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ECOLOGICAL RFI RESPONSE

Report date: 10 March 2023

SDCC Reg. Ref.: SDZ22A/0014

Site: Proposed Development on lands located in the Aderrig Development Area within the Adamstown SDZ Planning Scheme

Applicant: Quintain Developments Ireland Limited

Response to Request for Further Information (RFI)

This report forms a response to RFI Item No. 7 (SDCC, 16 December 2022), which states:

7. Ecological Mitigation measures:

a) Bats.

An Ecological Impact Assessment (Faith Wilson, 15th December 2021 - page 20) identified potential bat roosts on the northern boundary of the proposed site for which protective measures are required. Revised proposals are required that integrate the recommendations of the ecologist and bat expert into the design proposals.

b) Badgers

The badger is an internationally protected species under the Wildlife Act 1976 (Amended 2000) and the Bern (1982) convention. A badger sett was identified the northern part of the western boundary hedgerow (BSM Ecological Impact Assessment Report Oct 2022). The EclA (Faith Wilson, 15th December 2021) also identified this sett and proposed remedial measures in the form of an ecological corridor and badger protective fencing. The report also identified other badger setts within the wider area (Fig 12 Page 26) and stated that habitat connectivity between these setts must be protected and enhanced. The applicant is requested to undertake a badger survey; review badger protection measures in the context of adjoining approved development and provide an approach to badger protection both during construction and in the long term to ensure habitat connectivity and protection from people and dogs.

c) Public Lighting:



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Revised proposals that incorporate the recommendations regarding reduction of light disturbance. There shall be no light spill from the proposed development into the retained areas of linear vegetation. Public lighting proposals to be clearing shown on the landscape plans to also ensure Street tree proposals can be implemented.

Response:

This report should be read in conjunction with the accompanying response to the wider RFI, including on landscape-related matters, prepared by Doyle + O'Troithigh Landscape Architecture Ltd.

a) Bats:

An Ecological Impact Assessment (Faith Wilson, 15th December 2021 - page 20) identified potential bat roosts on the northern boundary of the proposed site for which protective measures are required. Revised proposals are required that integrate the recommendations of the ecologist and bat expert into the design proposals.

Comprehensive bat surveys were undertaken by specialist bat ecologist Mr Brian Keeley at Aderrig in June and July 2022. This is the optimal time of year to undertake such work, and the repetition of the surveys twice over the summer period ensures that the results are appropriately robust. The bat survey report was submitted with the planning application, as Appendix 3 of the EclA. The survey found no bats roosting on the lands and confirmed that no bats were seen to emerge from or enter any tree within or around the site. No bats emerged from or entered the substation on the western boundary. Three bat species (Leisler's bat, soprano pipistrelle and common pipistrelle) were recorded feeding on the site, mainly along the western boundary.

The mitigation measures proposed in the planning application documentation include a requirement to examine all trees for the presence of bats prior to their removal. If the survey is undertaken at a time when bats are active, a bat detector survey will be undertaken of the site sufficient to confirm the presence / absence of bats. The discovery of a bat roost, albeit very unlikely, would require a derogation from NPWS and additional mitigation.

The findings of the bat survey, principally that bats forage on the site and that no roosts will be removed or affected by the proposed development, reflects the conclusions of the bat survey report and EclA prepared by Faith Wilson for the proposed (now permitted) development to the north of the subject site (SDCC Reg. Ref.: SDZ21A/0023). That report considered that the trees within the hedgerow that divides the two sites has the potential to include bat roosts.



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Noting the above, in planning the proposed development at Aderrig 3 the design team has taken full account of the very high ecological value of the hedgerow – not just for commuting and foraging bats, but for breeding birds and as an important habitat corridor.

The lighting design (prepared by Sabre Electrical Services Ltd) has been reviewed in the preparation of the RFI response, and the landscape architects and lighting designers have worked together to ensure that there will be no light spill onto the retained and enhanced hedgerow. Importantly, the lighting design also ensures that there will be no light spill on the section of the boundary to the east/north of the Celbridge Link Road, and not just in the main section of the proposed development (that is, the area to the west of the Celbridge Link Road).

Although no bat roosts will be lost as a result of the proposed development, a total of six bat boxes, such as Schwegler 2F with a double front (or similar, as recommended by the project ecologist/bat specialist) will be installed in the site. If these cannot be facilitated within the site then bat access into the built structures will be provided using specially designed bat access elements (e.g., bat access bricks, built-in boxes etc.). The purpose of these boxes is not mitigation, rather, it is to enhance the overall ecological value of the final development.

In addition, in response to the SDCC RFI, the linear park has been widened in the vicinity of the badger sett. This further strengthens the entire corridor (see below).

In summary, the design of the proposed development will ensure that the value of the western boundary hedgerow, both east and west of the Celbridge Link Road, will be retained. As a result of the integrated and cooperative approach taken by the design team (including architecture, landscape, lighting and engineering) this hedgerow will remain a dark corridor and will be enhanced and managed for biodiversity. This approach, coupled with the significant additional ecology-focused landscape planting (including pollinator friendly planting and Miyawaki-style pocket forests), will ensure that there is no more than a slight to negligible impact on bats. This conclusion is unchanged since the EclA was prepared.

b) Badgers:

The badger is an internationally protected species under the Wildlife Act 1976 (Amended 2000) and the Bern (1982) convention. A badger sett was identified the northern part of the western boundary hedgerow (BSM Ecological Impact Assessment Report Oct 2022). The EclA (Faith Wilson, 15th December 2021) also identified this sett and proposed remedial measures in the form of an ecological corridor and badger protective fencing. The report also identified other badger setts within the



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wider area (Fig 12 Page 26) and stated that habitat connectivity between these setts must be protected and enhanced. The applicant is requested to undertake a badger survey; review badger protection measures in the context of adjoining approved development and provide an approach to badger protection both during construction and in the long term to ensure habitat connectivity and protection from people and dogs.

A badger survey was undertaken by the author (Ecologist Matthew Hague CEnv MCIEEM) in the preparation of the EclA for the proposed development. The following is an extract from the EclA:

Some evidence of badger activity was recorded on the site, with small amounts of foraging activity noted immediately next to the northern part of the western boundary hedgerow. Badger activity was more evident on the northern side of the boundary, outside the site. A small badger sett (with two entrances) was recorded in the north western boundary hedge. This is the same sett that was recorded by ecologist Faith Wilson, as described in the planning documentation associated with a proposed development (SDCC Planning Reg. Ref.: SDZ21A/0023) to the northwest of the Aderrig 3 subject site (at the time of writing (early October 2022) a decision has not been made on this application). The sett is not highly active, and is not currently being used as a 'main' (breeding) sett).

These findings reflected the Wilson records from 2019 and 2021, however there was no evidence in 2022 to show that there was any significant use of the sett by badgers at that stage.

Following receipt of the Request for Additional Information from SDCC, additional badger surveys were undertaken on 20 January and 1 February 2023¹. This is when vegetation has died back for the winter, making it the optimal time to undertake badger surveys. The additional surveys covered the entire boundary hedgerow at Aderrig, on both sides of the Celbridge Link Road, where it is possible to gain safe access to the hedgerow.

At present there is a significant amount of construction activity at Shackleton Drive at Hallwell, west of the Lidl development, preventing safe access along the retained hedgerow in that area.

¹ In order to assist with the badger surveys the author installed a passive infrared camera within the hedgerow on 20 January 2023. However this camera was removed from the site subsequently by persons unknown and no data was recorded. It was not considered prudent to replace the camera as this would only have drawn further attention to the sett.



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It was not possible to record imagery at the known sett in 2023 with a passive infrared camera, however evidence gathered in the recent surveys show that foxes (scat, hair) and rabbits (droppings, signs of digging) frequently use this hedgerow.

These findings, that there is some evidence of badgers in the wider area but that the sett in the hedgerow is not, currently, an active main sett, confirm the conclusions of the previous surveys.

Notwithstanding these recent findings, it is considered likely that the sett is used by badgers, at least occasionally. This impression is confirmed by the fact that badger hair was recovered from the soil underneath one of the two sett entrances in February 2023. Although the hair is likely to have been there for some time, it confirms that badgers do indeed use the sett from time to time.

Based on the evidence presented in the Wilson report relating to SDCC Reg. Ref.: SDZ21A/0023, as well as the survey work undertaken in 2022 and 2023 in the context of the current application (SDCC Reg. Ref.: SDZ22A/0014), it is clear that the northern/western boundary of the subject site is an important ecological corridor and must be protected and enhanced. It is for that reason that the overall design of the proposed development, including the landscape design, ensures the comprehensive protection and enhancement of the hedgerow in which the sett is situated.

The measures are set out in detail in the application documentation, however, in response to the RFI some additional protection and setbacks from the hedge have now been achieved. As shown in the revised layout and landscape design, submitted separately in response to the RFI (refer to the submission by Doyle + O'Troithigh), particular attention has been paid to the section of the proposed development immediately to the south of the location of the sett. It has been possible to achieve a high level of protection, without impacting on the numbers of residential units proposed. This approach was discussed with personnel from SDCC at a meeting on 14 February 2023 and the SDCC Parks Department confirmed that it was satisfied with the revised scheme layout.

Habitat connectivity has been maintained all along the hedgerow in the proposed development, both east and west of the Celbridge Link Road in as much as is possible. Refer also to the *Green Infrastructure Plan (Drawing No. GIP-01-FI)* and the *Landscape Plans (particularly Drawings No. LP-01-FI and LP-03-FI)* prepared by Doyle + O'Troithigh and submitted with the FI response.

The Celbridge Link Road is a wide piece of required infrastructure which severs the hedgerow. That road does not form part of the subject application, having been permitted



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under SDCC Reg. Ref.: SDZ17A/0009. However, the biodiversity and landscape proposals for Aderrig 3, which include the full protection of the hedgerow on both sides of the road, new landscaping, extensive areas of forest planting (Miyawaki-style planting) and new hedgerow planting will minimise the long term impacts on badgers and other mammals once the proposed development is occupied and operational.

It is not proposed to undertake any development in proximity to the hedgerow, and this feature is to be retained, and enhanced/strengthened and managed in a manner that enhances its value for biodiversity. The landscape and architectural design of the overall scheme has enabled an exclusion zone to be created along the hedgerow corridor. The boundary will be treated in accordance with British Standard *BS5837:2012 Trees in Relation to Design, Demolition and Construction' – Recommendations*. No works, other than works required to enhance the condition of the retained hedge, will be permitted inside this fence.

The exclusion zone provides a buffer to the western hedgerow and trees into which no roads, buildings or sub surface services are to be located. In doing so, this ensures that roots of the retained hedgerow and trees will not be impacted by the development. The exclusion zone to the western boundary hedgerow and trees allows for the retention of 673 linear metres of hedgerow and associated trees. It also allows for the full protection of the badger sett in the boundary hedgerow.

Further to this, the pathway on the western edge of the development will be constructed using a cell web (no dig) system. Full details are shown on the updated landscape drawings prepared by Doyle + O'Troithigh that accompany this RFI response.

Fencing and badgers:

It is noted that the EclA prepared for the adjoining site to the north (the Wilson report) recommends the installation of badger proof fencing along the proposed scrub planting, subject to SDCC approval. This appears to include a fence along the northern side of the dividing hedgerow (the subject of this report). It is not proposed to replicate this fencing on the southern (Aderrig 3) side of this fence once the development is operational. Such a fence would have the effect of funnelling mammals along the hedge directly onto the Celbridge Link Road. This is to be avoided. Instead, the augmented planting will ensure safe passage along the hedge, with access into the pocket forests, while eliminating the likelihood of badgers coming into contact with people and dogs.

In summary, badgers (as well as other large mammals, bats and breeding birds) will be fully protected from construction by the proposed tree protection fencing and the no dig construction methodology proposed for the pathways that run parallel to the hedge.



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Regardless of the foregoing a pre-construction badger survey will be carried out by a suitably qualified badger specialist, in order to establish the updated status of badger setts in the vicinity of the proposed development site.

As noted in the EclA the following construction phase mitigation measures are proposed for the general protection of badgers:

- *Day-to-day measures to ensure the welfare of badgers is maintained will be implemented as follows:*
 - *Good house-keeping measures will be maintained and no loose netting, fencing or other materials that could trap badgers will be left out on site;*
 - *Food waste will be secured so as not to attract badgers to the construction site at night;*
 - *Ramps will be included in any excavation deeper than 500mm to allow animals to escape if necessary.*

c) Public lighting:

Revised proposals that incorporate the recommendations regarding reduction of light disturbance. There shall be no light spill from the proposed development into the retained areas of linear vegetation. Public lighting proposals to be clearing shown on the landscape plans to also ensure Street tree proposals can be implemented.

The responses to RFI point 7(c) are addressed elsewhere, including in the *Landscape response to South Dublin County Council Request for Additional Information* prepared by Doyle + O'Troithigh, however the lighting design has been updated to reflect the RFI requirements and the changes required to the overall layout and landscaping.

It is confirmed here that the lighting has been designed with bats and biodiversity in mind, and a dark corridor will be retained all along the western boundary. The lighting has cowling provided as standard. This ensures there is no light spill onto the hedge.

Monitoring

The ecological monitoring required during the construction of the proposed development is unchanged, and the text from the EclA is repeated here for clarity:

A suitably experienced Project Ecologist will be appointed for the duration of the construction phase and regular monitoring of all related works will take place to ensure the correct and full implementation of all mitigation measures. The Project Ecologist



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will ensure that all construction works take place in accordance with planning conditions, the project CEMP and the mitigation measures set out in this EclA.

The active badger sett in the western boundary hedgerow will require monitored protection in accordance with the parameters set out in best practice guidance including the NRA Guidelines for the Treatment of Badgers Prior to the Construction of National Road Schemes, for the entire duration of the construction phase. Should any additional badger setts be discovered within the site (e.g. that establish at a later stage but prior to construction), it may be necessary to exclude and close these setts, under licence from NPWS.

Should vegetation clearance be required during the bird nesting season, and should this work be unavoidable, such clearance will take place only after the Project Ecologist has undertaken a survey to ensure that no active bird nests or recently fledged birds are present. Pre-construction surveys will be required to ensure that any necessary tree felling or works to buildings continue to have no impact on roosting bats.

Monitoring of all fuel / oil storage areas will also be undertaken to ensure that all related mitigation measures are being implemented effectively.

No long-term ecological monitoring is required, other than post-construction monitoring of the bat and bird boxes, and insect hotels installed. The bat and bird boxes, and insect hotels installed on the site will be checked annually for a period of two years post-completion of the works, to ensure that they continue to be accessible to these species. If necessary, they will be repositioned within the site.

On completion of construction, the lighting installed will be reviewed by the Project Ecologist and a bat specialist, to ensure that it is operating according to the approved specifications. The landscape architect will similarly ensure that all works undertaken are in full compliance with the landscape specification. The arborist will ensure that all hedgerow and tree management measures are fully implemented. All monitoring tasks will be recorded and logged for inspection by the site manager.

Matthew Hague

for

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