Construction Environmental Management Plan
Langley Park



Development **Langley Park - Chippenham**

Address: Langley Park Chippenham, SN15 1JB
Planning Ref: 19/12/12100/REM
Approval Date: 30/6/2023
Authority: Wiltshire Council
Client: Countryside Partnerships West
Consultant Countryside Partnerships West

Number of dwellings 329

Planning matters condition 12.

The CEMP addresses the following matters for the Demolition/Surveys & Construction: -

1. The parking of vehicles of site operatives and visitors.
2. Loading and unloading of plant and materials.
3. Storage of plant and materials used in constructing the development.
4. The erection and maintenance of security hoarding including decorative displays and facilities for public viewing, where appropriate.
5. Wheel cleaning facilities.
6. Measures to control the emission of dust and dirt during construction.
7. A scheme for recycling/disposing of waste resulting from demolition and construction works.
8. Measures to control noise during construction.
9. A signage strategy for construction traffic.

A General overview is next to help get an understanding while going through the items noted in the conditions for the CEMP 1 – 9

Construction Environmental Management Plan
Langley Park

General Overview

The overview is here to help assist in the understanding of the items required as some points are referenced as your read through but are also summarised on the last page of this document.

The works included in this document will be constructed by Vistry Partnerships (Principal Contractor) who will fully project manage Demolish and construct the works in accordance with current best practices and construction methods and in line with any Planning Approval Conditions. Vistry will undertake to manage the works giving due regard to our environmental policies and procedures and giving full consideration to best practice and recommended guidelines of the BS 6187 and the HSG 264 HSE guide for Asbestos. The aim is to minimise the impact of the works on the local residents and the surrounding community, this includes Langley Park and adjacent to the footprint of the boundaries, and any pedestrian walkways or rights of way.

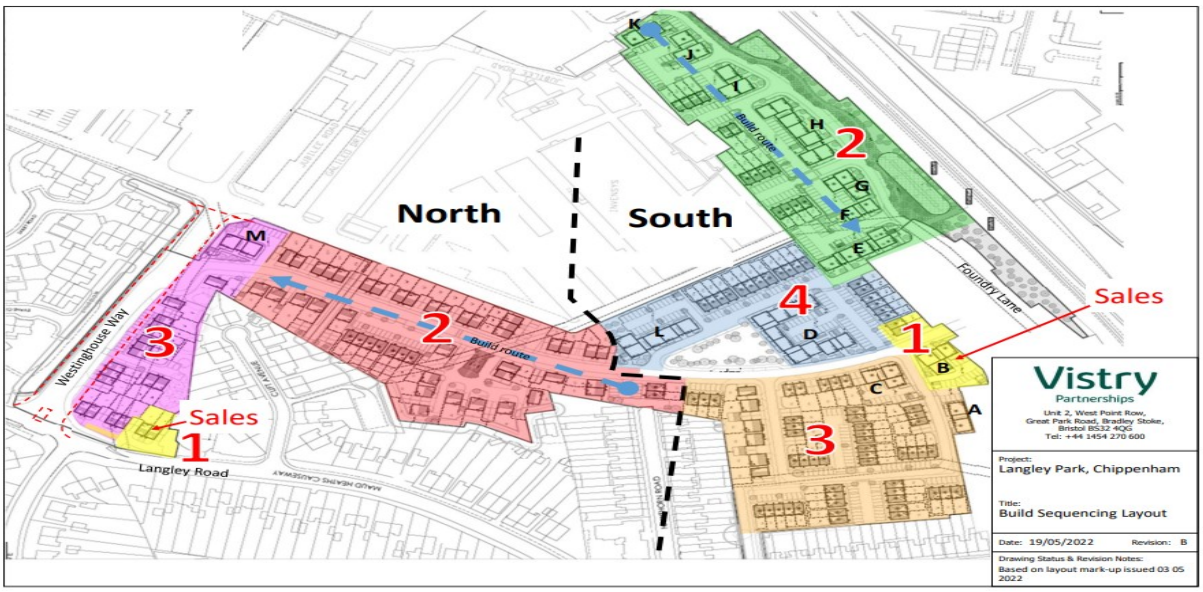
The development will be securely fenced off prior to the main works commencing which will also provide a secure envelope for the Demolition or construction of the works preventing any unauthorised access to the project. This will also protect the neighbouring properties and the general public from the construction phase operations.

The use of chapter 8 will be utilised until such times as it is necessary to remove whilst statutory connections take place where necessary.

Offsite drainage Work will need to be carried out in line with the relevant Health & Safety guidelines, risk assessments and method statements. In addition, entrances will need to be marked to serve the development, any services will be made safe during this period all endeavours will be made to avoid disruption.

Construction access to and from the development is via Foundry Lane through the development and then at construction stage via the existing entrance off Westinghouse way which leads back to Langley Road, We will avoid parking in and around the peripheral of the boundary and neighbouring Businesses as there is enough room on the development. Once the new entrance is formed for the development this will also act as the main access for all Construction Traffic and also provides a vehicular access route to visitors and staff parking.
Due regard shall be made to the adequate planning of safe access and egress routes for pedestrians and vehicles using the adjacent properties and access for highway/construction activities, all signage and protection will comply with NRSWA (Chapter 8).

Development Layout



Vistry Partnerships

Construction Environmental Management Plan
Langley Park

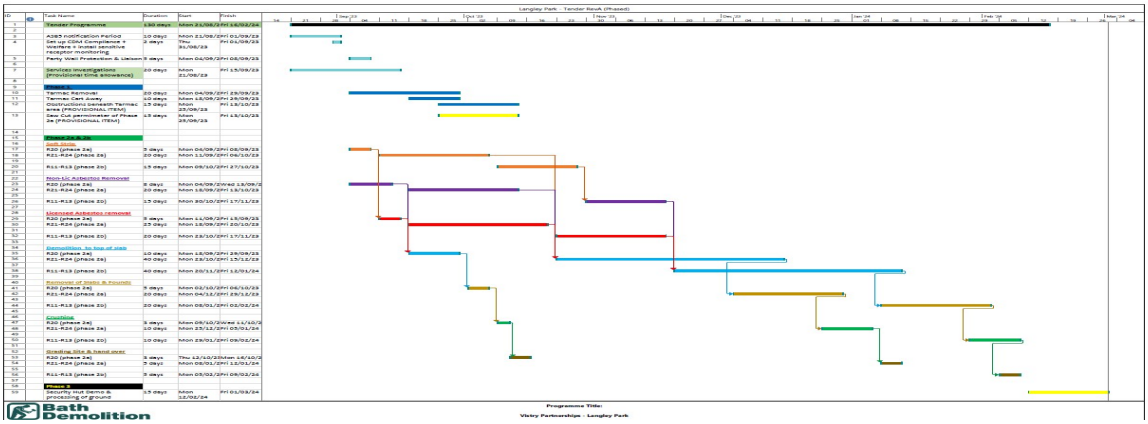
General Signage

Adequate signage will be displayed warning of the potential dangers of unauthorised access on to the Demolition /construction site. These will be displayed along the site access route and at intervals along the site perimeter. Adequate directional signage subject to planning approval will be displayed directing deliveries and visitors to the site to minimise any confusion and abortive travel from drivers unable to locate the site entrance. In accordance with the guidelines of the Considerate Contractors Scheme, we will also display telephone details for local residents and businesses to be given a contact should there be any instances where a resident wishes to report an incident relating to the construction works.

Demolition & Surveys

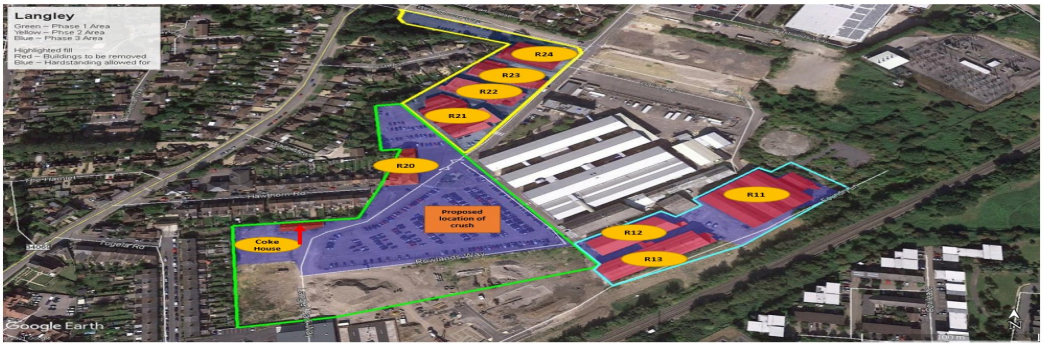
Key Dates

Programme Duration for Demolition and Surveys 21st August 2023 – 23rd February 2024 = 25 wks.)



Phasing sketch for visual understanding below, as you go through this document there will be pictures and sketches, notes for explanation to the items noted in condition 12 for Langley Park, you will also find my Contact details below should you need anything extra so please feel free to contact me.

Visual outline of the Demolition on the development below.



Note :- Depending on the Demolition Process, we may need to move the welfare later on to ensure CDM Regulations are met and Maintained through out the life of the Project.

SHE Safely building quality on time

Vistry Group

SHE Standard Operating Procedure - (SOP)

Title:	**Demolition Management**
Document Reference:	VG-SOP-SHE-08
Relevant Standard(s):	GE700 - Section F: Specialist activities, Sub-section 3: Demolition Section F: Specialist Activities, Sub-section 6: House building

Purpose:
This procedure sets out the arrangements to ensure that the safety, health and environmental risks associated with demolition activities on Vistry Group developments are fully identified and appropriate responsibilities and controls exercised.

Scope:
Demolition is a hazardous activity. It requires a high level of technical skill and should only be carried out by trained and supervised personnel. The appointment of specialist personnel is key for the avoidance of injury, harm, lost time and customer dissatisfaction.

This procedure sets the minimum standards by which Vistry Group, its employees and contracted parties of all tiers are continually tasked to achieve with regard to the management of demolition activities.

General Standards:
The demolition or dismantling of a structure, or part of a structure, should be planned and carried out in such a manner as to prevent danger or, where it is not practicable to prevent it, to reduce danger to as low a level as is reasonably practicable.

All demolition works must be classed as a high-risk activity and the local SHE Manager/Advisor should be advised early in the tender process to assist with planning for such works.

All demolition works must be carried out in accordance with BS 6187 'code of practice for full and partial demolition' and BS 5975 'code of practice for temporary works procedure and the permissible stress design of false work'. Refer to VG-SOP-SHE-36 Temporary Works Management.

Definition of Demolition:
Demolition activities include activities that might be known as dismantling, disassembling, demounting, partial demolition, removal, decommissioning, deconstruction and soft stripping, and structural refurbishment, including renovation, rehabilitation, rebuilding, remodelling, reconstruction, redevelopment, restoration, renewal, replanting, development, enlargement, extending, augmenting, conservation, modifications, alterations, structural alterations, upgrading and reroofing.

Planning Design and Tender:
During initial site investigation, design and tender team members should not enter a proposed demolition area until they have been made aware of its structural condition from a competent person. A risk assessment using VG-FM-SHE-072 covering entry to the area should be made for survey etc in conjunction with the local SHE Manager/Advisor. The selected demolition methods should, where possible, aim to remove or reduce the need for persons to be in the demolition area.

The design and tender teams should ensure surveys are carried out, recorded, and that survey results are communicated to the operations management team. Surveys should include the following as a minimum:

- Asbestos
- Utilities, statutory services, gas, electricity, drains, sewers etc
- Ground conditions
- Environmental e.g. flora & fauna, listed buildings, conservation etc
- Unexploded ordinance.

Clients should provide a copy of the Demolition (Refurbishment) Survey for the building, and works should not proceed prior to this document being received and reviewed.

Arrangements for isolation of all existing services (gas, electric, water etc.) should be made and formal written confirmation received prior to any work commencing.

Removal of all asbestos / asbestos containing materials should be carried out in accordance with the Control of Asbestos Regulations and VG-SOP-SHE-03.

Environmental concerns must be considered, particularly where noise, vibration and dust are likely.

Appointment of Contractors:
Vistry Group preference is for demolition to be carried out by organisations that are members of the National Federation of Demolition Contractors (NFDC).

If a Business Unit (BU) is looking to appoint a Contractor who is not a member of the NFDC, the following will apply:

- Assessed by CQMS as a Demolition Contractor
- Must hold ISO 45001 and ISO 14001 accreditation
- Evidence of competence will be provided by CQMS to the BU and this must be carefully considered by the BU Managing Director, Technical, Commercial and Operations/Build Directors on whether to appoint the Contractor. The SHE Manager should also be consulted on the appointment.
- The Contractor must have been assessed as a Demolition Contractor by a SSIP accredited body
- The Contractor must provide as a minimum two references from clients relating to similar projects they have completed in the past and the BU must make contact with the references and receive positive feedback.
- The BU Managing Director will have to sign off the appointment of the Contractor prior to issue of contract.

Regions/Business Units considering the appointment of demolition contractors to act as the Principal Contractor must ensure that the contractor has the competence to undertake the role by ensuring a suitable and sufficient assessment that complies with 'PAS 91 pre-qualification', has been carried out by either a competent person or an appointed competent third party.

Local Authority:
Where demolition is to be undertaken, it is a mandatory requirement for the local authority to be informed (unless the demolition is exempt from control).

Notices to be in place before work commences include (not exhaustive):

- Section 80/81 to local authority building control (unless exempt)
- Section 61 to local authority environmental health department
- F10 notification to HSE
- Asbestos notification
- Notification to statutory authorities
- Party Wall Act
- Town and Country Planning Act.

Core Competency Requirements:
Demolition contractors have a specialist competency scheme affiliated to the CSCS, 'Certificate of Competence for Demolition Operatives (CCDO). All operatives must hold the relevant CCDO card; general CPCS cards for operating demolition plant are not acceptable:

• Green CCDO Card (D0)	Demolition Trainee (Operative)
• Red CCDO Card (D1)	Reclamation & Refurbishment
• Blue CCDO Card (D2a)	Experienced Worker
• Blue CCDO Card (D2b)	Operative (Topman or Mattock man)
• Gold CCDO Card (D3a)	Experienced Worker (Supervisor)
• Gold CCDO Card (D3b)	Demolition Supervisor
• Black CCDO Card (D6a)	Demolition Experienced Worker (Manager)
• Black CCDO Card (D6b)	Demolition Manager Experience
• CPCS Red Trained Operator Card	Demolition Plant
• CPCS Blue Competence Card	Demolition Plant
• Excavator (A59)	Card Endorsement for Lifting Activities

Demolition uses other pieces of specialist plant such as skid steers / bobcats, mini diggers with grabs, mobile crushers etc; competency for use of these items are provided under the CPCS categories, where additional competency for those involved in demolition activities are included.

There is a specific category for Demolition Skid Steer Demolition Skid Steer (D92), with D92B being the highest category; where D92B has been achieved only D92B will be shown, however, this automatically includes D92A. It should also be noted that use of Chainsaws in demolition competency can be proved via a CSCS category.

Full details of competency levels can be found on the National Demolition Training Group's website.

Demolition Site Activities:
A demolition plan detailing the arrangements for how demolition work will be carried out must be prepared by the demolition contractor before demolition or dismantling work begins. VG-FM-SHE-111 Demolition Plan Evaluation Checklist must be completed prior to commencement of works.

This applies to all demolition work, regardless of size, duration, or whether the job is notifiable. The demolition plan, meeting the requirements of BS 6187, must be reviewed by the Operational/Build team.
The following checks are required to be undertaken by a competent person prior to commencement:

- Services – isolation/disconnection: a suitable and sufficient survey to detect and accurately record the position, depth and route of buried services and utilities in line with PAS 128, Detection Level B, using GPR, Radio Frequency Detection (EML), Cover Lifting and Topographical Survey Techniques must be carried out, as a minimum. This can include a Manhole and Photograph Schedule, as well as the PAS 128 Level B accompanying Survey Report. Arrangements for isolation of all existing services (gas, electric, water, etc.) should be made and formal written confirmation received prior to any work commencing.
- Before any demolition works can commence that will alter the structure of the building, an appropriate structural survey, covering all areas of the structure to be worked upon, must be completed. This survey must be completed by a competent person.
- The Demolition Plan must be provided to Vistry before the demolition works begins, with a level of detail proportionate to the risks involved.
- It is the responsibility of the chosen demolition contractor to submit relevant notices to the local authorities, e.g. the Section 80 Notice of Demolition Works. Record of this notification must be provided to Vistry before demolition work begins.
- Comprehensive and detailed risk assessments, method statements and engineers' calculations must be obtained and reviewed prior to any works commencing. Where temporary works are identified, the documents should include the details of the Contractor's Temporary Works Co-ordinator and the Temporary Works Supervisor (if applicable) as appropriate to the works to be carried out.
- Copies of all pre-demolition surveys are to be reviewed by the site management team. Safety, health and environmental matters should be included in the information relevant to contractors.

SHE Standard Operating Procedure - (SOP)

	Responsibilities matrix **R**= Responsible **A**= Accountable **C**= Consulted **I**= Informed	Managing Director	Ops/Build Director	Contracts Manager	Project/Site Manager	Technical	Commercial	Land	Sales	HR	Customer Services	SHE Team	Premises Manager	Contractor
Stage 1 Planning	Ensure SHE Team is advised of planned demolition works at pre-tender stage	A	R									C		
	Prior to entry into structures planned for demolition, a risk assessment must be completed - VG-FM-SHE-072	A	C			R		C				C		
	Appropriate surveys are to be undertaken on structures to be demolished or obtained from client	A	C			R	I	C						
	Contractor to be pre-qualified prior to appointment	A	C	C	C	C	R					C		C
	Pre-demolition information provided to Contractor	A	C	C	C	R	I							I
	Relevant notices and licenses have been submitted or received from local authorities/enforcement bodies	A	C	C	C	R	I					C		C
	If applicable, Principal Contractor pre-start meeting held and recorded using VG-FM-SHE-007	A	C	C	C	C	R					C		C
	If applicable, Sub-Contractor pre-start meeting held and recorded using VG-FM-SHE-091	A	C	C	C	C	R					C		C
	Any temporary works planned in accordance with VG-SOP-SHE-36	A	C	C	C	R	C					C		C
Stage 2 Operational	Demolition Plan is reviewed using VG-FM-SHE-111	A	R	C	C	C	C					C		C
	If applicable, Asbestos removed is in accordance with VG-SOP-SHE-03	I	I	A	R	C						C		C
	Competency checks made (CCDO/CPCS) for all demolition operatives			A	R									C
	Sub-Contractor risk assessments and method statements (RAMS) reviewed using VG-FM-SHE-050			A	R							C		C
	Any temporary works managed in accordance with VG-FM-SHE-36		I	A	R							C		C
END	Review documentation in line with this SOP. Continue SHE Monitoring	All Affected Parties												

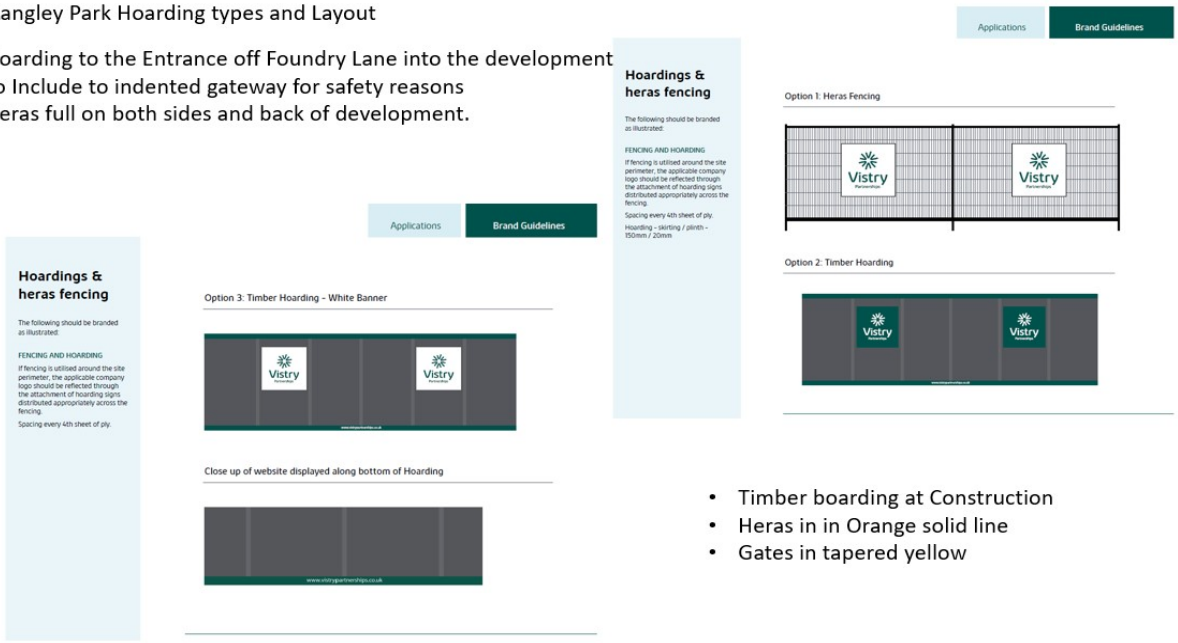
Construction Environmental Management Plan
Langley Park

Item 1 :- The parking of Vehicles of Site visitors & Operatives



Langley Park Hoarding types and Layout

Hoarding to the Entrance off Foundry Lane into the development
To Include to indented gateway for safety reasons
Heras full on both sides and back of development.



- Timber boarding at Construction
- Heras in in Orange solid line
- Gates in tapered yellow

Item 2 Loading and unloading of Plant & vehicles

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Vistry Group

SHE Standard Operating Procedure - (SOP)

Title:	**Hauliers and Suppliers of Materials Management**
Document Reference:	VG-SOP-SHE-16
Relevant Standard(s):	GE700 - Section C: General safety, Sub-section 6: Mobile work Equipment. Section F: Specialist Activities, Sub-section 6: House building

Purpose:
This procedure sets out the arrangements to ensure that the risks associated with deliveries and collections on Vistry Group developments and workplaces are fully identified and appropriate responsibilities and controls exercised.

Scope:
This procedure sets the minimum standards by which Vistry Group, its employees and contracted parties of all tiers are continually tasked to achieve in terms of the identification and management of risks associated with deliveries and collections by all departmental teams.

General standard:
In recent years, there have been several fatalities in construction where someone was struck by a moving vehicle or trapped by something collapsing or overturning.

Many delivery and collection incidents can be prevented with better co-operation between the parties involved. Where loading or unloading operations take place at any of our sites or premises, they must be carried out in such a way as to minimise the health and safety risks to any persons involved in the operation or who may be affected by the operation, i.e. employees, sub-contractors or members of the public. Environmental risks dues to spillage/dust, etc. should also be considered and controlled.

All delivery drivers must comply with the Lifting Operations and Lifting Equipment Regulations (LOLER); all vehicles must meet the legal requirements for highways, i.e. axle loads, tax, insurance, etc. All lifting equipment must be accompanied by its 12-month thorough examination certificate and all other lifting accessories have current and valid certification (6 monthly inspections)

Communication:
Vistry Group is responsible for ensuring site specific information is provided to the supplier or sub-contractor to assist them in formulating safe systems of work for deliveries. This information must be included with the purchase order, or it must be provided to the supplier or sub-contractor prior to the issue of a purchase order. This must include details of (where applicable):

- Site Location & permitted access routes and access points
- Any restrictions which may affect the type of vehicles being used
- Ground conditions and any restricted delivery hours
- Site rules and minimum PPE requirements
- Any site-specific off-loading procedures and relevant contact details
- Fall from height arrangements for access areas at height on vehicles
- Requirement for Method Statement and Risk Assessments (RAMS)
- Lift Plans and certification required
- Evidence of competency (CPCS/NPORS for example)
- Any other site specific requirements and a copy of this SOP.

Joint loading or unloading operations:
Where Vistry appoints a Telehandler Operator to assist with the loading or unloading of deliveries, the most senior Site Manager must:

- Ensure the Telehandler Operator has the necessary skills, e.g. experience, training and knowledge
- Ensure a safety briefing with the Site Manager, delivery driver and Telehandler Operator takes place prior to the activity
- Ensure the delivery driver is aware that they maintain responsibility for the lift and for communicating with the Vistry Telehandler Operator; and
- Ensure a suitable and sufficient Lifting Plan (Non-Crane) VG-FM-SHE-045 has been prepared and implemented (as applicable).

Delivery drivers are responsible for the load whilst it is on the vehicle and until fully offloaded. Where loading takes place on site, the lorry loader driver has responsibility from the point at which they lift the load from its position of rest on site to ensure that the

Prior to activity:
On arriving at the workplace, all drivers must park the vehicle in a safe place (they may have been notified of an agreed waiting zone, where applicable) and report to the Site Manager:

- The Site Manager shall provide a designated safe unloading/loading area that will not cause an obstruction or hazard
- A competent marshal should assist the driver during any manoeuvring or tipping operation; and
- Where repeat deliveries are carried out, the drivers must report to a designated person and not commence unloading/loading until authorised to do so.

Competence:
Drivers must be competent to carry out all necessary tasks associated with the loading or unloading of the vehicle, i.e.:

- Hold the relevant licence; and
- Hold a certificate of training for any equipment they need to operate, e.g. lorry loader CPCS/NPORS card.

Those persons delivering plant to site should meet the relevant CPCS/NPORS training standard in loading, securing and unloading of construction plant, e.g.:

- CPCS A49 loader/securer
- CPCS A68 plant driving
- CPCS A50 loader/securer for abnormal loads or NPORS plant loader securer.

Deliveries to/collections from the workplace:
Where deliveries of materials, plant or equipment to the workplace are required to be mechanically lowered or lifted from the vehicle, the site management team should, where reasonably practicable, designate a specific area for unloading and appoint a competent person to supervise the operation.

Any area where loading/unloading is to take place should be assessed for proximity hazards, such as physical obstructions, excavations, overhead power cables or any other conditions, e.g. ground conditions, that may adversely affect the operation.

Mechanical loading/offloading operations will only commence when a competent Vistry person is present, having been briefed on the safe system of works.

No person should approach the vehicle to assist in the unloading/loading operations until the delivery has been completed and the driver has declared the load and vehicle are safe to approach.

Where there is a cause to suspect any instability with the load, the load should remain on the vehicle and the haulage company concerned contacted to seek their guidance and assistance to ensure a safe means of off-loading.

A competent banksman/slinger shall be appointed to assist with the lifting operations, as appropriate.

Where the use of lorry loaders is considered unsuitable, the use of a forklift truck/telehandler should be considered and a Non-Crane Lifting Plan VG-FM-SHE-045 prepared by a competent person.

Drivers who fail to comply with the above requirements should be asked to leave the workplace. Any drivers putting either themselves or others at risk must be stopped immediately and not allowed to recommence until suitable and sufficient actions have been taken to address any shortfalls.

Lifting for Delivering

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Vistry Group

SHE Standard Operating Procedure - (SOP)

Title:	**Lifting Operations Management**
Document Reference:	VG-SOP-SHE-21
Relevant Standard(s):	GE700 - Section C: General safety, Sub-section 7: Lifting operations and Sub-section 8: Lifting equipment Section F: Specialist Activities, Sub-section 6: House building

Purpose:
This procedure sets out the arrangements to ensure that Vistry Group staff and all contracted parties ensure that lifting operations are managed in accordance with the Lifting Operations and Lifting Equipment Regulations (LOLER) and that risks are controlled through implementation of appropriate control measures, planning, monitoring and inspection.

Scope:
This procedure sets the minimum standards by which Vistry Group, its employees and contracted parties of all tiers are continually tasked to achieve in the identification and management of risks arising from lifting operations. It is required that:

- All lifting operations are carried out in accordance with The Lifting Operations and Lifting Equipment Regulations (LOLER)
- BS5975 - Code of practice for temporary works procedures and the permissible stress design of falsework is followed where applicable e.g. crane mat, ground conditions etc.
- All lifting operations are managed, planned, co-ordinated and supervised
- All lifting operations are regarded as hazardous operations
- The selection and use of lifting equipment are considered during pre-tender planning; and
- Persons are competent for, and experienced in, the role they are fulfilling.

Lifting operations cover a wide spectrum of mechanical operations, ranging from the use of a simple gin wheel to a complex lift involving multiple cranes in a hazardous environment. This document is arranged to cover the required competency standards of personnel and the categories of activities and equipment involved.

Lift Plans can be a single page detailing a safe system of work relating to a lifting operation or a suite of documents detailing complex arrangements for a lifting operation.

Lifting Equipment Definition - Equipment used to lift or lower loads (crane, hoists, jacks, forklifts, Lorry Loaders, Telehandlers, Excavators etc.) this includes the fixings for the anchoring or supporting of lifting equipment as defined under LOLER and BS7121.

*Typically, should an excavator be used for lifting materials, other than for excavated material or fill, then by definition it becomes a crane (e.g. an excavator used to lift and lower a manhole ring into position).

Lifting Accessories (chain-slings, shackles, strops, wire bonds, spreader beams, etc. also referred to as 'lifting tackle') used to attach loads to the lifting equipment and a lift plan produced.

General Standards:

- **Lift Plan**
  A Lifting Plan must be produced by a competent person which identifies management responsibilities. A Safe System of Work (SSoW) must also be implemented to ensure the safety of all who may be affected; all lifting operations are planned in accordance with the findings of a risk assessment, and carried out by competent persons using suitable plant and equipment that is fit for purpose.

  The site management team should identify, classify and plan for all lifts at the beginning of the project, so that they can be carried out with a minimum risk to health and safety. The planning of lifts will depend on their classification, e.g. complex, standard, basic; the more complex the risk, the higher degree of planning is required. For all hired-in lifting equipment, a risk assessment on its use should be provided by the hiring company/contractor, noting any site-specific information/requirements.

  Crane Lift Plans must be produced and/or approved by a competent, certified e.g. NPORS / CPCS or other industry recognised card bearing the CSCS logo, Appointed Person in accordance with BS7121 The Safe use of Cranes.

All non-crane lifts (basic and standard), i.e. excavators, telehandlers, genie hoists, materials hoist, passenger hoist etc., should be assessed, planned by a competent person and a safe system of work prepared in conjunction with the site management team. The safe system of work should include the suitability of the environment, the selection of machinery, the condition of lifting equipment and the training and experience of persons involved in the process.

VG-FM-SHE-113 Tower Crane Management Plan must be completed in all instances where a tower crane is being used.

VG-FM-SHE-045 Lift Plan (Non-Crane), must be completed by a competent person for all non-crane lifting activities.

VG-FM-SHE-025 Crane Lift Planning Checklist should be completed prior to the commencement of any planned crane lift.

- **Responsibilities**
  - **Project/ Site Manager**
    - Ensure that this standard is issued to all relevant persons, communicated and adhered to
    - Ensure that a suitable and sufficient 'Lift Plan' is produced/obtained and reviewed by a competent person prior to lifting activities taking place
    - Ensure an Appointed Person (AP) is appointed and ensure that they are trained via CPCS/NPORS or other industry recognised card bearing the CSCS logo and are competent to plan and manage the project being undertaken. When selecting, and assessing an AP, the variety and complexity of the lifting operations to be undertaken shall be considered, as well as all the problems which may arise from proximity hazards and environmental aspects. The appointee must be given the time and resources to carry out the duties involved
    - Ensure a Crane Supervisor is appointed and ensure that they are trained via CPCS/NPORS or other industry recognised card bearing the CSCS logo, and competent to supervise the lifting operations in conjunction with the Appointed Person
    - Ensure a Banksman/Slinger is appointed and ensure that they are trained via CPCS/NPORS or other industry recognised card bearing the CSCS logo, and competent in conjunction with the Appointed Person
    - Monitor and review appointments regularly, particularly in the event of changing site conditions, complexity or workload
    - Appointment of in-house competent and trained personnel should be recorded using VG-FM-SHE-117 as part of the Construction Phase Plan.

- **Appointed Person (AP)**
  - The lifting operation is properly planned and carried out safely
  - A suitable and sufficient risk assessment is carried out to evaluate the hazards associated with the lifting operation and identify control measures
  - Produce and/or approve a Lift Plan and review on an ongoing basis
  - Effectively communicate the Lift Plan and subsequent changes to all members of the lifting team
  - Monitor and audit Lift Plans at a frequency to be determined upon complexity of lifting operations
  - Accurate weights, radii, heights, etc. are established
  - Suitable lifting equipment, accessories are selected
  - Suitable access is provided to unload and store materials in conjunction with the site team
  - Competent, properly trained personnel are provided and that they are fully briefed
  - All cranes, lifting accessories and other equipment are properly maintained, inspected, examined and tested when necessary
  - Retains overall responsibility for the lifting operation and has the authority to stop the lifting operation at any time if it is considered that there is a risk to safety. If the Appointed Person is not present, then this authority passes to the Crane Supervisor (CS). The CS shall have sufficient knowledge and experience to identify potentially unsafe operations. The selection of a CS shall not be based solely on the production of a CPCS/NPORS card, but also an up to date logbook or CV.

- **Crane Supervisor**

Each lifting operation must be properly supervised to ensure that the Lift Plan is being followed and the operation is being carried out safely. The person carrying out the supervision will be the Crane Supervisor whose duties are set out below:

- Plan and direct the sequence of operations of all cranes and to ensure they do no collide or impact with other lifting equipment e.g. concrete placing booms, mobile cranes and piling rigs
- Ensuring that lifting operations and all lifting equipment are executed in accordance with the Lift Plan, prepared by the Appointed Person

The following factors must be considered at tender stage:

- Maximum lift height
- Lifting radius and capacity
- Crane type (Self erecting, luffing or saddle jib)
- Base type (Expendable fixing angles, cruciform or travel)
- Clearances of surrounding structures and other cranes
- Location issues
- Power supply
- Accessories
- Anti-Climb solutions
- Basic erection/dismantle details
- Over-sail
- Load hook-block wireless camera

Forklifts and Telehandlers:
Forklift/Telehandler Operators are not permitted to travel carrying a suspended load, unless a full risk assessment has been carried out, the Operator has the correct skills, e.g. competence and experience and the ground conditions are deemed suitable. Forklifts and telehandlers are not to be used for lifting personnel.

A non-crane lift plan is required using VG-FM-SHE-045.

Forklifts and telehandlers are only operated by competent personnel who hold the relevant CPCS/NPORS or other industry recognised card bearing the CSCS logo, category and are familiar with the type of machine in use.

Evidence of familiarisation training in the operation and controls for the specific machine is available from Ardent and all training modules must be completed prior to initial commencement of work and thereafter as determined by Ardent Plant Hire. This is especially important with telehandlers where a wide variety of machine manufacturers and machine size exist with differing controls and operating techniques.

Forklifts and telehandlers travel with the load low with consideration given to ground conditions on the route to be travelled. Undulating ground or cross slopes cause instability and place the machine at risk of overturning. Where outriggers are fitted, they are correctly deployed before the load is raised.

Forklifts and telehandlers are subject to the same requirements as all other lifting appliances in that a thorough examination is required at 12 monthly intervals and inspection at 7-days.

Excavators used as Cranes:
Excavators are primarily designed to handle routine loads contained in the bucket. Excavators can be adapted for use as cranes under defined conditions.

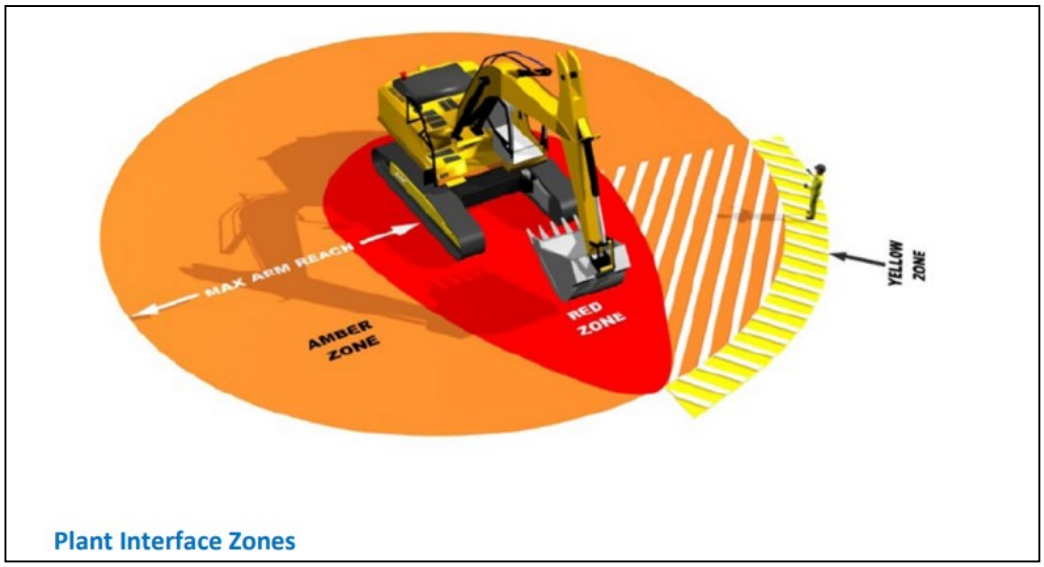
Excavators that are adapted for use as a crane, must be used in direct connection with a work activity and shall only be considered when other craneage options are deemed unsuitable, determined by a risk assessment process.

Excavators shall be operated by competent personnel who hold the relevant CPCS/NPORS or other industry recognised card bearing the CSCS logo, category and endorsements together with the necessary experience in the use of the type of machine for lifting operations.

A specific risk assessment / Lift Plan for the lifting operation/s must be produced and the lifting operations undertaken in accordance with the manufacturer's operating parameters.

Only manufacturers lifting points are used to attach the lifting accessories to the excavator. The lifting point is designed to prevent accidental detachment of the load.

Plant Safe Zone



Plant Interface Zones

Item 3 Storage of Plant and materials



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Vistry Group

SHE Standard Operating Procedure - (SOP)

Title:	**Plant, Tools and Equipment Management**
Document Reference:	VG-SOP-SHE-28
Relevant Standard(s):	GE700 Section C: General Safety – Sub-sections 5: Work equipment and hand-held tools and 6: Mobile work equipment Section F: Specialist Activities, Sub-section 6: House building

Purpose:
This procedure sets out the arrangements to ensure that the risks associated with plant and equipment which is utilised on Vistry Group developments are fully identified and appropriate responsibilities and controls exercised.

Scope:
All plant and equipment used by Vistry Group or on Vistry Group premises must be:

- Suitable for the intended use
- Safe for use, maintained in a safe condition and inspected to ensure it is correctly installed and does not subsequently deteriorate
- Used only by competent people who have received adequate information, instruction, training and familiarisation with the specific plant/equipment and who have completed Plant Operator's Permit VG-FM-SHE-064
- Accompanied by suitable health and safety measures, such as protective devices and controls. These will normally include emergency stop devices, adequate means of isolation from sources of energy, clearly visible markings and warning devices; and
- Used in accordance with specific requirements, for mobile work equipment, for example.

General Standards:
This procedure should be read and understood by those involved in planning, procuring, managing and monitoring the use of plant, tools and equipment.

Plant, tools and equipment covered under this SOP provided and operated by Vistry Group, or on Vistry premises and used by others would typically include telehandlers and any attachments, excavators, dumpers, cranes, tipping skips, mortar silos (temporary works design required for base), hybrid generators with battery bank, hand-held power tools, contractor mobile plant and attachments and equipment including compressors and associated tools, jet washers and all associated power leads and transformers, etc.

All Plant, Tools & Equipment:
Mobile plant, tools and equipment should only be hired in from organisations approved for use by the Business Unit and in accordance with any Group wide procurement deals. Plant, tools and equipment hired through these suppliers should comply with the core requirements of both PUWER and LOLER. The Plant Pre-Use Daily Checklist VG-FM-SHE-055, MEWP Pre-Use Daily Checklist VG-FM-SHE-054, VG-FM-SHE-114 Concrete Pump Pre-Use Checklist (where applicable) and VG-FM-SHE-096 Weekly Plant & Equipment Inspection Register should be used as appropriate.

Where plant or equipment requires a key to operate it, an on-site 'key safe' holding system should be used to ensure that only those persons trained and authorised to operate mobile plant/equipment have access.

Mobile Plant & Equipment:
The company's Drugs and Alcohol Policy should be communicated to all mobile plant operators and they should be advised that we operate a 'for cause' testing regime. All incidents involving mobile plant will result in a 'for cause' test being instigated. Please also refer to Lifting Operations Management VG-SOP-SHE-21.

Planning of Workplace Activities:
During contractor evaluation, checks should be made that relevant competence levels are identified to comply with our core competence requirements.

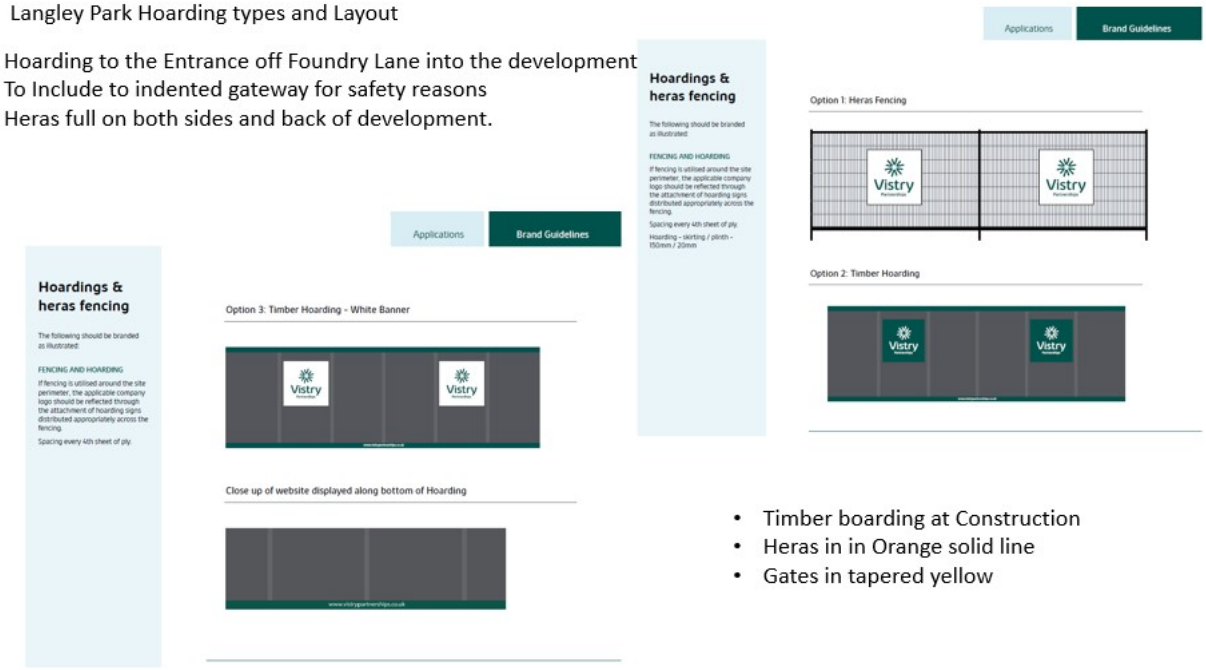
At the time of ordering mobile plant/tools, the suppliers should be advised of any hazards or restrictions that may affect the delivery of such items to the site, e.g. overhead cables adjacent/near to the site entrance. The required information contained within VG-SOP-SHE-16 should be issued to third party suppliers with the order to ensure they are aware of any limitations and can ensure they provide correct plant, tools or equipment for the environment. Risk assessments should be produced for proposed work tasks using mobile plant to ensure that all mobile plant selected is suitable for both task and the environment where the work is to be undertaken; the traffic management plan can then be developed accordingly.

Traffic Marshal/Banksman:
All plant movements should be engineered/managed to avoid the need for plant/people interface, i.e. priority given to creating one-way traffic, where possible. Where this cannot be done, any banksman/traffic marshal should wear distinctive coloured hi-visibility safety clothing and hard hat and make their presence known to the vehicle/mobile plant operators.

Where banksman/traffic marshals are to be used, a specific risk assessment should be produced using VG-FM-SHE-072; competence and evidence of a formal briefing should be checked. An example assessment is available on DUG here.

Construction Environmental Management Plan
Langley Park

Item 4 The Erection of Hoarding & Maintenance decorative displays & Viewing Panes



Hoarding will be erected where required around the development to ensure the security and Of both the public and the site team, this will be a requirement under CDM Regs and the Safety @ work act, our hoarding meets the Temporary work design standards, we also use Standard signage and safety signage in accordance with GE700 and HSE guidance.
Vision panels/panes will introduced in appropriate areas and also regular updates on notice Boards for the local public to see where we are at with the development.

Build Routes



Item 5 Wheel Washing facilities

Construction Environmental Management Plan
Langley Park



As noted in the pictorial vehicles will be checked prior to leaving, this will be both part of the Demolition and the construction period of the development.
This document will also form part of our supply chain orders and controls in place to monitor.

Item 6 :- Measures to Control the emissions of Dust and dirt during Construction as defined in BS 5528. Control on Construction and Open Sites shall be used to minimise noise disturbance from Construction works.

Nuicance = Noise – Vibration – Dust continued

Vistry Partnerships have a duty to to ensure that all plant machinary and equipment meets the standards set out in Regulations.

a. Vistry will plan eliminate and control the activities and our supply chain.
b. If through design we can use off site fabrication/manufacture this will help.
c. Where it is not possible to remove the task, the control measures will be carried out in alignment with a risk assessment.
d. Works will be carried out by a competent workforce.
e. Work stations will be placed for best environment reduction
f. Silencers will be used on plant where required/possible.
g. Enclosures and low-noise bearings.
h. Risk assessments will dicate intensity duration and exposure times.
i. All plant and equipment will be serviced and checked on a regular basis.

Dust and suppression





Disc Cutters and Road Saws, where used will be fitted with appropriate water suppression
Pointing, Scabbling, Shot/ Sand blasting and Raking out are not expected due to the nature of the project
Granular materials where possible will be mixed in enclosed or shielded areas

Water jets and connection to plant are reguarly used to dampen at source, these will be used Through out the demolition stages 1 and 2, and water suppression will continue to be be used Right through the construction duration, in respect to roads, bowsers will be utilised to Dampen roads through out any dry weather periods.

Dust Continued :- The following general methods will be utilised for at Langley Park where applicable

- Damping Haul Roads whilst taking care to prevent run off from this being problem
- Car Park (Hard road surface) as hard standing
- Public Roads will be inspected and cleaned regularly (if required)
- Scaffold will be cleaned regularly using wet methods (not dry sweeping)
- Regularly inspect vehicle waiting areas
- Inspection of vehicles before leaving site for material collected on wheels and body
- Ensure mechanical road sweeper readily available
- Plant (where possible) will be positioned away from the site boundary
- Mortar silos will be used to ensure dusty material is enclosed, deliveries will be by tanker
- Drop heights will be kept to a minimum when loading materials
- Dry open dusty areas will be damped down if necessary
- Vacuum cleaners or wet sweeping will be used in lieu of dry sweeping where possible
- Dusty materials (less than 3mm) (Cement/ Plaster etc.) will be stored inside where possible
- Stockpiles will be stored away from public and drainage network.
- Stockpiles will not be built to more than the angle of repose. Short term stockpiles are likely outside of site boundary (for utility connections) where permitted, windbreaks or sheeting will be used to protect the pile
- No burning of material will be permitted (outside of Welding, Brazing and roofing activities)
- Water spraying will take place during road works in order to suppress dust if and when required.

Item 7 A Scheme for Recycling/Disposing of Waste reulting from Demolition/Construction

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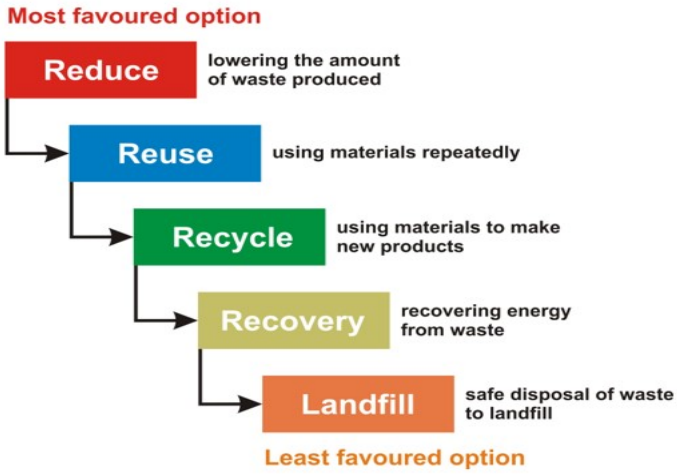
Guidance Note – (GN) – Site Waste Management Plan

This document has been prepared to explain how to set up, update and monitor a Site Waste Management Plan (SWMP) in Vistry Group. All Vistry Group projects, irrespective of size, are required to complete a SWMP and report quantities of waste produced.

SWMP Overview

VG-FM-SHE-108 Site Waste Management Plan is self-explanatory. The initial set up of the SWMP is the responsibility of the Contracts / Project Manager.
All subcontractors working on site must be identified and detailed within the SWMP. Contractors producing their own waste and removing waste from site or by others are of particular importance.

Waste Hierarchy – MUST be considered!



Update, Monitor & Review

The plan must be updated by the site team throughout the life of the project. Waste streams and quantities must be monitored and reviewed, and action taken where there is deviation from the plan.

All duty of care All duty of care information must be retrievable for any inspection. This includes waste carrier license, full copy of the disposal license and our internal Waste Transfer Note (where applicable).

A post project review should be carried out to determine if the plan was complied with, if there were any deviations and why, if it was fit for purpose and, what improvements can be carried over onto the next plan.

Training

Your BU SHE Manager/Advisor can provide some basic training on how to complete the SWMP, simply contact them and make the necessary arrangements or, if you require more detailed training you can arrange to attend the ½-day duty of care course; simply book through DUG https://vistry.oak.com/Home/Index/671a92de-822f-4442-a730-a5c100c25642

SWMP Continued - Crush & Recycle

Vistry Partnership will where possible recycle as much as we can, this will be be at Demolition Stage, and Construction Stage.
This will be dependant On the criteria under the regulations, we will carry out WAC test to catagorize the material.
Any concreate or stone will crushed for resuse where possible.
If the analyst results do not fall into the correct category then it will be removed from site, by Our licenced subcontractor.
Skips and build waste will be in alignment to the flow chart above, and where possible we will ensure Minimal if any packaging is used, plaster board will be be removed via the manufacturer.
All other materials will be disposed of as per the regulations regarding waste.

Item 8 – Measures to control Noise During Demolition & Construction

Mitigation measures as defined in BS 5528: Parts 1 and 2 : 2009 Noise and Vibration Control on Construction and Open Sites shall be used to minimise noise disturbance from Construction works, this is also noted in item 6 above.

SHE Safely building quality on time

Vistry Group

SHE Standard Operating Procedure - (SOP)

Title:	**Nuisance Management**
Document Reference:	VG-SOP-SHE-24
Relevant Standard(s):	GE700 – Section E: Environment, Sub-section 6: Statutory nuisance

Purpose:
This procedure sets out the arrangements for the identification, management and control of environmental issues on Vistry Group developments and controlled premises. It is also to defines the standards to be adopted to effectively manage construction activities to prevent adverse environmental nuisance impacts (i.e. noise, odour, dust, traffic, visual impact, vibration and light) upon sensitive environmental receptors (e.g. flora and fauna) and people as well as creating a positive relationship with potentially affected neighbours.

Scope:
This procedure sets the minimum standards by which Vistry Group, its employees and contracted parties of all tiers are continually tasked to achieve.

General Standards:
During completion of the Initial Site Appraisal (VG-FM-SHE-009), the technical team should assess whether construction activities are likely to have an adverse noise, odour, dust, traffic, visual, vibration or light impact upon:

- Local residents
- Local commerce
- Sensitive environmental receptors, e.g. protected flora and/or fauna
- Protected and/or unprotected buildings, e.g. listed buildings, Scheduled Ancient Monuments

Where there is a potential for construction activities to have an adverse nuisance impact on sensitive environmental receptors, people and/or buildings, the technical team should ensure that relevant commercial provisions are established during the identification of environmental risks and opportunities conducted during the bid/tender stages of the project.

Construction Environmental Management Plan
Langley Park

Planning of Construction Site Activities:
Where there is a potential for construction activities to have a significant adverse noise, odour, dust, traffic, visual, vibration or light impact upon sensitive environmental receptors, people and/or buildings, the technical team should:

- Establish baseline conditions (e.g. conduct pre-construction noise/dust monitoring, building, traffic or light surveys using competent person(s)) to allow for the:
  - Effective siting of plant and equipment
  - Effective routing of construction vehicles
  - Development of effective mitigation control measures, and to
  - Defend unsubstantiated complaints
- Obtain a Section 61 consent after consultation with the local authority.

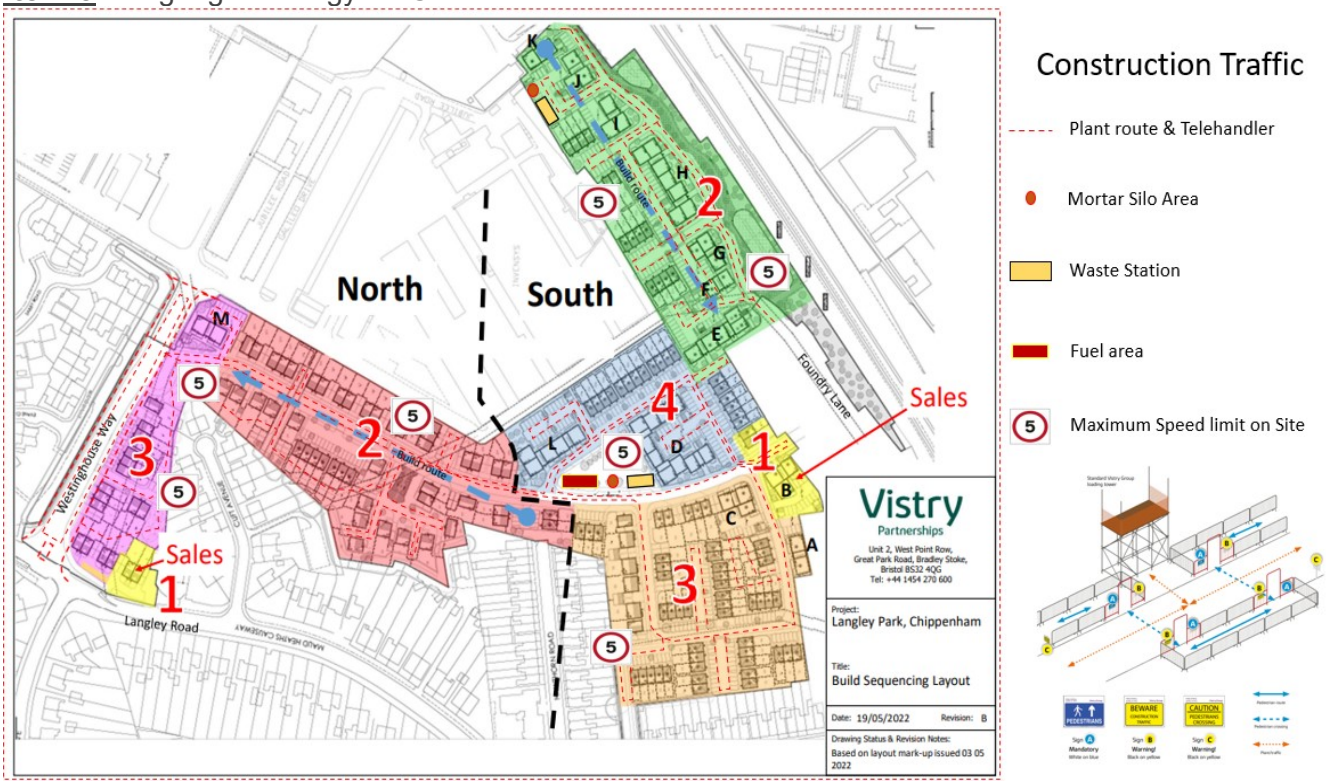
Where risk assessments and consultations determine that there is a potential for construction activities to adversely impact sensitive environmental receptors, people and/or buildings from noise, odour, dust, traffic, visual, vibration or light impacts, the site management team should ensure that suitable, adequate and effective mitigation control measures are defined and documented and thereafter implemented. Refer to Environmental Risk Management VG-SOP-SHE-13.

The site management team should consider the following in the development of appropriate nuisance mitigation control measures:

- Avoid - ensuring design and construction activities avoid creating an environmental nuisance, e.g. using bored piles rather than driven piles
- Reduce - undertaking specific actions to reduce adverse impacts on sensitive environmental receptors, people and/or buildings, e.g. using low noise plant and equipment, routing construction traffic away from sensitive receptors such as schools, hospitals and listed buildings
- Control - implementing mitigation actions to control any adverse impacts, e.g. use of screening and acoustic enclosures.

Furthermore, the site management team should ensure that local residents and other potentially affected parties are contacted prior to the commencement of any construction work and kept updated, as necessary, throughout the project in order to build a positive working relationship and avoid any potential environmental nuisance related complaints. Refer to Consultation and Communication VG-SOP-SHE-06.

Item 9 A Signage Strategy for Construction Traffic



Please see next page for samples of signage

Construction Environmental Management Plan
Langley Park

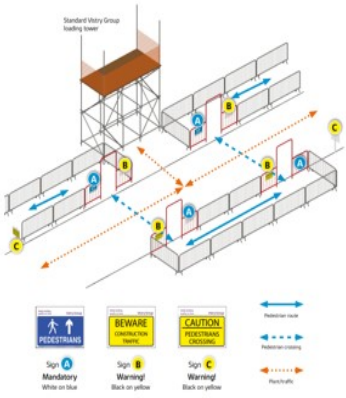
Signage samples to be used for

- Asbestos removal Stage
- Demolition Stage
- Construction Stage.



Signage Strategy Langley Park

1. All Statutory signage will be in place
2. This will change and be updated through the stages of Demolition and then Construction.
3. Both Demolition and Construction will require the signage shown and more as the activities progress, such as Asbestos removal, road construction and chapter 8 on Belmouth works and entrances.
4. Storage areas for Crush at Demolition stage will be segregated.
5. Fuel areas will be bunded and segregated.
6. Safe rout walkways will be set out & identified with Entry route controlled barriers



The development works will take place as follows :-

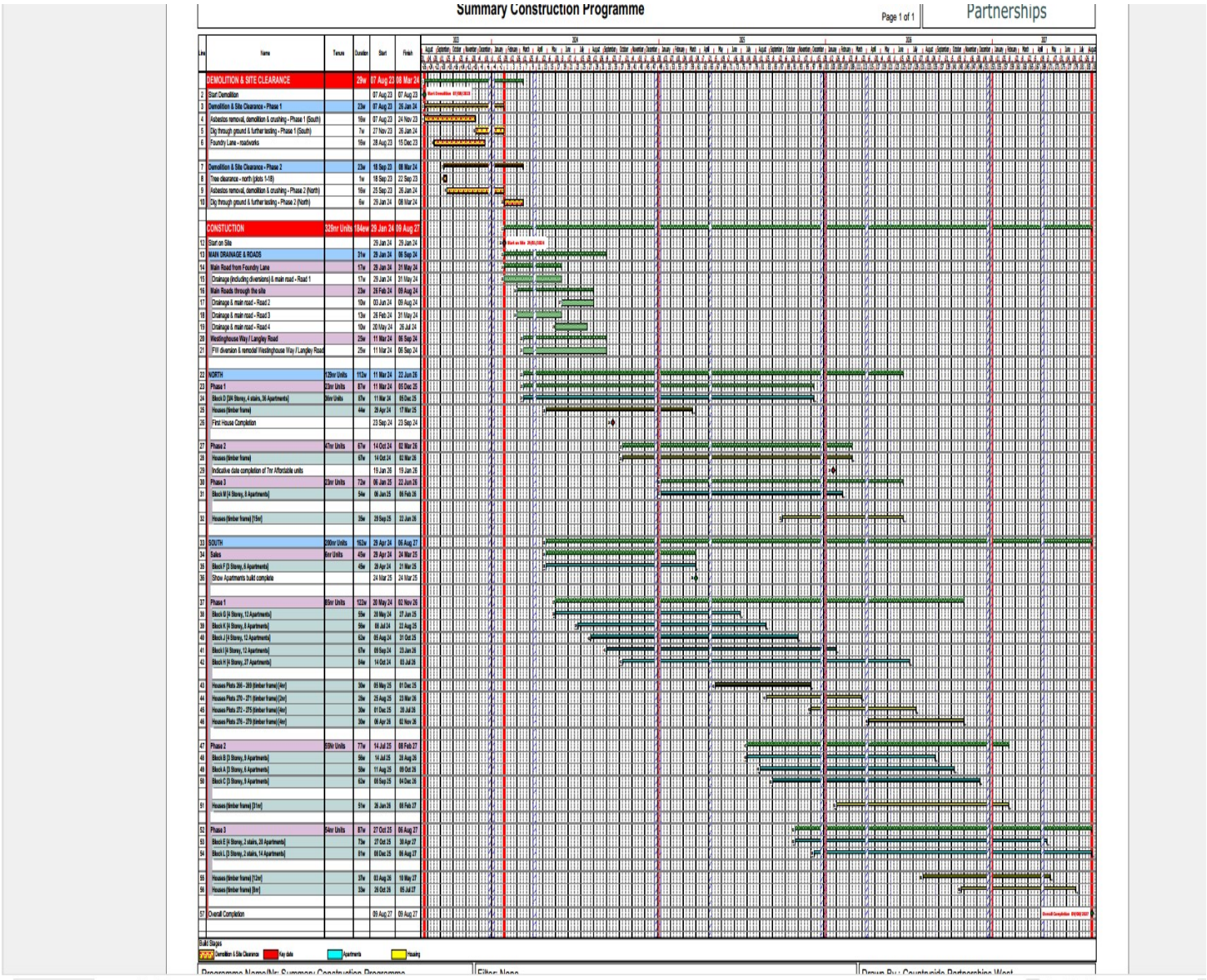
- Monday – Friday 07:30 hrs through to 18:00 hrs.
- Saturdays – 08:00 – 13:00 hrs.
- No Sundays or bank holidays.

- David Gray
- Contracts Manager
- Mobile 07484 030736

Vistry Partnerships

Construction Environmental Management Plan
Langley Park

Summary Of Build Programme



Planning Matters Condition 5

“Prior to the commencement of works, including demolition, ground works/excavation, site clearance, vegetation clearance and boundary treatment works, an updated Construction Environmental Management Plan (CEMP) shall be submitted to the local planning authority for approval in writing. The Plan shall provide details of the avoidance, mitigation and protective measures to be implemented before and during the construction phase, including but not necessarily limited to, the following:

a) Identification of ecological protection areas/buffer zones and tree root protection areas and details of physical means of protection, e.g. exclusion fencing.

b) Working method statements for protected/priority species, such as nesting birds and reptiles.

c) Mitigation strategies already agreed with the local planning authority prior to determination, such as for birds and bats; this should comprise the pre[1]construction/construction related elements of strategies only.

d) Work schedules for activities with specific timing requirements in order to avoid/reduce potential harm to ecological receptors; including details of when a licensed ecologist and/or ecological clerk of works (ECoW) shall be present on site.

e) Key personnel, responsibilities and contact details (including Site Manager and ecologist/ECoW).

f) Timeframe for provision of compliance report to the local planning authority; to be completed by the ecologist/ECoW and to include photographic evidence. Development shall be carried out in strict accordance with the approved CEMP.”

Ecological Site Context

Ecological surveys have been undertaken on the site between 2012 and 2023 to inform the outline and subsequent reserved matters application for the site. The most recent of these surveys was an updated site walkover undertaken in June 2023, to confirm what, if any additional ecological constraints exist and the current ecological condition of the site. The site boundary is defined by Phase 1 to Phase 3 on the Demolition Information Plan

Habitats

The site comprises building and hardstanding with areas of grassland and introduced shrubs and scattered young to semi-mature, self-seeded silver birch *Betula pendula* and scattered trees.

The majority of buildings on site comprise two or three storey corrugated metal and brick built buildings with steel frame, corrugated asbestos and concrete roofs including some transparent panels and windows along all floors of the buildings. One building along the north western boundary has an underground storage area which was full of water at the time of survey. Most of the buildings are in a poor state of repair with broken windows and doors, collapsed roofs and signs of vandalism. All the buildings are considered to be of negligible ecological importance.

The majority of the site comprises hardstanding with scattered bare earth spoil heaps. Scattered pioneer and ephemeral vegetation comprising bramble *Rubus fruticosus*, buddleia *Buddleija* sp and rosebay willowherb *Chamerion angustifolium* are unmanaged and scattered throughout the hardstanding. These habitats are considered to be of negligible ecological importance.

Small areas of modified grassland and introduced shrubs are present adjacent to the northern boundary of the site. Some of these habitats show no sign of recent management and are overgrown. The species present comprise non-native or common and widespread species, isolated from other habitats and are both considered to be of negligible ecological importance.

A line of scattered young to semi-mature, self-seeded silver birch are present along the railway line in the south east of the site. A non-native conifer tree line lies along part of the eastern boundary of the site adjacent to offsite residential gardens.

Occasional young to semi-mature sycamore *Acer pseudoplatanus* and ornamental birch *Betula* sp. are also present. Ground flora is sparce and limited to scattered ivy *Hedera helix*. The scattered young to semi-mature, self-seeded silver birch and non-native conifer tree line are considered to be of negligible ecological importance.

A broad-leaved woodland is located adjacent to the north western boundary of the site. The woodland comprises young to mature native trees including common lime *Tilia x europaea*, cherry *Prunus avium*, rowan *Sorbus aucuparia*, elder *Sambucus nigra*, elm *Ulmus minor*, ash *Fraxinus excelsior*, conifer, cherry laurel *Prunus laurocerasus*, holly *Ilex aquifolium* and willow *Salix caprea*. The majority of the trees are in a good condition. Ivy is growing on the trunks of the mature specimens. Offsite broad-leaved woodland is considered to be of local ecological importance.

The scheme has been designed to avoid ecological impacts as much as possible, with the majority of development to be located within the habitats of lowest ecological importance, namely hardstanding and buildings. The scheme has also been designed to retain and buffer those habitats of highest ecological importance, namely the offsite broad-leaved woodland along the north western boundary of the site.

Protected and Notable Species and Requirements for Appropriate Construction Methods

The site provides sub-optimal potential for protected/priority specie, namely badger *Meles meles*, bats and nesting birds. None of the habitats within the site boundary are suitable for reptiles or any other protected/priority fauna, due to the habitats, particularly the grasslands being relatively isolated form connecting habitat and either regularly managed or newly created. Neighbouring scrubby habitats, particularly in the south east of the site may provide refuges for common species of reptiles, which are known to be present on the wider Langley Park site.

Badgers

Evidence of badger was observed around the northern entrance to the site, adjacent to Langley Road, Westinghouse Way and residential houses along Clift Avenue (see areas indicated by B1 and B2 on Plan 14762/P05). Previous surveys identified a large sett with ten active, well-used badger entrances was identified beneath scrub and the tree line, with well worn mammal paths, entrances free of debris and spoil heaps. A further two partially-used sett entrances and three disused sett entrances were also identified within these areas. An updated survey completed in August 2023 identified three active, well-used badger entrances, with a further one partially-used sett entrance and five disused sett entrances within these areas. It is likely that badgers are using the tree line for shelter, foraging and commuting.

No other evidence of badger was observed within accessible areas of the site within the site boundary and the habitats across the rest of the site are deemed unsuitable for foraging and resting badger. The site continues to offer predominantly sub-optimal habitat for foraging badgers.

A licence from Natural England will be required for the partial closure/closure of the badger sett onsite, with a replacement provided. The strategy set out within the Environmental Statement[1] and the Updated Ecological Report[2] still apply.

Bats

The majority of the buildings have negligible potential to support roosting bats. Although access to the buildings are possible for bats through broken windows and doors, the majority of these buildings are light, draughty and damp offering limited roosting opportunities for bats. Externally, the site is well-lit, surrounded by residential properties and further industrial units and linear connectivity across the site is limited by the lack of suitable vegetation.

The majority of trees across the site are young to semi-mature and in a good condition, providing negligible potential for roosting bats. A number of mature trees around the northern entrance to the site have an ivy covering, although this was considered to either be too dense or thin to provide shelter for roosting bats and are considered to provide negligible roosting potential.

A number of trees within the offsite broad-leaved woodland, including a mature ash, one oak and two sycamore trees are considered to have low potential to support roosting bats. These trees will be retained and protected as part of the proposals.

[1] Tyler Grange (2013) Environmental Statement: Langley Park Chippenham, Unpublished Report
[2] Tyler Grange (2022) Langley Park, Chippenham: Updated Ecological Report. Report Ref: 14762_R02b_RW_NC

The non-native tree line along part of the eastern boundary, scattered young to semi-nature silver birch and new and cleared habitat along the railway line continue to provide sub-optimal foraging and commuting opportunities, being well lit and relatively isolated from connecting habitats. The native tree line along the north western boundary, although isolated, provides foraging opportunities for bats.

Birds

The buildings are in a poor state of repair, internally there are opportunities for nesting birds. Evidence of feral pigeon *Columba livia domestica* and jackdaw *Corvus monedula* was observed within two of the buildings. Herring gull *Larus argentatus* were also present on the roof of a building in the south east of the site.

The trees within the red line provide opportunities for nesting birds. As the scattered buddleia and bramble establish and become bushier through lack of management, opportunities for nesting birds increases.

Relevant Legislation

Construction cannot be undertaken which compromises the survival or success of the fauna described above or which results in the spread of non-native invasive species.

Badgers and their setts are afforded protection under the Protection of Badgers Act 1992. A badger licence from Natural England will be required for works around the active badger sett in the north of the site. As badger can readily dig new setts, an updated badger survey will be undertaken 3 months prior to construction work starting. If any other active sett have potential to be impacted by construction works then Tyler Grange or an appropriate specialist would be contacted, and the badger licence from Natural England will be updated.

All bats and their roosts are afforded protection under the Wildlife and Countryside Act (WCA) 1981 (as amended) and the Conservation of Habitats and Species Regulations 2010 (as amended) (the 'Habitats Regulations').

All British birds are legally protected under the WCA 1981 (as amended) from disturbance while actively nesting (generally acknowledged to occur between March and August inclusive). As such any removal of trees, introduced shrubs and scattered bramble and buddleia will be timed to avoid the bird nesting season or preceded by checks for nesting birds by a suitably trained ecologist immediately prior to any removal. Should any nesting birds be recorded within the site during works, no work will take place in that location until the young have left the nest.

Construction and Environmental Management Plan: Biodiversity

Risk Assessment of Potentially Damaging Construction Activities

To inform the preparation of this CEMP: Biodiversity, a risk assessment has been completed on all proposed construction-type activities likely to impact important biodiversity receptors within the site and local area, as detailed below.

Where possible, the proposed layout has been designed to retain those habitats which have been identified as being of importance, namely the offsite broad-leaved woodland. The soft landscape proposals include extensive tree planting, hedgerow creation, native scrub mixed, amenity shrubs and perennial mixes, amenity lawns and species-rich grassland which will be created as ecological enhancement across the site.

Site Clearance

The majority of development is centred on areas of negligible ecological importance, namely the hardstanding and buildings. Native trees and the offsite broad-leaved woodland are being retained, protected and enhanced. During the clearance of habitats, there is potential impacts to occur as a result of the following:

- Removal of woody vegetation including non-native trees and introduced shrubs and demolition of buildings resulting in killing, injury or disturbance to protected/priority species such as nesting birds;

- Damage and destruction of retained habitats including native trees and offsite broad-leaved woodland, negatively impacting the importance of these habitats post-development;

- Damage and disturbance to retained trees with bat roosting potential resulting in killing, injury or disturbance to roosting bats;
- Dust deposition resulting in damage to retained habitats within and adjacent offsite habitats;
- Noise resulting in disturbance of species within and adjacent to the site; and
- Temporary lighting disturbing nocturnal species, namely bats and badger.

Site Set-up

Site offices, huts and temporary toilets, will be created onsite, as will storage areas for stockpiles of materials. Site set-up could result in impacts occurring as a result of the following:

- Damage to retained habitats as a result of pollution from plant maintenance and storage of oils, fuels and chemicals, including toilets;
- Site lighting, in particular overnight lighting, has the potential to cause disturbance to badger and foraging and/or commuting bats; and
- Construction activities including compaction of ground and accidental damage to retained and immediately adjacent offsite habitats.

In addition to these pathways negative impacts could also occur as a result of dust, run-off, noise and artificial lighting as detailed above.

Groundworks

Construction groundworks including creating foundations and excavations could result in impacts including:

- Damage to retained habitats through accidental damage; and
- Impacts to wildlife, namely badgers, should these become trapped in pits and trenches created during groundworks.

In addition to these pathways, groundworks impacts could occur as a result of killing or injury of wildlife, damage to retained habitats, dust, noise and artificial lighting as detailed above.

Material Storage and Removal from Site

The improper storage and disposal of materials during site clearance and construction could cause impacts to retained and adjacent habitats, as a result of dust, run-off and noise (as detailed above) which could result in direct impacts through damage or long-term impacts such as loss of function.

Construction

During construction there is potential for impacts to occur as a result of killing or injury of wildlife, damage to retained habitats, dust, noise, run-off and artificial lighting (as detailed above).

Environmental Incidents

Whilst not part of any specific construction stage, environmental incidents have the potential to occur at any time during the works, such as from:

- Vandalism resulting in impacts to retained habitats through direct damage or pollution events, should fuel or chemical containers become damaged;

- Fires and burning waste could result in impacts to retained and adjacent habitats and protected/priority species should this occur close to retained habitats; and

- Emergency incidents such as spillages or extreme weather resulting in impacts to retained and adjacent habitats.

Identification of 'Biodiversity Protection Zone'

Areas within the site identified as 'biodiversity protection zones' include the retained native trees and the offsite broad-leaved woodland. Some of the trees within the woodland were identified as having low bat roosting potential.

Temporary protective fencing will therefore be provided to exclude and protect these retained areas during construction. This fencing will be inspected monthly by the site manager during the construction works and if signs of damage occur, the fence will be fixed or replaced by the construction team.

Such fencing will also provide site security and prevent potential impacts to retained habitats, such as from vehicle movements, soil compaction and storage of materials. Fencing provided in accordance with best practice guidance detailed in BS 5837:2012 'Trees in relation to design, demolition and construction' (British Standard, 2012) Where possible, vehicles with a low ground-pressure should be used to avoid soil compaction and avoid the rooting areas of the trees.

A 30m fenced buffer with appropriate no entry signs will be installed around the badger sett in the north of the site to avoid triggering the legislation afforded to badger. The siting of the fencing will be supervised by a suitably experience and qualified ecologist. Methods of working within the 30m buffer will be outlined within the method statement used to inform the Natural England badger licence.

Practical Measures to Avoid or Reduce Impacts During Construction

Practical measures will be enacted to ensure that the retained biodiversity features are protected during construction.

Site Clearance

Prior to the commencement of any works on the site, an initial 'toolbox' talk will be completed with the contractors, to explain the sensitive features present on the site and the requirements for protection measures. This toolbox talk will also provide detail on the working methods to be employed during all works affecting sensitive habitats. This toolbox talk will be delivered by an appointed Ecological Clerk of Works (ECoW), comprising a suitably experienced ecologist, who will also undertake a walkover of the site prior to works commencing to check for any potential constraints, including an updated check of the badger sett.

Further to the above, specific supervision measures will also be implemented in respect of the following species:

Badgers – The badger sett will be lost as part of the proposed development and a licence from Natural England will be applied for and implemented for the closure of the sett. The Natural England licence should be read in conjunction with this CEMP and will include a method statement and work schedule detailing construction working practices around the sett. Natural England will only grant a licence for closure of a badger sett between July to November inclusive, once planning permission has been granted.

The following actions will also be undertaken minimise the potential for badgers entering the site during construction and causing delays and/or potential injury or disturbance:

- Manage the construction site to ensure that ground is flat and compacted end there are no loose earth banks for badgers to readily dig into;

- All exposed earth works and excavations which could potentially trap a badger should be completely covered over with boarding at the end of daily operations where practicable to prevent badgers from entering trenches, or have an inclined plank included overnight to offer a means of escape for badgers that may have become inadvertently trapped;

- Work is to be undertaken during the daytime where practicable, when badgers are least active, to minimise disturbance to their foraging activities;
- Overnight lighting at the site should be kept to a minimum during construction;
- All chemicals and construction materials are to be safely and securely stored to prevent any spills or contamination; and
- Contractors are to be briefed during a 'toolbox talk' by an ecologist prior to starting works. After this, a Contractor should be nominated to undertake regular monitoring of the site and if any exploratory digging or new setts are identified they must contact the designated ecologist immediately.

Bats – To avoid disturbance to roosting bats, if present within the offsite trees, and foraging and commuting bats during construction the following will be implemented:

- Work is to be undertaken during the daytime where practicable, when bats are least active, to minimise disturbance to their foraging activities; and
- Overnight lighting should be kept to a minimum and directed away from boundary and retained trees.

Where lighting is required during construction, the following best-practice guidance measures should be followed:

- Utilise warm-white LED luminaires, with a spectrum ideally greater than 2700 Kelvin and with a peak wavelength higher than 550nm (or as close to these specifications as is feasible and practicable) to avoid the wavelength component which causes the greatest disturbance to bats;
- Install specialist low-level bollard lighting, or fit external lights with motion-sensors and short timers if required to reduce light pollution; and
- Avoid the lighting of hedgerows and retained offsite habitats through sensitive placement of lighting and choice of luminaire.

Birds – Should any removal of potential breeding bird habitat be proposed within the bird nesting season (generally taken to be March to August inclusive, though this is not defined in law and birds can nest outside of this time), including woody vegetation and the buildings, a detailed search of the vegetation/building would need to be undertaken by the appointed ECoW immediately prior to its removal, to check for signs of active nests. If any active nests are found, a suitable buffer to be determined onsite by the ECoW, will be provided until the young have fledged and the nest is no longer active. This buffer would be protected by fencing, installed under the supervision of the ECoW, with appropriate signage provided in order to ensure no accidental damage occurs

Other Species - Regard will be had for any other protected or priority species that may be present within the site and in particular hedgehog and reptiles. Prior to site clearance work, any obvious piles of leaves or brash will be cleared by hand and should any hedgehog be found, they will be carefully moved in a gloved hand to areas of protected habitat around the site boundary, away from the proposed development. Any vegetation clearance will be carried out using hand tools (such as strimmers, brush-cutters, or hand-held shears).

Protecting Retained Habitats - Protection measure will be installed around retained trees and the broad-leaved woodland to create barriers to protect these habitats during construction. Tree protection barriers must be erected prior to the commencement of construction activities and should consist of the default specification recommended within British Standard BS5837:2012 'Trees in Relation to Design, Demolition and Construction' comprising a scaffold framework, well braced to resist impacts, with vertical tubes spaced at a maximum of 3m to add further stability. Onto this, weldmesh panels will be securely fixed with wire or scaffold clamps. Tree protection fencing must be maintained to ensure it remains fit for the purpose intended. All-weather notices will be attached to the barriers with words such as 'Construction Exclusion Zone – No Access'. Once erected, fencing should remain in place and be maintained until works are complete.

Run-off - To prevent run-off and pollution occurring, protection measures will be implemented during the site clearance and all subsequent stages, as set out below. Construction methodology will be designed to comply with good practice guidelines (CIRIA, 2015[3]) and will include the following measures as necessary:

- Use double stacked straw bales or other methods such as bunds to collect any potential run-off;
- Using secondary containment such as bunds around storage tanks where necessary;
- Ensuring deliveries are completed away from any drains;
- Ensure chemicals and hazardous substances are securely stored, labelled appropriately and regularly inspected; and
- Provision of jet washer and water bowser to remove mud from vehicles as necessary.

A pollution/spillage plan will also be put in place prior to the start of works. This will include training for site management, 'toolbox talks' for operatives and provision of spill kits.

Dust - Dust arising during construction work is generally considered to only have a significant ecological impact within 20m, where heavy soiling of vegetation can occur (Holman *et al.*, 2014[4]). Therefore, impacts to the retained trees, offsite broad-leaved woodland and offsite habitats could occur. Contractors will suppress dust emissions with water whilst loading waste materials for disposal and machinery exhaust emissions will be kept as low as is practicable by using well maintained vehicles and machinery at all times. These will be turn off when not in use. Dust pollution will be minimised during construction works with water including specialist spray equipment if required to dampen any arising debris and dust. Water from the dust suppression will then be controlled by suitable methods to prevent run-off (see above).

Noise - Although based on the location of the site and the results of the survey work undertaken, noise is not anticipated to create a significant impact, specific measures will be undertaken following best practice (CIRIA, 2015) as necessary.

Lighting - In order to prevent disturbance to nocturnal species, including bats and badger, no works will occur after dusk with working hours on the site. Shorter hours will be undertaken during winter months, due to less daylight hours, with working hours still finishing prior to dusk where possible. It is anticipated that no lighting will be required during construction. It is therefore considered that commuting and foraging bats can continue to use the site during construction works.

Where construction/security lighting is required, this be designed to avoid shining towards boundary linear features, particularly the retained trees, broad-leaved woodland and offsite habitats to minimise impacts on nocturnal species including bats and badger.

Site Set-up

Pollution - Construction activities will be predominantly located away from the most sensitive habitats including those within the 'biodiversity protection zone', namely the retained trees and broad-leaved woodland. To ensure that no accidental impacts occur, these features will also be fenced and protected during works (see above).

To avoid impacts to retained habitats, site offices (including welfare facilities), material storage areas (including oils, fuels, chemical toilets) and wheel wash facilities will be located within the central area of the site and away from the retained habitats. In addition, the areas used for the storage of materials will be regularly inspected for leaks by the site manager and during any ECoW visits.

Areas used for plant maintenance which could result in damage or pollution to retained habitats will also be located away from the 'biodiversity protection zones'.

[3] CIRIA (2015). Environmental good practice onsite guidance (fourth edition). London

[4] IAQM (2014) Guidance on the assessment of dust from demolition and construction. Version 1.1. Available online at: www.iaqm.co.uk/text/guidance/construction-dust-2014.pdf

Protection of Habitats - During the site set-up and subsequent stages of the works, retained habitats will fenced to provide protection from accidental damage (see above).

The protective fencing within the site will be regularly inspected by the site manager in order to check the condition and positioning of this fencing. Should the fencing be damaged or in the incorrect location, it will be repaired, replaced and/or moved to the correct location adjacent to the retained habitats.

Warning Signs - Warning notices will be positioned on the fencing to identify the protection area and discourage access.

Wildlife Exclusion Barriers - Badger gates will be required on the badger sett to be lost for the proposed development. Details of the badger gate installation and protection measure will be detailed within the method statement to be submitted as part of the licence and should be read in conjunction with this CEMP: Biodiversity. No other wildlife exclusion barriers will be required during construction.

Disruption of Mammal Runs or Paths - Whilst any fencing has the potential to result in the disruption of mammal runs or paths, all fencing will include gaps cut into the wire mesh of the fence at ground level, approximately 40mm wide and high, to allow badger and other small mammals to pass through unimpeded.

Ground Works

Protection of Retained Habitats - In order to protect retained habitats, appropriate fencing will be erected prior to any construction or groundworks beginning and will be implemented in line with British Standards BS 5837:2012.

Protection of Wildlife – During ground works, there is potential for protected and notable fauna including badger to become trapped within trenches or pits which are left open overnight. Any trenches or deep pits that are to be left open overnight will be covered or provided with a means of escape should wildlife enter, such as a roughened plank of wood placed in the trench as a ramp to the surface.

Any trenches or pits will be inspected each morning to ensure no animals have become trapped overnight. Should a badger become trapped in a trench it will likely attempt to dig itself into the side of the trench, forming a temporary sett. Should a trapped badger be encountered Tyler Grange or an appropriate expert will be contacted immediately for further advice.

Material Storage and Removal from Site

Material Storage - Site works will follow best practice with materials as well as oils, fuels and chemical toilets not being stored adjacent to the retained habitats, including trees and broad-leaved woodland. Run-off protection measures (as detailed above) will also be implemented to ensure that no run-off of materials will occur.

Topsoil Storage - In order to protect and safeguard the soil resources during construction, such as from excessive compaction, appropriate handling measures will be implemented. Ground preparation works will follow best practice with soil to be temporarily stored within areas of open space so as to maintain soil viability.

Construction

The protective measures detailed above for other phases of the works would also be implemented through the construction phase and as such no additional protection measures would be necessary.

Environmental Incidents

Should any retained habitat or features be damaged, suitable mitigation measures will be implemented. If damage is not considered to be significant the habitats will be allowed to regenerate naturally, although if required, replacement planting will be provisioned, with the scale of replacement to be determined by the ECoW.

Vandalism Protection - Measures will be implemented within the site to prevent potential impacts from vandalism, with such measures to include:

- The site will be securely fenced in its entirety with steel mesh (Heras) fencing to prevent access;

- All offices and welfare facilities will be steel anti-vandal units;
- All construction plant will have anti-vandal shutters and keys will be kept in a locked strong box within the site office;
- Security alarm systems will be used which are linked back to a remote monitoring station as the building becomes enclosed;
- Temporary doors will be kept locked out of hours to prevent illicit access; and
- No tools will be left on site unless kept in secure steel containers.

These security measures will ensure that materials within the site are protected, preventing potential for pollution to occur as a result of vandalism.

Critical Periods and Locations

During the implementation of this CEMP: Biodiversity, critical periods and locations where construction works will need to be controlled to avoid causing harm to biodiversity features, will comprise the following:

- An ECoW visit will be completed prior to the commencement of any works to provide a toolbox talk and undertake a walkover of the site to check for any potential constraints, including additional signs of badger;
- Ecological supervision of the placement of the protective fencing around retained habitats and ecological features, including the badger sett;
- Ecological supervision by the ECoW or suitably qualified ecologist will be undertaken during the clearance of any habitat with potential to support hedgehog to ensure no impacts occur to these faunal group; and
- During the bird nesting season (generally considered to be between March to August inclusive, however some species are known to nest outside of this period) any removal or management of hedgerows and any other vegetation with potential to support nesting birds, will require a detailed search, undertaken by an ECoW, immediately prior to its removal, to check for signs of active nests. Should any active nests be recorded suitable protection measures will be implemented as detailed above.

All other protection measures outlined within this CEMP and the badger licence and associated method statement will be implemented for the duration of construction where relevant. In particular, throughout the construction period, the site manager will be responsible for ensuring that the protective fencing of retained habitats remains in place and fit for purpose.

The maintenance of all such protection measures will be the responsibility of the site manager, however, an experienced ecologist acting as an ECoW will be available to attend the site at short notice if required throughout the construction period should any issues arise. Any inspection of the badger sett to be closed under the licence will be acting as an authorised individual and specifically mentioned on the licence application form.

Responsible Persons and Lines of Communication

During the construction period, the following responsible persons and lines of communication have been identified in order to guide the implementation of this CEMP: Biodiversity.

Advice and monitoring, including with regard to legal consents, planning conditions and contractual arrangements, will be provided by Vistry Partnership, the site manager and ECoW as appropriate.

The details of the site manager will be displayed on the site boundary with the site manager responsible for addressing any issues which are raised during construction.

The installation and maintenance of protective fencing will be undertaken by the site contactors under the supervision of a suitably qualified site agent, this site agent must be:

- Present on site for the majority of the time;
- Aware of the biodiversity and arboricultural constraints;
- Having the authority to stop any work that is causing, or has the potential to cause harm to any retained habitat;
- Responsible for ensuring that all site operatives are aware of their responsibilities toward retained habitats and the consequences of any failure to observe those responsibilities; and
- Make immediate contact with the local authority and/or a trained arboriculturalist in the event of any tree related problems occurring, whether actual or potential.

The site manager will make all contractors aware of the presence of retained ecological features and the measures implemented to protect these features. Prior to the start of works an ECoW will provide a 'toolbox' talk to detail the ecological features to be protected and the methods employed. A separate tool box will be provided for the badgers, as detailed within the badger licence.

Subsequent to this initial 'toolbox' talk, where any subsequent supervision of works is required, such as works around badger setts or removal of reptile habitat, bespoke 'toolbox' talks will be undertaken by an ECoW, prior to these works commencing, along with an updated walkover of the site to check for the signs of any protected or priority species and to check the methods detailed in the CEMP: Biodiversity are being adhered to.

In the event of accidents or damaging incidents occurring during construction, the site manager will liaise with the ECoW, arboriculturalist and local authority as necessary, to agree solutions and contingency measures.

The Role and Responsibilities on Site of an ECoW

An ECoW will comprise a suitably qualified and experienced ecologist, appointed to supervise the implementation of the CEMP: Biodiversity.

The responsibilities of the ECoW will include attending the site prior to the start of works to deliver an initial toolbox talk and to set out the ecological constraints and protection measures required. The ECoW will also attend site to supervise clearance if any habitat with potential to support nesting birds (as detailed above). A separate tool box will be provided for the badgers, as detailed within the badger licence.

As long as the measures detailed in this CEMP: Biodiversity and the badger licence are implemented, an ECoW is not anticipated to be required for the majority of site works.

Whilst no other supervision of works is anticipated to be required, the ECoW will be available to provide advice and undertake appropriate steps, including supervision, should any previously unidentified or unexpected protected or priority species be encountered during site works.

As required, and during any site visits, the ECoW will also undertake compliance checks of all mitigation measures implemented as part of this CEMP: Biodiversity, such as the effectiveness of protective fencing. The ECoW will provide a compliance report with photographic evidence of the work undertaken on site every six months for the duration of the construction, or until such time that the works relating to biodiversity have been completed.

The ECoW will also keep a record of all site visits and report any potential issues to the site manager.

No post-construction monitoring will be undertaken by the ECoW as part of this CEMP: Biodiversity, however monitoring will be required as part of the badger licence and will be detailed within the licence. A LEMP is being produced for this development which will detail all post-construction monitoring and management measures.

The appointed ECoW will have the necessary skills and experience required to deal with the potential issues which have been identified within the site and to provide advice to the client on any relevant issues, as necessary.

Copies of all ecological reports relevant to the site works as well as copies of planning conditions, if required, and the CEMP: Biodiversity will be kept on site and be made available to the ECoW and site manager at all times, so that they are familiar with identified ecological constraints relating to the development.

Compliance Checking

Procedures will be put in place to allow third party compliance checks to be undertaken of the site throughout the construction period. Any request for a compliance check would be made to the site manager who would arrange for the required site visit to be completed as soon as reasonably practicable.

Identifying and Rectifying Remedial Measures

As part of any compliance checks or ECoW site visits, should any potential issues of non-compliance with the CEMP: Biodiversity be identified, these will be immediately reported to the site manager and appropriate actions agreed.

In the event a significant issue occurs, such remedial measures shall be reported to the local authority, as required, with appropriate remedial measures to be discussed and agreed with all relevant parties. Further checks will then be completed within an appropriate time frame to confirm that remedial measures have been correctly implemented to the satisfaction of the local authority.