



NOTE: Extent of existing trees within St Catherine's Wood to be reviewed on site during Stage 4 due to limited topographical survey information in some areas. Proposed new trees subject to review, symbols shown on drawing are indicative only and do not represent the precise number of proposed new tree planting.

M7 - Native Hedgerow Mix
Example species include; Hawthorn (*Crataegus monogyna*), Bird Cherry (*Prunus padus*), Alder (*Alnus glutinosa*), Field Maple (*Acer campestre*), Dog Rose (*Rosa canina*), Hazel (*Corylus avellana*), Blackthorn (*Prunus spinosa*)

Regionally scarce Yellow Bird's-nest present in this area and to be retained where possible. Any loss of this population would be a significant adverse impact of high regional significance.

M4 - Ornamental Planting Mix;
Introduction of native (minimum 50%) and non native tree species including species bearing berries and nectar. Example species in mix include; Alder (*Alnus glutinosa*), Beech (*Fagus sylvatica*), Silver Birch (*Betula pendula*), Elm (*Ulmus procera*), Hornbeam (*Carpinus betulus*), English Oak (*Quercus robur*) and Yew (*Taxus baccata*).
Mix of native & exotic planting species, providing year round interest and supporting a range of pollinator species. Example species in mix include; Lady's Mantle (*Alchemilla mollis*), Aster x frikartii 'Monchi', Yarrow (Aster x frikartii), Tussock Grass (*Deschampsia cespitosa*), Martin's Spurge (*Euphorbia x martinii*), Lesser Catmint (*Calamintha nepeta*), Black-Eyed Susan (*Rudbeckia fulgida* var. *deamii*) & Purpletop Vervain (*Verbena bonariensis*)

M5 - Ornamental Viaduct Mix;
Mix of native & exotic species, providing an enhanced version of the pioneer habitat. Species suitable for growing in a gravel substrate, in dry conditions. Example species include; Oxeye Daisy (*Leucanthemum vulgare*), Eryngium sp., Calamagrostis x acutiflora 'Karl Foerster', Aquilegia alpine, Armeria maritima, Artemisia sp., Thymus vulgaris, Veronica spicata, Eriogon karvinskianus, Euphorbia sp., Sedum sp., Scabious sp.

M2 - Woodland Matrix Mix;
Introduction of native tree species including species bearing berries and nectar. Example species in mix include; Alder (*Alnus glutinosa*), Beech (*Fagus sylvatica*), Silver Birch (*Betula pendula*), Elm (*Ulmus procera*), Hornbeam (*Carpinus betulus*), English Oak (*Quercus robur*) and Yew (*Taxus baccata*). Addition of Black Poplar (*Populus nigra*) to support Greater Manchester Local Biodiversity Action Plan.

Proposed shrub layer to create a varied vegetation structure of varying heights. Example species in mix include; Blackthorn (*Prunus spinosa*), Field maple (*Acer campestre*), Guelder rose (*Viburnum opulus*), Hawthorn (*Crataegus monogyna*), Holly (*Ilex aquifolium*), Rowan (*Sorbus aucuparia*) and Spindle (*Euonymus europaeus*)

Proposed field & ground layer. Example species in mix include; Field Rose (*Rosa arvensis*), Bluebells (*Hyacinthoides non-scripta*), Wood anemone (*Anemone nemorosa*), Wild garlic (*Allium ursinum*), Dog violet (*Viola riviniana*), Woodruff (*Galium odoratum*), Wood Spurge (*Euphorbia amygdaloides*), Honeysuckle (*Lonicera periclymenum*), Male fern (*Dryopteris filix-mas*), Hart's-tongue fern (*Asplenium scolopendrium*) & Soft shield fern (*Polystichum setiferum*)

M6 - Aquatic marginal vegetation.
Example species include; Iris Pseudacorus (Yellow Flag Iris), Veronica beccabunga (Brooklime), Lythrum salicaria (Purple Loosestrife), Mentha aquatica (Water Mint), Juncus effusus (Soft Rush), Carex acuta (Pond Sedge), Caltha palustris (Marsh Marigold)

Bats:
Trees that are greater than 50cm diameter and more than 120 years old are most likely to contain roosts, and whilst the majority of trees on site are unsuitable for bats, there are some substantial trees present which offer roosting opportunities for bats. Features include rot holes, woodpecker holes, loose/flaking bark or dense ivy.

Tree species that are favoured by roosting bats have been considered and should be planted across the masterplan. These include Ash, Beech, Elm, Oak, Scots Pine and Willow. Provision of artificial nesting opportunities in the form of boxes will also be attached to trees. The River Irk is a key foraging habitat for bats. This will be further enhanced by proposals to naturalise the channel which will have a beneficial impact on in-stream invertebrates and therefore provide an enhanced food source for bats.

M3 - Woodland Edge Planting Mix;
Creation of clearings will allow for a rich woodland edge mix of native species to flourish. Example species in mix include; Foxgloves (*Digitalis purpurea*), Cow parsley (*Anthriscus sylvestris*), Primrose (*Primula vulgaris*), Red campion (*Silene dioica*), Male fern (*Dryopteris filix-mas*), Tessel (*Dipsacus fullonum*), Verbascum (Great Mullein) & Betony (*Betonica officinalis*)

M1 - Retain & enhance existing woodland
Selective retention of existing species (considering biological, cultural or aesthetic value) such as Ash, Oak, Sycamore, Field Maple, Silver Birch, Goat Willow and Elder, based on results from the Arboricultural survey.

Introduction of native tree species throughout the woodland to increase species diversity, including species bearing berries and nectar. Example species in mix include; Alder (*Alnus glutinosa*), Beech (*Fagus sylvatica*), Silver Birch (*Betula pendula*), Elm (*Ulmus procera*), Hornbeam (*Carpinus betulus*), English Oak (*Quercus robur*) and Yew (*Taxus baccata*)

Selective rotational coppicing of species such as Common Hazel to create a broad, open habit with a light canopy and encourage growth of an understorey layer. Selective thinning of smaller specimens will also create room for neighbouring specimens move room to grow.

Proposed shrub layer to create a varied vegetation structure of varying heights. Example species in mix include; Blackthorn (*Prunus spinosa*), Field maple (*Acer campestre*), Guelder rose (*Viburnum opulus*), Hawthorn (*Crataegus monogyna*), Holly (*Ilex aquifolium*), Rowan (*Sorbus aucuparia*) and Spindle (*Euonymus europaeus*)

Proposed field & ground layer. Example species in mix include; Field Rose (*Rosa arvensis*), Bluebells (*Hyacinthoides non-scripta*), Wood anemone (*Anemone nemorosa*), Wild garlic (*Allium ursinum*), Dog violet (*Viola riviniana*), Woodruff (*Galium odoratum*), Wood Spurge (*Euphorbia amygdaloides*), Honeysuckle (*Lonicera periclymenum*), Male fern (*Dryopteris filix-mas*) & Soft shield fern (*Polystichum setiferum*)

Birds:
Existing woodland in St.Catherine's Wood supports nesting & breeding birds, including Blackbird, Blackcap, Blue Tit, Bullfinch, Chaffinch, Goldcrest, Long-tailed Tit, Robin, Song Thrush, Treecreeper and Wren. These should be retained where possible, and a more varied woodland structure created with areas of denser scrub to provide further habitats for nesting birds.

The River Irk supports breeding Grey Wagtail, Mallard and Moorhen, and further upstream the Kingfisher & Dipper. The creation of bankside habitats and enhancing in-stream biodiversity will help support existing species, and provide additional opportunities for a wider range of birds associated with aquatic habitats.

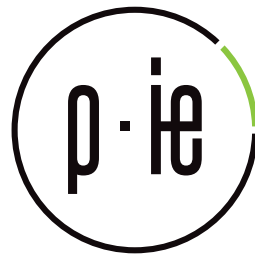
The Black Redstart is a Schedule 1 species, adapted to live in urban areas. It is identified within the Greater Manchester Local Biodiversity Action Plan as a locally key species. It prefers 'rocky' habitat offered in towns, docklands and industrial areas, and usually on a building ledge or a hole in a wall. The masterplan can offer foraging opportunities to support local populations of the Black Redstart, in addition to song post locations.

NOTE: Future Plot Extents are Indicative Only

PROPOSED SOFTWORKS

- PROPOSED TREES PLANTING
Subject to further detailed design
- EXISTING TREES RETAINED
Subject to further detailed design
- EXISTING WOODLAND ENHANCED
To St Catherine's Wood
Refer to drawing for notes
Approx area: 1225m²
- WOODLAND MATRIX MIX
To St Catherine's Wood
Refer to drawing for notes
Approx area: 2960m²
- WOODLAND EDGE MIX
To St Catherine's Wood
Refer to drawing for notes
Approx area: 1205m²
- ORNAMENTAL PLANTING
To Red Bank Terraces
Refer to drawing for notes
Approx area: 3105m²
- ORNAMENTAL PLANTING
To Viaduct Linear Park
Refer to drawing for notes
Approx area: 1412m²
- AQUATIC MARGINAL VEGETATION
To River Edge
Refer to drawing for notes
Approx area: 260m²
- HEDGE PLANTING
Hedge native species hedgerow mix to northern boundary
Approx area: 73m², Approx length: 50m

Rev	Date	Description	By	Chkd	Appd	Auth
P02.04	02.03.22	Final Draft Planning	CL	MS	GB	GB
P02.03	14.02.22	Draft Planning	CL	MS	GB	GB
P02.02	04.02.22	Draft Planning	BM	MS	GB	GB
P02.01	27.01.22	Draft Planning	BM	MS	GB	GB
P01	17.12.21	Stage 3 Issue	SR	MS	GB	GB
P01.02	01.12.21	For Information	SR	MS	GB	GB
P01.01	26.11.21	For Information	SR	MS	GB	GB



Client



Project Title

Victoria North HIF Infrastructure

Key Plan

Drawing Title

Planting & Habitats Plan
For Approval

Scale at A1 1:500			Plant-IE Job No 2700		
Role Landscape Architect					
Suitability S2					
Rev	By	Chkd	Appd		
P02.04	SR	MS	MS		
	Date	Date	Date		
	17.12.21	17.12.21	17.12.21		
Name					
Project VNIF	Originator PLA	Volume ZZ	Location YYY	Type DR	Role L
					Number 1008