envirotech

Ecological Consultants
Environmental and Rural Chartered Surveyors

Habitat Management and Management Plan (HMMP)

Planning 140206/FO/2024

Dakota Manchester Airport

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ACCURACY OF REPORT

This report has been compiled based on the methodology as detailed and the professional experience of the surveyor. Whilst the report reflects the situation found as accurately as possible, all of the protected species this survey covers are wild and can move freely from site to site. Their presence or absence detailed in this report does not entirely preclude the possibility of a different past, current or future use of the site surveyed.

We would ask all clients acting upon the contents of this report to show due diligence when undertaking work on their site and/or in their interaction with protected species. If protected species are found during a work programme, and continuing the work programme could result in their disturbance, injury or death, either directly or indirectly an offence may be committed. If in doubt, stop work and seek further professional advice.

Quality and Environmental Assurance

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1. INTRODUCTION

The following Habitat Management and Monitoring Plan (HMMP) has been prepared by Envirotech and details the habitat creation proposals and the subsequent future management of areas of green infrastructure associated with the new Dakota Hotel at Manchester.

This management plan covers thirty years management and provides information on the management of retained and newly-created habitats within the site boundary in order to ensure their establishment and safeguard their long-term biodiversity value.

The management plan and objectives should be reviewed after 3 years and adjusted if required but indicative management requirements are specified for a full 30 years.

The plan should be read in conjunction with the landscape plans and ecology surveys to provide additional context of the site.

2. FACTORS INFLUENCING MANAGEMENT PROPOSALS

Habitat Creation

All habitat creation will comprise native species appropriate to the local area and or be of benefit to wildlife.

Wildflower grassland will be planted within the open spaces of the site. New shrub/ tree planting will reinforce and enhance existing planted areas adjacent the site.

Existing and Retained Habitats

Existing grassland to the roadside will be retained.

Other woodland; mixed and a ditch will be retained and enhanced.

All other habitat on the site at the start of works will be lost, with new habitat created in the same area.

3. OBJECTIVES AND HABITAT CREATION, ENHANCEMENT AND MANAGEMENT PRESCRIPTIONS

The following section provides the prescriptions and management objectives of the proposed and retained habitats. The management plan and objectives should be reviewed after 3 years and adjusted if required. The management plan will run for 30 years.

Some habitats have a default condition score and or they are targeted for "poor" condition so they need therefore only be created and then retained as the required general habitat type and do not need to be subject to detailed management. These habits are *"introduced scrub", "developed land sealed surface", "Non-native and ornamental hedgerow"* and *"Line of trees"*

Habitats with a condition score above "poor" need to be managed, rather than just created, and each area is split out as follows.

Neutral Grassland

Species-rich grassland will be sown to the site boundary and existing grassland will be oversewn and enhanced to the same condition as newly created grassland. Condition score to be at least MODERATE

Management Objective: create and maintain floristically diverse neutral grassland 1) Grassland is a good representation of the habitat type 2) Sward height is varied (at least 20% less than 7cm and 20% more than 7cm) 3) Cover of bare ground (including localised areas, for example, rabbit warrens) less than 10%. 4) Cover of bracken less than 5% 5) Cover of undesirable species (creeping thistle, spear thistle, curled dock, broad-leaved dock, common ragwort, common nettle, marsh ragwort, cow parsley and bracken) and damage less than 5%.

Ground Preparation and Sowing

To be sown from seed directly onto appropriately prepared areas. Areas will be sown during spring (April/early May) or preferably within the optimal period for lowland sites of autumn (late August to September), selecting a time when the soil is moist and can be worked but not flooded.

WILDFLOWER MEADOW SEED MIX
John Chambers Heritage Dual Purpose 80/20 Wildflower Seed Mix **Standard sowing rate: 5-g/m², Under/Overseeding Rate: 3-g/m²**
Main Species Included in the Mix: Corncockle, Field Poppy, Cornflower, Teasel, Wild Marjoram, Common Knapweed

In order to discourage more robust plant species and maintain low nutrient grassland (typically of greatest biodiversity value) it is recommended that no additional or imported top-soil or fertiliser be used in the creation of the species-rich grassland.

Management

The condition of the grassland would be reviewed within 6 months of its original seeding and any areas which have failed to establish would be re-seeded. To control any flush of annual weeds, the grassland would be cut 2-3 times upon reaching a height of 100mm within the first year of its development. In order to encourage the growth of yellow rattle and development of the meadow, the area should not be cut until after yellow rattle has finished flowering in late July. All arisings will be removed within a 48 hour period to a designated composting area or removed from site.

Following the initial year of its creation, the condition of grassland will be reviewed for the first 2 years for any areas of pernicious weeds (i.e. docks Rumex spp., thistles Cirsium spp. or ragwort Senecio spp.), which will be controlled by the spot-application of target herbicides.

In the second year and subsequent years, management to maintain the floristic diversity of the meadow grassland an annual 'hay cut' using a scythe, tractor ride on mower or strimmer to a height of c.50mm, in August or September.

All arisings should be removed to prevent nutrient enrichment of the sward after a 24-48 hour period, allowing seed drop and invertebrates to move back into the sward. Arisings should be removed to a designated composting area on or off-site.

Management will continue for 30 years.

Modified Grassland

Modified grassland will be sown to the site boundary. Condition score to be at least MODERATE

Management Objective: create and maintain floristically diverse grassland but will be amenity in nature

1) There are 6-8 vascular plant species per m2 present, including at least 2 forbs

2) Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble Rubus fruticosus agg. may be present).

3) Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.

4) Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens)

5) Cover of bracken Pteridium aquilinum is less than 20%.

6) There is an absence of invasive non-native plant species3 (as listed on Schedule 9 of WCA4).

Ground Preparation and Sowing

To be sown from seed directly onto appropriately prepared areas. Areas will be sown during spring (April/early May) or preferably within the optimal period for lowland sites of autumn (late August to September), selecting a time when the soil is moist and can be worked but not flooded.

FLOWERING LAWN SEED MIX
John Chambers Flowering Lawn 80% Grass Seed Wildflower Mix
Sowing rate: 5-g/m²
Low Maintenance Grass Seed, Cat's Ear, Germander Speedwell, Bulbous Buttercup, Daisy, Common Field-speedwell, White Clover

In order to discourage more robust plant species and maintain low nutrient grassland (typically of greatest biodiversity value) it is recommended that no additional or imported top-soil or fertiliser be used in the creation of the species-rich grassland.

Management

The condition of the grassland would be reviewed within 6 months of its original seeding and any areas which have failed to establish would be re-seeded. To control any flush of annual weeds, the grassland would be cut 2-3 times upon reaching a height of 100mm within the first year of its development. All arisings will be removed within a 48 hour period to a designated composting area or removed from site.

Following the initial year of its creation, the condition of grassland will be reviewed for the first 2 years for any areas of pernicious weeds (i.e. docks Rumex spp., thistles Cirsium spp. or ragwort Senecio spp.), which will be controlled by the spot-application of target herbicides.

In the second year and subsequent years, management to maintain the floristic diversity of the meadow grassland cut via mower to a height of c.25-50mm as required.

All arisings should be removed to prevent nutrient enrichment of the sward after a 24-48 hour period, allowing seed drop and invertebrates to move back into the sward. Arisings should be removed to a designated composting area on or off-site.

Management will continue for 30 years.

New Scrub Planting

This planting is intended to provide habitat and species enhancement. Condition score to be at least MODERATE

Management Objective: create and maintain functional mixed scrub

1) The parcel represents a good example of its habitat type - the appearance and composition of the vegetation closely matches its UKHab description

2) There is an absence of invasive non-native plant species (as listed on Schedule 9 of WCA5) and species indicative of suboptimal condition6 make up less than 5% of ground cover.

3) The scrub has a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat.

Planting will be undertaken between the months of November and March, preferably prior to January.

Annual inspection will be undertaken. Any scrub identified as diseased, dead or diseased within the first 5 years will be replaced on a like-for-like basis. During the inspection pruning will be undertaken as required to remove any dead or diseased wood and promote healthy growth and natural shape. The base of the scrub should be kept clear of vegetation through the targeted application of an approved herbicide until the canopy closes (expected 3 – 5 years)

Management will continue for 30 years.

New Tree Planting

Broad-leaved trees will be scattered around the site and will largely be confined to the areas of open green space around the peripheries of the site but others will be planted within the development area on site. Condition score to be at least MODERATE with 6m buffers and POOR where trees are to more developed areas.

Management Objective: create and maintain rural trees

1) The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).

2) There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity).

3) And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.

4) Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.

5) More than 20% of the tree canopy area is oversailing vegetation beneath.

Planting will be undertaken between the months of November and March, preferably prior to January.

Annual inspection will be undertaken and stakes and ties adjusted as necessary. Any tree identified as diseased, dead or diseased within the first 5 years will be replaced on a like-for-

like basis. During the inspection pruning will be undertaken as required to remove any dead or diseased wood and promote healthy growth and natural shape. The base of each tree should be kept clear of vegetation through the targeted application of an approved herbicide until the canopy closes (expected 3 – 5 years).
Management will continue for 30 years.

Other woodland; mixed

This is existing woodland to be enhanced. Existing woodland comprises uniform age structure which requires remediation.

Management Objective: create and maintain functional woodland

1) Underplant to create two age classes.

2) Remove invasive species.

4) Replant to increase number of native species to at least five species.

5) Create glades in woodland by selective thinning.

6) Ringbark some trees to create deadwood.

8) Under sow with woodland ground flora mix to create woodland understory community.

Woodland management to be undertaken for 30 years although it is envisaged the required management will be complete in Year 1 and only monitoring is required thereafter.

Ditches

Invasive weed species to be controlled annually to prevent reinfestation.

Monitoring for excessive trampling and removal of litter required annually.

Woodland management will open up the ditch to more light.

Natural processes will otherwise drive management of this site and it should be left to naturalise.

Management will continue for 30 years

4. MONITORING

In order to ensure that the habitats created and retained within the site reach and maintain their maximum value to nature conservation, all habitats should be monitored every two years to check establishment. Results of this monitoring, together with ongoing checks during routine works should be used to inform changes to annual work prescriptions, with the management plan reviewed towards the end of the five-year rolling plan and work programme period. The

prescriptions provided here are for overall guidance and should be flexible depending on success of management. Prescriptions should be altered if required.

Management will be for minimum 30 years.

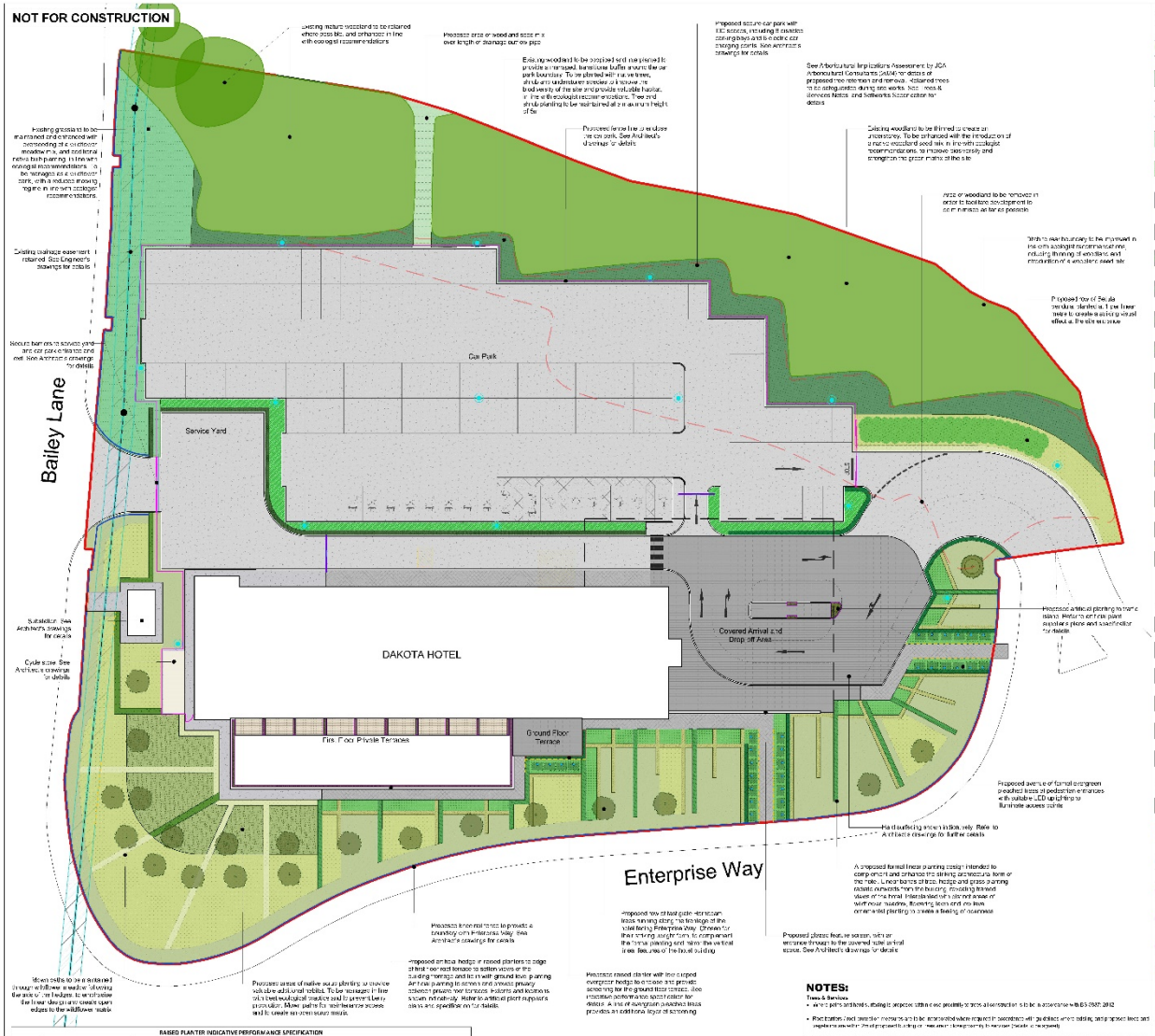
5. MANAGEMENT CONTROL

In order to ensure that the habitats created and retained within the site reach and maintain their maximum value to nature conservation, all habitats will be managed by GMI who will be responsible for the management of the landscaped area.

Habitat/ Feature	Operations/ Works	Year	Anticipated Timing of Visits/ Operations (months)												Frequency, notes
			J	F	M	A	M	J	J	A	S	O	N	D	
Grassland	Sow grassland	1													Sow April/early May or late August/September at rate as per seed providers guidelines, firm with roller. Avoid 0.5m area around scrapes
	Review condition & re-seed as required	1-2													Re-seed within next appropriate seeding period.
	Review & treat areas of ruderal/weed species	2-3													Spot treatment with non-residual herbicide, undertake early summer prior to flowering.
	Cut grassland (Species rich)	2 - 30													Cut to *c.*100mm once mid-August to September. Leave arisings in place.
	Modified grassland	2 - 30													Cut to desired length at least 25-50mm three times per year
New tree planting	Irrigation	1													Water during drier weather at the base of the tree.
	Vegetation clearance	1-5													Targeted application of a non-residual herbicide at the base of the tree.
	Inspection of stakes and ties	1-2													Quarterly inspection of stakes and ties, inspection to take place after severe storms also. Replace where damaged.
	Review	1+													Stakes and ties adjusted accordingly to growth. Replace any dead trees.
	Cutting	1-5													Prune dead or diseased material
	Check tree condition	5- 30													Check condition of trees prune as required

Scrub Planting	Ground preparation	1													Following earthworks, strim and spray planting strip with herbicide at least 3 weeks prior to planting.
	Planting	1													Plant in random pattern along the prepared strip in a random species mix.
	Vegetation clearance	1-3													Targeted application of a non-residual herbicide at the base of each tree.
	Review	1-5													Mark and remove dead/diseased plants replace in the following growing season.
	Annual Trim	1-3													Light trimming to encourage dense growth.
	Annual Cut	4 -30													One third of all the shrubs on-site to be cut on a year rotation avoiding heavy frosts.
Woodland management	Remove invasive species	1-5													Remove invasive species until absent
	Thin and replant	1-5													Year 1 planting
	Monitor establishment	1-30													Beat up and replant if required
Hedgerow creation enhancement	Ground preparation	1													Following earthworks, strim and spray planting strip with herbicide at least 3 weeks prior to planting.
	Planting	1													Plant in random pattern along the prepared strip in a random species mix.
	Review	1-5													Mark and remove dead/diseased plants replace in the following growing season.
	Annual Cut	10 -30													One third of all the hedge on-site to be cut on a year rotation avoiding heavy frosts.
Ditch enhancement	Remove invasive species	1-5													Remove invasive species until absent

General maintenance	Litter picking	1-30													During each maintenance visit to site
Reporting	Report to LPA	3,6,9, 12,15, 18,21 24, 27, 30													Report to LPA on conditions of habitats



Soft Landscaping

Refer to planting schedule and specification for planting details

- **Existing Woodland to be Retained** — To be Underwooded with Woodland Seed Mix in line with Principal recommendations
- **Existing Woodland to be Coppiced & Interplanted** — To be underwooded with some simple standard and underwooded with Woodland Seed Mix in line with Ecologists recommendations
- **Existing Trees to be Removed** — Refer to Arboricultural Implications Assessment by JCA Arboriculture Consultants (May 2024) for further details
- **Existing Grassland to be Retained and Overseeded** — To be enhanced with overseeding of wildflower meadow seed mix and planting of native bulbs in line with Principal Recommendations
- **Stand of Native Trees** — Betula pendula. Dense y planted in a single row to create a strong visual feature at the site entrance.
- **Feature Trees** — Carpinus betulus 'Fastigiata'. Extra Heavy Standard. Height 4m-4.25m. Girth 14-16cm. Min 200ltrs bare stem
- **Pleached Avenue Trees** — Quercus ilex. Heavy Standard. Height 3m-4.50m. Girth 12-14cm. Min 150ltr bare stem. 175cm x 175cm frame
- **Evergreen Instant Hedge** — Height 1.4m (1.6m* instant hedging. Single species. Closed to maintain activity assessment
- **Low Evergreen Instant Hedge** — Height 0.45-0.6m, instant hedging. Single species. Closed to maintain activity assessment
- **Low Evergreen Hedge** — Species and weight to match Low Evergreen Instant design. RBC at 0.7m at planting. Clipped to maintain activity appearance
- **Single Species Native Hedge** — Height, 10-120cm, RBC at 5.4/m double staggered. Single species. Maintained in line with best ecological practice
- **Native Scrub Mix** — Underseeded with wildflower meadow seed mix. Maintained in line with best ecological practice
- **Structural Planting Mix** — Mixed or semi-mixed planting with a high percentage of structural evergreen species
- **Ornamental Planting Mix** — Mixed ornamental planting with a high percentage of evergreen species
- **Structural Grass Mix** — Linear mix of single species grasses to complement the geometric planting design
- **Wildflower Meadow Seeding** — Maintained in line with best ecological practice with mown margins to define where required
- **Flowering Lawn Seeding** — Maintained with a mown margin to paths where required
- **Woodland Seed Mix to Drainage Outflow** — To area covering drainage outflow pipe. Refer to Arboricultural Implications Assessment by JCA Arboricultural Consultants (May 2024) for further details

Hard Landscaping

See Architect's drawings for further details

- **Tarmac Surface** — To main vehicle access routes, car park and secondary footpaths/cycle routes
- **High Quality Granite Block Paving** — To car park drop off area and ground level terrace
- **High Quality Granite Block Paving** — To primary pedestrian walkways
- **High Quality Porcelain Paving** — To first floor roof terraces. Colour to compliment hotel flooring
- **Concrete Surface** — To cycle storage area
- **Proposed Low Wall with Balustrade** — To separate roof terrace/patio areas. See architects drawings for details

Other Features and Furniture

- **Raised Planters** — To enclose ground floor terrace planted to provide screening. See indicative performance specification for details
- **Raised Planters with Artificial Planting Installation** — Positions and species indicative only. See artificial plant supplier's details and technical drawings for details
- **Knee Rail Fence** — See Architect's drawings for details
- **Car Park Boundary Fence** — See Architects drawings for details
- **Sliding Entrance Gate** — To main Car Park Boundary Fence. See Architects drawings for details
- **Car Park Barriers** — See Architect's drawings for details
- **Root Barrier** — To prevent tree and hedge root damage as required. Extents shown indicatively
- **Tree Up-lighters** — LED in-ground uplighters. Indicative design only
- **Lighting Columns** — Shown indicatively. See lighting engineers drawings for details
- **Existing drainage easement** — See engineers drawings for further details

Planning Application Boundary

- **Dakota Hotel, Manchester Airport**

NOTES:

Trees & Services

- where paths, architects, drainage, services within tree proximity across all construction to be in accordance with BS 5837: 2012
- Protection / root protection measures shall be established where required in accordance with guidelines when adding, stripping soil, laying and replacing soil within the proximity of trees or hedges to be retained (details as required).
- Trees are not to be planted within 1m of any underground service, unless otherwise agreed with the service authority.
- Contractor shall comply with NJUG publication, volume 4 Guidelines For The Planning, Installation And Maintenance Of Utility Services In Proximity to Trees (operations within the root protection area).
- All tree planting to be undertaken with pre-treated stakes and ties. All trees are to be planted in accordance with the manufacturer's instructions.
- All seed, grass and wildflower mixes are to be sown in accordance with the manufacturer's instructions.

Indicative Planting Specifications

All planting to be undertaken as per the Softworks Specification (PWP 872.002)

Species to be selected from schedules included. Schedules provide an indicative, but not exhaustive list of species. Quantities to be based on the below densities as a assuming an approximately even % of each species listed, where % Mix is not specified.

TREE SCHEDULE

Qty	Mark	Species	Size	Height (m)	Girth (cm)	Spec.
34	TB	Betula pendula	Extra Heavy Standard	450-500	16-18	10-12cm stem girth
61	CBF	Carpinus betulus 'Fastigiata'	Extra Heavy Standard	450-500	16-18	10-12cm stem girth
10	QI	Quercus ilex	Heavy Standard	350-400	12-14	8-10cm stem girth
105		Total No. trees				

Refer to species selected at mix to create a dense single row of trees
Root protection measures to be used where required. See Masterplan for indicative locations

EVERGREEN INSTANT HEDGE

Qty	Species	Container	Planting	Spec	TOTAL Length (m)
825	Prunus laurocerasus 'Rotundifolia'	Root balled	1 per 1.6m	1.6m x 2.5m x 1.6m	825

LOW EVERGREEN INSTANT HEDGE

Qty	Species	Container	Size	Spec.	TOTAL Length (m)
104	Pittosporum tenuifolium 'Irene Paterson'	Bought	90/60	Instant hedge 1.8/2m x 90/60cm. 3 per m (3/m)	104

LOW EVERGREEN HEDGE

Qty	Species	Container	Size	Spec.	TOTAL Length (m)
880	Buxus sempervirens 'Suffruticosa' Dwarf Box Hedge	1.2m	20/30	Instant 20cm average size	97

SINGLE SPECIES NATIVE HEDGE

Qty	Species	Container	Size	Spec.	TOTAL Length (m)
220	Crataegus monogyna	1.2m	90/120	Plant at 5/m in a double staggered row	40

Hedges to be maintained to specified heights. Evergreen hedges to be clipped to maintain a formal appearance. Hedges adjacent to vehicle routes to be maintained below 0.6m to preserve visibility splays

COPPICED & INTERPLANTED WOODLAND MIX

Qty	% Mix	Species	Size (cm)	Spec.	Density per m²
1125	5%	Carpinus betulus		2-3 L	1/m²
50	5%	Salix caprea	90/120	3 L multi stem	0.5/m²
750	30%	Corylus avellana		2 L	3/m²
750	30%	Crataegus monogyna		2 L	3/m²
250	10%	Ilex aquifolium	90/120	2 L multi stem	1/m²
125	5%	Quercus robur		2 L	0.5/m²
50	5%	Sorbus aucuparia	90/120	2 L multi stem	0.5/m²
125	5%	Taxus baccata		2 L	0.5/m²
2525	Total trees (10/m²)				

To be under seeded with Woodland Seed Mix (60% native grasses, 40% native wildflowers). See schedule below for details. Dispersed wildflower to be maintained under 5m height. Consideration to be given to prevent berry production

NATIVE SCRUB MIX

Qty	% Mix	Species	Size	Spec.	Density per m²
75	5%	Acer campestre		2 L	0.5/m²
225	15%	Cornus sanguinea		2 L	1.5/m²
30	2%	Corylus avellana		2 L	0.2/m²
60	4%	Euonymus europaeus	90/120	2 L multi stem	0.4/m²
150	10%	Ligustrum vulgare		2 L	1/m²
150	10%	Prunus spinosa		2 L	1/m²
75	5%	Rosa canina		2 L	0.5/m²
30	2%	Salix cinerea		2 L	0.2/m²
225	15%	Sambucus nigra		2 L	1.5/m²
30	2%	Viburnum opulus		2 L	0.2/m²
1500	Total trees (10/m²)				

To be underseeded with Wildflower Meadow Seed Mix to provide good cover during establishment period (see schedule below for details). Dispersed wildflower to be maintained under 5m height. Consideration to be given to prevent berry production

STRUCTURAL PLANTING MIX

Qty	Species	Pot Size	Spec.	Density per m²
75	Cornus mas	3 L	C	3/m²
90	Euonymus europaeus	3 L	C	3/m²
105	Ligustrum ovalifolium 'Argenteum'	3 L	C	3/m²
210	Pittosporum tenuifolium 'Irene Paterson'	3 L	C	3/m²
90	Viburnum tinus 'Eve Price'	3 L	C	3/m²
700	Total trees (10/m²)			

ORNAMENTAL PLANTING MIX

Qty	Species	Pot Size	Spec.	Density per m²
75	Acer campestre 'Elsrijk'	3 L	C	3/m²
90	Amelanchier lamarckii	3L	C	3/m²
105	Berberis x stenophylla 'Corallina Compacta'	3 L	C	3/m²
210	Escallonia 'Iveyi'	3L	C	3/m²
90	Lavandula angustifolia 'Hidcote'	3 L	C	3/m²
105	Pittosporum tenuifolium 'Irene Paterson'	3L	C	3/m²
90	Rosa rugosa 'Alba'	3 L	C	3/m²
105	Viburnum tinus 'Eve Price'	3L	C	3/m²
975	Total trees (10/m²)			

STRUCTURAL GRASS MIX

Qty	Species	Pot Size	Spec.	No. per hectare
125	Deschampsia cespitosa 'Goldtau'	1	C	5/m²
125	Festuca ovina var. hirtula	1L	C	5/m²
125	Molinia caerulea 'Transparent'	1L	C	5/m²
125	Panicum virgatum 'Heavy Metal'	1L	C	5/m²
500	Total trees (20/m²)			

Planted in rows or single species for visual impact

WOODLAND SEED MIX

Emorsgate Seeds EWS Woodland Wildlife

Seeding rate: 4g/m²

Wildflowers to grow to 200 cm in the shade. Mixture of annuals, biennials and perennials. Suitable for woodland margins, hedgerow bases, shaded areas, orchards, parkland, gardens and other areas of dappled shade. Attracts a wide range of pollinating insects, including bees, hoverflies, butterflies and moths.

Total area: 2370m²

Woodland Seed Mix to be sown evenly across all coppiced and retained woodland. Seeding rate of woodland seed mix may vary in these areas depending on amount of undergrowth being removed. Mix is suitable for tolerant shade.

WILDFLOWER MEADOW SEED MIX

Mix Ornithophilus Hedge Bird Purpose 10g/30 Wildflower Seed Mix

Standard seeding rate: 5g/m², Emorsgate Seeds: 5g/m²

Mix species included in this Ornithophilic wildlife seed mix:

Total area of new wildflower meadow seeding: 870m²

Total area of existing grassland to be overseeded: 330m²

Total area of native scrub to be underseeded: 357m²

Wildflower Meadow Seed Mix to be sown across areas of native scrub to provide seed and groundcover during the establishment period. Mix to be overseeded in areas of existing retained grassland to maximise species diversity in line with ecologist recommendations

FLOWERING LAWN SEED MIX

John Chambers Flowering Lawn Mix Grass Seed Wildflower Mix

Seeding rate: 5g/m²

Mix: Meadow Grass Seed Cocktail, Grass Mix Specialist, Lolium Perenne, Poa Pratensis, Red Fescue, Short Mown Grass

Total area: 850m²

Seeding to be undertaken as per suppliers recommendations. Any establishment with a similar mix to successfully landscape Artificial grass to installation.

GRASSLAND BULB MIX

Qty	% Mix	Species	Size in cm	Density
825	25	Crocus ancyrensis	3/5	10/m²
1650	50	Narcissus pseudonarcissus	10/12	20/m²
1815	25	Tulipa sylvestris	+/-	22/m²
5280		(Total area: 330m²)		

Grassland bulb mix to be over planted into area of retained grassland. To be planted as per suppliers and ecologists recommendations

Rev	Date	Detail	Made	Chk'd	App'd
P05	30/08/24	Planning issue - significant plans	RW	SH	SH
P04	16/08/24	Planning issue - revision of trees	DP	HW	SH
P03	12/08/24	Planning issue	RB	RW	SH
P02	30/06/24	DRAFT - for BNG consultation	RB	RW	SH
P01	28/03/24	DRAFT - for client coordination	RB	RW	SH

Project: Dakota Hotel, Manchester Airport

Client: Dakota Hotels

Title: Landscape Outline Masterplan

Drawn: HO | Chk'd: KW | App'd: RH

Drawing Number: PWP 872 001

Revision: P05

Drawing Scale: 1:200@A0

Notes:

1. Not for construction all dimensions to be confirmed on site
2. Based on Layout Drawing **3001 Rev.P3 PROPOSED SITE PLAN** by KPP Architects
3. Refer to architects/engineers drawing for site levels, drainage, retaining walls, services and utilities .
4. Build ups/footings to engineers specification.
5. Location of services to be confirmed by contractor prior to installation of any planting.
6. All existing trees to be protected to BS 5837.

Scale 1:200

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