

Pontardawe Arts
Centre
Herbert Street
Pontardawe
SA8 4ED



An **Ecological**
Management Plan:



On **Behalf Of:**

CHILDS
SULZMANN
ARCHITECTS

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Client	Childs Sulzmann Architects
Project Name	Pontardawe Arts Centre, Herbert Street, Pontardawe SA8 4ED
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A Introduction

A.1 Background

Plans are being prepared for the extension of the Pontardawe Arts Centre, to accommodate a new toilet, circulation space, and cinema. The building will be extended into an existing courtyard to the south, and roof alterations may also be required for a plant room. The Arts Centre is on Herbert Street in Pontardawe, at National Grid Reference (NGR) SN 72314 03971, at an altitude of approximately 34m Above Ordnance Datum (AOD).

To support the plans for the development of the site, a Preliminary Roost Assessment was carried out in November 2020. Assessment found a low number of bat droppings inside and on the external gable end wall of the plant room. Since the proposals have the potential to impact bats and their roosts, additional follow survey with summer activity observations was recommended. As a result, two dusk emergence observations were conducted in August and September 2021, to provide a higher degree of accuracy of the presence of any bats or birds at the building.

The development is being put forward for appraisal to BREEAM criteria. As part of the BREEAM process, a Landscape and Ecological Management Plan is required. This document therefore only pertains to the small footprint of the BREEAM assessed area, not the overall site. There are limited opportunities to create additional habitat of wildlife value within the BREEAM area.

This document must be read in conjunction with Reports, outlining the results of the Preliminary Roost Assessment and the full bat survey.

B Site Description

B.1 General Description

Pontardawe Arts Centre is located on Herbert Street in Pontardawe. The area of the site subject to assessment includes the main building, storeroom, studio theatre and the plant room, with an area of hardstanding. The surrounding landscape is typically urban with residential houses and commercial activity dominating. The Upper Clydach River is present just 70m to the south-west of the site, which flows into the Afon Tawe, some 350m to the south. These river sections are lined with trees which are connected to more extensive areas of woodland slightly further afield. The Swansea Canal is also just 90m to the north, and this will provide additional riparian habitat.

B.2 Designations

No part of the site itself is subject to statutory designation. A search for designated areas such as Sites of Special Scientific Interest (SSSI), and Special Areas of Conservation (SAC), within a 2km radius of the site was carried out. The search revealed two designated sites, Frondeg SSSI, approximately 1.8km north-west of the site and Fforest Goch Bog SSSI, of special interest as a rain-fed raised bog, approximately 1.9km south-east of the site.

B.3 General Ecological Assessment

The site is made up of buildings and hardstanding, with no vegetated areas present. Assessment revealed two bat roosts within the building, both used by a small number of common pipistrelle bats. The roosts are within the apex area of the east facing gable of the main roof and also under the ridge tile of the studio theatre's south gable wall. The roosts are assessed to be used as summer day roosts and are unlikely to be maternity roosts due to the small number of bats within each. However, as the observations were carried out in August and September, the possibility that earlier in the year there was a small maternity roost at this site cannot be ruled out. Maternity roosts will start to disperse in late August, though there is no evidence for the presence of one at the Arts Centre, and the likelihood of this occurring is assessed to be low. The site was therefore assessed as having low ecological value.

C Proposals

C.1 General Overview

Development is going to affect a small area of the site to the south-east. Existing hardstanding will be built upon, and a small section of the existing building (the store room) will be removed. Plans include the construction of a new toilets, circulation space and cinema within this area of existing

hardstanding. No green spaces or similar will be affected by the proposals, equally, there is no existing green area within the development that can be enhanced. As a result, enhancements to the site will be restricted to the creation of a green roof.

D Ecological and Landscape Features

D.1 Overview

Features to be created and managed are:

- a modular type green roof;
- habitat for invertebrates.

The specific design for these features will need to be incorporated into the plans for the site.

D.2 Objectives

From an ecological point of view, buildings are often dead-zones for their potential to be used by wildlife, or offer some sort of ecological value. The objective for this development is therefore to create opportunities within the new build for a variety of different species.

The main aims for the landscape and ecological management are:

- to create features of ecological value above the proposed cinema space;
- to help assimilate the proposed built development into its surroundings;
- to create and sustain a high quality visual and sensory environment;
- to ensure that the landscape features are managed in a way which benefits ecological conservation.

E Management

E.1 Green Roof

The provision of a green roof will enhance the existing ecological value of the site by providing food sources and habitat for invertebrates, which in turn will benefit other wildlife including bats and birds. The green roof will be a modular-type design, created above the new cinema space. The total area of the green roof will be approximately 49.5m², made up of pre-vegetated modular trays that can be slotted together to create a single green space. The green roof will comprise native wildflower species including common bird's-foot trefoil (*Lotus corniculatus*), thyme (*Thymus polytrichus*), wild marjoram (*Origanum vulgare*), selfheal (*Prunella vulgaris*), cowslip (*Primula veris*), and wild strawberry (*Fragia vesca*). Sedum species include white stone crop (*Sedum album*) and biting stonecrop (*Sedum acre*). The inclusion of sedum must comprise no more than 30% of the species composition of the green roof, with the remainder made up of wildflowers, as sedum-based systems are considered to be less diverse.

E.2 Habitat for Invertebrates

There may be opportunities to create areas of additional habitat within the green roof design for invertebrates. Amongst and/or around the edges of the modular trays, it is proposed that areas of bare ground, made up of spoil materials are provided. These sparsely vegetated areas of crushed stone, brick, rocks or gravel will warm up quickly and provide ideal conditions for basking invertebrates. Any spoil materials that are used on the roof must be appropriately screened and load implications considered. Unscreened materials can lead to problems with unwanted species for example. At least two insect houses must be incorporated into the new design, which will provide shelter and nesting sites for invertebrates. Schwegler insect houses are recommended. Insect houses must be positioned in a sunny location, protected from wind and rain.

E.3 General

Good horticultural practice must be employed, including the use of peat-free composts, mulches and soil conditioners. The use of pesticides (i.e. herbicides, insecticides, fungicides and slug pellets etc) must be discouraged to prevent cumulative fatal effects to animals via the food chain, particularly invertebrates, birds and/or mammals. Spot treatment of pernicious weeds may be appropriate in certain circumstances. Any pesticides used must be non-residual.

F Management Implementation

F.1 Biodiversity Champion

The implementation and maintenance of the strategies laid out in this document are the responsibility of the land owner, and it is expected that they will arrange for any necessary repair work, to ensure that the ecological features of the site remain functional and safe. It is suggested that the owner seek to appoint a member of staff, or the local community, to the volunteer position of 'Biodiversity Champion'. This position is usually occupied by someone who has a keen interest in wildlife and every day environmental issues, such as recycling. They must also be responsible for noting the overall appearance of the site and the general activities of any wildlife seen in the zone. Such practices and information are helpful, not only for guiding the management, but also to alert the relevant authorities to any issues, for example anything from people littering to dead or injured animals.

G Biodiversity Audit

G.1 Monitoring

Monitoring of the measures set out above must be carried out by an ecologist on a regular basis, to assess if the suggested mitigation/enhancement strategies have worked. Results of such monitoring visits are to be forwarded to the Local Planning Authority Ecologist. Monitoring of the ecological features is to be carried out in Years 1, 3, and 5, with Year 0 being the year of completion of the works.

These audits will assess the overall status of the measures outlined above and how they tie into the wider site. June or July would be the best months for such an audit.

G.2 Remedial Measures

In case of any failures, remedial measures must be put into place as soon as possible. The biodiversity champion must report any failing measures as soon as possible. Any failures in the ecological measures will be assessed in the audits and reported, with replacements or alterations carried out as soon as possible.

H Ownership

H.1 Ownership Responsibilities

Responsibility for the management of the site beyond construction will lie the Pontardawe Arts Centre. If the site is to be sold, for whatever reason, then the land must be sold as an asset, and the new registered owner will have the responsibility of managing the land in accordance with this Management Plan.

I Management Requirements

Management requirements are limited to the green roof as there are no other green areas proposed or currently present at the site. Wildflower areas must be cut at least once a year in September. If coarser grasses begin to dominate, a second cut in early in the year (before April) may also be required. Petrol-powered trimmer is required for cutting of these areas. Cuttings must be removed to reduce excess nutrients and discourage the growth of more dominant species. Removal of any dominant grasses is proposed, so that they do not outcompete native wildflower species. Monitoring of any non-native invasive species is essential, if any are found a specialist must be contacted for removal. Any unwanted plants that may colonise the roof such as buddleia (*Buddleja davidii*), must be removed. Only during very dry conditions, it may be necessary to irrigate the wildflower areas. The addition of extra water and nutrients will encourage more dominant and vigorous grasses, that will outcompete wildflowers.

The sedum areas of the roof will need to be inspected at least twice a year for weeds, and any unwanted vegetation must be removed manually, preferably during the spring and autumn. This will prevent other plants from colonising. A sedum roof will not require any additional water.

Areas of bare ground made up of spoil material must remain open and free of vegetation. These areas must be checked, and vegetation removed by hand.

References

Gedge, D., Grant, G., Kadas, G. and Dinham, C. (2019). Creating Green Roofs for Invertebrates: A Best Practice Guide. Buglife. Available at: https://cdn.buglife.org.uk/2019/07/Creating-Green-Roofs-for-Invertebrates_Best-practice-guidance.pdf.

Appendix I: Site Plan

Figure 1: plan of site showing location of green roof



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