



Biodiversity Mitigation & Enhancement Plan

**Chalcroft Business Park
Hampshire**

Contents

1.0	Introduction	4
	Background	4
	Site Context and Status	4
	Roles and Responsibilities.....	6
2.0	Review of Ecological Baseline.....	7
	Preliminary Ecological Appraisal	7
	Protected Species Assessment.....	7
3.0	Impacts & Mitigation	8
	Round Copse SINC Ancient Semi-natural Woodland	8
	<i>Bat Species Mitigation</i>	<i>9</i>
	<i>On site Habitats</i>	<i>10</i>
4.0	Enhancement Strategy	10
	<i>Wildlife Buffer.....</i>	<i>10</i>
	<i>Enhancements for Bat Species</i>	<i>12</i>
	<i>Woodland Management Plan</i>	<i>13</i>
5.0	Overall Conclusions	16
	Appendix 1: Biodiversity Mitigation and Enhancement Plan.....	17
	Appendix 2: Woodland Management Plan	19

LIABILITIES:

Whilst every effort has been made to guarantee the accuracy of this report, it should be noted that living animals and plants are capable of migration/establishing and whilst such species may not have been located during the survey duration, their presence may be found on a site at a later date.

The recommendations contained within this document are based on a reasonable timeframe between the completion of the survey and the commencement of any works. If there is any delay between the commencement of works that may conflict with timeframes laid out within this document, or have the potential to allow the ingress of protected species, a suitably qualified ecologist should be consulted.

It is the duty of care of the landowner/developer to act responsibly and comply with current environmental legislation if protected species are suspected or found prior to or during works.

1.0 Introduction

Background

- 1.1 The Ecology Partnership Ltd was commissioned to carry out ecological surveys on land at Chalcroft Business Park, West End, Hampshire. The surveys have included a Preliminary Ecological Appraisal (PEA), buildings assessment for roosting bat species and further dusk emergence and dawn re-entry bat surveys.
- 1.2 The plans for the site include the demolition of the existing industrial and office buildings with the construction of new modern facilities on their footprint and on an area of neutral semi-improved grassland.
- 1.3 This document has been written to support the planning application as per the request of Eastleigh Borough Council.
- “The application will need to be supported by a Biodiversity Mitigation and Enhancement Plan (BMEP) in addition to the Phase 1 Ecological Appraisal which can be covered by planning condition.”*

Site Context and Status

- 1.4 The site is located within the boundaries of Chalcroft Business Park, which comprises of a large expanse of neutral semi-improved grassland, expanses of hard standing, large industrial buildings and some smaller units and office blocks.
- 1.5 Round Copse SINC and semi-natural ancient woodland is located adjacent to the site along the northern boundary.

Purpose and objectives

- 1.6 The aims, objectives and use of this document is to provide detailed information regarding the ecological mitigation and enhancements required for the scheme. This describes the checking, monitoring and audit processes that would be implemented to ensure works are being undertaken in accordance with these requirements, together with measures to ensure appropriate corrective actions or mitigation measures are taken.



Figure 1. Red line site boundary within the wider business park site



Figure 2. Proposed site layout. Blue line indicates maximum northern build line

Roles and Responsibilities

Ecologists

- 1.7 The Ecology Partnership will be on site when appropriate to monitor work so that no harm comes to wildlife and also provide advice to site workers about best practices. The Ecology Partnership's duties include, but are not limited to:
- Monitoring site works;
 - Provision of status reports and updates as necessary;
 - Provision of advice and liaison with workers on site as necessary;
 - Identifying environmental risks and developing appropriate environmental controls;
 - Delivery of environmental training for site personnel and sub-contractors;
 - Liaison with client.
- 1.8 If an occasion arises which requires advice about a wildlife issue, then the Ecology Partnership's office should be contacted on **01372 364133**.

Site workers

- 1.9 It is expected that all site workers will act responsibly whilst on the development site and adhere to the wildlife protection and buffer zones. All site workers will be briefed on ecological issues with regards to fence lines, protection zones and timings. All site workers will receive a toolbox talk (TBT) with relation to protected sites, protected species and site works.
- 1.10 All site workers are expected to:
- Dispose of litter in the litter bins provided;
 - Report fence damage immediately;
 - Report any protected species found within the construction work areas.
- 1.11 Under NO circumstances must site workers:
- Dump material in uncleared areas and 'wildlife buffer zones';
 - Move or damage fences;
 - Enter fenced off areas ('wildlife buffer zones');
 - Have fires or store materials in areas not previously agreed;

- Handle or catch animals (unless the animal is in immediate danger);
- Remove or disturb wildlife boxes.

1.12 If any site worker is unsure of any of the above points, then they must refer to the site manager or the site ecologist.

2.0 Review of Ecological Baseline

Preliminary Ecological Appraisal

2.1 An update preliminary ecological appraisal was conducted at the site in February 2023. This found the site to largely comprise hardstanding, gravel and buildings, with small areas of modified grassland around the buildings and neutral semi-improved grassland around the northern fringes. The redline boundary has also changed from the original survey and now comprises a smaller area, further from the woodland.

2.2 The area of woodland 20m to the north-east of the red line boundary is part of the Round Copse, a non-statutory designated Site of Importance for Nature Conservation (SINC), owing to its semi-natural ancient woodland. Suitable mitigation against negative impacts from the proposed development are discussed further within this report.

Protected Species Assessment

2.3 The site was only considered to have potential for supporting one protected species. The buildings assessment for roosting bat species highlighted two buildings on site to have 'low' potential for supporting roosting bat species and a further two buildings were confirmed to support bat roosts, following surveys in 2018. Update dusk emergence surveys were recommended.

2.4 The 2018 surveys found two of the buildings were being used by low numbers of common pipistrelles as occasional summer day roosts. On the basis that update surveys find similar or lower numbers of roosting bats, these buildings will be demolished under Low Impact Licence. This will be applied for once a planning permission has been granted, under a method statement of works with appropriate mitigation discussed later within this report.

3.0 Impacts & Mitigation

Round Copse SINC Ancient Semi-natural Woodland

- 3.1 The PEA survey highlighted that Round Copse SINC ancient semi-natural woodland is present 20m from the northern boundary of the application site. There will be no direct habitat loss from the proposed development. The woodland is on private land and has no public access into it.
- 3.2 However, it is considered that there will be indirect impacts on the SINC woodland if no mitigation is put in place. In the absence of mitigation, it is considered that there will be increased disturbance on the woodland during the construction phase through noise and potentially dust. It is also considered that there will be increase light spill into the woodland during the operational phase. There will be no increase in recreational pressure on the woodland as a result of the development as it is for industrial use and there is no public access into the woodland itself.
- 3.3 Following a shading assessment it was determined that the south-eastern building would only significantly shade a small portion of the SINC in the winter, when the no foliage or notable ground flora are present. In the spring and autumn a minor area of shading may affect the SINC in the late afternoon, however, this is unlikely to affect the trees themselves as their canopies reach 17-20m in height against the buildings proposed 12m to haunch. Furthermore the 2.4m high chain-link fence along the boundary of the SINC was covered in bramble and honeysuckle, and as such, the ground layer of the woodland in this area is already subject to shading at these times. In conclusion, there would likely be no significant effect of shading on the SINC as a result of the development.
- 3.4 Natural England's current standing advice is for a buffer of 15m between development and areas of ancient woodland. However, in this case, due to the height of the building, a buffer of 20m between the SINC and the development is be considered sufficient. This has been incorporated into the final proposals and is shown on appendix 1 – Biodiversity Mitigation and Enhancement Plan.
- 3.5 There is currently already a 2.4m high wire mesh security fence separating the business park from the woodland, which will act as a permanent barrier between the site and the

woodland post development. In addition to this, the 'wildlife buffer' will be subject to Heras type fencing covered with light permeable tarpaulin, keeping machinery and operatives away from the woodland during the construction phase minimising any disturbance from noise and dust as well as allowing light to still reach the ground flora behind.

- 3.6 Post development during the operational phase the buffer will be subject to further planting and maintained as a dark corridor with a sensitive lighting scheme, this is discussed further within the enhancements and bat mitigation section of this report. It is considered that with these mitigation measures in place the potential impacts are reduced to being negligible and the condition and nature conservation value of the SINCC and its associated habitats will be safeguarded. This brings the proposed development in line with Local Plan policies 23.NC, 24.NC and 25.NC.

Bat Species Mitigation

- 3.7 Two of the buildings present on site were found to support low numbers of roosting common pipistrelles beneath external bargeboards. Please refer to the letter of report "Dusk Emergence & Dawn Re-entry Surveys for Bat Species Interim Letter of Report – Chalcroft Business Park, West End, Hampshire" for the full results and details of low impact licencing for the demolition of the buildings.
- 3.8 Due to the age of the survey data update surveys will be required, but on the likely basis that the numbers of bats using these features is still sufficiently low, the buildings will be demolished under low impact licence under the supervision of Low Impact Licence Registered Consultant (the RC) Alexia Tamblyn MA (Oxon) MSc CEnv MCIEEM FRGS (Bat licences: 2015-13558-CLS-CLS, Low Impact Licence: RC135). This will include a method statement of works ensuring the barge boards are removed by hand under the supervision of the RC.
- 3.9 Two bat rocket boxes will be erected prior to the demolition of the buildings, and any individual bats found during the demolition will be captured and relocated into one of the boxes by the RC. The boxes locations can be found in appendix 1 and further information on their specs is detailed in the enhancements section.

- 3.10 A sensitive lighting strategy has been designed for the development which ensures no increase in artificial light levels within the SINC and the majority of the 20m buffer area, with no higher than 2.5lux in the remaining small areas. A copy of the Lighting Plan is presented in Appendix 3.

On site Habitats

- 3.11 Within the redline boundary for the proposed development the habitats to be lost include:
- 0.18ha of managed modified grassland; and,
 - 0.07ha of other neutral grassland.
- 3.12 The grassland on site is mostly heavily managed with a regular mowing regime largely for its amenity value. The grassland is considered to have relatively low biodiversity value at site level only because of this management regime. This loss of habitat is not considered to be a significant loss and the grassland within the buffer zone to the north-east will be further enhanced to improve its biodiversity value post development. This is discussed further within the enhancements section of this report.

4.0 Enhancement Strategy

Wildlife Buffer

- 4.1 New native shrub and wildflower planting will be established within the proposed 'wildlife buffer' to increase the biodiversity and enhance this area as a wildlife corridor. This buffer is located in the 20m stretch between the application area and the SINC and extends eastward until the fence line reaches a corner. Due to the increased shading that will result from the building, a shade tolerant mix of native flowering species will be established throughout this area. This will ideally¹ comprise the [LW8P seedmix from Landlife Meadows](#), which includes 24 different native wildflowers tolerant of heavy shaded conditions. The buffer zone will be split into two distinct zones, with the more heavily shaded outer 10m of the buffer nearest the buildings comprising the wildflower mix only, with the other half directly adjacent to the SINC also incorporating a mix of native shrubs tolerant of partial shade including:

¹ If this seedmix is not available at the appropriate time a suitable alternative should be used following agreement with an ecologist.

- Hazel (*Corylus avellana*)
- Hawthorn (*Crataegus monogyna*);
- Spindle (*Euonymus europaeus*);
- Guelder rose (*Viburnum opulus*);
- Holly (*Ilex aquifolium*);
- Elder (*Sambucus nigra*);
- Wild privet (*Ligustrum vulgare*);
- Honeysuckle (*Lonicera periclymenum*).
- Wild cherry (*Prunus avium*)
- Wild service tree (*Sorbus torminalis*)

4.2 The existing grassland within the buffer zone will be cut to ground level and scarified to expose bare ground and aerate the topsoil prior to sowing of the seedmix at a rate of 3g/m². This will ideally be done in the autumn period between mid-September and early November when conditions are wet and relatively warm, and grass growth is slowing. Alternatively, early spring (March) would also be suitable. Following sowing the area will be lightly raked or rolled to help the seeds embed into the soil. In the first year the area will be mowed monthly to a height of 100mm between March and September to help control taller weed species such as thistles, docks, and nettles, and allow the seed mix to establish. However, areas of emerging bluebells should be avoided in April and May. In following years the area should be strimmed to around 100mm once a year in the early autumn, however, areas where nettles establish may need more frequent cuts to suppress them.

4.3 The use of bird boxes on the south-eastern aspects of the buildings will provide new nesting opportunities on site. A combination of four of the following (or similar) will be erected:

- 2 x Vivara Pro Barcelona WoodStone Open Nest Box– This box will provide suitable nesting opportunities for wrens, robins, spotted flycatchers, pied and grey wagtails, song thrushes and blackbirds and is made from woodstone to ensure that it is long lasting with good thermal regulatory properties.
- 2 x Vivara Pro Seville WoodStone Nest Box with 32mm Oval Hole – This box is similar to the Barcelona nest box but the oval hole is particularly favoured by house

sparrows and redstarts, who will use the larger hole to perch to defend their nests from predators and rival.

- 4.4 The business park is currently separated from the wider landscape by a 2.4m high wire mesh security fence that is currently impermeable to wildlife. Although it is understood that the fence line must maintain functionality as a security fence to protect the industrial park from intruders it is considered that small holes (approx. 200mm x 200mm) could be made in various locations along the base of the fence line to allow small mammals to pass through the fence line.

Enhancements for Bat Species

- 4.5 The planting described above will also act has enhancements for bat species due to the increase in species diversity created which will lead to greater foraging and commuting opportunities.
- 4.6 Specific enhancements for bat species will include the increase of roosting opportunities on site. This will be achieved by installing two crevice chambered rocket boxes in the SINC buffer zone. These boxes are affixed to a pole in the ground and feature two concentric circles of crevice roosting space around the pole. This will mimic the crevice habitat currently being utilised on site by common pipistrelle bats and allows bats within the box to adjust their position throughout the day based on their preferred microclimate. The recommended model is the Eco Rocket Bat Box by The Nestbox Company Limited, with a cavity roost chamber and a 5m pole (See Figure 3 below). The locations of the boxes can be found in appendix 1.

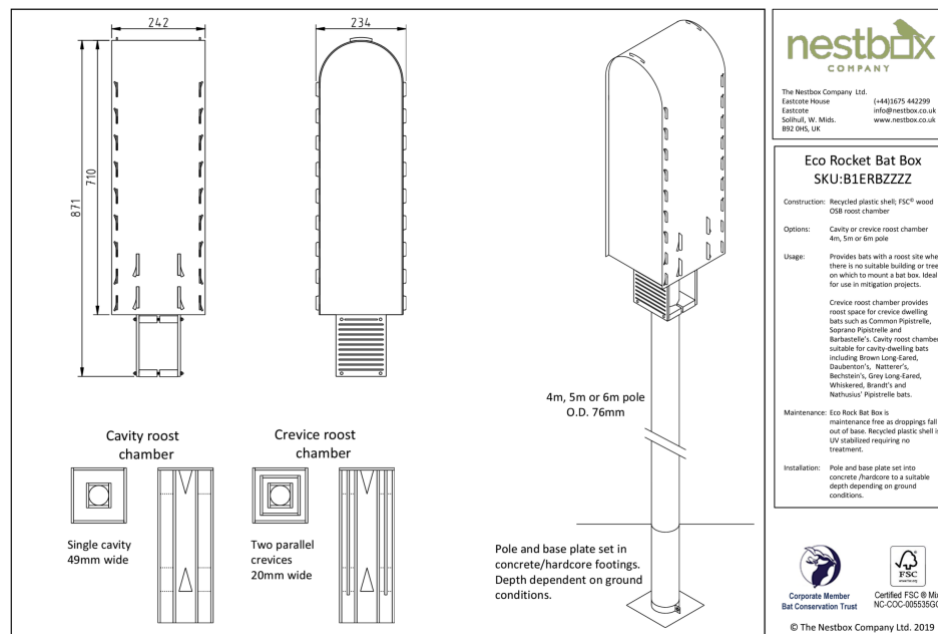


Figure 3: Eco Rocket Box diagram by Nextbox Company Ltd.

Woodland Management Plan

- 4.7 Both of the adjacent SINC woodland habitats of Round Copse SINC and Chalcroft Distribution Park SINC are within the site owners land ownership. It is therefore proposed that as a major enhancement to the local landscape these areas of woodland be subject to a woodland management plan. The extent of the woodland blocks and the woodland compartment references are shown in appendix 2. As part of the management plan both woodland will be kept as private land with no public access.

Round Copse

- 4.8 Round copse is in affect two small blocks of lowland deciduous woodland (RC1 and RC3/4) connected by a tree line (RC2) running north to south. The total area of Round Copse is only 1.21ha so any management plan needs to be focused on developing ground flora without losing a significant number of mature trees.

RC3 & RC4

- 4.9 RC3 and RC4 are the same block of woodland but have a security fence running between them. RC3 and RC4 exhibit very dense grouping of trees in areas. These areas will be thinned of their smaller Cat C trees including species such as common ash (*Fraxinus excelsior*), silver birch (*Betula pendula*) and common alder (*Alnus glutinosa*). This will allow

remaining specimens more space to grow and encourage crown development. The ground flora is currently heavily dominated by bramble (*Rubus fruticosus* agg.), ivy (*Hedera*) and dense bracken (*Pteridium aquilinum*). These species are currently shading out and out competing the remaining ground flora which currently supports ancient woodland indicator species such as wood anemone (*Anemone nemorosa*), Solomon's seal (*Polygonatum x hybridum*), black bryony (*Dioscorea communis*), wild strawberry (*Fragaria vesca*), figwort (*Scrophularia* sp.), common dog violet (*Viola riviniana*) and wood speedwell (*Veronica montana*). Up to 80% of the bramble, bracken and ivy will be removed from the ground flora to allow other species to colonize further and increase the biodiversity of the ground flora in these woodland sections.

- 4.10 Any felled trees should be sectioned down to smaller logs and brash, the brash should be removed from site but the logs should be piled within the woodland to create further dead wood habitat.

RC2

- 4.11 RC2 is essentially just a tree line that runs north to south connecting the two small woodland blocks. It is not considered that any management is required along this tree line. This area should be allowed to "scrub up" along its length creating a denser corridor of vegetation between the woodland blocks.

RC1

- 4.12 RC1 is the largest section of woodland that comprises Round Copse and is largely in a relatively favourable condition. It also supports an area of wet woodland priority habitat, which sits in a hollow along the northern edge. Its management requirements are considered to be similar to that of RC3 and RC4. The denser areas of trees will be thinned of the smaller Cat C species, predominately ash and alder in this area.
- 4.13 In terms of wet woodland management, the natural clearings that occur within this area will be retained and the edge habitats maintained as dense vegetation to avoid the drying out of soils. All felled trees will again have the brash removed, but the logs will be stacked on site providing further deadwood habitat.

Chalcroft Distribution Park SINC

- 4.14 Chalcroft Distribution Park SINC is a much larger area of lowland deciduous woodland covering approximately 4.47ha. It largely consists of a thin strip of woodland (CDP2) that runs adjacent to the railway line and connects two wider sections of woodland, CDP1 to the north and CDP3 to the south. CDP 1 also supports an area of wet woodland priority habitat.
- 4.15 Within the larger areas of CDP1 and CPD3 glades will be created by clear felling tree within a small area allowing light to reach the woodland floor and enhance the habitat for ground flora. These areas will then be managed on a yearly basis to keep them clear of scrub and new tree growth.
- 4.16 The northern edge of CDP1 will be managed as a new ride. This is to create and enhance new and existing edge habitats. The very edge of the woodland (5m) will be cut on a 3 to 5 year cycle to create an herbaceous zone. The next 5m strip into the woodland will be coppiced on an 8 to 20 year rotation to create a shrub zone leading into the main woodland and the highest canopy. This creates a staggered edge to woodland that benefits wildlife by creating mixed habitats.
- 4.17 CDP2 will be subject to similar management as Round Copse. Due to its narrow structure the woodland block will be subject to minimal thinning of smaller trees of a lower quality and the removal of up to 80% of scrub habitats to encourage the species diversity of the ground flora.
- 4.18 Table 1 below shows the schedule of works by year. It must be noted that all tree felling works and scrub removal should be carried out outside of bird nesting season (March to September inclusive) or be subject to a nest bird check by a suitably qualified ecologist. Trees to be felled should also be checked for their potential for supporting roosting bat species by a suitably qualified ecologist.

Table 1. Woodland Management Plan Schedule up to Year 8

Woodland Block	RC1	RC2	RC3	RC4	CDP1	CDP2	CDP3
Year							
1 st Year	-Thinning	- N/A	- Thinning - Scrub removal	- Thinning - Scrub removal	- Clear fell new glade - First cut on 5m herbaceous strip - First coppice on 5m shrub strip	- Thinning - Scrub removal	Clear fell new glade
2 nd Year	- N/A	- N/A	- Scrub removal	- Scrub removal	- Scrub removal from new glade	- Scrub removal	- Scrub removal from new glade
3 rd Year	- Update monitoring survey	- Update monitoring survey	- Update monitoring survey	- Update monitoring survey	- Update monitoring survey - Scrub removal from new glade - Second cut on 5m herbaceous strip	- Update monitoring survey	- Update monitoring survey - Scrub removal from new glade
4 th Year	- Any further works based on the update survey	- Any further works based on the update survey	- Any further works based on the update survey	- Any further works based on the update survey	- Any further works based on the update survey	- Any further works based on the update survey	- Any further works based on the update survey
8 th Year	- Update monitoring survey	- Update monitoring survey	- Update monitoring survey	- Update monitoring survey	- Update monitoring survey - Third cut on herbaceous layer - Second coppice on 5m shrub layer	- Update monitoring survey	- Update monitoring survey

5.0 Overall Conclusions

5.1 It is considered that the redevelopment of the site will not result in the alterations of the ecological functionality of the local landscape. If the mitigation and enhancements outlined within this reports are followed then it is considered that the site will achieve a net gain in biodiversity post development.

5.2 The only protected species identified on site are low numbers of roosting bat species. It is considered that through low impacts licencing and the mitigation and enhancements outlined within this report the favourable conservation status of bat species in the wider landscape will not be effected.

Appendix 1: Biodiversity Mitigation and Enhancement Plan



Appendix 2: Woodland Management Plan



Appendix 2 – SINC Management Plan Map

-  SINC compartment boundaries
-  Compartments to be thinned and understorey scrub removed
-  Compartments with new glade creation
-  Compartment with new glade and ride creation
-  Areas of wet woodland to remain unmanaged to maintain wet conditions

Site: Chalcroft Business Park
Client: Strutt & Parker

ECOLOGY
PARTNERSHIP

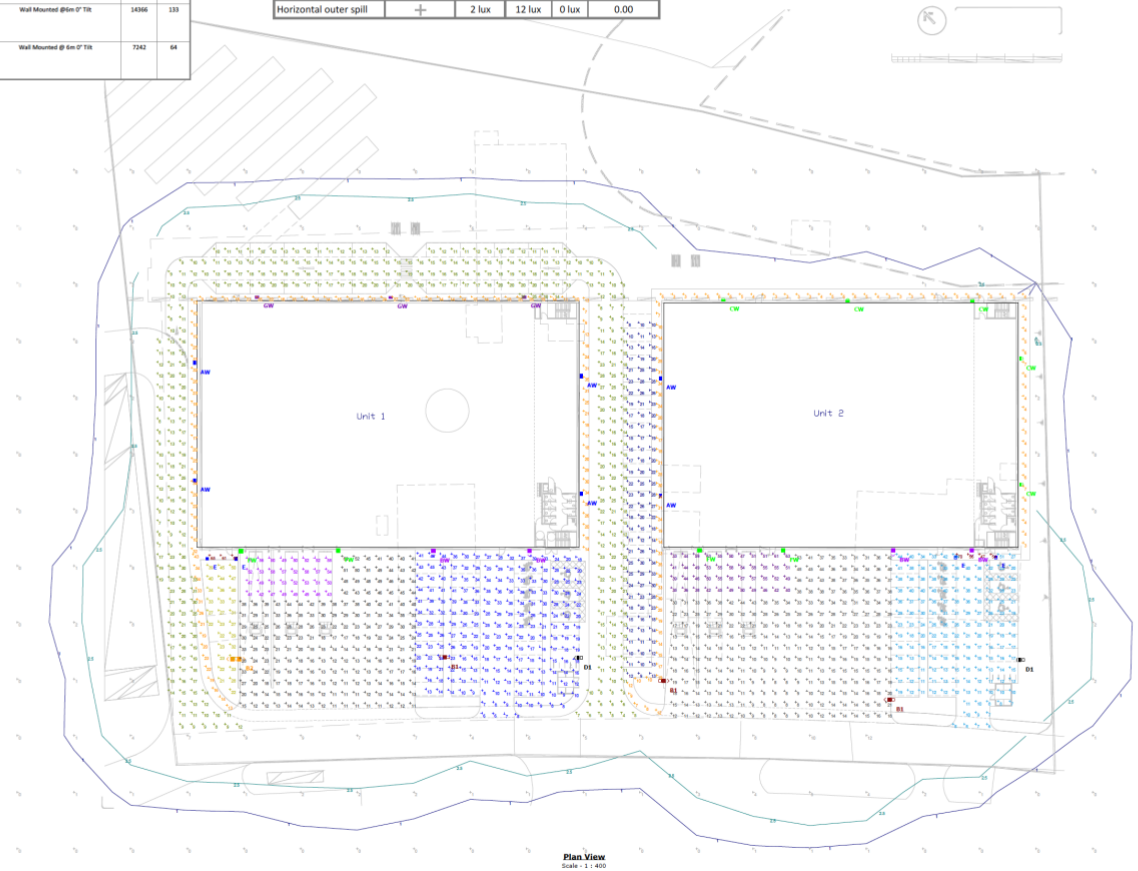
Thorncroft Manor, Thorncroft Drive,
Leatherhead, KT22 8JB t: 01372 364
133 w: ecologypartnership.com

Appendix 3: External Lighting Plan

Schedule						
Symbol	Label	Image	Quantity	Catalog Number	Description	Comments/Per Lamp Wattage
	AW		6	D560.L1A063.NR	Wall Mounted @ 6m 0" TIR	5529 45
	E1		3	D560.L1A113.FW	Column Mounted @ 8m 0" TIR	10809 98
	E2		4	D560.L1A113.FW	Wall Mounted @ 6m 0" TIR	10809 98
	E2		1	D560.L1A113.FW	Twin Column Mounted @ 8m 0" TIR	10809 176
	CW		5	DWL.L1A013.NR.W007	Wall Mounted @ 6m	840 6.5
	D1		2	D560.L1A063.FW	Column Mounted @ 8m 0" TIR	7648 64
	E		4	D560.L1A013.SL.NR.L1.W006	Ballast @ 1m	404 6
	FW		4	D560.L1A113.AY	Wall Mounted @ 6m 0" TIR	14386 133
	GW		3	D560.L1A063.AY	Wall Mounted @ 6m 0" TIR	7042 64

Statistics					
Description	Symbol	Avg	Max	Min	Min/Avg
Unit 1 Car Park		24 lux	46 lux	6 lux	0.25
Unit 1 Circulation Area		32 lux	50 lux	21 lux	0.66
Unit 1 Entrance		71 lux	87 lux	61 lux	0.86
Unit 1 Loading Bay		52 lux	75 lux	41 lux	0.79
Unit 1 Pedestrian Path		25 lux	43 lux	13 lux	0.52
Unit 1 Perimeter		19 lux	35 lux	7 lux	0.37
Unit 1 Service Road		15 lux	33 lux	4 lux	0.27
Unit 1 Service Yard		25 lux	62 lux	11 lux	0.44
Unit 2 Car Park		23 lux	64 lux	6 lux	0.26
Unit 2 Entrance		57 lux	70 lux	47 lux	0.82
Unit 2 Loading Bay		50 lux	63 lux	33 lux	0.66
Unit 2 Perimeter Path		11 lux	36 lux	3 lux	0.27
Unit 2 Service Yard		20 lux	53 lux	8 lux	0.40
Unit 2 West Parking		19 lux	34 lux	8 lux	0.42
Horizontal outer spill		2 lux	12 lux	0 lux	0.00

Note
Design to be confirmed on elevations.



Plan View
Scale 1:1,400

Note
Holograph Europe Ltd offer a Lighting Design Service in good faith and without charge, every effort is made to ensure we interpret the design specification accurately. All Illuminance values shown are the result of theoretical computer calculations; submitted by luminaires positioned in a fixed relationship to each other and the statistical zone. In practice the values may vary due to tolerances in column installation, luminaire orientation, surface reflectance and fluctuations in power supply (loadings). Results provided within this design are derived from product specific photometry; the substitution of alternative luminaires will not produce comparable results.

The Ecology Partnership Ltd

Thorncroft Manor

Thorncroft Drive

Leatherhead

KT22 8JB

Tel: 01372 364 133

www.ecologypartnership.com

Approved: Alexia Tamblyn MA (Oxon) MSc CEcol CEnv MCIEEM FRGS

Date: 21/02/2023