated surface feature to avoid unnecessary engineered structures affecting the watercourse.
13. Consideration **must** be given to the maintenance of SuDS features.
14. Green open spaces **must** be designed such that any overland flow will be safely routed through the site or positively drained to land drainage features
15. Opportunities for infiltration **must** be explored to include additional infiltration testing across the Gilston area, as appropriate



Provide slopes that are compliant with CIRIA guidance and create opportunities for people to safely interact with the water



Use engineered features such as headwalls and culverts as a design feature.



Design for biodiversity and provide a wide range of habitats



In spatially constrained areas, high quality vertical edges may be used to ensure attenuation volume requirements are met



To maximise amenity value & attenuation storage, multi-functional SuDS designs are preferable e.g. paths/ recreational spaces that seasonally flood.



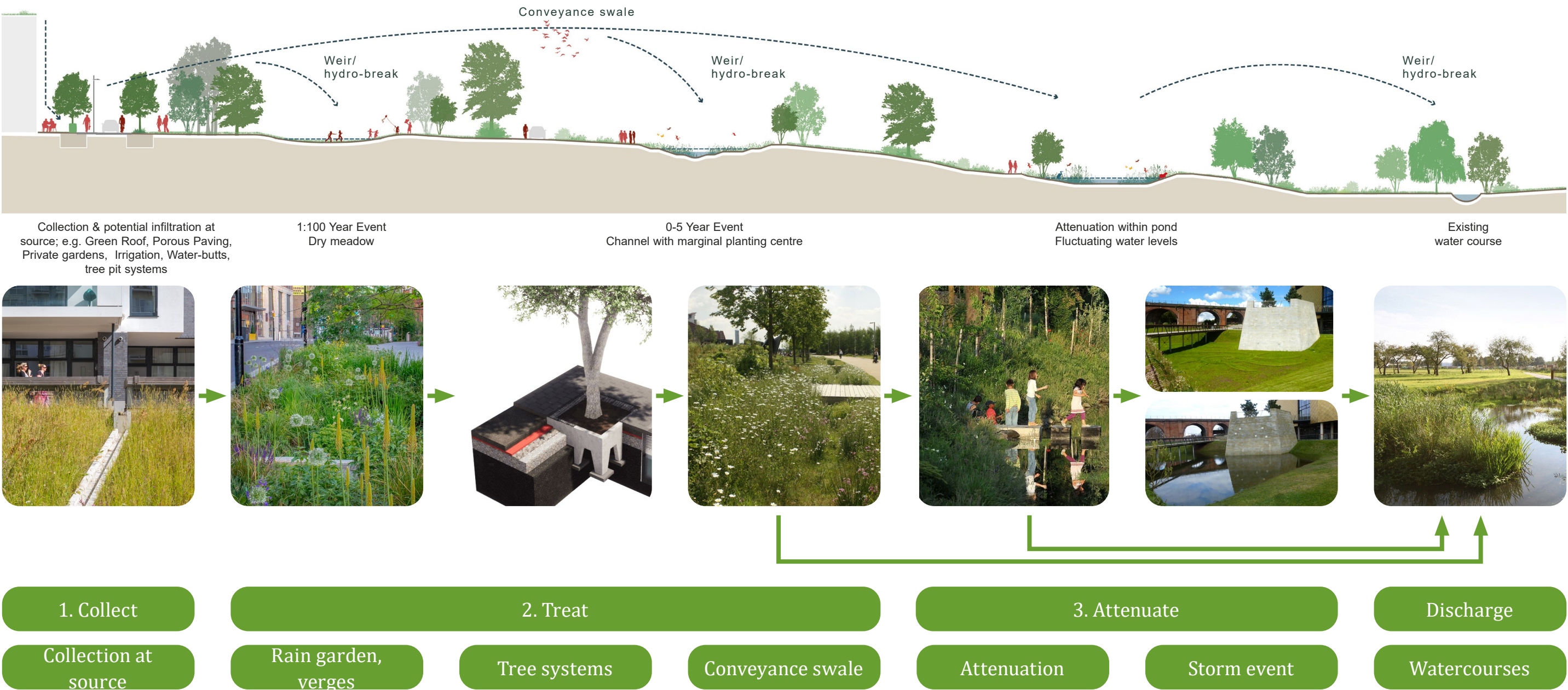
Where high quality vertical edges are used, the remaining edges may be planted to increase habitat and amenity value



Fig.155 Examples of successful SuDS integration

SuDS Treatment Network - Design Guidance

The site wide SuDS strategy for the Gilston Area takes a holistic approach to surface water attenuation and treatment. Surface water runoff should be collected at source, and should be treated and attenuated before being discharged into existing watercourses as shown indicatively in the diagram below. Different SuDS basin typologies retain water at varying grades of rainfall events, therefore providing different habitats and amenity uses as explained on following pages.



SuDS Feature Detailing - Design Requirements

- 1. The Strategic SuDS Basins **must** adhere to the following principles:
 - Ensure that the earthworks related to the strategic SuDS Basins do not encroach on the 1% AEP plus climate change fluvial floodplain unless mitigated
 - Do not result in a loss of fluvial floodplain storage unless mitigated
 - Be able to contain its design flood events
 - Do not increase the overall flood risk to highly vulnerable downstream receptors
- 2. Where the Strategic SuDS designs include perched water (that is retained water that sits above the downstream topography), the following conditions **must** be met:
 - The perched volume is temporary and held only for the purpose of attenuating surface water runoff. Permanently wet areas **should** not be perched
 - An assessment that is proportionate to the magnitude of the source of the flood risk, and vulnerability of the receptors or at-risk infrastructure downstream of the artificial flood risk with significant risk posted to Essential Infrastructure and Highly/ More Vulnerable classifications (as defined by the NPPF) eliminated or reduced to as low as practically possible

SuDS Feature Detailing - Design Guidance

- The detailed design of the edge condition of the SuDS basins makes an important contribution to the amenity and ecological value of the basin.
- The adjacent sections set out design considerations intended to enhance potential ecological and amenity value of the basins. This includes:
- Creation of benches of varying depths to create a wide range of different habitat. This may include:
 - Dry bench
 - Damp bench that occasionally floods
 - Marginal benches that regularly flood
 - Aquatic benches that are permanently submerged (only applicable where SuDS basins permanently attenuate water)
 - Use of shallow gradients, where possible, to create a wider range of habitats and to better visually integrate basins into the surrounding landscape
 - In spatially constrained areas, it may be suitable to have a high quality retaining edge and handrails (as appropriate) in areas where there is a close proximity of paths. This may be used to create enhanced opportunities for people to engage with the SuDS features.

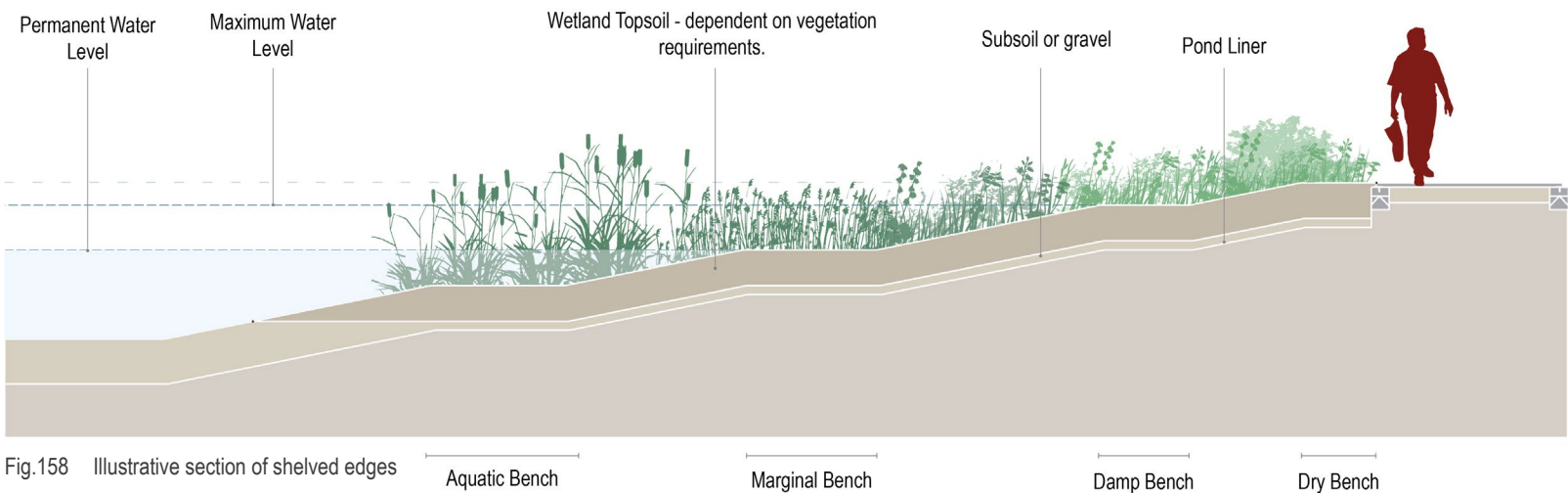


Fig.158 Illustrative section of shelved edges

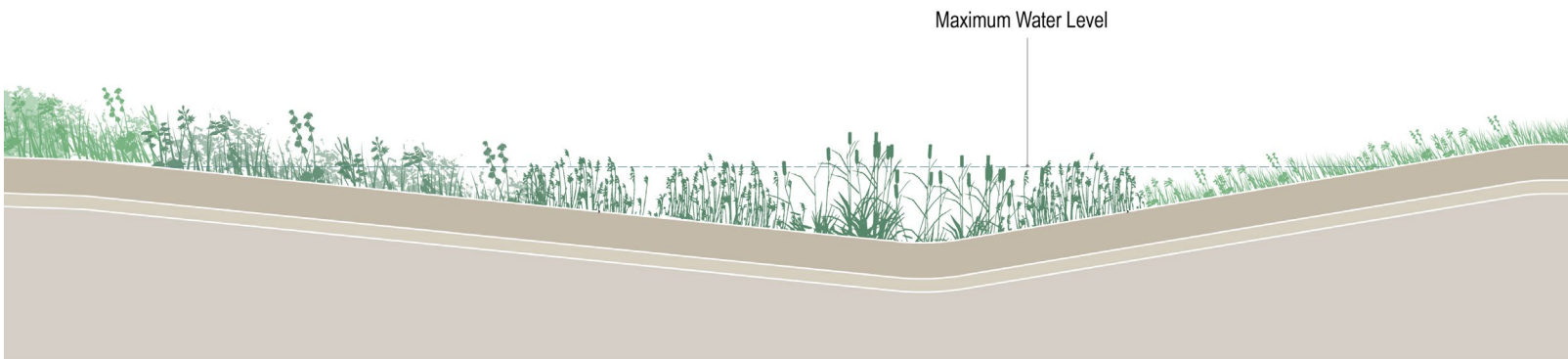


Fig.159 Illustrative section of a typical dry SuDS basin edge

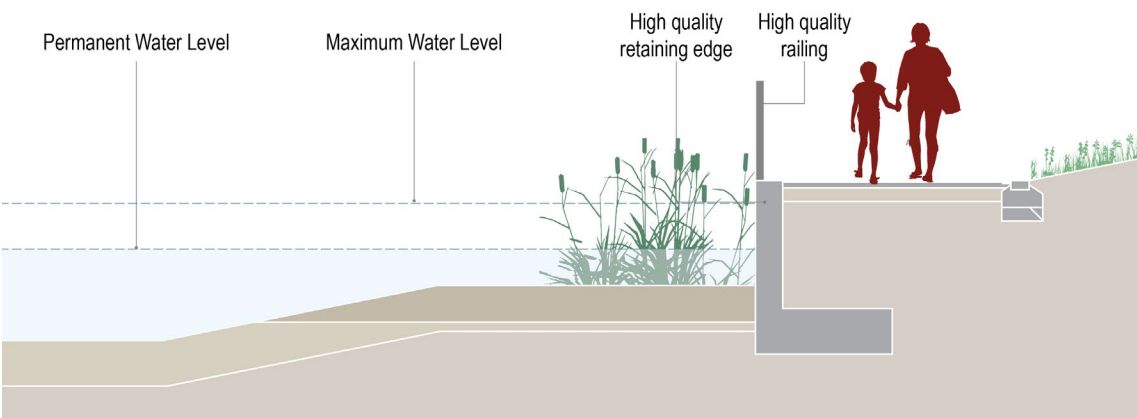


Fig.157 Illustrative section of a hard edge - suitable for use in spatially constrained situations

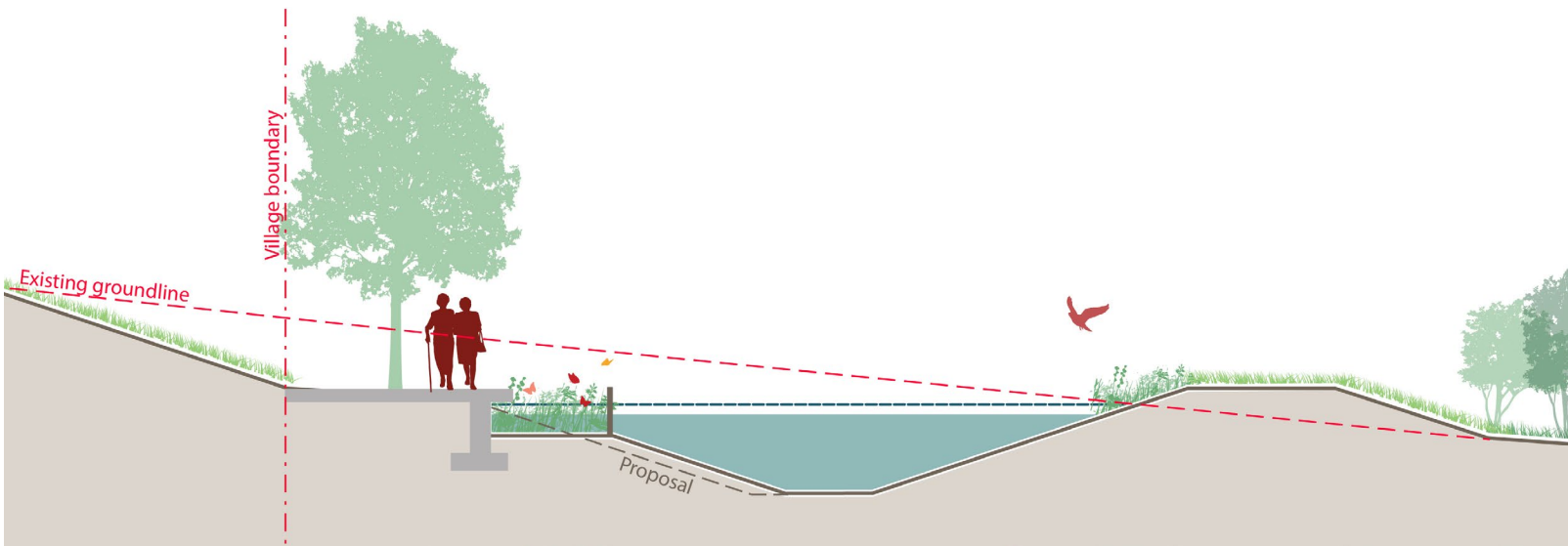


Fig.160 Illustrative section of hard edge to SuDS basin on Village 1 - Fiddler's Brook Corridor interface

5.3 Heritage & Views

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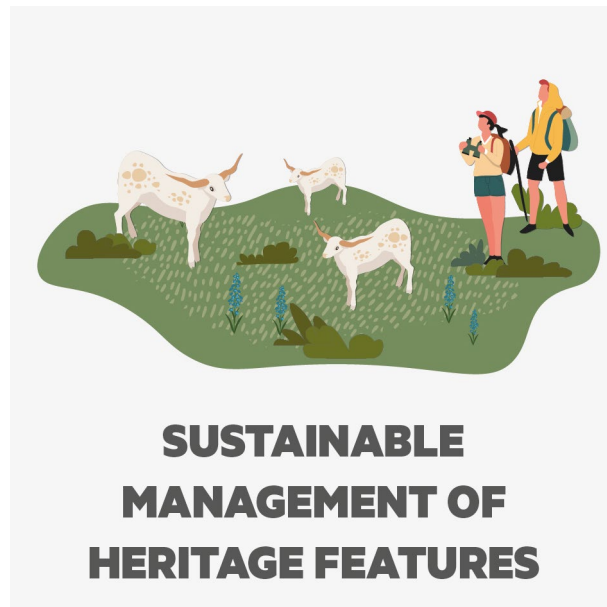


Detailing the Landscape

5.3.1 Introduction

Heritage and Views

THE HERITAGE AND VIEWS STRATEGY WILL ACHIEVE:



The OPP Development Specification sets out the following key commitments in relation to Heritage:

- Definition of Sensitive Development Areas in relation to the most sensitive heritage features, including built heritage and archaeological sites, with specific requirements that establish protection of these heritage assets and their settings
- Retaining key relationships between heritage assets
- Sensitivity to existing important views, retaining and enhancing these wherever possible
- Enhancing existing heritage features through introduction of interpretation and appropriate managed access

The Gilston Area Neighbourhood Plan includes further requirements regarding the protection of heritage assets including:

- Policy H1 regarding heritage to which the RMA proposals must comply.
- A views strategy identifying key views to and from heritage assets

Heritage requirements in relation to the Village proposals are to be defined within the Village Masterplans

The OPP Development Specification sets out the following key commitments in relation to Heritage for Village 7:

- Understanding of local views and key sightlines within the context of the site's topography;
- Maximum heights to ensure built development is not unacceptable in terms of impact upon heritage assets and their settings;
- Retention and enhancement of existing landscape features; and,
- Strategic placement of lighting.

Due to the ongoing nature of archaeological work across the site, there is potential for further unrecorded archaeological features to be discovered, which may warrant preservation in situ. Where considered appropriate these may potentially be incorporated into future heritage trail and interpretation proposals.

5.3.2 Response to Heritage Assets

Heritage

The Gilston Area has a rich heritage, with various listed and designated sites throughout the study area. The Gilston Area is situated in close proximity to the Grade II* Listed Gilston House and the Grade I Listed Hunsdon House.

Appendix 5 of the OPP Development Specification of the Heritage Design Principles details specific protections afforded to the following heritage assets which are located within the SLMP landscape:

- Grade I listed Mary’s Church,
- Eastwick Moated Sites Scheduled Monument
- The Mount Moated Site Scheduled Monument
- The historic landscape, setting and views associated with Gilston House and Hunsdon House

In addition to the assets listed above, the following types of heritage features are found across the Gilston Area:

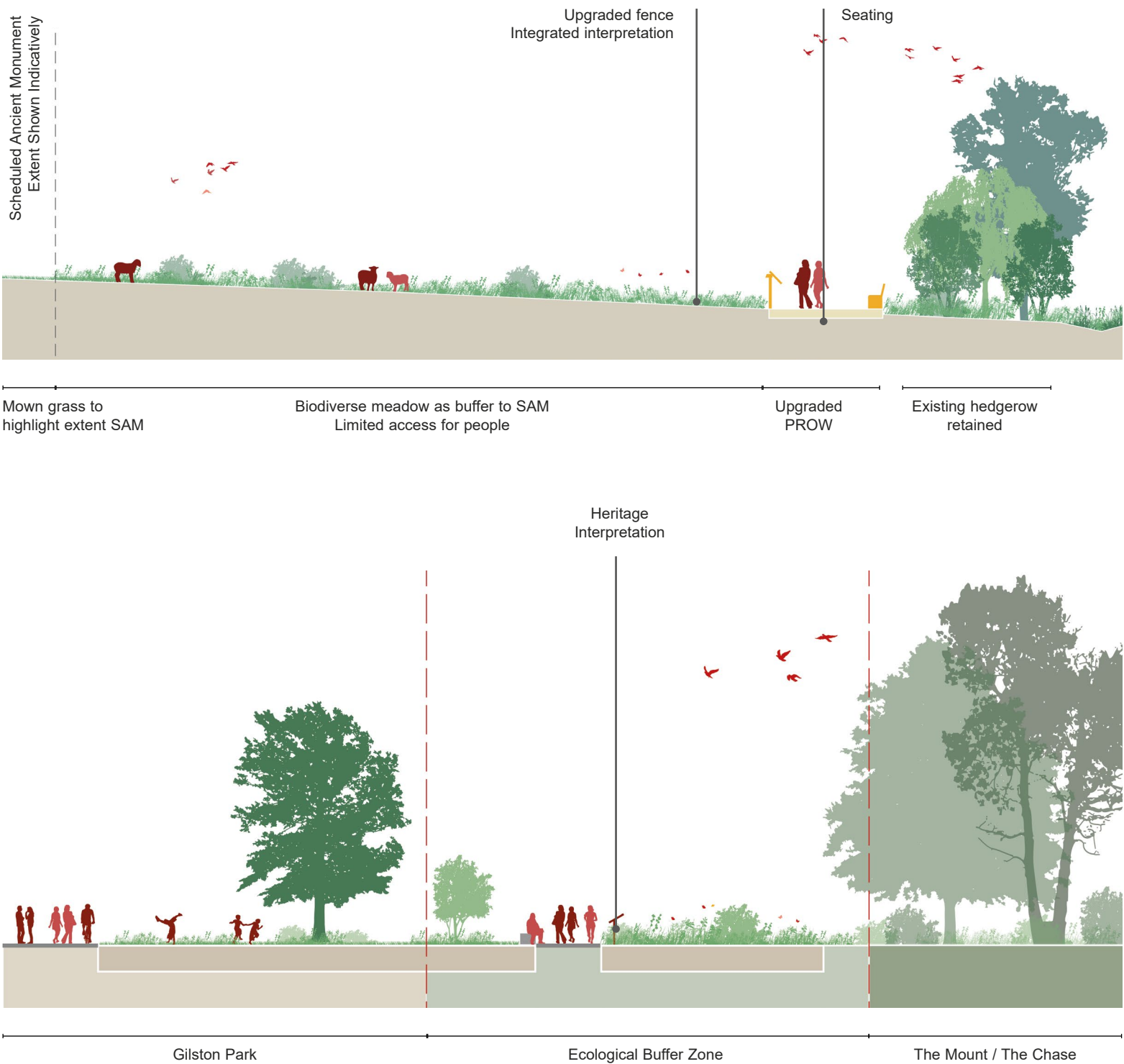
- Scheduled Monuments (i.e. Hunsdon World War II airfield defences Scheduled Monument & Hunsdon Brook Fishponds)
- Listed Buildings (e.g. Grade II* listed The Big Black Barn at Hunsdon Lodge Farm)
- Non-designated heritage features (e.g. Hunsdon War Memorial)
- Below ground heritage - archaeological deposits and remains of significance

A Conservation Management Plan, including details of the measures to be implemented in order to ensure the long term protection and maintenance of the Eastwick Moated sites and Mount Moated site, has been provided as an Appendix in accordance with Condition 7 of the OPP.

The following sets out how heritage assets should be celebrated, protected and positively integrated into the proposals. Further guidance on site-specific responses is provided within the relevant section of the Character Areas chapter for each location

Design Requirements

1. SLMP RMA designs **must** be appropriate for the setting of listed and designated heritage assets, respecting the requirements set out in relation to the Sensitive Development Areas (SDA’s) and must ensure impact on heritage assets are minimised and appropriately mitigated
2. Proposals **should** enhance access to and interpretation of heritage features for enjoyment of the public, where appropriate.
3. Long term management and conservation plans **should** be developed for all heritage assets as part of RMA stages. The sustainable management of heritage features **must** be a consideration of these.
4. Proposals **must** consider the impact of any proposed lighting or noise on heritage assets and where needed develop sensitive proposals potentially incorporating landscape elements to mitigate impacts
5. Fencing and interpretation boards **must** be provided along boundaries adjoining off site heritage assets at Hunsdon Brook Fishponds, to ensure their preservation. These **must** be in a natural material in keeping with the rural character.
6. Tree planting or other intrusive groundworks **must** be avoided in areas identified by archaeological evaluation as the location of known, significant, archaeology, to ensure these sites are preserved in situ unless further archaeological investigations, or other forms of mitigation, are agreed. Any future Reserved Matters applications relating to Hunsdon Community Park - CA6 **must** be supported by an updated archaeological assessment



Design Requirements - Heritage Trails

1. A Site-Wide heritage trail **must** be created, linking key heritage features of interest (potentially including non-designated features such as Hunsdon RAF Memorial) and utilising the open space of the SLMP to provide a route located primarily through the SLMP landscape.
2. Heritage Trail signage elements **should** have a unique character, whether for wayfinding or interpretation elements, potentially incorporating specifically commissioned artwork, refer to "5.5.6 Wayfinding and Legibility"
3. Signage elements **should** be designed in accordance with branding principles developed for the Gilston Area, refer to "5.5.6 Wayfinding and Legibility"
4. Heritage trail signage **should** ensure the construction of signage and interpretation does not negatively influence the heritage features.



Fig.161 Precedent of wayfinding



Fig.162 Precedent of heritage interpretation signs

Key	
	Gilston Area
	Existing Lanes
	Pedestrian & Cycle Commuter Routes - STC*
	Pedestrian & Cycle Commuter Routes* (alternative Roydon commuter link)
	Pedestrian & Cycle Leisure Routes*
	Pedestrian Leisure Routes*

	Railway Track
	Existing Roads and Lanes
	Existing Woodland
	SLMP Areas (Strategic Parks & Strategic Green Corridors)
	Scheduled Monuments
	Heritage Trail
	Heritage Trail (alternative route)
	Stort Valley

*Indicative and to be confirmed at Village Masterplan and RMA stages

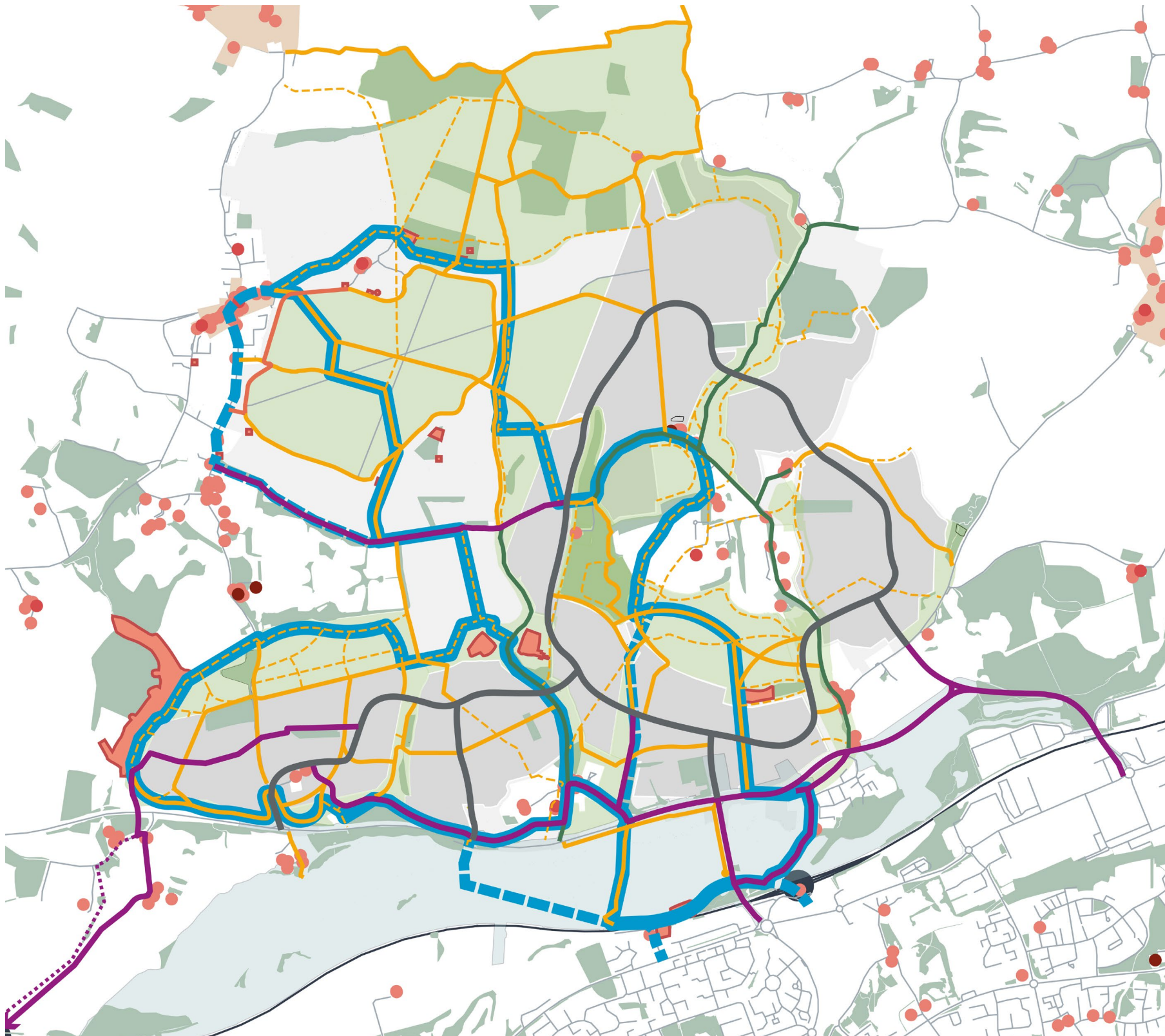


Fig.163 Illustrative plan of heritage trail and wayfinding strategy

5.4 Activity & Use

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5.4.1 Introduction

Activities and Use - Background Context

THE ACTIVITY AND USE STRATEGY WILL ACHIEVE:



The OPP Development Specification and Parameter Plans establish the principles of the key areas of public open space to be created in the Gilston Area, the following of which fall within the SLMP

- Countryside Parks - Hunsdon Airfield Park and Eastwick Woodland Park
- Community Parks - Gilston Park (including part of Home Wood), Gilston Fields and Hunsdon Common
- Strategic Green Corridors - Golden Valley, Fiddlers Brook, Eastwick Brook and V7 Greenway
- Village Corridors

The provision of sports facilities and associated club-houses, play space, and community growing space is also described within the Development Specification and the SLMP builds upon this to further define the requirements for SLMP areas

Activity and Use requirements in relation to the Village proposals are to be defined within the Village Masterplans

5.4.2 Public Open Space Provision

Public Open Space

The open space requirements are based in the commitments of the OPP Development Specifications and Parameter Plans, developed in response to the Open Space, Sport & Recreation (OSSR) SPD 2020 and consultation with Sport England and EHDC Planning Officers as recorded within the Landscape and Open Space Strategy (LOSS) and Landscape & Green Infrastructure Report Design Update (Appendix F.3) for V1-6 and the Open Space, Landscape and Public Realm Strategy Assessment (OSLPRA) for V7 (September 2022).

The OSSR SPD 2020 considers the provision of the following categories of outdoor sport, play, open space and recreation provision:

- Parks & Public Gardens
- Amenity Green Space
- Natural & Semi-natural Green Space
- Children's Play and Provision for Young People
- Allotments
- Cemeteries and Churchyards
- Sport: Tennis, Bowls, Athletics, Football, Cricket, Rugby & Hockey

The requirements/recommendations for open space, play and outdoor sports provision are summarised in the LOSS and the OSLPRA and are reflected in the OPP. The SLMP develops this into a more site specific strategy including specific requirements agreed between the LPA and Sport England as defined in the OPP Development Specifications.



Fig.164 Reference image of public open space

5.4.3 Inclusive Public Open Spaces

Designing for Safety and Diversity in Gilston's Public Open Spaces

The central theme of the Gilston landscape is access to and enjoyment of the countryside and it is essential that this is provided to all residents and visitors to the area. Inclusive design principles ensure that everyone can access and enjoy the landscape and public realm independently, safely, conveniently and with dignity.

Successful proposals will give consideration to a wide range of potential impairments including hearing, sight, mobility, cognitive, mental health, and neurodiversity. It is also important to consider how proposals may impact on different people, in particular in relation to protected characteristics, as defined under the Equality Act which include: age, gender reassignment, being married or in a civil partnership, being pregnant or maternity, disability, race, religion or belief, sex and sexual orientation.

In regards to public realm, focus on the needs of more vulnerable members of society can lead to improved design outcomes for all, ensuring a welcoming environment which ensures that causes of potential discomfort such as inaccessibility, conflicts with traffic, concealed or dead-end spaces, lack of resting places or amenities are designed out as an integral part of the design process. Viewing specific elements of the public realm, such as road design, from the perspective of more vulnerable users such as the elderly or young children provides a good sense-check towards ensuring spaces are appropriately designed, and the input of both Accessibility specialists and representatives of different communities can be a beneficial contribution.

Additionally, the landscape and public realm design should make consideration of different preferences for outdoor recreation. Social, active spaces should be balanced with quieter areas, routes should provide both longer-distance treks and shorter circuits. Space for young people in particular should consider the need for variety of facilities, including ensuring there are spaces designed specifically to encourage use by girls.

Design Requirements

The landscape and public realm design **must** be developed in accordance with BS8300-1 requirements as appropriate, including:

1. Accessible key routes, including the design of key-routes and access to buildings and facilities, steps and level changes, pedestrian crossings, road design, lighting, gates and barriers where possible
2. Furniture provision, including the frequency and design of benches and resting places and provision of shelters. Locations of benches to accommodate those who may require privacy (such as breast-feeding mothers or those with neurodiverse conditions) may also be considered
3. Appropriate parking provision for key facilities
4. Cycle infrastructure, ensuring that cycle parking facilities include provision for accessible bike types
5. Inclusive design of play spaces to ensure these can be accessed and enjoyed by children and carers of all abilities. This may include seeking accreditation for inclusive play spaces, where appropriate.

Additionally, designs **must** consider:

6. Accessibility and inclusivity in regards to signage and wayfinding, ensuring information is clearly presented, reduces potential for confusion and considers appropriate provision for information in alternative formats. Proposals **must** ensure accessible routes, WCs and other facilities are indicated on signage and consider inclusion of meeting points and landmarks.
7. Provision of WCs within the landscape and public realm where possible including disabled WCs and changing facilities. WCs to be free, universally accessible, and gender and culturally appropriate
8. Designing spaces following the Make Space for Girls principles (including guidance document "Safer Parks - Improving access for women and girls") as a positive contribution to the public realm and to ensure spaces are welcoming and inclusive for woman and girls
9. Strategies for ensuring a joined-up approach to inclusive design across the Gilston Area, so that users benefit from conveniently positioned facilities. An example may be focusing the design of a particular play area on accessible and inclusive features where this is in close proximity to other facilities such as key medical / educational sites or transport connections.
10. Public realm spaces **should** have appropriate lighting, visibility and natural surveillance

Detailing the Landscape

5.4.4 Sports and Recreation

Sports Provision

The sports provision for the Gilston Area is defined within the OPP Development Specification¹. The SLMP defines the size and zones for suitable locations of the facilities as illustrated within the adjacent diagram. This is part of a site wide provision which include sports facilities within villages. The total provision of sport and recreation facilities in the Development Specification **must** be provided across the Gilston Area, and these **should** be provided as follows unless an alternative approach is agreed with East Herts District Council

1. Gilston Park (CA5):

– 2No. U18 & Adult Football pitches (one to meet the Village 1 Playing Field provision of 0.8ha)

– 1No. Cricket pitch and clubhouse

– Bowls club, to comprise of two six-rink bowls facilities and a club house (which may be combined with cricket facility)

– 2km trim trail

– Space for informal sports e.g. frisbee, kite flying etc
2. Gilston Fields (CA4) Cricket Hub featuring:

– 2No. cricket pitches²

– 2No. U15 & U16 football pitches²

– 2No. U13 & U14 football pitches²

– Cricket nets

– Clubhouse
3. Village 2 Playing Fields (0.8ha - located in CA12):

– 1No. U18 & Adult football pitch
4. Eastwick Valley Green Corridor (CA7):

– 4No. U18 & Adult football pitches

– Village 4 playing field (1No. O18 & adult football pitch)

– Tennis facility, comprising of 8 senior pitches and may include a clubhouse
5. Village 5 Playing Fields (0.8ha- located in CA14 V1-5 Corridor):

– 1No. U18 & Adult football pitch
6. Village 6 Playing Fields (0.8ha) - located in CA14):

– 1No. U18 & Adult football pitch
7. Village 7 Football Hub:

– A building no more than 800 sqm GEA and appropriate car parking

– 2 No. Artificial Grass Pitches

– 1 No. Adult grass pitch with a shelter/dug-out

– 1 No. Adult grass pitch with 2 No. U9/U10 pitches within

– 1 No. U15/U16 grass pitch with 2 No. U7/U8 pitches within
8. Village 7 Playing Field:

– 1No. Grass Adult Pitch (either rugby or football)

– A Sports Pavilion (approximately 245sqm gross internal floor area)



¹ The sports requirements for the Gilston Area are based on requirements agreed with Sport England through the Outline Planning process. As a result of this, the requirements for sport provision across the Gilston Area may be changed but not increased over the course of the development as a result of updated Sport England guidance or updated evidence of demand for facilities.

² May form part of Dual Use Cricket and Football site

Fig.165 Precedent examples illustrating integration of sports in the landscape through tree planting, use of level changes for spectator areas, and screening of necessary fencing and lighting

Site Wide Sport and Play Strategy

The adjacent diagram demonstrates the site wide sports and play provision for the Gilston Area. Refer to overleaf, the regulatory plans and Chapter 4 Character Areas for further details on the provision within the SLMP. The Village provisions are shown indicatively only to demonstrate the site wide distribution. Their location and provision are subject to the relevant Village Masterplans.

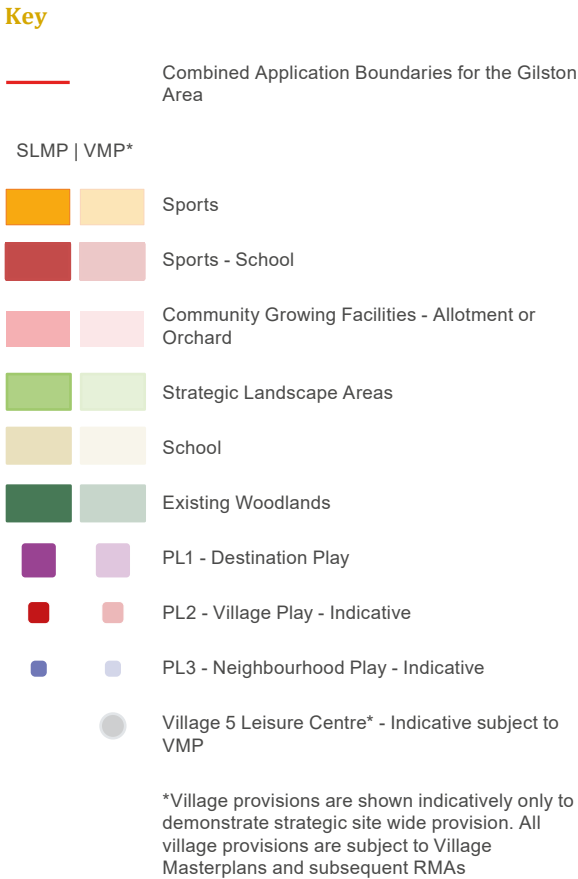


Fig.166 Illustrative plan of sport pitches and play areas within the study area

Sport

The following sets out the design requirements for sports and informal recreation facilities to be provided within the Gilston Area.

Design Requirements - Sport

Mandatory Features - General

1. All sport pitches and facilities **must** encourage active travel to the sport sites by providing pedestrian and cycle connections and cycle parking.
2. For sports facilities associated with Villages 1-6, seating **should** be provided associated with the sports pitches. Such seating **should** be appropriate and must consider micro-climate including shade
3. To achieve gradients recommended by Sport England, the pitches **must** be sensitively integrated into the existing landscape where possible.
4. All sports pitches **must** consider drainage, including permeability of the soil, long term maintenance and good drainage. Examples of suitable drainage systems include pipe drainage with sand grooves. Drainage **must** be considered as part of the wider SuDS approach of the site.
5. Consideration **must** be given to the soil, to ensure the soil is suitable for the proposed sports pitch.
6. Boundary treatments to sports pitches **must** consider visual and environmental impact, providing screening, shade and habitat. Examples include tree planting to provide shade and screening (associated with seating) and wildflower verges to provide pollinator habitats. Refer to section "5.5.4 Interfaces"

Key

- Combined Application Boundaries for the Gilston Area
- School Sport Zone*
- Club Sport Zone*
- Community Sport Zone, includes shared facilities with School Sport*
- Village Playing Fields*
- Allotment/Community growing facility
- Active Travel Routes connecting sport facilities
- Exercise Trails*

* Shown Indicatively

Facilities to be provided as part of sports cluster (not indicative of location):

- Club House Location
- All modes parking
- Publicly accessible WCs
- Changing room for sport facilities
- Publicly accessible cafe
- Community facility (i.e. bookable multi-purpose room and kitchen)

Village provisions illustrated are shown indicatively only to demonstrate strategic site wide provision. All village provisions are subject to Village Masterplans and subsequent RMAs

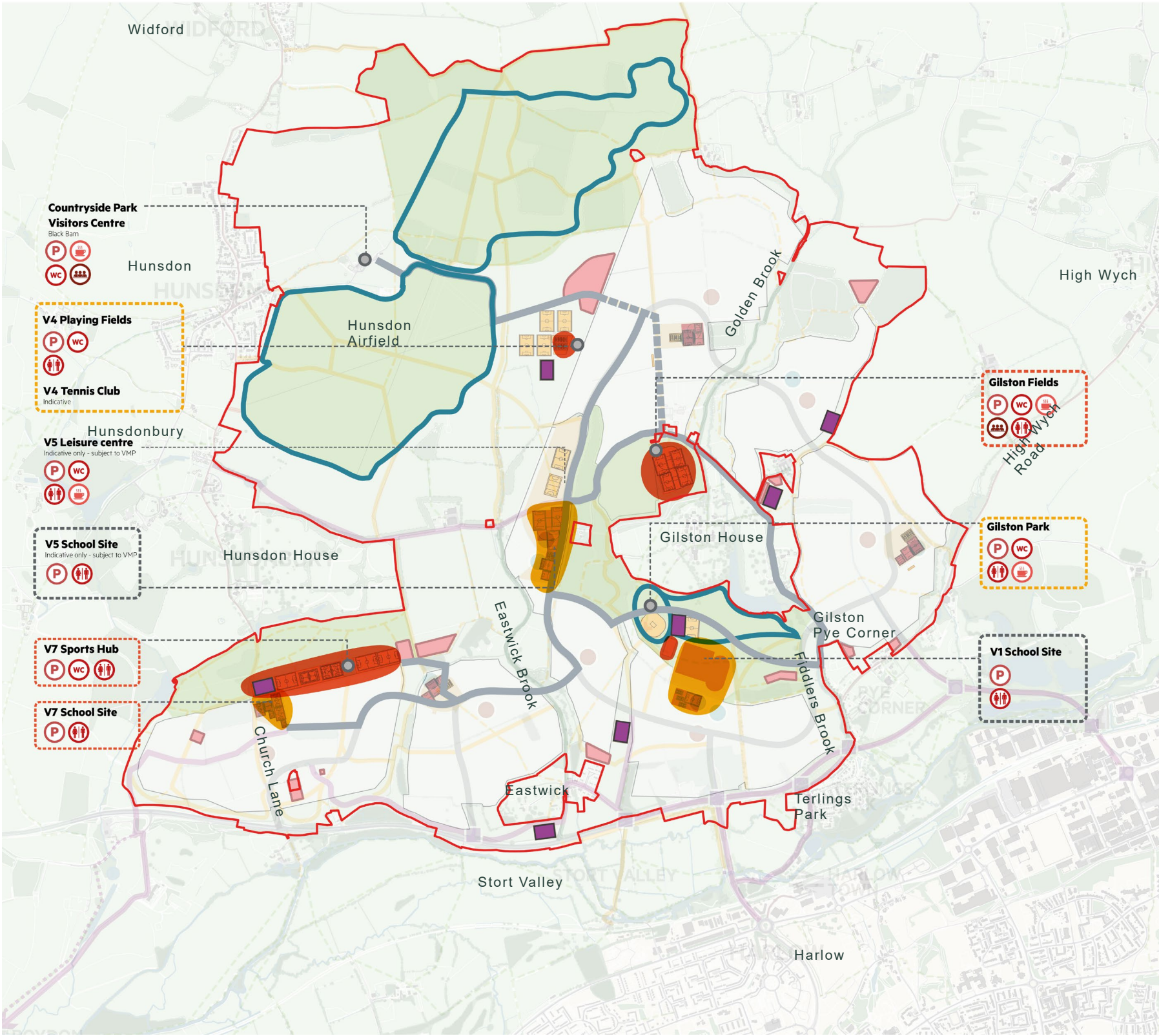


Fig.167 Illustrative plan of sport facilities within the study area

Design Requirements - Sports Pitches

1. Sport pitches **should** be laid out in the recommended orientation as set out by Sport England where possible
2. Design of sports pitch areas **must** consider space allocation for informal spectators
3. Sports pitch location **should** consider requirements for ball-strike zones

Mandatory Features - Sports Clubs

4. For sports club houses refer to "5.5.8 Ancillary Buildings within the Landscape"

Mandatory Features - School Sports

5. School Sports facilities **must** be sensitively integrated into the landscape, giving consideration to:
 - Boundary treatment and screening
 - Gradients, ensuring the sports pitches are sensitively integrated into the existing landforms
 - Refer to "5.5.4 Interfaces" for further details
6. Where flood lighting is required, this **must** be designed to minimise lighting pollution. Opportunities for screening (e.g. tree planting) **should** be considered to further mitigate light spill on surrounding areas.

Mandatory Features - Informal Sports

7. 1no. Village playing field **must** be provided for each village for informal sport use. In Villages 1-6, Village Playing Fields **should** contain a range of playing fields and sport courts and must allow informal recreation and must be usable as kickabout area. In Village 7, the village Playing Field will comprise of a grass adult pitch and the Village Sports Pavilion.
8. Individual sports pitch proposals **should** be accompanied by a strategy to define supporting facilities, e.g. identifying nearby WC facilities
9. In addition to the sport provision set out adjacent, opportunities for sport and outdoor leisure **should** be provided throughout the Gilston Area. This **should** cater to a range of ages and interests and may include:
 - Pump tracks
 - Basketball courts
 - Spaces designed to appeal to teenagers, featuring both physical activities and social spaces

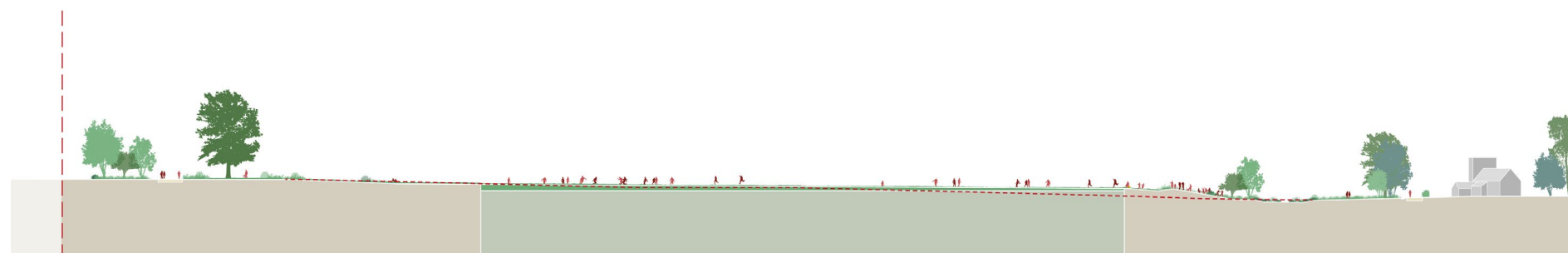


Fig.168 Illustrative section showing integration of sport facilities within Gilston Fields

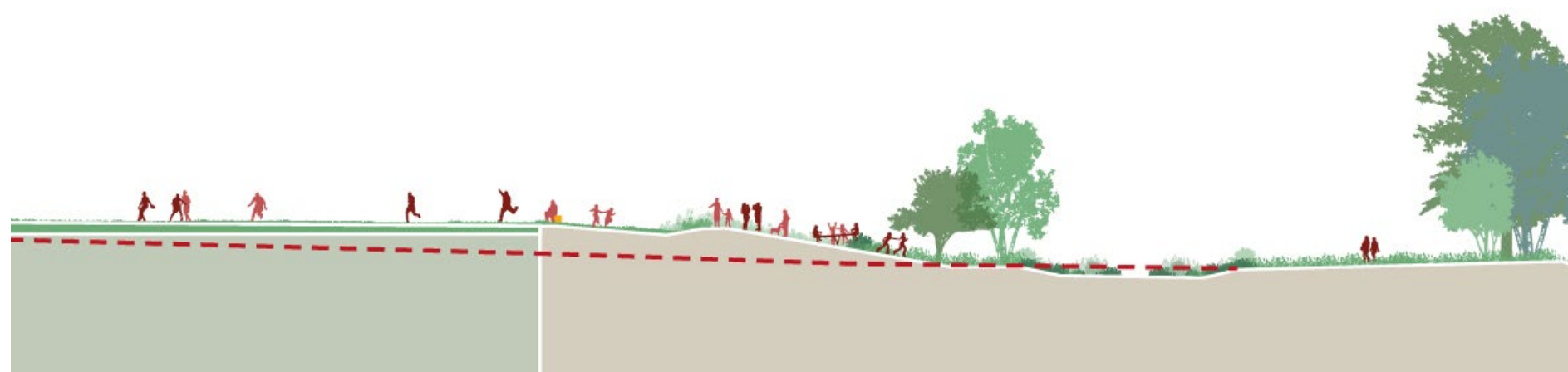


Fig.169 Illustrative section showing integration of sport facilities within Gilston Fields

Recreation

The countryside setting of the SLMP creates the opportunity to provide outdoor recreation within a landscape setting. The following sets our design guidance and requirements for provision of a wide range of outdoor recreational routes and facilities.

Design Requirements - Recreational Trails

- 1. All trails outlined below **must** avoid sensitive habitat areas and **must** be designed with specialist input where required.

Leisure Trails

- 2. Circular leisure trails **must** be provided through the Strategic Landscape Masterplan. They **must**:
 - Provide active travel linkages between the Character Areas
 - Provide circular routes of varying lengths to cater to a wide range of abilities
 - Allow for enjoyment of the countryside setting

Equestrian Trails

- 3. One circular equestrian trail **should** be provided within Eastwick Wood Countryside Park. This may consist of, for example, a leisure trail, or a cross-country course
- 4. Equestrian routes **must** be provided through the SLMP, building on the existing bridleway network (refer to "5.1.2 Active Travel Routes")

Sport/Active Trails

- 5. A minimum of two active trails in total **should** be provided in Gilston Park and Hunsdon Airfield Park respectively. They could:
 - Provide opportunities for exercise (e.g. running/cycling) in an informal setting
 - Be designed to ensure they do not exclude other leisure activities
- 6. A mountain bike trial of approx. 4km could be provided within Eastwick Wood Countryside Park. This trail **must** avoid sensitive habitat areas.
- 7. A circular family cycle route **must** be provided within Hunsdon Airfield Countryside Park

Key

	Combined Application Boundaries for the Gilston Area		Heritage routes (refer to "5.3.2 Response to Heritage Assets")
	Strategic Landscape Areas		Scheduled Ancient Monument
	Exercise Trails		Listed Building - Grade I
	Mountain bike Trail		Listed Building - Grade II*
	Circular equestrian trail		Listed Building - Grade II
	Equestrian routes (refer to "5.1.2 Active Travel Routes")		Conservation Areas
Refer to "5.1.2 Active Travel Routes" for active travel routes shown in background			

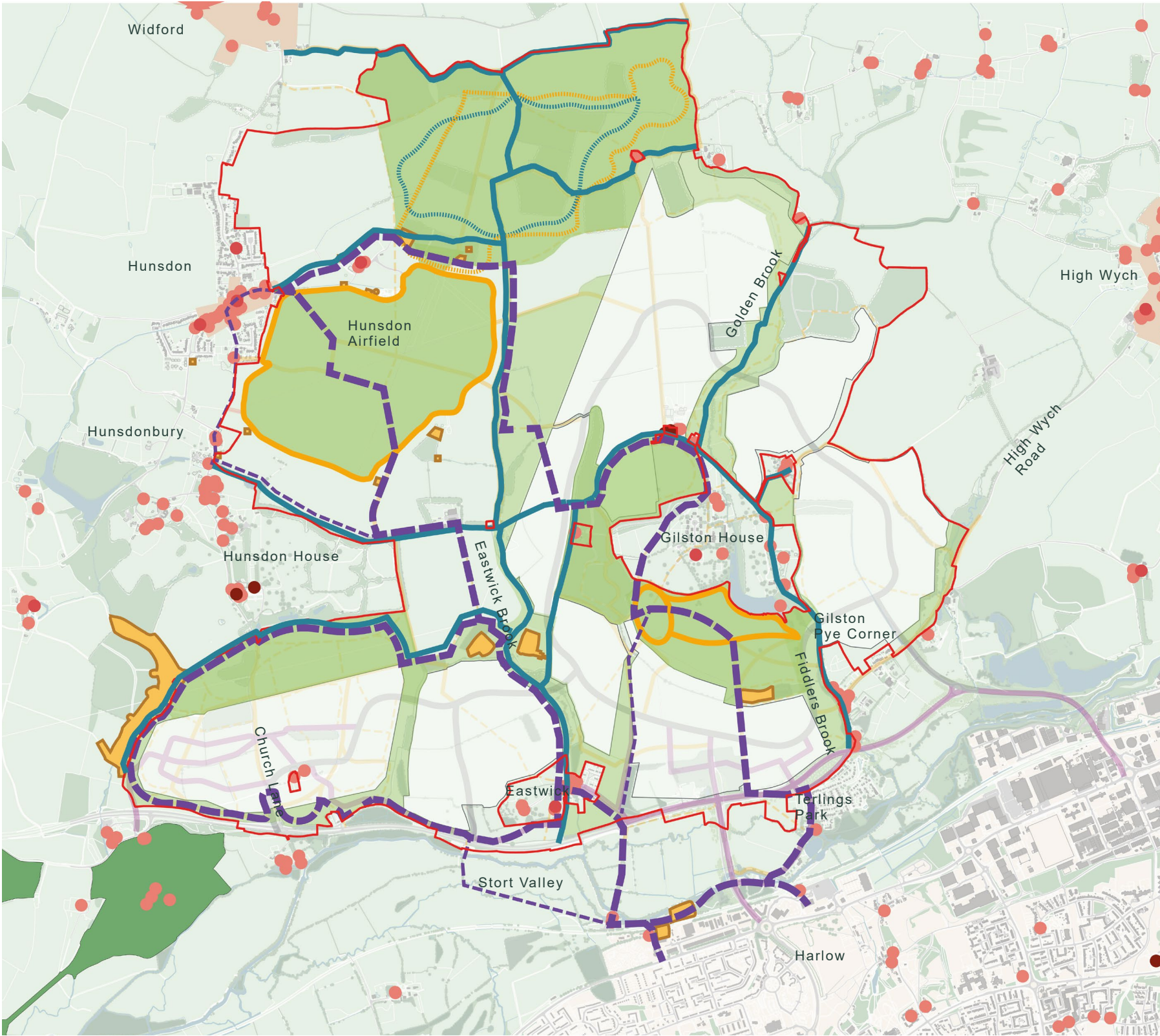


Fig.170 Illustrative plan of outdoor recreation facilities within the study area



Bridleway parallel to pedestrian/cycle route - Cole Green Way Hertfordshire



Design Guidance - Leisure Trails

- Circular leisure trails **should** provide outdoor recreation in a countryside setting, and should be accessible to all. Consideration **should** be given to;
 - Gradients
 - Surfacing
 - Lighting
 - Signage and wayfinding
 - Use of interactive and digital technology
 - Opportunities for play along the way



Design Guidance - Equestrian Trails

- Equestrian routes **should** use appropriate surfaces, as recommended by the British Horse Society, where suitable
- Design of equestrian routes at RMA stage **should** take into considerations of other users (e.g. pedestrians and cyclists) and must avoid conflict between users. This may include segregated equestrian tracks parallel to pedestrian/cycle routes as shown in the example above.



Design Guidance - Sport/Active Trails

- Sport and active trails **should** encourage outdoor exercise for a wide range of abilities in an informal setting.
- The active trails **should** include distance markers
- Outdoor fitness equipment **should** be provided alongside the active trails
- A distance marked running/walking route **should** be provided spanning across the V7 SLMP area, providing a minimum continuous 2.3km route

Detailing the Landscape

5.4.5 Play

Key Principles of Play within the Gilston Landscape

The following sets out the design guidance and design requirements for play spaces to be provided within the SLMP landscape. The required areas and distances for play (informed by local policy and best practice guidance including EHDC Open Space, Sport and Recreation SPF 2020, Fields in Trust Guidance for Outdoor Sport and Play - Beyond the Six Acres Standard 2015) are defined within the OPP Development Specification.

The site-wide ambition for play is to allow children to receive the full benefit of the countryside setting of Gilston with opportunities to experience play within the landscape.

The entire Gilston Area landscape is to be designed with children and teenagers in mind as key users of the streets, paths, cycle routes, and open space and access to key destinations including schools, parks, community buildings and play areas will be designed as safe, inclusive and welcoming environments for children to experience from a young age, and as they begin to explore their neighbourhood independently.

The creation of a landscape which engages with children and teenagers will not be limited to defined play areas, but part of a site-wide strategy to encourage spontaneous play through creating a stimulating environment which people of all ages can find joy in.

Design Requirements for all Play Spaces within the Gilston Landscape

1. Play spaces **must** occupy a well-drained site, with reasonably flat areas, surfaced with an appropriate surface, e.g. grass, bark chippings etc.
2. Play space design **should** take inspiration from the character of the landscape where it is located and **must** consider the impact of sensitive heritage views.
3. Play elements **must** be constructed and located for minimal detrimental impact on sensitive trees, flora and fauna
4. Play spaces **must** be accessible and welcoming to disabled children and their carers and include play facilities designed to accommodate their needs. Facilities appealing to children with Special Educational Needs **must** also be provided
5. Play spaces **must** offer a wide variety of activities with facilities for younger and older children arranged together to promote interaction.
6. Play spaces **must** offer variety of physical movement and activity, and offer challenge to different ages and abilities Spaces **should** be designed to provide stimulating and challenging play experience that includes elements offering opportunities for balancing, rocking, climbing, overhead activity, sliding, swinging, jumping, crawling, rotating, imaginative play, social play, play with natural materials such as sand and water etc.
7. Play spaces **must** include an open area allowing children to be generally active and play 'chase' type games

8. Play spaces **must** be designed to be pleasant and comfortable places for children and carers to spend time. They **must** provide physical comfort through provision of shade and shaded seating.
9. **Must** include a variety of seating including those incorporating inclusive design features. Litter bins **must** also be provided.
10. Play spaces **should** be designed to allow for change and evolution
11. Play spaces **should** be designed to encourage imaginative play and interaction with the natural environment through inclusion of different sensory experiences through selection of materials and textures, planting, and inclusion of different media such as sand and water
12. Spaces **must** cater for the recreational needs of older children and teenagers, providing a variety of opportunities across the site for physical activity and social gathering. Particular consideration **should** be given to designing spaces which appeal to girls. Safety through design is an imperative, and engaging young people in the design process is encouraged.
13. Play areas **must** be designed with consideration of play facilities at other sites to ensure a diversity of play features and play opportunities across the Gilston Area.



Key

Combined Application Boundaries for the Gilston Area

SLMP | VMP*

- Sports
- Sports - School
- Community Growing Facilities - Allotment or Orchard
- Strategic Landscape Areas
- School
- Existing Woodlands
- PL1 - Destination Play
- PL2 - Village Play - Indicative
- PL3 - Neighbourhood Play - Indicative
- Village 5 Leisure Centre* - Indicative subject to VMP

*Village provisions are shown indicatively only to demonstrate strategic site wide provision. All village provisions are subject to Village Masterplans and subsequent RMAs



Fig.171 Illustrative plan of sport pitches and play areas within the study area

PL1 - Destination Play Spaces

Destination Play Spaces will serve the whole Gilston development and provide a destination for families and groups to visit. These spaces will be designed to the following requirements:

Design Requirements

Destination Play Spaces:

1. **Must** total a minimum of 2 ha across the two Destination Play Space sites within Home Wood/Gilston Park and Eastwick Woodland Park/ Hunsdon Airfield Park unless it can be demonstrated that a lower level of provision is justified based on the provision of play elsewhere in the site
2. **Should** be located within natural settings such as woodland and meadow and to be designed to encourage early appreciation of nature. Spaces **must** be located in areas assessed as appropriate to receive Destination Play Spaces, such as the area of more recent plantation woodland in Home Wood.
3. **Must** be located adjacent to a primary walking and cycling route and include provision for convenient and secure cycle parking facilities.
4. **Must** be designed as an adventure playground/trail incorporating natural features such as trees and/or topography, as well as large play structures.
5. **Must** incorporate play and socialising opportunities to be aimed at children and young adults of all ages
6. **Must** include low-impact playable elements suited to a wide range of ages and play interpretations.
7. Designs **must** include areas for den-building etc. and organised activities such as Forest Schools, bushcraft activities etc
8. **Must** include a car-park (in Eastwick Wood Countryside Park only). Disabled parking access to Home Wood **must** be provided as part of the limited parking provision within Gilston Park
9. **Must** include a shelter and access to facilities including a cafe, WCs and storage (to be located outside of Ancient Woodland areas)
10. **Should** consider including provision of drinking water fountains
11. **Must** include provision of signage and interpretation for the landscape setting

Design Guidance

- Destination Play Spaces may be designed to have a specific theme or character to reflect the setting or local history of the Destination Play Space.

Note: There is flexibility in the location of the Destination Play Space within the Eastwick Woodland Park / Hunsdon Airfield Park area. Refer to "4.4 A Connected Landscape"



PL2 - Village Playgrounds within SLMP

The following section describes the design requirements for the Village Playgrounds, where these are located within the SLMP. The OPP Development Specification sets out the following criteria for these spaces:

- Each village must have a Village Playground, offering a variety of play equipment to suit a range of different aged children. It should be a minimum of 2,000sqm and should preferably be located within the Village Park (forming part of the 1.0ha area).

Design Requirements

Village Playgrounds:

1. **Must** be located adjacent to key active travel routes to ensure convenient access and overlooking of the playground and include provision for convenient and secure cycle parking facilities.
2. **Must** be in an overlooked location to allow for passive surveillance and located alongside a well-used pedestrian route.
3. **Must** be located at a safe and reasonable distance from roads, particularly primary and secondary roads.
4. **Must** be focused on play for older children and young adults, but also provide opportunities for younger children (2-11 years old), allowing family groups to play together
5. **Must** incorporate play and socialising opportunities to be aimed at children and young adults of all ages
6. **Should** include active recreation/ informal sports area, e.g. basketball court and/or five-a-side football, skate park, pump track or climbing/ bouldering facilities
7. **Must** include recognisable boundaries, preferably not fencing unless necessary due to adjacent roads
8. **Must** include a sign indicating that the area is for children's play and that dogs are to be kept on a lead
9. **Must** include provision of signage and interpretation for the landscape setting



PL3 - Neighbourhood Play Spaces within SLMP

The following section describes the mandatory design principles for the Neighbourhood Play Spaces, where these are located within the SLMP. The OPP Development Specification sets out the following criteria for these spaces:

- Minimum area of 625m2
- Maximum walking distance of c. 250m from home
- To be located in an overlooked location to allow for improved passive surveillance and located alongside a well-used pedestrian route.

The provision for PL3 - Neighbourhood Play Spaces is identified in the regulatory plans. Additional Neighbourhood Play Spaces may be provided within the SLMP where they accord with the criteria above and the design requirements set out below.

Design Requirements

Neighbourhood Play Spaces:

1. **Must** be designed primarily for younger children, (2-11 years old)
2. **Must** be accessible from nearby cycle route
3. **Must** be located at a safe and reasonable distance from roads, particularly primary and secondary roads.
4. **Must** include a wide range and variety of play elements, including a multi-functional play structure.
5. **Must** include recognisable boundaries, preferably not fencing unless necessary due to adjacent roads
6. **Must** include a sign indicating that the area is for children's play and that dogs are to be kept on a lead



Incidental Play

Opportunities for incidental play can be incorporated into the design of public realm, open space and streetscapes to provide a stimulating environment turning everyday journeys into a mini-adventure. Incidental play features can be beneficial in helping children to develop through sensory exploration, environmental awareness, and creative thinking and imagination. Incidental play features should be designed to the following requirements:

Design Requirements

Incidental Play Spaces:

- 1. **Must** be designed to encourage informal play and social interaction
- 2. **Must** be overlooked to allow for improved passive surveillance
- 3. **Must** be located at a safe and reasonable distance from vehicular areas, particularly incorporating sufficient distance from primary and secondary roads.
- 4. Incidental play **should** be incorporated into key pedestrian and cycle routes within the SLMP
- 5. May not necessarily feature play equipment but **should** facilitate play through incorporating demonstrative features indicating that play is positively encouraged. Stimulating and accessible space of sufficient size for play and away from hazards are the key elements that should be provided
- 6. **Should** provide opportunities for imaginative, inventive and or incidental play through the provision of natural elements (such as logs, boulders or stepping stones), planting, street furniture, paving surfaces (including painted playful features such as hopscotch markings, trails etc.)



Detailing the Landscape

5.4.6 Community Food Production

Community Food Production

1. Each home within the Village Development **must** be within circa 1000m of a Community Food Production site (as defined within the Development Specification); the sites must be well connected and easy to reach by active travel modes.

Allotments

The following sets out the design guidance and design requirements for allotment facilities to be provided within the Gilston Area.

Allotment Design Requirements

1. All allotment sites **must** be designed in accordance with best practice guidance, including "21st Century Allotment in New Developments" by the National Allotment Society
2. Allotments **must** make provision for cycle parking to enable active travel to allotment sites.
3. A variety of allotment sizes **should** be provided, in accordance with "21st Century Allotment in New Developments" by the National Allotment Society
4. Allotment sites **must** be sensitively integrated into the landscape by applying appropriate perimeter boundary treatments.
5. Sustainable water collection and irrigation systems **must** be provided. This **should** include:
 - Water collection and retention from structures, for irrigation of allotment sites.
 - Shared rainwater collection and storage systems where feasible
 - Water supply from mains as secondary option
6. Allotments **must** be designed to best practice accessibility and inclusivity standards including:
 - Providing universally accessible routes to a range of conveniently located plots via key routes for each allotment site
 - Provide seating in communal areas
 - Provide accessible parking
7. Opportunities for community composting, donation of wood chips, leaf mould and manure **must** be provided.
8. Allotment stores and raised beds **should** be constructed from durable materials to reduce the risk of excessive repairs or replacements.
9. Vehicular access **must** be controlled and **should** allow access for maintenance vehicles and deliveries. This may be via the shared surface adjacent to the allotment gardens.
10. Shade analysis **must** form part of the allotment design process, as part of future RMA's. The distance between building façades and allotments **should** be considered as part of this process, to ensure allotments are

not cast in excessive levels of shade.

11. Soil health **should** be considered as part of the design process. Where allotments are proposed on agricultural land, the soil should generally be left untouched (subject to detailed investigation at RMA stage)
12. Communal sheds **should** be provided for strategic allotment sites in line with the requirements set out in the OPP Development Specification. Communal sheds **should** include WCs and storage

Allotments - Design Guidance

- Boundary treatment between plots could consider opportunities for provision of ecosystem services and sustainable drainage including:
 - Wildflower meadows to improve soil health and provide pollinator habitats.
 - Swales, raingardens and French drains to aid drainage, irrigation and provide habitat.
- Subject to RMA design, community facilities could be provided on allotment sites. These may include:
 - Toilets, which are to be fully accessible and gender and culturally appropriate.
 - Communal building and associated social area, including opportunities for tool sharing, community work benches and site shops.
- Allotments could provide capability for seedling protection & rainwater harvesting through a consistent approach which promotes sustainable horticulture practices.
- To enhance local ecosystem services, biodiversity features such as wildlife ponds could be provided. These could be associated with communal buildings and associated social areas.
- A range of different beds could be provided, including raised beds. These could be used to positively overcome level changes on site.
- To enable use of the allotments by active travel only modes of transport, facilities such as bicycle trailer rental schemes could be provided



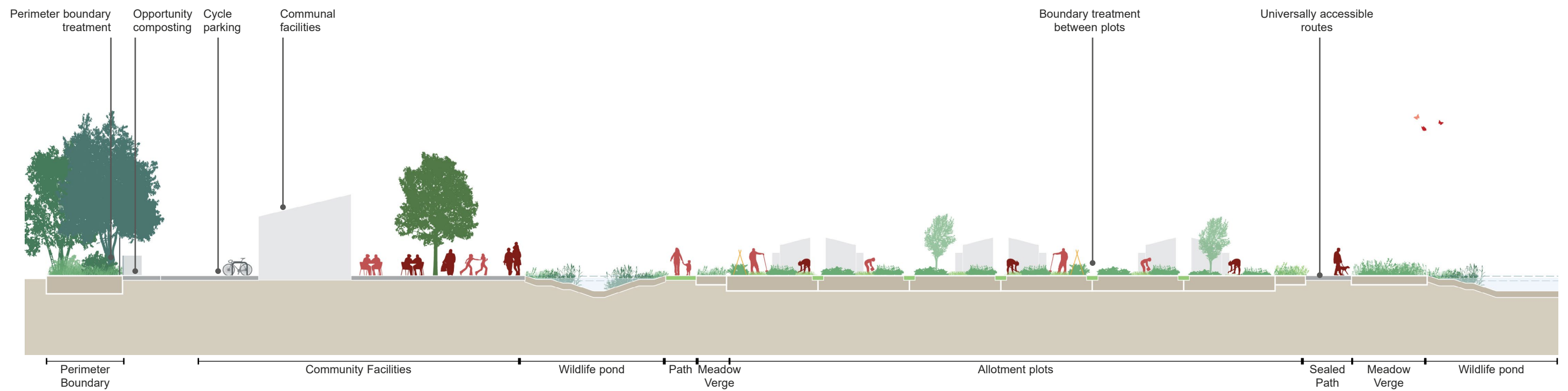


Fig.172 Illustrative section of Village 4 allotment site



Fig.173 Reference image allotment site

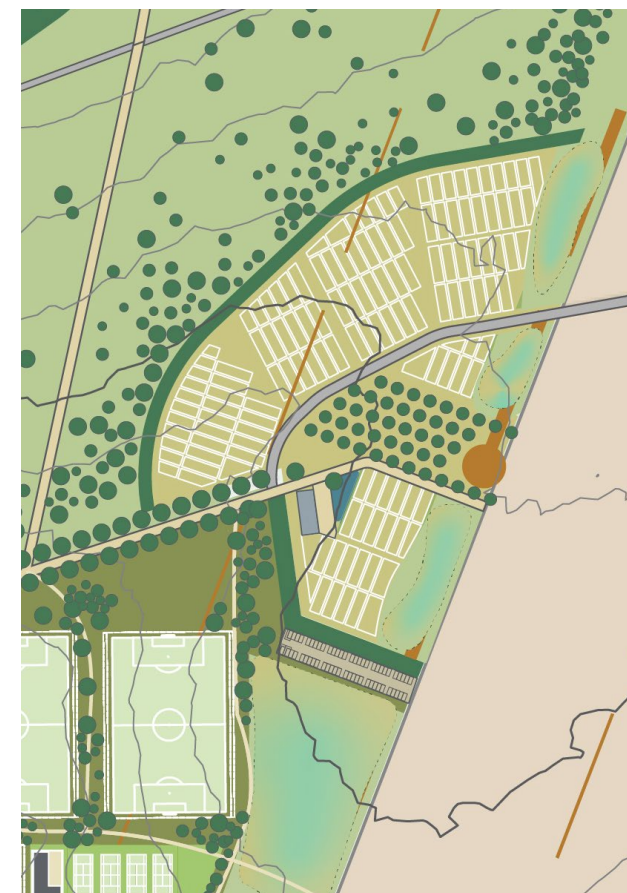


Fig.174 Illustrative plan of Village 4 allotment site

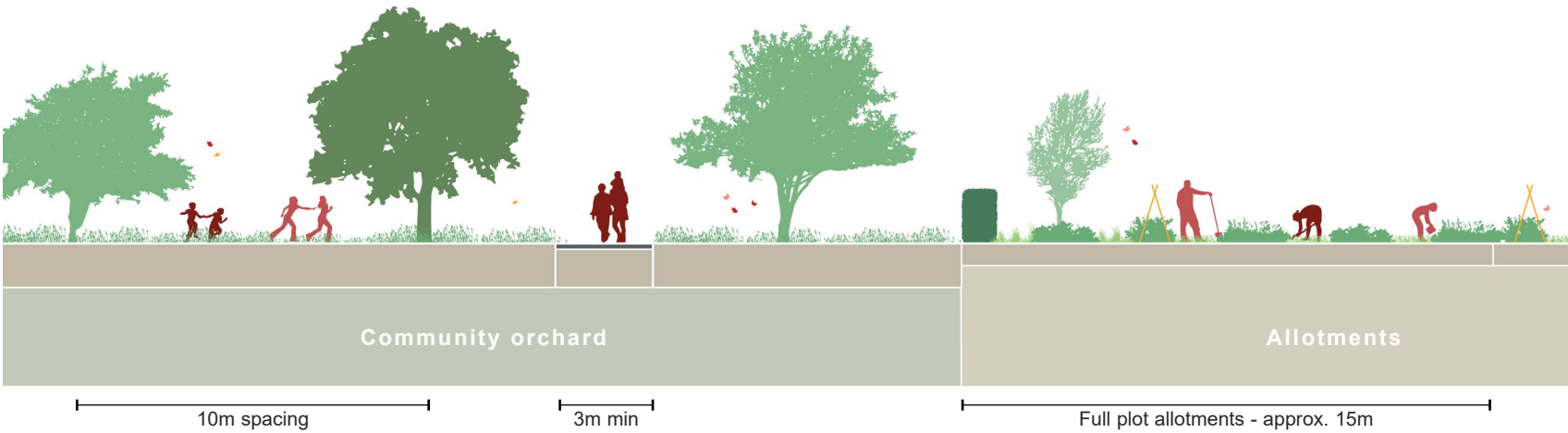


Fig.175 Typical illustrative section of community orchard

SuDS in close proximity to powerline corridor to diffuse edge and avoid access

Orchard easily accessible via active travel connections



Fig.176 Illustrative plan of Village 4 allotment site

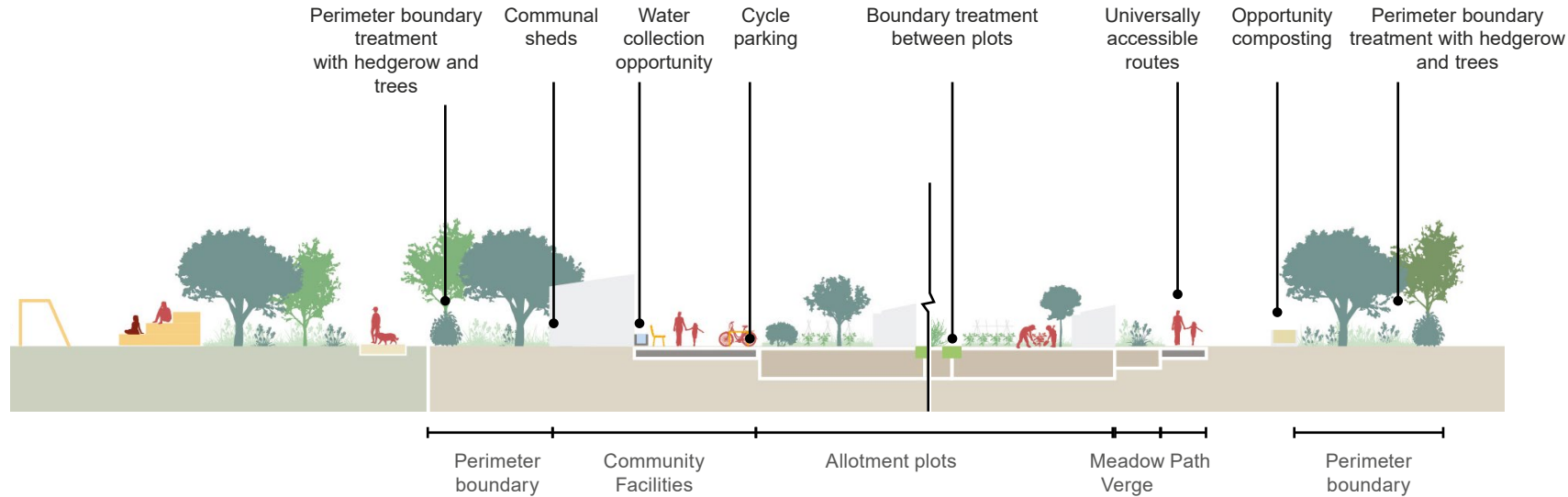


Fig.177 Typical illustrative section of Village 7 Allotments



Fig.178 Illustrative plan of Village 7 allotment site

Community Orchards

Sawbridgeworth, in close proximity of the Gilston Area, is home to the Rivers Heritage Site & Orchard; an important historic orchard that extended approximately 161ha (400 acres) at its height. The community growing strategy of the SLMP aims to continue the historic local tradition by providing community orchards throughout the SLMP. The following sets out design guidance and requirements for Community Orchards within the SLMP

Design Requirements

1. Long term management of orchards **must** be considered as part of the Stewardship proposals and RMA designs. Management strategies **should** allow for community contribution and should consider specialist horticultural supervision.
2. Community orchards **must** have a wide range of different tree species, (including potential heritage varieties) with biodiverse understory planting, such as biodiverse native wildflower meadows. Maintenance and management plan is required to ensure species diversity is maintained in the long term.
3. Orchards **must** contain a range of paths and routes throughout the area, including, where possible, consideration of accessible routes and surfacing.
4. Seating **should** be provided throughout the orchard. Seating areas **should** be associated with the wide range of paths as per the point above and **should** comply with best practice accessibility standards.
5. Access to and from the orchards **must** encourage active travel. As such, cycle parking provision **must** be associated with entrances to community orchards.

Design Guidance

- Community growing spaces could consider range of growing opportunities, alongside community orchards. This could include raised community growing beds (e.g. “Incredible Edible” garden)
- Community Orchards could consider building on existing richness and diversity of orchards in the vicinity, such as Rivers Heritage Site and Orchard.
- Interpretation could be provided and should align with the principles set out in the Wayfinding section
- Opportunities for incidental, natural play could be included in all community orchards.



5.5 Public Realm

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