PROPOSED DEVELOPMENT OF

REDUNDANT FARM BUILDINGS

AT

BROOMHILLS FARM

DESFORD LANE

PECKLETON

LEICESTER

LE9 7RB

Protected Species report to:

Hinckley and Bosworth District Council Planning Authority

On behalf of:

Mr. Arek Kulakowski
Broomhills Farm
Dsford lane
Peckleton
Leicester
LE9 7RB

DEVELOPMENT SERVICES.
0 2 JUL 2008
RECEIVED

Prepared by

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Proposed development of redundant barns at Brromhills Farm Peckleton.

1.0 INTRODUCTION

1.1 This report has been prepared by Richard Fox, Ecological Consultant, for the information of Hinckley and Bosworth District Council Planning Authority in relation to a planning application on behalf of Mr Arek Kulakowski.

1.2 The application is in respect of a proposed redevelopment of redundant farm buildings.

1.3 The site, grid reference SK47326 02008 (to 21 ft.) is at Broomhills Farm, Desford Lane, Peckleton.

1.4 The site comprises a series of farm buildings including barns, a cattle byre and a large storage shed.

1.5 Broomhills Farm is off Desford Lane and surrounded by mixed farmland. The farmyard itself has a northern border of tall Leylandii trees.

2.0 PROPOSED WORK

2.1 Subject to planning consent, redevelop the site to provide residential accommodation.

3.0 LEGISLATION

3.1 All species of British bats and their roosts are protected by The Wildlife and Countryside Act, 1981 (as amended), The Countryside and Rights of Way (CRoW) Act 2000 and The Conservation (Natural Habitats &c.) Regulations1994. This makes it an offence to intentionally kill, injure or disturb a bat and to intentionally or recklessly destroy any place used for rest or shelter by a bat (except within the living area of a dwelling house although this activity may now require licensing under modified Habitat Regulations).

3.2 Any development work, which affects a bat roost, may require a licence issued by Natural England. Should a licence be deemed to be required,

Natural England is likely to seek advice from related Agencies as to whether a licence should be granted.

3.3 Licences in respect of European protected species (all bats are included) affected by development can be granted under Regulation 44(2) (e) of The Conservation (Natural Habitats &c.) Regulations 1994, for the purpose of preserving public health or public safety or other imperative reasons of overriding public interest including those of social or economic nature and beneficial consequences of primary importance for the environment.

3.4 Under Regulation 44(3), licences can only be issued if Natural England is satisfied that:
(a) there is no satisfactory alternative and
(b) the action authorized will not be detrimental to the maintenance of the population of the species at a favourable conservation statues in their natural range.

3.5 The Wildlife and Countryside Act, 1981 also makes it an offence (unless authorized) to intentionally kill or take any wild bird, take, damage or destroy the nest of any wild bird while that nest is in use or being built; or take or destroy an egg of any wild bird.

3.6 Any person who intentionally or recklessly disturbs any wild bird included in Schedule 1 of the WCA 1981 while it is building a nest or is in, on or near a nest containing eggs or young; or disturbs dependent young of such a bird shall be guilty of an offence and liable to a special penalty.

3.7 On conviction for offences under Wildlife Legislation, penalties include fines up to £5,000 *per animal/ bird* killed or injured; imprisonment and confiscation of all equipment used.

4.0 METHODOLOGY AND FINDINGS OF SURVEY

4.1 A detailed survey was carried out on Monday 10th December 2007 by Richard Fox, Ecological Consultant, who possesses appropriate survey licences issued by Natural England. Licences are only issued to persons who have demonstrated a suitable level of ability to Natural England. An assistant accompanied him.

4.2 In relation to bats, all buildings were surveyed for droppings, feeding remains, scratch marks, urine staining, dead bats and actual sightings.

Also covered were actual/potential access/egress points and roost sites including holes, cracks and crevices.

4.3 The survey also covered use of the buildings by other protected species, in particular birds for nesting purposes.

4.4 Equipment used where necessary included a high power light (1,000,000cp), close focussing binoculars and a Provision P480 endoscope. Photographs were taken using a Nikon D70 digital camera. A selection of the photographs taken is attached as Appendix A.

4.5 **General description of site** – a series of farm buildings consisting of two barns facing east/west and north/south, a single storey complex of cattle byres and a large storage shed. For ease of reference, the buildings were surveyed in order commencing with the single storey former cattle byre attached to the farmhouse.

Barn 1 a - the former cattle byre. In two sections and constructed of brick and joined to the farmhouse at its southern end. A single storey height barn with a pitched roof of profile tiles which were lined with a layer of mineral based felt. In addition to the normal use access door in the east elevation, there was another in the west elevation around which there were gaps sufficiently wide to permit access by bats. One of the small windows in the west elevation also had half its glazing missing giving more access potential. The east elevation door was also ill-fitting. The interior of both sections was fitted out as a cattle byre with feeding troughs along the northern walls. The interiors were surveyed for any evidence of use by bats in the form of droppings and feeding remains using where necessary, the high power light to check along purlins, rafters and the wall plate. There were no areas within either section requiring the use of the endoscope.

A few well scattered partial wings of Peacock *Inachis io* and Small Tortoiseshell *Aglais urticae* butterflies were on the concrete floor however on further searching, a few bat droppings were located at the southern end, two on the top of the central heating oil tank (arrowed in photo 6) and the others (6) on the floor at the base of the tank and directly below the ridge board. A similar search at the northern end revealed further evidence of discarded wings of mostly Large Yellow Underwing moths *Noctua pronuba.* This species of moth is a favoured prey item of the Brown Long-eared bat *Plecotus auritus* (BLE).

The BLE consumes the majority of its prey whilst on the wing however larger insects are taken to a perch. These perches are often found in porches and barns and may be recognised by an accumulation of the discarded wings of their prey.

Three discarded wings (photo 5) were located on the top of the concrete low partition dividing the two feeding areas and a further accumulation of approximately 20 wings some of which are shown in photo 14 and located within the feeding trough near the window frames seen in photo 4.

The other section of barn 1a of similar dimensions and construction apart from an absence of windows in the west elevation, had no evidence of use by BLE or any other species of bat despite a permanent access from the first section owing to a gap in the dividing wall above purlin height also visible in photo 4.

No evidence of use by birds for nesting.

Barn 1b – on the northern end of barn 1a with a slightly lower roof line (photo 1). Constructed of brick with a pitched roof of slate plate tiles which were unlined. The interior was in three sections with some ornate cross beams (photos 7 & 8). No evidence of use by any species of bat. There was open access due to an absence of doors.

The only evidence of use by birds for nesting was of nesting material (straw/dried grasses) within the ridge tunnel and most likely of House Sparrow *Passer domesticus.*

Barn 2 – the main building on the site being a two storey height detached barn of brick with a pitched roof of polythene sheet lined profile tiles. Although of two storey height, there was no upper floor and the roof condition especially at the east gable was poor with missing lattes and tiles (photo 10) giving unrestricted access for bats and birds. Further access was possible via ill fitting south elevation doors and a total absence of doors in the large opening in the northern elevation (photo 13).

At the west gable end, again directly beneath the ridge were some more discarded wings of Peacock butterflies and a few more wings of Large Yellow Underwing moths, being another feeding perch for a Brown Long-eared bat. The wings of both butterflies and moths were mostly faded indicating they had been there for some years although an almost

complete set of wings of a LYU moth appeared to be of this year's brood (on the wing during June/July). There were few (half a dozen) bat droppings well scattered on stored bags of Browning (plaster) indicative of a foraging bat.

There was no apparent evidence of use by any species of bird for nesting.

The outer brickwork of the barn was in general poor condition with many bricks eroded although none had completely eroded through. A vertical crack in the west elevation was checked for signs of bat use with a negative result. Growing on the external southern elevation wall was an area of Passion Flower *Passiflora sp.* and on the eastern wall a small area of Ivy *Hedera helix.* Neither 'stand' was of sufficient stature to afford any protection for roosting bats.

Barn 3 – a smaller detached (from the main farm buildings) brick building to the east of the farmhouse with a pitched roof of unlined asbestos cement panels. A partial upper floor section was present with access at each end only via portable ladder. Although the south elevation window was fully glazed, access was possible via the ill fitting west elevation door and (at the time of the survey) an open door through to the large shed. No evidence of use by bats for any purpose. There was evidence of use by birds for roosting with droppings on stored items but no apparent nests.

Shed 4 – constructed of asbestos cement panels and breeze block with the roof of asbestos cement panels supported by a combination of concrete/metal posts and girders with round wood poles supporting the north elevation pitch.There were many access points, particularly around the large doors in the north elevation however no evidence of use by any species of bat for any purpose or by birds for nesting.

Brown Long-eared bats tend to have a restricted foraging area compared to other species and there is likely to be a roost within a radius of 1km.

5.0 IMPACT ON PROTECTED SPECIES

5.1 With evidence of use by any species of bat limited to foraging and occasional feeding perches whilst foraging, the proposed redevelopment of the site would have little negative impact on bats. The condition of the main barn (Barn 2) is such that it is likely that should development be approved, it would require partial repairs. During such repairs, there

would be an opportunity to incorporate a 'bat brick' within the barn, as near the gable apex as possible. Appendix C refers to such a product and its installation would be a potential positive impact on bats as it is established at least one species is in the area and using the site as a foraging area and as an occasional feeding perch. Additional bat boxes could also be considered for erection on trees around the site or on the telegraph poles (permission required). Details also included in Appendix C.

5.2 There was some evidence of ingress by birds for nesting however any proposed redevelopment of the site would have little negative impact on breeding birds. Although the House Sparrow is included on the red list of Birds of Conservation Concern 2002-2007 as having more than a 50% reduction in its breeding population during the last 25 years, there are still over 10,000,000 breeding pairs within the UK.

6.0 MITIGATION MEASURES

6.1 Bats are highly transitory creatures and can and do, change their roosts from time to time, remaining undetected. I am satisfied, however that the buildings are not used by any species of bat as a roost, either summer or hibernacula. During redevelopment, in the unlikely event of any bat(s) being found, actions as per Appendix 'B' **must** be followed.

6.2 On the date of the survey, evidence as to use by birds for nesting was minimal. Birds during the breeding season (Mid March – end of August) are opportunists and may attempt to use any of the buildings given any easy access. Subject to the timing of any permitted development, the presence of breeding birds is to be taken into account. Should any species of bird succeed in establishing any nest and commence breeding, any work within the immediate area to cease until all young have fledged. The period of time from egg laying to young leaving the nest is species specific but may take up to forty days with some species having more than one brood per season.

6.3 Any timbers being retained during the renovation/conversions and requiring treatment for wood boring insect infestation, to only be treated with a chemical approved for use within a bat environment. An up to date list of manufacturers and their products is available from Natural England who **must** be consulted if bats are known to be present.

6.4 From 21st August 2007, amended Habitat Regulations came into force to bring the UK in line with Europe in relation to 'Protected Species'. This

means some changes in Licensing, however simply put, where there is no 'significant affect on the ability of a particular species to survive, breed or care for their young' an act of 'disturbance' will not be committed. In development terms, this implies that provided such development is carried out in accordance with mitigation measures, so as not to affect any species as defined above, it *may* be carried out without licensing. The use of the buildings by bats is restricted to an occasional foraging area and feeding perch by individual bats of the second most common species within the UK and certainly not maternity/nursery roosts. There will be no adverse affect on population sizes within the area. The provision of the bat unit may well enhance population sizes as it will provide more suitable roost facilities than those currently present.

7.0 CONCLUSION

7.1 The survey carried out on Monday 10th December 2007 revealed use of the former farm buildings at Broomhills Farm, Peckleton by possibly a single Brown Long-eared bat for foraging and as a feeding perch. The redevelopment of the site would not have any adverse affect on foraging bats.

7.2 Some nests of House Sparrow were possibly in barn 1b.

Richard Fox
Ecological Consultant
10th December 2007

N.E. licence no. for bats: 20073475

APPENDIX A

A selection of the digital photographs taken during the survey

© Richard Fox 10th December 2007

1. Barns 1a and 1b showing the east elevations.
2. Barn 2 showing south and east elevations.
3. Barn 2 showing east and north elevations.
4. Roof detail within barn 1a.
5. Large Yellow Underwing moth wings on top of byre divider in barn 1a.
6. Arrow points to location of the two bat droppings on top of oil tank in barn 1a.
7. Roof detail within barn 1b.
8. As above.
9. Roof detail at western gable of barn 2.
10. Roof detail at east gable of barn 2.
11. General interior of barn 2 looking west.
12. General interior of barn 2 looking east.
13. The large access doorway in north elevation of barn 2.
14. The accumulation of discarded moth wings in cattle trough barn 1a.
15. Barn 3 and shed 4 showing south elevations.
16. Roof detail within barn 3.
17. South elevation of shed 4.
18. General interior view of shed 4.

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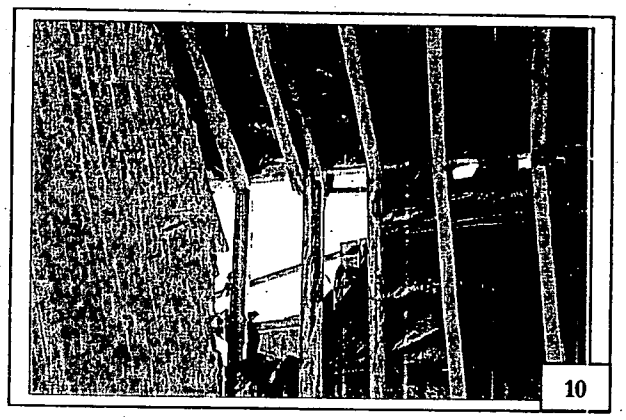
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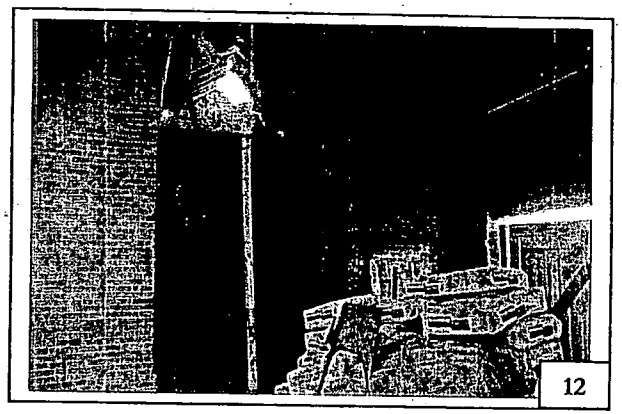
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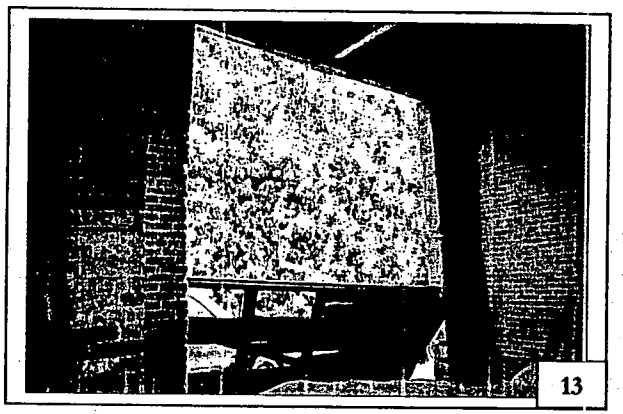
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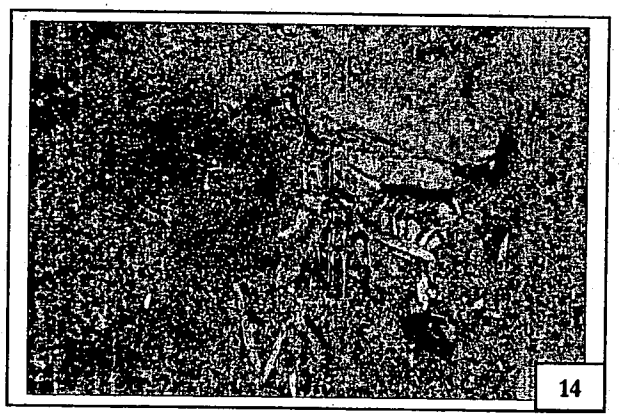
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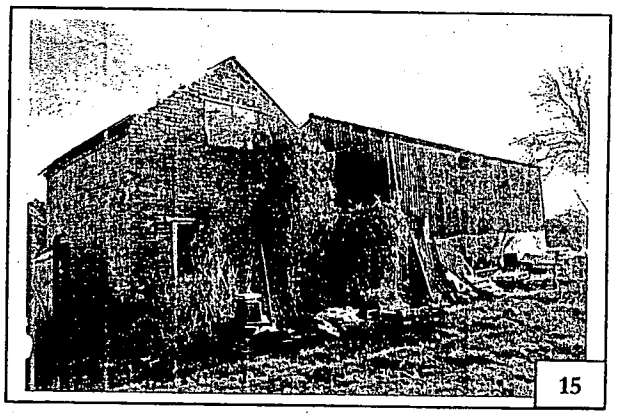
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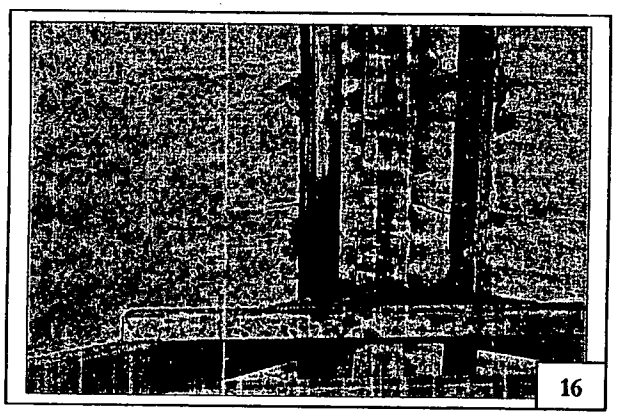
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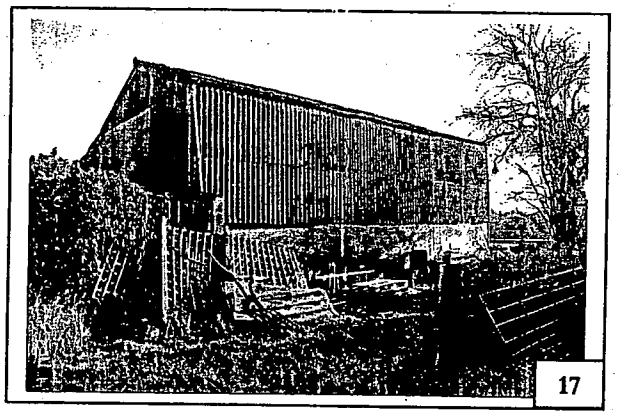
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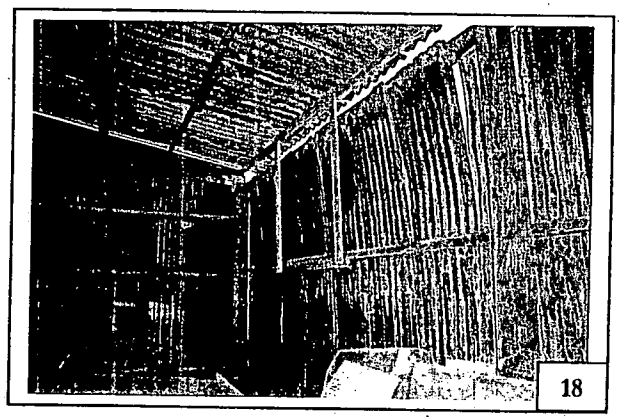
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APPENDIX 'B'

Procedure to be followed should bats be found during work

The following is only acceptable where there is a relatively **low risk** of finding bats.

1. If at any point in any demolition/repair/alteration/felling, bats are discovered, contractors must stop work immediately and contact Richard Fox (Licensed Consultant) on 01427 718042 or 07808 161056. If for some reason, he is not available, then to contact the nearest Natural England Office (formerly English Nature).

2. Actions will then be taken following the advice given. This may include the removal of bats, but only where direct written or verbal permission has been given on behalf of Natural England.

3. Only when The Consultant and Natural England are satisfied that the risk to bats has ceased will work recommence.

4. Should it transpire that the operation being carried out is of more risk to bats than originally thought, work will be stopped until supervised by an appropriately licensed person.

5. Should any bat/bats be found under a tile or any other aperture, work will stop immediately. If the bat doesn't voluntarily fly out, the aperture is to be carefully covered over to provide protection from the elements. A small gap should be left for the bat to make its own escape. Any covering must be free from any grease or other contaminant and should not be fibre-glass based material. Advice can then be sought from Natural England or appropriately licensed person.

6. In respect of bats found during tree felling, procedure for contact remains as above. If help is not immediately available and the bat(s) uninjured, make sure they fly out of harm's way. If in torpor during hibernation, carefully remove to a safe place. *Always handle bats by wearing light gloves.* If the timber is felled, the roost not exposed and bat(s) unharmed, temporarily seal and isolate roost by positioning it off the ground. Re-open and allow bat(s) to relocate of own accord. If roost exposed and especially if bat(s) injured, collect bat(s) and proceed as per 8 below. If in doubt about handling any bat(s) then please proceed as per 1 above.

7. Trees with trunks and branches covered by Ivy, once felled, to be left in situ for at least 24 hours in order that any bats temporarily using the Ivy for shelter may be able to fly away. Trees/branches with holes/cracks/crevices identified as actual/potential bat roosting sites, to be sectional felled in accordance with any mitigation measures specified in main report.

8. Any injured bats should be gently placed in a secure ventilated box (a cardboard box will suffice) in a cool, quiet, dark place for the bat's protection whilst waiting for the arrival of the licensed person.

Works with a high risk to bats should only be carried out in the presence of an appropriately licensed person or as directed by any licence issued by Natural England.

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APPENDIX C

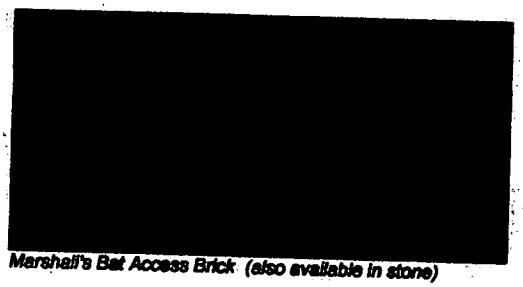
Bat Access Brick and optional Roost Unit

Making and positioning of bat boxes

Bat Access and Bat Roost Bricks

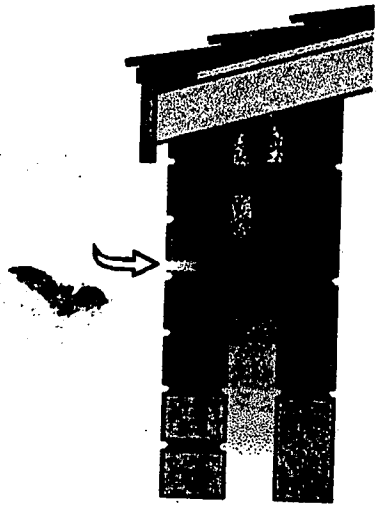
Over recent years Marshalls Clay Products has become almost as well known for the success of its award winning environmental work as it is for the quality of its brick products. Our land restoration and nature conservation schemes, first developed by Yorkshire Brick Company, have become an integral part of our activities over the years and have been recognised as some of the most successful of their kind anywhere. part of this ongoing philosophy, Marshalls Clay Products have been producing a special Bat Access Brick, specially designed to help the country's badly depleted bat population by providing access to wall cavities spaces where most bat colonies tend to be. (see diagram)

In recent years bats have been declining at an alarming rate, (estimates suggest as much as 60%) loss of habitat being a key factor in this decline. Nearly all colonies tend to be on the outside of houses, in wall cavities, under slates, flashing or tiles, etc.



Marshall's Bat Access Brick (also available in stone)

Contrary to popular opinion bats do not make nests and do absolutely no damage to buildings or roof timbers, indeed many people encourage bat colonies in their area because of the large number of insect pests, woodworm, etc. which they eat. Most colonies will use a house for only a few weeks in summer before dispersing by the autumn.



A Bat Brick should ideally be placed as high possible, at the gable apex or close to the eaves

Bat Roost Unit

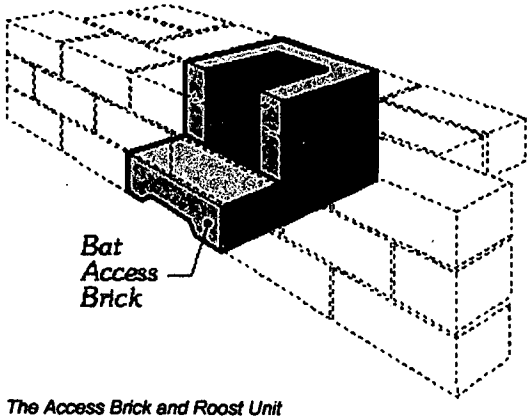
Marshall Clay Products Ltd. Howley Park, Quarry Lane, Dewsbury, West Yorks. WF12 7JJ tel: 0113 220 3535 fax: 0113 220 3555



Approved by the Bat Conservation Trust

A recent survey of bridges in Yorkshire found that 25% were being used by bats. Other reports showing sin findings suggest that large number of tunnels and bridges are occupied by bats. As bats are protected under the 1981 Wildlife and Countryside Act, engineers should attempt to preserve the bat habitat while carrying out essential maintenance to these structures. If bats are known to use the structure, the Country Agency for Nature Conservation should be consulted.

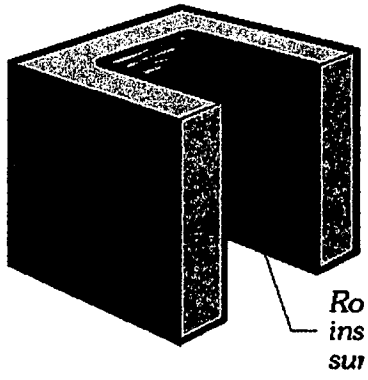
Following a meeting with The Bat Conservation Trust and British Waterways Technical Services Department, Marshalls Clay Products have developed an elegant solution in the form of their Bat Roost Unit. Used in conjunction with the Bat Access Brick, the unit provides a rough surfaced cavity of 110 X 150 X 215 mm. The module can be used in repairs to bridge arches and abutments as well as in many new construction projects.



The Access Brick and Roost Unit combination set within a wall structure.

The preservation of bat habitats is very important to help maintain the diversity of bat species in this country. Engineers and specifiers can now play a significant role by specifying Bat Access Bricks and Bat Roost Units in repair and maintenance work.

Bat Roost Unit



The Access Unit/Roost Unit combination have been carefully designed to work not just in or existing walls but also within brick and s here arch structures. Bat Access Bricks have bee supplied in significant numbers to large organisations such as British Waterways a and British Rail, who operate continuous maintenance programmes on bridges and tunnels. Other organisations are ordering s numbers for incorporation into building wor ks and some private individuals are using Bat Access Units in their own homes.

Marshalls Bat Access and Roost Units a re approved by the Bat Conservation trust.

MAKING AND POSITIONING OF BAT BOXES

The felling of dead, old and hollow trees reduces the availability of natural roost sites for the majority of our British bat species. The provision of bat boxes is an important factor for conservation and research; however they cannot entirely replace natural tree holes.

Of our seventeen species of bat, eleven have roosted in bat boxes and of those eleven, six have bred in them (Pipistrelle sp., Noctule, Leisler's, Natterer's, Daubenton's and Brown Long Eared). It is also known that bat boxes are used as mating roosts.

Summer boxes – should be large enough to allow a maternity colony to cluster so conserving heat to keep the young warm. Although called 'summer boxes' they may be used all year round except in temperatures below -4°C.

On page 2 are schematic diagrams of the dimensions of a 'standard' bat box, which should be made out of soft wood. The box(es) should be well built, dry, rainproof and draught free. The wood to be of rough sawn timber on all surfaces and not less than 25mm thick. The rough surfaces will allow bats to land and investigate the structure. The entrance slit should ideally be underneath the base and may be either to the front or rear with a width of 15 to 20mm to allow entry by bats. The construction can be fitted together using waterproof glue, screws or nails and the lid either snapped into a groove on the back plate or hinged and secured with hook and eye. From personal experience especially when checking boxes for occupation, a hinged lid is preferable as it is less likely to create problems with bats' feet when replacing. **No wood preservatives to be used as these are harmful to bats.** Untreated boxes will last approximately ten years.

Fixing – Use headless or domed nails to allow the tree (as it grows) to push the box off without splitting; or you can strap the box to the tree. On trees with no commercial value, iron nails may be used. Copper nails may be used on conifers although aluminium nails are preferred as they are softer and don't damage saws and chipping machinery.

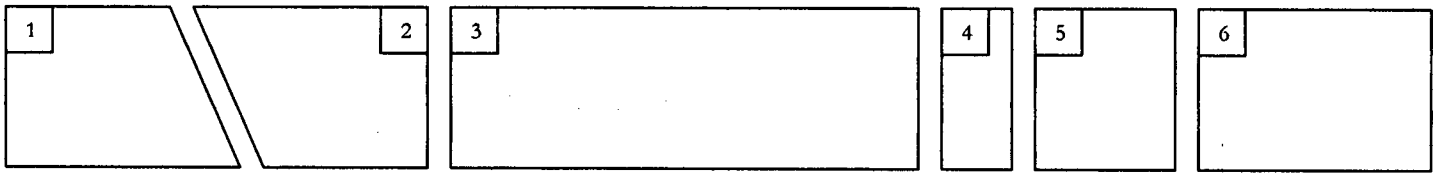
Location – for best results of occupancy, boxes to be sited in areas where bats are known to feed but where there are few potential 'natural' roosts. Boxes to be placed as high as possible (how high will your ladder reach?) and in a sheltered and wind-free area, which has exposure to the sun for part of the day. It is preferred that boxes are grouped three per tree/site facing North, Southeast and Southwest to provide alternative roosts dependent on ambient temperature/prevailing weather conditions. An area around each box to be kept free of obstructions (branches etc.) to allow bats unimpeded access.

Inspection – Bats and their roosts (whether occupied or not) are protected at all times under the Wildlife and Countryside Act 1981 and it is an offence to disturb, handle or kill bats or to destroy their roosts. Known roosts may only be checked under licences issued by Natural England.

If only a few boxes are installed on your property, occupancy may be checked by observing them at dusk to see if bats are coming out/going in. Boxes should not be physically checked during the months June to mid August when bats are giving birth and lactating.

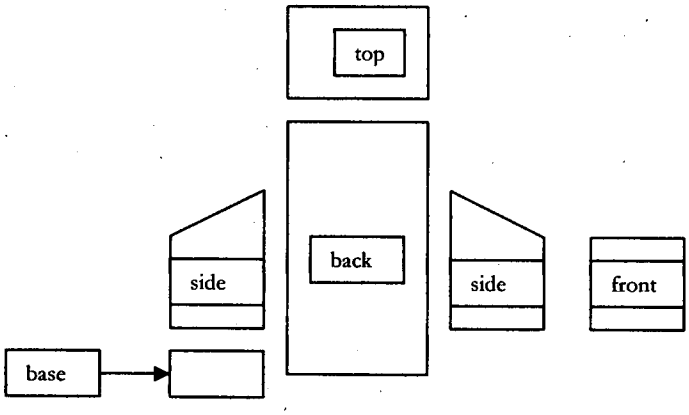
From initial positioning of bat boxes, it may be several months or even years before boxes are used regularly.

To check a bat box, lift/open the lid carefully as bat(s) may be hanging on the top. Again, from personal experience, on checking many bat boxes annually since 1995, bats which have been discovered as above have usually moved further down the box of their own accord, unless in a deep torpor, allowing me to replace the lid *carefully* so as not to trap their feet. On the rare occasion of a bat not moving to 'safety' it should be carefully removed and placed at the box entrance and allowed to crawl back into the box. Bats should not be handled with bare hands.

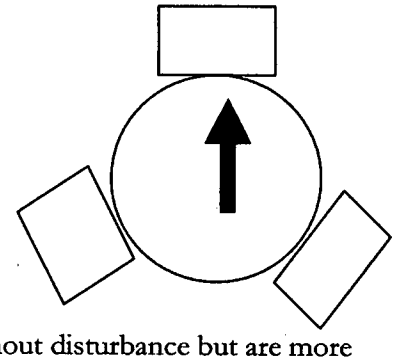


1 and 2	Side of box dimensions 150mm (front to back) 200mm (back) 140mm (front)
3.	Back of box 150mm x 330mm
4.	Base of box 150mm x 80-85mm to allow for entrance slit
5.	Front of box 150mm by 140mm
6.	Top 150mm by 200mm, which can either fit into a groove on the back plate or hinged.

Exploded view of construction



Fixing of boxes around a tree.



There are other designs available, which afford inspection without disturbance but are more complicated to make. Boxes can now be obtained made from other materials including wood chippings/sawdust and concrete (woodcrete) and are more durable but can be expensive. Further information on bat boxes can be obtained from The Bat Conservation Trust (BCT) at 15 Cloisters House, 8 Battersea Park Road, London SW8 4BG Tel. 020 7627 2629; www.bats.org.uk.

This leaflet is based on information provided in their publication on Bat Boxes.

Two independent suppliers of ready made bat boxes of a variety of styles, construction materials and price are:- Alana Ecology, The Old Primary School, Church Street, Bishop's Castle, Shropshire SY9 5AE

Tel. 01588 630173 www.alanaecology.com e-mail: sales@alanaecology.com

And

Envisage, The Old Brickyard, Kiln Lane, Swindon, Wiltshire SN2 2NP tel: 01793 538822

The Internet will list several more suppliers of bat boxes.