JACKSON & LACEY
CONSTRUCTION

OUTLINE CONSTRUCTION ENVIRONMENT MANAGEMENT PLAN

In respect of

PA/2023/1583 Hybrid application comprising full planning permission to partially demolish, rebuild and convert existing farm buildings to form 3 new dwellings with new access, and outline planning permission to erect 4 new dwellings with new access

On behalf of

Jackson & Lacey Developments

Outline Construction Environmental Management Plan
1.0
November 2024

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JACKSON & LACEY DEVELOPMENTS

Contents

1 INTRODUCTION

1.1 This Outline Construction Environment Management Plan (CEMP) has been prepared to support the redevelopment of disused farmland and buildings to the old Whaplate Farm off West View Messingham in accordance with the provisions of Section 62A of the Town and Country Planning Act (1990).

1.2 This report identifies necessary mitigation measures to reduce or prevent potential effects upon the environment and nearby sensitive receptors during the construction phase of the development.

1.3 This report should be read in conjunction with the Outline Construction Traffic Management Plan (CTMP) submitted with the planning application.

1.4 Construction activities at the site shall not commence until such a time as the CEMP has been approved, to ensure environmental effects are mitigated and controlled appropriately. The approved CEMP shall be adhered to throughout the period of construction activities unless otherwise agreed in writing by North Lincolnshire Council.

1.5 The purpose of this CEMP is to specify the overarching principles and detailed measures to minimise and mitigate the effects of the construction activities associated with the development of the site. It will also ensure that construction activities cause minimum disruption to the local residents and members of the public by achieving a safe and secure working environment. More specifically, the CEMP aims to:

- Ensure that relevant mitigation measures set out in the technical reports as submitted in support of the planning application are implemented during all construction activities;
- Take into account relevant planning policy as specified above; and
- Ensure that relevant legislation, Government and industry standards, and construction industry codes of practice and best practice standards are complied with.

1.6 The CEMP details the environmental controls and procedures that will need to be adopted throughout the redevelopment, thereby providing a tool to ensure the successful management of potential adverse effects as a result of the construction activities. It sets out roles and responsibilities for the management of these controls and procedures.

1.7 Liaison with neighbours and interested parties will continue throughout the project, and particular attention will be paid to ensure that residents of Hilltop Gardens to the North of the site are kept informed of progress and future works on the project.

1.8 The CEMP includes the following:

- Description of the proposed scheme, as well as the site context, identifying receptors that could be affected by any demolition and construction activities;
- Outline of the site preparation, enabling and construction programme;
- Description of the main activities, including the anticipated construction plant;
- Outline of the waste management procedures to be adopted;
- The responsibilities for managing noise, light and dust;
- The responsibilities for managing, implementing and monitoring the CEMP;
- Training to be provided and 'site rules' to be adopted;
- Communication, including external reporting and community relations;
- General construction requirements; and
- A description of the potential environmental impacts and required measures for avoiding or minimising these impacts.

1.9 Any changes and/or improvements to the CEMP will be made in consultation with North Lincs Council, specifically, the Environmental Health Officer.

2 PROPOSED DEVELOPMENT AND SITE CONTEXT

Site and Surroundings

The redevelopment will take place within the existing boundary of the old Whaplate Farm not including the currently occupied farmhouse

Figure 1: Redline Boundary

2.1 Taking account of the need for on-site trackways and landscaping, together with the desire to preserve and enhance existing hedgerows and other habitats on site, the developable area suitable for solar installation and associated plant is approximately 3400 sqm

2.2 To the north of the site is an existing developed site comprising of 8 dwellings known as Hilltop Gardens. These were constructed circa 2010

2.3 The site is contained by more agricultural fields to the left of west view, these are currently owned by the farmstead from Whaplate farm and are currently used as agricultural lands

Scheme Description

2.4 Once fully built out, there will be 7 dwellings compromising of 4 detached properties alongside an existing barn conversion and 2 new single storey barn buildings on the existing footplate of the current outbuildings to be demolished

2.5 A new road entrance is proposed from West View whilst replacing and repairing much of the hedgerow along the boundary towards Butterwick Road to the south of the site

2.6 The proposal also includes various enhancements to the biodiversity of the site, including the retention and enhancement of hedgerows and trees on site, together with other supplemental landscape planting

2.7 In combination, this rich landscape tapestry will enhance both the aesthetics of the site as well as providing a diverse habitat for small birds, reptiles, invertebrates and other flora and fauna.

3 CONSTRUCTION PROGRAMME AND ACTIVITIES

Construction Programme

Figure 2: Development Proposal

3.1 Proposed development is to erect 4 new build detached properties and the conversion of 1 existing barn. 2 additional barn dwellings to be constructed on the original footprint of existing barns attached to the proposed barn conversion

3.2 The development will include demolition of old seed storage barn, coach storage area and 2 no barn buildings

3.3 The construction will consist of the following activities:

- Site set-up works including establishment of secure site access, works signage, dedicated laydown area(s) and construction compound;
- Installing security fencing around the site and ancillary equipment

- Site preparation including soil stripping in areas of temporary hard standing (e.g. construction compounds) to avoid soil compaction andfor the establishment of the access track;
- Laying of stone aggregate to form access track through the site, an area for contractor parking and pedestrian access way, this being the Traffic Management Plan;
- Demolition of old buildings;
- Laying foundations;
- Construction of the properties;
- Removal of electrical apparatus in the front plot;
- Digging of trenches and laying of electrical cables, water and telecom services;
- Erection electrical transmission components;
- Laying the access roads and driveways; and
- Landscaping and biodiversity enhancements.

Considerate Constructors Scheme

3.4 The Principal Contractor will be required to register the site under the national 'Considerate Constructors Scheme' administered by the Construction Confederation on behalf of the Construction Industry Board. This scheme seeks to:

- Minimise any disturbance or negative impact (in terms of noise dirt and inconvenience) sometimes caused by construction sites to the immediate neighbourhood;
- Eradicate offensive behaviour and language from construction sites; and
- Recognise and reward the constructor's commitment to raise standards of site management, safety and environmental awareness beyond statutory duties.
- Communication with local residents has already taken place with visits to each and letters distributed explaining the project parameters and contact details of Principal contractor.

Hours of Work

3.5 It is proposed that the standard working hours for all works on site will be:

- 08.00 – 17.00 Monday to Friday; and
- 08.00 – 13.00 Saturdays.

3.6 Saturday working hours will be limited to 'mindful working' which will reduce any impacts to surrounding sensitive receptors, this will include such activities as site cleaning and clearance ready for work on Monday. Deliveries on Saturdays will be avoided where possible.

3.7 These hours will be strictly adhered to unless or in the event of:

- An emergency demands continuation of works on the grounds of safety; and
- Completion of an operation that would otherwise cause greater interference with the environment / general public if left unfinished.

Access and Routing

3.8 In advance of construction activities commencing, a new site access road will need to be constructed. Initially from hardcore crusher materials from waste from the demolition of the buildings previously described with new tarmacadam hard surface laid towards the completion of the project incorporating pedestrian walkways and new street lighting.

3.9 As currently envisaged, the construction access will be via an improved simple priority junction with West View, located approximately 30m north of the Butterwick Road junction to the south of site. The existing field entrance will be suitably improved to allow for all Heavy Goods Vehicles (HGV) movements safely to/from the site. In addition, internal access tracks will be required during the construction phase as or Traffic Management Plan.

3.10 It is proposed that construction traffic will access the site via the Butterwick road junction and turning left into new site access road. Sufficient space has been allowed for turning points with the site and egress from site from the same junction.

3.11 Temporary signage will be used to direct construction traffic to the site along the proposed construction traffic route utilising existing street furniture (e.g. lampposts).

3.12 Pedestrian access to the site is provided via the footway established on site with segregation from any site traffic via fixed interlinked barriers and designated passing points within.

3.13 A Delivery Management System will be used to plan deliveries entering the site. The site management will manage this system along with its contractors and a delivery schedule provided for the banksman to control. Given the low number of construction vehicle movements, and to reduce unnecessary land requirements, articulated and rigid HGVs will utilise the width of the access tracks and management measures will be implemented. Teleporters, or similar vehicles, will be used to offload panels and other equipment from the HGVs and to transport these to the position of installation.

3.14 The type and number of vehicles generated during construction period will vary according to the different stages of the construction programme, and the type and intensity of work being undertaken at the different stages. These are detailed within the Outline CTMP.

3.15 The Principal Contractor will maintain an up-to-date log of all drivers that will include a written undertaking from them to adhere to use of the approved routes for construction traffic. Directional signage will be implemented to ensure that construction traffic utilises designated routes to minimise the effect on the surrounding road network and forms part of the CTMP.

Security On-site

3.16 Only authorised personnel will be permitted on site. All visitors will be required to enter through the main site access and report to the Construction Manager/Site Manager. All visitors will be required to sign in and out to ensure that site management are aware of the number of people on site in the event of an emergency.

3.17 Visitors will be required to undergo induction training, wear the necessary PPE i.e. safety helmet, hi-visibility attire, safety footwear and will be accompanied by a representative on site at all times.

3.18 The construction site will be checked on a regular basis to ensure that it is maintained in good condition and remains secure. All entrance and exit gates into the site will be secure at all times and the keys positioned adjacent to them to allow personnel to safely evacuate in the event of

an emergency.

3.19 Banksmen will aid construction vehicles in entering and exiting designated set-down areas. All mobile plant/equipment will be parked safely and locked within a designated area to prevent tampering, and keys to all plant/equipment will be kept in a secured location.

Lighting

3.20 Lighting on construction sites, whether natural or artificial, is essential to health and safety. Poor lighting can represent significant risks to staff members which can result in accident and injury; the quicker and easier it is to see a hazard the better the likelihood of avoiding it.

3.21 As outlined within Section 35 of The CDM Regulations (2015), the development site must be provided with suitable and sufficient lighting, which must be, so far as is reasonably practicable, by natural light. This relates to both the construction site as well as the approach and traffic route to the development site.

3.22 Site lighting will be at the minimum luminosity necessary to enable the safety and security of the construction site. Lighting will be designed to avoid any ocular distraction for pilots on approach to the airport and will consist of flat cut-off glass with no light spill above the horizontal plane. Where appropriate, lighting to site boundaries will be provided and illumination will be sufficient to provide a safe route, albeit no public access to the site will be permitted.

3.23 In determining any temporary construction lighting arrangements for the site, due consideration will be given by the Principal Contractor to sensitive receptors that may experience a nuisance by the light, including wildlife. General control measures for the use of lighting on site are outlined below:

- Temporary site lighting when used adjacent to residential areas must be fixed with a noise screen to keep noise levels to a minimum;
- As far as is practical, lighting must be directed away from residential properties; and,
- Lighting should always be positioned to prevent glare.

3.24 The site welfare and materials compound is at the front of the site, this area will have adequate light for safe usage. Please refer to Figure 1.

3.25 The location of temporary floodlights is noted in Figure 1.

3.26 Lighting will be provided along pedestrian areas and contractor parking for health and safety purposes

4 CEMP RESPONSIBILITIES

Management Structure

4.1 The Construction (Design and Management) Regulations 2015 (CDM Regulations) came into force on 6th of April 2015, replacing CDM 2007. As per the requirements of the CDM Regulations, the developer must appoint a Principal Designer and Principal Contractor prior to the commencement of works on site or carry out these duties in respect of the CDM Regulations themselves.

4.2 Responsibility for all environmental issues relating to the development of the site rests jointly with STAL, the Principal Designer and Principal Contractor. Individual responsibilities will be divulged throughout the management team relating to the co-ordination of inspection, monitoring or reporting. The Principal Contractor will have the central role in managing Safety, Heath, Environment and Quality (SHEQ) issues during construction of the development. The Principal Contractor and all sub-contractors will have to implement the environmental control measures set out within this CEMP.

5 TRAINING SITE RULES AND COMMUNICATION WITH THE COMMUNITY

Training

5.1 Contractual arrangements will require all contractors to provide suitably qualified staff to manage and execute works for which they are responsible. The Principal Contactor will require that all employees demonstrate an appropriate awareness of local sensitivities, expected code of conduct, working knowledge of the legislation, codes of practice, and guidance relevant to the activities in which they are engaged.

5.2 A training regime shall be implemented to ensure that all staff members, including sub-contractor's personnel, receive focused environmental training to ensure their competence in carrying out their duties on the project.

Site Induction

5.3 The Principal Contractor will operate induction schemes for all personnel to ensure that they are aware of their individual responsibility to comply with the CEMP. The Principal Contractor will be responsible for identifying the training needs of his/her personnel and will ensure that appropriate training is provided. Training will include information on local considerations and the Client's expectations on site behaviour, "toolbox talks" for site operatives to maintain an appropriate level of awareness on health, safety and environmental topics and to advise employees of changing circumstances as work progresses. Records of attendance will be kept also for auditing purpose.

Toolbox Talks and Method Statement Briefings

5.4 Toolbox talks and method statement briefings will be given as the work proceeds and will cover the environmental controls related to specific activities undertaken during the construction; for example, clearance of vegetation, protecting wildlife (including the badger sets to the east of the site), soil stripping and spill response procedures etc. A full register of toolbox talks and method statement briefing attendance shall be maintained on site.

Emergency Procedures and Incident Reports

5.5 Procedures will be implemented to respond to any emergency incidents which may occur on site. In order to ensure that compliance with the requirements of the relevant legislation and to avoid or mitigate against any significant environmental impacts, an Emergency Preparedness Plan (EPP) can be put into place should this be required

5.6 Once completed, all staff will be trained and made aware of the EPP set in place. In the event of any incident the Principal Contractor's Environmental Health and Safety Team will be notified as well as the Client. Additionally, the Environmental Health Department and any other interested bodies will be notified as required.

Training Records

5.7 All training records will be maintained and filed on site. The records shall include the content of the courses (induction and toolbox training), record of attendance and schedule of review.

Site Rules

5.8 The site rules shall be developed to include environmental controls wherever applicable. Site rules should be displayed at the site gate and in any on-site offices or welfare facilities. An initial list of site rules to be implemented on site is provided below:

- All personnel visiting or working on site must complete induction training prior to accessing the site;
- All plant/equipment used during the construction activities must be compliant with the Provision and Use of Work Equipment Regulations 1998 (PUWER), maintenance and relevant certificates must be retained on site;
- All substances to be used or handled on site must have the Control of Substances Hazardous to Health (COSHH) assessment available on site for staff members to consult;
- At the end of each working day all means of access, e.g. steps, ladders left in position must be secured/removed to prevent unauthorised persons (especially children) accessing the site and hazardous areas;
- Smoking will be prohibited on site, except in designated areas, and the possession or use of alcohol and drugs is strictly prohibited;
- Site welfare facilities (e.g. portable toilets and canteen facilities) must be maintained for the duration of the demolition and construction activities;
- Standard Personal Protective Equipment (PPE) is required on site at all times, as well as additional Protective Equipment as required for specific works;
- All work areas must have clear, well maintained signage;
- All waste materials must be collected and removed from site at regular intervals;
- No fires will be permitted on site; and,
- Acts of threat or violence will not be tolerated and any offender will be removed and permanently excluded from the site.

On Site Communication

5.9 A full contact list containing names, job titles and contact numbers of the project team members, shall be produced and maintained.

Community Relations

Statutory Authorities and Interested Parties

5.10 The Principal Contractor, in conjunction with the STAL, will be responsible for the liaison on environmental matters with statutory and non-statutory authorities. In particular, liaison with nearby residents, especially those on Parsonage Road, will be required to avoid conflicts of operations, deliveries, removals and other highways matters.

5.11 Where necessary, consultation will be established and maintained with a number of regulatory bodies with regard to the environmental aspects of this project.

Local Community Engagement

5.12 The Principal Contractor will commit to providing community relations personnel, who will be the first line of response to resolve issues of concern or complaints. Reasonable steps will be taken to engage with local residents and businesses prior to and during construction (such as through the use of newsletters and fliers). Site boards outlining information on the project and forthcoming works will be erected at the entrance to the site. Site contact numbers will be displayed as appropriate, along with the complaints procedure.

Complaints Management

5.13 A formal complaints procedure will be developed; a named construction manager will be responsible for receiving, recording and responding to external complaints and will have their telephone number displayed for quick response to complaints. The complaints will be logged, together with a record of the responses and action taken.

6 ENVIRONMENTAL CONTROL MEASURES BY TOPIC

6.1 The following sections of this CEMP describe the general mitigation control measures to be implemented throughout development, on a topic-by-topic basis, to ensure the protection of the environment from potential adverse effects from the development.

Traffic and Pedestrian Access

6.2 In order to reduce the impact of construction traffic, an outline CTMP, has been prepared. The final version of this document will need to be approved prior to the commencement of the development. The principal aims of the CTMP are to ensure that the components of the development are organised and delivered in a manner that avoids or reduces any impacts on local roads and the wider highway network, and safeguards highway safety and amenity to the area surrounding the site. The CTMP provides details regarding site operations, operative staff and traffic generation, traffic management (HGV routing strategy), delivery of plant and materials and contractor staff parking.

Noise and Vibration

6.3 Due to the nature of the activities and construction works it is inevitable that a temporary, albeit negligible, increase in noise and vibration will be experienced in the area immediately surrounding the site. It is possible that local receptors will experience audible, but intermittent, noise from activities on the site including from HGV movements. However, this should be considered against the prevailing noise baseline which is already influenced by traffic.

6.4 Best practicable means (BPM) will be applied during construction works to minimise noise and vibration at neighbouring sensitive receptors. BPM are defined in Section 72 of the Control of Pollution Act 1974 and Section 79 of the Environmental Protection Act 1990 as those measures which are "reasonably practicable having regard among other things to local conditions and circumstances, to the current state of technical knowledge and to financial implications".

6.5 The effects of noise and vibration from construction will be controlled by introducing management and monitoring processes to ensure that BPM are planned and employed to minimise noise and vibration during construction. The Principal Contractor will further develop a detailed noise and vibration management plan, where required. All works must comply with BS 5228: Noise and vibration control on construction and open sites Part 1: Noise and Part 2: Vibration. In order to ensure compliance with BS 5228 it is expected that noise monitoring will be required, at a level to be agreed with the Environmental Health Officer.

6.6 Noise and vibration levels will be monitored with fixed equipment within at the site boundary. Readings will be recorded and kept on site and made available for review. Such information is accessible should any formal written compliant(s) be received during the construction phase. The following measures will be adopted to reduce noise and vibration during the works:

- Construction works shall be undertaken in accordance with the BPM (as defined in Section 72 of the Control of Pollution Act 1974 (CoPA)), to minimise noise and vibration effects. BPMs may include where reasonably practicable: the use of quieter alternative methods, plant and/or equipment; the use of site hoardings, enclosures, portable screens and/or screening nosier items of plant; and maintaining and operating all vehicles, plant and equipment in an appropriate manner, to ensure that extraneous noise from mechanical vibration is kept to a minimum.
- Noise control measures will be consistent with the recommendations of the current version of BS 5228-1:2009+A1:2014 and BS 5228-2:2009+A1:2014.
- Site personnel will be informed about the need to minimise noise as well as about the health hazards of exposure to excessive noise. Their training will include advice relating to the proper use and maintenance of tools and equipment, the positioning of machinery on site to reduce noise emissions to neighbouring residents, and the avoidance of unnecessary noise when carrying out manual operations and when operating plant and equipment.
- Noise suppression strategies implemented for all power tools where possible
- Plant movement will be managed to take account of surrounding noise sensitive receptors, as far as is reasonably practicable.
- All construction equipment will be maintained in good working order and any associated noise attenuation measures such as engine casings and exhaust silencers shall remain fitted at all times.

- Where flexibility reasonably exists, construction activities will be separated from residential neighbours by the maximum possible distances.
- Plant and machinery will be turned off when not in use.
- No music or radios shall be played on site such as to be a nuisance to noise and vibration sensitive receptors.
- Regular inspections of noise mitigation measures shall occur to ensure integrity is maintained at all times.
- Silenced equipment shall be used, as far as possible.
- Contractors advised to use ear protection when carrying out specified works.
- Vehicles shall not park or queue outside residential properties with engines running unnecessarily.

6.7 The main construction related noise on this site will be demolition of existing buildings and general movement and usage of plant machinery. The following mitigation measures shall be used to minimise the potential noise impact of demolition works and plant equipment used on site:

- Use of noise monitoring equipment on site as required
- Reducing construction related traffic by reusing excavated material on site
- Where necessary and reasonable to erect acoustic barriers will be erected in areas of specific operations that generate excessive noise
- Vehicle movements especially deliveries shall be planned to avoid peak times to keep disruption to a minimum.
- Plant and equipment required will be sourced and hired from reputable hire companies with noise pollution and vibration policy

6.8 The main construction related vibration on this site will come from site plant and equipment as well as HGV delivering and removing materials/waste. The following mitigation measures will be implemented to reduce the vibration impact on the site:

- Use of vibration monitoring equipment as required
- Reducing construction related traffic by reusing excavated material on site
- Vehicle movements to be turned off when not in use
- Deliveries to be scheduled for off peak times
- Plant and equipment required will be sourced and hired from reputable hire companies with noise pollution and vibration policy
- Plant and equipment chosen to be fitted with vibration reduction technology where required

Dust and Air Quality

6.9 The site preparation works will include various activities which have the potential to generate particulate emissions arising from dust, particularly in dry and windy conditions. The main sources of particulate emissions during these activities include traffic and equipment usage, soil

and material handling, storage and site preparation.

6.10 The Principal Contractor will be required to control and limit dust, air quality, odour and exhaust emissions during the construction works as far as reasonably practicable and in accordance with BPM. This will include reference to publications on best practice such as the following:

- Guidance on the Assessment of the Impacts of Construction on Air Quality and the Determination of their Significance, Institute of Air Quality Management, January 2014 (IAQM 2014);
- Air Quality Monitoring in the Vicinity of Demolition and Construction Sites, Institute of Air Quality Management, November 2012 (IAQM 2012);
- EU Directive 97/68/EC Requirements relating to gaseous and particulate pollutant emission limits and type-approval for internal combustion engines for non-road mobile machinery (NRMM).

6.11 A number of mitigation methods will be implemented to minimise the nuisance and impact arising from dust. Examples of such measures are set out in the table below, these will measures will be followed for this construction project.

Table 1: Dust Mitigation Measures – Examples Taken from BPM Guidance

Sector	Mitigation
Site Management	• Develop and implement a stakeholder communications plan that includes community engagement before work commences on site; • Develop a site-specific dust management plan; • Display the name and contact details of person(s) accountable for air quality pollutant emissions and dust issues on the site boundary; • Display the head or regional office contact information; • Record and respond to all dust and air quality pollutant emissions complaints; • Make a complaints log available to the local authority when asked; • Carry out regular site inspections to monitor compliance with air quality and dust control procedures, record inspection results, and make an inspection log available to the local authority when asked; • Increase the frequency of site inspections by those accountable for dust and air quality pollutant emissions issues when activities with a high potential to produce dust and emissions and dust (sic) are being carried out, and during prolonged dry or windy conditions; • 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 is recorded in the logbook.

Preparing and Maintaining the Site	• Plan site layout: machinery and dust causing activities should be located away from receptors; • Erect solid screens or barriers around dust activities or the site boundary that are, at least, as high as any stockpiles on site; • Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period; • Avoid site runoff of water or mud; • Keep site fencing, barriers and scaffolding clean using wet methods; • Remove materials from site as soon as possible; • Cover, seed or fence stockpiles to prevent wind whipping;

	• Put in place real-time dust and air quality pollutant monitors across the site and ensure they are checked regularly.
Operating Vehicles/Machinery and Sustainable Travel	• Ensure all non-road mobile machinery (NRMM) comply with the standards set within the required guidance. • Ensure all vehicles switch off engines when stationary – no idling vehicles; • Avoid the use of diesel or petrol-powered generators and use mains electricity or battery powered equipment where possible; • Support and encourage sustainable travel (public transport, cycling, walking, and car-sharing); • Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems; • Ensure an adequate water supply on the site for effective dust/particulate matter mitigation, such as for wheel washing (using recycled water where possible); • Ensure equipment is readily available on site to clean any dry spillages and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods. This may include for the deployment of sweepers.
Waste Management	• Reuse and recycle waste to reduce dust from waste materials; • Avoid bonfires and burning of waste materials.
Construction	• Ensure soil, sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.

Dust Impact

The impact of dust at different phases of the development

Phases of Development	Receptors	Dust Impact	Mitigation Techniques
Site set up	Neighbours, contractors	Dust from hardcore laying	Do not lay hardcore in windy conditions
Demolition	Neighbours, contractors	Dust from demolition	Do not carry out demolition in windy and otherwise unfavorable conditions
Construction Phase	Neighbours, contractors	Dust from building, joinery, roofing, landscaping materials	Have skips for waste, if required skip with cover on it to save dust blowing, use water to suppress dust when performing works related tasks that create excessive amounts of dust, use dust extraction unit where necessary. Contractors to wear dust

			marks and eye protection for all works where dust creation is present
Site becoming occupied	Residents, neighbours, contractors,	Dust from landscaping works and site clear up	Reduce the amount of works done at busy times, employ road sweep at the end of the project if necessary, which will minimise the dust spread

Provision of water to the site
There is an existing water connection on the site which will be used throughout the full development with hosepipes positioned in specific areas to help mitigate the track out of dust.

To minimise dust track out, wheel washing will be required, hosepipes carefully positions at intervals along the site

Vehicle traffic limited on the dirty areas to prevent spread of dust

Communication protocol to be adopted by site manager who will inform receptors such as local residents, business owners and farmers to inform them of when there is potential for higher levels of dust to occur whether this be through work related activities or deliveries

If a construction activity during the development creates excessive uncontrollable dust the activity will be stopped immediately to reduce the level of dust present and this will be recorded and further prevention methods will be put in place.

No burning of waste will take place on the site.

Visual Impact

6.12 Appropriate controls will be put in place to protect nearby visual receptors, namely local residents, commercial receptors and users of local roads and paths. These include:

- Screening of the construction site with 2.4m high (minimum) protective barriers where necessary and feasible;
- Construction lighting will be positioned and operated to minimise visual intrusion and nuisance; and
- Stockpiles and mounds will be kept away from sensitive receptors and will be enclosed or securely sheeted where appropriate.

Ecology

6.13 The Principal Contractor will ensure that any activities associated with the construction that may

have a negative effect on ecology (i.e. through direct impacts on habitats or species, or through exposure to dust air quality and noise) will be monitored and appropriate mitigation measures employed to reduce the impact to acceptable levels. As set out within the Ecological Appraisal which accompanies the planning application, an Ecological Management Plan (EMP) will be produced for the construction works. Further to the EMP, mitigatory measures included within the CEMP include:

- Site walkovers prior to commencement of construction activities.
- The planting of additional trees/ hedgerows as early as feasible within the construction programme;
- Suitable lighting directed away from potential habitats so as not to disturb birds or bats, and the avoidance of night-working; and
- The undertaking of regular toolbox talks to make sure that construction workers are aware of the importance of avoiding pollution of water courses/ ditches and being aware of all other ecological receptors within and adjoining the site.

Archaeology

6.14 An Archaeological Desk-Based Assessment has been undertaken by PCAS Archaeology Ltd which provides details of the site's archaeological potential, potential impacts and proposed mitigation measures.

6.15 Excavation of the cable trenches serving the solar farm could give rise to minor, localised impacts on any near surface archaeological deposits which may exist in situ within the site. However, such effects can be minimised or prevented by a programme of archaeological investigation works, the requirement and scope of which will be determined. Any such work would be undertaken in accordance with a Written Scheme of Investigation (WSI), approved in advance.

Water Resources and Flood Risk

6.16 The appointed Principal Contractor will take precautions during construction activities to protect the local drainage system, nearby watercourses and groundwater from siltation or pollution. Any effluent encountered during the construction phases will not be directly discharged to surface or foul drains without the prior consent of the appropriate body.

6.17 The following additional mitigation measures will be implemented, where applicable, to protect the water environment and surface water quality during all construction activities:

- An Emergency Preparedness Plan (EPP) will be created prior to site preparation activities starting on site and will be reviewed and updated regularly by the Principal Contractor. The EPP will be an up-to-date document containing information on the location of spill response equipment, the location of sensitive receptors (e.g. live drainage systems and watercourses) and the incident response procedure to be followed;
- All staff will be trained and made aware of the EPP set in place. In the event of any incident, the Site Manager will be immediately notified and will coordinate necessary remedial actions. Additionally, the Environmental Health Officer and the Environmental Agency be notified of any significant pollution event (noting that this is highly unlikely to occur given the nature of the works and the lack of hazardous substances used in the construction);

- Spill kits will be on hand to address any minor incidents such as fuel leaks from vehicles. If any fuel, oil or solvents which are temporarily stored on site will be contained within bunds or drum pallets, and covered where possible to prevent the accumulation of rainwater or damage;
- Wheel wash facilities will be provided for vehicles leaving and entering the construction site to prevent the transfer of mud and sediment to the surrounding road system drains;
- The Principal Contractor will take precautions during the construction works to protect the entire drainage system from siltation or pollution, including installing any temporary drainage as required;
- Wastewater generated from construction activities such as dewatering trenches will be disposed of in accordance with relevant legislation and should not be discharged directly to surface or foul drains without appropriate licences in place; and
- Roads and hard surfaces will be kept clean, to prevent a build-up of mud and sediment.

6.18 As the site is not in an area at risk of flooding and the proposed solar farm will not require active drainage or increase the rate of run-off from the site, no specific mitigation measures are required with respect to flood risk.

Ground Conditions, Contamination and Hazardous Material

6.19 The EPP will set out any procedures to deal with contamination if any issues were to arise, including for the negligible risk of historic contamination or buried waste being encountered during the cable trenching works. Therefore, all the workers on-site will be made aware of potential contamination issues on the site and will use best practice techniques during all activities.

6.20 The operation of construction vehicles and the handling, use and storage of hazardous materials will be undertaken as follows:

- Construction vehicles and plant will be regularly maintained and supplied with spill kits and drip trays to reduce the risk of hydrocarbon contamination;
- Refueling would not be expected to take on site. However, were this to prove necessary, this activity would take place in specified areas with drip trays installed to collect leaks from diesel pumps;
- The handling, use and storage of hazardous materials will be undertaken in line with the current best practice, this includes secure storage of any substances falling under the Control of Substances Hazardous to Health (COSHH) system;
- If necessary, adequate bunded and secure areas will be provided for the temporary storage of fuel, oil, solvents and chemicals, as far away from drainage as possible; and
- Spill containment equipment such as absorbent material will be held on site.

6.21 A member of staff will be nominated to control and monitor the COSHH system (if applicable). Suppliers must send data sheets for every hazardous substance to the site. The assessment information sheet is completed in conjunction with Supervisors and Safety Managers who then brief staff members who will be using the substance, on its safe use, disposal and any emergency procedures. Written records of these briefings will be kept in A COSHH file held on the site.

7 MATERIALS AND RESOURCE USE AND WASTE MANAGEMENT

Waste Management

7.1 Due to the nature of the construction works, very little waste is expected to be generated. In particular, the solar panels and frames will be delivered as pre-packed components that then only need to be assemble in situ. As such, there will be no 'off-cuts' or other waste streams which you would normally find at other construction sites. However, solar farm projects can produce small quantities of the following wastes: cardboard, wood, pallets, paper, plastics (e.g. shrink wrap and banding), metals (typically aluminium), glass, concrete, gravel and waste soil. Most of this constitutes 'packaging waste' which will be returned directly to the suppliers/ manufacturers of the solar farm components. Other waste will be segregated, stored and sent for off-site disposal or recycling.

7.2 The development is likely to require some excavation of soils associated with the construction compound, access roads, cable trenching etc. Where such soil stripping occurs, topsoil and subsoil will be stripped, stored (in a manner that would satisfy STAL from a bird control and aerodrome safeguarding perspective) and replaced separately in order to minimise soil damage and to provide optimal conditions for future site restoration.

7.3 A basic Site Waste Management Plan (SWMP) will be prepared by the Principal Contractor, once appointed. This plan will set the way in waste resources will be managed during the site preparation and construction works. Such a plan will likely include the following:

- Actions to meet the waste hierarchy in accordance with the principles of the Government's "Waste Strategy 2000", and the Site Waste Management Plans Regulations 2008 (since repealed). A principal aim during construction will be to reduce the amount of waste generated and exported from site, whereby the intention is first to minimise, then to treat at source or compact and, finally, to dispose of off-site as necessary;

- Assignment of the person within the Principal Contractor's organisation with responsibility for the SWMP. The Principal Contractor will audit waste carriers and disposal facilities and maintain documentary evidence that these requirements are being met. A register of waste carriers, disposal sites (including transfer stations) and relevant licensing details

- procedures for waste will be sorted into different waste types such as cardboard, timber, metal, plastic for return to the suppliers or disposed of into skips for removal by a licenced waste carrier: and

- Any hazardous materials including solvents and chemicals, will be properly sealed in containers at the end of each day, prior to storage in appropriately protected and bunded storage areas.

8 AUDITING MONITORING AND REVIEW

Environmental Monitoring Programme

8.1 Scheduled monitoring of environmental performance and formal compliance auditing of the CEMP will be conducted as and when necessary. This will enable the overall effectiveness of the environmental mitigation measures and compliance procedures to be assessed and allow areas of underperformance to be identified so corrective actions can be taken. The monitoring programme proposed under this CEMP includes weekly and event-based inspections.

Daily Inspections

8.2 Routine visual inspections will be carried out on all activities and work areas in order to check compliance with this CEMP and regulatory conditions. The results of these inspections shall be recorded on a Weekly Site Environmental Form (WSEF).

8.3 Separately, event-based checks shall be conducted by the Principal Contractor following any significant event such as rainfall of sufficient quantity to generate run off, high winds, the receipt of an environmental complaint, issue of a non-compliance report or any exceedance in monitoring results. Event based checks should be record on a separate inspection form detailing the reasons, observations, findings and outcomes of the inspection which should then be attached to the WSEF.

Incident Reporting and Corrective Actions

8.4 All incidents including actual or potential (near miss) for injury, or damage to equipment, property or the environment will be reported to the STAL and the appropriate regulatory body as soon as practicable after the occurrence. Regardless of how minor the incident appears, it will be reported. An “Incident Investigation Report” will be completed within 18 hours of the event. Prompt reporting will allow an immediate investigation to take place and prevent similar situations occurring.

8.5 The reporting of hazards is the responsibility of all staff and if a hazard or a safety problem is identified, it will be brought to the attention of the Principal Contractor’s Site Manager who will investigate and rectify the situation as soon as practicable.

CEMP Review

8.6 The Principal Contractor will further develop the controls outlined in this CEMP and ensure they are properly implemented and regularly monitored to ensure their effectiveness. Changes to the controls will be instigated if they are not achieving their objectives. The CEMP shall be revised and refined in consultation with the STAL and local council, as required, to ensure it remains consistent with environmental regulatory requirements and conditions of the planning permission.