

LANDSCAPE STRATEGY LAND AT BARNHAM, EASTERGATE & WESTERGATE

ISSUE SHEET

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INTRODUCTION

fabrik were commissioned by C.C. Projects, Ashmarden Ltd and Hanbury (PM) Limited to provide a landscape strategy as a stand-alone document in support of the Outline Planning Application for land at BEW Parcel SC1 which forms part of the Barnham, Eastergate and Westergate (BEW) site allocation in the Arun Local Plan (Policy HSP2c SD5) hereafter referred to as the 'Site'.

The purpose of this Landscape Strategy document is to provide illustrative material to describe the landscape masterplan and explain the design principles and concepts behind it. It should be read alongside the Parameter Plans, Design Principles document, Design and Access Statement, Environmental Statement and other supporting information submitted as part of the Outline Planning Application.

This report is based on the Landscape & Green Infrastructure Parameter Plan and supported by the Illustrative Masterplan by JTP. The extent and distribution of public open space was approximated early in the masterplanning process, and this report explains the subsequent design development for site-wide public open space and green infrastructure.

The illustrative material contained within this report represents one way in which the Parameter Plans and the Design Principles can be interpreted. It will not therefore be an approved document.

The separate Design Principles document will become an approved document against which subsequent reserved matters applications will be assessed by Arun District Council [ADC].

This strategy describes the project requirements, the constraints and opportunities and the design rationale for the strategies for site integration, green-blue infrastructure, play and recreation. It describes the design principles for the public open spaces, character areas, all associated components and features, and the selection of planting types.

The objectives of a coordinated 'whole-site design' are defined in the section below; 'Design Parameters' outlines the baseline requirements established by other disciplines, and how they have been fundamental to the development of the landscape architectural design.

1.1 POLICY CONTEXT

The Site forms part of the strategic allocation SD5 identified in ADCs adopted Local Plan 2011-2031. Policy HSP2c SD5 defines the following policy requirements:

- To preserve the separate identities and avoid any further physical coalescence of the three villages of Barnham, Eastergate and Westergate through the delivery of green infrastructure.
- Eastergate and Barnham should be protected from a continuous urban form / coalescence along the north and south aspects of the B2233.
- The design of development and landscaping shall ensure that there is continuity between the existing landscape setting and villages.
- Housing shall be designed around a Linear Park which

follows along the Lidsey Rife, with specific recommendations for this locality, in the Arun Strategic Surface Water Management Study.

- Significant views to and from the South Downs shall be incorporated within the site.

The provision of high quality Public Open Space has formed a fundamental part of this Outline Planning Application. It has been prepared with consideration given to the recently adopted Public Open Space, Playing Pitches and Built Facilities SPD (2020) and the respective policies in the adopted ADC Local Plan. These are summarised as follows:

- Policy OSR DM1 'Open space, sport & recreation' requires provision and or enhancement as identified via the Open Spaces, Playing Pitches and Indoor Sport & Built Facilities Strategies.
- Policy HWB SP1 states: 'All development should be designed to maximise the impact it can make to promoting healthy communities and reducing health inequalities.'
- Policy GI SP1 (Chapter 7 of the Local Plan) states that all major developments must be designed to protect and enhance exiting Green Infrastructure assets and the connections between them, to ensure a joined up Green Infrastructure Network.
- Policy W DM3 of the Arun Local Plan requires major development to integrate SuDS into the overall design of the development.

1.2 STAKEHOLDER & COMMUNITY ENGAGEMENT

The Framework Masterplan evolved through consultation with Arun District Council's BEW Advisory Group, nearby landowners, third party bodies, Officers at Arun District Council and Members of both Parish, District and County Councils.

The following points arising from the stakeholder engagement relate specifically to the Outline Application:

- All nature conservation features to be incorporated into the site design and protected from change.
- Quality, well-designed POS to accord with Arun District Council's Open Space SPD January 2020.
- SUDS must not impact on the usable levels of POS and therefore must not be included in the 'usable open space calculations'.
- Views into and from the Site to the South Downs to the north must be promoted and given careful consideration.
- All green spaces should be considered and valued and their capacity for biodiversity and habitat enhancement explored.

On the 25th February 2021, the design team presented the play strategy to ADC Officers as 'work in progress' for detailed discussion specifically on the policy compliance and any other project and end-user requirements.

- ADC stated that it was preferable for management and maintenance reasons to have fewer, larger play areas instead of smaller, more numerous play areas.
- The proposals as presented were considered to be the

optimum balance between centralisation, variety of play provision and equitable distribution; however, distribution will be considered as part of subsequent reserved matters applications.

- ADC emphasised that destination play areas must be disability-led, and that one of the NEAPs should include dedicated provision for inclusive play; the inclusive approach must consider parking and DDA - compliant access routes.

COMMUNITY ENGAGEMENT

Public consultation was undertaken the summer of the 2020 and again between 19th April and 16th May 2021, which was subsequently extended until 24th May 2021 (five weeks in total). The following responses relate to the Site and were fundamental to the development of the landscape proposals:

- Habitat protection and enhancement: Respondents expressed concerns about destruction of natural habitat, loss of wildlife (bats/badgers/foxes, trees and hedgerows), and that mitigation should be included.
- Pedestrian and cycling connectivity: Respondents expressed concern over the condition of existing cycle paths/PROW, many needing improvement. Segregation was identified as key to walking and cycling routes and they must connect with the station.

1.3 THE FRAMEWORK MASTERPLAN

This report furthers the landscape objectives and principles set out in the Framework Masterplan which defined the following design framework principles:

- Retain existing hedgerows and mature trees as much as possible within the structure of the layout.
- Develop the character of the Lidsey Rife into a Linear Park
- Incorporate existing and new blue and green landscape infrastructure.

This report develops the above principles and objectives through a series of landscape strategies for green-blue infrastructure, ecology and recreation, leisure and play to describe how these functions overlay to create an integrated, coordinated site-wide design. This is then further illustrated in the section 'Character Areas'.

1.4 DESIGN PARAMETERS

LANDSCAPE & VISUAL IMPACT ASSESSMENT

The LVIA chapter in the Environmental Statement submitted as part of the Outline Application states that the '*existing character areas of the application site present to the north of the railway line, namely the Barnham Plant Nurseries, BEW Open Farmland will be wholly replaced by built form, linear green infrastructure, new road corridors, the Lidsey Rife Linear Park and tree planting. Built form will be concentrated in the central and eastern area of the BEW Open Farmland character area, with open space to the west*'.

Lidsey Rife Valley Corridor is predominantly rural, comprising valley floor meadows and lower valley sides. Opportunities for enhancement include '*positive management to maintain this resource*'.

The character area 'BEW Open Farmland' includes the north-western area adjacent to Manor Farm which forms the landscape setting to Conservation Area and the Parish Church of St George.

ECOLOGY

Ecological surveys of the Site have been undertaken by Ecology Solutions Ltd. The following summary within the Ecology chapter provides an overview.

"At present, the vast majority of the development site comprises of habitat of negligible ecological value in the form of arable land. Those habitats that are of greater value in the context of the site, the hedgerows, treelines, woodland, waterbodies and stream will be retained as part of the proposals. The Proposed Development will deliver significant enhancements in terms of habitats, including the provision of the new Rife Valley Park, a large area of open space located in the west of the site. This Park will buffer the stream from the remaining development and include habitats such as wildflower grassland, new shrub and tree planting and a large number of new ponds, with the planting mixture of all based around the use of native and wildlife-beneficial species. This will fully offset losses and considered in light of future management, represent a net gain in biodiversity terms".

ARBORICULTURE

Trees Surveys of the Site have been undertaken by Pell Frischmann. The following summary within the Ecology chapter provides an overview.

"The masterplan shows a large area of public open space to the west of the main site. This allows for the 2 Category A trees [and] for all of the Category B and C trees in that area to be retained, and for further enhancement of the hedgerows and tree communities...The eastern boundary trees will be incorporated into the scheme...The most significant area for potential impact to the trees on site is in the area of the eastern nursery... Mitigation for these losses is possible within the Site."

2.0

SITE CONTEXT

2.1 EXISTING CONTEXT

Arun District Council's Local Plan Policy Map 2 identifies 'local green space' and 'existing open space'. Notable facilities include the Aldingbourne Community Sports Centre [1] and Eastergate Cricket Club grounds [2]. Elsewhere green space is predominantly within school grounds or limited to pocket parks within residential areas.

Play areas are located within the pocket parks serving the immediate residential communities.

DEFRA mapping identifies woodland to the north and east of the three villages. However, the woodland is largely open and scattered.

The flood zone broadly defines the Lidsey Rife valley corridor and its tributaries.

Existing public right of ways in the form of footpaths exist within and around Eastergate and Westergate. No public bridleways exist immediately around the Site.

2.2 SITE INTEGRATION

The diagram opposite illustrates the aspiration of creating new green infrastructure within the Site that is connected with and forms part of the wider green infrastructure [GI] network.

The Lidsey Rife Linear Park [3] should be a multifaceted open space encompassing the valley corridor of the Lidsey Rife and its tributaries. It should connect directly with the Conservation Area, Eastergate Primary School and Ormiston Six Villages Academy to the north, and extend south beyond the railway line. A mosaic of new habitats and amenity areas should connect with the context both physically and in terms of landscape character.

A new footpath network should connect to the existing PROW network. An additional corridor aligning with the existing public right of way [PROW] [4] should provide a key pedestrian-cycle link to Barnham station, while serving as green gap to preserve the identities of the three villages.

The destination play areas [5] within the development should form part of the wider network of play areas and will be accessible to the existing and new communities alike.

LEGEND

	PLANNING APPLICATION BOUNDARY		EXPANSIVE GI NETWORK
	ANCIENT WOODLAND		KEY TREE PLANTING OPPORTUNITIES
	WOODLAND [DEFRA MAPPING]		POTENTIAL VIEWS [PER POLICY H5P2C 5D5]
	EXISTING TREES WITHIN SITE		INDICATIVE LOCATION OF NEW KEY PLAY PROVISION
	EXISTING GREEN OPEN SPACE		PROPOSED CYCLE/FOOTPATH
	FLOOD ZONE		
	CONSERVATION AREA		
	EXISTING PLAY AREAS		
	EXISTING PUBLIC RIGHT OF WAY		



EXISTING CONTEXT & SITE INTEGRATION DIAGRAM

3.0

LANDSCAPE & GREEN INFRASTRUCTURE PARAMETER PLAN

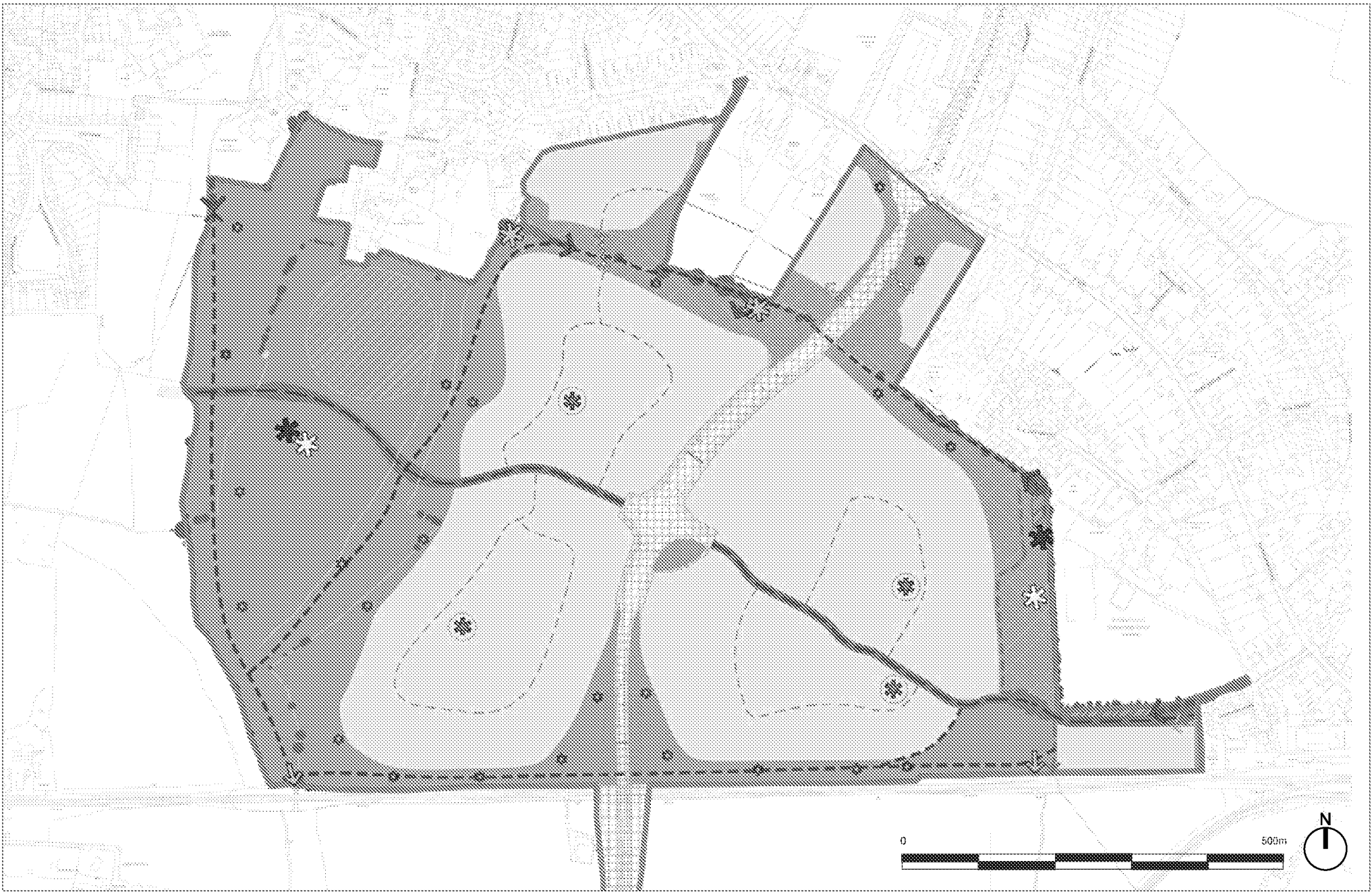
Parameter plans developed by JTP secure the principles set out by the Framework Masterplan. They are submitted for approval as part of the Outline Planning Application. The Landscape & Green Infrastructure parameter plan defines key principles and features which should, wherever possible, be retained, namely the waterbodies, trees and hedgerows along the existing field boundaries. These features are critical to enhancing the character, amenity, and biodiversity of the development.

The Landscape & Green Infrastructure Parameter Plan indicates the extent of the proposed green open space. This comprises the various open space typologies within the ADC's Supplementary Planning Document, 'Open Space, Playing Pitches, Indoor And Built Sports Facilities', namely 'parks and gardens', 'amenity green space', 'natural / semi-natural' areas. The Site significantly exceeds the area quantum requirement for all open space typologies.

The extents of the policy-compliant public open space typologies are indicated in the drawing sequence below. 'Parks & gardens' is defined as the elevated area within the Life Rife Linear Park. The amenity green space is broadly defined as the spaces within and immediately around the development parcels. The 'natural / semi-natural' area is defined as the Lidsey Rife valley corridor and associate rifes.

TABLE: INDICATIVE PUBLIC OPEN SPACE PROVISION

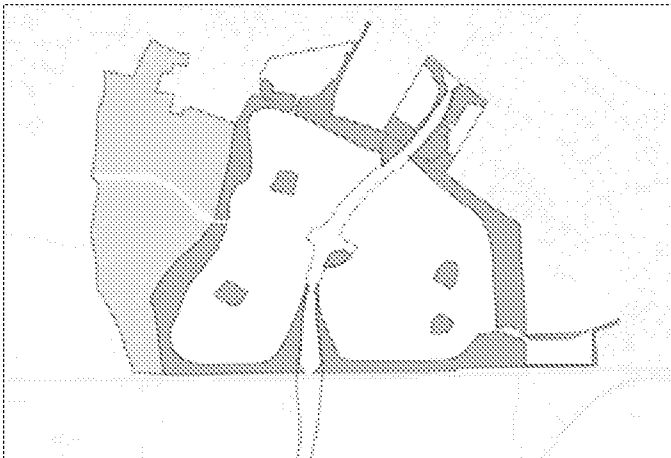
POST TYPE	HA / 1,000	SITE REQ.	SITE PROV.
PARKS & GARDENS	0.80	2.13	10.29
AMENITY GREEN SPACE	0.60	1.60	12.33
NATURAL, SEMI-NATURAL	1.80	4.80	7.35
EQUIPPED PLAY AREAS	0.25	0.66	0.66
OTHER OUTDOOR PROV.	0.30	0.80	0.48



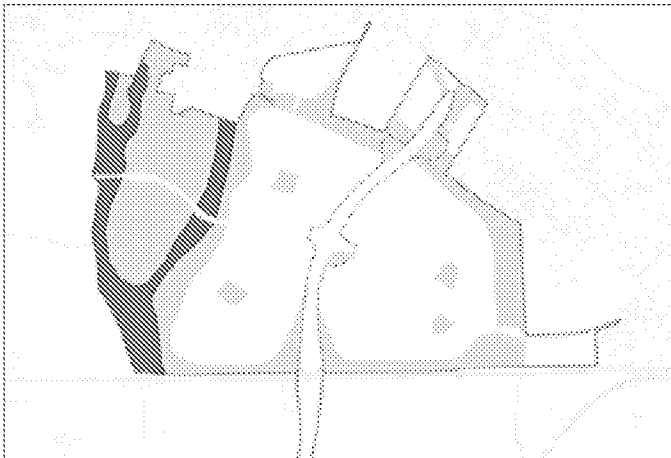
INDICATIVE GREEN INFRASTRUCTURE INTEGRATION DIAGRAM



PARKS & GARDENS [PER SPD DEFINITION]



AMENITY GREEN SPACE



NATURAL & SEMI-NATURAL SPACE

LEGEND

- PLANNING APPLICATION BOUNDARY
- EXISTING TREES & HEDGEROWS TO BE RETAINED
- OPEN SPACE / INFRASTRUCTURE
- NEIGHBOURHOOD EQUIPPED AREA FOR PLAY [NEAP] [INDIC.]
- OTHER OUTDOOR PROVISION [INDIC.]
- LOCAL EQUIPPED AREA FOR PLAY [LEAP] [INDIC.]
- LOCAL AREA OF PLAY [LAP] [INDIC.]
- PROPOSED PEDESTRIAN & CYCLE ROUTES
- REALIGNED PUBLIC RIGHT OF WAY

4.0

OPEN SPACE PROPOSALS

An analysis was undertaken to test the capacity of the Site to accommodate the public open space requirements defined in Arun District Council's Supplementary Planning Document, 'Open Space, Playing Pitches, Indoor And Built Sports Facilities'. Area calculations for public open space exclude all SuDS features.

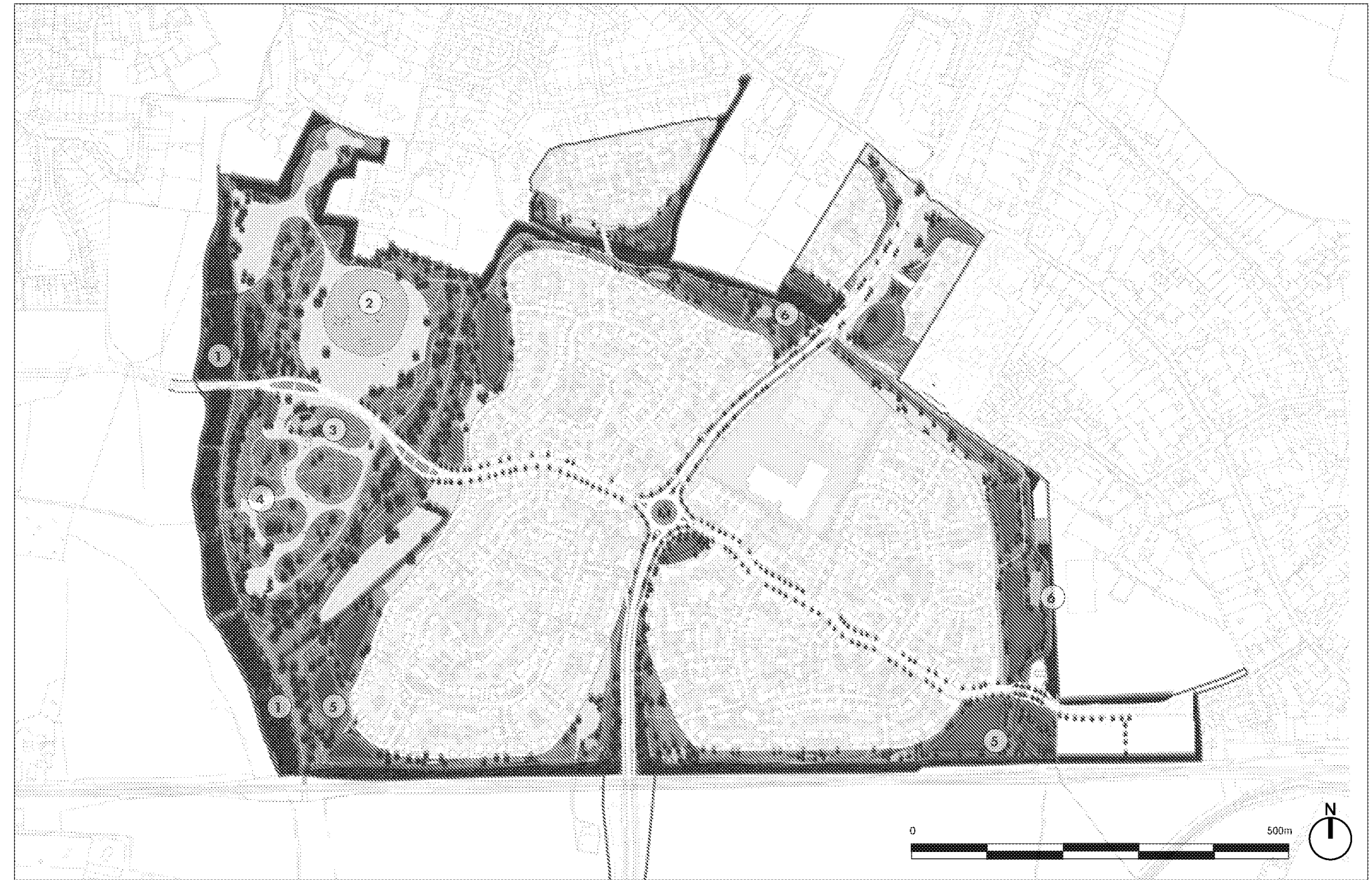
The public open space was then broken down separately into a clear hierarchy of open space types based on the particular functions and characters arising from development of the masterplan.

The Lidsey Rife Linear Park forms the primary structural component that captures and enhances the riparian, transitional and grassland habitats, creates new primary pedestrian linkages north to south, and provides site-sensitive recreation and leisure provision.

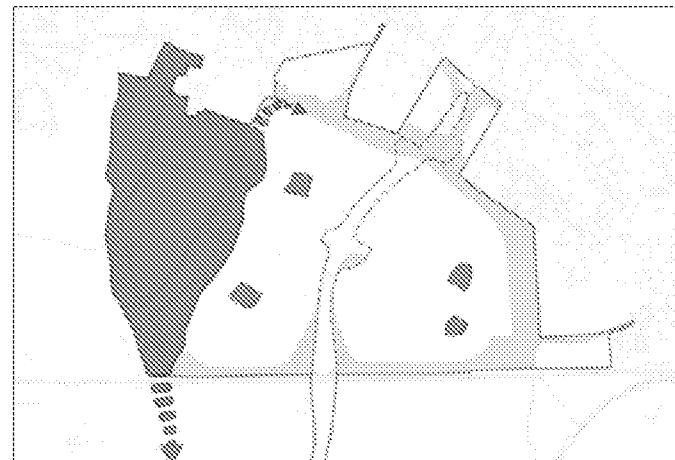
The Green Link forms an eastern extension of the Lidsey Rife Linear Park. While functioning as a non-vehicular connector linking Eastergate and Westergate, it also serves as a gap or buffer to retain the character of "three villages".

Green Corridors should include the interfaces of the A29 and railway corridor. They should balance amenity and ecological enhancement; with localised amenity, play and wetlands, they should be integral to the principle of 'nature and play at your front door'.

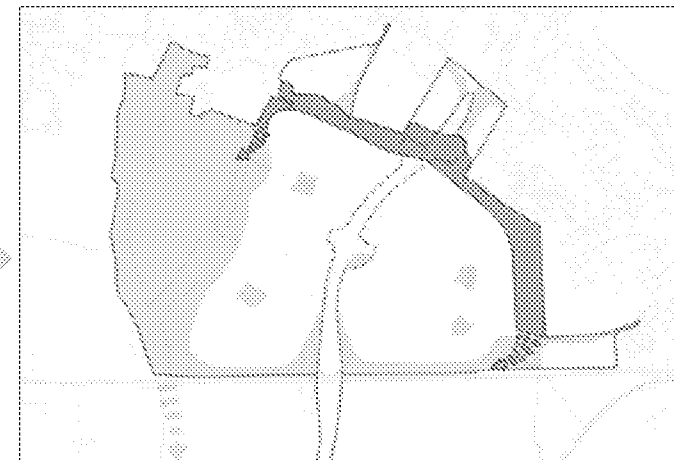
Play provision should be distributed in accordance with Fields in Trust guidance and as adapted to ADC Officers requirements such that every child is within walking distance from a play area.



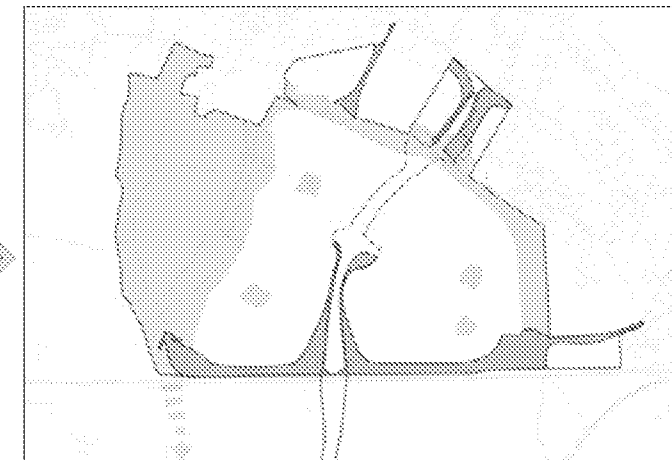
ILLUSTRATIVE LANDSCAPE MASTERPLAN



LIDSEY RIFE LINEAR PARK



GREEN LINK



GREEN CORRIDORS

LEGEND

- ① VALLEY CORRIDOR WITHIN LIDSEY RIFE LINEAR PARK
- ② CRICKET PITCH IN LIDSEY RIFE LINEAR PARK
- ③ INDICATIVE LOCATION OF PLAY AREAS WITHIN LIDSEY RIFE LINEAR PARK
- ④ TRANSITIONAL ZONE / MEADOWS
- ⑤ WETLANDS
- ⑥ INDICATIVE LOCATION OF PLAY AREAS WITHIN GREEN LINK

5.0

LANDSCAPE STRATEGIES

5.1 GREEN-BLUE INFRASTRUCTURE

Water is a feature of the culture and landscape of the wider area. The low lying landscape within the Site is characterised by a field drainage network comprising what is locally termed 'rifes'. Where possible, this network should be retained and ecologically enhanced. Where appropriate they will also be adapted to optimise opportunities for 'light-touch' activities for education and leisure.

The blue infrastructure for the new development, as detailed in the Sustainable Drainage Report, will comprise conveyance and attenuation of surface water for each development phase. In all instances it will integrate the primary drainage function with habitat creation and amenity provision, incorporating the treatment train principles.

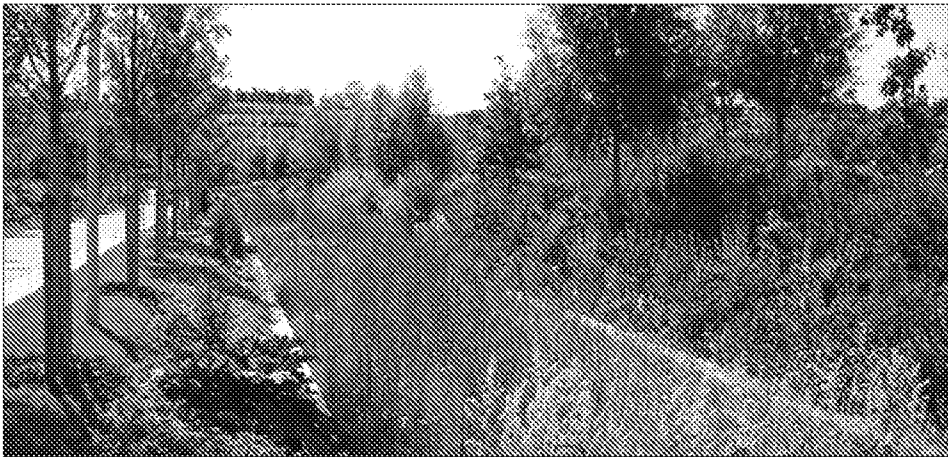
Public open space SuDS conveyance should comprise open swales. Surface water attenuation strategy should include both retention and detention ponds designed for ecological enhancement as well as amenity. Gentle slopes should allow for extensive marginal habitat, and where appropriate, pathways and boardwalks will enable managed access.

Conveyance in the urban situation will also comprise swales that will also include, where appropriate, canalised swales and infiltration strips. Retention ponds will be designed to suit the site constraints and planted with native marginal species for the benefit of biodiversity.

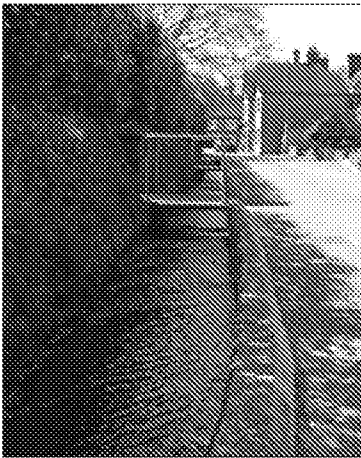
Attenuation basins, whether for retention or detention, should be designed to integrate with the character of the surrounding landscape context. This means they should not have an engineered appearance. Where multiple basins are clustered in close proximity, they should form the character of a single coherent wetland system.



ILLUSTRATIVE GREEN -BLUE INFRASTRUCTURE DIAGRAM



ILLUSTRATIVE IMAGE: POTENTIAL VEGETATED URBAN SWALE



CANALISED STREAM



VEGETATED SWALE



RE-PROFILED DITCH

- LEGEND
- LIDSEY RIFE
 - TRIBUTARIES AND SECONDARY RIFES
 - SWALES
 - ATTENUATIONS BASINS
 - TRANSITION ZONE INCLUDING SUDS FEATURES
 - RIPARIAN CORRIDOR ALIGNING WITH EXTENT OF FLOOD ZONE

LANDSCAPE STRATEGIES

5.2 ECOLOGICAL INFRASTRUCTURE

The Site is currently open arable land with field boundaries defined by hedges and rife. The rife themselves are mostly lined on one or both sides by mixed broadleaf hedges containing native climax trees, predominantly oaks with tree preservation orders. There are no woodland blocks on site.

The strategy for the ecological infrastructure enhances the existing field boundaries and rife associated with low-lying coastal plain into a mosaic of riparian habitats ranging from aquatic and marginal habitat mosaics to managed and climax habitats.

The rife and associated vegetation should largely be retained. Re-profiling in appropriate locations will create draw down zones, which will increase the biodiversity associated with riparian habitats. New swales should be planted with locally occurring marginal species.

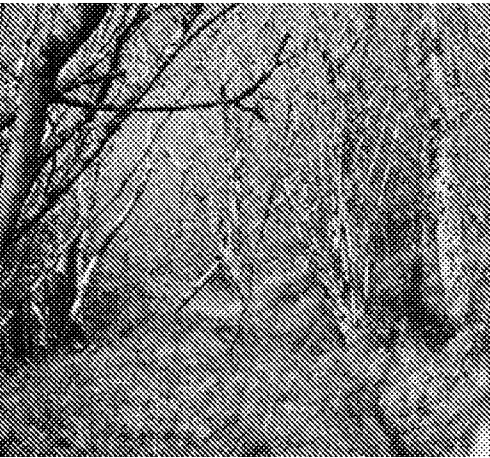
New attenuation areas should be designed to create a range of different wetland habitat types, the type dependent on the site conditions and constraints. Retention ponds designed for periodic inundation should be sown with seed mixtures for wet grasslands and water meadows. Detention ponds should be designed for ecological enhancement; relaxed profiles and scalloped shorelines will optimise opportunities for biodiversity.

Meadow planting forms a valuable component of the ecological strategy, forming an extensive connected habitat mosaic for flora and fauna diversity. It will connect to the marginal and climax habitats of the rife corridors and woodlands, weaving through and around the amenity grasslands.

Wet woodland, or carr, should be included where appropriate near or around the lower lying wetland areas



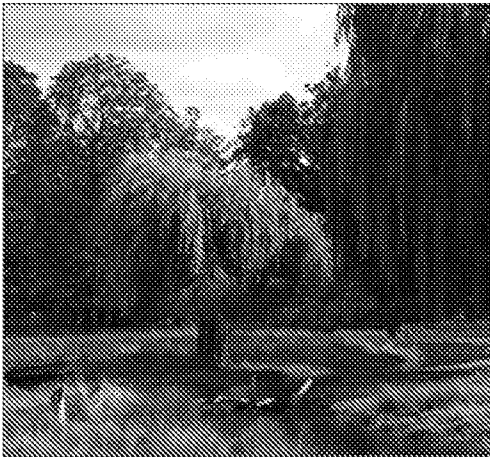
ILLUSTRATIVE ECOLOGICAL INFRASTRUCTURE DIAGRAM



PRECEDENT IMAGE: CARR HABITAT



WET MEADOW



RIPARIAN WOODLAND & MEADOW



WETLAND WITH ECOLOGICAL PLANTING

- LEGEND
- WETLAND HABITAT
 - RIPARIAN HABITAT - MIXED HABITAT MOSAIC
 - SEASONAL FLOOD MEADOW
 - OPEN GRASSLAND AND WILDFLOWER MEADOW
 - PRIMARY TREE LINE WITHIN DEVELOPMENT
 - SECONDARY TREE LINE WITHIN DEVELOPMENT

LANDSCAPE STRATEGIES

5.3 AMENITY INFRASTRUCTURE

The amenity strategy considers how different types of leisure and recreational activity interfaces with blue infrastructure and ecological enhancement. It should be site-wide, comprehensive, and diverse, ranging from dedicated sports pitches, public parkland, ecologically-focused zones, to intimate local spaces offering play and nature at the front door.

Active amenity such as sports and recreation should have minimal interface with ecology and drainage. The cricket pitch should be located at the high point in the northern portion of the Lidsey Rife Linear Park.

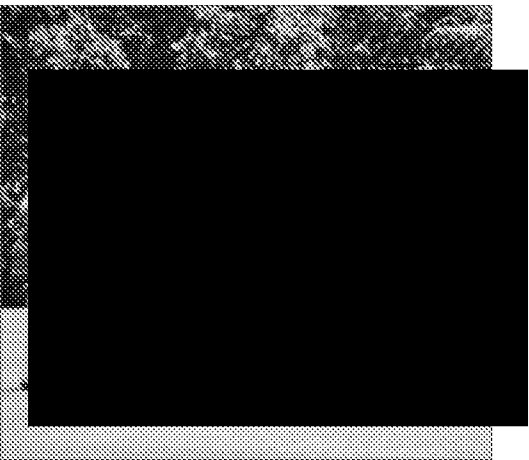
Destination amenity provision, such as the larger play areas, should be co-located with other key recreation areas to share accessible services and facilities. Within the Lidsey Rife Linear Park other provision, such as parkour or outdoor gyms, should be sensitively designed to compliment the various function and character of the immediate surroundings.

The network of amenity grassland, should wrap the development providing easily accessible informal public open space to all development parcels. While the focus is on amenity, this network should incorporate all opportunities to enhance and protect existing natural features and introduce new habitats.

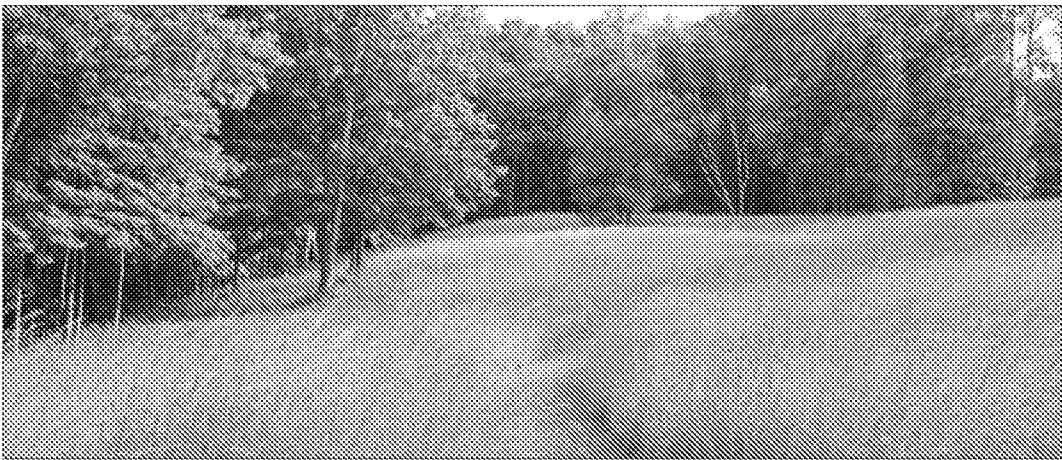
The amenity network is site-wide and comprehensive, connecting all parts of the development together via pedestrian and cycle-friendly, ecologically-focused corridors and 'stepping stone' glades and lawns. The sinuous site-wide network integrates education, recreation wellbeing and ecology, and is integral to the principle of 'nature and play at your front door'.



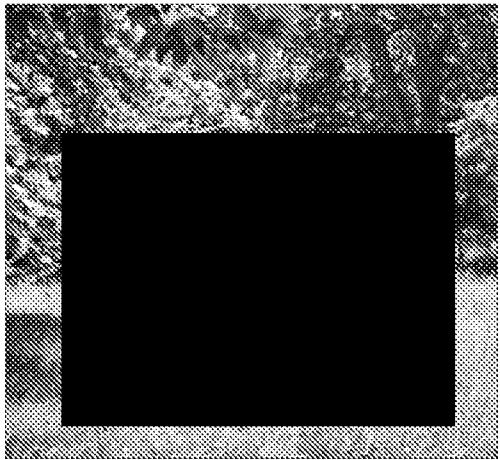
ILLUSTRATIVE AMENITY INFRASTRUCTURE DIAGRAM



ILLUSTRATIVE IMAGE: CRICKET PITCH



AMENITY GRASSLAND WITH EMPHASIS ON ECOLOGICAL VALUE



GLADE WITH BROADLEAF WOODLAND

LEGEND	
	KEY RECREATION AREA WITH CRICKET PITCH
	AMENITY GRASSLAND WITH HIGH ECOLOGICAL VALUE
	MEADOW
	RIPARIAN WOODLAND
	GLADES WITHIN WOODLAND

LANDSCAPE STRATEGIES

5.4 PLAY & RECREATION STRATEGY

At approximately 30.52 hectares the Site provides a rich landscape for play, leisure, recreation, visual amenity, education and biodiversity. The development should offer a diverse range of experiences for all ages, social groups, group sizes and interests.

The play and recreation strategy proposes destination and community play areas, and a network of activity trails for nature play, educational play, or more physical activities such as linear adventure or wellness trails.

The play area types follow ADC's Supplementary Planning Document, 'Open Space, Playing Pitches, Indoor And Built Sports Facilities' which in turn follows the Fields in Trust Guidance for area requirement per capita. The play and recreation strategy meets the quantum requirement. In terms of breakdown by type and distribution, the approach is adapted to ADC Officers requirements:

- Large destination play areas are centralised into two primary areas comprising over-sized Neighbourhood Equipped Areas for Play (NEAPs), and secondary destination areas of Locally Equipped Areas for Play (LEAPs)
- Community play areas comprise LEAPs and Local Areas for Play (LAPs) within and around the four development parcels.
- Nature play hubs, indicatively the size of LAPs, are distributed within the Lidsey Rife corridor

The Green Link should provide a range of play provision comprising LEAPs, and LAPs. Play provision should comprise natural materials where possible and be well located to ensure it meets community requirements.



ILLUSTRATIVE PLAY & RECREATION STRATEGY DIAGRAM

PLAY PROVISION TYPE	HA/1000	SITE REQ.	SITE PROV.
EQUIPPED DESIGNATED PLAY AREAS [TOTAL]	0.25	0.66	0.73
NEAPS [2NO @ 1000M2]			0.20
LEAPS [7NO @ 400M2]			0.28
LAPS [18NO @ 100M2]			0.18
NATURE HUBS [7NO @ 100M2]			0.07
OTHER OUTDOOR PROVISION [MUGAS & SKATEBOARD PARKS]	0.30	0.80	0.48

TABLE: PLAY PROVISION BROKEN DOWN BY TYPE



PRECEDENT IMAGE: DESTINATION PLAY AREA

LOCAL PLAY AREA [LAP]

- LEGEND
- ★ DESTINATION PLAY AREAS [E.G. NEAP & LEAP] WITH OTHER OUTDOOR PROVISION
 - ★ SECONDARY DESTINATION PLAY AREAS & LOCAL PLAY AREAS [E.G. LEAP & LAP]
 - ★ LOCAL PLAY AREAS & ACTIVITY NODES IN PLAY TRAILS [E.G. LAP]
 - ★ NATURE HUB
- NOTE: ALL ABOVE SHOWN AS INDICATIVE

LANDSCAPE STRATEGIES

5.4.1 DESTINATION PLAY AREAS

Destination play are fully equipped for informal recreation, 'hard' play, and other activities, such as multi-use games area, outdoor gyms or parkour. They represent social, play and activity hubs designed to attract children and young people from the whole development and beyond. They are designed for children and young people who can play independently and those with a range of abilities.

Depending on the surrounding context, larger destination play areas should include NEAPs, smaller areas comprising LEAPs only. The former should be located in key, prominent locations, highly visible to optimise natural surveillance, wayfinding and orientation; close enough to roads so as to be accessible, yet safe; and co-located close to the services and facilities of the community and neighbourhood centres.

Depending on the size, destination play areas should be located a minimum of 20m away from dwelling boundaries to minimise noise impact; larger provision should be 30m from dwelling boundaries. The Lidsey Rife Linear Park offers the greatest range of opportunities in terms of recreation and access to nature. For this reason it is favourable as a location for dedicated inclusive play provision.

Destination play areas elsewhere should include inclusive play elements and be located as close as possible to parking and shops. This overlap of services and facilities, particularly for inclusive sports, is a primary consideration for the location of the inclusive play provision.

All play provision should be constructed with natural materials where possible, using a natural loose-fill safety surface where not designed as part of the inclusive play provision. Planting should be integrated with the general design to provide opportunities for sensory interaction with nature and ensuring integration with the immediate landscape context.



ILLUSTRATIVE DESTINATION PLAY AREA DIAGRAM



- LEGEND
- DESTINATION PLAY AREAS [E.G. NEAP]
 - WALKABLE DISTANCE TO DESTINATION PLAY AREAS
 - SECONDARY DESTINATION PLAY AREAS [E.G. LEAPS]
 - ABOVE SHOWN AS INDICATIVE

LANDSCAPE STRATEGIES

5.4.2 COMMUNITY PLAY AREAS

Community play areas include both equipped and unequipped informal recreation, with some hard play elements. They are designed to encourage play for children within the local community, up to a 240m 'straight line' radius.

They are generally located on the edge of or within residential blocks, positioned in visible locations to ensure easy wayfinding and natural surveillance, but a sufficient distance from dwelling boundaries to minimise noise impact.

Local play areas are focused more on toddlers and early teens and provide for a range of abilities to encourage inclusion, equipped in accordance with the Fields in Trust definitions for Local Equipped Areas for Play [LEAPs] and Local Areas for Play [LAPs].

Larger local play areas, such as LEAPs should be located a minimum of 20m away from dwelling boundaries to minimise noise impact; smaller areas, such as LAPs, should include at least a 5m min separation between activity zone and nearest property containing a dwelling.

All play provision should be constructed with natural materials where possible, using a natural loose-fill safety surface where not designed as part of the inclusive play provision.

Planting should be integrated with the general design to provide opportunities for sensory interaction with nature, and ensuring integration with the immediate context.



ILLUSTRATIVE COMMUNITY PLAY AREA DIAGRAM



ILLUSTRATIVE NATURAL CLIMBING STRUCTURES

ILLUSTRATIVE LOCATION OF NATURAL MATERIALS

ILLUSTRATIVE LOCATION OF LOCAL PLAY AREA [LAP]

- LEGEND
- ★ LOCAL EQUIPPED AREAS FOR PLAY [LEAP]
 - WALKABLE DISTANCES TO LEAP
 - ★ LOCAL AREAS OF PLAY [LAP]
 - ABOVE SHOWN AS ILLUSTRATIVE

LANDSCAPE STRATEGIES

5.4.3 ACTIVITY TRAILS

Activity trails enhance the proposed pedestrian network by incorporating nodes, or hubs, relevant to a variety of different activities or interests. Each journey provides opportunities for different user types to experience a varied and dynamic landscape.

The Lidsey Rife Linear Park should include ecologically-focused trails, with the more active trails, such as the 'play & recreation trails' linking destination play areas, located away from the ecologically-sensitive zones such as the rife corridor.

The 'learning trail' should connect the existing and proposed schools to the Green Link where the new habitats provide opportunities for learning 'camps'. The 'water trail' should bring people close to the water's edge, and wind through the riparian habitat mosaic.

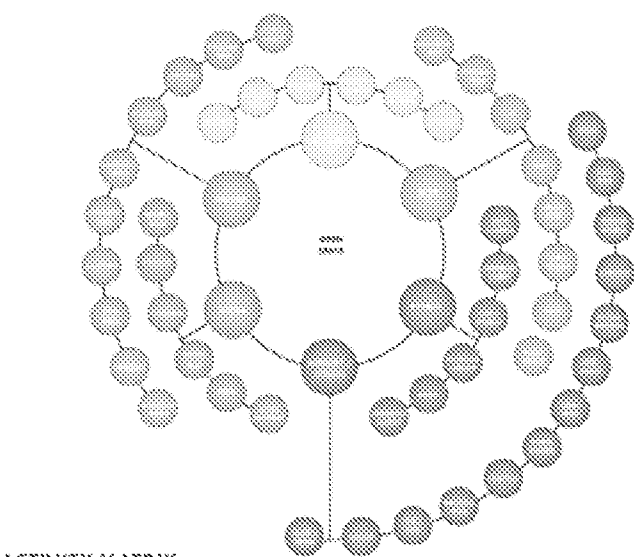
Trails should be designed as inclusive and DDA compliant wherever possible. They should be able to accommodate walkers, runners, and cyclists in line with the chapter 'Sustainable Movement' of the Design & Access Statement.

The 'Activity Matrix' to the right categorises activities by intensity. The siting and design of the provision for any given activity should be informed by the degree and impact of socio-environmental interaction. For example, provision for frequent large groups should be located away from ecological corridors.

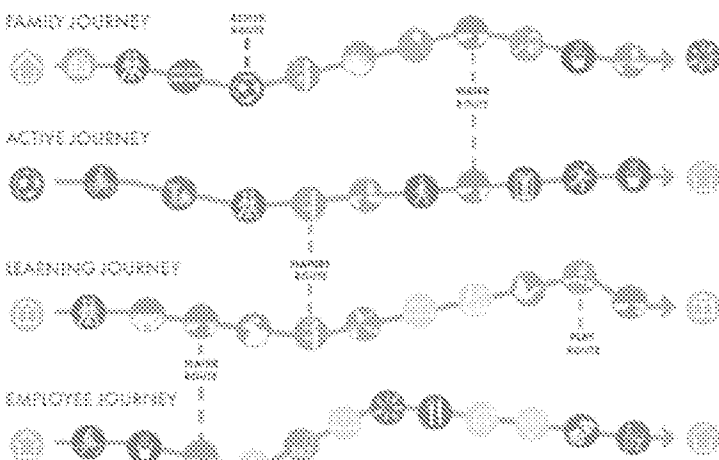
The 'Journey Diagram' describes how journeys, as distinct from dedicated activity trails, benefit from the Active Design approach provided by the Activity Trails; how the activities associated with them can become an inevitable and welcome part of an everyday journey



ILLUSTRATIVE ACTIVITY TRAILS DIAGRAM



ACTIVITY MATRIX



JOURNEY DIAGRAM

- LEGEND
- DESTINATION PLAY AREAS [E.G. NEAP & LEAP] WITH OTHER OUTDOOR PROVISION
 - SECONDARY DESTINATION PLAY AREAS & LOCAL PLAY AREAS [E.G. LEAP & LAP]
 - LOCAL PLAY AREAS & ACTIVITY NODES IN PLAY TRAILS [E.G. LAP]
 - NATURE HUB
 - NATURE TRAIL
 - WATER TRAIL
 - LEARNING TRAIL
 - PLAY & RECREATION TRAIL
- NOTE: ALL ABOVE SHOWN AS ILLUSTRATIVE

6.0 CHARACTER AREAS

6.1 LIDSEY RIFE LINEAR PARK

Running in a north-south direction, the valley of the Lidsey Rife should form the basis of a new linear park within the development proposals.

The Lidsey Rife [1] should underpin the overall landscape framework, with the linear park forming a significant and multifunctional resource; the existing riparian corridor should be enhanced to enrich the range of on-site habitats alongside enhancements to the tributaries that should create a network of significant wildlife corridors.

A new footpath/cycleway [2] is proposed between Eastergate and Lidsey that should follow the route of the rife and should connect into the main recreational routes in and around the Site. Amenity open space within the linear park should offer opportunities for informal recreation alongside designated play areas, including a NEAP and other outdoor provision [3] and play trails.

The existing vegetation associated with the Lidsey Rife should be retained and the riparian character of the valley should be amplified through new wet woodland and understorey planting [4] set within wet meadows. The tributaries to the rife should be landscaped with tree planting and wet meadows [5] to provide a subtle differentiation in character and to define these routes visually (as found within the fields to the south of the overall development site) and as ecological corridors.

The section of the park to the north of the railway to the East-West Link should be characterised as a transitional or woodland edge habitat with a predominance of meadow and tree planting as specimen or in groups [6]. Recreational access should be facilitated by mown footpaths through the meadows.

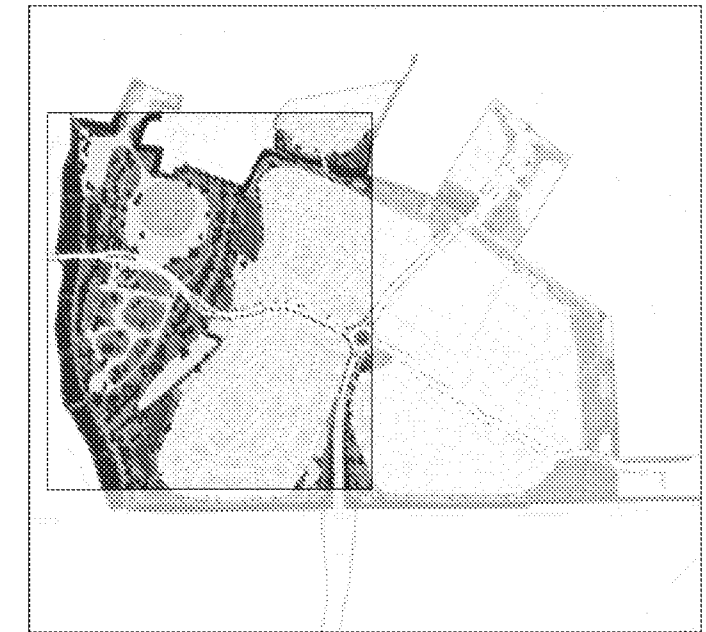
The area to the north of this should form a more open amenity space [7], with close mown grassed areas offering opportunities for informal recreation and a cricket pitch. This approach should respect the setting of the Grade II* listed St. George's Church and should preserve a visual connection [8].

Play provision within the park should comprise a destination play space (NEAP and other outdoor provision) where timber equipment and natural landscape elements should compliment the surrounding landscape character. Timber and natural landscape elements should form a trim trail creating opportunities for 'play along the way' throughout the park.

Finally, the linear park should incorporate a number of SuDS basins [9] that should be designed and landscaped so as to support a variety of habitat types, including permanent water, marginal, damp and wet meadows.



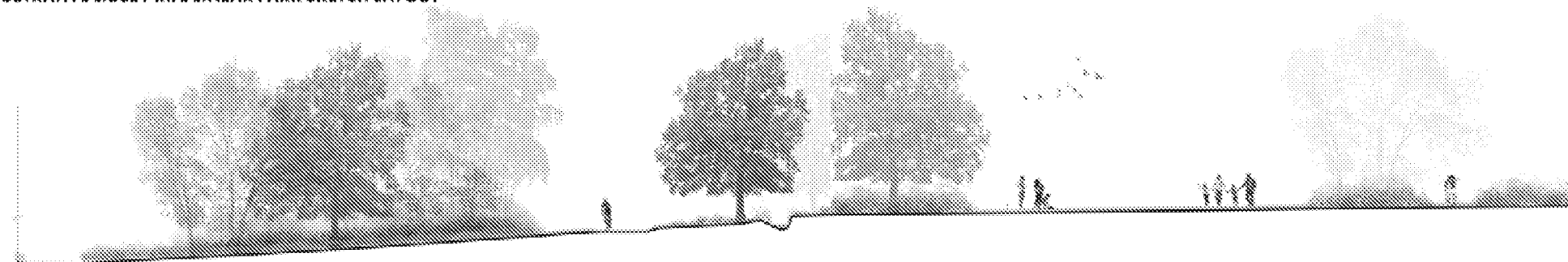
ILLUSTRATIVE LIDSEY RIFE LINEAR PARK SKETCH LAYOUT



KEY PLAN

LEGEND

- 1 LIDSEY RIFE VALLEY
- 2 FOOTPATH/CYCLEWAY
- 3 DESTINATION PLAY SPACE (NEAP)
- 4 WET WOODLAND AND SCRUB
- 5 WET MEADOWS
- 6 SPECIMEN & COMMUNITY TREE PLANTING
- 7 OPEN AMENITY SPACE
- 8 VISUAL LINK TO ST. GEORGE CHURCH
- 9 WETLANDS / SUDS BASINS



ILLUSTRATIVE SECTION THROUGH LIDSEY RIFE AND TRIBUTARY

ILLUSTRATIVE SECTION THROUGH LINEAR PARK MEADOWS

CHARACTER AREAS

6.2 GREEN LINK

The Green Link wraps around the northern and eastern extents of the Site. It connects the Lidsey Rife Linear Park with Barham and the development parcel to the south of the railway line.

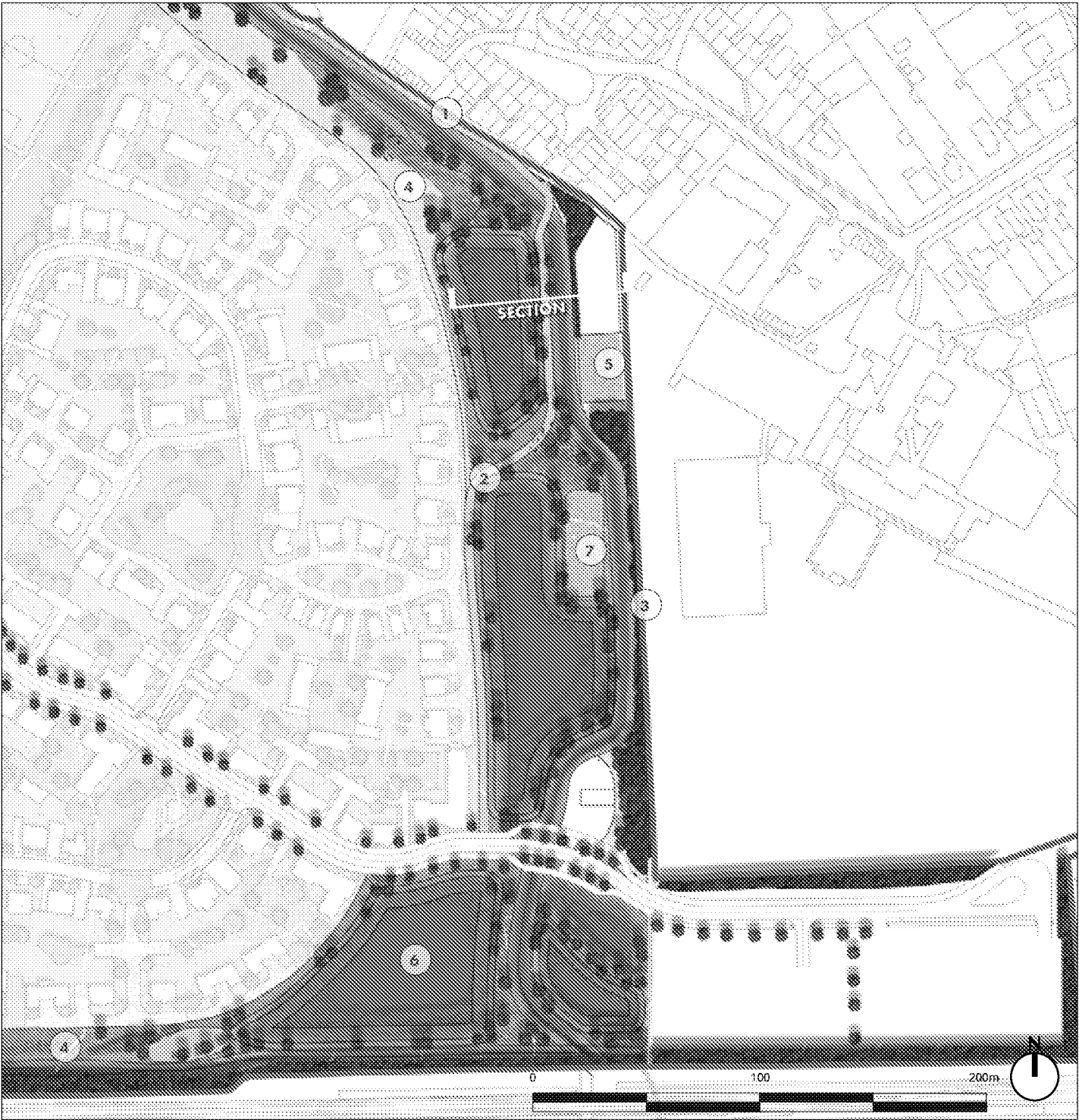
A footpath and cycleway footpath runs along the alignment of the existing public right of way [1], and diverts around the wetland along the eastern Site boundary with St. Philip Howard School [2].

The Green Link should function as a series of interlinked spaces connected by the pedestrian footpath and unified by the new woodland, tree planting and species rich meadow/grassland margins that should define the Site boundary [3].

Sections of the link should comprise informal close mown amenity spaces fronting the new housing [4] offering opportunities for informal recreation. A destination play space consisting of a NEAP and MUGA adjacent to the school should provide a focal point offering opportunities for dynamic and challenging play [5].

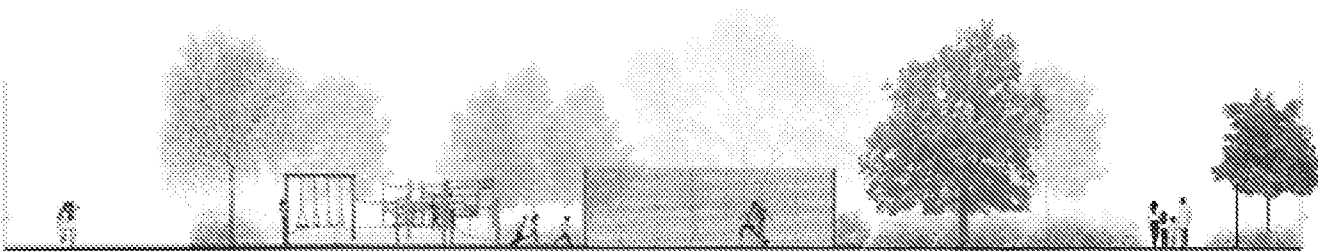
New SuDS basins [6] are clustered to form the character of a complex wetland system which should be planted with marginal and meadow planting. There are opportunities for the southern-most area of the Green Link to be designed to incorporate a LEAP alongside the SuDS basins [7].

Overall, the Green Link offers a variety of recreational opportunities, both formal and informal, and the potential for a number of different habitat typologies, from woodland to meadow, wetland to marginal areas associated with the proposed SuDS basins.

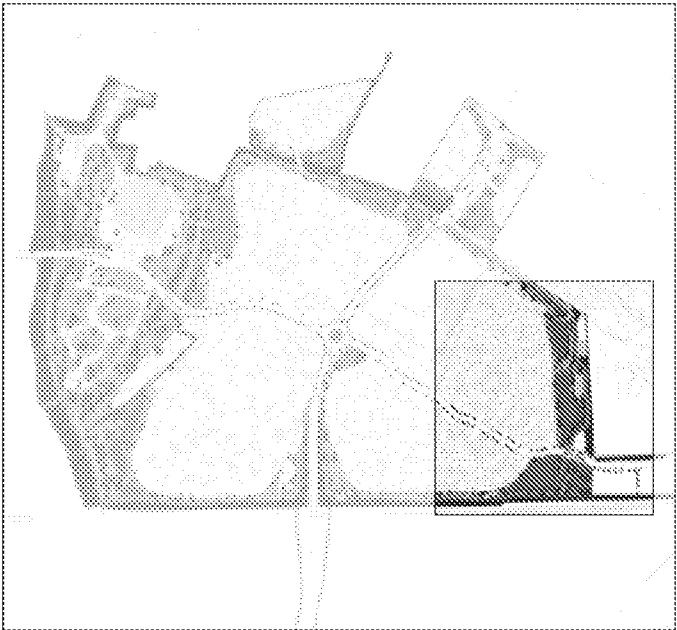


ILLUSTRATIVE GREEN LINK SKETCH LAYOUT

- LEGEND
- 1 EXISTING PROW ENHANCED TO FOOTPATH/CYCLEWAY
 - 2 NEW FOOTPATH/CYCLEWAY
 - 3 WOODLAND, TREE AND MEADOW TO BOUNDARIES
 - 4 OPEN AMENITY SPACE
 - 5 INDICATIVE LOCATION OF MULTI-USE GAMES AREA
 - 6 WETLAND
 - 7 ILLUSTRATIVE LOCATION OF DESTINATION PLAY SPACE (NEAP)



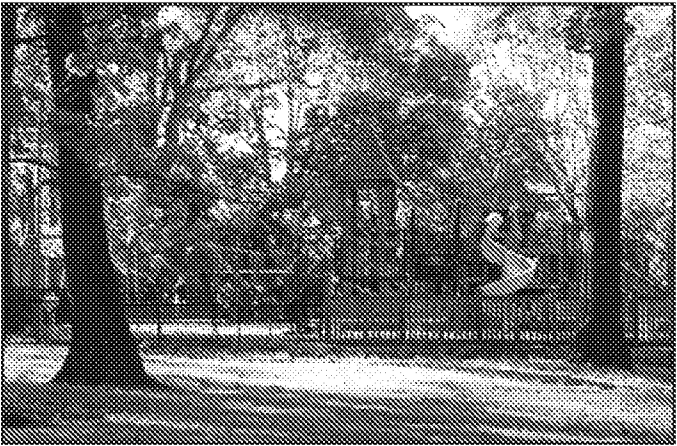
ILLUSTRATIVE SECTION THROUGH BOUNDARY LANDSCAPING, MEADOWS, PLAY AREA AND AMENITY OPEN SPACE



KEY PLAN



ILLUSTRATIVE IMAGE: ECOLOGICAL WETLAND



ILLUSTRATIVE IMAGE: DESTINATION PLAY SPACE

CHARACTER AREAS

6.3 GREEN CORRIDORS

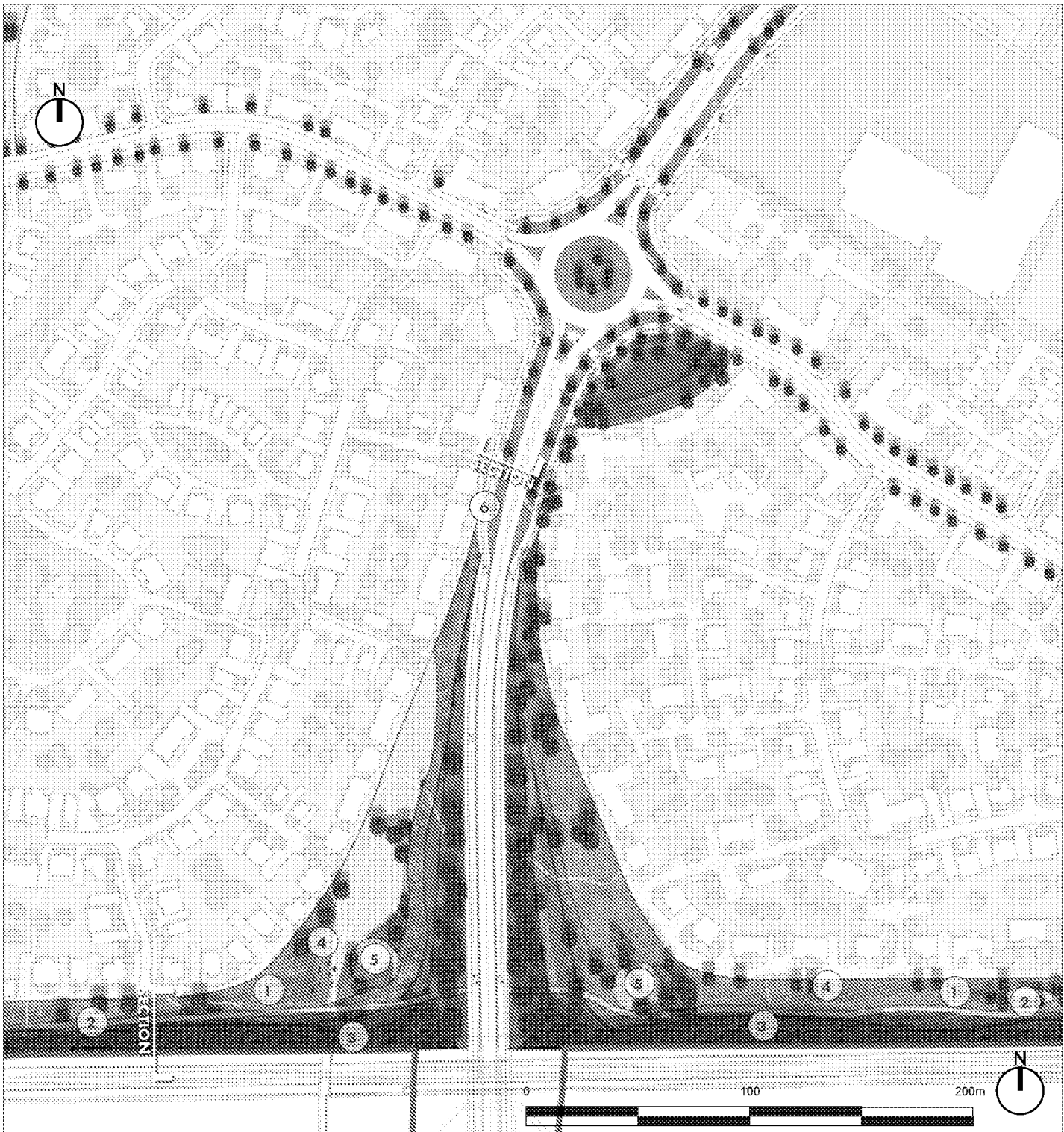
The Green Corridors bound the southern development parcels immediately north of the railway line. They function as an ecological buffer to the railway line, attractive local amenity space, and a greenway to Barnham Station, the Green Link and the Lidsey Rife Linear Park

The southern Green Corridor alongside the railway should form a key connection between the linear park in the east and the Green Link to the west [1]. This corridor should have a transitional character comprising recreational development edge and linear woodland. A footpath/cycleway should run the length of the corridor [2] crossing under the new A29 link road, to the south of which a landscaped buffer comprising new native shaw woodland and grassland meadow edge [3] should form an ecological corridor and visual separation between the new housing and railway line. To the north of the footpath, amenity grassed areas [4] should offer opportunities for informal recreation and relaxation alongside a number of play areas [5] (LEAPs and LAPs) comprising timber equipment and natural landscape elements.

A second Green Corridor realigned to the A29 should run through this phase of the development. The landscape approach for this corridor should be to establish swathes of linear wet meadows [6] that should enrich the biodiversity value of this corridor.

The wide verges adjacent to the carriageway should contain drainage swales landscaped with grassland or wildflower meadows and tree planting where possible. A second and wider swathe of wildflower meadow should be established between the footway and residential parcel edge. The land profile of these meadows could be dishd to potentially accommodate surface water runoff from the adjacent residential areas thus creating damp areas and further diversifying the scope for plant species.

Opportunities exist throughout the Green Corridors for further ecological enhancements, such as hibernacula and butterfly banks.



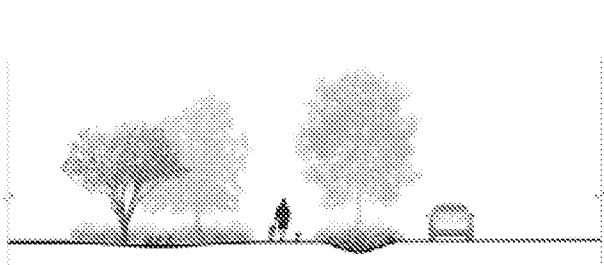
ILLUSTRATIVE GREEN CORRIDORS SKETCH LAYOUT

LEGEND

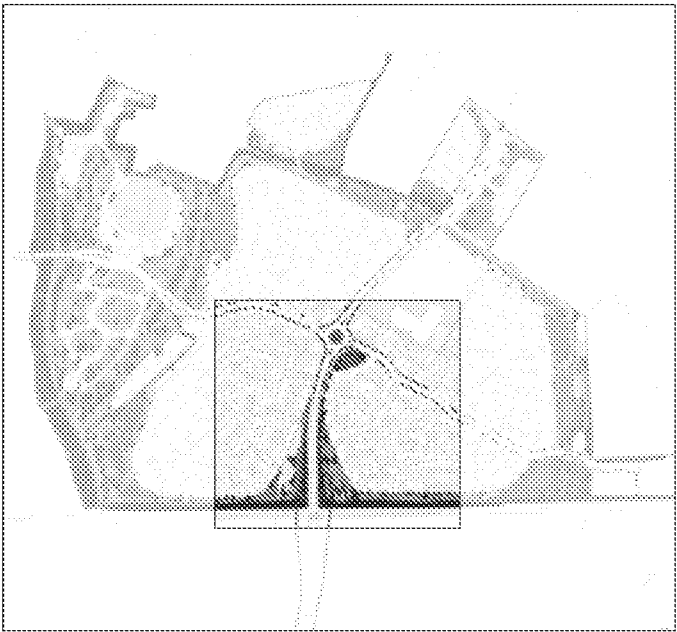
- 1 SOUTHERN GREEN CORRIDOR
- 2 FOOTPATH/CYCLEWAY
- 3 NATIVE SHAW WOODLAND WITH GRASSLAND EDGE
- 4 OPEN AMENITY SPACE
- 5 PLAY SPACE (LEAP)
- 6 LINEAR MEADOW GREEN CORRIDOR



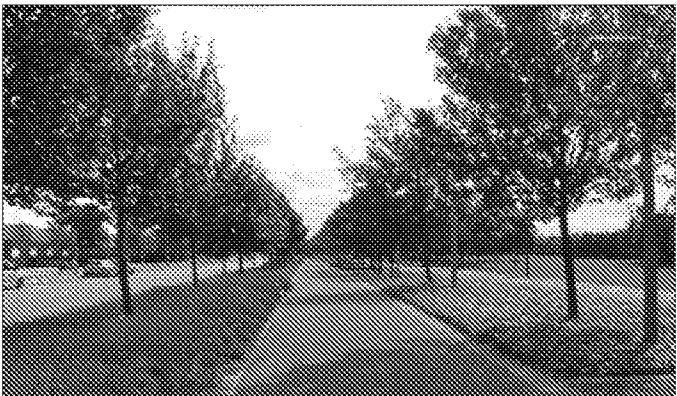
ILLUSTRATIVE SECTION THROUGH SOUTHERN GREEN CORRIDOR



ILLUSTRATIVE SECTION THROUGH LINEAR MEADOWS



KEY PLAN



ILLUSTRATIVE IMAGE: DOUBLE ROW OF TREE PLANTING TO ROAD



ILLUSTRATIVE IMAGE: STRUCTURAL LANDSCAPE EDGE TO AMENITY SPACE

PLANTING STRATEGY

7.1 LIDSEY RIFE VALLEY CORRIDOR

The proposals seek to enhance the existing lowland meadow character of the Lidsey Rife Corridor by retaining the existing vegetation and establishing a species rich wet meadow to the edge of the rife. Alongside this, wet woodland planting will be established along the corridor that will add structure within the landscape and assist with new habitat creation.

Riparian woodland [5] should be established along the course of the rife predominantly comprising crack willow [*Salix fragilis*], white willow [*Salix alba*], alder [*Alnus glutinosa*] and silver birch [*Betula pendula*].

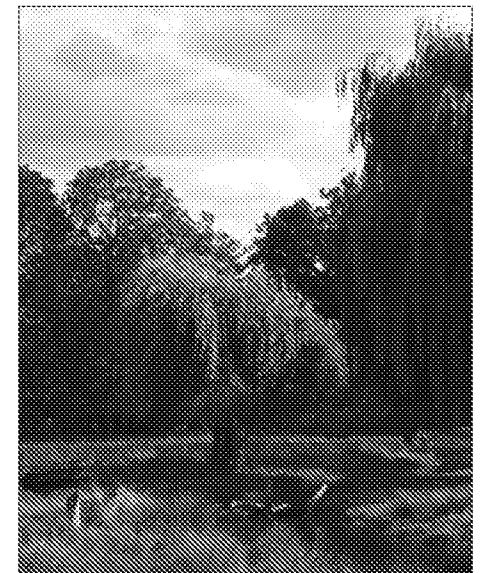
A scrub ecotone will develop at the edge of the woodland as a transition into grassland, which will require a specific management regime to prevent natural succession into woodland.

A variety of tree forms as standard, feathered, or multi-stem will add interest to the scheme. Lower shrubs will be planted in a matrix pattern and a nursery crop of native grassland and meadow mixes will then be sown to continue to build on the ecologically beneficial palette, thus creating a sustainable thicket woodland. The management of this area will allow pioneer trees to create the initial arboreal cover and allow slower growing species to establish and continue to support ecosystems.

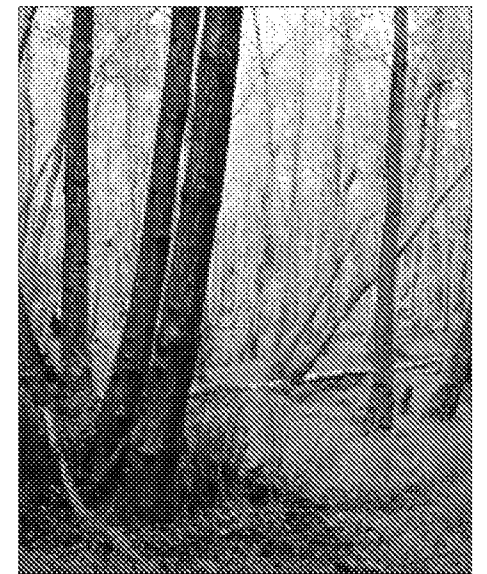
Riparian scrub includes osier [*Salix viminalis*], grey willow [*Salix cinerea*], goat willow [*Salix caprea*], and dogwood [*Cornus sanguinea*].



INDICATIVE LIDSEY RIFE CORRIDOR PLAN [NOT TO SCALE]



PRECEDENT IMAGE: RIPARIAN WOODLAND



CARR, OR WET WOODLAND

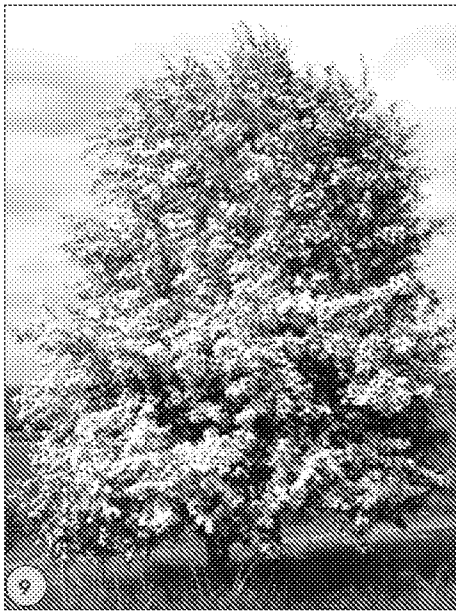
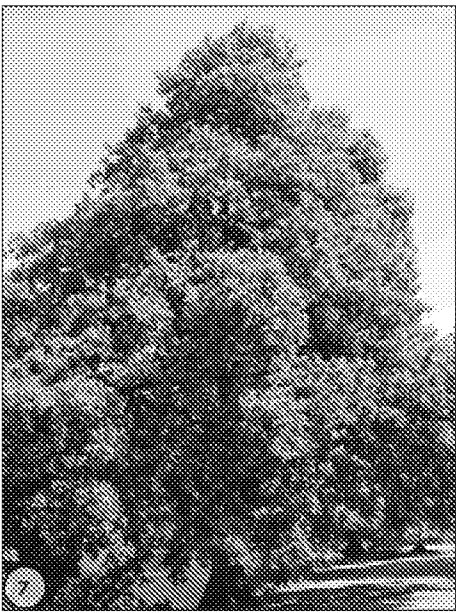
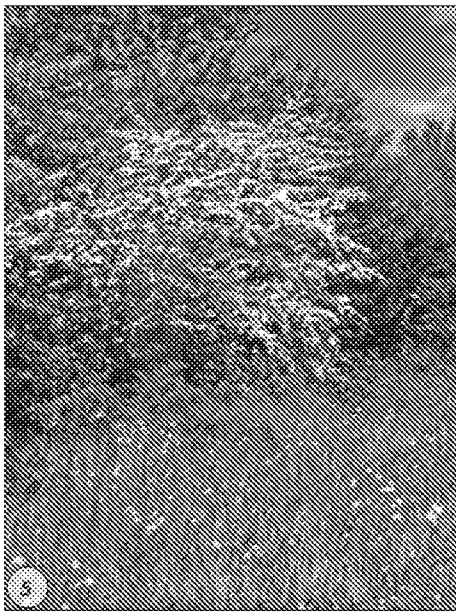
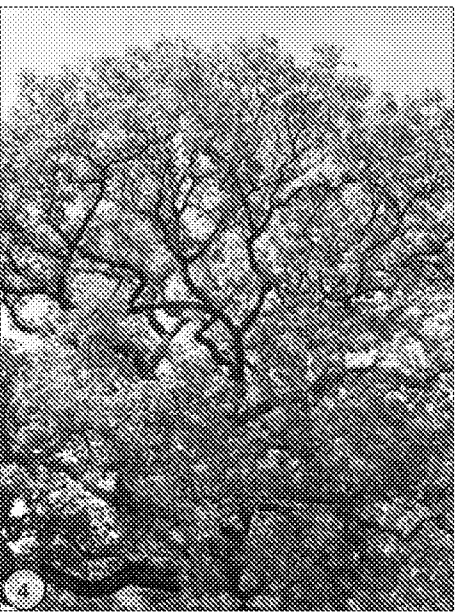
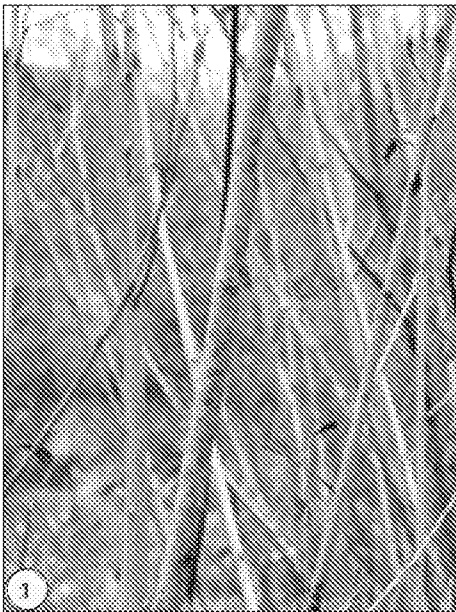


PHOTOGRAPH TAKEN OF EXISTING CONDITION OF LIDSEY RIFE CORRIDOR

PLANTING STRATEGY

7.1.1 INDICATIVE PLANTING PALETTE

- | | |
|---|-------------------------|
| 1. <i>Salix viminalis</i> | Osier |
| 2. <i>Salix caprea</i> | Goat Willow |
| 3. <i>Salix cinerea</i> | Grey Willow |
| 4. Oak [shown as mature] | <i>Quercus robur</i> |
| 5. Mix native hedgerow- nature corridors | |
| 6. Woodland paths | |
| 7. Alder [shown as mature] | <i>Alnus glutinosa</i> |
| 8. <i>Corylus avellana</i> | Hazel |
| 9. <i>Crataegus monogyna</i> | Hawthorn |
| 10. <i>Euonymus europaeus</i> | Spindle |
| 11. <i>Hyacinthoides, Galium & Mercurialis perennis</i> | |
| 12. Dogwood | <i>Cornus sanguinea</i> |



PLANTING STRATEGY

7.2 WOODLAND

Aside from the Lidsey Rife corridor, woodland throughout the site falls broadly into five types: shaw woodland, copse, tree belt, riparian tree belt and riparian woodland. Riparian woodlands include trees along the rife corridors and adjacent to SuDs basins.

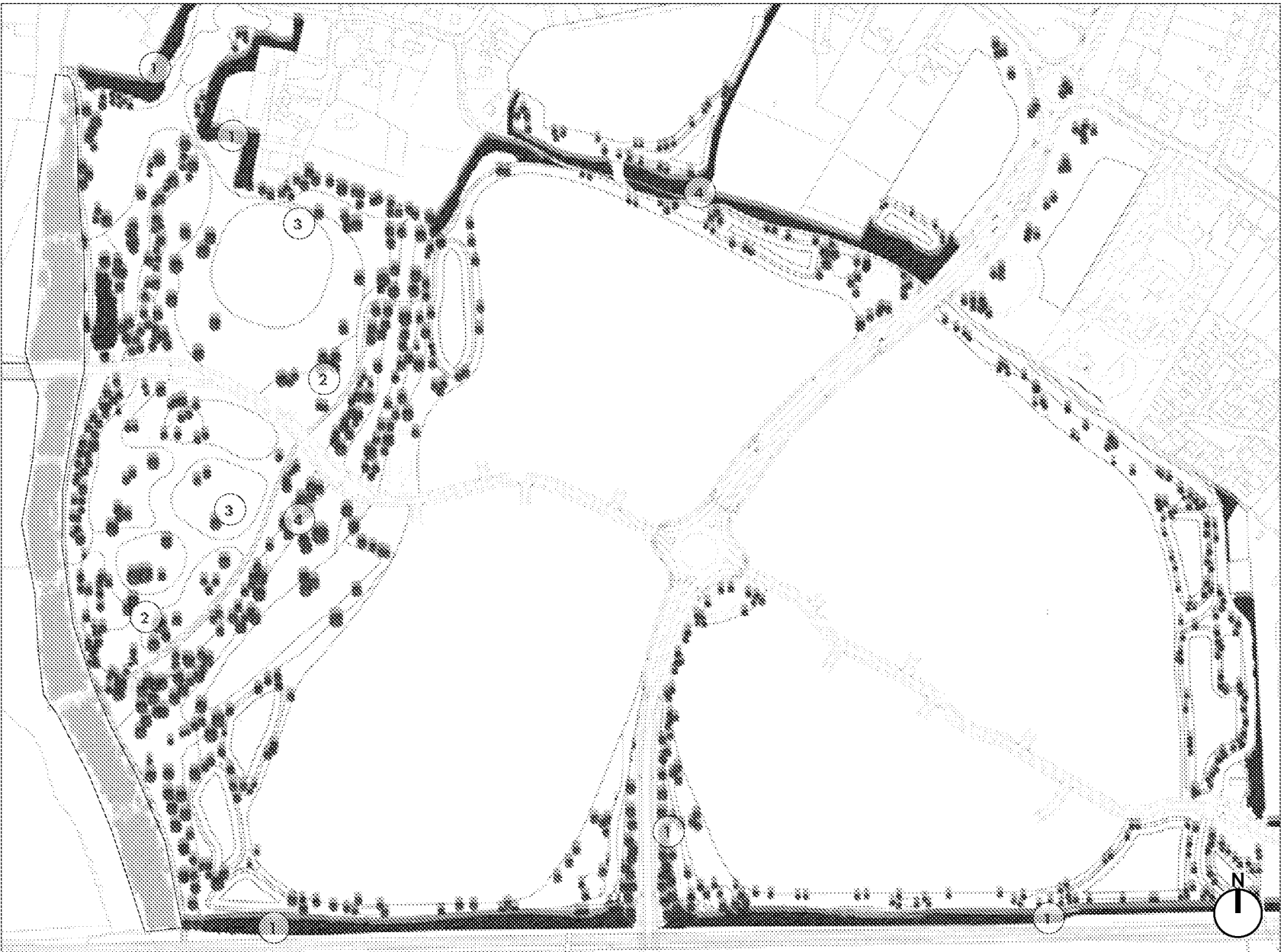
New shaw, or linear, woodland [1] will be established along the site boundaries, for example along the southern boundary with the railway line. Species will include pedunculate oak [*Quercus robur*], small-leaved lime [*Tilia cordata*], hornbeam [*Carpinus betulus*], field maple [*Acer campestre*], common beech [*Fagus sylvatica*] and silver birch [*Betula pendula*].

This will be achieved through a planting and management regime that ensures a full and developed canopy with no shrub understorey, but with a rich cover of woodland perennials, such as wild garlic, bluebell, wood avens, selfheal and red campion.

Copse planting [2] will comprise native climax broadleaf species planted in small groups to replicate the character of woodland pasture. Typical species would include oak [*Quercus robur*], small-leaved lime [*Tilia cordata*] and hornbeam [*Carpinus betulus*].

Planting of specimen climax broadleaf species will create focal points within the open grassland [3]. They also frame views of keys assets and features around the development, for example, St George's Church. Species will be predominantly native, such as common beech [*Fagus sylvatica*], silver birch [*Betula pendula*], wild cherry [*Prunus avium*], bird cherry [*Prunus padus*].

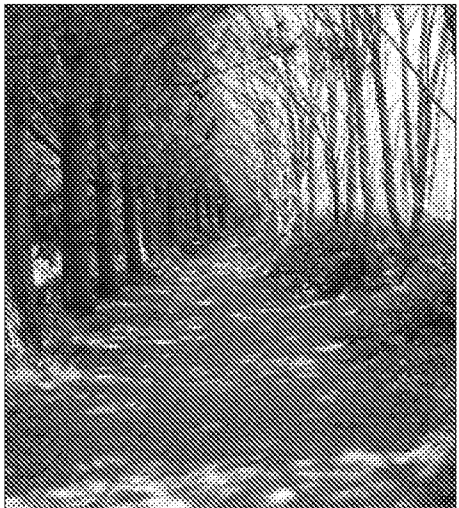
Riparian tree belts [4] should be established along the rife tributary corridors within the linear park to define these routes with a character subtly different to the Lidsey Rife corridor. These tree belts will comprise large native species tolerant of wet conditions, such as white willow [*Salix alba*], alder [*Alnus glutinosa*] and aspen [*Populus tremula*].



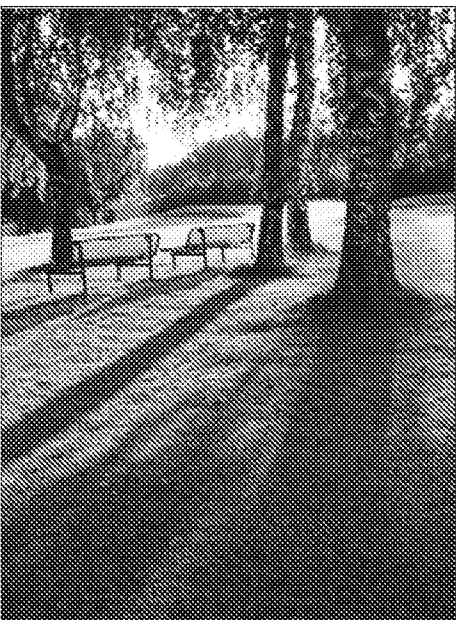
SPECIMEN PLANTING IN MEADOW



RIPARIAN WOODLAND [SHOWN AS NEWLY ESTABLISHED]



PRECEDENT IMAGE: SHAW WOODLAND WITH NATURAL PATH



BIRCH COPSE

- LEGEND
- 1 SHAW WOODLAND
 - 2 COPSE
 - 3 SPECIMEN PLANTING
 - 4 RIPARIAN TREE BELTS

PLANTING STRATEGY

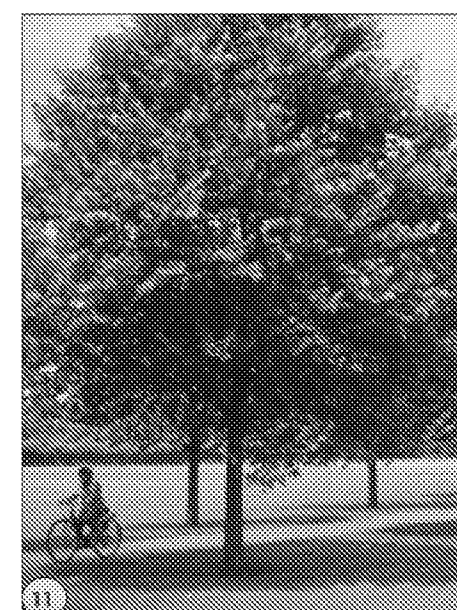
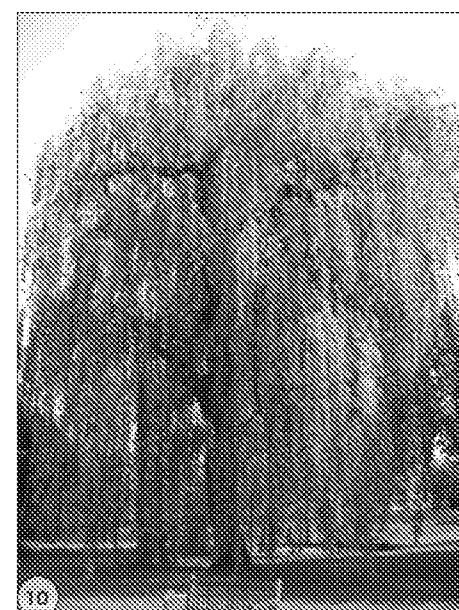
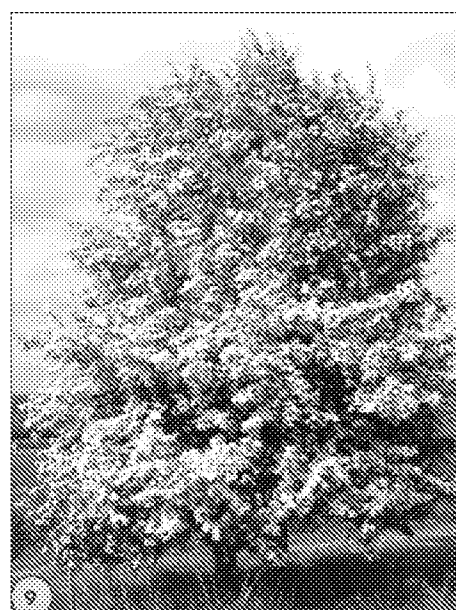
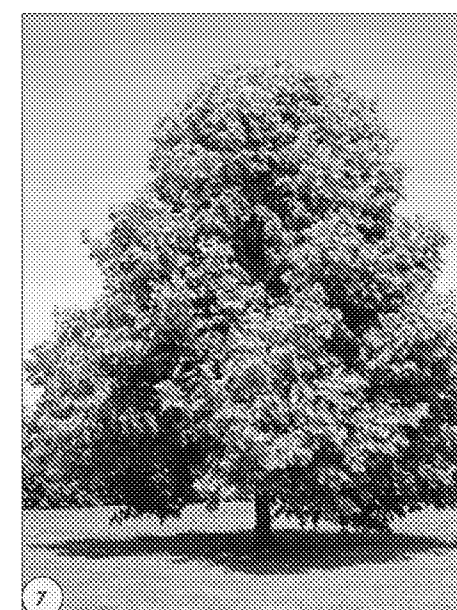
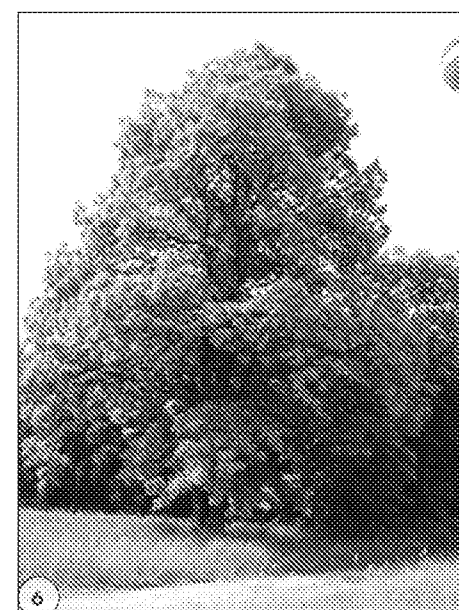
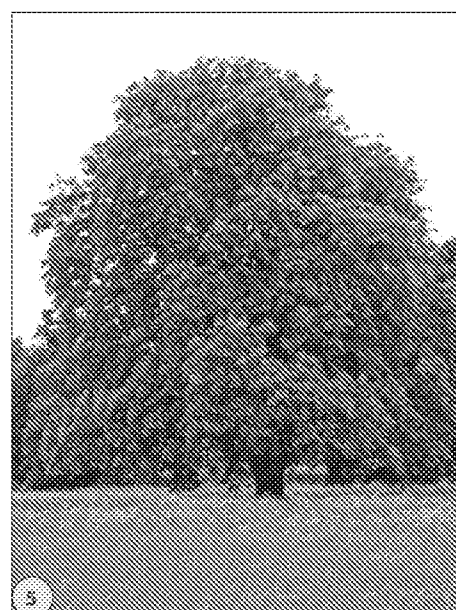
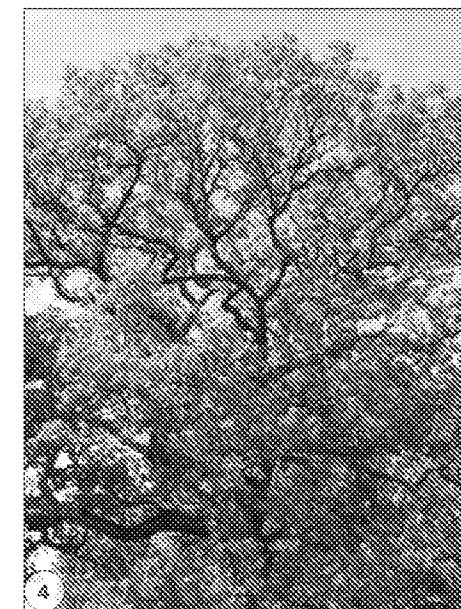
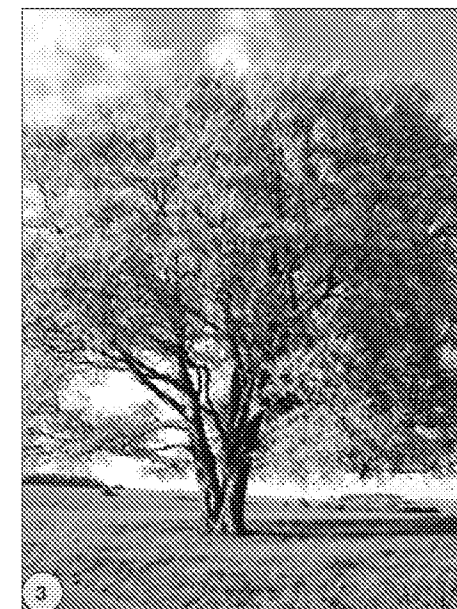
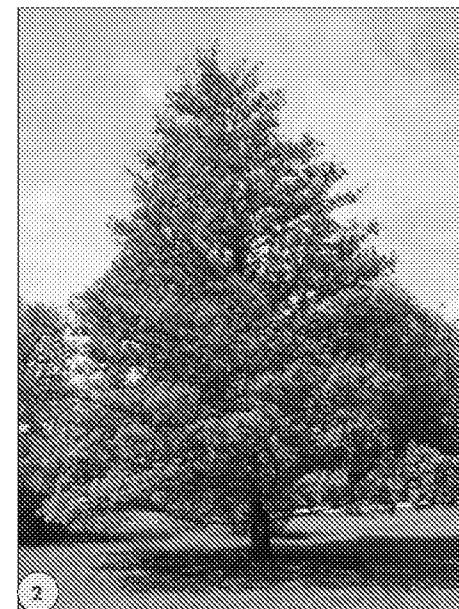
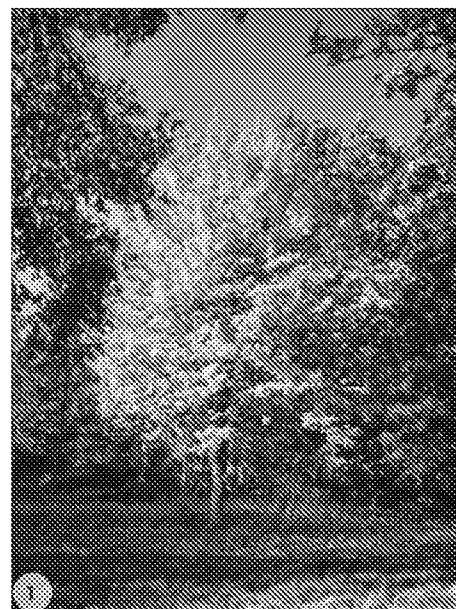
7.2.1 INDICATIVE PLANTING PALETTE

- | | |
|-----------------------|------------------------|
| 1. Acer campestre | Field Maple |
| 2. Alnus glutinosa | Common Alder |
| 3. Fagus sylvatica | Beech |
| 4. Common oak | Quercus robur |
| 5. Horse chestnut | Aesculus hippocastanum |
| 6. Sweet chestnut | Castanea sativa |
| 7. Small-leaved lime | Tilia cordata |
| 8. Sambucus nigra | Common Elder |
| 9. Crataegus monogyna | Hawthorn |
| 10. White willow | Salix alba |
| 11. Elm 'New Horizon' | Ulmus 'New Horizon' |
| 12. Silver birch | Betula pendula |

The woodland creation and improvement with the addition of native trees such as oak and ash, wildlife-rich woodland wildflowers such as the bluebell and wild daffodil, all enrich the site.

The proposed hedges, woodland, scrub and riparian areas build on these selected habitats. They create a network of corridors linking the surrounding and wider landscape. Woodland habitats provide a food source that supports a wide and diverse wildlife ecology.

A big threat to woodland is the lack of management. Woodland management, including coppicing, enhances the flora and many scarce and declining fauna species, by the process of regular disturbance. In some areas, a conscious decision may be made to 'leave alone' so that natural processes of regeneration can take their course.



PLANTING STRATEGY

7.3 STREET TREE PLANTING

The proposed tree planting strategy helps inform the character of the street scene and is key in defining the types of tree form, scale and user interaction, which in turn defines the usability and comfort of the streets.

Tree planting within the proposed development will be key in visually defining primary, secondary and tertiary routes. Along with hard surface treatment, tree selection will also be important in communicating street hierarchy.

Street trees could also form landmarks that signify a particular loci or transition between character areas. Furthermore, tree planting should be proposed at key junctions and be complimented where appropriate with shrub planting.

The National Planning Policy Framework states the following:

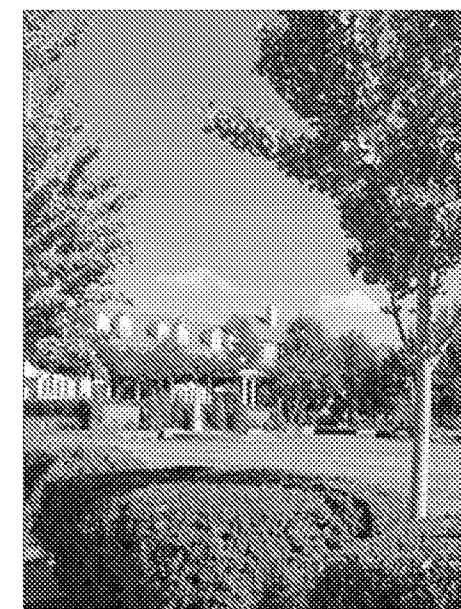
"Trees make an important contribution to the character and quality of urban environments, and can also help mitigate and adapt to climate change...[Proposals] should ensure that new streets are tree-lined... Unless, in specific cases, there are clear, justifiable and compelling reasons why this would be inappropriate"

For primary routes, such as the Spine Road, tree planting at regular intervals of a minimum of 20m could create a legible and varied street scene to all users. Tree planting should also highlight key junctions along the primary routes, whilst taking into account appropriate visibility splays. On secondary routes tree planting could be proposed at regular intervals of a minimum of 40m.

Tree species for primary streets, such as the spine road, will include resistant Elm [Ulmus 'New Horizon'], Small-leaved Lime [Tilia cordata 'Greenspire'] and Norway Maple [Acer platanoides 'Crimson Sentry']. Tree species along secondary roads will include Field Maple [Acer campestre 'Elsrijk'], Cherry plum [Prunus cerasifera 'Nigra'] and Hornbeam [Carpinus betulus 'Frans Fontaine'].



INDICATIVE STREET TREE PLAN (NOT TO SCALE)



PRECEDENT IMAGE: POCKET PARK



PRECEDENT IMAGE: GREEN CORRIDORS THROUGH RESIDENTIAL AREAS



PRECEDENT IMAGE: STREET TREES WITH HERBACEOUS GRASSES



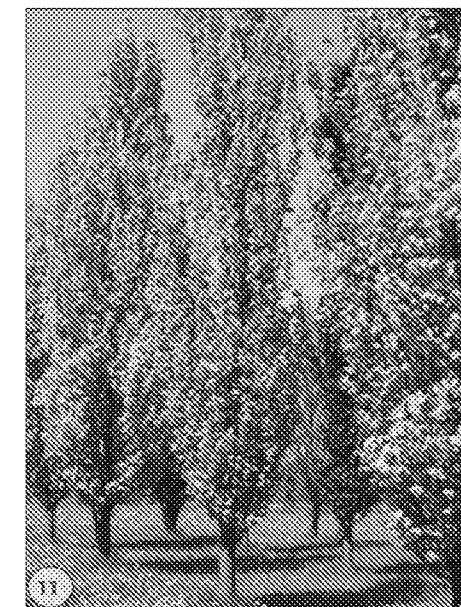
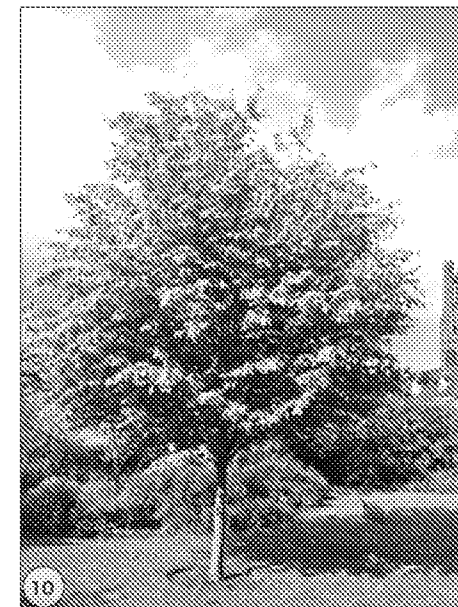
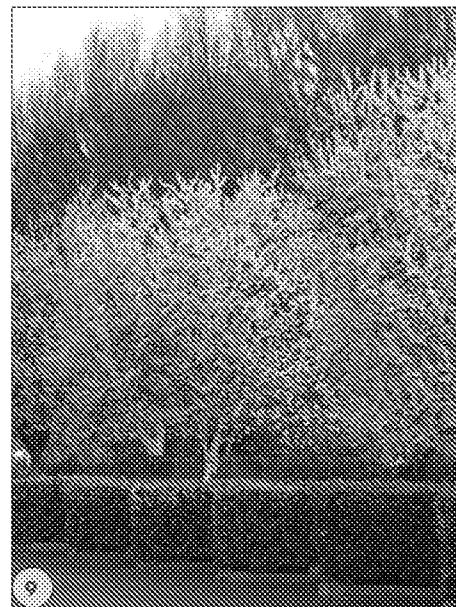
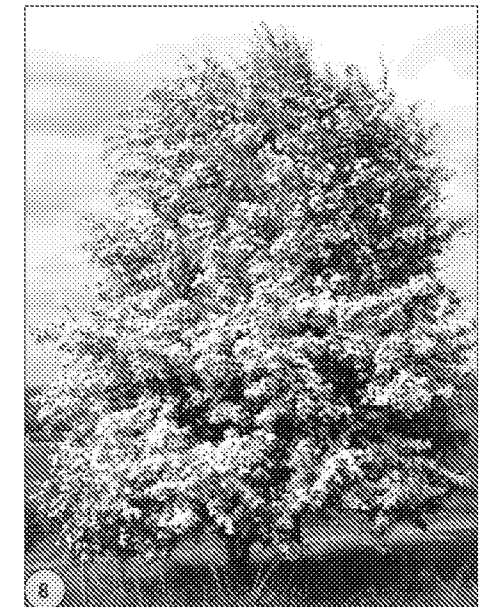
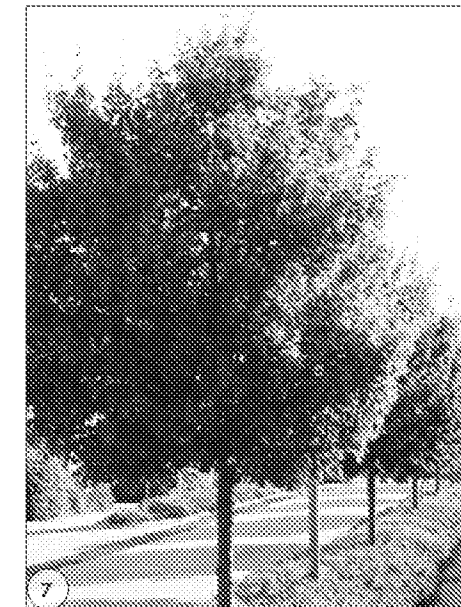
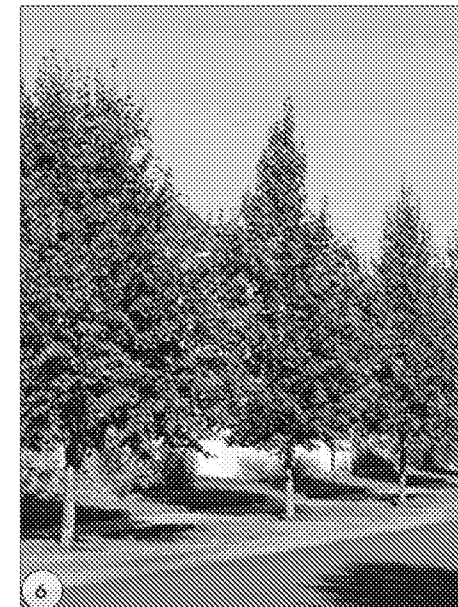
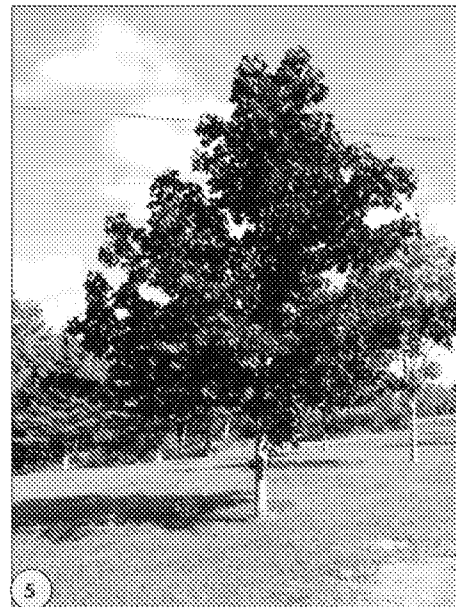
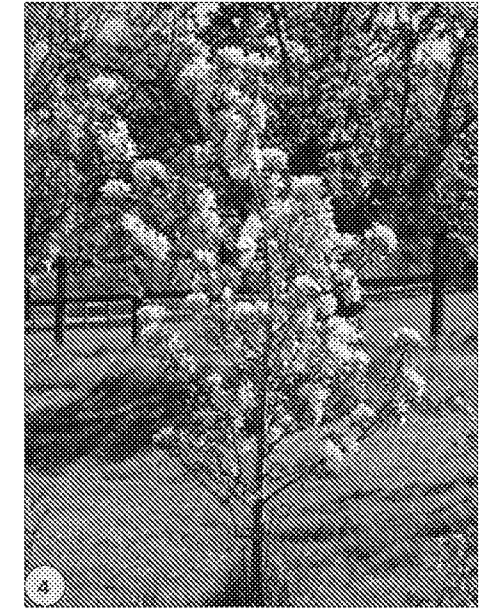
PRECEDENT IMAGE: ROADSIDE ORCHARD

PLANTING STRATEGY

7.3.1 INDICATIVE PLANTING PALETTE

- | | |
|--|--------------|
| 1. Ulmus 'New Horizon' | Elm |
| 2. Tilia cordata 'Greenspire' | Lime |
| 3. Carpinus betulus 'Frans Fontaine' | Hornbeam |
| 4. Malus sylvestris 'John Downie' | Apple |
| 5. Acer platanoides 'Crimson Sentry' | Norway Maple |
| 6. Tilia cordata 'Greenspire' | Lime |
| 7. Acer campestre 'Elsrijk' | Field Maple |
| 8. Crataegus monogyna | Hawthorn |
| 9. Prunus cerasifera 'Nigra' | Cherry Plum |
| 10. Amelanchier x grandiflora 'Robin Hill' | |
| 11. Fagus sylvatica 'Dawyck' | Beech |
| 12. Malus sylvestris 'Evereste' | Apple |

Street trees should be selected for their suitability regarding location, foliage, seasonality, blossom and fruit.



PLANTING STRATEGY

7.4 PARKLAND & MEADOW

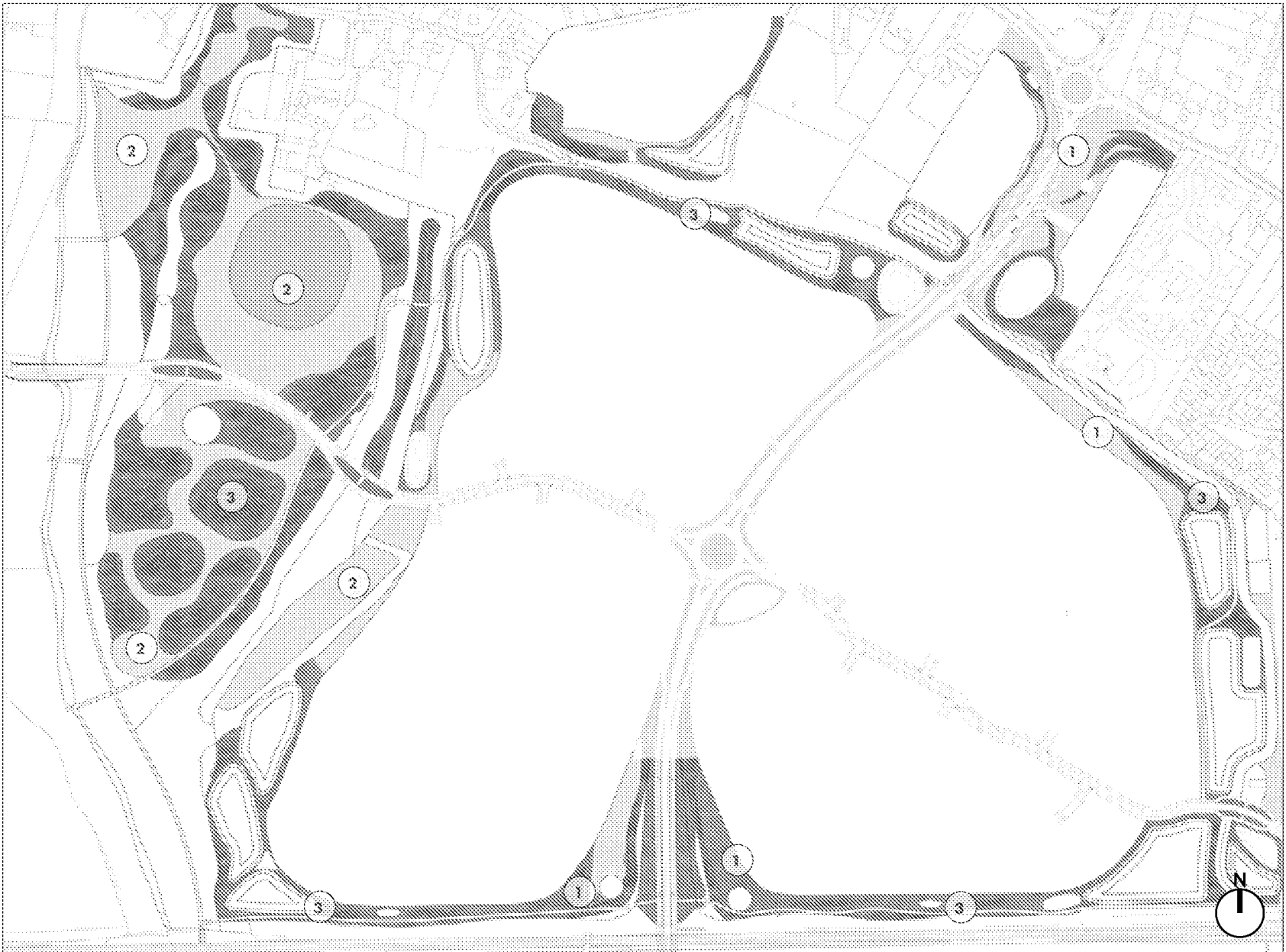
The parkland or amenity areas comprise a range of different open spaces for both casual and organised recreation and leisure activities. These include passive, 'small-group', intimate leisure activities such as walking, picnicking, resting or outdoor learning [1] alongside a potential cricket pitch and more informal kick-about open spaces [2].

Amenity areas for non-pitch activities should be sown with a species-rich flowering grassland that may include lady's bedstraw [*Galium verum*], rough hawkbit [*Leontodon hispidus*], oxeye-daisy [*Leucanthemum vulgare*], birdsfoot trefoil [*Lotus corniculatus*], cowslip [*Primula veris*], selfheal [*Prunella vulgaris*], meadow buttercup [*Ranunculus acris*], wild red clover [*Trifolium pratense*], common bent [*Agrostis capillaris*], crested dogtail [*Cynosurus cristatus*], red fescue [*Festuca rubra*], and smaller cat's-tail [*Phleum bertolonii*].

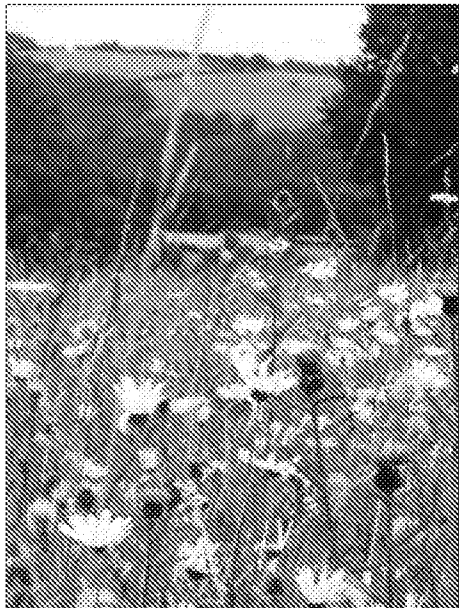
Outdoor facilities for organised sport, such as natural turf pitches, should be planned, designed, and constructed to the relevant agreed standard. Consideration should be given to the impact of natural turf on the surrounding habitats, such that aggressive non-native species do not encroach into the native meadows, and that subsequent maintenance regimes avoid any negative impacts of spray drift on the flora and fauna of adjacent habitats.

Meadows form a transition between the amenity grassland and the various woodland types or the proposed built-up areas. They represent sinuous ecological corridors for invertebrates and aid with integrating amenity and ecology to deliver the principle of 'nature and play at your front door'.

Tussock grassland and wildflower meadows [3] will mark a transition between woodland planting and amenity areas to ensure a gradation of species and habitat. Grass pathways could be cut through the meadow to enable access to the woodlands beyond, encouraging access to nature.



INDICATIVE PARKLAND AND MEADOW PLAN [NOT TO SCALE]



PRECEDENT IMAGE: WILDFLOWER MEADOW



PRECEDENT IMAGE: MOWN PATH THROUGH MEADOW

LEGEND

- 1 INFORMAL AMENITY SPACE
- 2 POTENTIAL CRICKET PITCH
- 3 WILDFLOWER/GRASSLAND MEADOWS



PRE

PLANTING STRATEGY

7.4.1 INDICATIVE PLANTING PALETTE

A collection of meadow seed mixes could prevail across the Site including EM5F. This contains a good range of the wild flowers once common in unimproved flower-rich lowland meadows. It is ideally suited to the Loamy soils on site.

1. Wet meadow mix

2. *Betonica officinalis*

3. *Daucus carota*

4. *Centaurea nigra*

5. *Leucanthemum vulgare*

6. *Rumex acetosa*

7. *Festuca rubra*

8. *Agrimonia eupatoria*

9. *Agrostis capillaris*

10. *Urtica dioica*

11. *Knautia arvensis*

12. *Geranium pratense*
- Betony

Wild Carrot

Common Knapweed

Oxeye Daisy

Common Sorrel

Red Fescue

Agrimony

Common Bent

Stinging nettle

Field scabious

Meadow Crane's-bill

Other species could include :

- Centaurea scabiosa*

Geranium pratense

Leontodon hispidus

Lotus corniculatu

Medicago lupulina

Poterium sanguisorba

Prunella vulgaris

Ranunculus acris

Vicia cracca

Agrimonia eupatoria

Anthoxanthum odoratum
- Greater Knapwee

Meadow Crane's-bill

Rough Hawkbit

Birdsfoot Trefoil

Black Medick

Salad Burnet

Selfheal

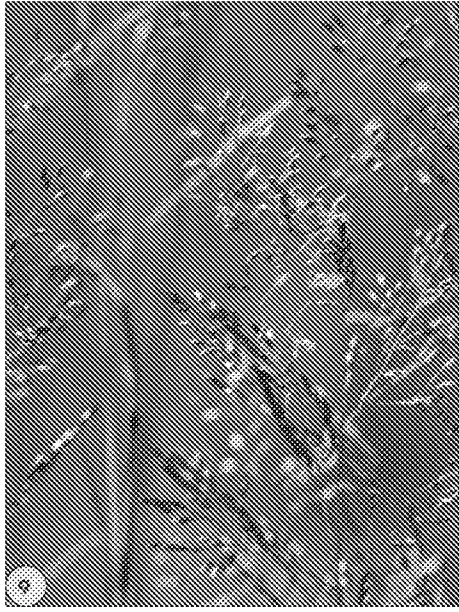
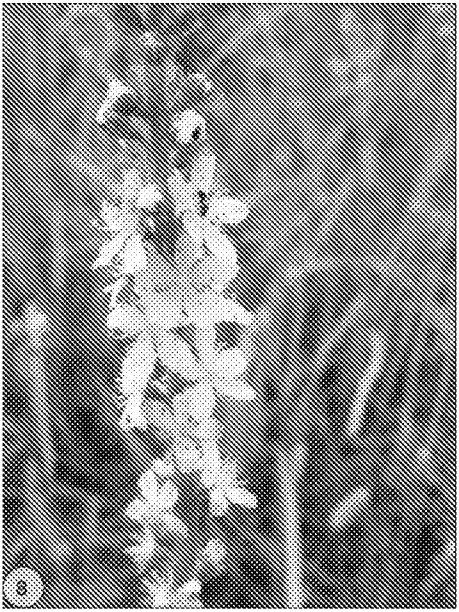
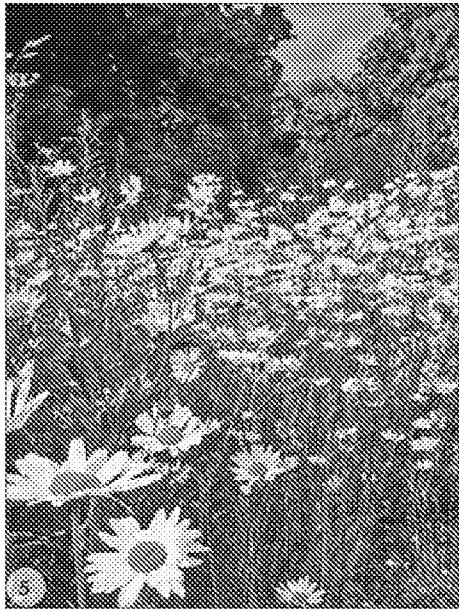
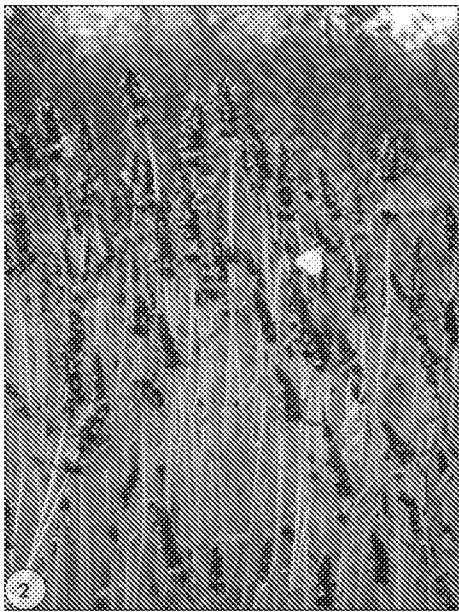
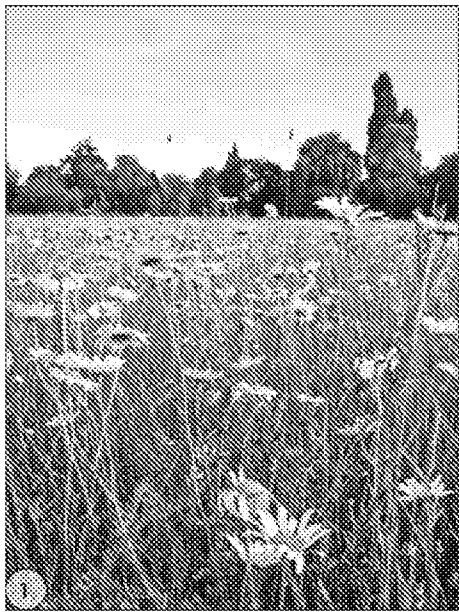
Meadow Buttercup

Tufted Vetch

Agrimony

Sweet Vernal-grass

A wildflower mix EM8, for wetland sites could be used along with Hedgerow mixes EM10.



PLANTING STRATEGY

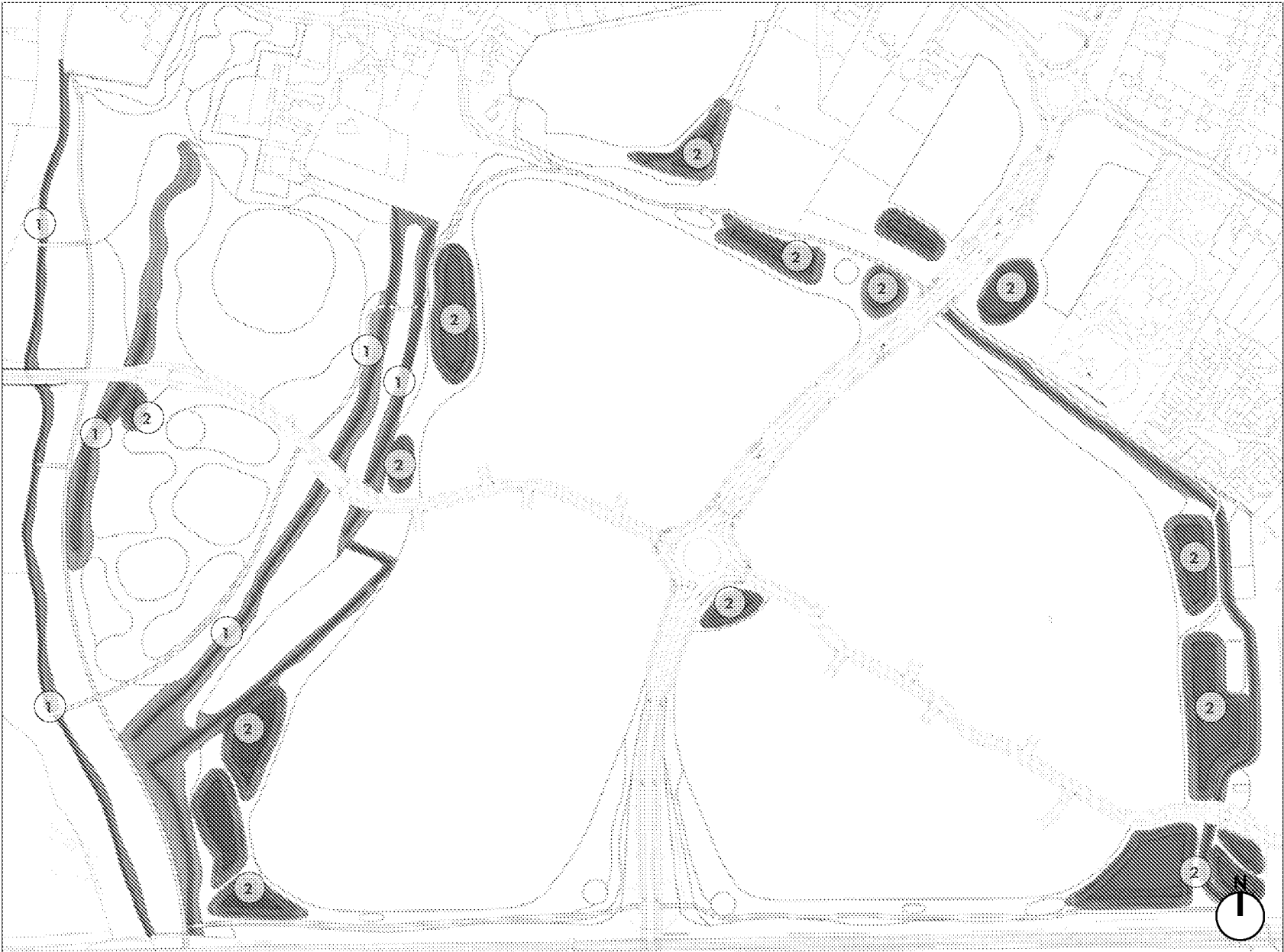
7.5 WETLANDS

Existing low-lying areas within the rife tributary corridors [1] should be enhanced with tree belts within wet meadow seeding in order to establish these routes with a character subtly different to the Lidsey Rife corridor. These tree belts will comprise large native species tolerant of wet conditions, such as white willow [Salix alba], alder [Ainus glutinosa] and aspen [Populus tremula].

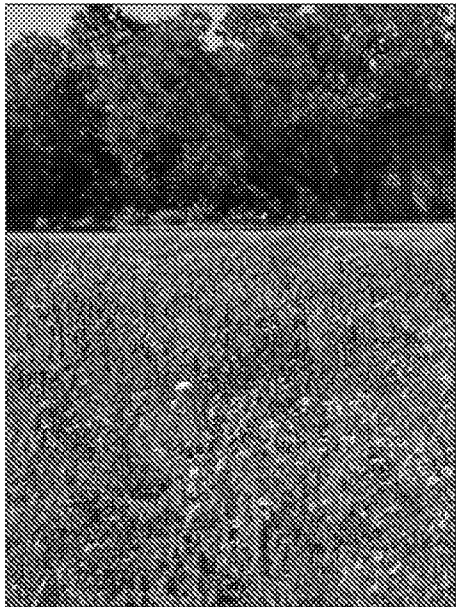
New features designed to accept surface water as part of the overall SuDS strategy [2], such as swales, basins, and ponds, should be planted according to the anticipated moisture level of the substrate. Proposals should therefore be derived from close coordination with the relevant geotechnical engineer or soil scientist, and ecologist.

Where SuDS ponds are to be provided for attenuation and treatment of surface water, basin profiles should be designed to accommodate marginal zones that will enhance year-round biodiversity. Planting within and around these features, and particularly the broad undulating drawdown zones, should be developed in conjunction with an ecologist.

The indicative palette makes provision for marginal planting to the attenuation basins, the drawdown zone, underwater bars and deep-water zones.



INDICATIVE WETLAND PLAN [NOT TO SCALE]



PRECEDENT IMAGE: WET MEADOW



RE-PROFILED DITCH

LEGEND

- 1 RIFE TRIBUTARY CORRIDORS
- 2 SUDS BASINS



SUDS POND ADJACENT TO RESIDENTIAL AREA



POND WITH WOODED BACKDROP



WET MEADOW

PLANTING STRATEGY

7.5.1 INDICATIVE PLANTING PALETTE

- | | |
|---------------------------------|--------------------|
| 1. <i>Menyanthes trifoliata</i> | Bogbean |
| 2. <i>Butomus umbellatus</i> | Flowering rush |
| 3. <i>Ranunculus lingua</i> | Spearwort |
| 4. <i>Veronica beccabunga</i> | Brooklime |
| 5. <i>Mentha aquatica</i> | Water mint |
| 6. <i>Caltha palustris</i> | Marsh marigold |
| 7. <i>Iris pseudacorus</i> | Yellow flag |
| 8. <i>Lythrum salicaria</i> | Purple-loosestrife |
| 9. <i>Lysimachia vulgaris</i> | Yellow loosestrife |
| 10. <i>Carex riparia</i> | Greater pond-sedge |
| 11. <i>Juncus inflexus</i> | Hard rush |
| 12. <i>Cornus sanguinea</i> | Common dogwood |

The plant groups alter through the different habitats in the landscape. The river tributaries should include unimproved neutral grasslands and woodland with dogwoods and willows, through to more open semi-improved grassland and wildflower meadows.

Habitats of native species require a management regime of a type to retain the harmonious balance. These may include:

Shallow water emergent plants

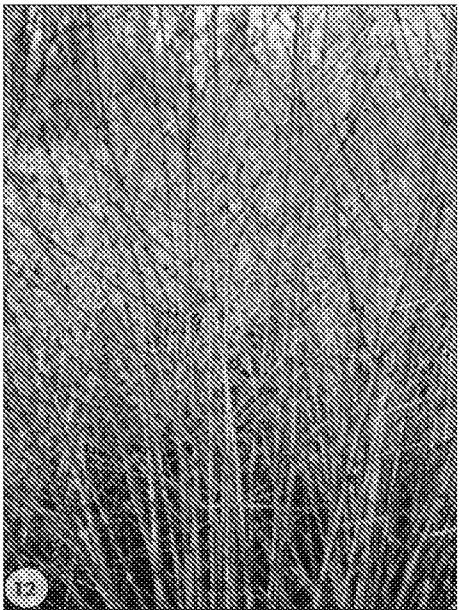
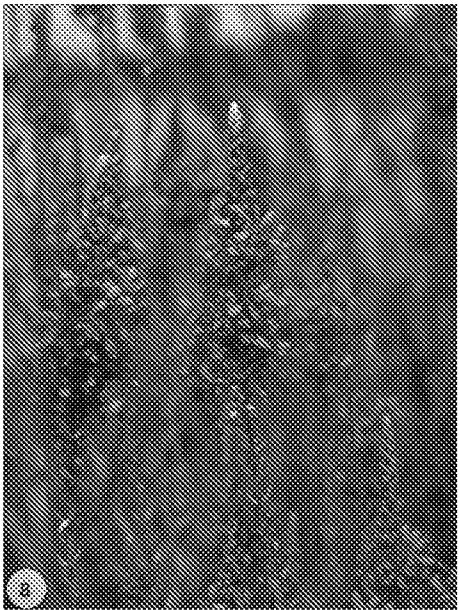
- | | |
|---------------------|--------------------------------|
| Amphibious bistort | <i>Persicaria amphibia</i> |
| Water forget-me-not | <i>Myosotis scorpioides</i> |
| Lesser spearwort | <i>Ranunculus flammula</i> |
| Arrowhead | <i>Sagittaria sagittifolia</i> |

Tall emergent plants

- | | |
|---------------------------------|--------------------|
| <i>Sparganium erectum</i> | Branched bur-reed |
| <i>Alisma plantago-aquatica</i> | Water plantain |
| <i>Carex riparia</i> | Greater pond-sedge |
| <i>Typha angustifolia</i> | Lesser bulrush |

Marginal and bog plants

- | | |
|----------------------------|-----------------------------|
| <i>Ajuga reptans</i> | Bugle |
| <i>Cardamine pratensis</i> | Lady's smock |
| <i>Lychnis flos-cuculi</i> | Ragged-robin |
| Marsh woundwort | <i>Stachys palustris</i> |
| Great willowherb | <i>Epilobium hirsutum</i> |
| Common reed | <i>Phragmites australis</i> |



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