Surrey Wildlife Trust

Otters & Rivers Project

Supported by The Environment Agency, Thames Water & SC Johnson

Building a Holt from Recycled Plastic

Introduction

The otter needs up to 20 safe lying-up sites within its territory for resting during the day. The building of artificial holts by local conservation groups is a useful way to compensate for the loss of natural cover, which has resulted from land drainage, bankside clearance, river engineering and highway schemes plus, of course, riverside housing development.

Artificial holts should be located where there is little natural cover, since an otter will probably resting sites in preference to man made ones. The holt should be built as close to the river as possible, with a pipe entrance leading to the water's edge if necessary, and where there will be little human disturbance.

The otter is a solitary animal, except when a female has her cubs, so a large structure is not essential. This design creates a secluded "room" that is 2' x 2' x 18", reached by a series of internal tunnels, all within a 4' x 3' box. It is a permanent, strong, maintenance free home that is large enough to act as a nursery but small enough to create the intimate conditions preferred by the otter.

Location

Provided the site has minimal disturbance from humans, and particularly dogs, the holt can be built anywhere: along rivers, streams, lakes and ponds, in meanders, field corners, riverside woodlands, islands and stream confluences. It should be built as close to the water's edge as practical and preferably within the 8-metre zone. It is better if an external pipe entrance connects the holt to the river's edge at normal water level so that the animal can enter unobtrusively direct from the river. **Any construction within 8 metres of the bank on main rivers will need Environment Agency consent.**

Tools required

2 Battery power drills with 5mm drill bits & size 3 pozidrive bits
1 Breaker bar (useful if the ground is very hard)
1 Mell or sledgehammer
1 Spirit level at least 600mm (2 ft) long
1 Corner post level
1 Tape measure
1 Wood saw
1 Marker pen
1 Garden spade & mattock (if the ground needs levelling or the holt is to be built underground)

This holt was designed in consultation with Filcris Ltd, The Old Fire Station, Broadway, Bourn, Cambridge, CB3 7TE
Tel: 01954-718 327
www.filcris.co.uk
sales@filcris.co.uk

They are familiar with the requirements and all the materials needed to build the basic holt are supplied on the pallet including the template and screws, and everything is cut to size.

If an external tunnel is to be fitted this should have been arranged with Filcris beforehand as you will need extra upright posts to fix the tunnel to the holt and to stake it along its length.

If a tunnel is being fitted then plastic land-drain pipe to a minimum diameter of 260mm should be used. **This is a separate item not supplied with the holt.** Such land-drain pipe can be obtained from Polypipe: www.polypipecivils.com or other similar manufacturers.

A detailed plan is shown on the last page of this leaflet.

Preparation

1) If an external tunnel is to be fitted then a short length of the extra post material should be cut as below:

2) Select a suitable site for the holt that and make it as level as possible with the roof on the ground.

You may have to dig soil away to achieve this.

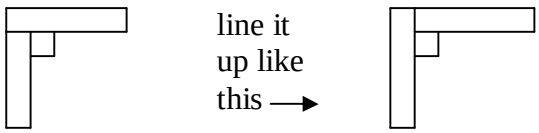
Construction

1) Stretch the template out on the ground and peg firmly in place.

2) Hammer in the posts, using the holes in the template, to a height of 43cm (17″), remove the template and level the posts accurately using the spirit level and corner post level.

3) Fit the inner walls (there is not room to operate the drills with the outer walls in place). It does not matter whether the tongue or the groove in the plank is uppermost as long as all the walls are the same. There is a smooth and rough side to the planks. The smooth side should face inwards.

Drill and screw the top row first, locating the planks 10mm down from the top of the posts. This is to make a gap which will create a little airflow, reducing condensation forming inside the holt. Slide the lower planks onto the upper ones locking them using the tongue & groove slots and screw them in. Any gaps at the bottom can now be made up with soil. **IT IS IMPORTANT TO FOLLOW THE PLAN EXACTLY.** If the plan says that a corner lines up like this:



4) Now fit the outer walls and fill any gaps under the bottom of the walls with soil as above.

Errors will creep in due to underground roots or stones but any minor adjustments can be made with the saw for an accurate fit.

5) The external tunnel (if fitted) should be fixed now. Line the pipe up in place over the entrance door allowing space to fit the pipe support allowing clearance above the entrance hole, and draw the shape round the pipe with the marker pen. Get an assistant to hold the support in place. **MAKE SURE THE DRILL BIT CANNOT GO THROUGH THE SUPPORT AND INTO THE ASSISTANT'S HAND.**

6) Fit the screws. Slide the pipe over the support and drill through the pipe for the

screws. Finally fix supports to hold the pipe firmly to the ground to make the pipe as rigid as possible.




7) Position the roof on top of the holt. Lay the template onto the roof, lining up the corner posts with the template holes. This will enable you to locate the internal posts for their screw fixings.

8) The finished holt is small enough to be inconspicuous but it can be covered with brash to hide it from human interference, to improve insulation and to be more aesthetically pleasing. Soil can also be packed around the pipe entrance (if fitted) to improve stability and exclude light.


On sites where there is a risk of flooding the holt can be staked to the ground using sheep netting for extra security. **Note: Extra posts, screws and/or staples will be required for this.** If possible a few plants such as hawthorn, dogwood, and dog rose can be planted around to grow up and hide everything. Fencing off the patch of land is recommended particularly if livestock are present.

On a flat site that does not need much preparation the holt can be built in less than a day using 3 or 4 volunteers.

Advantages

Whilst the materials may seem quite expensive, the end product is strong, totally weatherproof, provides good insulation, is difficult to vandalise and is permanent. It is reasonably light to handle during construction and needs no ongoing maintenance so that labour costs are kept to a minimum. Replacement of any brash cover can be easily done whenever the holt is monitored for otter presence. Finally, being quite small, the holt is easily made unobtrusive.

Plastic holts can be buried underground as the materials will not rot. However, more time will have to be allocated to allow for excavation for the hole and trenches for the pipework. Extra pipe will also be required for the back entrance. It would also pay to drill a hole in the roof of the sleeping chamber and insert a small ventilation pipe (about 40mm diameter) with a cranked end to prevent rain getting in. This can be disguised on the surface by covering with a bit of brash. The pipe could also be used to insert a small surveillance camera.

If you have any queries or comments either to improve the design of the holt or this leaflet please feel free to contact me.

Chris Matcham
Surrey Wildlife Trust
School Lane
Pirbright
WOKING
Surrey GU24 0JN
Tel: 01483-795 457
E-mail: chris.matcham@surreywt.org.uk

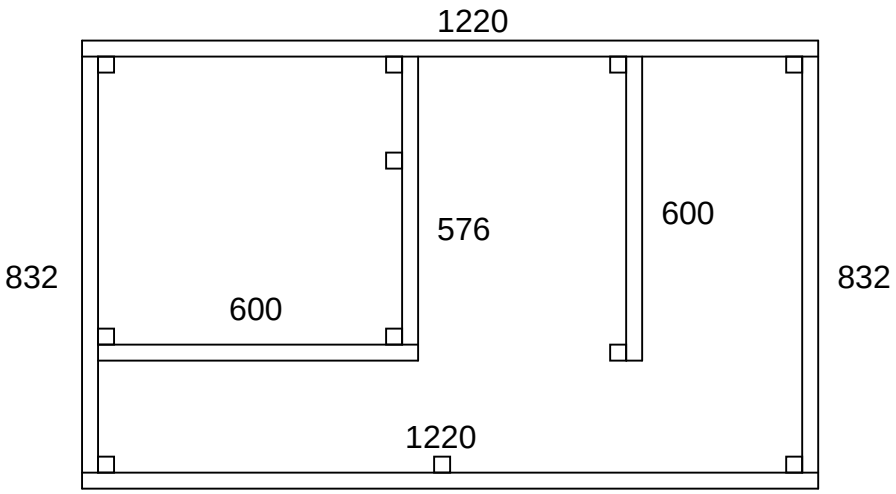
Surrey Wildlife Trust's Otters & Rivers Project is co-ordinated by the Wildlife Trust Partnership's Water for Wildlife project and is sponsored by:

Environment Agency

SC Johnson A Family Company

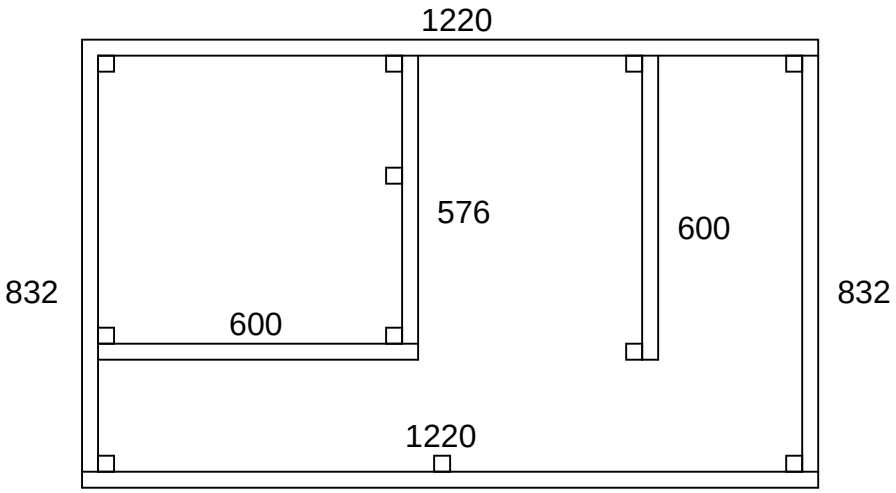
Thames Water

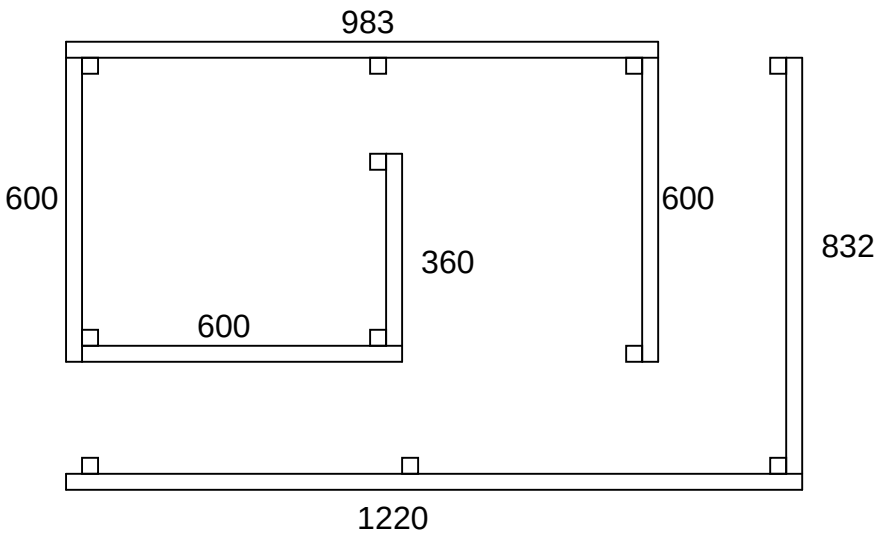
Detailed plan for holt



1220 x 2
832 x 2
600 x 2
576 x 1

Top Layer





1220 x 1
832 x 1
600 x 3
360 x 1
983 x 1

Base Layer