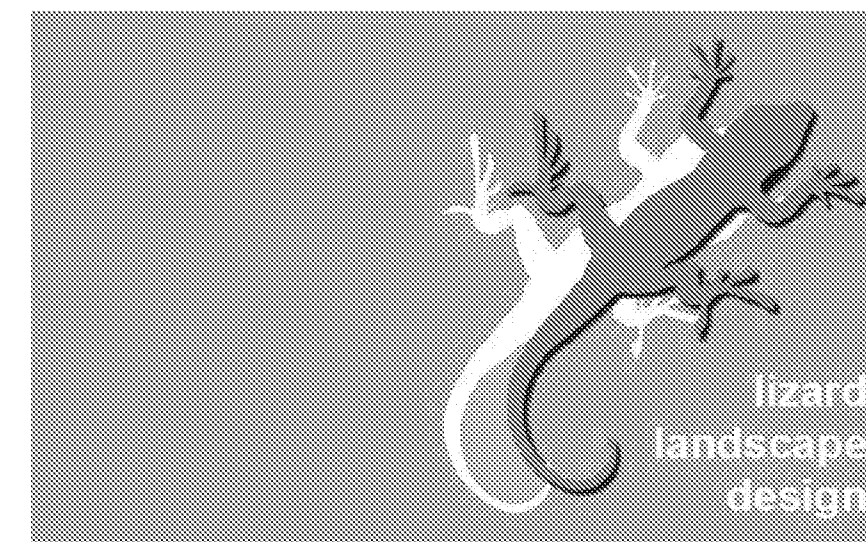


WEST SUSSEX COUNTY COUNCIL



ANGEL'S NURSERY

YAPTON ROAD, BARNHAM, WEST SUSSEX

OUTLINE LANDSCAPE SCHEME DESIGN

June 2016

LLD1006/Rev00/MZ/21.06.16

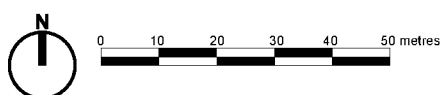
1. Introduction

Lizard Landscape Design and Ecology has been commissioned to develop an Outline Landscape Scheme Design for the proposed development at the former Angel's Nursery site in Barnham, West Sussex.

The development proposal introduces a residential scheme of 95 no. new dwelling houses, including affordable housing opportunities, enhanced landscape and SUDS infrastructure including retention basin.

The emerging scheme accounts for improved internal pedestrian and cycling connectivity with adjacent developments thus catering for building new community relationships with existing neighbourhood.

The proposed landscape scheme is envisaged as an extension and setting for the built environment of the proposed residential architecture. Landscape design and planting selection have been considered and tailored to enhance the sense of place while respecting the tranquility of the semi-rural context of Barnham.



2. Context

The development site is located in south-eastern part of the village of Barnham, between Chichester, Bognor Regis, Arundel and Littlehampton. The local planning authority is Arun District Council, West Sussex.

The former plant nursery site is located immediately at Yapton Road, connecting the village with A259 from the south. Adjacent to the site to the east is the former caravan site, while the southern edge meets the other existing nursery grounds. Opposite the development site, across the highway, there are other individual residential properties.

The development site enjoys the proximity of the newly built Community Hall with expansive recreational ground (including playground and a health trail). From the site, it is a walkable distance to Barnham train station and local shops. Along Yapton Road to the east there is John Baker’s Mill listed as a Grade II* building; now converted to residential use.



3. Current State

The site of the proposed development is approx. 3.5 ha located at the former Angel's Nursery. The remnant of the former use is a single detached derelict building in the northern part, adjacent to previous entrance gate.

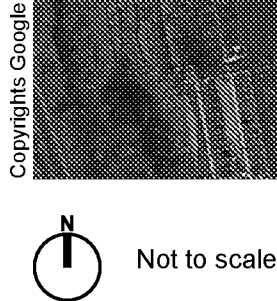
Undeveloped parts of the site are covered in synanthropic vegetation with groups and hedgerows of trees. Two groups of trees stand out boldly over the site shaping the skyline as observed from outside. Within those, a group of five poplars and two oaks, together with a solitary pine next to the access gate are protected by a Tree Preservation Order TPO/BN/1/10.

Along the southern edge of the site runs a drainage ditch collecting water from four other ditches running perpendicularly across the site and along the eastern and western boundaries.

Two sewer easements have been identified to run through the site in the northern and southern parts rendering limitations on development and construction proposals as well as on planting selection within the easement zones.



- LEGEND:
- TPO-protected Trees
 - Existing Building
 - Site Boundary
 - Sewer Easements
 - Drainage Ditch





LEGEND:

	Site Boundary
	Existing Trees
	Existing Linear Vegetation
	Proposed Signature Tree
	Proposed Entrance Avenue Tree Planting
	Street Tree Zone
	Boundary Treatment - Roadside
	Boundary Treatment - Ecological
	Sewer Easement - 3m each side of central line
	Ditch Easement - 3m each side
	Existing Understorey Vegetation
	Proposed Private Residential Green Spaces
	Proposed Residential Frontage Treatment
	Proposed Planting to Public Spaces
	Proposed Planting to Ecological Buffer
	Proposed Planting to Recreational Spaces
	Proposed Planting to Parking Areas
	SUDS - Retention Basin
	Hard Landscape

4. Soft Landscape Strategy

The Soft Landscape Strategy has been developed to provide a setting for the proposed architectural scheme in the semi-rural context of Barnham as well as to emphasise the sense of place and create opportunities for ecological enhancement.

The core elements of the strategy are:

- enhanced arrival experience by carefully designed entrance zone;
- boundary treatment, creating a transitional buffer zone between the street and the development to the north as well as providing and enhancing connectivity with existing landscape features along the site boundary;
- planted public spaces creating opportunities to for both the residents and the wildlife;
- open spaces for recreation and play;
- streetscapes enhanced by street and car park trees as well as residential frontages with low hedges;
- Ecological Buffer zone around the proposed retention basin to enhance the ecological connectivity along the ditches and creating a mozaic of habitats for wildlife's benefit.



5. Planting Typology

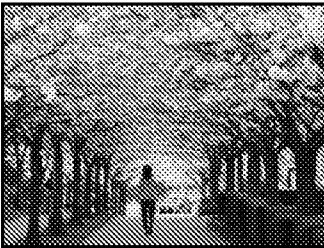
The aforementioned Soft Landscape Strategy sets out the principles of soft landscape characterisation helping to enhance the sense of place and to mitigate the impact of the emerging built environment on the visual perception of the site and its ecology.

The proposed Planting Typology has been developed to create specific character of different types of spaces and landscape components within the development thus enhancing the sense of orientation and consistency of composition as well as providing sympathetic plant selection for more ecologically sensitive locations.



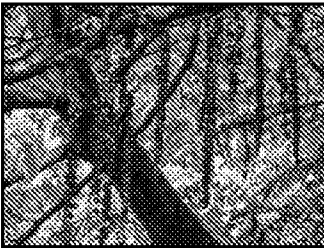
EXISTING VEGETATION

Existing trees, hedgerows and understorey vegetation to be retained, enhanced and incorporated into landscape proposals to safeguard the existing habitats and shelter.



ENTRANCE AVENUE

Avenue of trees of exceptionally ornamental character to emphasise the entrance zone thus enhancing the experience of arrival and sense of attachment to the place.



SIGNATURE TREE

A tree of outstanding visual amenity, proposed to compensate for the loss of the TPO-protected pine. Selected Caucasian Wingnut tree (*Pterocarya fraxinifolia*) has been proposed for its association with Angels’ wings (Greek *pteron* - “wing”) and visual merits. Quick growth and dramatic habit, rendered by the large pinnate leaves and pendulous long inflorescences turning golden and brown in Autumn, will make this tree a real hallmark of the development.



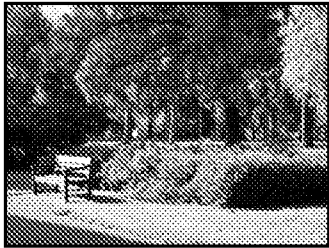
ROADSIDE BOUNDARY TREATMENT (BUFFER)

Mixed native and ornamental planting strip to the development frontage, creating a green buffer and streetscape enhancement feature.



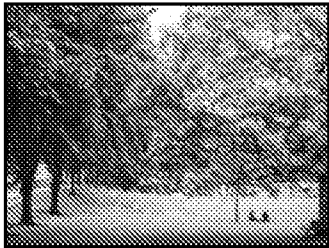
RESIDENTIAL FRONTAGE TREATMENT

Low evergreen hedges forming the defensive boundary treatment to the proposed dwellings. The sense of place would be envisaged to be enhanced by assigning different species for seven groups of houses/ neighbourhoods.



PUBLIC SPACES

Pockets of composed planting to public places around the development. A selection of native and ornamental species drifting in the swathes of wildflowers has been selected to contribute to the visual amenity of the walkable neighbourhood and to introduce opportunities for local fauna to forage and find shelter.



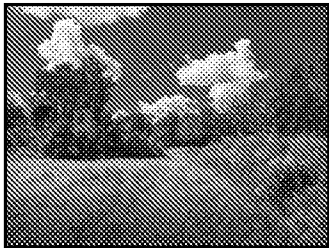
RECREATIONAL SPACES

A mix of native and ornamental species selected to enhance the play experience and leisure time outside. The composition and visitor’s experience are enhanced by species with tactile scaly, ruptured bark and fragrant blossom or foliage.



CAR PARKING AND STREET TREES

Native trees selected to line the streets and provide canopies over car parking spaces.



ECOLOGICAL BUFFER AND ECOLOGICAL BOUNDARY TREATMENT

Areas and features of ecological enhancement. Native, mixed-species hedges to strengthen the connectivity with existing features and adjacent ecosystems. Layered and diverse native planting together with log and brash piles will provide increased opportunities for foraging, hibernation and shelter for local fauna.



6. Feature Calendar

Planting selection and design has been tailored to provide value for amenity and wildlife alike.

The adjacent table summarises the features and aspects of selected species throughout the year.

KEY:

- Valuable for insects
- Good honey plant
- Valuable for birds
- Good for shelter
- Interesting for flowers (colourful/ white)
- Interesting for fruits (colourful/ white)
- Evergreen/ marcescent (retaining spent foliage)
- Coniferous
- Interesting for shoots (twigs, bark)
- Interesting foliage
- Autumnal colouration (indicative colour)
- Interesting for fragrance
- Interesting to touch and feel
- Visually interesting
- Suitable to taste/ edible
- Contributing to hearing sensations

Group	Species Name	Origins	Merits	Winter		Spring		Summer		Autumn	
Trees	Acer campestre	N									
	Acer griseum										
	Aesculus hippocastanum										
	Amelanchier lamarckii										
	Crataegus monogyna (also in hedges)	N									
	Salix cinerea	N									
	Pinus sylvestris	N									
	Prunus avium 'Plena'										
	Pterocarya fraxinifolia										
	Tilia cordata	N									
Shrubs	Buxus sempervirens	N									
	Cornus sanguinea	N									
	Cornus stolonifera 'Flaviramea'										
	Frangula anlus	N									
	Lavandula angustifolia										
	Osmanthus x burkwoodii										
	Prunus spinosa	N									
	Rosa 'White Flower Carpet'										
	Sambucus nigra	N									
	Sarcococca hookeriana										
	Viburnum opulus	N									
Herbaceous Perennials	Viburnum tinus										
	Acanthus spinosus										
	Allium schoenoprasum										
	Bergenia 'Purpurea'										
	Eupatorium cannabinum	N									
	Euphorbia amygdaloides	N									
	Helleborus niger										
	Hyacinthoides non-scripta	N									
	Lamium galeobdolon 'Silberteppich'										
	Myosotis sylvatica	N									
	Salvia pratensis	N									
	Symphytum officinale	N									
	Tiarella cordifolia										
Ornamental Grass	Carex pendula	N									
	Deschampsia cespitosa	N									
	Stipa tenuissima										
Ferns	Asplenium (Phyllitis) scolopendrium	N									



7. Outline Plant Schedule and Specifiaction

The following Outline Plant Schedule presents the proposed plant selection and an outline specification envisaged ast suitable for specific zones and spaces set out in the Soft Landscape Strategy.



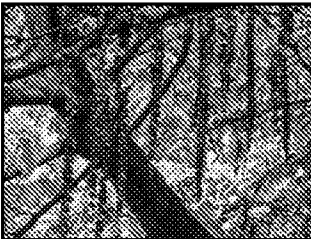
ENTRANCE AVENUE

Species	Stock Specification	Root Conditions
<i>Prunus avium</i> ‘Plena’	14-16 cm Standard Extra Heavy Height: 4.0 - 4.5 m Clear stem height: min. 220 cm	RB/ CG



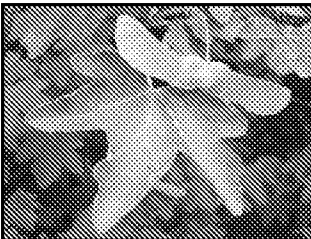
STREET TREES

Species	Stock Specification	Root Conditions
<i>Tilia cordata</i> ‘Greenspire’	10 - 12 cm Standard Selected Height: 3.0 - 3.5 m Clear stem height: min. 220 cm	RB/ CG



SIGNATURE TREE

Species	Stock Specification	Root Conditions
<i>Pterocarya fraxinifolia</i>	30-35 cm Semi-mature Height: 6.0 - 6.5 m Clear stem height: min. 220 cm	RB/ CG

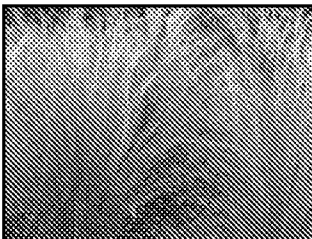
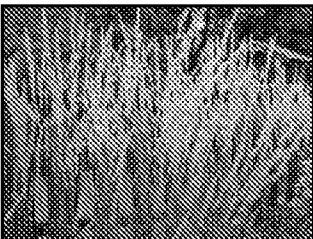
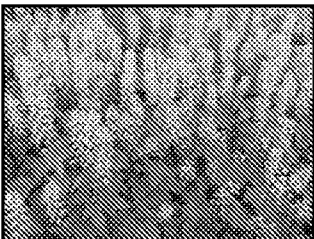
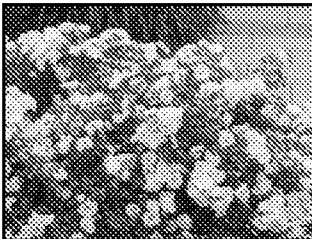
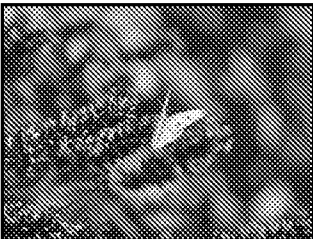
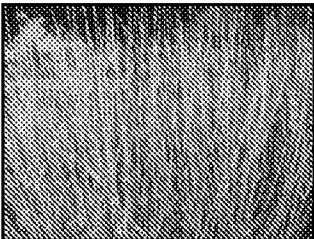


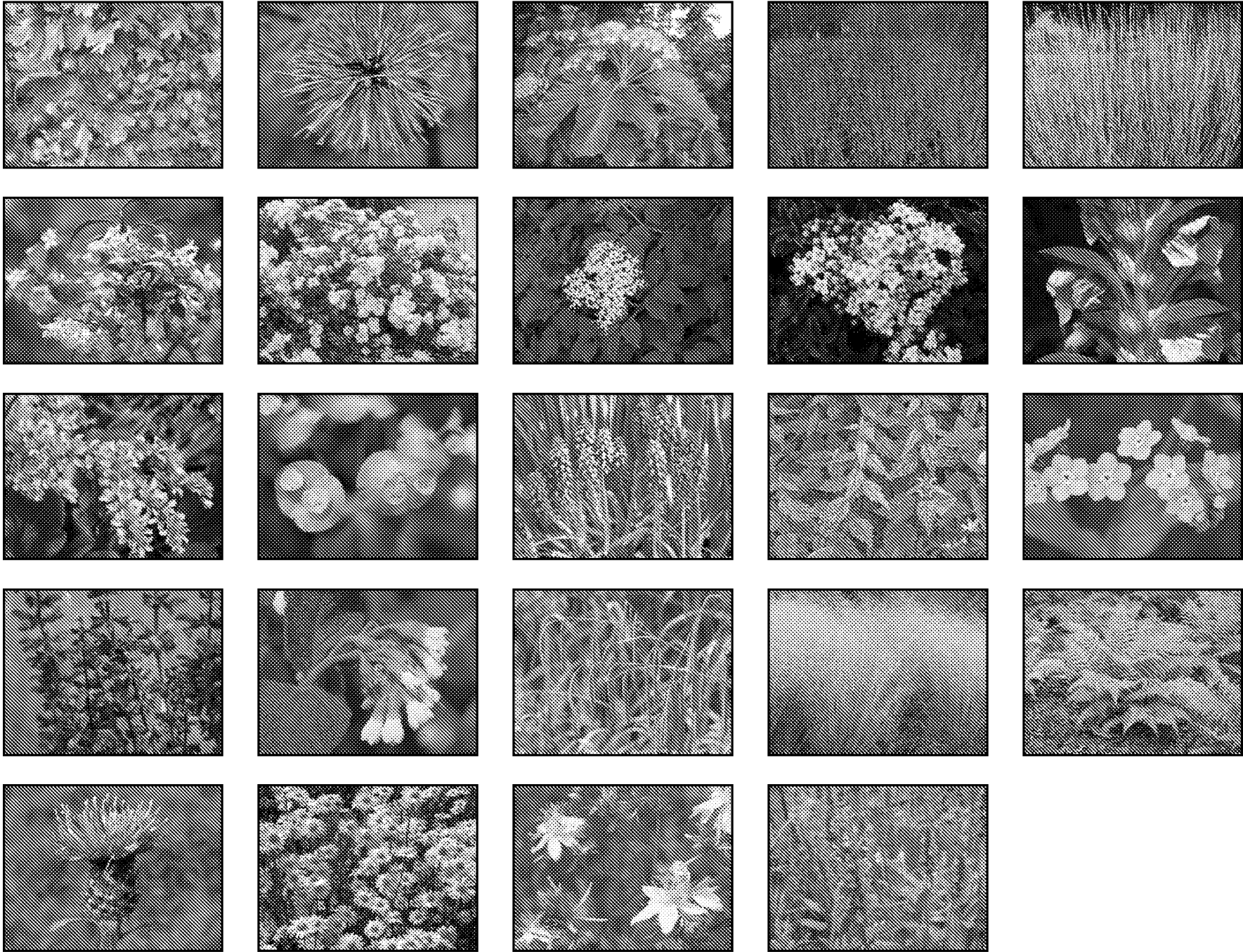
CAR PARKING

Species	Stock Specification	Root Conditions
<i>Acer campestre</i>	10 - 12 cm Standard Selected Height: 3.0 - 3.5 m Clear stem height: min. 220 cm	RB/ CG

ROADSIDE BOUNDARY TREATMENT (BUFFER)

Plant Group	Species	Stock Specification	Root Conditions
Shrubs	<i>Cornus sanguinea</i> 'Midwinter Fire'	Height: varies 40 - 80 cm	3-10l CG
	<i>Cornus stolonifera</i> 'Flaviramea'		
	<i>Lavandula angustifolia</i>		
	<i>Osmanthus x burkwoodii</i>		
	<i>Rosa</i> 'White Flower Carpet'		
	<i>Sarcococa hookeriana</i> var. <i>humilis</i>		
	<i>Viburnum tinus</i>		
Herbaceous Perennials	<i>Allium schoenoprasum</i>	Healthy specimens	3-5l CG
	<i>Salvia nemorosa</i> 'Caradonna'		
	<i>Tiarella cordifolia</i>		
Ornamental Grasses	<i>Calamagrostis acutiflora</i> 'Carl Foerster'		
	<i>Stipa tenuissima</i>		
Ferns	<i>Athyrium filix-femina</i>		
Wildflower Meadows	Examples: <i>Achillea fillipendulina</i> “Cloth of Gold” <i>Rudbeckia fulgida</i> Var. <i>Deamii</i> <i>Coreopsis lanceolata</i> <i>Gallium verum</i> <i>Leucanthemum vulgare</i> <i>Ranunculus acris</i>		
	'Golden Summer' Meadow Mix		





■ PLANTING TO PUBLIC SPACES

Plant Group	Species	Stock Specification	Root Conditions
Trees	<i>Crataegus monogyna</i>	10-12 cm Standard Selected Height: 3.0 - 3.5 m	RB/ CG
	<i>Pinus sylvestris</i>		
	<i>Sorbus aria</i>		
Shrubs	<i>Cornus sanguinea</i> 'Midwinter Fire'	Height: varies 40 - 80 cm	3-10l CG
	<i>Cornus stolonifera</i> 'Flaviramea'		
	<i>Osmanthus burkwoodii</i>		
	<i>Rosa</i> 'White Flower Carpet'		
	<i>Sambucus nigra</i>		
	<i>Viburnum tinus</i>		
Herbaceous Perennials	<i>Acanthus spinosus</i>	Healthy specimens	3-5l CG
	<i>Bergenia</i> 'Sunningdale'		
	<i>Euphorbia amygdaloides</i>		
	<i>Hyacinthoides non-scripta</i>		
	<i>Lamium galeobdolon</i> 'Silberteppich'		
	<i>Myosotis sylvatica</i>		
	<i>Salvia pratensis</i>		
Grasses	<i>Symphytum officinale</i>		
	<i>Carex pendula</i>		
	<i>Deschampsia cespitosa</i>		
Ferns	<i>Athyrium filix-femina</i>		
Wildflower Meadows	Examples: <i>Galium verum</i> <i>Centaurea nigra</i> <i>Centaurea scabiosa</i> <i>Leucanthemum vulgare</i> <i>Hypericum perforatum</i> <i>Betonica officinalis</i>	'Native Meadow' Mix	

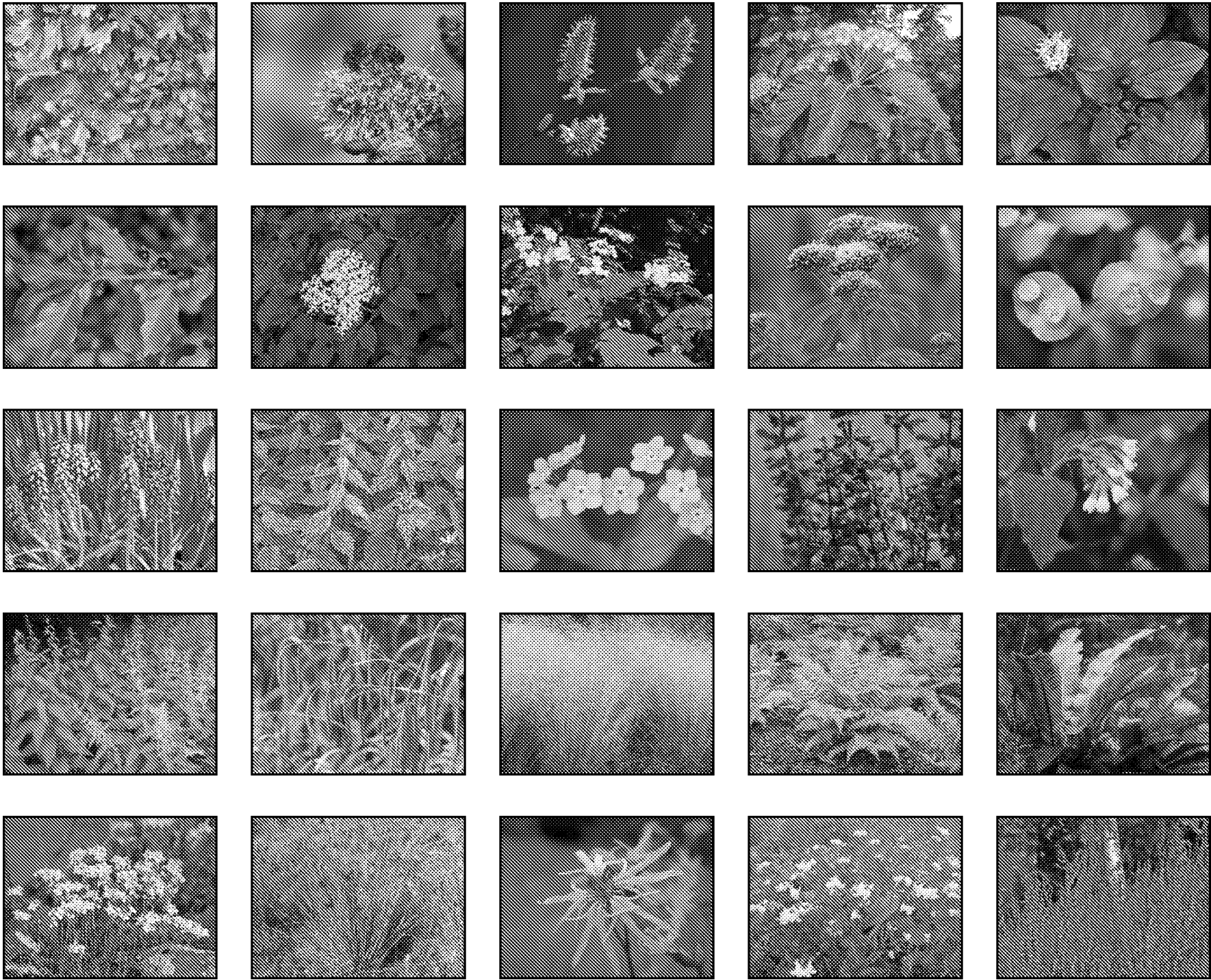


PLANTING TO RECREATIONAL SPACES

Plant Group	Species	Stock Specification	Root Conditions
Trees	<i>Acer griseum</i>	Multi-stem Height: 2.5 - 3.0 m	RB/ CG
	<i>Aesculus hippocastanum</i>	14-16 cm Standard Extra Heavy Height: 4.0 - 4.5 m Clear stem height: min. 220 cm	
	<i>Amelanchier lamarckii</i>	10-12 cm Standard Selected Height: 3.0 - 3.5 m	
	<i>Crataegus monogyna</i>	Multi-stem Height: 2.5 - 3.0 m	
	<i>Sorbus aria</i>	10-12 cm Standard Selected Height: 3.0 - 3.5 m	
Shrubs	<i>Cornus sanguinea</i>	Height varies: 60 - 80 cm for larger species	5-10l CG
	<i>Cornus sanguinea</i> 'Midwinter Fire'		
	<i>Cornus stolonifera</i> 'Flaviramea'		
	<i>Osmanthus burkwoodii</i>		
	<i>Sambucus nigra</i>		
	<i>Sarcococa hookeriana</i> var. <i>humilis</i>		
	<i>Viburnum tinus</i>		
Herbaceous Perennials	<i>Acanthus spinosus</i>	Healthy specimens	3-5l CG
	<i>Allium schoenoprasum</i>		
	<i>Bergenia</i> 'Sunningdale'		
	<i>Eupatorium cannabinum</i>		
	<i>Euphorbia amygdaloides</i>		
	<i>Helleborus niger</i>		
	<i>Hyacinthoides non-scripta</i>		
	<i>Lamium galeobdolon</i> 'Silberteppich'		
	<i>Myosotis sylvatica</i>		
	<i>Salvia pratensis</i>		
Grasses	<i>Symphytum officinale</i>	Healthy specimens	3-5l CG
	<i>Tiarella cordifolia</i>		
	<i>Carex pendula</i>		
	<i>Deschampsia cespitosa</i>		
	<i>Stipa tenuissima</i>		

Plant Group	Species	Stock Specification	Root Conditions
Ferns	<i>Athyrium filix-femina</i>	Healthy specimens	3-5l CG
	<i>Asplenium scolopendrium</i>		
Wildflower Meadows	Examples: <i>Galium verum</i> <i>Centaurea nigra</i> <i>Centaurea scabiosa</i> <i>Leucanthemum vulgare</i> <i>Hypericum perforatum</i> <i>Betonica officinalis</i>	'Native Meadow' 'Golden Summer' Meadow	
	<i>Achillea fillipendulina</i> "Cloth of Gold" <i>Rudbeckia fulgida</i> Var. <i>Deamii</i> <i>Coreopsis lanceolata</i> <i>Gallium verum</i> <i>Leucanthemum vulgare</i> <i>Ranunculus acris</i>		





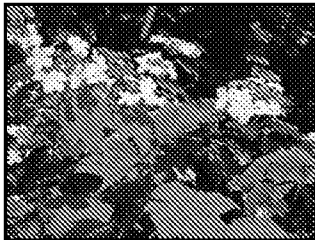
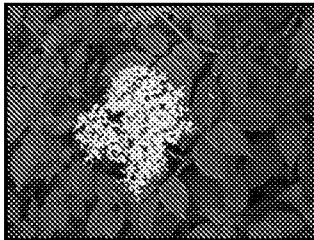
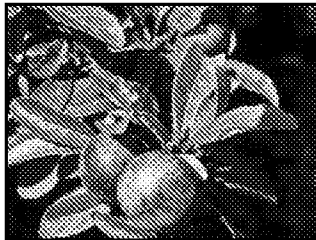
■ ECOLOGICAL BUFFER PLANTING

Plant Group	Species	Stock Specification	Root Conditions
Native Trees	<i>Crataegus monogyna</i>	Transplants/ whips Height: 1.75 - 2.0 m	BR
	<i>Salix caprea</i>		
	<i>Salix cinerea</i>		
	<i>Sorbus aria</i>		
Native Shrubs	<i>Cornus sanguinea</i>	Height: 60 - 80 cm	BR
	<i>Frangula alnus</i>		
	<i>Sambucus nigra</i>		
	<i>Viburnum opulus</i>		
Herbaceous Perennials	<i>Eupatorium cannabinum</i>	Healthy specimens	3-5l CG
	<i>Euphorbia amygdaloides</i>		
	<i>Hyacinthoides non-scripta</i>		
	<i>Lamium galeobdolon</i>		
	<i>Myosotis sylvatica</i>		
	<i>Salvia pratensis</i>		
Grasses	<i>Symphytum officinale</i>	Retain patches of existing stands	
	<i>Urtica dioica</i>		
	<i>Carex pendula</i>		
Ferns	<i>Deschampsia cespitosa</i>	Healthy specimens	3-5l CG
	<i>Asplenium scolopendrium</i>		
	<i>Athyrium filix-femina</i>		
Wildflower Meadows	Examples: <i>Galium verum</i> <i>Centaurea nigra</i> <i>Centaurea scabiosa</i> <i>Leucanthemum vulgare</i> <i>Hypericum perforatum</i> <i>Betonica officinalis</i>	'Native Meadow' Mix 'Water's Edge' Mix	
	<i>Cardamine pratensis</i>		
	<i>Juncus effuses</i>		
	<i>Centaurea scabiosa</i>		
	<i>Lychnis flos-cuculi</i>		
	<i>Lotus pendunculatus</i>		
	<i>Rumex avcetosa</i>		



■ ECOLOGICAL BOUNDARY TREATMENT

Plant Group	Species	Stock Specification	Root Conditions
Shrubs/ Hedges	<i>Crataegus monogyna</i>	Height: 80 - 100 cm	BR
	<i>Prunus spinosa</i>		
	<i>Sambucus nigra</i>		
	<i>Viburnum opulus</i>		



■ RESIDENTIAL FRONTAGE TREATMENT

Plant Group	Species	Stock Specification	Root Conditions
Shrubs/ Hedges	<i>Buxus sempervirens</i>	Height: varies 40 - 80 cm	BR/ RB/ CG
	<i>Euonymus fortunei</i>		
	<i>Hypericum</i> 'Hidcote'		
	<i>Ilex crenata</i>		
	<i>Prunus laurocerasus</i> 'Otto Luyken'		
	<i>Sarcococa hookeriana</i> var. <i>humilis</i>		
	<i>Viburnum davidii</i>		

