

KJ Ecology Ltd

Condition 8
for
planning permission H13-0281-24
for
Cassini Lodge, 58, Seas End Road, Moulton Seas End

December 2024



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Document Control Sheet

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1 Introduction

1.1 Terms of Instruction

G R Merchant Ltd on behalf of R K Wilson Builders (MSE) Ltd have gained planning permission (H13-0281-24) to erect seven dwellings at Rear Of Cassini Lodge, 58, Seas End Road, Moulton Seas End, Spalding. To comply with Condition 8, G R Merchant Ltd on behalf of R K Wilson Builders (MSE) Ltd commissioned Kevin Johnson of KJ Ecology Ltd to write a Biodiversity Net Gain Plan and a Biodiversity Management Plan on the 24th September 2024.

Condition 8 states:

Prior to the commencement of the development hereby permitted beyond oversight, a Biodiversity Net Gain Plan to demonstrate a net gain in biodiversity on-site shall be submitted to, and approved in writing by, the Local Planning Authority. This shall be supported by a Biodiversity Management Plan setting out how the biodiversity enhancements will be managed and monitored for the lifetime of the development.

Note: Development can incorporate a number of simple, low-cost measures to deliver biodiversity benefits and enhance priority habitats and species, such as, the use of bat and barn owl roost boxes and integrating nesting opportunities into buildings. The use of swift bricks on new developments would help minimise the decline in swifts, a priority species.

Reason: To ensure that the development is able to deliver a net gain in biodiversity. This Condition is imposed in accordance with Policy 28 of the South East Lincolnshire Local Plan, 2019 and national guidance contained in the National Planning Policy Framework, December 2023.

1.2 Site Location

The proposed development site is on the Southern edge of the village of Moulton Seas End and is on the Western side of Seas End Road at Grid Ref TF 3204 2699 as shown in Map 1 (Appendix 1).

1.3 Report Limitations

This report is for the sole use of the client and its' reproduction or use by anyone else is forbidden unless written consent is given by the author.

1.4 Background to KJ Ecology Ltd

On the 24th September 2024 KJ Ecology Ltd was appointed to write a Biodiversity Net Gain Plan and a Biodiversity Management Plan for the erection of seven dwellings at the rear of Cassini Lodge, 58, Seas End Road, Moulton Seas End, Spalding. KJ Ecology Ltd is an independent Ecological Consultancy run by Kevin Johnson BSc PgD PGCE MCIEEM (Member of the Chartered Institute of Ecology and

Environmental Management) and has several years of experience in environmental consultancy work. This work has ranged from working on the rail, roads, airports, house building projects, barn conversions and pipeline work. Kevin Johnson was initially an Ecology and Environmental Lecturer at various colleges and taught students how to carryout surveys and about the environment. Kevin Johnson then went on to work for a number of ecological consultancies such as Penny Anderson Associates, which is one of the original environmental consultancy companies and is well respected.

2 Biodiversity Net Gain

2.1 Methodology

On the 30th September 2024 a baseline assessment was done for the site and the baseline map is shown in Map 2, Appendix 1. For each habitat identified as per UK Habitat Classification – Habitat Definitions V2(July 2023), the area was then measured; a condition assessment was carried out as per Statutory Biodiversity Metric Condition Assessment Sheets and Methodology, (July 2024) and finally the strategic significance of the site. These values are then added to the Statutory Biodiversity Metric Calculation Tool (July 2024) which automatically calculates the habitat units on site.

The proposed illustrative Masterplan was then used to enter the data for the new proposed habitats into the Statutory Biodiversity Metric Calculation Tool (July 2024). This included any retained or enhanced habitats. For each habitat type, the area was taken, the target condition for each habitat was assessed using Statutory Biodiversity Metric Condition Assessment Sheets and Methodology, (July 2024), the strategic significance of the site and finally if the habitat is going to be created in advance or delayed. Using this data and the baseline data, the Statutory Biodiversity Metric Calculation Tool (July 2024) would then calculate if there has been any Biodiversity Net Gain. If the required minimum 1% Biodiversity Net Gain has not been reached, then further discussions with the client are required until an agreed motion forward has been reached.

2.2 Results

The results can be seen in the accompanying Excel spreadsheet – Moulton Seas End - Biodiversity Metric Calc. The site was taken to have a strategic significance of 'Area/compensation not in local strategy/ no local strategy'. None of the habitats are irreplaceable.

2.2.1 Area Habitats

2.2.1.1 On-Site Habitat Baseline

The baseline map (Map 2, Appendix 1) gave the following measurements:

Feature	Classification	Area (ha)	Condition	Habitat units delivered	Area retained	Area enhanced
Buildings	Urban - Developed land; sealed surface	0.0337	N/A - Other	0.00		
Stone area adj to shed	Urban - Artificial unvegetated, unsealed surface	0.0009	N/A - Other	0.00		
Concrete access road	Urban - Developed land; sealed surface	0.035	N/A - Other	0.00		
Garden area	Urban - Vegetated garden	0.3354	Condition Assessment N/A	0.67	0.1738	
Silver Birch tree and Large Ash tree in good condition	Individual trees – Urban tree	0.0529	Good	0.63	0.0529	
Other trees in moderate condition	Individual trees – Urban tree	0.0489	Moderate	0.39		0.489

Only the Individual trees – Urban tree needed a habitat assessment carrying out and the results of the assessment can be seen in the accompanying spreadsheet - Moulton Seas End - Cond Assess Sheet.

Overall there are 1.70 habitat units on site.

2.2.1.2 On-Site Habitat Creation

The proposed layout of the site is shown in the accompanying proposed site layout plan. A summary of the results are shown below.

Feature	Classification	Area (ha)	Condition	Habitat units delivered
Shared access road	Urban - Developed land; sealed surface	0.0414	N/A - Other	0.00
Drives	Urban - Artificial unvegetated, unsealed surface	0.0605	N/A - Other	0.00
Paths and patios	Urban - Developed land; sealed surface	0.0447	N/A - Other	0.00
Dwellings	Urban - Developed land; sealed surface	0.0691	N/A - Other	0.00
Wildflower meadow	Grassland - Other neutral grassland	0.0226	Moderate	0.15
Bin collection area	Urban - Artificial unvegetated, unsealed surface	0.0007	N/A - Other	0.00
New trees along access drive	Individual trees - Urban tree	0.0244	Moderate	0.07

The new habitats will be created as soon as the dwellings and associated infrastructure have been built. A new wildflower meadow will be created on the North side of the access drive. Six Cherry (*Prunus avium*) trees will be planted along the new access drive – two on the North side and four along the Southern boundary.

Overall the new plans will generate 1.71 habitat units.

2.2.1.3 On-Site Habitat Enhancement

The trees in moderate habitat condition will continue to grow in the 30 year period of the biometric. During this period they will gain ecological niches etc and go from being in moderate habitat condition to good. This will deliver 0.50 habitat units.

2.2.2 Headline Results

The initial baseline gave 1.70 habitat units and the new scheme will create 1.71 habitat units. This is a 0.01 habitat unit gain according to the Biometric or 0.78% net gain. This means that the plans have reached the requirements of Condition 8.

3 Biodiversity Management Plan

3.1 Habitats

3.1.1 Tree Planting

Six bare rooted Cherry trees are to be planted in the Winter period (December to February). A stake will be inserted next to each tree at a 45° angle and tied with a flexible tree tie. A biodegradable tree guard will then be added. The trees will then be watered weekly or daily in very hot and dry conditions for the first year until they establish or sometimes two years depending upon if it has been a dry Summer the year before. The stake and tree tie need checking regularly and the tie needs loosening as the trunk expands. The stake should be kept in for at least three years before the stake and tree tie are removed. By this time the tree should be firmly rooted in.

3.1.2 Wildflower meadow

To reach the required biodiversity units, the wildflower area will need sowing in Springtime and will require cutting in late August/early September time with the vegetation being moved off site. If possible a second cut in November time on the wildflower area is required to reduce the vigour of the grasses. Some reseedling of flower species may be required to attain the moderate habitat condition. The soil is loamy and clay soils of coastal flats with naturally high groundwater, so the wildflower mix should be for this soil type such as Loam & Alluvial Soils Wildflower Seed BS4P or Heavy Clay soils Wildflower Seed BS5P from Boston Seeds. The wildflower seeds need to be bought from a reputable UK seed merchant such as:

<https://www.wildflower.co.uk>

<https://www.bostonseeds.com>

<https://britishwildflowermeadowseeds.co.uk>

3.1.3 Monitoring and remedial action

The following monitoring, reporting, and remedial actions are proposed.

Habitat	Monitoring	Risks	Remedial Action
Wildflower Meadow	The wildflower meadow will be surveyed in the Summer using a quadrat to ensure that it reaches the required species density. The wildflower meadow will be monitored as follows: Year 1 when the wildflower meadow has been sown in the Spring. After that it will be surveyed in Years 2, 3, 4, 5, 10, 15, 20, 25 and 30.	Species not establishing and not reaching the required species density. People walking on the wildflower areas and letting their dogs foul the area.	Over-sowing will occur in the following Spring. Fence to be placed around wildflower area to prevent people going in. Signs to explain the purpose of the wildflower areas and not to let dogs into the area.
Trees	The trees will be inspected to ensure establishment. The trees will be monitored as follows: Year 1 when the trees have been planted in the Winter. After that it will be surveyed in Years 2, 3, 4, 5, 10, 15, 20, 25 and 30.	Trees not establishing or becoming diseased or damaged. Vandalism from people.	Any trees not establishing will be replaced for a like for like basis and watered in the 1 st year to make sure they establish.

Note: the monitoring reports as referenced above shall be sent to the local authority by 1st November of each year in which monitoring is undertaken. As a minimum these reports shall contain:

- 1 A summary of management actions taken over the previous monitoring period and their timing;
- 2 A summary of problems encountered in meeting management objectives and any mediation actions taken or planned to address problems;
- 3 A current UK habitat condition assessment for each post-development habitat accompanied by the following supporting evidence:
 - a. Species composition and % cover quadrat data for grassland habitats following sampling methods of the National Vegetation Classification (NVC; Rodwell 1992);
 - b. Whole feature assessment of trees;
 - c. Photographs of each habitat parcel.

3.2 Species Enhancement

3.2.1 Bat Roosts

Summer bat roosts, especially maternity roosts, need between six and ten hours of sunlight a day to warm the roost, so a Southerly or Westerly aspect is required. Some bats require cooler temperatures (lone males) so need different aspects – more Northerly. Bats need clear unobstructed airspace in front of the roosting site and away from lights. According to BCT (Bat Conservation Trust) they need to be at least 4m above ground level and close to trees and hedges where bats feed.

Using this information, it is proposed to place two bat bricks up as shown in Figure 1, Appendix 2. Examples are shown in Appendix 3. These will be checked once a year to ensure that the boxes are in good condition.

3.2.2 Birds

According to the RSPB the following needs to be considered when siting a nest box:

- Boxes for Tits, Sparrows or Starlings (*Sturnus vulgaris*) should be fixed two to four metres up a tree or a wall;
- Unless there are trees or buildings which shade the box during the day, face the box between North and East, thus avoiding strong sunlight and the wettest winds;
- Make sure that the birds have a clear flight path to the nest without any clutter directly in front of the entrance. Tilt the box forward slightly so that any driving rain will hit the roof and bounce clear;
- House Sparrows (*Passer domesticus*) and Starlings will readily use nest boxes placed high up under the eaves. Since these birds nest in loose colonies, two or three can be sited spaced out on the same side of the house. Keep these away from areas where House Martins (*Delichon urbicum*) normally nest;
- Two boxes close together may be occupied by the same species if they are at the edge of adjoining territories and there is plenty of natural food. While this readily happens in the countryside, it is rare in gardens, where you normally can only expect one nesting pair of any one species. The exceptions to this are House and Tree Sparrows (*Passer montanus*) and House Martins, which are colonial nesters. By putting up different boxes, several species can be attracted.

Using this information and to fulfil the criteria of Condition 8, three Sparrow terraces, two Blue Tit (*Cyanistes caeruleus*) style box and two pairs of Swift (*Apus apus*) style nests, Blackbird (*Turdus merula*) style box and a Wren (*Troglodytes troglodytes*) style box will be placed around the site as shown in Figure 1, Appendix 2. Examples are shown in Appendix 3.

Condition 8 also requires a Barn Owl (*Tyto alba*) box, so a Barn Owl box will be placed on the Southern side of the large Ash (*Fraxinus excelsior*) tree, as per Figure 1, Appendix 2.

The bird boxes will be monitored in the Winter period when old nests will be cleaned out and any damaged boxes replaced.

4 References

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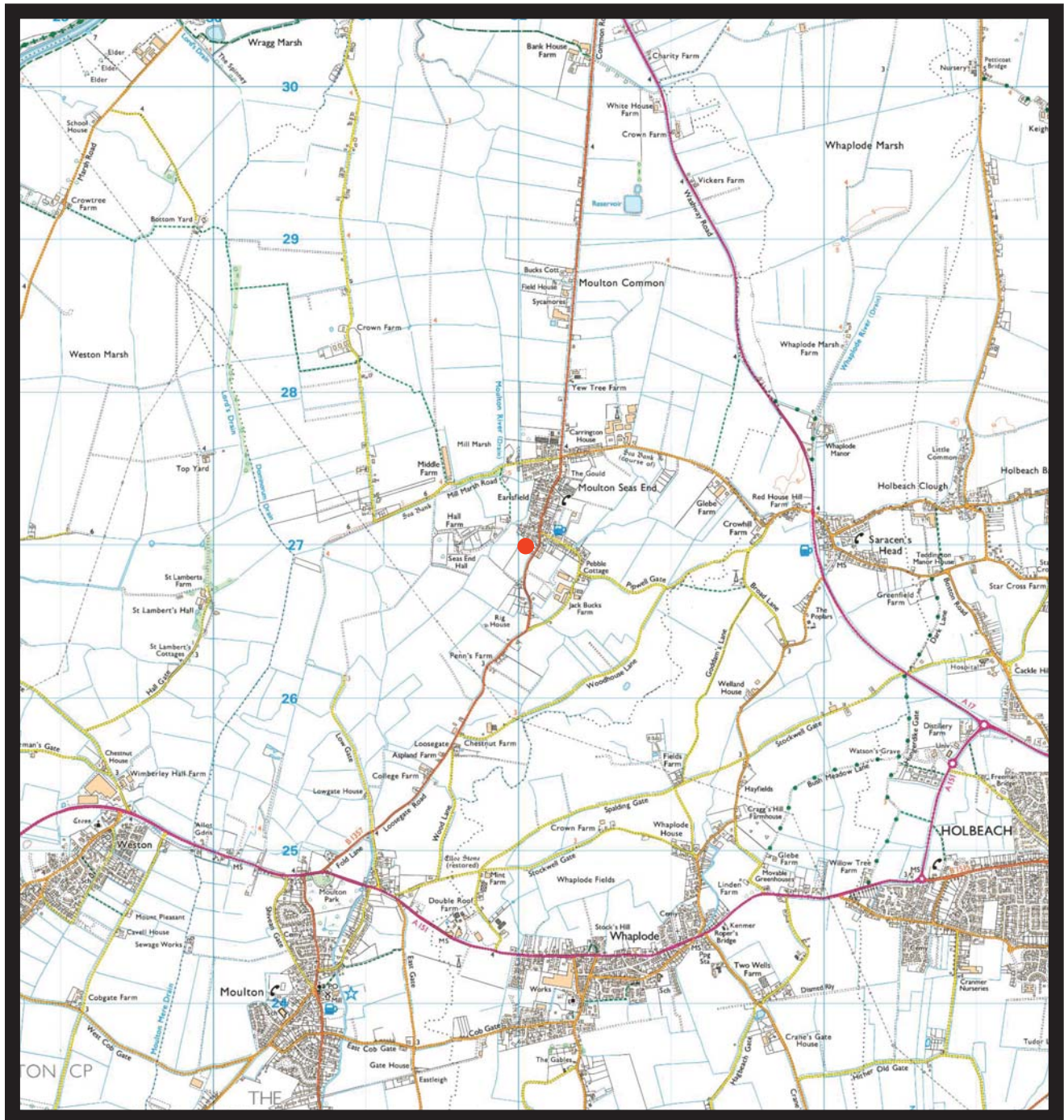
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Appendix 1

Maps

Map 1: Location map for Cassini Lodge, Moulton Seas End.



0 0.5 1km
Legend

● Location of site

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Site Plan 1:40,000

KJ Ecology Ltd
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 Date : 05/12/2024



Map 2: Habitat map for Cassini Lodge, Moulton Seas End.



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Site Plan 1:1,700

Legend

-  Garden
-  Developed land; sealed surface
-  Building
-  Artificial unvegetated unsealed surface
-  Other hedgerow
-  Built linear feature



KJ Ecology Ltd
Drawn by : KJ
Date : 05/12/2024

Appendix 2

Figure

Figure 1: Location of bird and bat boxes at Cassini Lodge, Moulton Seas End.



Not to scale

Legend

- Barn Owl Box
- Bat brick
- Swift box - double
- House Sparrow terrace
- Blue Tit box
- Blackbird style box
- Wren style box

KJ Ecology Ltd
Drawn by : KJ
Date : 05/12/2024



Appendix 3

Examples

Bat Bricks



Bird Boxes

House Sparrow terraces



Blue Tit style boxes



Wren/ Robin style boxes



Open style boxes for Blackbirds/ Robins

