

Sensitive Lighting Plan for Rear Ground Floor Extension to Applegarth, High Street, Wrington, BS40 5QD

For discharge of Condition 5 of North Somerset Planning Application Number Ref. No: 22/P/1887/FUH.

Plan to include details of any proposed external lighting, an assessment of anticipated light spills from the interior of the building and any proposed mitigation measures.

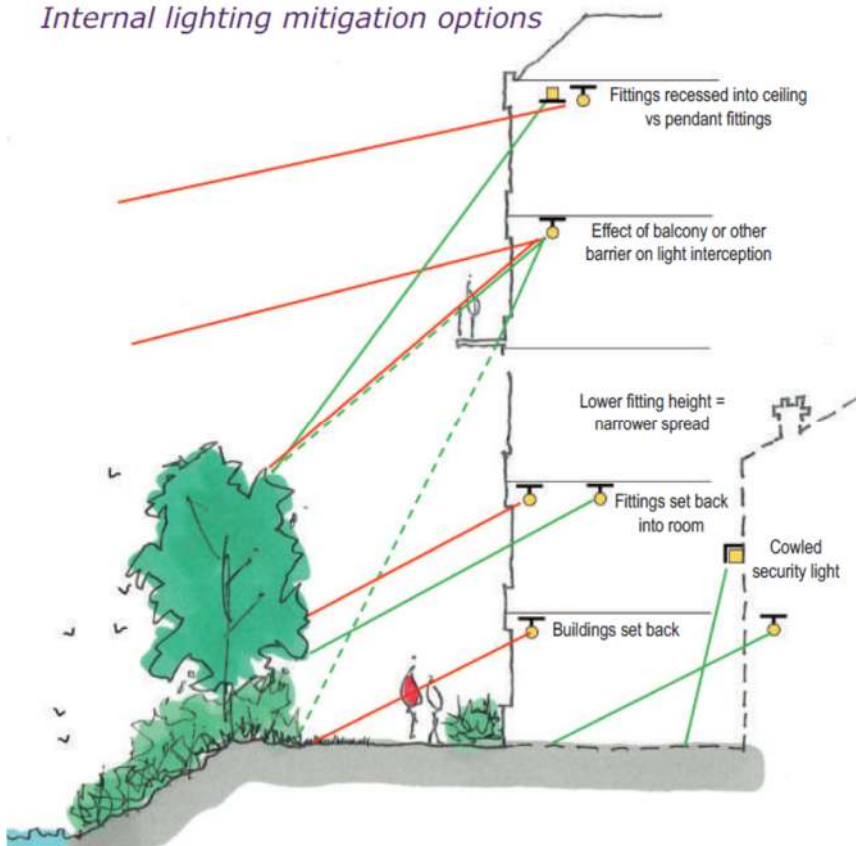
Reason: To comply with the Wildlife and Countryside Act 1981 (as amended), the Conservation of Habitats and Species Regulations 2017 (as amended) and the Environment Act 2021; Policy C4 of the North Somerset Core Strategy and Policy DM8 of the North Somerset Sites and Policies Plan (Part 1).

Background; the proposal is within Bat Zone B of the North Somerset and Mendip Bats Special Area of Conservation. The protected species survey carried out by Greena Ecological Consultancy on 23rd August 2022 and submitted with the planning application concluded that there is **negligible potential for bats to be affected by the development.**

It is to be noted that the survey by Greena Ecological Consultancy was carried out during the active season for bats, between May and September and did not recommend any further surveys or monitoring. It also related to the original plans submitted in August 2022. These plans have subsequently been scaled back with a reduction in height of the roof and the building set back behind the high stone wall, which was previously due to be removed. The stone boundary wall will help screen and defuse light spill when compared to the initial proposal. There has been a reduction in the roof glazing from a large roof lantern with 4 velux windows to only 3 flat roof lights. All these changes will have reduced the potential for bats to be affected by the development.

Reference has been made to the *Bat Conservation Trust and Institution of Lighting Professionals Guidance Note 08/18 'Bats and Artificial Lighting in the UK'*, with the following recommended mitigation options:-

Internal lighting mitigation options



The new light to be installed above the new back door, will match the existing light on the north corner of the building as shown in the photograph below with an upward light output ratio (ULOR) of 0%. LED luminaries in a warm light spectrum will be used due to their sharp cut off and lower intensity. The new back door light with PIR will be located below the level of the porch so that the porch provides additional upward shielding.



At the rear of the extension, the existing swan neck light which emits light upwards will be removed and replaced by bat friendly lights mounted on the rear 2.75 m high free-standing wall at a height of 2.2 m. As the height of the free-standing wall exceeds the height of the lights with an upward light ratio of 0%, there will be no light spill into the garden. LED luminaries in a warm light spectrum will be used due to their sharp cut off and lower intensity. The 3 new lights will match the existing light on the northern corner of the house with PIRs and will be located as marked by the yellow dots in the following photograph:-



The light spill from the interior of the building will be restricted by the high stone walls which will remain in situ and surround the extension at distance of 1.1 m from the newly constructed walls/windows on all 3 sides. The window on the northeast elevation will have a maximum height of 2.6 m compared to the garage wall which is 5.3 m high and will hence prevent any light spill beyond the 1 m width between the new northeast wall and the existing wall.

The windows on the southeast elevation will have a maximum height of 2.6 m compared to the rear free standing wall height of 2.75 m so any light spill in this direction will also be restricted to only the 1m width between the new elevation and the high wall. To mitigate this, further the interior lights which can be viewed through the arch will be recessed into the ceiling and set back a minimum of 1m from all windows as to limit horizontal light spill.

The small windows on the southwest elevation will be higher than the adjacent stone wall and have the potential to create light spill. Impacts of artificial light spill resulting from newly fitted internal lighting will be mitigated by positioning new fixtures in line with recommendations within current guidance (BCT & ILP 2018). The interior lights will have an upward light output ratio (ULOR) of 0%, be recessed into the ceiling and set back a minimum of 1m from all windows as to limit horizontal light spill. Additional lighting will be fixed below the level of the wall mounted cabinets, again with a ULOR of 0%.

The roof lights have the potential to create upward light spill. This will be mitigated as recommended by the current guidance by recessing the lights into the ceiling and using lights with a ULOR of 0%.