

CHEQUERSFIELD WELWYN GARDEN CITY

LANDSCAPE AND MITIGATION PLAN



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1.0 INTRODUCTION

1.1 On the 11th December 2018 outline planning permission was granted by Welwyn Hatfield District Council to redevelop a parcel of land at Chequersfield Road, Welwyn Garden City (OS Grid Reference TL 23601 11312) into two blocks of flats for residential use, hereby referred to as the Approved Development Site (**Appendix 1**).

1.2 This landscape and mitigation plan (LMP) has been written to satisfy condition 5 of the planning permission (**6/2018/1519/MAJ**) for the approved development:

“Prior to any development above ground level a landscaping and mitigation plan that adopts the measures described in Sections 6.5, 6.7, 6.8, 6.9, 6.11 and 6.12 of the Preliminary Ecological Appraisal (ACD Environmental, May 2018) has been submitted to and approved in writing by the local planning authority. This shall include, but not necessarily be limited to, the:

- a) Purpose and biodiversity objectives for the proposed works;*
- b) Detailed design(s) and/or working methods necessary to achieve these objectives (including, the provenance of native trees etc);*
- c) Extent and location of proposed works shown on appropriate scale plans;*
- d) Timetable for implementation;*
- e) Persons responsible for implementing the works;*
- f) Details of initial aftercare and long-term maintenance;*

These works shall be carried out strictly in accordance with the approved details and all features shall be retained in that manner thereafter. ”

1.3 In line with condition 5 the LMP contains the following:

- Biodiversity objectives of the proposed plans (**see Sec 3.1, 4.1 and 4.2**);
- Precautionary methods of work, in accordance with the Preliminary Ecological Appraisal¹ (PEA) (**see section 3**);

¹ Wood, D. (2018) TWNT20972PEA *Preliminary Ecological Appraisal, Chequersfield, Welwyn Garden City*, ACD Environmental Ltd. Malmesbury.

- Measures to be taken to ensure objectives are met (**section 3, 4 and 5**); and
- Schedule of works including plans for ongoing management (**Section 4, 5; Appendix 2**).

2.0 BACKGROUND INFORMATION

- 2.1 The Approved Development Site (**Image 1**) is 0.3 hectares of brownfield land which was previously used as a maintenance access for Network Rail workers. The Approved Development Site is bordered by the Chequersfield residential development to the south and a grassland field to the north, a railway line to the west and the A1000 road to the west.
- 2.2 A PEA for the Approved Development Site was produced in May 2018, and a site walkover undertaken in March 2019.



Image 1: Approved Development Site location and approximate boundary shown in red.

Habitat

2.3 The Approved Development Site supported three habitat types¹;

- Bare ground is the dominant habitat type and is of **negligible ecological value**;
- Scattered scrub at the southern boundary comprising an earth bank with bramble scrub and small patches of grass. This was considered to be of **negligible ecological value** given its small size and isolation. This has since been cleared; and
- Spoil heap which is small and well compacted. It is therefore considered to be of **negligible ecological value**.

2.4 There is an intact mature hedge offsite along the northern boundary, containing a good diversity of species including hawthorn *Crataegus monogyna*, elder *Sambucus nigra*, goat willow *Salix caprea*, wild briar (dog rose) *Rosa canina*, and wild hop *Humulus lupulus*. The hedge also contains piles of buried debris and litter. It is considered **to be of local value** on the basis of its size, shape and diversity. This is being retained.

Amphibians

2.5 There are no water bodies in or adjacent to the Approved Development Site. It is therefore considered that amphibians (in particular great crested newts *Triturus cristatus*) are reasonably likely to be absent from the site. The Approved Development Site **is considered to be of negligible value for amphibians**.

Badgers

2.6 The Approved Development Site was searched methodically for evidence of badgers *Meles meles*. No badger evidence was found. Clusters of mammal burrows present within the hedge are attributable to rabbits. Given the small size of the Approved Development Site and its relative isolation due to road networks, the Approved Development Site is considered to be **of negligible value to badgers**.

2.7 However, given the presence of badgers in the wider environment and that they are

likely to use the railway corridor approximately 50m to the east, precautionary working measures will be adopted.

Bats

2.8 The Approved Development Site contains no buildings or trees capable of supporting roosting bats. There is a possibility that bats use the northern boundary hedgerow as a commuting corridor and possibly forage over the adjacent grassland, however these are unlikely to be important resources in the local area.

Birds

2.9 The Approved Development Site is considered to be of negligible value to birds. The offsite hedge to the north is likely to support nesting birds in the nesting season in addition to providing foraging opportunities.

Reptiles

2.10 Given the isolated nature of the Approved Development Site it is considered likely that reptiles are absent, despite a limited amount of scrub at the southern boundary.

2.11 A reptile population could be present in the offsite northern field, which contains tussocky grassland. However, site clearance is unlikely to encounter any reptiles or put them at significant risk of harm.

3.0 PRECAUTIONARY METHODS OF WORK

3.1 This section details the precautionary methods of work, which will be adopted throughout the preparation and construction phases of the development. These aim to protect wildlife from harm or excessive disturbance during the development of the Approved Development Site.

General Ecological Measures

3.2 A Toolbox Talk by an appropriately qualified ecologist, will be given to ensure workers are aware of restrictions relating to wildlife within the Approved Development Site and of the wildlife protection measures that are to be put in place.

3.3 All chemicals will be stored in well-sealed containers and stored away from boundary vegetation to prevent spillage or ingestion by wildlife.

3.4 The Northern hedgerow will be protected in accordance with BS5837:2012².

Badger

3.5 Whilst no evidence of badger activity was found within the Approved Development Site, it is important to note that they are a highly mobile species, which continually dig new setts. Therefore, it is possible that badgers may enter the Approved Development Site in the future. A badger walkover was undertaken in March 2019 to account for this and no evidence of badger activity was found.

3.6 During the site preparation and construction phases of the development, good practice measures will be adopted to protect commuting and foraging badgers that may enter the Approved Development Site. The following mitigation measures will be implemented:

- Trenches will be covered overnight wherever possible, however when this is not possible, a means of escape will be provided, for example a plank angled between the bottom and the top of the trench. All trenches will be checked each morning. Should a badger be found, work will stop and the advice of an ecologist will be sought;

² BSI (2012). *Trees in Relation to Design Demolition and Construction, BS5837:2012*. British Standards Institution, Bristol
ACD Environmental

- Any temporarily exposed pipes will be capped to prevent badgers gaining entry overnight;
- Use of noisy machinery will be minimised after dark to reduce potential disruption to foraging activity; and
- If a large D-shaped hole is found during preparation or construction phases, work will stop immediately and the advice of an ecologist will be sought.

Bats

3.7 Consideration will be taken with respect to lighting to ensure foraging and commuting bats along the northern hedgerow are not unduly impacted by the development. The following measures will be implemented to avoid lighting disturbance to bats³:

- Careful aiming, positioning and selection of luminaires. LEDs with no UV component are to be installed at a distance from retained habitats. The brightness of a luminaire is a deterrent even where there is no light spill and directional lights can still result in a small amount of light spill behind;
- Avoid white light. Lighting will utilise warm colours (preferably 3000°k to 2700°k with peak wavelengths greater than 550nm);
- 0% upward light output and no tilting of the light head;
- Motion sensors incorporated for security lighting;
- For street lighting part night lighting and dimming will be applied according to the local councils current policy, the latter viable with LED's only; and
- Use of shields, baffles and cowls will be applied along the northern boundary to prevent light spillage into the adjacent grassland.

Birds

3.8 Bramble and scrub was removed prior to the 2019 bird nesting season (March-

³ Ferguson, F.R., Smith, N., Fox, H., (2018) *Bats and Artificial Lighting in the UK*. The Bat Conservation Trust, London

August inclusive).

- 3.9 Should any further vegetation require removal, it will be done outside of the bird nesting season wherever possible. However, if it becomes necessary to clear any further vegetation during the bird nesting season it will be checked by an ecologist for active nests prior to removal. If no nests are found gradual clearance using hand tools can begin and must be completed within 48 hours.
- 3.10 If a nest is found at any stage clearance work will not be undertaken and advice will be sought from an ecologist. A 5m buffer will be established around the nest with high visibility tape and appropriate signage. Loud machinery will be kept 10m away from the nest where possible. Before clearance can resume an ecologist must confirm that the nest is no longer in use and that no new nests have been established within the vegetation whilst the buffer was in place. Clearance will be completed within 48 hours after establishing that no active nests are present using hand tools.

Reptiles

- 3.11 No particular measures need to be adopted with respect to reptiles due to the lack of suitable habitat onsite. However any roots or piles should be removed/dismantled by hand when reptiles are likely to be fully active (April-September inclusive) as a precaution. If any reptiles are found, work will stop and the advice of an ecologist sought.

4.0 MITIGATION AND ENHANCEMENT

- 4.1 This section details the measures that need to be taken to achieve a net gain for biodiversity.
- 4.2 The aim of employing mitigation and enhancement measures is to reduce the adverse effects of development, and encourage a net gain in biodiversity⁴. This will be done using a combination of wildlife friendly planting and provision of artificial habitats. A summary of these measures and their ongoing maintenance requirements can be found in **Appendix 1**.

Habitat

- 4.3 New planting around the retained northern hedgerow predominantly includes hornbeam *Carpinus betulus* bordered by areas of ground covering plants and climbers including English lavender *Lavandula angustifolia*, Lilly turf *Liriope muscari*, Geranium *Geranium dalmaticum* and rock rose *Cistus corbariensis*. These plants serve the dual purpose of providing a buffer for the hedge whilst attracting invertebrate species. This provides subsequent foraging opportunities for bats and birds. Shrubs are also included in the vicinity of the hedgerow including dogwood *Cornus sanguinea* which in addition to attracting pollinating invertebrates provides a fruit.
- 4.4 Native shrubs are included in the landscape plan throughout the development including dogrose *Rosa canina*, dogwood, hazel *Corylus avellana*, hawthorn *Crataegus monogyna*, holly *Ilex aquifolium* and blackthorn *Prunus spinosa*. These species all provide fruit which can be exploited by fauna.
- 4.5 Amenity grassland is to be seeded with Emorsgate EL1 Flowering Lawn Mixture, a species rich lawn mix including a selection of wildflowers. This is tolerant of short mowing.
- 4.6 For full soft landscaping details, including planting locations, refer to the landscape plan⁵.

⁴ NPPF Ministry of Housing, Communities and Local Government (2018). *National Planning Policy Framework*. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/728643/Revised_NPPF_2018.pdf

⁵ S.F.B. (2017) 6100/PP/ASP1 Landscape plan, Aspect Landscape Planning Ltd. Banbury

Badger

- 4.7 Provision of fruiting plants within the Approved Development Site provides ongoing foraging opportunities for badgers in the area.

Bats

- 4.8 No structures or trees capable of supporting roosting bats are present on site therefore no EPS licence is required.
- 4.9 The landscape scheme includes a mixture of native and wildlife-friendly planting. This is in accordance with the BCT encouraging bats guidance⁶ and corresponds with planting choices of the northern hedgerow.
- 4.10 Two Schwegler 1FR bat boxes will be installed in the external wall of the eastern building at a minimum height of 4m (**Appendix 1**). These will be on an east facing elevation to avoid light spill from the road shining onto the box entrance.
- 4.11 Lighting within the development will follow the advice outlined in section 3.7 with the objective of minimising light spill onto the offsite hedgerow to the north³.

Birds

- 4.12 The wildlife friendly planting in the site will provide foraging opportunities for birds with respect to both invertebrates and fruiting trees.
- 4.13 The retained hedgerow along with the new planting provides suitable nesting habitats for birds.
- 4.14 To supplement this additional bird boxes will be installed into the external walls of the buildings to support urban and building dependent species. This includes two Schwegler no.16 swift boxes, three Schwegler 1MR nest boxes and two Schwegler 1SP sparrow terraces. Bird boxes will not be installed directly above windows or doors.
- 4.15 Swift boxes, suitable for common swift *Apus apus*, are to be installed at a minimum height of 6m above ground level with a clear drop of at least 5m to allow birds to exit

⁶ Gunnell, K., Grant, G. and Williams, C. (2012). *Landscape and Urban Design for Bats and Biodiversity*. The Bat Conservation Trust, London.

the box. No tall vegetation will be in this 5m path. This box type must not be installed at a depth more than 17cm to ensure that access to the box is not blocked.

4.16 Schwegler 1SP sparrow boxes will be installed on the north elevation of the western building at a minimum height of 3m. These can be clustered together as house sparrow *Passer domesticus* are social nesting birds.

4.17 Schwegler 1MR nest boxes will be installed on the northern external wall of the western building at a minimum height of 3m. These provide nesting habitat for common species.

Reptiles

4.18 No further provision is required for reptiles.

5.0 MAINTENANCE AND MANAGEMENT

- 5.1 To ensure the ecological interest of the development site is maintained, existing and newly created habitats will be managed as detailed below and in **Appendix 2**.

General Management

- 5.2 Any litter will be removed on a regular basis. Fly tipping will also be removed and reported to Welwyn Hatfield District Council in accordance to the procedure detailed on their website.
- 5.3 If native planting is found to be in poor health, professional help will be sought and appropriate remedial/replacement measures will be implemented either by the developer during construction, or the appointed management company post construction.
- 5.4 If invasive species are discovered, these will be removed using the appropriate method of removal for the species. Herbicide and pesticide use will be avoided except in the removal of invasive species.
- 5.5 The appointed management company is responsible for ongoing maintenance.

Habitat

- 5.6 All plants are to be watered as required to maintain healthy growth. Any plant failures including failures due to drought are to be replaced by the management company. Trees and shrubs are to be subject to annual assessments of health by an appropriately qualified contractor, to be appointed by the management company.
- 5.7 New and retained planting is to be managed in a wildlife friendly manner with only occasional pruning and thinning undertaken as required. This is to be done outside of the bird nesting season (March-August inclusive), and only after fruiting has finished.
- 5.8 Plants and their respective stakes are to be checked for wind firmness on a monthly basis and remedial action taken as required. Stakes and ties are to be removed once plants are established (usually 2 growing seasons).
- 5.9 Soil in planted areas is to be inspected annually for capping and compaction and

appropriate action taken as necessary. All planted areas shall be given an application of a top dressing at the rate of 40g/m² in May. This shall be in slow release form e.g. Enmag or similar and will be worked lightly into the soil, without disturbing the roots. Unless specific nutritional deficiencies are identified, no fertiliser shall be applied to newly planted trees in the first season.

5.10 During the first year, grass in the amenity grassland areas shall be cut at intervals of not more than 10-14 days during the growing season (typically April – October) and will leave approximately 40mm of growth. Cuttings will be removed from site. Any residual perennial weeds will be dug out by hand. Once established, the grass should be regularly mown (25mm - 40mm). To permit flowering, mowing can be relaxed from late June. The sward should be cut again when it gets untidy (after 4-8 weeks). Mowing may be suspended earlier in the year to allow cowslips to flower. Heavy quantities of cuttings should be collected and removed from site.

5.11 Post-planting management and maintenance of trees shall be in accordance with BS8545:2014 section 11 Trees: from nursery to independence in the landscape-recommendations.

5.12 The appointed management company is responsible for the maintenance of onsite planting.

Badger

5.13 The fruiting plants are to be managed in a wildlife friendly manner to allow badger to forage effectively. No further maintenance is required.

Bats

5.14 No further management of the Schwegler 1FR boxes is required as the box design has been chosen because it does not require management. It is an offence to disturb a bat roost without a bat licence.

Birds

5.15 The Schwegler 1SP sparrow boxes, Schwegler 1MR nest boxes and Schwegler no.16 swift boxes will be cleaned out every year outside of the bird nesting season (March - August inclusive). Old nesting material will be removed and the box cleaned

with hot water. The appointed management company is responsible for this.

Reptiles

5.16 No specific ongoing management is required for reptiles.

Feedback into the management plan

5.17 The LMP will be reviewed after 5 years and amended as necessary.

5.18 The developer is responsible for ensuring all works outlined in the LMP are carried out accordingly and that information is made available to the local planning authority if requested. Following completion of the development management responsibility will be passed onto the appointed management company who is then responsible for the ongoing management measures outlined in the LMP.

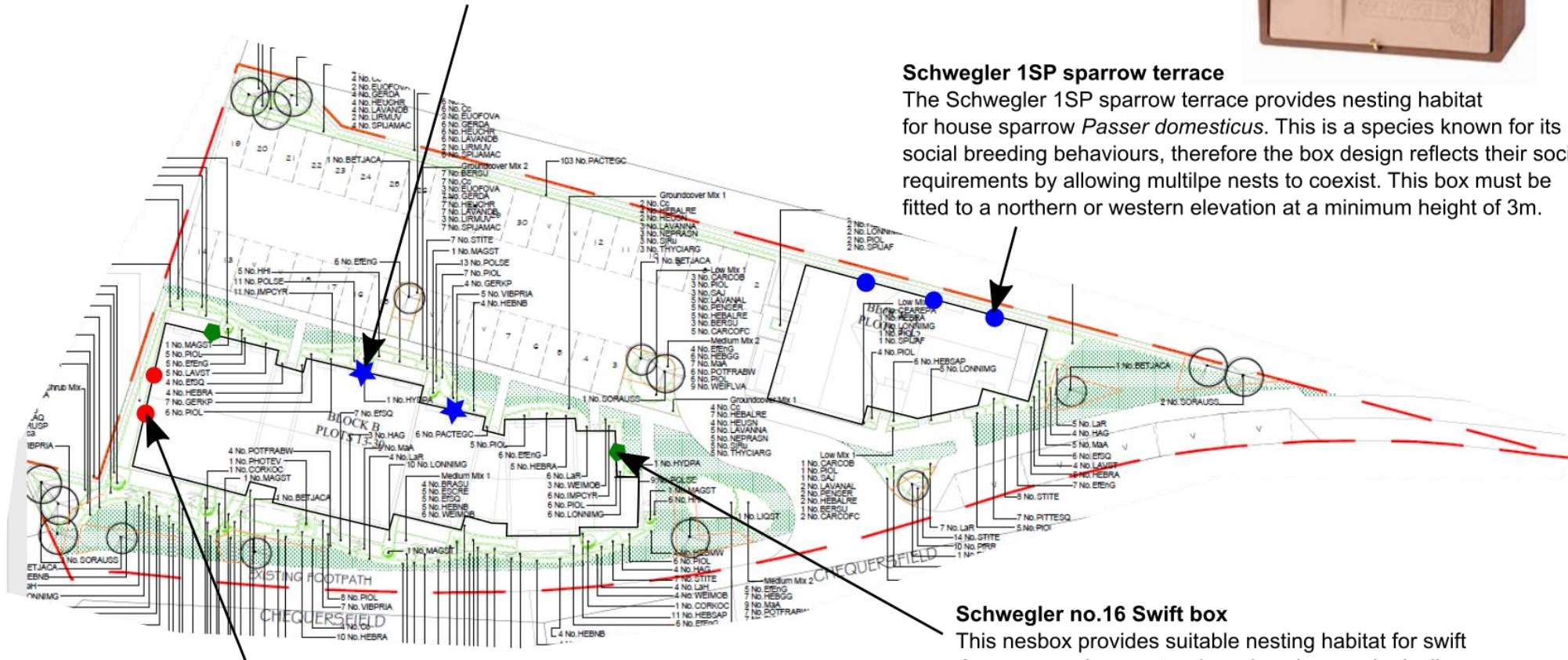
5.19 All materials, workmanship, quality and operations should be in accordance with all relevant British Standards, Codes of Practice and legislation.



Schwegler 1MR bird box
 The Schwegler 1MR bird box provides nesting habitat for small common species. The small entrance hole provides protection from predators. These will be installed on the northern or western elevations of buildings at a minimum height of 3m.
 270H x 190W 230D mm



Schwegler 1SP sparrow terrace
 The Schwegler 1SP sparrow terrace provides nesting habitat for house sparrow *Passer domesticus*. This is a species known for its social breeding behaviours, therefore the box design reflects their social requirements by allowing multiple nests to coexist. This box must be fitted to a northern or western elevation at a minimum height of 3m.



Schwegler 1FR bat tube
 Schwegler 1FR bat tubes provide habitat for small crevice dwelling species including common pipistrelles *Pipistrellus pipistrellus* and soprano pipistrelles *Pipistrellus pygmaeus*. This is a maintenance free design with internal partitions comprised of wood concrete with favourable thermal properties. Up to 60 small bats can be housed at a time. These will be installed on a south or east facing elevation at a minimum height of 4m.
 470H x 200W x 215D.mm

Schwegler no.16 Swift box
 This nestbox provides suitable nesting habitat for swift *Apus apus*, whose natural nesting sites are in decline. This box should be installed on a north or western elevation at a minimum height of 6m with a clear 5m drop below to allow access. This must not be installed more than 17cm depth into the wall to ensure access is not blocked.
 240H x 430W x 220D mm



KEY:

- Site Boundary
- Schwegler 1FR batbox
- Schwegler 1MR birdbox
- Schwegler 1SP
- Schwegler no.16 swift box

This plan should be read in conjunction with the Landscape and Mitigation Plan (TWNT20972 LMP)



scheme: Chequersfield Road, Welwyn Garden City
 client: Taylor Wimpey North Thames
 drawing: LMP
 date: 08/03/2019
 scale: NTS@A3
 drawing no.: 66
 drawn: HR checked: GN

APPENDIX 2 SCHEDULE OF WORKS

Task	Details	Timing Restrictions	Responsible Party
Installation of new planting	N/A	During construction	Development company
Maintenance of new planting	Occasional thinning and pruning only. Replacement of any dead or dying plants	Annual assessment of health of all planting. Pruning to be carried out outside bird nesting season and after fruiting has finished.	Appointed management company responsible for planting maintenance and for appointing an appropriately qualified professional to assess and address plant health.
Maintenance of amenity grassland	1 st year- cut 10-14 days in growing season to 40mm(April to October) Once established cut as required to 25-40mm.	N/A	Management company
Checking plants and steaks for wind firmness	Monthly until the plants are fully established (usually 2 growing seasons)	N/A	Management company
Installation of bat boxes	Minimum height of 4m on a southern or west elevation	During construction	Development company
Maintenance of bat boxes	No maintenance required	N/A	N/A
Installation of Schwegler 1SP boxes	Clustered at a minimum height of 3m on a north or east elevation	During construction	Development company
Installation of Schwegler no.16 swift boxes	At a minimum height of 6m with a clear 5m drop for access	During construction	Development company
Installation of Schwegler 1MR bird boxes	At a minimum of 3m on a northern or western elevation	During Construction	Development Company
Maintenance of all nest boxes	Remove old nesting material and clean with hot water	Outside of bird nesting season (March-August inclusive)	Management company
Removal of litter/fly tipping	As required	As required	Management company



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