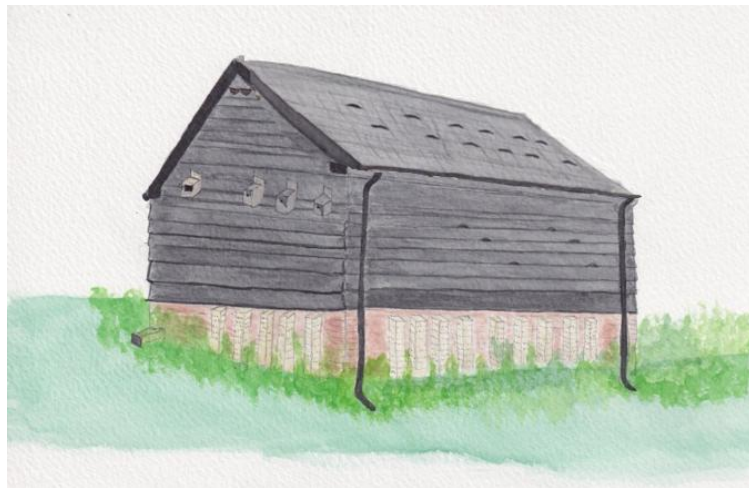


The '*Wildlife Building*'



The outline idea and description:

This idea arose from a discussion with Tom Maidment who was looking for a new site to place a barn owl nesting box on the farm.

The farm already has two boxes in the large clear span barn at Manor Farm which have been used only occasionally and I didn't feel were ideally sited.

Tom recalled how in the past owls always used to hunt in the old Water Meadow down the lane past the church. After a visit to the meadow I could see that it was an ideal site to place the box, close to its hunting area and in a much quieter location than in the busy farmyard.

Additionally elsewhere on the farm we were are trying to develop artificial nesting sites for Swallows, House Martins and Swifts with limited success and Tom reported often seeing Swallows and Martins on feeding flights over the meadow during summer. I could see a structure to house the barn owl box also offering a great site for artificial nest cups for these as well.

From this point on the idea of a building that could also be of benefit to an even wider range of other wildlife species developed and the structure I propose is as follows.

The building will be on an east-west plane with the north face open, comprising half brick and half-timber covered with a featherboard exterior on the south side and east and west ends. The structure will be brick up to 36" height then timber construction to the eaves and roof. The interior will be clad with ply from the brick height to the eave height with a rail fixed for nesting Swallows to use as a nest cup foundation and anchor point.

The north side will be open along its entire length, divided centrally by a timber upright (an old reclaimed piece of timber) supported on a saddle stone if one is available. Timber uprights will also be bolted to brick uprights at the eastern and western ends of the open north face, all these timber uprights shall be drilled with holes on their front and side faces to provide nesting sites for solitary hymenoptera (bees and wasps). The drilled holes will be a mix of diameters between 2mm - 12mm and from ground level to the eave to provide for the greatest number of species. The holes can be from ground level right up to the top. The overall appearance of the structure will be something along the lines of a double garage or rustic old farm barn. Eaves will be included on the north side (which will be painted white) with guttering.

The roof will be tiled with slate as 'bat slates' are available to blend in and this will match domestic properties in the local area.

The structure as a whole is unlikely to be visible from any neighboring domestic properties but the structure itself will not be far from a public footpath.

The floor will be bare earth with perhaps a little straw scattered and maybe at times during the autumn and winter months a handful or two of bird seed scattered inside. It wouldn't matter if livestock using the meadow entered occasionally. Bird seed scattered on the floor might attract small mammals like Wood Mice (*Apodemus sylvaticus*) which in turn will serve as prey for barn owls which it is hoped will breed in a nestbox provided in the structure.

On the south side and both ends of the structure, up the brick work (from ground to the lowest level of featherboard at 36") pieces of 3"x3" timber should be bolted on, these being pre-drilled on three sides for solitary hymenoptera to nest in (holes should be 2mm – 12mm in diameter and approximately ½ to 2/3 the depth of the timber).

House Martin ANCs (Artificial Nest Cups) and Swift nestboxes will be added to the eave of the north face. ANCs for House Martins should also be placed on each gable end. The featherboard will be painted dark brown or black for a 'rustic' aesthetic look, with the eaves painted white to match what House Martins seem to be familiar with/attracted to on domestic properties. Swift nestboxes will be installed at each end of the eave on the north face and Swift 'bricks' will be built in to the north face below the eave.

Nestboxes for Tree Sparrows will be installed on each end of the structure.

The guttering on both sides of the structure will have their down pipes channelled into the grassland to create muddy areas for the House Martins and Swallows to collect mud for nest construction (any livestock in the meadow might help enhance this feature through the action of light poaching, lightly poached muddy areas are also an important breeding habitat for a number of fly species).

‘Bat bricks’ will be incorporated into the brickwork of both the east and west ends of the structure during construction and along the south side of the structure, and ‘bat tiles’ in the roof on both sides will be included too. Bat bricks do not need to be installed at great elevation, bats will use holes and crevices almost at ground level, bat tiles in the roof will provide elevated roost sites, (species like the Brown long-eared Bat (*Plecotus auritus*) are more likely to hang from the ceiling ridge when roosting or hibernating and are likely to enter the building via the open north face).

A Hedgehog box for hibernation will be built as part of the brickwork in the north-west corner as a permanent feature. An entry/exit hole can be left for this during the building of the structure at ground level, and during construction a short timber or brick tunnel* added on the outside of the building on the western end to create the entrance to the hedgehog box. Inside the building the ‘lid’ of the hedgehog box should be a paving slab which can be easily lifted for inspection and cleaning and topping up bedding material in the autumn ahead of hibernation time.

* A tunnel of 40 cm length needs to be included in the construction of the hedgehog box, this helps prevent predators easily reaching in to catch any resident hedgehogs, the internal hole of the tunnel would need to be 17cm x 17cm.

Internally, the upper part of the building from the top of the brickwork to the eave will be clad with ply so there is a gap between it and the featherboard outer cladding which could be utilised as a bat roosting or hibernating space.

A rail of roofing batten should be fixed at a height of five feet around the entire interior of the structure to act as a foundation or anchor point for Swallows to attach their nests, Some ANCs for Swallows should be installed along this once the building is completed.

Bat refuges should be attached to the internal ply walls for additional roosting and hibernating space. Some bats like to squeeze into tight crevices others might hang from the roof, these bat refuges can be as simple as short pieces of board (offcuts of featherboard) c. 20-40cm, long attached to the internal walls leaving a gap behind of 25-35mm for bats to roost and hibernate behind.

The featherboard needs to be put on so there are gaps underneath some of the boards to give bats an entry point, these gaps can be created by wedging small pieces of wood c. 25mm thickness under the lower part of the board at time of installation, and small half-moon ‘knicks’ 25-35mm radius should be cut out of the lower edge of the featherboard to create bat entry points.

A Barn Owl window/opening will be included in the eastern end, the recommended measurements for the opening of this are: H40"x 18"W .

Hole-fronted Nest boxes for the Red-Listed Tree Sparrow (*Passer montanus*) which occurs within five miles of the proposed site for the structure will be included externally on both gable ends (there is a chance they might use the house martin and swift ANCs anyway). Open-fronted nestboxes on the western end might attract the Red-Listed Spotted Flycatcher (*Muscicapa striata*) to nest.

A barn owl box of standard design will be placed at the top of the brick corner in the north west corner this might need to be supported on diagonal planks across the corner of the building.

The inside of the building would provide a suitable environment for butterflies like the Peacock (*Aglais io*), Small Tortoiseshell (*Aglais urticae*), Comma (*Polygonia c-album*) and Brimstone (*Gonepteryx rhamni*) to hibernate along with moths like the Herald (*Scoliopteryx libatrix*).

Overall construction to be brickwork up to 36" height then timber above to the eave and roof ridge with exposed roof timbers inside. The construction of the roof must be sensitive to the needs of owls flying in and out and the length of the building, this would mean having no cross supports on the 'A' frame timbers of the roof from eave to ridge.

Six double House Martin ANCs will be placed along the north face eave. With an additional two ANCs on each of the gable ends.

Two Swift boxes will be installed on the north eave: one at each end.

Six single Swallow ANCs will be installed inside the structure on the south and west sides.

Colour illustrations of how the completed structure could look.

If, and when barn owls nest a bale should be placed on the floor in the middle or at the eastern end of the building as a safe stopping point for maiden flights of the fledglings, this would be a long enough distance from the box to hopefully reduce the chances of crash landings and the birds damaging themselves, from there they could test themselves with a short hop to perch on the hedgehog box before exploring the meadow. Livestock would need to be excluded at fledging time.

I have visited and assessed the site for any ecological impact and can confirm that there will be no adverse ecological impact.

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