



Gladman Developments Ltd

Land off Swanstree Avenue, Sittingbourne

BIRD REPORT

September 2021

This report may contain sensitive ecological information, it is the responsibility of the Local Authority to determine if this should be made publicly available

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APPENDIX

Appendix A: Land off Swanstree Avenue, Sittingbourne – Breeding Bird Survey Results and EOAC Criteria for Categorisation of Breeding Status.

1.0 NON-TECHNICAL SUMMARY

- 1.1 A residential development, with associated green infrastructure and landscaping is proposed on a site situated on Land Off Swanstree Avenue, Sittingbourne. Two breeding bird surveys were carried out during April and May 2021 to assess the bird assemblage occurring on-site, and to determine recommendations for mitigation, compensation and enhancement measures where relevant.
- 1.2 During the breeding bird surveys, 27 species were recorded on, or nearby, the Site, including nine notable species of local conservation value, with the remaining 18 species green-listed under the Birds of Conservation Concern (BoCC). All species recorded common, abundant or widespread birds in both Kent and the UK.
- 1.3 Three statutory sites designated for their bird assemblages were identified within 15km of the Site, however habitats on site are not conducive to the habitat requirements of the SPA qualifying species. The habitats on site do not represent supporting habitat of any SPA/Ramsar/SSSI.
- 1.4 The assemblage identified on the Site, with regards to numbers of species, or breeding pairs, does not meet the qualifying criteria for a Kent Local Wildlife Site. Given the low numbers of many of the notable species recorded during surveys, the Site is assessed as being of no more than local conservation value for the assemblage.
- 1.5 Impacts of development were assessed for the five notable species present on-site that were considered to be of local importance. Mitigation will include substantial additional planting, creation of a wildlife pond and provision of nest boxes which will increase the available nesting and foraging resources available to the local bird population. This will result in a negligible to minor positive residual impact for the majority of bird species recorded.
- 1.6 The proposed GI will maintain usable habitat across the site for a number of urban-edge species, and provide green corridors for movement and connectivity into the wider area.

2.0 INTRODUCTION

2.1 The following report has been prepared by FPCR Environment and Design Ltd on behalf of Gladman Developments Ltd, for a proposed development on land off Swanstree Avenue, Sittingbourne, in Kent (central OS Grid Reference: TQ 9121 6257), hereinafter referred to as the 'Site'. It provides results of breeding bird surveys undertaken during April and May 2021. The report should be read in conjunction with the Ecological Appraisal (FPCR, August 2021) for the site.

2.2 The objectives of the bird surveys were to:

- Identify the presence and distribution of breeding on the Site;
- Evaluate the importance of local bird populations and their habitat requirements;
- Evaluate the conservation importance of the Site for breeding birds; and
- Identify areas of ornithological interest and make recommendations to minimise the potential impact of development and where feasible to consider opportunities for additional habitat creation.

Site Location and Context

2.3 The 5.9ha site lies on the south-eastern periphery of the town of Sittingbourne, Kent. Arable land surrounds the site to the south and east, with a Local Wildlife Site (LWS) beyond the southern boundary. The northern site boundary is formed by Swanstree Avenue beyond which lies the residential area of Sittingbourne and the A2 road. The site can be accessed via Chilton Manor Farmhouse and shop, which lie immediately to the north-west of the Site off Highstead Road, which separates the site from further residential areas to the west.

2.4 The site predominantly comprises a commercial arable field, with intensively managed orchards in the south. The application site is bound predominantly by fencing, with tall mature treelines along the southern and eastern boundaries and a short section of isolated hedgerow in the north. Other small areas of habitat on site included semi-improved grassland, tall herb/ruderal herb, and ephemeral vegetation.

Site Proposals

2.5 The proposals are for a residential development of up to 135 units with associated infrastructure and landscaping (*Development Framework Plan 06302-FPCR-ZZ-ZZ-DR-L-0002*). New access points will be incorporated into the site via Swanstree Avenue along the northern boundary which is marked by a fence line. The majority of treeline extent within the site boundaries will be retained, with provision of approximately 2ha of green infrastructure (GI), to include public open space, orchard trees, play areas, a wildlife pond and additional structural planting (new hedgerows, trees and scrub).

3.0 LEGISLATION AND GUIDANCE

The Wildlife & Countryside Act 1981 (as amended)

3.1 The Wildlife and Countryside Act 1981 (as amended)¹ is the principal legislation affording protection to UK wild birds. Under this legislation all birds, their nests and eggs are protected by law and it is an offence, with certain exceptions to recklessly or intentionally:

- Kill, injure or take any wild bird;
- Take, damage or destroy the nest of any wild bird while in use or being built; and
- Take or destroy the egg of any wild bird.

3.2 Additional protection is also afforded to species listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), whereby intentional disturbance of a species included on the list, whilst it is building or occupying a nest, or disturbance of dependent young, is considered an offence.

Natural Environment and Rural Communities (NERC) Act 2006

3.3 A number of birds feature on the Natural Environment and Rural Communities (NERC) Act 2006², Section 41 (S41) as species which are of principal importance for the conservation of biodiversity in England. The S41 list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40 of the NERC Act, to have regard to the conservation of biodiversity in England, when carrying out their normal functions.

Non-Statutory Guidance

3.4 In addition to statutory protection, some bird species are classified according to their conservation status, such as their inclusion on the Red or Amber lists of Birds of Conservation Concern (BoCC) in the UK³:

Birds of Conservation Concern

- Red list (high conservation concern) species are those that are Globally Threatened according to IUCN criteria; those whose population has declined rapidly (50% or more) in recent years; and those that have declined historically and not shown a substantial recent recovery;
- Amber list (medium conservation concern) species are those with an unfavourable conservation status in Europe; those whose population or range has declined moderately (between 25% and 49%) in recent years; those whose population has declined historically but made a substantial recent recovery; rare breeders; and those with internationally important or localised populations; and
- Green list (low conservation concern) species fulfil none of the above criteria.

¹ <http://www.legislation.gov.uk/ukpga/1981/69> [Accessed August 2016]

² <http://www.legislation.gov.uk/ukpga/2006/16/contents> [Accessed August 2016]

³ Eaton, M., Aebischer, N., Brown, A., Hearn, R., Lock, L., Musgrove, A., Noble, D., Stroud, D. & Gregory, R. (2015). Birds of Conservation Concern 4: the population status of birds in the UK, Channel Islands and Isle of Man. *British Birds* 108 p 708-746

4.0 METHODOLOGY

Desk Study

4.1 In order to compile existing baseline information, a desktop survey was undertaken for existing ecological data regarding statutorily and non-statutorily habitats/sites of interest to nature conservation and protected bird species. The following organisations were contacted/used:

- Multi Agency Geographic Information for the Countryside (MAGIC) website⁴;
- Kent and Medway Biological Records Centre (KMBRC)

4.2 This included records of protected/notable species within 1km of the Site, designated sites of national importance within 2km of the Site and the locations of, and advice on, sites of international importance for birds, including SPAs and Ramsar Wetland Sites, within 15km of the Site.

Field Survey Methodology

Breeding Bird Surveys (BBS)

4.3 The survey methodology employed was broadly based on that of territory mapping⁵ as used for the British Trust for Ornithology (BTO) Common Bird Census (CBC). Standard BTO species codes and symbols for bird activities were used to identify birds and denote activity, sex and age where appropriate. Where birds were considered to be holding a territory and therefore likely to be utilising the site for breeding activities, if they were displaying breeding behaviours, such as: singing, nest building, food carrying or territorial defence. If birds did not display such behaviours, e.g. they were only recorded flying over the site, they were considered non breeders. Breeding evidence used in this report follows European Ornithological Atlas Committee (EAOC) guidelines 1979, as shown in *Appendix A*.

4.4 To provide a reasonable level of accuracy for determining the population status of the breeding birds on the site, two surveys were undertaken between 05.00 and 11.00 during April and May 2021. A route was mapped out prior to the surveys being undertaken, paying particular attention to any linear features, such as hedgerows and tree lines, and natural features such as areas of scrub and woodland. Bird surveys were not undertaken in unfavourable conditions, such as heavy rain or strong wind, which may negatively affect the results. *Table 1* provides details of the survey dates and weather conditions.

Table 1: Bird Survey Dates and Weather Conditions

Date	Survey Type	Cloud Cover (%)	Rain	Wind	Visibility
21.04.21	BBS	100	0	1	Poor to Good
02.06.21	BBS	30	0	1	Good

⁴ [Online]. <http://magic.defra.gov.uk/>

⁷ Bibby, C.J., N.D. Burgess & D.A. Hill, 2000: *Bird Census Techniques*: 2nd Edition. London: Academic Press

Assessment Methodology

- 4.5 The conservation value of bird populations has been measured using two separate approaches: nature conservation value and conservation status. The CIEEM guidance on ecological impact assessment assesses nature conservation value within a geographical context⁶.
- 4.6 To attain each level of value, an ornithological resource or one of the features (species population or assemblage of species) should meet the criteria set out in *Table 2* below. In some cases, professional judgement may be required to increase or decrease the allocation of specific value, based upon local knowledge.

Table 2: Evaluation Criteria

Nature Conservation Value	Selection Criteria
International	A species which is part of the cited interest of an SPA and which regularly occurs in internationally or nationally important numbers. A species present in internationally important numbers (>1% of international population).
National	A species which is part of the cited interest of a SSSI and which regularly occurs in nationally or regionally important numbers. A nationally important assemblage of breeding or over-wintering species. A species present in nationally important numbers (>1% UK population). Rare breeding species (<300 breeding pairs in the UK).
Regional	Species listed as Priority Species under Schedule 41 of the Natural Environment and Rural Communities (NERC) Act (2006), which are not covered above, and which regularly occurs in regionally important numbers. Species present in regionally important numbers (>1% of regional population). Sustainable populations of species that are rare or scarce within a region. Species on the BoCC Red List and which regularly occurs in regionally important numbers.
County	Species listed as Priority Species under Schedule 41 of the Natural Environment and Rural Communities (NERC) Act (2006), which are not covered above and which regularly occurs in county important numbers Species present in county important numbers (>1% of county population). Sustainable populations of species that are rare or scarce within a county, or listed as priority species for nature conservation under S41 of the NERC Act. A Site designated for its county important assemblage of birds (e.g. a SINC Site). Species on the BoCC Red List and which regularly occur in county important numbers.
Local	Other species of conservation interest (e.g. all other species on the BoCC Red and Amber List or listed as Priority Species under Schedule 41 of the NERC Act (2006) which are not covered above) regularly occurring in locally sustainable populations. Sustainable populations of species which are rare or scarce within the locality.

- 4.7 The most recent county annual bird report, *The Kent Bird Report 2018*⁷, as published by the Kent Ornithological Society (2018), was consulted to inform the assessment.

⁶ CIEEM (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal. Chartered Institute of Ecology and Environmental Management, Winchester.

⁷ Kent Ornithological Society (2020), *Kent Bird Report 2018, Number 67*.

4.8 The species assemblage and population numbers identified within the Site boundaries were also assessed against the Kent Wildlife Trust criteria for selection as a Local Wildlife Site (LWS) based on its bird fauna⁸. These criteria related to breeding assemblages are outlined below:

“A site should be selected as a Local Wildlife Site if it can be considered as a single identifiable unit [...] in terms of bird fauna and where:

- *It is occupied regularly by at least 2.5% of the county population of any one or more bird species, based on the most recent and authoritative data; OR;*
- *It is occupied regularly as a breeding site by species with a Kent population of 50 or fewer territories; OR*
- *It holds ten or more Kent Red Data Book 2 (KRDB2) species in the breeding season; OR*
- *It holds three or more Kent Red Data Book 3 (KRDB3) species at the appropriate time of year (normally this should not include a combination of breeding and wintering species); OR*
- *It holds one of the five largest colonies of colonial seabirds (with the exception of herring gull and black-headed gull), grey heron, little egret or sand martin; OR*
- *It has been recorded as being regularly used in recent years by at least 50 breeding bird species.*

Limitations and Assumptions

4.9 The species data returned as part of the consultation request for this desk study is derived from a range of sources including records submitted by members of the public, ecologists, nature conservation organisations and/or from specialist volunteer groups. It does not represent a definitive list of the species that occur in the local area, and as such the absence of records does not necessarily imply the absence of a given species.

⁸ Kent Wildlife Trust (2015) Local Wildlife Sites in Kent: Criteria for Selection and Delineation V.1.5

5.0 RESULTS

Desk Study

- 5.1 Full desk study results, detailing information on statutory and non-statutory designated sites and protected species records in the local area, are provided in the accompanying FPCR Ecological Appraisal (August 2021) for the Site.

Statutory Sites of International Conservation Value

- 5.2 Three internationally designated statutory sites, designated specifically for birds lie within 15 km of the Site.
- 5.3 The Swale designated a Ramsar, Special Protection Area (SPA) and Site of Special Scientific Interest (SSSI), lies approximately 2.4km north of the site boundary. The site includes the largest remaining area of freshwater grazing marsh in Kent and is representative of the estuarine habitats found on the north Kent coast. The area is particularly notable for the internationally important numbers of wintering and passage wildfowl and waders, and there are also important breeding populations of several bird species.
- 5.4 Medway Estuary and Marshes SPA/Ramsar/SSSI lies approximately 6.3km north of the site. This site has been designated as a SPA due to the overwintering brent geese *Branta bernicla* populations; while the Ramsar is designated because it supports internationally and nationally important numbers of waders and wildfowl and an important invertebrate assemblage. The site has also been designated a SSSI for its importance in supporting wintering and passage birds and for breeding birds.
- 5.5 Thames Estuary and Marshes Ramsar/SPA/SSI is located approximately 15km north of the site. The site comprises a complex of brackish, floodplain grazing marsh ditches, saline lagoons and intertidal saltmarsh and mudflat. The habitats support internationally important numbers of wintering waterfowl, and the saltmarsh and grazing marsh are of international importance for their diverse assemblages of wetland plants and invertebrates.

Non-Statutory Sites

- 5.6 There was one non-statutorily designated site within 1km of the site. Highstead Quarries, designated a Local Wildlife Site (LWS), lies approximately 40m south-west of the site. This has been designated for its regenerated chalk grassland habitats and because it supports a number of bird species.

Protected/Notable Species Records

- 5.7 A large number of bird records with four figure and two figure grid references (low resolution) that are adjacent to, or encompass the site were also provided. These include many common and widespread species, and also more rare species i.e. NERC S41 species of principal importance or listed on Schedule 1 of the Wildlife and Countryside Act. These included avocet *Recurvirostra avosetta*, black redstart *Phoenicurus ochruros*, black-tailed godwit *Limosa limosa*, firecrest *Regulus ignicapilla*, hen harrier *Circus cyaneus*, hobby *Falco Subbuteo* and kingfisher *Alcedo atthis*. Owing to the low resolution of these records it is not possible to give definitive distances of each from the site.

Field Study

Breeding Bird Survey

- 5.8 A total of 27 bird species were recorded within, or in close proximity to, the Site over the course of the two survey visits undertaken in April and May 2021. A full list of results presented in *Appendix A*.
- 5.9 Of the 27 species recorded, nine have some conservation value for their inclusion under NERC S41 and/or the BoCC Red or Amber lists. Details of the conservation status for each species encountered on-site are presented in *Table 3* along with their recent county status, as defined by the Kent Ornithological Society. The locations and conservation status for each species recorded on-site are mapped on the Breeding Bird Survey Results plan (*Figure 1*).
- 5.10 Of the nine notable species identified as occurring within, or adjacent to, the Site boundaries, two were assessed as *confirmed breeders* (starling *Sturnus vulgaris* and house sparrow *Passer domesticus*), one as a *probable breeder* (dunnock *Prunella modularis*), and two as *possible breeders* (skylark *Alauda arvensis* and linnet *Carduelis cannabina*). The remaining four species were assessed as *non-breeding* species (meadow pipit *Anthus pratensis*, black-headed gull *Chroicocephalus ridibundus*, herring gull *Larus argentatus* and great black-backed gull *Larus marinus*).
- 5.11 The remaining recorded species (18 in total) comprised green-listed (low conservation concern), species, such as wood pigeon *Columba palumbus*, great tit *Parus major* and chaffinch *Fringilla coelebs*.

Description

- 5.12 The majority of bird species recorded during breeding bird surveys were typical of the range of habitats that dominate the site, being heavily influenced by the current agricultural management. The orchard present on site did not provide any breeding opportunities for any species due to the presence of immature specimens which lacked any suitable features. The arable fields also largely provided no breeding opportunities for the majority of species recorded owing to the vegetable crop and ploughed areas, however a small parcel of rape crop was present in the north-eastern extent which did provide limited opportunities for linnet and skylark. Both are declining farmland species that were recorded in small numbers (peak count of four and six individuals, respectively). The orchard and arable fields do provide foraging opportunities for the majority of species recorded within the site.
- 5.13 The hedgerows and treelines which bounded the site in the southern extent, did provide opportunities for breeding, with three notable species recorded in association with these habitats comprising dunnock, starling, and house sparrow. In addition to the notable species, these habitats also provided foraging and breeding opportunities for a number of common and widespread, generalist and woodland species including wren *Troglodytes troglodytes*, blackbird *Turdus merula*, robin *Erithacus rubecula* and common tit and finch species recorded.

Table 3: NERC, BoCC Red- and Amber-Listed Bird Species Recorded at Land Off Swanstree Avenue, Sittingbourne during Breeding Bird Surveys undertaken in 2021, and Their Recent Status in Kent

Species – Common Name	Conservation Status and Protection	Breeding Status in Site Boundary	Breeding status in Kent
Black-headed Gull	Amber list	Non-breeder	Common and widespread breeding species, passage migrant
Herring Gull	Red list	Non-breeder	Passage migrant and winter visitor; numerous breeding species
Great Black Backed Gull	Amber List	Non-breeder	Mainly a winter visitor, but birds present all year round
S Skylark	Red list, NERC S.41	Possible breeder	Widespread, common but declining resident species
Starling	Red list, NERC S.41	Confirmed breeder	Abundant and widespread but declining breeding species, passage migrant
Meadow Pipit	Amber List	Non-breeder	Widespread breeding species
House Sparrow	Red list, NERC S.41	Confirmed breeder	Common but declining resident, particularly associated with human habitation
Dunnoek	Amber list, NERC S.41	Probable breeder	Abundant resident and passage migrant
Linnet	Red list, NERC S.41	Possible breeder	Widespread summer visitor and passage migrant

6.0 EVALUATION

Survey Effort

- 6.1 Two breeding bird surveys were undertaken during April and May 2021 to assess the habitats and their suitability to support breeding birds within the Site. During these surveys it was determined that the small size of the site and the habitats within the Site had limited opportunity for supporting a wide assemblage of breeding birds. In addition, the proposals include for substantial additional structural planting which will increase the nesting and foraging habitat available to the local bird population. Consequently, it was determined that two surveys were sufficient to adequately assess the impacts to the bird assemblage within the Site.
- 6.2 Owing to the small size of the Site and the limited habitats available, the Site does not provide sufficient resources to support significant populations of over-wintering species and/or flocks, therefore no wintering bird surveys were considered necessary.

Statutory Sites

- 6.3 The habitats on site are not conducive to the habitat requirements of the Swale SPA/Ramsar/SSSI, the Medway Estuary and Marshes SPA/Ramsar/SSSI, and/or the Thames Estuary and Marshes Ramsar/SPA/SSI qualifying species, and none of these species were recorded on-site during the surveys.
- 6.4 It is considered that the site's habitats do not represent supporting habitat of the Swale SPA/Ramsar/SSSI, the Medway Estuary and Marshes SPA/Ramsar/SSSI, and/or the Thames Estuary and Marshes Ramsar/SPA/SSI.

Local Wildlife Site Assessment

- 6.5 The site was assessed against published criteria for birds, set out in the Local Wildlife Site Selection Criteria for Kent to assess the site against the thresholds for county value. All of the species recorded are common and widespread within the county, and were recorded in low numbers which falls well short of the qualifying criteria of the site as a LWS. It is considered the Site supports an overall assemblage of 'breeding' birds characteristic of the habitats on site that is of no more than **Local** importance conservation value.

Bird Assemblages

Farmland Bird Assemblage

- 6.6 Cultivated arable land and associated features, including hedgerows and field margins, provided habitats which promote foraging and breeding opportunities for several bird species typically associated with farmland, including house sparrow, starling, linnet, and skylark. Starling and house sparrow were both identified as confirmed breeders, with both species observed carrying food during both breeding bird surveys, and juvenile starling observed during the May survey, however given the reliance of these species on urban environs they were likely breeding within adjacent offsite residential dwellings.
- 6.7 The farmland specialist species, that comprised skylark and linnet were each considered as possible breeders as both were observed in suitable breeding habitat over the course of breeding

bird surveys. However, owing to the small amount of suitable habitat on site for these species, it is considered that the number of linnet and skylark utilising these habitats is unremarkable, and it is more likely that these species were breeding within the adjacent fields which offered larger expanses of suitable habitat.

- 6.8 The Site is considered to be of **Local** level of importance for this farmland breeding bird assemblage.

Generalist Bird Assemblages

- 6.9 Hedgerows and treelines on Site provide suitable breeding and/or foraging habitat for a broad assemblage of common and widespread generalist species, such as blackbird, wren, great tit, chaffinch and robin. This assemblage is considered to be typical of the edge-of-farmland, semi-urban habitats found on, or adjacent to, the Site. This generalist breeding bird assemblage also contained several 'notable' species, including house sparrow, dunnock and starling.
- 6.10 Whilst of some conservation concern, the notable generalist species recorded are still considered to be relatively widespread within Kent and the wider UK. These species adapt readily to urban landscapes and with appropriate implementation of green infrastructure are expected to persist on-site post-development. None of the species were recorded in significant numbers within the Site boundaries.
- 6.11 The Site is considered to be of no more than **Local** level conservation importance for the generalist breeding bird assemblage present.

7.0 DISCUSSION AND RECOMMENDATIONS

- 7.1 The impacts of the development have been assessed in relation to various aspects of each species' ecological requirements, the type of development, the number of birds recorded on or near the Site, their nature and conservation criteria; based on legislation and current guidance, and professional judgment.
- 7.2 The following impacts to the recorded bird populations and species assemblage may result from the proposals:
- Direct loss/change of breeding habitat;
 - Disturbance during and post development.

Development Proposals

- 7.3 The proposals comprise a residential development with associated infrastructure and landscaping (*Development Framework Plan 06302-FPCR-ZZ-ZZ-DR-L-0002*) This will include new structural planting (hedgerow, scrub and trees) along the northern and eastern boundaries which are currently defined by a fence line. The southern treeline will be retained and enhanced. These linear belts of GI will maintain and strengthen existing links with the wider landscape whilst providing foraging and nesting habitat for a range of bird species.

Habitat Loss

- 7.4 The development proposal will see the removal of the existing arable fields and cultivated orchards. The majority of existing treelines around the Site will be retained and enhanced and linear belts of GI will be created at the site boundaries.
- 7.5 The individual species recorded on site that are arguably the most vulnerable to impacts from habitat loss/change are the five species that are considered to be of at least Local importance: skylark, linnet, starling, house sparrow and dunnock. These comprise notable species that appear on the BoCC Red list and/or are listed as a NERC Priority Species and were recorded in at least locally important numbers.

Farmland Bird Assemblage

- 7.6 The main habitat which is to be lost as a result of the development proposals is arable farmland. Two of the notable farmland birds which have been recorded on-site are often dependent on this particular habitat type for both breeding and foraging (comprising skylark and linnet) with the generalist species also known to utilise this habitat (house sparrow, starling and dunnock), and are consequently more likely to be negatively impacted by its removal.
- 7.7 The loss of arable habitats will inevitably lead to a loss of the very small numbers of skylark that were recorded during one survey occasion and is considered a possible breeding species on site. It is likely that this species will therefore be displaced from the Site post development. Given the wide expanses of available arable land to the south and west, immediately adjacent to the Site, it is likely that the very small number of skylark present on-site will move into neighbouring suitable habitat.
- 7.8 The loss of these habitats will also reduce the overall availability of foraging resources and possible breeding habitat for linnet. While this species is more intrinsically tied to farmland, linnet will utilise

other habitats, including scrub and heathland, and nest in low, dense hedgerows. Consequently, appropriately managed, and enhanced hedgerows, as well as additional planting included in the proposals will be of at least some value to this species post-development.

- 7.9 It is therefore considered that the development of the site will lead to an impact on the above breeding farmland bird assemblage at a **Local** scale identified on site. This is not expected to lead to a significant impact as the farmland bird assemblage was recorded in very small numbers in the county context, with the scale of any adverse impact reduced by the abundance of further suitable arable habitats in the wider landscape.

Mitigation

- 7.10 The eastern and northern boundaries of the proposed development will include additional structural planting comprising woodland, trees and hedgerows. This will provide an increase in the available nesting and foraging resources for the majority of the species recorded. In addition, proposed attenuation within the north-eastern extent of the site which will provide further foraging opportunities for the local bird population.
- 7.11 It is likely that linnet will be displaced from the majority of the site as urban/residential areas are not their preferred habitat; however, they are known to utilise areas providing there is ample scrub to meet their requirements⁹. It is considered likely that the creation of new structural planting along the eastern and northern boundaries of the site will continue to provide some nesting and foraging resources for this species and it is therefore possible that linnet will continue to utilise habitats within the Site post-development.
- 7.12 The above measures will help to reduce the overall scale of the impacts anticipated on the farmland bird assemblage recorded and will help to maintain the suitability of offsite habitats.

Generalist Bird Assemblage

- 7.13 The retention of hedgerows, treelines and other boundary features, in addition to the provision of new structural landscape planting and residential gardens is likely to continue to support several of the more abundant and widespread generalist species found on-site, including NERC S41 species such as house sparrow, dunnock and starling which are relatively adaptable to urban development and are capable of utilising a range of alternative habitat types (such as scrub, parkland and hedgerows). There is also likely to be an increase in the populations of these species, particularly as gardens and landscape planting mature, with a subsequent increase throughout the Site in available nesting and foraging resources for generalist and woodland species. It is considered that impacts to the generalist bird assemblage will be negligible to minor positive.

Construction Phase Effects

- 7.14 The change in land use from arable farmland to residential housing and GI will result in an overall change in both the habitats the Site supports and the bird species that inhabit it. Understandably, those most susceptible to these land use changes are the farmland specialist bird species.
- 7.15 The construction work most likely to disturb and impact on nesting birds is the initial ground works, vegetation clearance and activities which result in noise and vibration.

⁹ Fuller, R. J., Hinsley, S. A., and Swetnam, R. D. (2004) The Relevance of Non-Farmland Habitats, Uncropped Areas and Habitat Diversity to the Conservation of Farmland Birds. *Ibis*: 146 (Suppl. 2), 22 – 31

Mitigation

- 7.16 The following is recommended to be included within a Construction and Environmental Management Plan (CEMP) to reduce the scale of anticipated effects:
- Removal of any vegetation suitable to support nesting birds will take place outside of the bird breeding season (March to August inclusive) to protect nesting birds and prevent an offence under the Wildlife and Countryside Act 1981
 - If vegetation is proposed for removal during the bird breeding season (March to August inclusive), it should first be inspected by a suitably qualified ecologist to ensure an offence under the Wildlife and Countryside Act 1981 (as amended) is not committed. If an active nest is discovered, the vegetation containing the nest will remain *in situ* and an appropriate buffer, as stipulated by the ecologist, will be adopted until the young have fledged
 - The retained hedgerows and other woody nesting habitat should be buffered and protected with Heras fencing during construction to protect it from accidental damage or disturbance.

Operational Phase Effects

- 7.17 The residual effects of the operational phase of the proposed development, following the change in land use from arable farmland to residential housing, is likely to include an increase in disturbance from human activity, along with an increased predation risk from domestic cats. Following maturation of enhanced and buffered habitat included within the proposed GI, given the **local** value of the assemblage, the operational effects of the development are likely to be **negligible** in the long-term. The breeding bird assemblage is thought to remain broadly similar to that pre-existing and of at least similar nature conservation value.
- 7.18 Further enhancement measures, as given below, if implemented appropriately, would further minimise the potential negative effects of development and should result in a **negligible - minor positive** effect in the long-term.

Enhancements Opportunities

- 7.19 Where feasible within the proposed development, consideration should be given to providing additional enhancements for the local bird population, including the installation of bird boxes. The provision of such enhancements would be in accordance with local and national planning policy.
- 7.20 The following provides details of suitable nest box types to be included within the scheme:
- A mixture of small hole (26mm and 32mm) boxes placed throughout the Site on suitable trees and buildings will provide nesting opportunities for blue tit *Cyanistes caeruleus* and great tit. These boxes generally have a high uptake rate
 - Larger nest boxes with a 45mm hole should be placed under the eaves of buildings, or approximately 2.5m above ground in trees to provide nesting opportunities for starling; and larger terraced style or multiple single holed 32mm nest boxes should be placed on buildings to attract house sparrows
 - Small open fronted nest boxes again should be placed throughout the Site especially on trees which support a climber such as ivy *Hedera helix* which provides a degree of concealment. These boxes typically attract robin, song thrush *Turdus philomelos* and blackbird.

- A mixture of more specialised nest boxes should be placed on retained trees and new buildings and should include boxes for stock dove *Columba oenas*, swallow *Hirundo rustica*, house sparrow and swift *Apus apus*.
- 7.21 Existing hedgerows, scrub, and trees are to be retained within the development proposals wherever possible. Where hedgerows and boundaries are retained, they should be enhanced through the planting of additional trees and shrubs to encourage structural diversity. Preference will be given where suitable to indigenous species, in particular those that are seed and fruit bearing. Not only do these provide additional foraging opportunities, but typically, they also tend to support a greater diversity and number of invertebrate species available for insectivorous birds, and provide an important source of invertebrate food for nestlings.
- 7.22 Appropriate enhancement and management of existing and newly created hedgerows will create thick structures, with dense bases, to help protect nesting birds from predation. Implementation of an appropriate management regime will also increase the diversity of nesting birds. Buffered areas adjacent to hedgerows, and areas of grassland under informal management, should be ideally planted with a species rich grassland mix, as these provide the necessary seeds for seed specialists such as linnets and stock doves.

Appendix A: Sittingbourne 2021 Breeding Bird Survey Results & EOAC Criteria for Categorisation of Breeding Status

Survey	Surveyor	Date	Cloud (%)	Rain	Wind	Visibility
1	LC	21.04.21	100	0	1	Poor to good
2	EM	02.06.21	30	0	1	Good

Species: British Common Name	Species: Latin name	Survey 1	Survey 2	Conservation Status & Protection	Breeding status ¹
Black-headed gull	<i>Chroicocephalus ridibundus</i>	1 fly-over	-	Amber list	Non-breeder - F
Herring gull	<i>Larus argentatus</i>	14 fly-overs	4 fly-overs	Red list	Non-breeder - F
Great black-backed gull	<i>Larus marinus</i>	-	1 fly-over	Amber list	Non-breeder - F
Rock dove/Feral pigeon	<i>Columba livia</i>	2 + 2 fly-overs	9 + 7 fly-overs	Green list	Possible breeder - H
Woodpigeon	<i>Columba palumbus</i>	6 + 25 fly-over	20 + 16 flyovers	Green list	Possible breeder - H
Collared dove	<i>Streptopelia decaocto</i>	1 fly-over	2	Green list	Non breeder - UH
Green woodpecker	<i>Picus viridis</i>	1	1	Green list	Non-breeder - UH
Magpie	<i>Pica pica</i>	2 + 1 fly-over	4 + 1 flyover	Green list	Probable breeder - T
Jackdaw	<i>Corvus monedula</i>	3 fly-overs	3 fly-overs	Green list	Non-breeder - F
Carrion crow	<i>Corvus corone</i>	-	2 + 2 flyovers	Green list	Possible breeder - H
Blue tit	<i>Cyanistes caeruleus</i>	-	1 + 2 flyovers	Green list	Possible breeder - S
Great tit	<i>Parus major</i>	2	2	Green list	Probable breeder - S/T
Skylark	<i>Alauda arvensis</i>	4	-	Red list NERC S.41	Possible breeder - S/H
Swallow	<i>Hirundo rustica</i>	3 fly-overs	5 flyovers	Green list	Non-breeder - F
Blackcap	<i>Sylvia atricapilla</i>	1	-	Green list	Non-breeder - UH

¹European Ornithological Atlas Committee, 1979. *Categories of Breeding Bird Evidence*. European Ornithological Atlas Committee.

Species: British Common Name	Species: Latin name	Survey 1	Survey 2	Conservation Status & Protection	Breeding status ¹
Whitethroat	<i>Sylvia communis</i>	-	1	Green list	Confirmed breeder – FF
Wren	<i>Troglodytes troglodytes</i>	1	2	Green list	Possible breeder – S
Starling	<i>Sturnus vulgaris</i>	3 + 10 fly-overs	30 + 32 fly-overs + 3 juveniles	Red list NERC S.41	Confirmed breeder – FF/FL
Blackbird	<i>Turdus merula</i>	2	2 + 1 fly-over	Green list	Possible breeder - H
Robin	<i>Erithacus rubecula</i>	1	1	Green list	Possible breeder – H
Dunnock	<i>Prunella modularis</i>	4	6	Amber list NERC S.41	Probable breeder – S/P/T
House sparrow	<i>Passer domesticus</i>	7 + 1 fly-over + 1 colony	14 + 2 fly-overs	Red list NERC S.41	Confirmed breeder – S/P/T/FF
Pied wagtail	<i>Motacilla alba</i>	1 flyover	-	Green list	Non-breeder – F
Meadow pipit	<i>Anthus pratensis</i>	1	-	Amber list	Non-breeder - UH
Chaffinch	<i>Fringilla coelebs</i>	3	3	Green list	Probable breeder – S/P
Linnet	<i>Carduelis cannabina</i>	6 + 3 fly-overs	6	Red list NERC S.41	Possible breeder - H
Total No. Species		23	22		

Breeding Status evidence can be broken down into four sections, each with their own codes, as defined by the European Ornithological Atlas Committee:

Confirmed breeder

DD – distraction display or injury feigning

UN – used nest or eggshells found from this season

FL – recently fledged young or downy young

ON – adults entering or leaving nest-site in circumstances indicating occupied nest

FF – adult carrying faecal sac or food for young

NE – nest containing eggs

NY – nest with young seen or heard

Probable breeder - Evidence accumulated during the survey indicates that the bird species is breeding on site.

P – pair in suitable nesting habitat

T – permanent territory (defended over at least 2 survey occasions)

D – courtship and display

N – visiting probable nest site

A – agitated behaviour

I – brood patch of incubating bird (from bird in hand)

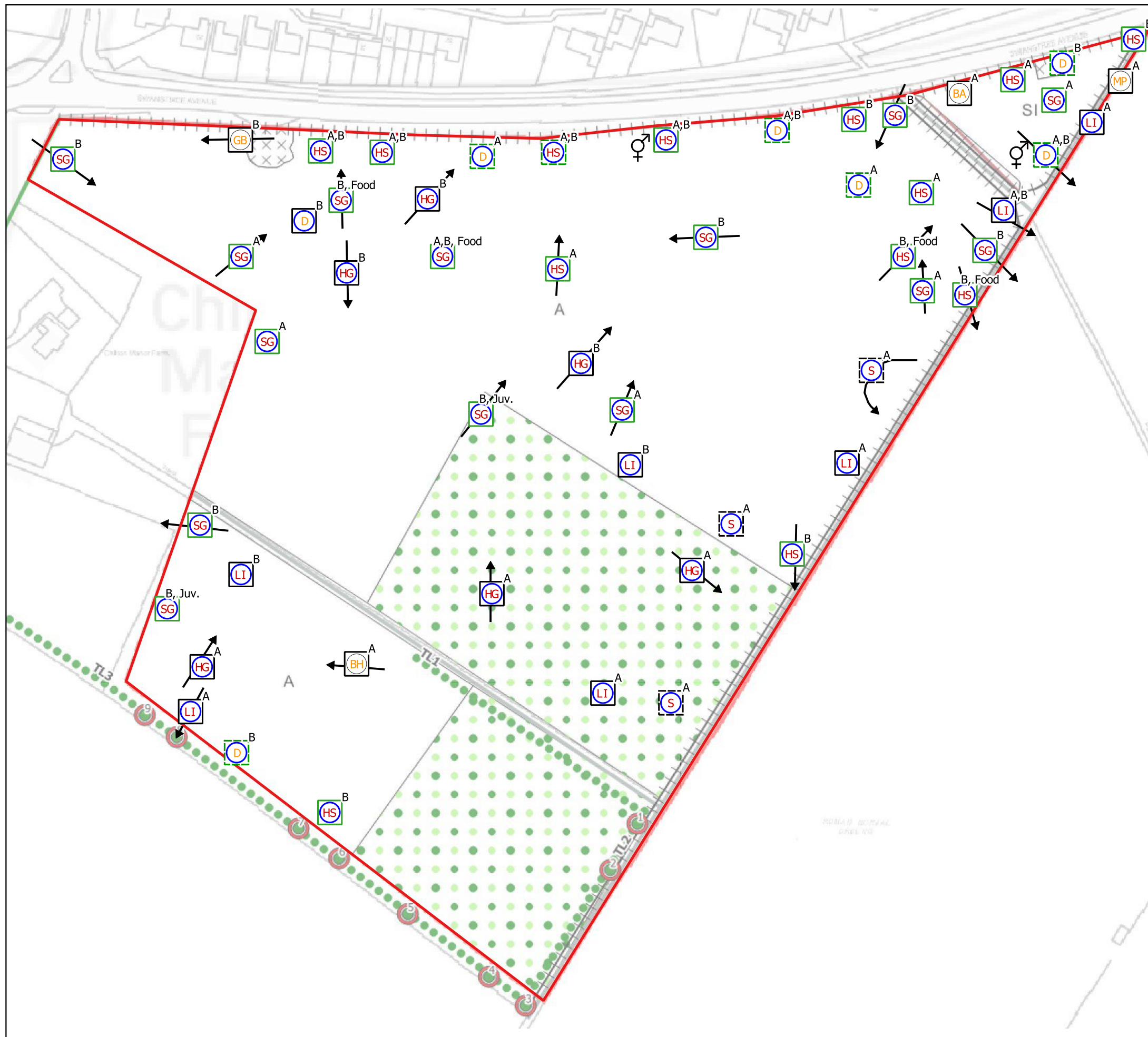
B – nest building or excavating nest-hole

Possible breeder - Evidence accumulated during the survey indicates that the bird species could be breeding on site, but the evidence is less conclusive than that obtained for probable breeders.

H – observed in suitable nesting habitat
S – singing male

Non-breeder

F – flying over
M – migrant
U – summering non-breeder
UH – observed in unsuitable nesting habitat



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Key

- Site Boundary
- BoCC Red Listed Species**
- HG Herring Gull
- HS House Sparrow
- LI Linnet
- S Skylark
- SG Starling
- BoCC Amber Listed Species**
- BA Bar-tailed Godwit
- BH Black-headed Gull
- D Dunnock
- GB Great Black-backed Gull
- Fly Over Only
- ♂ ♀ Pair symbol
- NERC Species of Principle Importance
- Schedule 1 Species
- Confirmed Breeder
- Probable Breeder
- Possible Breeder
- Non-breeder
- Survey Date
- A - 21.04.21
- B - 02.06.21

Gladman Developments Ltd
Land off Swanstree Avenue,
Sittingbourne
BREEDING BIRD SURVEY RESULTS

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