



ENVIRONMENTAL PLANNING CONSULTANTS

Woodland Management Plan (WMP) Version 2

Halsnead – Lickers lane
RESERVED MATTERS APPLICATION 23/02378/REM

Prepared for: Your housing

Prepared by Simon Brain *Chartered arboriculturist*

14.12.2023

Version 1

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Appendix 1 - WMP areas

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Appendix 3 - landscape planning.

Woodland Management Plan

Prepared by ATC Ltd on behalf of Capita

Contact details for Owner/Occupier	Contact details for ATC Ltd	
Your Housing	Mr Simon Brain, Willow Hill Cottage, School Lane, Burwardsley, Chester, CH3 9NX. 01829 770075	
Date Woodland visited: 22 nd September 2022	Weather Conditions: Blustery sunshine	
Address of Wood	Approx Grid Reference	Revision status
Land to south of Lickers Lane	SJ 47270 90512	Version 1
Administrative Boundary	Total Area of woodland (app)	Area Soil type
Knowsley	2.5	Freely draining slightly acid but base-rich soils
Woodland Management Plan Period	Review dates	Public Access
Thirty years to commence upon the start of development on site 4.	(2, 5 and 10,20 and 30 year intervals prescriptive).	Yes
Site Designations/Constraints LWS		
European Protected Species All EPS and priority 1 species require confirmation of absence or presence and impact / mitigation details if required before any tree works can commence.		

1.0 Introduction

1.1 Instruction

This preliminary Woodland Management Plan (WMP) has been prepared for Your Housing to support the management and development of the woodland areas located at Lickers Lane, Halsnead as required by planning condition 31. Version 2 of this WMP is compiled following MEAS comments made on the earlier Version 1 copied below:

“ Woodland Management Plan

The submitted Preliminary Woodland Management Plan (WMP) make no reference to footpath proposals, the status of Lickers Lane LWS and Sandfield Park Woodland LWS adjacent nor does it consider the findings or recommendations of the previous impact assessment. There is no reference to the features of the LWS including English bluebell which require protection.

The WMP does not incorporate agreed mitigation for habitat and damage loss to LWS (erection of signage boards with information about designation features, removal of non-native bluebell and rhododendron, and planting of native ground flora species such as smaller cats ear in the cleared woodland area). The work programme proposed is only for 10-years. This should be at least 30-years in line with the Environment Act (2021).

It was previously advised that a payment to Mersey Forest could be made to fund management activities. However, section 8 refers to a ‘residential company’ established by the developer to fund the WMP for the lifetime of the development. This does not align with the work programme (10-years only). Forestry Commission or Mersey Forest have previously managed Lickers Lane Woodland LWS therefore are seemingly well placed to take this on subject to capacity and agreement. However, if the applicant has an alternative land manager proposed this should be made clear in a revised WMP.

A revised WMP is required to enable discharge. This should be aligned to mitigation measures agreed at determination stage.

WMP should align with LANDSCAPE PROPOSALS SPECIFICATION SHEET 01 which includes detail of methods and maintenance”.

My name is Simon Brain; I have twenty years professional experience as an arboricultural and woodland consultant and have attained Chartered status with the Institute of Chartered Foresters.

2.0 Site location and description

2.1 Location

The site is located across the area of land as shown in Appendix one.

2.2 Descriptions

The total study area consists of approximately 2.5 and 1.5 acres of semi natural broadleaf woodland. The site consists generally of an even aged high canopy tree species dominated by Sycamore. Oak, Sycamore and Ash are also present in the high canopy and in addition; Lime, Horse Chestnut, and Thorn are all present in smaller numbers. Natural regeneration occurs in the area, occasional *Ilex aquafolium* (Holly) and *Corylus avellana* (Hazel) are present. There are several 'honorary' native species such as *Acer pseudoplatanus* (Sycamore) that have developed in the high canopy. An herb / ground vegetation layer is present exhibiting numerous woodland plants in both land parcels.

2.3 Local Wildlife Site (LWS) designations

There are two LWS designations relevant to the WMP which are identified in The Environmental Statement dated 09.08.2023. The table below lists the LWS habitat type and potential risk to LWS including the proposed control measures to avoid habitat degradation.

LWS Title	Distance to site	Habitat type	Potential applicable risks from development given habitat type	Proposed methods to control potential impacts / reasons for lack of impact considered unlikely
Lickers Lane Wood	On site at Lickers Lane	Woodland	Direct damage to asset. Indirect contamination to asset	The submitted Woodland Management plan must be always followed including silvicultural and non-native vascular plant controls. The submitted AIA must install tree protection fencing to act as a physical barrier which can eliminate instances of direct damage. Silt fencing around the LWS boundary is required and shall be monitored. Waste stream monitoring to avoid debris and rubbish being deposited and degrading habitat. Annual monitoring suggested.
Woodland Sandfield Park	Immediately adjacent to Lickers Lane	Woodland with a pond, acidic grassland and scrub.	Indirect contamination to asset	The submitted AIA must install tree protection fencing to act as a physical barrier which will eliminate instances of direct damage.

				Silt fencing around the LWS boundary is required for remaining listed habitat and shall be monitored. Waste stream monitoring to avoid debris and rubbish being deposited and degrading habitat. Annual monitoring suggested.
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A review of the LRC data including citations and maps (included in Appendix 2) for each LWS which has identified features of the LWS that require consideration.

Lickers Lane Wood

The features within the citation (Plants) are as follows.

- English Bluebell (*Hyacinthoides non-scripta*)
- Smaller Cat's-tail (*Phleum bertolonii*)

These plants are the designated species that are responsible for the LWS designation and must under all circumstances be protected by the following means.

- A site walkover shall be carried out by the ecologist to identify the locations of these plants which shall be subsequently mapped
- Non native Bluebell shall be removed from site and a compliance report shall be produced to demonstrate this. Non native eradications shall be monitored throughout the 30 year lifespan of the WMP.
- Expansion of these 2no. native plants shall be carried out by planting of bulbs and reseeded of the identified grass as shown on landscape plans within the following identified areas Bulb mixes B1-B8 shall contain native Bluebell and WF3 / WF1 / AG3 shall contain smaller cats tail
- This shall be carried out following plant mapping and an identification of suitable receptor site for new planting. Emorsgate Seeds shall be the nominated provider of the Smaller Cats tail seed and Naturescape shall provide Bluebell bulbs. The aim of the plant introductions shall be to ensure the viability of the species within the woodland and to increase their respective coverage.

Sandfield Park LWS is located off site but its designation features are the same plants as Lickers Lane.

2.4 Development proposals

Within the LWS woodland on site the development proposals contain the following:

- WF3 shade tolerant wildflower grass mix.
- WF1 Wildflower treasure trove mix
- Bulb mixes B1-B8
- AG3 supreme shade

It is noted that these proposals will contain bluebell and smaller cats ear as detailed in section 2.3

The development proposal for these areas does include the provision of a new footpath as shown in Appendix 3, landscape planning. The footpath shall not be installed until bluebell and small cats ear has been identified and mapped on the site. At this point the footpath will be installed to avoid the positions of these plants. All retained trees shall have at least a 500mm separation from the new footway to allow for future growth in accordance with BS5837:2012. The footway shall be positioned to avoid any tree removal. The footway shall be constructed to APN1 no dig footway construction.

3.0 Woodland Survey – Species, Habitat, Landscape

3.1 Species

Those tree species listed below have been identified in the woodland.

Common Name	Botanical Name	Code	Group (Broadleaf, Conifer)
Alder	<i>Alnus spp</i>	AR	B
Ash	<i>Fraxinus excelsior</i>	AH	B
Beech	<i>Fagus sylvatica</i>	BE	B
Birch (downy/silver)	<i>Betula pubescens/pendula</i>	BI	B
Bird cherry	<i>Prunus padus</i>	BCH	B
Blackthorn	<i>Prunus spinosa</i>	PSP	B
Common alder	<i>Alnus gultinosa</i>	CAR	B
Common lime	<i>Tilia europaea</i>	CLI	B
Elm	<i>Ulmus spp</i>	EM	B
Goat willow	<i>Salix caprea</i>	GWL	B
Hawthorn species	<i>Crataegus spp</i>	HAW	B

Hazel	<i>Corylus avellana</i>	HAZ	B
Holly species	<i>Ilex spp</i>	HOL	B
Horse chestnut	<i>Aesculus hippocastanum</i>	HCH	B
Large-leaved lime	<i>Tilia platyphyllos</i>	LLI	B
Lime	<i>Tilia spp</i>	LI	B
Oak (robur/petraea)	<i>Quercus spp</i>	OK	B
Rowan	<i>Sorbus aucuparia</i>	ROW	B
Scots pine	<i>Pinus sylvestris</i>	SP	C
Silver birch	<i>Betula pendula</i>	SBI	B
Sweet chestnut	<i>Castanea sativa</i>	SC	B
Sycamore	<i>Acer pseudoplatanus</i>	SY	B
Whitebeam	<i>Sorbus aria</i>	WHI	B
Wild cherry/gean	<i>Prunus avium</i>	WCH	B

3.2 Habitat

The following habitat types are present: woodland, scrub, standing deadwood (with cavities and other bat features). As a result of such habitat we anticipate several potential European Protected Species to be potentially present. This may include bats, nesting birds, overwintering amphibian/reptile. Priority species such as Badger may also be present.

A baseline ecological survey has been compiled to support the reserved matters planning application and it must be adhered to before any woodland management works can be implemented to ascertain the extent of European Protected Species and or Priority species. In addition, this can identify aims and objectives that shall guide the implementation of management plans.

Species and Habitat - Significance

All these habitats contribute to the current level of species abundance and richness across the site. Each will contribute to niche habits of plants and animals associated with the woodland such as land mammal's connection to the woodland itself and bird and bat species also being attracted by the habitat diversity.

4.0 Proposed development

4.1 Description

Reserved matters approval to include layout, scale, appearance, and landscaping in relation to the erection of dwellings on the site.

5.0 Stakeholder engagement and woodland protection

5.1 Stakeholder / interested party engagement

It is envisaged that there shall be a number of operations available to interested parties such as tree planting, brash and timber stacking, bat/bird box installation, small tree felling and wildlife monitoring (passive and static animal and plant surveys). It is hoped that local species-specific bodies can be approached such as the South Lancs Groups, Mammal Groups to include badger groups.

5.2 Woodland protection - Threats to the Woodland

Plant Health

The only notable tree disease present in the woodlands is Ash dieback. This is a disease that is defoliating several Ash trees across the UK and specific management of dying ash trees is required over the management plan length. In addition, *Pseudomonas syringae* pv *aesculi*, is also present even though the number of *Aesculus hippocastanum* trees present in the study area is very limited.

Mammal predation, particularly Grey Squirrels is however a significant threat to the extent of natural regeneration. Planting is therefore required for the future sustainability of the woodland. Tree damage from predation is present throughout the woodland and a control programme is preferred to maintain the viability of introduced woodland trees and plants. A control programme of Grey Squirrels needs to consider a ratio of <5 per Ha, prior to April which is maintained by trapping or poisoning in baited cages throughout the active period when damage is caused (Apr-Jul).

Detrimental environmental change caused by pollution; flooding / soil erosion is considered unlikely. There was no evidence of anti-social behaviour across the site.

Invasive species have been found to be present on the sites (JPW) although it is located outside woodlands it is important it is not accidentally introduced to the W1 areas.

Climate change has proven to very recently challenged traditional forest management techniques largely due to the identification of an extensive list of new tree disease and pest outbreaks in the UK (FC England Managing Risk Fig 9)

Practical advice to combat climate change in this woodland shall consist of:

- Planting a wider range of species for future tolerance of climate change but also to reduce a reliance what is a small species range in the UK (72% of hardwood forest are reliant on five species FC Managing Risk 2014)
- Tree species selection capable of resilience based on future climatic predictions

6.0 Outline Woodland Management Plans

6.1 Aims and Objectives.

The following outline objectives shall apply:

- To engage the landowners and local community in active woodland management
- Improvement of species abundance and species richness within those areas of unaffected semi natural woodland
- Accounting for the needs of species associated (or potentially associated) with the woodland that require a mosaic of habitats
- Acknowledgement of the role played by native and non-native conifer species in the areas landscape character and history

- Maintenance of a woodland that is suitably safe for pedestrian access
- Maximise woodland structure by selective intervention

The following specific aims shall apply:

- Maintenance and enhancement of existing Conifer stock across the site but also specifically for native species in the locality and landscape area profile
- Arboricultural management for individual trees to create niche habitat
- Control of undesirably invasive species throughout the site
- Development and protection of veteran trees
- Tree planting using species to create woodland structure throughout the site
- Progressively re-structuring of the even aged areas to achieve an improved range of age classes
- Re-structuring by coupe felling, this shall apply to selected areas of low-quality natural regeneration.
- Establish monitoring intervals to allow repeatable data gathering to allow analysis for change in local distribution of species
- Maintain stakeholder partnership programme and volunteer involvement

The techniques by which these specific aims shall be delivered are:

- In areas where existing conifer stock is present it is ensured through felling that the better specimens, particularly of *P. Abies* or *P. nigra* are identified and retained. The thinning (Halo thinning) of those scrub trees growing within the immediate vicinity of such dominant Pine and Fir shall be applied. This shall be progressive and be completed over a number of years so as to gradually release the tree as an individual.
- Natural regeneration of sycamore predominately covers the woodland scrub layer. Such regeneration shall be removed in the initial year of works in and replanted with suitable native plant species in order to

create a graduated strip of vegetation providing eco tones and niche habitat.

- The Control of undesirably invasive species throughout the site shall focus on the monitoring of these species for the WMP duration.
- Veteran trees are to be created in the woodland and they shall undergo individual management aimed at improving the longevity of these trees and their contribution to biodiversity. Many exhibits arboricultural defects such as deadwood, cavity, decay etc and because of non-intervention exhibit subsiding limbs, deadwood and broken parts that require removal / management for safety. All such works require consultation with ecologists and cannot be undertaken until formal permission from the ecologist has been approved. The installation of bird and bat boxes is provided on veteran trees.
- Woodland structure shall be reinforced and improved by installing suitable plants that form an intermediate layer in the woodlands structure such as *Sorbus*, *Corylus* and *Crataegus*.
- The review dates for the woodland management plans are year 4 and year 8 following implementation of the WMP.
- A stakeholder partnership with the local community is envisaged in the form of volunteer assistance during the implementation of aspects of the works, for example tree planting.
- Introduction of native bulb plants

7.0 Outline Woodland Management Plans

7.1 Outline Management Strategy details.

W1 Woodland – Individual woodland work programme

Activity, scope and Specification	1	2	3	4	5	6	10
Monitor of undesirably invasive species	Yes		Yes monitor			Yes monitor	Yes monitor
Progressive re-structuring of honorary native species such as Sycamore to create wider glade areas. This shall consist of a 10% thinning ratio of all standing trees. Halo thinning for any existing conifer. Remove and replace low quality regeneration with native trees and shrubs		Yes			Yes 10%		Yes 10%
Tree planting shall be undertaken as follows: In areas dominated by Sycamore intermediate layer species shall be introduced at approximate 2m intervals with adequate rabbit and stem protection and Beech and Oak will be planted at 5m intervals throughout the Woodland. Native conifer shall be planted throughout and intermediate layer planting of hazel, mountain ash and thorn The planted areas shall be inspected and 'beaten up' / failed trees replaced		Yes Yes		Yes (monitor) Yes (monitor)		Yes (monitor) Yes (monitor)	
Development and protection of veteran trees There are no veterans in the woodland however several large over mature trees are suitable for veteranisation techniques. For example, has several examples of trees that are likely to be lost over the next twenty years due to their condition but if pruned the deadwood resource could be extended significantly. Where veteran trees can be identified halo thinning shall be undertaken around the tree very gradually and throughout the WMP		Yes	Yes	Yes	Yes	Yes (monitor)	
Coupe felling. It is intended that several small areas (20m square) can be created by coupe felling a cluster of tree stems. Given the resultant development of ground vegetation bulb introduction of native plants shall be paused until year 5	Yes	Yes (monitor veg. types)		Native bulb planting	Yes (dep on monitoring result)		Yes (dep on monitoring result)
Removal of natural regenerating, suppressed and malformed trees throughout of woodland areas (max 20% of overall woodland to include 10% standing tree thinning)	Yes	Yes			Yes (monitor)		
Volunteer involvement in planting, supervised tree felling's, timber stacking, vegetation and animal surveys and habitat improvements. Bird and Bat boxes to be installed in trees in accordance with local bat/bird group advice.	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Monitoring of vascular plants by survey specifically of smaller cats ear and bluebell	Yes	Yes	Yes	Yes	Yes	Yes	Yes
erection of signage boards with information about designation features and management aims	Yes						Yes

Activity, scope and Specification	15	20
Monitor of undesirably invasive species	Yes	Yes
Progressive re-structuring of honorary native species such as Sycamore to create wider glade areas. This shall consist of a 10% thinning ratio of all standing trees. Halo thinning for any existing conifer. Remove and replace low quality regeneration with native trees and shrubs		Yes 10%
Tree planting shall be undertaken as follows: In areas dominated by Sycamore intermediate layer species shall be introduced at approximate 2m intervals with adequate rabbit and stem protection and Beech and Oak will be planted at 5m intervals throughout the Woodland. Native conifer shall be planted throughout and intermediate layer planting of hazel, mountain ash and thorn The planted areas shall be inspected and 'beaten up' / failed trees replaced	Yes (monitor) Yes (monitor)	Yes (monitor) Yes (monitor)
Development and protection of veteran trees There are no veterans in the woodland however several large over mature trees are suitable for veteranisation techniques. For example, has several examples of trees that are likely to be lost over the next twenty years due to their condition but if pruned the deadwood resource could be extended significantly. Where veteran trees can be identified halo thinning shall be undertaken around the tree very gradually and throughout the WMP		Yes
Coupe felling. It is intended that several small areas (20m square) can be created by coupe felling a cluster of tree stems. Given the resultant development of ground vegetation bulb introduction of native plants shall be paused until year 5	Yes	Yes (monitor veg. types)
Removal of natural regenerating, suppressed and malformed trees throughout of woodland areas (max 20% of overall woodland to include 10% standing tree thinning)		Yes
Volunteer involvement in planting, supervised tree felling's, timber stacking, vegetation and animal surveys and habitat improvements. Bird and Bat boxes to be installed in trees in accordance with local bat/bird group advice.	Yes	Yes
Monitoring of vascular plants by survey specifically of smaller cats ear and bluebell	Yes	Yes
erection of signage boards with information about designation features and management aims	Yes	Yes

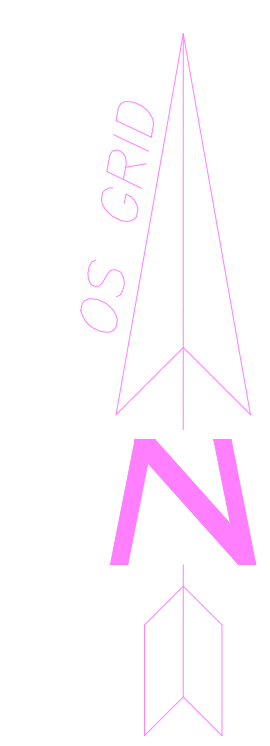
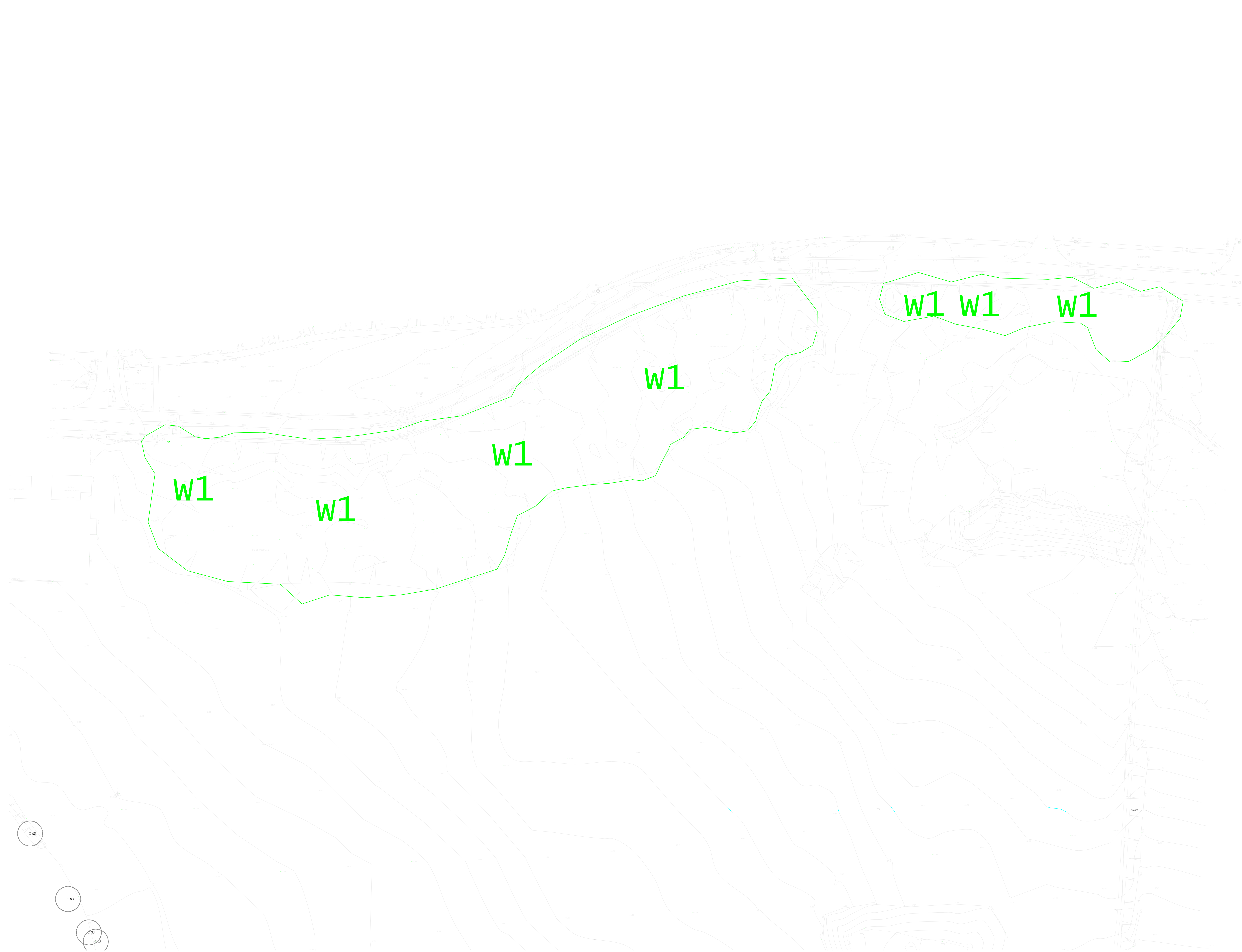
8.0 Funding

- 8.1 A residential management company would be established by the developer whom shall be solely responsible for the funding of the WMP for the lifetime of the development. The land manager will be established by the developer and that organisation shall be responsible for the implementation of the development.

9.0 Conclusions

- 9.1 The woodland area is small being only 2.5 acres in total. It is an even aged semi natural broadleaf woodland containing a small number of conifer species. It exhibits good levels of natural regeneration, scrub, and field layers with a variety of woodland plants growing within the study areas. It has attained a some conservation value status by virtue of size, species, and habitat range as well as for its significant wider amenity value in the landscape.
- 9.2 As a result of the existing high levels of biodiversity it is generally accepted that minimal intervention will be used as a management strategy. Such minimal intervention is aimed at increasing the overall biodiversity of the woodland through simple woodland management techniques as expressed in section 6

Appendix 1 - WMP areas



WOODLAND MANAGEMENT PLAN



AMENITYTREE
ENVIRONMENTAL PLANNING CONSULTANTS
The Annex, Willow Hill Cottage, School Lane
Burwardsley, Chester, CH13 9NX
Tel. 01829 770075

Client:		
Your Housing		
Project:		
Halsnead		
Detail:		
TREE CONSTRAINTS PLAN - Overview		
Drawn By:	Date:	Scale:
SB	24.10.22	1:500 - A0
Dwg No:	Revision:	
TR-01-Sheet 4	V1	

SBI 13. Lickers Lane Wood
Scale 1:5000

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prosecution or civil proceedings. Knowsley MBC LA0761201
Compiled by EAS 30th August 2003



Environmental
Advisory Service



SBI 14. Woodland, Sandfield Park
Scale 1:5000

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Compiled by EAS 30th August 2003



Environmental
Advisory Service



Site Name: Lickers Lane Wood, Whiston

Site Area: 1.11 hectares

National Grid Reference: SJ472905

Date of Designation: 1995

District: Knowsley

Date of Last Revision: July 2003

SBI Number: 13

CITATION: A long, narrow broadleaf woodland with a dense canopy and associated neutral grassland.

APPRAISAL: This site has been evaluated against the guidelines approved by the Council for selection of Sites of Biological Interest. The site's evaluation against the guidelines is set out below.

Guideline		Comment
HABITATS		
H1; H2; H3; H4.	Rarity Diversity Nearness Isolation	2 Priority BAP Habitats, 2 regionally important. 11 habitats recorded. 22 sites within 1 Km.
PLANTS		
SP1; SP2; SP3; SP4.	Rarity Diversity Naturalness Nationally Rare	1 WCA Schedule 8; 1 species of conservation concern; 1 regionally important; 1 locally rare species. Total of 81 plant species. 86.4% of the plants are native to North Merseyside. Colonisation has been unaided by man and the site has been physically altered. --
ANIMALS		
General SP5; Birds B1; B2; B3; B4; B5. Dragonflies Od1; Od2. Butterflies Bf1; Bf2. Amphibians A1; A2. Reptiles R2; Bats Bat1; Bat2. Mammals Mam1.	Rare/priority Non-breeding population Breeding population Regional rare/scare Breeding assemblage Assemblage, breeding, wintering, passage. Breeding Regional rare/scarse Region rare breeding Breeding assemblage Rarity Exceptional populations Exceptional population Roost Assemblage Breeding	-- -- -- -- -- -- -- -- -- -- -- -- -- -- --

SUMMARY: The combination of these factors has led to this site being identified as a Site of Biological Interest.

NOTE: Validated data from 1981 to July 2003 have been used in this assessment. Other data may become available to support this designation.

Lickers Lane Wood

Status of features of nature conservation importance

Habitats

2 Priority BAP habitats	Unimproved acid grassland Unimproved neutral grassland
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2 Regionally Important Habitats (North West Biodiversity Audit)	Unimproved acid grassland Unimproved neutral grassland
--	---

Plants

1 Wildlife and Countryside Act - Schedule 8 species	English Bluebell (<i>Hyacinthoides non-scripta</i>)
--	---

1 Species of Conservation Concern	English Bluebell (<i>Hyacinthoides non-scripta</i>)
--	---

1 Regionally important species (North West Biodiversity Audit)	English Bluebell (<i>Hyacinthoides non-scripta</i>)
---	---

1 Locally rare species	Smaller Cat's-tail (<i>Phleum bertolonii</i>)
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Woodland Sandfield Park

Status of features of nature conservation importance

Habitats

1 Regionally Important Habitats (North West Biodiversity Audit)

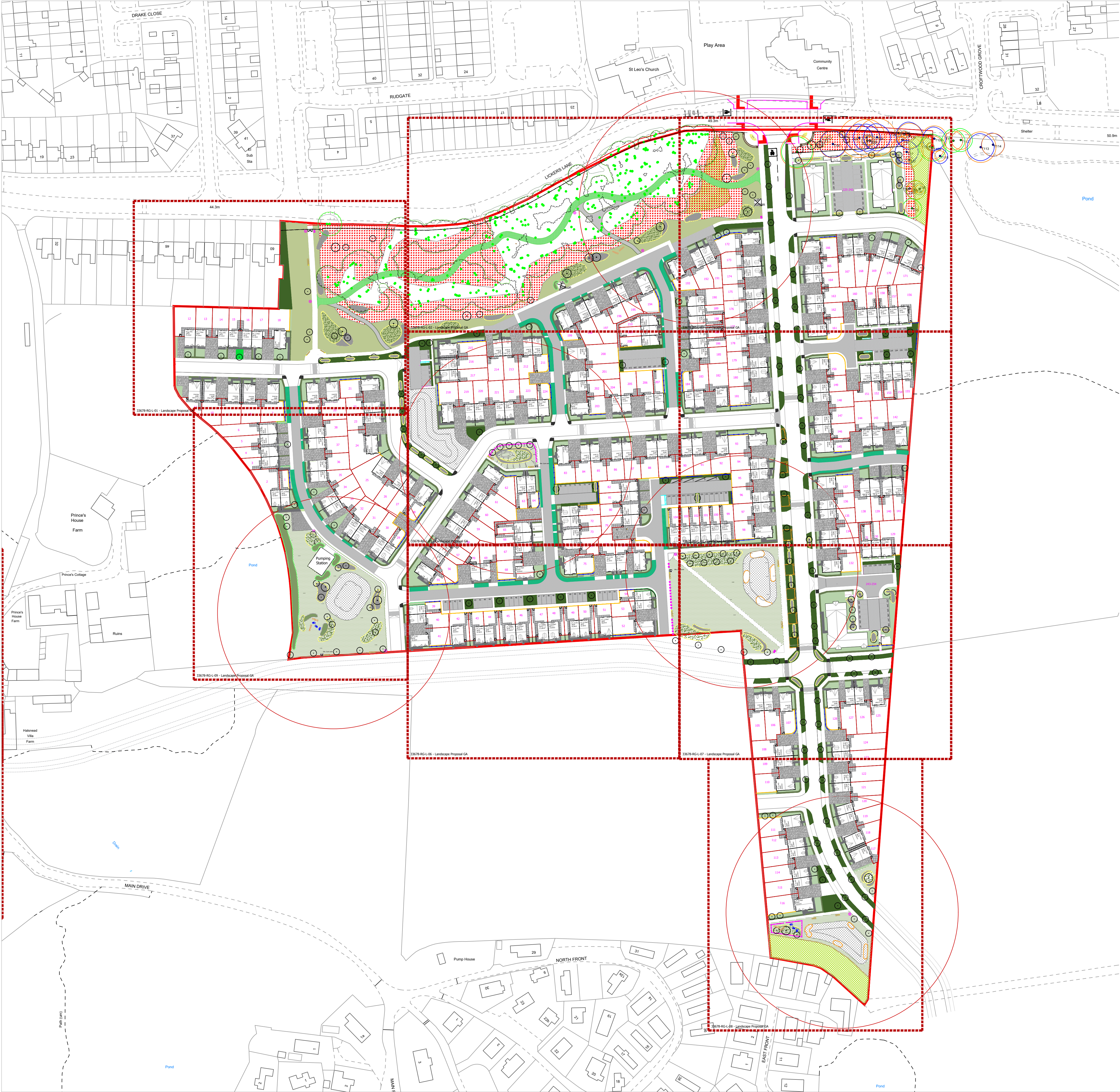
Plants

1 Wildlife and Countryside Act - Schedule 8 species	English Bluebell (<i>Hyacinthoides non-scripta</i>)
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1 Species of Conservation Concern	English Bluebell (<i>Hyacinthoides non-scripta</i>)
--	---

1 Regionally important species (North West Biodiversity Audit)	English Bluebell (<i>Hyacinthoides non-scripta</i>)
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1 Locally rare species	Smaller Cat's-tail (<i>Phleum bertolonii</i>)
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The scaling of this drawing cannot be assured

Revision	Date	Dwn	Ckd
C	07.02.23	BA	DS
D	07.08.23	BA	SC
E	18.08.23	BA	SC

- Application boundary
- SOFT LANDSCAPE**
- Existing vegetation retained and Rock Protection Area (RPA)
 - Proposed tree planting. Refer to plant schedule.
 - Woodland edge planting with temporary protective fencing. Refer to plant schedule for species mix.
 - Grass Mix - CODES:
 - AG1 Amenity Grass mix - Conservation Grassland and Golf Roughs
 - AG2 Road verge and embankments mix to Main Street, Access Street and Lanes
 - AG3 Supreme shade
 - AG4 Residential rear gardens - not hatched
 - Wildflower Mix - CODES:
 - WF1 wildflower Treasure Trove mix
 - WF2 Wildflower pond edge mix
 - WF3 Wildflower hedgerow/ shade tolerant mix
 - Mown Paths
 - HE1 - Attenuation area herbaceous mix
 - HE2 - Bio retention area / rain garden herbaceous mix with WF2 wildflower mix
 - Bulb mixes - CODES:
 - B1, B2, B3, B4, B5, B6, B7 and B8. See Plant schedule for mixes
 - Proposed shrub planting - Public Open Space. Mix 1 - Refer to plant schedule.
 - Proposed shrub planting - Residential Gardens and open space. Mix 2 - Refer to plant schedule.
 - Climbers - Residential Gardens. Refer to plant schedule.
 - H* Proposed hedge planting. Refer to plant schedule.
- FURNITURE**
- Timber Benches (B)
 - Timber Waymarkers (WM)
 - Timber Sign Board (TSB) and Metal Litterbox (ML)
 - Timber Knee Rail
 - Benches and bins
 - Timber Logs informal play equipment
 - Stone boulders informal play equipment
- HARD LANDSCAPE**
- P1 Surface Material 'P1' Hot rolled asphalt - dark grey to carriageway with silver gres granite aggregate.
 - P2 Surface material 'P2' Bituminous surface - grey to KBC Specification
 - P3 Surface material 'P3' Black paving on carriageway.
 - P4 Surface material 'P4' Tegula setts - P4a Burnt Ochre and P4b Traditional
 - P5 Surface material 'P5' Coloured asphalt natural gravel - 6mm
 - P6 Surface material 'P6' Compacted Self-binding Gravel to Lickers Lane Wood
 - P7 Surface material 'P7' Yorkstone colour - Blue/grey with buff swashes
 - P8 Surface material 'P8' Concrete Flags - grey
 - P9 Surface material 'P9' Tactile paving - P9a - Grey and P9b - Buff
 - P10 Surface material 'P10' Pea gravel - buff 10mm.
- WALLS, FENCES, RAILINGS, GATES**
- GW1 Sandstone Entrance / Gateway wall and Piers - GW1 and GW 2. Samples and coursing to be approved. Refer to dwgs 3367-RG-L-03 and 04.
 - W1 Wall Brick. To match architects external finishes and boundary plan(s). 1.8m ht.
 - F1 Timber fence. Close boarded typ. 1.8m ht., with concrete post and kick board and matching timber single gate 'G1'
 - F2 'F2' Cheshire Estate Fence. Black steel fencing 1.2m ht. and matching single estate gates 'G2'
 - G1 'G1' Gate. 1.8m ht timber single gate.
 - G2 'G2' Gate. 1.2m ht metal single gate.
 - Play area walking distance

Note:
For all level information and retaining walls refer to Engineers Plans.

PLANNING

Project:
Halsnead Park, Knowsley

Drawing Title:
Landscape GA Plan
Sheet 00

Date:
07/10/22

Scale:
1:1,000 @A1

Drawn by:
PT

Check by:
SC/JH

Project No:
33678

Drawing No:
RG-L-00

Revision:
E

Stantec

Stantec UK Limited
7 Soho Square
London
W1D 3QD
T: 020 7446 6888

stantec.com/uk

The scaling of this drawing cannot be assumed			
Revision		Date	Dm Cld
A	General Updates	03.01.23	SC SC
B	General Updates	20.01.23	BA DS
C	General Updates	11.08.23	BA SC

GENERAL PLANTING SPECIFICATION

Where any deviation from the landscape proposals or specification occurs within a scheme, the contractor shall request the relevant detail or agreement from the designer prior to proceeding.

All planting operations shall be carried out in accordance with: Trees from nursery to independence in the landscape BS 8545, and General landscape operations BS 4428.

- Material Sourcing.** Plant material to conform to the National Plant Specification. All plant stock to originate from within the UK. Plant handling and planting operations to be in accordance with HTA 'Handling and Establishing Landscape Plants', Parts I- III.
- Ground Preparation.** Planting beds and tree pits shall be weed free prior to the commencement of planting operations. Hand weed or apply an approved translocated systemic herbicide to the manufacturers' instructions and to 1997 Control of Pesticides Regulations and 2003 COSHH regulations.
- Ground Preparation.** Topsoil to be fertile with maximum 35% clay content and 5% minimum organic content, pH 5.8 - 7.5 and to be free of perennial weeds, weed seeds and contamination. Maximum stone content 20% (20mm+ particle size), maximum size of stones 50mm in any direction. Existing topsoil to be ameliorated and/or screened if necessary to achieve this specification.
- Ground Preparation.** The identification of topsoil and subsoil resources on site will be required to inform the detailed design of tree pits and planting beds, including the depth of topsoil horizons and the requirement for amelioration of the growing medium, prior to planting. All site/ existing topsoils/ subsoils will be subject to detailed testing in accordance with BS 3882 & BS 8601. All storage/ stripping to comply with the British Standard. If modifications to the soil are necessary, soil ameliorants will be used sparingly. Ideally the soil dug from the excavated pit should be used as the backfill medium and as far as practicable, replicate the horizons within the original soil profile.
- Suggested Soil testing: Tim O'Hare Associates LLP, Howbery Park, Wallingford, Oxfordshire, OX10 8BA, T: +44 (0)1491 622653.
- Ground Preparation.** Imported topsoil to be to BS 3882:2015 Multi Purpose Grade, from an approved source, and to accord with the above specification. Refer to the landscape drawings for specific purpose topsoils.

TREES:

- Planting.** Trees in planting areas to be planted in pits minimum 1200 x 1200 backfilled with topsoil mixed with peat free organic tree planting compost and 'Sierrablen Flora' slow release fertiliser or equal approved, as required in accordance with manufacturers instructions. Refer to soft planting details for staking / underground guying. Backfilling of tree pits will be carried out in layers, using the backfilling medium specified. As backfilling proceeds the tree pit walls will be broken down to a distance of 500 mm beyond the edge of the rootball in all directions, thoroughly watered to expel air pockets and with due allowance being made for subsequent settlement. The natural thickening between the trunk and the root flare shall be at the finished top surface of the planting medium and shall not be buried by excess soil. The nursery grade should be the finish planting level.
- Ground Preparation.** Trees in grass areas to be surrounded by 1000mm Ø circle of bark mulch, 75mm depth. The root flare and base of the stem should be maintained free from mulch.
- Planting.** All nursery standard trees are to be fitted with irrigation pipe and inlet, sized as appropriate.
- Planting.** No trees are to be planted within 3m of sewers or services (or other easement recommended by the relevant statutory undertaker) without the use of tree root barriers, eg. 'Greenleaf Reroot 600 /100 or equal approved placed between the tree and services. The top edge of the root barrier should finish 10mm above any growing media or be encapsulated into the concrete haunch of the adjacent edgings. Contractor to ascertain the location of all sewers and services prior to tree planting.
- Tree Form.** Trees forming avenues along the Main Street, Access Street, Lanes and trees within public open spaces are to be of uniform tree size and uniform clear stem. Unless tree is a multi-stem then it should have a clearly defined central leader, with a clear stem height defined in NPS Trees to be planted in line with recommendations in BS 8545 Trees from nursery to independence in the landscape

PLANTING BEDS:

- Planting.** Planting beds to have a minimum depth of 450mm topsoil over 150mm broken up existing ground with all stones over 50mm removed. If importing soils a minimum of 550mm multipurpose subsoil is required below the topsoil layer.
- Ground Preparation.** Soil conditioner: Sanitized and stabilised compost to BSI PAS 100. Apply 50mm depth even coverage and incorporate into topsoil during cultivation operations, to a minimum depth of 150mm. Compost to be Compost Association certified, or from an approved supplier conforming to this specification. If no local supplies are available an alternative organic peat free compost may be received the seed, incorporating the pre-seeded fertiliser at a rate set out above to all general reinstatement seeding areas.
- Planting.** Shrubs to be planted in pits 150mm wider and deeper than root spread backfilled with excavated topsoil/compost, mixed with 'Sierrablen Flora' slow release fertiliser or equal approved, quantity in accordance with manufacturer's recommendations.
- Ground Preparation.** All planting beds to be mulched with matured coniferous bark, with an even particle size between 15 - 50mm, to a minimum depth of 75mm over weed free soil after completion of all planting and watering operations. Mulch to be free of pests, diseases, fungus and weeds, and with no fines or dust. Mulch source and sample to be approved.
- Planting.** Native hedge planting to be protected from rabbit damage with Biodegradable Plastic-Free Shrub Spiral Guards and stakes (or equal and approved). Net guards for bushy shrub species or post and wire rabbit proof fence as indicated.

INSTANT HEDGE PLANTING:

- Setting out.** Hedge trench to be prepared prior to offloading the hedge. Ensure that there is sufficient good quality topsoil or organic matter available, with which to backfill. As instant hedge sizes vary a suggested minimum trench size of 500mm wide x 500mm deep to allow for backfilling (to be confirmed once ordered). Planting shall be set out as per planting plan.
- Planting.** Trench sizes dependant upon space available and quality of soil (to be confirmed once ordered and site investigations have been undertaken). Ensure that the rootstrips are butted together and all backfilling is even and consistent. Avoid air pockets which will prove detrimental to the survival of the hedge. Simple irrigation system be fitted. Upon completion hedge trenches are to be mulched with 75mm depth bark mulch.

HEDGE PLANTING:

- Setting out.** The hedge line shall be set out using 38 x 38 x 1200 stakes and all herbaceous material within 500mm of the centreline shall be sprayed out using an approved herbicide at least two weeks before planting. A 600mm wide and 300-400mm deep trench shall be dug and the backfill mixed with slow-release fertiliser. (For double staggered rows) Planting shall be set out as per planting plan.
- Planting.** Plants shall be notch or pit planted as appropriate. All hedge plants shall be protected with 600mm propriety shelters secured with a stake/cane and ties as recommended by the manufacturer. Upon completion hedge trenches are to be mulched with 75mm depth bark mulch.

NATIVE SCRUB TRANSPLANTS:

- Ground Preparation and Setting Out.** The extent of the planting area shall be set out using 38 x 38 x 1200 timber stakes at maximum 10m intervals. All herbaceous material within the proposed planting area shall be sprayed out using an approved herbicide at least two weeks before planting and the ground shall be cultivated to a depth of 150mm (bed preparation).
- Planting.** Proposed native shrub planting is to be planted on an informal 1m grid (up to 1.5m for larger species such as Hazel). To avoid straight lines each planting station can be adjusted by up to 300mm in any direction. All planting stock to be protected from rabbit damage using approved Biodegradable Plastic-Free Tree or Shrub Spiral Guards secured with stakes and ties as advised by the manufacturers. Planting to bund: Plants shall be notch or pit planted as appropriate. Planting to bund to be planted through coil matting/protection layer.

MARGINALS:

- Ground Preparation.** Where necessary treat existing weeds with an approved herbicide and allow a suitable period as recommended by the manufacture for this to be effective. All extraneous matter such as plastic, wood, metal and stones greater than 50mm in any dimension shall be removed from planting bed.
- Planting.** Marginal plants are to be planted as shown on the drawings all the specified density with minimal disturbance to the root ball and well firmed in. To be planted into a hole to suit plug size and shape. Create a cleft at bottom of hole to improve rooting. Handling of marginals: do not allow to dry out, create cleft at base of planting hole to improve rooting. Bare rooted aquatics: notch plant and firm surrounding soil to ensure good root hold into substrate. Marginal plants can be planted at, or just above, the water's edge at a maximum planting depth of 350mm.

AMENITY GRASS SEEDING / SUDS TURFING:

- Sourcing and preparation.** Amenity grass seed shall be Phoenix LowMain 10 sown at 300kg/ha or 30g/m2; Germinal A18 sown at 350kg/ha or 35g/m2; Germinal A6 sown at 400kg/ha or 40g/m2 and Germinal A2 sown at 350kg/ha or 35g/m2 and Wildflower Turf - WFT-SUD-32 (or equal approved) in bare/new areas into prepared ground as per the plans. Turf to be laid along margins of seeded areas. Any failures due to neglect and especially seeding out of season shall be the responsibility of the contractor.
- Preparation of seeding.** During any fallow period prior to sowing, the tilth shall be maintained free from weeds. No seed shall be shown until the cultivation and preparatory works have been completed. Areas of existing grass and weeds shall be sprayed out with an approved herbicide no less and 24 hours prior to cultivations to create a stale weed bed. Soil cultivation around established trees and hedges should only receive shallow cultivation. Areas to be seeded shall be cultivated to a depth of 100mm, deleterious material and stones exceeding 25mm diameter removed. Areas to be seeded shall have an even surface, be lightly consolidated and raked to a fine tilth to receive the seed, incorporating the pre-seeded fertiliser at a rate set out above to all general reinstatement seeding areas.

AMENITY GRASS SEEDING / TURFING continued:

- Sowing.** Sowing shall be undertaken between April and October within a wet/warm period; dry or cold periods to be avoided. Sowing shall be carried out during calm, weather and not when the ground is frost bound or waterlogged. Seed shall be sown in two equal sowings in transverse direction at the rates as specified. After sowing the contractors shall lightly rake the seed into intimate contact with the soil.
- Turfing.** Turf may be laid at any time of the year but preferably Spring or Autumn, providing the weather is not frosty/ground is not frostbound and there is adequate irrigation during the establishment period. Lightly and evenly firm in as laying proceeds to ensure full contact with soil. Brush a dressing of sandy loam or silica sand well in to completely fill joints.
- Initial cut-seeded areas.** When the newly seeded areas reach 50mm they should be rolled and after 24 hours cut to a height of 30mm. All arising shall be removed from site. General seeded areas shall be cut a second time when they reach 50mm. All areas shall then adopt their prescribed maintenance routine.
- Initial cut-turfed areas.** When the newly turfled areas have fully rooted, cut max 1/3 or height of sward to highest mower blade setting. All areas shall the adopt their prescribed maintenance routine.

WILDFLOWER MEADOW AND GRASSES:

- Sourcing and preparation.** Wildflower mix shall be Phoenix UM13 (formaly PFI3) sown at 20kg/ha or 2g/m2; British Flora BFS5 - sown at 50kg/ha or 5g/m2, British Flora BFS6 - sown at 50kg/ha or 5g/m2 (or equal approved) in bare/new areas into prepared ground as per the plans.
- Top soil stripping of proposed wildflower grassland areas:** Prior to receipt of excavated soils, topsoil from the areas to receive wildflower seed to be stripped (depth to be confirmed following detailed soil analysis - e.g 20-25cm) except in the Archaeological mitigation area. Topsoil to be stored in accordance with the earthworks strategy for use elsewhere on site. Tracked machinery will be used with access routes planned and suitably protected to minimize soil compaction.
- Wildflower Meadow soil profile** Following removal of topsoil, a soil profile will be established to give finished levels (depth to be confirmed following soils analysis). The revised soil profile will utilise subsoil from previous sub-soil stockpiles and low fertility topsoil removed from other areas of the site. The top soil shall be free from stone, rubbish or any kind, roots of perennial weed or any other injurious matter.
- Preparation for seeding.** During any fallow period prior to sowing, the tilth shall be maintained free from weeds. No seed shall be sown until the cultivation and preparatory works have been completed. Areas of existing weeds shall be sprayed out with an approved herbicide no less than 24 hours prior to cultivations to create a stale seed bed (for bare/new areas). Soil cultivation around established trees and hedges should only receive shallow cultivation. Areas to be seeded shall be cultivated to a depth of 100mm, and all weeds, deleterious material and stones exceeding 25mm diameter removed. Areas to be seeded shall have an even surface, be lightly consolidated and raked to a fine tilth to receive the seed. All areas of existing grass to be over seeded with wildflowers shall be heavily scarified to create areas of bare earth prior to seeding with wildflowers only mixes; bare areas to be prepared as per amenity grass.
- Sowing.** Sowing shall be undertaken between April and October within a wet/warm period, dry or cold periods to be avoided. Sowing shall be carried out during calm, weather and not when the ground is frost bound or waterlogged. Seed shall be sown in two equal sowings in transverse directions at the rates as specified. After sowing the contractor shall lightly rake the seed into intimate contact with the soil (if advised by the supplier). Any failures due to neglect and especially seeding out of season shall be the responsibility of the contractor.
- Establishment.** For Spring sown areas, mow the developing meadow throughout the first growing season to weaken / control any annual weeds as the seeded perennials establish. For Autumn sown areas, do not mow until late Summer/Autumn. Removing all arising.

BULB PLANTING:

- Ground Preparation.** Where necessary treat existing weeds with an approved herbicide and allow a suitable period as recommended by the manufacture for this to be effective. All extraneous matter such as plastic, wood, metal and stones greater than 50mm in any dimension shall be removed from planting bed.
- Planting.** Dig a hole wide and deep enough for the bulbs at two to three times their depth. Place bulbs in the hole with their 'nose', or shoot, facing upwards. Space them at least twice the bulb's own width apart. Replace the soil and gently firm. Water straight after planting. Plant in groups of at least six, place bulbs in drifts to give a natural appearance.

CLIMBER PLANTING:

- Ground Preparation.** Where necessary treat existing weeds with an approved herbicide and allow a suitable period as recommended by the manufacture for this to be effective. All extraneous matter such as plastic, wood, metal and stones greater than 50mm in any dimension shall be removed from planting bed.
- Planting Support Preparation.** Taut horizontal or vertical wires held by vine eyes. Space the wires 30-45cm apart with the lowest wire 30cm (1ft) above soil level ahead of planting.
- Planting.** Plant climbers approx 30-45cm from the base of the wall, so that it has room for root development and will catch the rain. Remove all ties, that hold the climber to its cane supports. Untwine the climber from any canes sufficiently to allow the spread out the stems, but leave them still attached to their cane supports. Select three bamboo canes to train the climber at an angle up to the wire supports on the wall. Slip the bamboo canes under the wires to hold them in place, adjusting the positioning to create a fan shape. Tie the stems and canes to the wire supports using garden twine.

TIMES OF YEAR FOR PLANTING:

- Planting.** Deciduous trees and shrubs: Late October to late March. Conifers and evergreens: September/ October or April/ May. Herbaceous plants (including marginal): September/ October or March/ April. Container grown plants: At any time if ground and weather conditions are favourable. Watering and weed control: Provide as necessary. Dried bulbs, corms and tubers: September/ October. Colchicum (crocus): July/UK August. Green bulbs: After flowering in spring. Grass seeding: April to October Turf: Autumn or early winter (but can be done year round if enough water provided.)
- Planting.** Any stock planted outside the recognised planting season to be containerised.
- Planting.** Containerised plant stock will have a fully developed root system within the specified pot size.

MAINTENANCE NOTES:

- Maintenance.** Maintenance operations to be carried out as specified until planting becomes established (year 5 after planting).
- Maintenance.** Trees - inspect soil around newly planted trees should be regularly inspected for soil capping and compaction. Remedial action should be taken as necessary. Check stakes and ties and adjust if necessary in summer and winter. Remove stakes when no longer required, i.e. after 3 years. Prune out damaged branches or deadwood, cutting back so as not to affect branch collar. Progressively raise canopies of new trees to provide clearance for vehicles and pedestrians.
- Maintenance.** Native Woodland / woodland edge trees. Remove guards / stakes at end of year 5. Once established, coppice woodland understorey such as Corylus and Cornus on a 3 year cycle.
- Maintenance.** Shrubs - Weed control measures to continue until canopy of shrubs is closed. Weeds to be cleared by hand or by application of translocated herbicide, with inspections made regularly through the growing season. Prune back any badly damaged shrubs to sound growth. Cut back plants adjacent to paths and access ways where necessary, retaining a balanced shape. Clear litter and debris from planted areas and cut leggy growth hard back to promote bushy growth.
- Maintenance.** Bulbs - When bulbs have finished flowering and the foliage has died, cut back the flower stalks to ground level.
- Maintenance.** Climbers - Snip off the excess twine with scissors.After the main stem is trained into a basic fan shape, prune off any weak or twiggy growth that doesn't contribute to the main framework.
- Maintenance.** Mulches - replenish to original depth and hand-weed as necessary, at least once annually.
- Maintenance.** Watering - As necessary to ensure good establishment. In periods of dry weather apply sufficient water to maintain healthy growth. Allow 10L/m2 to planting beds and 20L/L per tree, twice a week, during the growing season (based on 800mm dia. rootball). Irrigation operations to be carried out for two full growing seasons. In accordance with BS 8545
- Maintenance.** Refirming - Ensure that all trees and shrubs are firmly bedded in the ground after strong winds, frost heave or other disturbances.
- Maintenance.** Proposed Hedges - Prune hedge annually during winter period to shape and/or promote bushy growth. All hedges adjoining the public highway and in residential areas to be maintained at a maximum 0.6m height to ensure compliance with highway safety in Manual for Streets and ensure site lines. Apply compost / fertiliser twice yearly (years 1-3). Remove guards / stakes at end of year 5.
- Maintenance.** Grass Areas - Remove litter, twigs and debris prior to first cut of each Spring. Mow lawn areas regularly, cutting to a height of 35mm, allowing 16 cuts per season. Wildflower meadows and areas under tree canopies to be cut 4 times to a height of 50mm or greater in the first season, and thereafter 3 times. Second growing season onwards cut in October, March and August after flowering to a height of 50 -75 mm. Meadow grassland is not cut from spring through to late July/August to give the sown species an opportunity to flower. After flowering in July or August take a 'hay cut': cut back with a scythe, petrol strimmer or tractor mower to c 50mm. Leave the 'hay' to dry and shed seed for 1-7 days then remove from site. All arisings to be removed.
- Maintenance.** Bioereatment Areas - Remove litter, weeds and debris. Weeds to be cleared by hand with inspections made regularly through the growing season. During winter, remove any dead or un-tidy plants, although it is good to leave some dead stems and seed heads for wildlife.
- Protection/Reinstatement** - Regularly inspect all planting and grassed areas, eg. once a month, for any pest damage or vandalism/damage caused by others. Any damaged to be reported to the Employer and rectified in the next available season by replacement planting or reseedling/ turfing, and protective measures if required.

MANAGEMENT NOTES:

- Management.** Existing trees to be retained are to be protected by fencing to BS 5837:2012, erected prior to construction commencing and maintained during building operations.
- Management.** Tree surgery to be carried out by an approved contractor in accordance with BS 3998:2010 and with the prior permission of the Local Authority. Existing trees are to have major deadwood and broken branches removed for safety reasons. Refer to Tree Survey.

GENERAL NOTES:

- Trees and Plants substitution.** Should tree and plants species and size not be available as specified an equal substitute will be agreed with the LPA.

PLANNING

Project
Haslehead Park, Knowsley

Drawing Title			
Landscape Proposals			
Specification Sheet 01			
Date	Scale	Drawn by	Check by
08.11.22	NTS @A0 NTS @A2	SC	JH
Project No	Drawing No	Revision	
33678	RG-L-02-01	C	