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Biodiversity Enhancement Strategy & Wildlife Sensitive Lighting Design for Development at Progress Farm, Base Green Road, Wetherden, Stowmarket, Suffolk. IP14 3LR

**(Conditions 13 & 14 Application:
DC/23/02838)**

On behalf of:

Josephine Fox

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0 SUMMARY

- 0.1 Skilled Ecology Consultancy Ltd. was commissioned by Josephine Fox to produce a Biodiversity Enhancement Strategy & Wildlife Sensitive Lighting Design for development at Progress Farm, Base Green Road, Wetherden, Stowmarket, Suffolk. IP14 3LR. The report is required in pursuit of condition discharge for conditions 13 & 14 Application: DC/23/02838.
- 0.2 The proposed development is for conversion of 2 No. agricultural buildings and the retention of works to form 3 No. dwellings.
- 0.3 The report has been produced by experienced ecologist Roger Spring BSc MCIEEM (licensed by Natural England to survey for bats and great crested newts *Triturus cristatus*). The report is informed by Ordnance Survey Maps, aerial photographs, site photographs and development plans.
- 0.4 The BES includes:
- Wildlife friendly lighting.
 - Installation of a new bat box & bird box.
 - Native species planting.
- 0.5 The above would ensure the appropriate and proportionate enhancement of the site by increasing bird nesting and bat roosting habitat, as well as minimising the risk of impact to nocturnal wildlife. With this report followed accordingly, the site would be enhanced to provide a net gain in accordance with national planning policy and the appropriate conditions could be discharged.

1 INTRODUCTION

1.1 Background

- 1.1.1 Skilled Ecology Consultancy Ltd. was commissioned by Josephine Fox to produce a Biodiversity Enhancement Strategy & Wildlife Sensitive Lighting Design for development at Progress Farm, Base Green Road, Wetherden, Stowmarket, Suffolk. IP14 3LR. The report is required in pursuit of condition discharge for conditions 13 & 14 Application: DC/23/02838.
- 1.1.2 The proposed development is for conversion of 2 No. agricultural buildings and the retention of works to form 3 No. dwellings.

2 METHODOLOGY

2.1 Desk Study

- 2.1.1 The BES has been produced by experienced ecologist Roger Spring BSc MCIEEM (licensed by Natural England to survey for bats and great crested newts *Triturus cristatus*). The report is informed by Ordnance Survey Maps, aerial photographs, site photographs and development plans.

3 RESULTS

3.1 Site Description & Location

- 3.1.1 The site and proposed development includes: large modern barns constructed from modern materials such as breeze-block and corrugated sheeting with timber frames bolted together. The barns are positioned in a farmyard surrounded by concrete with scattered herbaceous plants. Mature trees are present on the site boundaries. The broader landscape is dominated by arable farmland, though small-scale grazing is also noted. Three ponds are present within 250m of the site, though not very nearby (Ordnance Survey Maps, 2024).

4 RECOMMENDATIONS

4.1 Key Recommendations

Sensitive Lighting

- 4.1.1 As an overview to the potential impacts of lighting on bats, it is now well documented that all UK bat species are sensitive to light and are affected in different ways by light. The types of light most likely to impact negatively upon bats are high wattage white light with an ultraviolet spectrum. The impacts to

bats are reduced when the wattage is reduced and ultraviolet light is removed. In addition, bats are less sensitive to red light than white light. Lighting impacts on bats are most detrimental close to roosts which can be abandoned, as well as along foraging routes, such as river corridors, hedgerows and woodland edges and along commuting routes where bats can be forced to use suboptimal habitat for commuting because of lighting and in worse cases can be prevented from reaching foraging grounds altogether by lighting. It is also recognised that some bat species are more sensitive than others to increased lighting levels (Guidance Note 8 Bats and Artificial Lighting, Institution of Lighting Professionals, 2023).

- 4.1.2 Therefore, to minimise impacts to foraging and commuting bats and other nocturnal wildlife likely to use the boundary habitats, all new external lighting will include only low wattage, warm white, Light Emitting Diode (LED) and be directed downward (<2700k). The lighting will be set on sensors to reduce the length of time the site is illuminated.

Creation of New Habitats

- 4.1.3 The following will be undertaken to create new habitats for foraging, nesting and roosting by protected, priority and declining species:

- 2 x Beaumaris Bat Box will be installed onto the walls of the newly constructed dwelling. The boxes will be installed just below the roofline on the southern elevations. See Figure 1 in Appendix 1 for location and photographs in Appendix 2.
- 1 x Vivara pro Sparrow Terrace will be installed onto a wall of the newly constructed dwelling. The box will be installed above 4m in height facing a northerly direction. See Figure 1 in Appendix 1 for location and photographs in Appendix 2.
- 1 x Schwegler Kestrel Box will be installed onto a wall of the newly constructed dwelling. The box will be installed high (above 4m) facing a northerly direction. See Figure 1 in Appendix 1 for location and photographs in Appendix 2.
- All new proposed soft landscaping will be native and/or wildlife attracting. The soft landscaping design includes and new mixed native hedgerow and new tree planting. The new tree planting should include native broad-leaved woodland species.

Management of New Habitats

- 4.1.4 To maximise the long-term ecological value of the newly created habitats, the following management will occur:

- The bat and bird boxes/bricks do not require specific management and are durable products with a long lifespan. However, the boxes should be annually checked in winter and if lost or damaged within

the first five years they should be replaced on a one-for-one basis. During the annual check, if cleaning of bird boxes/bricks is required this should also be undertaken.

- The hedgerow and tree planting should follow horticultural best practise and include watering during dry periods. If any plants die within the first 5 years they should be replaced on a one-for-one basis. Hedgerow pruning should occur after 4 years of growth to form a triangular shape providing thickness of shelter habitat for nesting wildlife.

4.1.5 Josephine Fox or the developer is responsible for following and implementing this report.

5 CONCLUSION

5.1 The report includes new habitats for protected, priority and declining wildlife such as; house sparrow and bats in accordance with the relevant planning condition. The report also includes wildlife sensitive lighting design to minimise disturbance to nocturnal wildlife.

5.2 By following this report, the site would be proportionately enhanced for local wildlife to provide a net gain with minimal predictable lighting impacts to wildlife in accordance with Conditions 13 & 14.

6 REFERENCES

Bat Conservation Trust (2023) *Bat Surveys- Good Practise Guidelines, 4th Edition*. Bat Conservation Trust, London.

Ministry of Housing, Communities and Local Government (2023). National Planning Policy Framework, 2023. Fry Building, London.

Websites: NHBS (2024). www.NHBS.co.uk.

Figure 2: Barn 1 Habitat Box & Light Positions.



Figure 3: Barns 2 & 3 Habitat Box & Light Positions (Rear & Side Elevations).

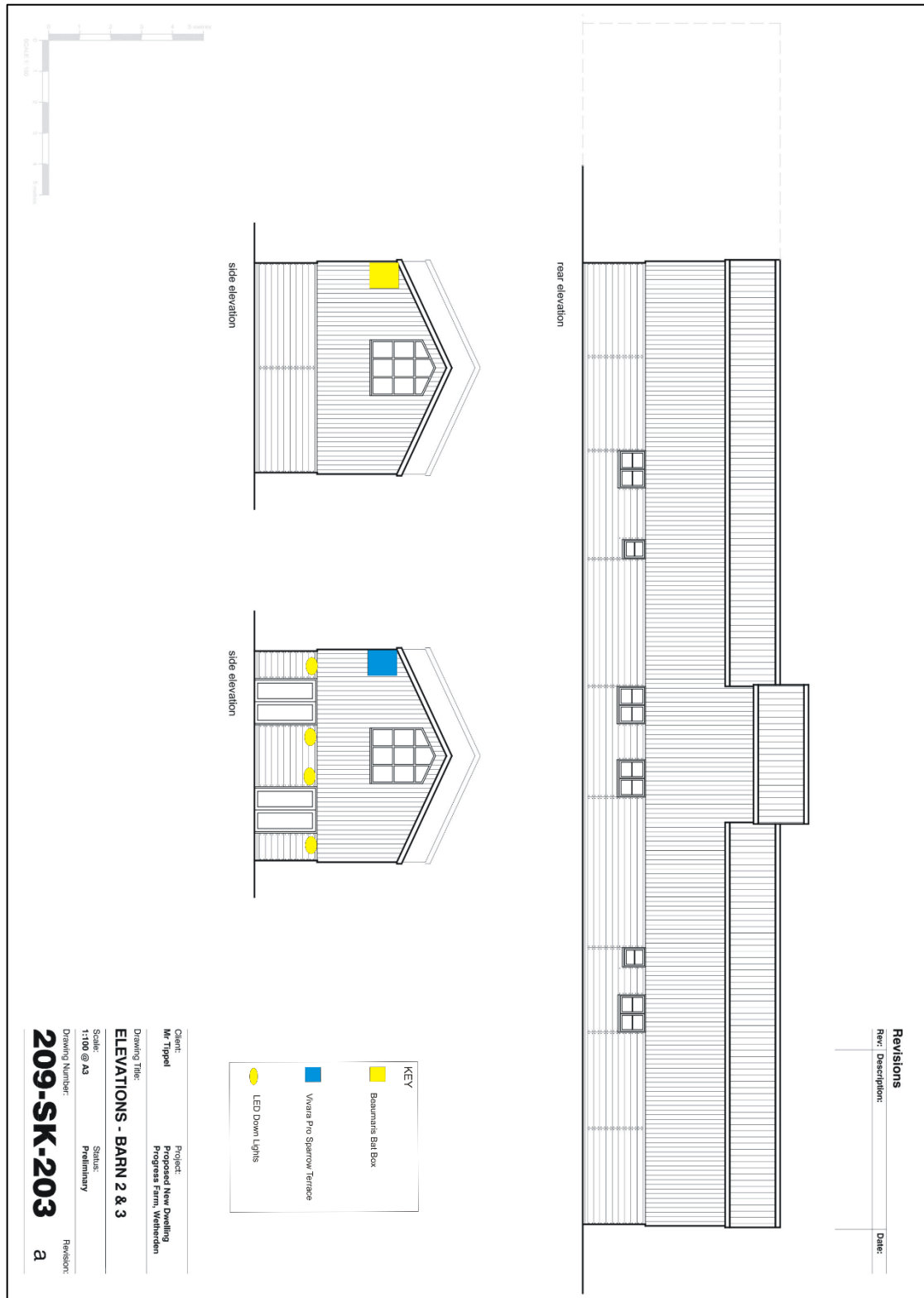
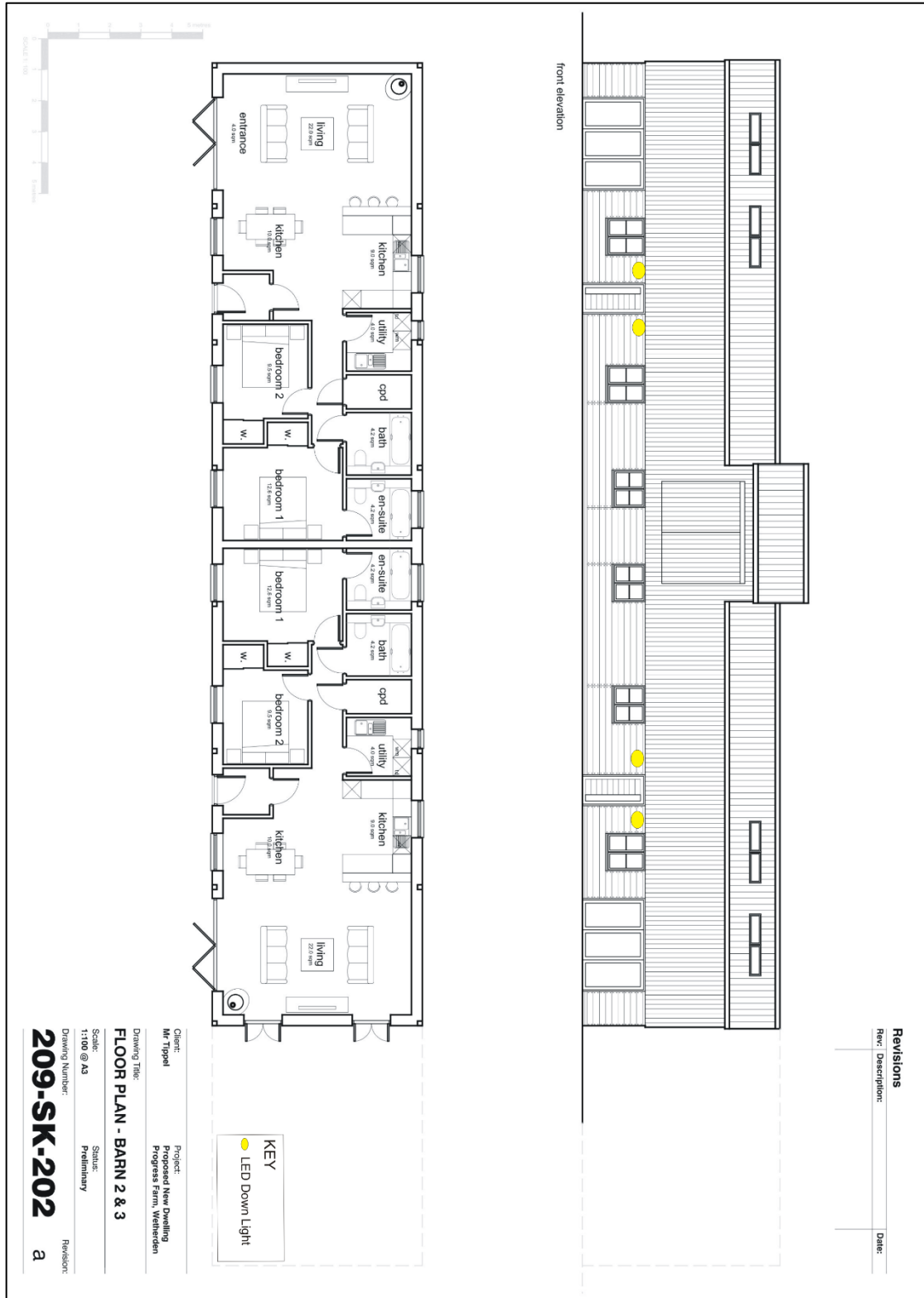


Figure 4: Barns 2 & 3 Light Positions (Front Elevation).



6.2 Appendix 2: Habitat Boxes/Bricks

Photograph 1: Beaumaris Bat Box.



Photograph 2: Vivara Pro Sparrow Terrace.



Photograph 3: Schwegler Kestral Box.



Photograph 4: Example of Wildlife Friendly External Lighting- Integral LED 7.5W LED Curve Outdoor Wall Down Light with PIR - IP54 - Warm White.

