



Brighter strategies
for greener projects



Client: Formation Design and Build Ltd
Project: Cranwood House
Report: Demolition and Construction Environmental Management Plan

QUALITY ASSURANCE

Issue/Revision:	Draft	Final
Date:	March 2023	March 2023
Comments:		
Prepared by:	Sam Barker, Nina Cooper	Sam Barker, Nina Cooper
Authorised by:	Stephanie Harper	Stephanie Harper
File Reference:	552267sb14Mar23FV02_DCE MP.docx	552267sb14Mar23FV02_DCE MP.docx

CONTENTS

1.0	INTRODUCTION	1
1.1	CONDITION 21	1
1.2	PROPOSALS	2
1.3	SITE LOCATION AND DESCRIPTION	2
1.4	SITE DEMOLITION	2
2.0	ECOLOGICAL BACKGROUND	3
2.1	BASELINE CONDITIONS	3
2.2	BIODIVERSITY ACTION PLANS (BAP)	4
2.3	COMPETENCIES	4
3.0	KEY ACTIVITIES	6
3.1	PROGRAMME	6
3.2	KEY WORKS	6
3.3	HOURS OF WORK	6
3.4	SITE ESTABLISHMENT	7
4.0	ECOLOGICAL MANAGEMENT FRAMEWORK	8
4.1	ROLES AND RESPONSIBILITIES	8
4.2	ECOLOGICAL RECEPTOR SPECIFIC ACTIONS AND METHODS OF WORK	8
5.0	GENERAL ENVIRONMENTAL MANAGEMENT	11
5.1	COMMUNICATION	11
5.2	INDUCTION AND TRAINING	11
5.3	ENVIRONMENTAL INCIDENT RESPONSE PROCEDURE	11
5.4	COMPLAINTS AND ENQUIRIES	11
5.5	CHECKING CORRECTIVE ACTION	11
5.6	MANAGEMENT REVIEW	12
5.7	BEST PRACTICE ENVIRONMENTAL MANAGEMENT MEASURES	12
5.8	OTHER GOOD HOUSEKEEPING MEASURES	15
5.9	DCEMP REVIEW	17
APPENDIX A SITE LOCATION		
APPENDIX B CURRENT SITE CONDITION PHOTOS		
APPENDIX C PROPOSED CONTRACT PROGRAMME		
APPENDIX D TREE CONSTRAINTS PLAN		
APPENDIX E LEGISLATION AND POLICY		

REFERENCES

1.0 INTRODUCTION

Greengage Environmental Ltd was commissioned by Formation Design and Build Ltd to produce a Demolition and Construction Environmental Management Plan (DCEMP) for a site known as Cranwood House, in the London Borough of Haringey.

This document has been produced in order to discharge the ecology related planning condition on the approved planning permission (HGY/2021/2727).

1.1 CONDITION 21

This document addresses the following condition on the planning consent which specifically states:

"21) (a) Prior to the commencement of development, the recommendations of the approved Preliminary Ecological Appraisal (PEA, p17-19) shall be complied with, and details submitted to and approved in writing by the Council. For the avoidance of doubt these recommendations and submissions shall include:

- i. Demolition, Construction and Environmental Management Plan (as per para 5.2 of the PEA) for the Council's written approval, in consultation with the City of London, prior to the commencement of works on site (including demolition);*
- ii. Sensitive Lighting Strategy (as per para 5.3 of the PEA);*
- iii. Further bat surveys (as per paras 5.4-5.6 of the PEA) and consideration of and mitigation for any changes to bat commuting routes;*
- iv. Seasonal clearance of vegetation outside of the bird nesting season (March to August inclusive) (as per para 5.7 of the PEA);*
- v. Ensure conservation of hedgehogs during clearance of vegetation (as per paras 5.10-5.11 of the PEA);*
- vi. Ecological Management Plan that provides habitats for priority species within the scheme landscaping (as per paras 5.12-5.13 of the PEA), including a demonstration of biodiversity net gain and justification for the location and type of enhancement measures by a qualified ecologist, for the Council's written approval prior to the commencement of works on site.*

The development must be completed in accordance with the approved details.

(b) Prior to occupation of development, photographic evidence and a post-development ecological field survey and impact assessment shall be submitted to and approved by the Local Planning Authority to demonstrate the delivery of the ecological enhancement and protection measures is in accordance with the approved measures and in accordance with CIEEM standards.

Development shall accord with the details as approved and retained for the lifetime of the development."

Specifically, this document will address the requirements of part a) i, ii, iv and v of the condition.

1.2 PROPOSALS

Full planning permission has been granted for the redevelopment of the site by demolishing the existing care home building to deliver 41 homes with a mix of one, two and three-bedroom apartments, maisonettes and houses. Collectively known as Cranwood, this development will be split across three new buildings built around a landscaped courtyard amenity space. Building A (6 storeys) will be accessed from Woodside Avenue while Building B (4 storeys) and Building C (3 storeys) will be accessed from a newly created access road off Woodside Avenue. Building A accommodates 16 apartments and 16 maisonettes, Building B 9 apartments and Building C 2 townhouses. The development will also provide a stepped public access to the Parkland Walk on the corner of Muswell Hill Road and Woodside Avenue.

1.3 SITE LOCATION AND DESCRIPTION

The site is situated to the junction between Woodside Avenue and Muswell Hill Road in Haringey. It has a central OS national grid reference of TQ 28428 89147. The surrounding land use is comprised of residential properties beyond Woodside Avenue to the north and Muswell Hill Road to the east. St James C of E Primary School is located to the west of the site and Highgate Wood is located to the south.

The site is comprised of two main areas. The northern area is a disused residential care home, with a small parking area to the west and landscaped gardens in the centre and along the northern/eastern property boundaries. The southern area comprises two terraces of houses with private gardens to the south, and a parking area to the west.

Trees are located throughout the site, with the largest specimens concentrated along the eastern, southern and western site boundaries.

The site location is shown at Appendix A.

1.4 SITE DEMOLITION

Demolition works have already been undertaken, prior to the production of this DCEMP. Therefore this report covers the remaining site clearance and construction activities only.

Photos of the current site conditions are shown at **Error! Reference source not found.**

2.0 ECOLOGICAL BACKGROUND

2.1 BASELINE CONDITIONS

The site has been subject to a Preliminary Ecological Appraisal (PEA) and bat survey in 2019 both undertaken by Greengage to accompany the original planning application. An updated bat survey was undertaken in 2022 in relation to part a) iii of the planning condition. Findings from these surveys are presented in the following reports and this document has been informed by these results and should be read in conjunction with these:

- PEA, Greengage (2019) (doc ref: 551337ogOct19FV01_PEA);
- Bat survey, Greengage (2019) (doc ref: 551337ogJan20FV02_Bats); and
- Bat survey, Greengage (2022) (doc ref: 551718sm10Aug22FV01_Bats).

The key findings of the ecology surveys are summarised below.

PEA

The PEA identified that the habitats on site are all common and widespread and included buildings, hardstanding, modified grassland, introduced shrub, ruderal vegetation and broadleaved woodland. The habitats were identified as having potential to support the following protected/notable species:

- Low to moderate potential to support roosting bats;
- High potential to support foraging and commuting bats;
- High potential to support nesting birds; and
- Moderate potential to support hedgehogs.

The southern boundary of the site is also situated adjacent to Highgate Woods, a Metropolitan Site of Importance for Nature Conservation. These woods were identified as having high potential to support foraging, commuting and roosting bats.

2019 Bat survey

As part of the PEA, a preliminary roost assessment identified that the nursing/care home had low potential to support roosting bats. A single dusk emergence survey on the building was undertaken in September 2019 which concluded roosting bats were likely-absent from the building. A row of terrace houses was included in these surveys and the presence of a bat roost was recorded, however, these terraced houses were later removed from the proposals.

2022 Bat survey

Given the time between the 2019 survey and the proposed demolition date, following the granting of planning permission, an updated survey of the nursing/care home was undertaken in June and July 2022. Two emergence surveys confirmed the 2019 survey results, identifying likely absence of roosting

bats in the building. However, moderate levels of commuting and foraging activity were recorded from two species, common pipistrelle (*Pipistrellus pipistrellus*) and soprano pipistrelle (*Pipistrellus pygmaeus*), with passes (heard not seen) recorded from a further two species, *Myotis* (*Myotis* sp.) and Nathusius' pipistrelle (*Pipistrellus nathusii*).

Given the likely absence of roosting bats, bats and roosts are not considered further in this report.

2.2 BIODIVERSITY ACTION PLANS (BAP)

In accordance with the aims and objectives of this document a review of the relevant biodiversity action plans and local conservation targets was undertaken. This review, along with the results of the PEA and bat surveys, is then able to form the context for ecological enhancement at the site.

UK Biodiversity Action Plans (BAPs) have been developed which set priorities for nationally important habitats and species. To support the BAPs, Species/Habitat Statements (otherwise known as Species/Habitat Action Plans) were produced that provide an overview of the status of the species and set out the broad policies that can be developed to conserve them. A list of priority species of conservation importance was also developed.

The UK BAP was succeeded in 2012 by the UK-Post 2012 Biodiversity Framework which informed the creation of the Biodiversity 2020 strategy; England's contribution towards the UK's commitments under the United Nations Convention of Biological Diversity.

Despite this, the UK BAP priority species lists and conservation objectives still remain valid through integration with local BAPs (which remain valid), and in the form of the Habitats and Species of Principle Importance list (as required under section 41 of the Natural Environment and Rural Communities (NERC) Act).

Local Biodiversity Action Plans (LBAPs) ensure that national action plans (the UK BAP/Biodiversity 2020) are translated into effective action at the local level, and establish targets and actions for locally characteristic species and habitats.

2.3 COMPETENCIES

Stephanie Harper, who reviewed this report, has a degree and PhD in Environmental Sciences, holds a Natural England bat licence and has 15 years' experience in ecological consultancy.

Sam Barker has an undergraduate degree in Environmental Science (BSc Hons), holds a Natural England Great Crested Newt Licence and is an Associate member of CIEEM. Sam has over five years' experience of undertaking and managing a range of ecological surveys and assessments.

Nina Cooper has over 3 years' experience at Greengage working in the EIA and Social Value teams. She undertakes Health Impact Assessments, Socio-economic Assessments and Equalities Impact Assessments to inform planning applications. Nina has worked on a variety of residential and commercial projects. Nina also assists with EIA co-ordination from the early screening and scoping stages right through to the co-ordination and production of the final Environmental Statement (ES).

This report was written by Sam Barker and Nina Cooper and reviewed and verified by Steph Harper who confirms in writing (see the QA sheet at the front of this report) that the report is in line with the following:

- Represents sound industry practice;
- Reports and recommends correctly, truthfully and objectively;
- Is appropriate given the local site conditions and scope of works proposed; and
- Avoids invalid, biased and exaggerated statements.

3.0 KEY ACTIVITIES

The construction activities and timescales are outlined in the following section which has been informed by the proposed contract programme provided by Formation Design and Build Ltd at Appendix C. Should these timings change, then this Biodiversity CEMP will be updated.

3.1 PROGRAMME

Construction is anticipated to commence in April 2023 until May 2024 and take approximately 15 months.

The area of works is shown is the whole site, shown on the figure at Appendix A

Landscaping works will occur in November 2024, following completion of the construction works.

3.2 KEY WORKS

The physical works programme will include the key site activities, details of which are included below, where known:

- Site set up and enabling works;
- Remaining clearance works; and
- Construction works.

3.3 HOURS OF WORK

The construction of the development will take place predominantly during daylight hours, and there will be restricted lighting (details of lighting management is provided at Section 4.8).

The anticipated core working hours for demolition and construction works are:

- 08:00 - 18:00 Mondays to Fridays;
- 08:00 - 13:00 Saturdays; and
- No working on weekends or bank holidays (unless agreed in advance with the Local Planning Authority).

Due to the presence of the nearby school, activities such as waste collection, spoil removal, delivery of materials and concrete delivery will be further restricted to the following hours:

- 09:30 - 15:00 Monday to Fridays; and
- 08:00 - 13:00 Saturdays.

Any alterations to these working hours or requests outside of these hours will be made to and agreed upon by appropriate officials at Haringey Council prior to any of these works taking place.

3.4 SITE ESTABLISHMENT

Site set-up

The first stage of the works will be to establish the location of the site compound, with the remaining site being an active working area. The working area will be secure, and the general public will be separated from the works. A pedestrian access point will generally be located close to the main vehicular access gate with a separate pedestrian gate and footpath provided for labour.

Site Compound

The site compound will be located in the north of the site, this is the furthest point away from retained trees and Highgate Woods Site of Importance for Nature Conservation (SINC). This should be clearly fenced off and only construction vehicles allowed within the wider site area.

The compound will be located outside of any Root Protection Areas (RPA's) as shown on the tree constraints plan at Appendix D.

Excavation

The different phases of the development may require varied excavating and levelling for the formation. Most of the excavation will be carried out by 360° excavators and shovels. Earthwork support will be provided to the perimeter, outside of RPA's, where required.

4.0 ECOLOGICAL MANAGEMENT FRAMEWORK

In accordance with planning condition, the primary focus of this DCEMP is protection of ecological receptors, detailed below.

The following section identifies potential effects for the relevant ecological receptors affected by the scheme. Protection requirements and methods are set out including location and timing of sensitive works. The key potentially damaging construction activities are:

- Vegetation clearance;
- Excavation;
- Works around watercourses; and
- Works outside daylight hours where lighting is required.

4.1 ROLES AND RESPONSIBILITIES

Prior to commencement of works, an Environmental Champion will be appointed. This will be a member of the construction contractor team, and will be responsible for day-to-day implementation of this plan.

An Ecological Clerk of Works (ECoW) will be appointed to undertake specific tasks, as detailed in the sections below.

4.2 ECOLOGICAL RECEPTOR SPECIFIC ACTIONS AND METHODS OF WORK

The PEA and bat survey reports provided detail on the likelihood of notable and rare habitats and protected and notable species being present. The reports highlighted a mitigation hierarchy that should be followed to avoid, mitigate and compensate negative impacts of the development and the Ecological Management Plan details the enhancements.

The methods of work will follow the mitigation hierarchy, where appropriate.

Woodland

The majority of the on-site woodland was cleared as part of the demolition works.

Areas to be retained must be protected throughout the demolition and construction works.

The retained areas and areas of Highgate Wood, adjacent to the site, should initially be surveyed and marked with barrier tape. Sturdy metal barriers such as Heras fencing should then be installed to demarcate the RPA of trees to be retained. The tree constraints plan (Appendix C) details the extent of the relevant RPA's.

No heavy machinery or ground works will be allowed to be undertaken within this protection area.

The barriers demarking the RPA's will be regularly monitored by an appointed member of the site team. to ensure they are still standing and in the right areas.

Other habitats

The other habitats on site (buildings, hardstanding, modified grassland, introduced shrub, ruderal vegetation) were all common and widespread, with no NERC S41 or UK BAP habitats present.

These habitats were all cleared prior to this document being produced.

No further special protection measures or specific clearance methodology are therefore required.

Bats

None of the buildings or trees on site were identified as supporting roosting bats. However, the woodland and proximity of Highgate Woods SINC to the southern boundary had moderate to high value for foraging and commuting bats.

The high quality commuting and foraging habitat retained on site and south of the site, associated with Highgate Woods, will be protected from damage through the use of protective fencing (see above).

Bat Sensitive Lighting

It is understood that construction works will be undertaken during daylight hours. Should any artificial lighting be required this should follow the Bat Conservation Trust and Institute of Lighting Professionals guidelines¹.

Security lighting is also likely to be present on site. Any artificial lighting will be installed so as to not cause unnecessary light spill onto the retained sensitive habitats (e.g. woodland and trees). This will be achieved through directing the lights away from these areas and use of hoods and shields to avoid unnecessary spill onto high value habitats.

Birds

Breeding birds

The PEA identified that the site was of likely high value to nesting birds. The demolition of the buildings and removal of vegetation has resulted in the loss of the majority of suitable nesting habitat, associated with the areas of woodland.

Removal of these habitats so far was undertaken outside of the nesting bird season (March to September inclusive), during the demolition works.

However, should any further vegetation removal be required this will only be undertaken after a systematic check of the vegetation has been completed by a suitably qualified ecologist.

If no active nests are identified then the clearance of this vegetation can commence. Should vegetation clearance works take more than two days, then a nesting bird check should be undertaken every 48 hours by a suitably qualified ecologist.

Active nests

Should an active nest be identified, then a buffer of at least 5m will be left around the nest and all works within that buffer avoided until the young have fledged. Regular monitoring of any active nests will be undertaken on a weekly basis by a suitably qualified ecologist to identify when the young have fledged.

Hedgehog

The PEA found that there is a moderate potential for hedgehog to be present on site.

The majority of the suitable woodland and ruderal habitat has been cleared and no suitable hedgehog habitat is now present on site.

Fencing around the site should have gaps to allow small mammals to traverse the site without getting trapped.

During construction works, deeper excavations should be covered overnight where practicable. Where this is not feasible, ramps will be provided or excavations profiled to provide hedgehogs and other small mammals a means of escape.

5.0 GENERAL ENVIRONMENTAL MANAGEMENT

5.1 COMMUNICATION

The Contractor will define and implement procedures for internal and external communication, including procedures for receiving, logging and resolving complaints.

The CEMP will be communicated to the full project team, including any subcontractors, to ensure that all parties are aware of environmental requirements. Details of specific environmentally sensitive activities will be communicated to staff and contractors.

5.2 INDUCTION AND TRAINING

All personnel involved in the construction of the proposed development will receive environmental awareness training. The environmental training and awareness procedure will ensure that staff are familiar with the principles of the CEMP, the environmental aspects and impacts associated with their specific demolition or construction activities, the procedures in place to control these impacts and the consequences of departure from these procedures.

Training will include site briefings and toolbox talks for relevant staff to maintain the necessary level of knowledge on community relations and environmental topics. The training will ensure that all personnel are able to follow environmental control measures and will advise employees of changing circumstances as work progresses.

Site induction training will ensure all personnel are aware of the environmental risks and have an understanding of legal obligations.

5.3 ENVIRONMENTAL INCIDENT RESPONSE PROCEDURE

The Contractor will be required to establish and implement an environmental incident response procedure. This procedure will be designed to respond to environmental hazards and risks at the site and will include emergency control measures that will take into account the Environment Agency's Pollution Prevention Guidelines.

5.4 COMPLAINTS AND ENQUIRIES

All complaints and inquiries received by the Contractor will be logged promptly; details of the location, time and nature of the issue will be recorded. A named individual will be assigned to resolve the issue, including liaison with the complainant and reporting to the site manager and on the outcome of the resolution procedure.

5.5 CHECKING CORRECTIVE ACTION

Monitoring compliance is a crucial part of the implementation of the CEMP. This should take the format of regular site inspections, internal and external audits and, where necessary, environmental monitoring of key parameters.

All areas of non-conformance identified through the monitoring will be documented and investigated and corrective measures will be developed, implemented and then formally closed out through follow up inspections.

5.6 MANAGEMENT REVIEW

The management review should take place on a quarterly basis throughout the construction phase to evaluate ongoing effectiveness of the CEMP. A review of control procedures may be required following any reported non-compliance.

5.7 BEST PRACTICE ENVIRONMENTAL MANAGEMENT MEASURES

The following table sets out the best practice construction phase environmental management measures that are non-ecology specific as stated within the Cranwood Demolition Environmental Management Plan² and will be implemented for the development as appropriate.

Table 5.1 Control Measures

Environmental Area	Control Measures
Air Quality	• A stakeholder communications plan will be developed and implemented prior to work beginning on site; • The air quality dust management plan will be fully implemented and adhered to on-site (doc ref: CBE2050/C/DEMP/202304-EC); • Name and contact details of the individual accountable for air quality emissions and dust generated from the site will be displayed on the site boundary; • A site log will be maintained to record complaints and outcomes of the site inspections; • Record and respond to all dust and air quality pollutant emissions complaints; • A complaints log will be created and will be made available to the LBH Environmental Team if requested; • Carry out regular site inspections to monitor compliance with air quality and dust control procedure; • Increase the frequency of the site inspections, when activities with high potential to produce dust and emissions are being carried out; • Record any exceptional incidents that cause dust and air quality pollutant emissions, either on or off the site, and the action taken to resolve the situation; • The site layout will be planned so that plant and dust causing activities are located as far away from the off-site residential receptors as possible;

Environmental Area	Control Measures
	• Solid screens or barriers will be erected around dust generating activities; • Site fencing, barriers and scaffold will be kept clean using wet methods; • Operations where there is high potential for dust production will be fully enclosed; • Prevent site runoff of water or mud; • Carry out regular dust soiling checks of buildings within 100m of site boundary; • Remove materials from site as soon as possible; • Cover, seed or fence stockpiles to prevent wind whipping; • Agree dust gauge monitoring locations; • Ensure all non-road mobile machinery comply with the standards set out within the DCEMP guidance (doc ref: CBE2050/C/DEMP/202304-EC); • Ensure all vehicles switch off engines when stationary; • A maximum speed limit of 10mph on site and any adjacent hardstanding areas to or inside the site; • Ensure adequate water supply on site for effective dust mitigation; • Prohibit bonfires and burning of waste; and • Reuse and recycle waste to reduce dust.
Noise and Vibration	Noise • Measures will be identified and employed to reduce noise and vibration arising from construction activities. Contractors will be required to ensure that works are carried out in accordance with Best Practicable Measures (BPM) as stipulated in the Control of Pollution Act 1974. These include, but are not limited to: ○ Hours of working will be planned, taking into account the nature of surrounding land use and the duration of the work; ○ Where practicable, quiet working methods will be employed, including the use of the most suitable plant, and suitably sized plant; ○ Equipment will be switched off when not required; ○ Plant and vehicles will be started up sequentially rather than all together; and ○ Plant from which the noise generated is known to be directional will, where practicable, be orientated so that the noise is directed away from noise sensitive receptors.

Environmental Area	Control Measures
	• In addition to the BPM mitigation outlined above, the following measures will be implemented for construction and demolition works: ○ Where possible, ‘silenced’ plant and equipment will be used; ○ Where vehicles are standing for a significant period of time, engines will be switched off; ○ Acoustic enclosures will be fitted where possible to suppress noisy equipment; ○ Plant will operate at low speeds, where possible, and incorporate automatic low speed idling; ○ Where possible, electrically driven equipment will be selected in preference to internal combustion powered, hydraulic power in preference to pneumatic and wheeled in lieu of tracked plant; ○ All plant involved in the construction process will be properly maintained (greased, blown silencers replaced, saws kept sharpened. Teeth set and blades flat, worn bearings replaced etc); ○ Consideration will be given to temporary screening or enclosures for static noisy plant to reduce noise emissions and plant should be certified to meet any relevant EC Directives; ○ All contractors will be made familiar with the guidance in BS 5228 (Parts 1 & 2) which will form a pre-requisite of their appointment; and ○ Early and good public relations with the adjacent tenants and occupants of buildings will also reduce the likelihood of complaints. ○ Vibration • While no significant effects in relation to vibration during construction are considered likely, the Contractor will use best practicable means to minimise vibration generated by the works in order to minimise disturbance to residents and other users of buildings close to the works.
Highways and Traffic Management	Where possible the following information will be provided to the Council: • Site compound locations; • Construction access routes and signing; • Any restrictions to timing of vehicles; • Traffic management controls; • Details of workforce numbers and access/parking measures; and

Environmental Area	Control Measures
	Measures to maintain pedestrian access and safety at the site boundaries.
Waste	- Where on-site re-use or recycling are not feasible, the contractor will identify opportunities through a recycling contractor or in external projects. - Staff will be given appropriate training both as part of site induction and at intervals throughout the life of the project such as Toolbox Talks. - Materials will be appropriately handled and stored throughout their lifecycle from delivery to inclusion, e.g. return surplus materials to storage; - While reduction of waste will remain the highest priority, waste produced shall be segregated. This will allow materials to be reused/recycled and ultimately reduce the amount of waste that must be disposed. - The amounts and types of waste will be monitored to allow assessment of the effectiveness of waste minimisation measures implemented. An audit trail of all materials taken off site for recovery (in tonnes) would be recorded along with their fate. - Hazardous waste will be correctly labelled, shall not be mixed with non-hazardous waste, securely contained, and disposed of by a certified waste carrier for hazardous waste. - The Duty of Care (DoC) applies to hazardous wastes.

5.8 OTHER GOOD HOUSEKEEPING MEASURES

The following environmental management and monitoring measures will be adopted throughout the construction phase. Unless otherwise stated the Contractor will be responsible for the implementation of all measures.

Site Security

The following measures will be implemented:

- Valuable items will be removed from public view and stored in locked areas;
- Site boundaries will be secured when not in use using fencing and locks on gates;
- Potentially hazardous materials will be secured (e.g. fuel outlets will be locked);
- Plant and equipment will be immobilised overnight;
- Site security cameras may be used in locations which minimise disturbance to residents;

- The security of neighbouring sites will be taken into consideration; and
- Scaffolding, ladders, or any other site equipment will not be left in areas that may cause a nuisance to neighbouring properties.

General Good Housekeeping Measures

Good housekeeping will be maintained on-site and on access routes. Measures will include:

- Clear access routes with appropriate signposting;
- Segregation and regular removal of waste (including food waste) from site;
- Keeping site tidy and clean;
- Inspect hoarding frequently, repair and repaint as necessary;
- Visual inspections of plant, equipment and material storage areas for leaks or spills;
- Toilet facilities will be kept clean;
- Open fires will be prohibited at all times;
- Hardstanding for vehicles (parking and access / egress areas) will be cleaned frequently; and
- Mud will be minimised on access routes.

Lighting

The use of temporary works lighting will be minimised in terms of frequency and duration wherever possible. Security and task lighting will be limited and of short duration. The following measures will minimise risk of adverse effects on residents and wildlife:

- Confine lighting to the task area (using horizontal cut-off optics and zero floodlight tilt angles);
- Orientate floodlights away from any dwellings and habitats;
- Use lower power security lighting where possible (and ensure minimal horizontal/vertical light spill);
- Observe a curfew when practicable (although this is not possible during 24/7 working patterns);
- Plant lighting needs to be shielded from view by the neighbouring dwellings and sensitive habitats; and
- Use the site cabins etc. to provide shielding of the lighting from beyond the site.

Particular attention shall be paid to the potential for skyglow and light spill beyond each site. When the lighting is used it will be visually checked from potentially sensitive receptors (e.g. nearby residential properties) and any necessary adjustments made to ensure its visibility and intensity is reduced to a minimum.

Hoarding and Fencing

The following measures will be implemented:

- Hoarding or fencing will be used to separate all construction works from public access.
- The extent and height of hoarding or fencing at a particular location will be selected to maintain effective security and achieve appropriate noise attenuation and visual screening. Hoarding will be used in areas where pedestrians walk adjacent the site boundary.
- Hoarding will be maintained in good condition and any unofficial advertising / graffiti will be removed as soon as possible.

5.9 DCEMP REVIEW

The client project manager and the environmental manager should review and update the DCEMP on a regular basis during construction. The review should be informed by the results of regular compliance monitoring, internal and external inspections, incident reporting as well as any complaints received. The following items (as well as others) may be considered during a review:

- Roles and responsibilities;
- Training needs;
- Control measures;
- Monitoring requirements (i.e. frequency of inspections);
- Communication; and
- Continuous improvement.