

Ecological Design Strategy

BE-1220-03F

Pentlands, New Mill Road, Holmfirth, West
Yorkshire HD9 7LN



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1. Scope of Report

David Watts Associates Ltd have been instructed on behalf of Priestroyd Construction Ltd to produce an Ecological Design Strategy relating to a proposed development at Pentlands, New Mill Road, Holmfirth, West Yorkshire, HD9 7LN

The report contains details regarding planting to ensure that the ecological value of the site is enhanced upon completion of the development proposals.

A plan showing the proposed mitigation can be viewed in **Appendix 1: Ecological Enhancement Plan**.

2. Grassland Enhancement

An area of grassland 0.07 ha in size to the northwest of the site will be retained throughout the proposals. A small area of this will be removed to incorporate an attenuation tank, which will be buried approximately 1.8 m below ground level. Grass turf in this area will be removed and then re-established after the attenuation tank has been installed.

The retained grassland will need to be managed for a period of five years. The grassland will be cut monthly between April and August, and then again at the end of October (grass will be left to grow between mid-August and October to allow the setting of seed).

After the first cut, hay will be applied to the re-turfed area above the attenuation tank to encourage reseedling of any gaps or turf which has failed to establish within this area.

Additionally, the remainder of the sward will be seeded with yellow rattle (*Rhinanthus minor*). Yellow rattle is a parasitic plant which feeds off the roots of grasses, thereby reducing the nutrient pool within the grassland and encouraging the growth of forb species.

3. Tree Planting

Nineteen trees are to be included in the development proposals. The location of these is detailed in **Appendix 2: Ecological Enhancement Plan**. These will include:

- Two pedunculate oak (*Quercus robur*)
- Two silver birch (*Betula pendula*)
- Ten rowan (*Sorbus aucuparia*)
- Five crab apple (*Malus 'Evereste'*)

Trees will be heavy standard in size, with a diameter at breast height (DBH) of 12-14 cm and a height of 2-3 m.

Planting must be carried out in accordance with British Standards (2014)¹. Trees will be supported by a stake, affixed to the stem with a biodegradable tie. Vegetation will be removed in a 1 m radius around tree stems, and an organic woodchip mulch will be applied within this area.

4. Sourcing of Trees and Shrubs

All trees and shrubs must be sourced from a reputable plant nursery. In the interests of biosecurity, trees and shrubs should ideally be grown from seed within the UK. If this is not possible to source, trees and shrubs must have been grown within the UK for at least one year after import.

5. Aftercare

Aftercare of all trees will be required for a period of five years. Aftercare must include watering during the summer months, and where necessary, formative pruning, readjustment/removal of cable ties and reapplication of mulch.

If any trees have failed to establish within this period then they must be replaced. Further advice from a consultant ecologist and/or arboriculturist may be required to establish the cause of mortality.

6. Lawn

It is recommended that a species rich grass seed mix is used for the lawn area. A suitable grass seed mix is EM1: General purpose Grass Seed Mix.

7. Bat Boxes

Eight bat boxes are to be incorporated into the development proposals. These will include:

- Six bat boxes of type Schwegler 1FF, which are to be installed on the gable apexes of buildings.
- Two bat boxes of type Schwegler 2F, which are to be installed on trees at minimum heights of 5 m and with clear flight paths to and from the entrances.

The location of bat boxes is detailed in the Ecological Enhancement Plan.

8. Swift Boxes

Four swift (*Apus apus*) boxes will be incorporated into the development proposals. These will be installed on the gable apexes of buildings, fitted to the walls by brackets. The location of swift boxes is detailed in the Ecological Enhancement Plan.

¹ British Standards (2014). *BS845: 2014 – Trees: From Nursery to Independence in the Landscape*. British Standards Institute, London

9. Hedgehog Access Holes

To maintain terrestrial connectivity for hedgehogs (*Erinaceous europaeus*), the installation of hedgehog access holes into boundary fences is recommended. A total of 18 hedgehog access holes will be required to facilitate connectivity both within and to and from the site.

Hedgehog holes will be 15x15 cm in size and will be cut into the bottom of the fence panels. These will be reinforced with hedgehog eco plates (see Figure 1 below) to increase the longevity of fence panels and to discourage residents from blocking them.



Figure 1: Hedgehog access panels

10. Monitoring

Further monitoring of all habitat boxes will be carried out by a suitably qualified ecologist for a period of three years. This will include annual checks between May and mid-July when both bats and swifts are active in the UK. Further details are provided in **Appendix 1: Work Schedule**. If bats boxes and/or swift boxes are found to be unoccupied, relocation elsewhere on the site should be considered.

Appendix 1: Work Schedule

Year	Jan-April	May-August	September-October	November-December
2022	Commencement of development works. Attenuation tank constructed; grass turf removed and reapplied. Grass cut in April, cut grass spread over attenuation tank.	Grass cut monthly.	Trees planted. Grass cut at end of October, hay spread over attenuation tank.	Bat boxes, bird boxes and swift boxes installed upon completion of the proposals
2023	Grass cut in April.	Walkover inspection by ecologist, including monitoring of all bat boxes, bird boxes and trees. Further remedial measures recommended if necessary. Grass cut monthly.	Grass cut at end of October.	Formative pruning of trees, if required
2024	Grass cut in April.	Walkover inspection by ecologist, including monitoring of all bat boxes, bird boxes and trees. Further remedial measures recommended if necessary. Grass cut monthly.	Grass cut at end of October.	Formative pruning of trees, if required
2025	Grass cut in April.	Walkover inspection by ecologist, including monitoring of all bat boxes, bird boxes and trees. Further remedial measures recommended if necessary. Grass cut monthly.	Grass cut at end of October.	Formative pruning of trees, if required
2026	Grass cut in April.	Walkover inspection by ecologist, including monitoring of all bat boxes, bird boxes and trees. Further remedial measures recommended if necessary. Grass cut monthly.	Grass cut at end of October.	End of monitoring period.

Appendix 2: Ecological Enhancement Plan

