

**David Leach Ecology Ltd
Environmental Consultants**

**Yacht Haven House
Copse Lane
Hayling Island
Hampshire**

Mitigation, Compensation & Site Enhancement Plan.

July 2017

Report compiled by D. V. Leach. M.C.I.E.E.M.

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Contents	Page number
Executive summary.....	1
1.0 Introduction.....	2
2.1 Background.....	2
2.2 Aims of the Report.....	2
2.0 Recommendations and Mitigation.....	3
2.1 Bats.....	3
2.2 Birds.....	3
2.3 Habitats.....	3
3.0 Enhancement.....	4
4.1 Bats.....	4
4.2 Birds.....	4
4.3 Soft Landscaping.....	4
Appendices.....	6
A Enhancement Feature Locations.....	6
B Design of Enhancement Features.....	10
C Wildlife friendly species for landscaping.....	15

1.0 Introduction.

Client: James Walters

Property Surveyed: Yacht Haven House
Cope Lane
Hayling Island
Hampshire
PO11 0RH

Grid reference: SU 72977 01922

Report compiled by: David Leach BSc. (Hon), CBiol. M.R.S.B., M.C.I.E.E.M.
(Natural England WML CL18 registered bat worker).

1.1 Background.

- A phase 1 survey carried out in January 2017 found no signs of protected species on site.
- Potential bird nesting habit was present in trees and scrub at the site perimeters and in some scrub around the plot.

1.2 Aims of the Report.

- A planning application is being submitted for demolish a derelict house and build a new residential dwelling on approximately the same footprint.
- David Leach Ecology Ltd was commissioned by the developer to produce a site mitigation, compensation and enhancement plan which aims to increase the biodiversity on the site.

2.0 Recommendations and Mitigation.

2.1 Bats.

- Extra care will be taken to ensure that external lights are kept to a minimum and will not illuminate potential bat flight paths to nearby trees. Lights will be aimed to illuminate only the immediate area required by using as sharp a downward angle as possible. A shield/hood will be used to control or restrict the area to be lit and limit “light spillage” on the site.

2.2 Birds.

- Birds’ nests, when occupied or being built, receive legal protection under the Wildlife and Countryside Act 1981 (as amended).
- It is highly advisable to undertake clearance of potential bird nesting habitat (such as hedges, scrub, trees, suitable outbuildings etc.) outside the bird nesting season, which is generally seen as extending from March to the end of August, although may extend longer depending on local conditions. If there is absolutely no alternative to doing the work in during this period then a thorough, careful and quiet examination of the affected area must be carried out by a qualified ecologist before clearance starts.
- If occupied nests are present then work must stop in that area, a suitable (approximately 5m) stand-off maintained, and clearance can only recommence once the nest becomes unoccupied of its own accord.

2.3 Habitats

- Any construction work which will impact the habitats at the south of the site and the foreshore in the future will be preceded by a new survey to include a detailed vegetation survey and production of a mitigation plan if necessary.
- A root protection zone will be created around the trees and hedges around the site.

3.0 Enhancement

Section 40 of the Natural Environment and Rural Communities Act 2006 and paragraph 118 of the National Planning Policy Framework states that *'Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity'*. Section 40(3) of the same Act also states that *'conserving biodiversity includes, in relation to a living organism or type of habitat, restoring or enhancing a population or habitat'*.

In accordance with the above measures will be implemented to enhance the biodiversity and will include:

3.1 Bats

- A 1FR Schweglar bat tube or Fortecrete bat box will be built into the west and north walls of the new house as high as possible but at a minimum of 3m (see Appendix E).
- A 1FR Schweglar bat tube or Fortecrete bat box will be built as high as possible into the west wall of the pool house.
- A Kent bat box will be put up in the covered area and the rear of the garage.
- Extra care will be taken to ensure that external lights are kept to a minimum and will not illuminate the bat access points or flight paths used by foraging or commuting bats. The light will be aimed to illuminate only the immediate area required by using as sharp a downward angle as possible. A shield or hood will be used to control or restrict the area to be lit and limit "light spillage" on the site.

3.2 Birds

- A No. 11 Schwegler House Martin Terrace will be fitted under the overhang on the east elevation of the house.
- A pair of Woodcrete Swallow cups will be fitted in the log store.
- A 1SP Schwegler Sparrow Terrace under the eaves of the north facing wall of the Boat Shed (see Appendix E).
- A 3S Schwegler Starling Nest Box and a 1B Schwegler Nest Box (with a 32mm hole) will be fitted to a mature tree along the north perimeter of the site.

3.3 Soft Landscaping

- The Pool house and the garage will have green roofs with a variety of species of sedum

and low growing native plants.

- Native or wildlife friendly species will be used for landscaping (see Appendix F).
- Trees planted on site will be native or wildlife friendly species (see Appendix F).
- Hedging will be of native species and not species such as Cherry Laurel which have very little benefit for wildlife. Hedging should be made up of 50% hawthorn with 10% each of Bird Cherry or wild cherry, field maple, hazel, dogrose and blackthorn. (Wild viburnum is a good addition if available).

Appendices

Appendix A) Enhancement features.

House and garage buildings.



West Elevation



East Elevation

- Schweglar bat tube  Kent bat box 
- Woodstone Swallow cups in log store  House Martin Terrace 

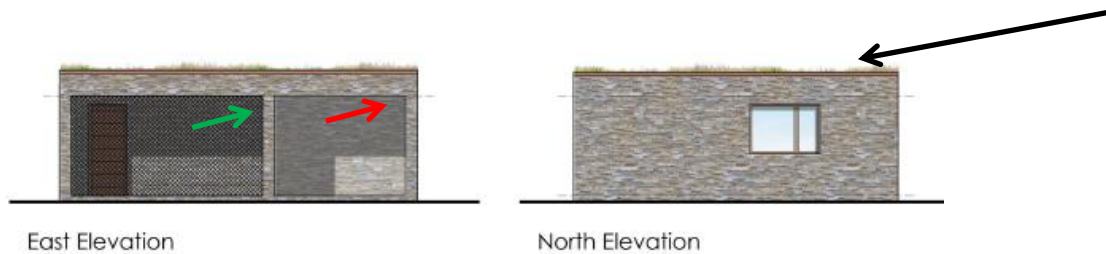
House.



North Elevation

Schweglar bat tube 

Garage



Kent bat box 

Woodstone Swallow cups in log store 

Green Roof 

Boat House



West Elevation



South Elevation



East Elevation



North Elevation

Schweglar Sparrow Terrace 

Pool House



Schweglar bat tube █

Green Roof ➔

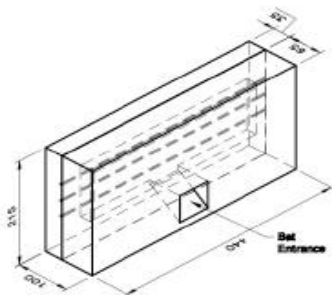
Appendix B. Design of Enhancement Features.



Product Information – Bat Box



- The Forticrete Bat Box has been developed to be used in new build construction or renovation work where there is a requirement to provide a habitat for Pipistrelle bats.
- The box is made of a conventional cast stone front face but is backed with high grade plywood which is sawn and roughened internally to provide a haven for bats.
- The Bat Box is maintenance free due to the bottom entrance.
- The Bat Box illustrated is available from Forticrete's 'Stone in Stock' range although bespoke boxes can be designed and made for any application.



For more information please contact Forticrete at:
caststone@forticrete.com

Telephone: 01909 775000
Fax: 01909 773549

You can also visit our website at
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Schwegler 1FR Bat Tube

This long box can be installed within brick masonry, beneath plasterwork or wood panelling, or incorporated into concrete structures such as factory buildings or bridges. Inside it contains a woodcrete surface, a roughened wood board, and a metal mesh, providing a choice of roosting areas depending on the weather conditions and the bats' habits. This box is maintenance-free as the entrance slit is at the bottom, allowing for self-cleaning. No painting required, but if painting is necessary a natural breathable paint should be used

Woodcrete (75% wood sawdust, concrete and clay

mixture)

Width 20cm, Height 47.5cm, Depth 12.5cm

Entrance width 15cm, Entrance depth 2cm



Bird boxes for buildings

No. 11 Schwegler House Martin Terrace



Schwegler 10 Swallow Nest Cup



1SP Schwegler Sparrow Terrace



Bird boxes to be installed on the north to south east side of a mature tree with unrestricted flight access

3S Schwegler Starling Nest Box (one box).



1B Schwegler Nest Box (1 box with 32mm hole)



Appendix C) Native trees of benefit to wildlife.

Trees

Alder	<i>Alnus glutinosa</i>	
Aspen	<i>Populus tremula</i>	
Beech	<i>Fagus sylvatica</i>	
Bird cherry	<i>Prunus padus</i>	
Blackthorn	<i>Prunus spinosa</i>	
Crab apple	<i>Malus sylvestris</i>	
Downy birch	<i>Betula pubescens</i>	
Elm	<i>Ulmus sp.</i>	
European larch	<i>Larix decidua</i>	
Field Maple	<i>Acer campestre</i>	
Goat willow	<i>Salix caprea</i>	
Hawthorne	<i>Crataegus monogyna</i>	
Hazel	<i>Corylus avellana</i>	
Holly	<i>Ilex aquifolium</i>	
Hornbeam	<i>Carpinus betulus</i>	Shade
Lime, common	<i>Tilia x europaea</i>	
Sweet Gum	<i>Liquidamber styraciflua</i>	
Juniper	<i>Juniperus communis</i>	
Oak	<i>Quercus robur</i>	
Rowan	<i>Sorbus aucuparia</i>	
Silver birch	<i>Betula pendula</i>	
Wayfaring tree	<i>Viburnum lantana</i>	
Whitebeam	<i>Sorbus aria</i>	
Wild Cherry	<i>Prunus avium</i>	
Wild Service-tree	<i>Sorbus torminalis</i>	
Yew	<i>Taxus baccata</i>	

Shrubs/Hedges

Blackthorn	<i>Prunus spinosa</i>
Buckthorn	<i>Frangula alnus</i>
Dog rose	<i>Rosa Canina</i>
Dogwood	<i>Cornus sanguinea</i>
Elder	<i>Sambucus nigra</i>
Field Maple	<i>Acer campestre</i>
Goat willow	<i>Salix caprea</i>
Guelder-rose	<i>Viburnum Opulus</i>
Hawthorne	<i>Crataegus monogyna</i>
Hazel	<i>Corylus avellana</i>
Ivy	<i>Hedera helix</i>

Privet	<i>Ligustrum Ovalifolium</i>
Privet	<i>Ligustrum Vulgare</i>
Spindle	<i>Euonymus europaea</i>

Plant species suitable for wildlife habitat enhancement.

Buddleja	<i>Buddleja cultivars</i>	
Caryopteris X clandonensis 'Kew Blue'	<i>Caryopteris</i>	
Ceanothus X 'Gloire de Versailles	<i>Ceanothus</i>	
Corsican Heath	<i>Erica terminalis</i>	
Cotoneaster	<i>Cotoneaster horizontalis</i>	
Eupatorium ligustrinum	<i>Eupatorium ligustrinum</i>	
European Myrtle	<i>Myrtus communis</i>	
Fig Leafed Palm	<i>Fatsia japonica</i>	Shade
Firethorn	<i>Pyracantha rogersiana</i>	
Flowering Currant	<i>Ribes sanguineum</i>	
Hebe X 'Great Orme' and H. X 'Midsummer Beauty'	<i>Hebe</i>	
Lilac	<i>Lilac</i>	
Mahonia	<i>Mahonia japonica</i>	Shade
Osmanthus	<i>Osmanthus x burkwoodii</i>	Shade
Pieris	<i>Pieris japonica sp.</i>	Shade
Quince	<i>Chaenomeles speciosa</i>	
Shad Bush	<i>Amelanchier species</i>	
Skimmia	<i>Skimmia japonica</i>	
Skimmia	<i>Skimmia Japonica</i>	Shade
Sweet Box	<i>Sarcococca confusa</i>	Shade
Sweet Pepper Bush	<i>Clethra alnifolia</i>	
Viburnum	<i>Viburnum tinus</i>	Shade

Bulbs

Bluebell	<i>Hyacinthoides non-scripta</i>	Shade
Grape hyacinth	<i>Muscari botryoides</i>	
Lily of the valley	<i>Convallaria majalis</i>	Shade
Snakeshead Fritillaries	<i>Fritillaria meleagris</i>	
Snowdrop	<i>Galanthus nivalis</i>	Shade
Spring crocus	<i>Crocus chrysanthus and hybrids</i>	Shade
Wild Daffodil	<i>Narcissus pseudonarcissus lobularis</i>	Shade
Wood Anemones	<i>Anemone nemorosa</i>	Shade

Climbers

Climbing brambles
Climbing roses
Ivy
Honeysuckle
Clematis

Rubus Spp including cultivares/hybrids
Rosa canina, Rosa arvensis
Hedera helix Shade
Lonicera spp. Shade
Clematis Spp.

Flowers

Angelica
Bugle
Hollyhock
Yellow alyssum
Grecian windflower
Snapdragon
White arabis (single)
Thrift
Michaelmas daisy
Astilbe
Aubretia
Shrubby Hare's Ear
Perennial cornflower
Red valerian
Wallflower
Cosmos
Sweet William
Foxglove
Ferns
Purple coneflower
Globe thistle
Winter aconite
Fleabane
California poppy
Perennial sunflower
Christmas rose
Lenten rose
Candytuft
Lavender
Poached-egg plant
Sweet alyssum
Honesty

Angelica archangelica
Ajuga reptans
Althaea rosea
Alyssum saxatile
Anemone blanda
Antirrhinum majus
Arabis alpina
Armeria maritima
Aster spp.
Astilbe x arendsii 'Irrlicht' Shade
Aubretia deltoidea
Bupleurum fruticosum
Centaurea montana
Centranthus ruber
Cheiranthus cheiri
Cosmos bipinnatus
Dianthus barbatus
Digitalis Purpurea
Dryopteris affinis
Echinacea purpurea
Echinops ritro
Eranthis hyemalis
Erigeron spp.
Eschscholtzia californica
Helianthus decapetalus
Helleborus niger
Helleborus orientalis
Iberis sempervirens
Lavender
Limnanthes douglasii
Lobularia maritima
Lunaria rediviva

Sweet bergamot
Forget-me-not
Catmint
Tobacco plant
Evening primrose
Phlox
Primrose
Rosemary
Ice plant
Ice Plant
French marigold
Thyme

Monarda didyma
Myosotis spp.
Nepeta cataria
Nicotiana affinis
Oenothera biennis
Phlox paniculata
Primula vulgaris
Rosmarinus officinalis
Sedum spectabile
Sedum telephium
Tagetes spp.
Thymus polytrichus

David Leach BSc (Hons) CBiol. MSB MCIEEM. David is a professional ecologist with over thirty five years' research and fieldwork experience in many aspects of ecology and for the past ten years in environmental consultancy work.

David Leach is an experienced bat surveyor with competency in activity surveys, bat roost assessments, daytime surveys for bat field signs, assessments of trees as potential bat roosts and the production of reports providing advice on best practice, mitigation and compensation works relating to bats as may be required.

David also has experience in surveying for birds, reptiles, amphibians, barn owls and badgers and also carries out extended Phase 1 habitat surveys and BREEAM assessments.

David holds a Natural England licence to disturb bats for the purposes of science and education or conservation and has been involved in obtaining Protected Species Licences to permit development works affecting bats and also badgers.

David is a Registered Consultant under the new Low impact Bat Licence scheme and is able to register suitable sites under this scheme

David Leach BSc. (Hons), C.Biol., M.R.S.B., M.C.I.E.E.M.

Disclaimer.

All reasonable effort has been made to provide accurate information at the time of the survey. However weather conditions and the timing of surveys can affect the results. Some species or signs of that species will only be visible at certain times of the year e.g. the nesting season for birds is usually between March and September. The absence of certain species or signs of use at the time of a survey does not mean that they are not present at other times of the year and does not imply that a species might not use the site at some time in the future.

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