NOMA Marketing Suite at Angel Square, Manchester M4 4AF

ANNEX C: LANDSCAPE HABITAT AND MANAGEMENT PLAN

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Prepared by:

Brian Robinson B.Sc. (Hons) MCIEEM
ERAP (Consultant Ecologists) Ltd

Building N2
Chorley Business and Technology Centre
East Terrace
Euxton Lane
Euxton
Chorley
PR7 6TE

Tel: 01772 750502
E-mail: mail@erap.co.uk

1.0 INTRODUCTION

1.1 In 2020 ERAP (Consultant Ecologists) Ltd prepared the relevant guidance in relation to achieving a BREEAM rating for the development at NOMA Marketing Suite at Angel Square, Manchester M4 4AF (hereafter the 'site'). In connection with criterion LE05 a site Landscape and Habitat Management Plan is required.

1.2 In accordance with the BRE Ltd guidance and BS 42020:2013 Section 11.1, the plan must cover at least the first 5 years after project completion and include:

a. A description and evaluation of the features to be managed;

b. Ecological trends and constraints on site that could influence management;

c. The aims and objectives of management;

d. Appropriate management options for achieving aims and objectives;

e. Prescriptions for management actions;

f. Preparation of a work schedule (including an annual work plan capable of being rolled forward over a five-year period);

g. The body or organisation responsible for implementation of the plan;

h. Details of monitoring and remedial measures; and

i. Funding resources and mechanisms to ensure sustainable long-term delivery of the proposed management.

1.3 It is assumed that all works are carried out in accordance to a relevant British Standard (BS).

1.4 This Management Plan also includes actions to be carried out within the first 12 months Defects Liability Period.

1.5 This Management Plan is a reviewable document that can be updated and amended as required.

2.0 SCOPE AND OBJECTIVES OF THE MANAGEMENT PLAN

2.1 Throughout the design of the development all efforts have been made to explore opportunities to maximise the biodiversity value of the completed site (above the baseline prior to construction) whilst taking into account the end use of the site.

2.2 This Management Plan encompasses all actions to be implemented to ensure the features continue to serve their function over the long-term.

2.3 This Management Plan covers the following habitats:

a. Proposed tree and herbaceous shrub planting;

b. The proposed wildflower meadow grassland areas; and

c. General site management and maintenance.

2.4 The landscape proposals plan is reproduced at the appended **Figure 1** for ease of reference.

2.5 The objectives of the Management Plan are:

i. Promote the establishment and health of the proposed habitats; and

ii. To maintain a safe and attractive environment around the site.

3.0 MANAGEMENT PRESCRIPTIONS

3.1 Introduction

3.1.1 The management prescriptions for all areas / habitats are identified in the following sections. A maintenance schedule is presented in **Table 6.1**.

3.1.2 All the management prescriptions described in this section and at **Table 6.1** are the responsibility of the appointed contractor.

3.1.3 The objective of the landscape planting management is the maintenance of the health of the retained habitats and the successful establishment of the proposed new habitats.

3.1.4 All landscape planting will be completed in accordance with *NOMA Marketing Suite Landscape Masterplan Drg No 2629-PLA-XX-XX-DR-L-0002 Rev 5* (PlanIt I. E. Limited, 2021) hereafter the 'landscape proposals'.

3.2 Proposed Tree and Herbaceous Shrub Planting

Objectives

3.2.1 The planted trees and shrubs will be maintained to ensure they remain attractive and for wildlife, in remaining vigorous and healthy and producing the maximum number of flowers and berries.

3.2.2 These areas will be monitored by the appointed landscaping contractors for noxious weeds and other undesirable plant species.

3.2.3 Planting will be undertaken in accordance with the guidance presented on the landscape proposals.

Management Prescriptions

3.2.4 The new landscape planting will be managed to ensure the successful establishment and prolonged health of the proposed plants:

a. Dead, diseased or dying specimens will be removed and replaced with the same species and age of plant.

b. Any damaged or vandalised trees will also be removed and replaced with a specimen of the same species.

c. Regular watering will be required particularly during periods of warm, sunny weather.

d. Tree stakes and ties will be checked twice a year and repaired / adjusted as required.

e. Bark mulch will be maintained at an average depth of 75mm and will be checked and topped up annually.

f. Weed control measures will involve the application of hand weeding. Non-residual herbicides will only be used when necessary.

g. Soil beds to be forked over annually in spring to ensure the soil is kept loose and aerated.

h. Once established, trimming / pruning will be carried out annually outside of the bird breeding season (unless it is confirmed by an Ecologist or Ornithologist that breeding birds are absent). The bird breeding season typically extends between March and August inclusive.

3.3 Proposed Wildflower Meadow Grassland Areas

Objectives

3.3.1 The wildflower meadow grassland will be established and maintained to ensure it remains attractive and for wildlife, in remaining vigorous and healthy and retains its plant species diversity.

3.3.2 These areas will be monitored by the appointed landscaping contractors for noxious weeds and other undesirable plant species.

Management Prescriptions

3.3.3 The following management prescriptions will be adopted during the planting and subsequent management of the landscape planting, in accordance with the guidance presented at https://wildseed.co.uk/mixtures/view/2/basic-general-purpose-meadow-mixture:

Establishment

Ground preparation

3.3.4 Ground will be prepared in order that it is not highly fertile and does not have a problem with perennial weeds. Good preparation is essential to success so aim to control weeds and produce a good quality seed bed before sowing.

3.3.5 To prepare the seed bed weeds will first be removed using repeated cultivation or a herbicide. The areas will then be ploughed or dug to bury the surface vegetation, harrowed or raked to produce a medium tilth, and rolled or treaded, to produce a firm surface.

Sowing

3.3.6 Seed is best sown in the autumn or spring but can be sown at other times of the year if there is sufficient warmth and moisture. The seed must be surface sown and can be applied by machine or broadcast by hand. To get an even distribution and avoid running out the seed will be divided into two or more parts and sown in overlapping sections. The seed will not be incorporated or covered but firmed in with a roll, or by treading, to give good soil/seed contact.

Aftercare

First Year Management

3.3.7 Most sown meadow wild flower and grass species are perennial; they will be slow to germinate and grow and will not usually flower in their first growing season. There will often be a flush of annual weeds from the soil in the first growing season which may grow up and obscure the meadow seedlings beneath; this annual weed growth is easily controlled by topping or mowing.

3.3.8 Mow newly sown meadows regularly throughout the first year of establishment to a height of 40-60mm, removing cuttings if dense. This will control annual weeds and help maintain balance between faster growing grasses and slower developing wild flowers.

3.3.9 Avoid cutting in the spring and early summer if the mixture has been sown with a nurse cover of cornfield annuals, or is autumn sown and contains Yellow-rattle. These sown annuals should be allowed to flower, then in mid-summer cut back and the cut vegetation removed. It is important to cut back cornfield annuals before they die back, set seed or collapse; this cut will reveal the developing meadow mixture and give it the space it needs to develop.

3.3.10 Any residual perennial weeds such as docks will be carefully dug out or spot treated.

Management Once Established

3.3.11 In the second and subsequent years EM1 sowings can be managed in a number of ways which, in association with soil fertility, will determine the character of the grassland. The best results are usually obtained by traditional meadow management based around a main summer hay cut in combination with autumn and possibly spring mowing or grazing.

3.3.12 Meadow grassland is not cut or grazed from spring through to late July/August to give the sown species an opportunity to flower.

3.3.13 After flowering in July or August a 'hay cut' should be taken: the meadow should be cut back with a scythe, petrol strimmer or tractor mower to c 50mm and the 'hay' left to dry and shed seed for 1 to 7 days before removal from site.

3.3.14 The re-growth should be mown through to late autumn/winter to c 50mm and again in spring if needed.

3.4 General Site Maintenance

Litter

3.4.1 Litter pick and removal of any fly tipping throughout the site shall be conducted on a weekly basis.

Fencing and hard landscapes

3.4.2 All hard landscaping around the site will be inspected and repaired as necessary.

3.5 Review of Management Plan

3.5.1 This Plan is a reviewable document which can be updated and revised as required. The Plan and the management regime will be informed by the on-going works at the site.

3.5.2 The Plan will also be reviewed to ensure the objectives and prescriptions are in accordance with current wildlife legislation and conservation objectives, including the Greater Manchester Biodiversity Action Plan (BAP).

4.0 REFERENCE TO THE UK BIODIVERSITY ACTION PLANS (BAP)

4.1 All landscape planting suggested and implemented at this site has been designed to maximise opportunities for the attraction of wildlife, particularly wildlife associated with urban areas. The provision of wildflower meadow grassland at the site will provide habitat of high value within the urban context of the site.

5.0 REFERENCES

BRE Global Ltd (2011). *BREEAM: 2011: Land Use and Ecology Section.* BRE Ltd.

BSI (2013). *BS 42020:2013 Biodiversity – Code of practice for planning and development.* BSI Standards Ltd.

Joint Nature Conservancy Council (2003). *Handbook for Phase 1 Habitat Survey: A Technique for Environmental Audit*. NCC, Peterborough.

Nature Conservancy Council (1988). *Site Management Plans for Nature Conservation.* NCC. Peterborough

(PlanIt I. E. Limited (2021). *NOMA Marketing Suite Landscape Masterplan Drg No 2593-PLA-XX-XX-DR-L-0002 Rev 5,* PlanIt I. E. Limited, Manchester

The UK Biodiversity Steering Group Report. Volume 2. Action Plans. H.M.S.O. (1995), London.

Wildlife and Countryside Act (1981). H.M.S.O., London

6.0 WORKS SCHEDULE

Table 6.1: Schedule of works for the First 5 Years

Habitat Feature	J	F	M	A	M	J	J	A	S	O	N	D	Total	Years (1-5)	Comments/Notes/Prerequisites
Proposed Tree and Herbaceous Shrub Planting															
Inspect new trees and shrubs													4	1 to 5	Any works to trees arising as a consequence of the inspection should be completed outside the bird nesting season (i.e. avoid March to August inclusive). Requirement for annual inspections should be reviewed at the end of the first 5 years.
Hand pull weeds and/or add bark mulch													4	1 to 3	Only required until habitats are established.
Heel in any uprooted whips and replace any failed shrubs													As required	1 to 3	Only required until habitats are established.
Water new planting every 2 weeks during prolonged periods of drought													Only as required	1 to 3	-
Remove canes and rabbit guards													1	5	Provided whips have established. Specified winter when the foliage is absent to facilitate access.
Wildflower Grassland															
Year one (if Autumn sown)						x		x	x	x				1	Cutting height 70-100mm. All cuttings removed.
Year one (if Spring sown)									x	x				1	Cutting height 70-100mm. All cuttings removed.
Years 2 onwards							x	x	x					2-5	1 cut during this period. Cutting height 70-100mm. All cuttings removed.
Control noxious, broadleaved weeds and invasive species														1-5	Using appropriate methods. Herbicides are to be avoided.
General															
Inspection of site to inform any actions required	1	1	1	1	1	1	1	1	1	1	1	1	12	1-5	Monthly
Litter pick across site	4	4	4	4	4	4	4	4	4	4	4	4	48	1-5	Weekly
Hard landscaping repairs														1-5	As required

Figure 1: Landscape Proposals Plan

