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Our ref: 12724

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F.A.O. Usman Ramzan

Dear Usman,

Re: Carlton Road, Barnsley - Update Ecological Appraisal

Introduction

Ecus Ltd was commissioned by Keepmoat Homes Ltd in June 2017 to undertake an Ecological Appraisal of land off Carlton Road, Barnsley, hereafter referred to as 'the Site' (Ecus Ltd, '*Ecological Appraisal*', Report Ref. 10157 (November 2017)). At the time of the Ecological Appraisal proposals for the Site comprised the construction of approximately 111 dwellings with associated access and soft landscaping.

The Site design has subsequently been reviewed and the number of dwellings reduced to 101 (Vista Architecture and Urban Design, '*Planning Layout*', Drawing No. 17-196-02 (September 2017)). This letter provides a summary of the earlier ecological findings and an update of the ecological assessment and mitigation measures based on the new Site layout.

Site Context

The Site comprises approximately 3.2 hectares (ha) land to the south of St Helen's Boulevard, on the plot of the former Springwell Community School and an area of arable land to the south. The Site is bordered by a residential estate to the west, industrial buildings to the north west and further arable and plantation woodland habitat to the south and north east respectively. In the wider area the Site lies 2 kilometres (km) north east of Barnsley town centre, with Athersley South to the west and Carlton Industrial Estate to the east.

Update Ecological Assessment and Mitigation

This section provides a summary of the findings of the earlier Ecological Appraisal (detailed results and mapping can be found in the Ecus Ltd, '*Ecological Appraisal*', Report Ref. 10157 (November 2017)) and an update of the ecological assessment and mitigation measures based on the new Site layout.

Designated Sites

Designated sites of nature conservation value identified within 1.5km of the Site are separated from the Site by considerable distance (the closest site being located 1.1km from the Site) and infrastructure. No mechanism by which development of the Site may significantly impact designated sites has been identified as part of this assessment, therefore designated sites are



not considered to represent a constraint to future development on Site.

Habitats

The Site consists predominantly arable farmland, semi-improved grassland, amenity grassland and tall ruderal vegetation. Scattered trees, broadleaved plantation woodland and dense scrub, mainly associated with boundaries within and around the Site, are also present.

An update assessment and proposed mitigation addressing the loss of habitats in the Site are presented in Table 1 below.

Table 1. Update Ecological Assessment and Mitigation Based on 101 Dwellings (Habitats)

Habitat Type/s	Assessment	Mitigation
Arable farmland, grassland, dense scrub and tall ruderal vegetation	Total landtake of these habitats will be required to accommodate the new Site design. Arable, grassland, scrub and ruderal habitats in the Site are common and widespread in the local area and are not included as habitats of principal importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 or on the Barnsley Biodiversity Action Plan (BAP) and are, therefore, considered to be of importance to nature conservation at the site level only.	To mitigate for the loss of these habitats, to benefit invertebrates, birds and small mammals, and enhance the ecological value of the proposed scheme (helping to comply with the National Planning Policy Framework (NPPF) (2018)), an ecologically sensitive landscaping plan should be produced. Where possible the plan should include native species and species which maximise flowering, pollen/nectar production and/or berry/fruit production.
Scattered Trees	Partial loss of scattered trees in amenity grassland in the north of the Site. Though scattered trees provide a foraging and nesting resource to bird species present in the local area, the trees present are young and do not support features suitable for bat roosting. Scattered trees are not listed on the NERC Act (2006) as a priority habitat and are not included on the Barnsley BAP. The trees on Site are therefore not considered to be of importance to nature conservation beyond	A Tree Protection Plan should be produced for any trees that are due for retention which are present within 5m of the construction zone. In accordance with '<i>British Standard 5837 (2012): Trees in relation to design, demolition and construction</i>', Root Protection Zones (RPZ's) should be implemented to ensure adequate protection is given to any retained trees and their roots during design and construction. Where practicable, tree planting on Site should include a variety of native species to increase diversity. Tree species chosen should be typical of the local area, of UK provenance (where practicable) and be selected to maximise food and nectar sources for invertebrates, birds and small

	the site level.	mammal species. Appropriate tree species to be included within landscape plans may include rowan (<i>Sorbus aucuparia</i>), common whitebeam (<i>Sorbus aria</i>), alder (<i>Alnus glutinosa</i>), oak (<i>Quercus</i> sp.), wild cherry (<i>Prunus avium</i>), bird cherry (<i>P. padus</i>), field maple (<i>Acer campestre</i>) and fruit trees.
Broadleaved Plantation Woodland	Partial loss of woodland in the Site is expected, notably the area across the centre of the Site. Broadleaved plantation woodland is not included as a habitat of principal importance on the NERC Act (2006) or listed on the Barnsley BAP. This habitat is limited in extent and given extensive similar habitat adjacent to the Site (to the north east), woodland on Site is considered to be of importance to nature conservation at the site level only.	The retention of trees in the Site or wooded areas is recommended to help retain ecological value and enhance the character of the development. To help mitigate the loss of trees, it is recommended that replacement tree planting is included within the landscape design and it is recommended that native trees are utilised where practicable.

Species

Suitability for protected/notable species to occur on Site, an update assessment of potential impacts and proposed mitigation for species likely to be encountered is presented in Table 2 below.

Table 2. Update Ecological Assessment and Mitigation Based on 101 Dwellings (Species)

Species	Assessment	Mitigation
Amphibians	No ponds were identified in the Site. Two ponds were identified off-site (210m and 420m from the Site) though given the distance and poor suitability/disturbed nature of interim habitats identified between ponds and the Site, including the absence of records for great crested newt (<i>Triturus cristatus</i>) for within 1.5km, it is considered unlikely that great crested newts are present on Site.	In the unlikely event that great crested newt are subsequently discovered works should stop at that location and a suitably qualified ecologist should be contacted immediately for advice on how to proceed. In the event that common amphibians such as common frog (<i>Rana temporaria</i>) or common toad (<i>Bufo bufo</i>) are encountered during Site clearance works, they should be carefully collected by gloved hand and relocated to an area of shelter away from working locations.

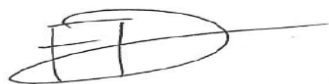
	Drains and ditches in close proximity to the Site provide suitable habitat for common amphibians at the site level.	
Badger	Although records of badger activity were identified outwith 600m of the Site no evidence of badger (setts or activity) was recorded on Site. Dense scrub and broadleaved plantation woodland habitats on Site offer some potential for use by foraging badgers, should they be resident in the locality, however there is abundant similar habitat in the wider area. As such, Site habitats are not considered to be of importance to foraging badgers beyond the site level.	Given the time past from the original Ecological Appraisal, and as badgers may move across the Site from time to time it is recommended that a pre-commencement badger walkover is undertaken up to 3 months in advance of construction works commencing (post planning consent) to confirm whether badger usage of the site has materially changed since the original appraisal and if necessary update the mitigation measures. Taking a best practice approach, all deep excavations (>1m) should be covered overnight. Shallow excavations (<1m) should have a scaffold board or equivalent placed in them overnight to allow any badgers to exit, should they fall in.
Bats	No records of roosting bats were identified in or within 1km of the Site, there are no buildings on Site and no trees which support features suitable for roosting bats. Site habitats contribute to a wider foraging resource for bat species resident within the local area, however, given the abundance of higher quality habitat, including woodland blocks immediately adjacent to the Site at the north east, Site habitats are not considered to be of importance to foraging and commuting bats beyond the site level.	Consideration should be given to creating long term bat roosting opportunities within the fabric of the new development, thereby complying with the aims of the NPPF (2018) that <i>'opportunities to incorporate biodiversity in and around developments should be encouraged'</i>. Such roosting provision may comprise integral bat boxes to be installed at the construction stage such as Schwegler 1FR tubes or Habibat bat boxes. These units provide integral roosting provision that are both discreet and secure, creating a self-contained cavity that does not provide access into the wall cavity. Bat tubes/boxes should be placed a minimum of 4m from ground level on southerly facing aspects, ideally at eaves level and away from bright light spill. 10% of dwellings should contain at least one integrated bat box. In addition, bat boxes could be sited on retained mature trees. Further information on installing bat roosting provision can be provided by Ecus if required.
Birds	No records of birds were identified for the Site itself though scattered trees, woodland and scrub provide structural cover for a variety of	It is recommended works should be undertaken outside of bird breeding season, i.e. undertaken between September to February inclusive.

	nesting birds. Given the limited extent of the Site, age of the trees and the abundance of similar habitat within the local and wider area, landtake is not considered to be of importance to nesting and foraging birds above the site level though without mitigation there is potential for active bird nests to be destroyed during vegetation clearance works.	Inclusion of a range of bird nesting provision across the development would be considered a positive enhancement for nature conservation and would comply with the NPPF aims for biodiversity (2018). Suitable provision may include general bird boxes with 26mm and 32mm entrance holes suitable for a range of garden bird species and sparrow terrace bird boxes, designed to support house sparrows. The bird boxes should be placed at a minimum height of 3m in a number of locations facing different aspects to maximise the chances of occupation. However, full south aspects which receive sun all day during the summer months present a risk of overheating and should, therefore, be avoided. At least 20% of dwellings should have one bird or more bird boxes.
Reptiles	Records for red eared terrapin (<i>Chrysemys scripta subsp. Elegans</i>), grass snake (<i>Natrix helvetica helvetica</i>) and a slow worm (<i>Anguis fragilis</i>) were identified outwith 1.2km of the Site. Habitats on Site offer some potential for reptiles, with tall ruderal vegetation around field margins and arable land creating a structurally varied habitat with some less vegetated areas for basking. However, suitable habitats are limited in extent, with the south of the Site under heavy disturbance from farming activities. The Site is bordered by residential estates to the west and south, with Carlton Industrial Estate to the north and east which provide a barrier to dispersal and, as a result, Site habitats are not considered to be of importance to reptiles beyond the site level.	Given the presence of suitable habitat on Site it is recommended that any vegetation removal/soil strip is undertaken in a systematic, directional manner across semi-improved grassland and tall ruderal habitats, to allow reptiles to move out of the way of machinery of their own accord (should they be present in the local area).
Other Species	Habitats on Site may support brown hare (<i>Lepus europaeus</i>) and hedgehog (<i>Erinaceus europaeus</i>), forming part of a wider foraging territory. Given the availability of similar habitats in the wider area, the	Hedgehogs and brown hare are highly mobile and inquisitive animals that have potential to move onto Site at any time, therefore, as a precautionary measure it is recommended that any excavations left overnight should be covered or have a suitable escape ramp, e.g. a long scaffold

	habitats on Site are not considered to be of importance to brown hare or hedgehog beyond the site level.	boards, inserted to allow escape. Should a hedgehog be discovered on Site at any time, it should be moved carefully with gloved hands to a sheltered area away from the footprint of works, e.g. within the habitats beyond the Site boundary to the east of the Site. The creation and maturing of new garden habitats on Site is considered to be an enhancement for small mammals such as hedgehog, which have suffered significant and widespread declines over the past decade. To allow for dispersal of small mammals between gardens, small gaps beneath or between garden fences should be included across the development, specifically if close board fencing is to be used. Gaps should also be provided between boundary fences and the adjacent land, notably to habitats to the north east, east and south.
Invasive Species	A small patch of Japanese knotweed (<i>Fallopia japonica</i>) was recorded in the centre of the Site, on the western boundary. The stand measured approximately 5x5m in size. The knotweed is located close to an informal footpath leading from the adjacent housing estate.	Should areas of Japanese knotweed require removal, a specific method statement should be produced to ensure the plant and associated waste is removed carefully without risk of spreading on Site, or being transferred off-site. Japanese knotweed and its spoil will need to be disposed of at a registered waste facility licensed to receive this plant species.

If you require any additional information pertaining to the Site or would like to discuss any aspect of this update Ecological Appraisal, please do not hesitate to contact me on 0114 266 9292.

Yours sincerely,



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Regional Manager: Yorkshire & East Midlands (YEM)