



Document Control Sheet

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Appendix A Site Location Plan

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1 Introduction

1.1 Background

- 1.1.1 National Grid Electricity Transmission (NGET) proposes deliver a 400kV substation (referred to hereafter as 'Proposed Development') at Llandyfaelog, 6km south of Carmarthen in South Wales (herein 'the Site'). The Proposed Development broadly comprises a substation compound, and the various elements associated with it, including access for maintenance, and welfare / office facilities.
- 1.1.2 Stantec UK Limited (Stantec) has been appointed by NGET (herein 'the Client') to prepare an Outline Construction Environmental Management Plan (OCEMP) in respect of the project.
- 1.1.3 The Site Location Plan is provided in **Appendix A**.
- 1.1.4 The Site is within the administrative boundary of Carmarthenshire County Council (CCC).
- 1.1.5 This document provides a framework which governs the construction works associated with the Site for all contractors. It sets out, in broad terms, methods to avoid, reduce and mitigate construction effects on the environment.
- 1.1.6 This OCEMP will be passed onto the Principal Contractor(s), once appointed, to implement and formulate a detailed CEMP.

1.2 Purpose of this Document

- 1.2.1 This OCEMP is the lead environmental management document that helps define and bring together the procedures for achieving the environmental objectives of the project defined by legislation, policy and best practice.
- 1.2.2 This OCEMP has been prepared to set out the environmental issues and management procedures to be adopted during the construction works on Site to help control potential adverse impacts to the environment and the local community.
- 1.2.3 The construction mitigation measures have been identified within a series of supporting technical reports. Such construction mitigation measures, along with national and local requirements and policy with regards to construction, have been included in this OCEMP to enable measures to be implemented into the construction of the Proposed Development.
- 1.2.4 This document provides a series of proposed measures and standards of work, which shall be applied by the appointed Principal Contractor(s) and its sub-contractors throughout the construction period to:
 - Provide effective planning, management and control during construction to control
 potential impacts upon people, businesses and the natural and historic environment; and
 - Provide the mechanisms to engage with the local community and their representatives throughout the construction period.
- 1.2.5 Once the Principal Contractor(s) has been appointed, they will be responsible for taking this outline document and developing a detailed CEMP.
- 1.2.6 The Principal Contractor(s) will comply, as a minimum, with applicable environmental legislation at the time construction. Further guidance on specific areas, such as soil handling and dust management, will be considered from industry best practice guidance documents as



set out in each discipline section. The references to guidance documents within this document are not intended to be exhaustive.

- 1.2.7 In summary the objectives of this document are to:
 - Minimise, (eliminating where practicable), the environmental effects of the construction of the Proposed Development;
 - Document the environmental controls to be adopted during construction;
 - Enable agreement with the relevant approval authorities on mitigation measures to be adopted during construction; and
 - Provide a framework for contractors to manage construction impacts.

1.3 Structure of the OCEMP

- 1.3.1 The OCEMP covers a range of topics relating to identification and management of potential environmental effects of construction. These have been selected based on supporting technical reports including:
 - Air Quality Assessment;
 - Phase 1 Ground Condition Assessment;
 - Construction Noise Assessment;
 - Archaeology and Heritage Technical Summary Note;
 - Landscape and Visual Appraisal;
 - Ecological Impact Assessment; and
 - Arboricultural Impact Assessment.
- 1.3.2 The OCEMP is structured as follows:
 - Section 2: The Site and Proposed Development;
 - Section 3: Roles, Responsibilities and Communications;
 - Section 4: Construction Management Methodology;
 - Section 5: Construction Traffic;
 - Section 6: Air Quality and Dust;
 - Section 7: Noise and Vibration;
 - Section 8: Contamination and Ground Conditions;
 - Section 9: Water Resources and Flood Risk:
 - Section 10: Landscape, Townscape and Visual Considerations;
 - Section 11: Ecology and Natural Habitats;
 - Section 12: Archaeology and Cultural Heritage;



- Section 13: Materials Management; and
- Section 14: Consideration for Others and the Environment.
- 1.3.3 Sections 4 to 14 consider the general issues for construction, potential impacts, mitigation of these impacts and topic-specific legal compliance.

1.4 Terminology

- 1.4.1 For ease of reference, the following terms have been used in this report:
 - The Site the area within the boundary at Appendix A;
 - Proposed Development the development to be approved by Carmarthenshire County Council;
 - CCC Carmarthenshire County Council;
 - National Grid Electricity Transmission (NGET) the Applicant; and
 - OHL overhead line.



2 The Site and Proposed Development

2.1 Introduction

2.1.1 This chapter provides a description of the Site location, existing land uses, surrounding land uses and the Proposed Development.

2.2 Site Location

2.2.1 The Site is approximately 6km south of Carmarthen and approximately 550m east of the A484. The Site Location Plan is provided in **Appendix A**.

2.3 Site Description

- 2.3.1 The Site comprises a number of agricultural fields bounded by hedgerows, with occasional hedgerow trees. The Site is broadly surrounded by agricultural fields, aside from the northwestern boundary which lies adjacent to the C2074 which connects the A484 in the west with the B4309 by way of a number of individual farmsteads.
- 2.3.2 The current land use is a mixture of arable and pastoral. Electricity pylons and OHL are present along the western part of the site.
- 2.3.3 The site gently slopes downwards to the southwest, with existing ground levels at approximately 133m above Ordnance Datum (AOD) in the northeast, reducing to approximately 120m AOD in the southwest.

2.4 Proposed Development

- 2.4.1 The Proposed Development is for a 400kV substation. The project comprises the following principal elements:
 - Construction of a single level platform (260 metres by 640 metres) on which an Air Insulated Substation (AIS) is sited measuring 155 metres by 602 metres.
 - Bellmouth access to the A484 with an operational access road to connect the platform to the A484.
 - Modification works to the existing 400kV Overhead Line (OHL) to connect the substation to the existing OHL involving the installation of two new towers (pylons) and one replacement tower (pylon) circa 18 metres and 62 metres.
 - Associated drainage, and hard and soft landscaping.

2.5 Construction Phasing

- 2.5.1 The full construction programme is attached in **Appendix B**. It is anticipated that construction will commence in 2027 and be complete by 2031. Construction effects typically vary in magnitude depending on the processes occurring at any one time (e.g., earth movements are more likely to lead to significant environmental effects).
- 2.5.2 During this time there may be changes in working practices, plant and equipment that should be used, and new regulatory requirements. Therefore, the detailed CEMP should be reviewed periodically throughout the construction phase.
- 2.5.3 The project will begin with enabling works, including the diversion of water mains, gas mains, and lower voltage overhead lines, which are essential to clear the site for safe construction but



are not part of the main build or part of the NGET planning application. All enabling works to facilitate development will be consented and carried out by the relevant statutory undertakers.

2.6 Construction Activities

- 2.6.1 All of the construction operations carry with them a range of issues to be dealt with in their design, preparation and execution.
- 2.6.2 Best practice in construction management will be implemented to minimise the potential environmental effects and disruption that could be caused by the construction works. This will minimise potential disruption to affected communities, services and habitats.
- 2.6.3 Key construction activities will include:
 - Set up of temporary site offices, welfare units, and storage areas;
 - Site preparation and ecological works including the creation of Sustainable Drainage Systems (SuDS) and ecology ponds, and earthworks for the creation of a raised bund with scrub planting;
 - Access road construction (with separate SuDS), including laying of sub-base and tarmac surface, and installation of kerbs and drainage infrastructure;
 - Groundworks and platform preparation including levelling of the area, benching, and importation of engineered fill material;
 - Formation / preparation of concrete structures (e.g. foundations and retaining walls);
 - Concreting;
 - Installation of sub-base;
 - Laying of tarmac for final surfacing;
 - Excavation of trenches, laying of cables and construction of cable towers / supports; and
 - Soft landscaping.
- 2.6.4 The construction works will be confined to the Site, apart from those that will be undertaken within the boundary of the highway where the new access will be provided.
- 2.6.5 Construction compounds within the Site will be sited giving consideration to the environmental and visual effects of development as well as a practical solution to allow the development to proceed.



3 Roles, Responsibilities and Communications

3.1 Introduction

3.1.1 This chapter covers key roles that will need to be designated in order for the OCEMP to be adequately complied with, and what responsibilities will be covered by these roles. The communication protocols are also set out below.

3.2 Roles and Responsibilities

The Client

- 3.2.1 Overall responsibility for the OCEMP and ensuring legislative compliance lies with the Client. The Client should make sure that all contractors engaged in a particular phase have an obligation to comply with good environmental practice for construction including preparation and implementation of the detailed CEMP.
- 3.2.2 For the purposes of this OCEMP, the Client is National Grid Energy Transmission.

The Principal Contractor(s)

- 3.2.3 The Principal Contractor(s) will be charged with responsibility for management, co-ordination and implementation of the OCEMP.
- 3.2.4 It will be the responsibility of the Principal Contractor(s) to ensure that all of their staff, sub-contractors, and site workers are aware of and adhere to the OCEMP. This is so that everyone understands the aims of the OCEMP and recognises their personal responsibility in its implementation, protection of the environment and legislative compliance.
- 3.2.5 The Principal Contractor(s) will have responsibility for ensuring that the OCEMP and associated documentation are kept up to date along with details of specific permits etc. Documentation, recording and monitoring of the OCEMP will be essential and updated on a regular basis.
- 3.2.6 It is the Principal Contractor(s)'s responsibility to ensure that construction works are undertaken in compliance with all relevant and current legislation applicable at the time of the works.
- 3.2.7 The Principal Contractor(s) should employ any relevant Construction Skills Certification Scheme (CSCS) standards during construction on the Site.
- 3.2.8 The Principal Contractor(s) should register the project with a national compliance scheme such as the Considerate Constructors Scheme (CCS). The CCS recognises and rewards better than standard industry practice in the following sections:
 - Care about appearance;
 - Respect the community;
 - Protect the environment;
 - Secure everyone's safety; and
 - Value their workforce.



- 3.2.9 The Principal Contractor(s) will also co-ordinate environmental activities during construction. This will include:
 - Ensuring appropriate environmental training and advice is provided to contractors;
 - Monitoring construction activities and compliance; and
 - Acting as point of contact between contractors and other stakeholders.

The Project Manager

3.2.10 The Project Manager will act as a central point of contact between CCC and the Principal Contractor(s), the local community and other third parties.

Community Liaison Officer or Communications Officer

3.2.11 As part of the general communications protocol, details of a Community Liaison Officer or Communications Officer will be provided for nearby residents and businesses. The Community Liaison Officer will provide general information on the construction of the development and respond to any queries or complaints that may come forward. This should give a point of contact for complaints and queries. As such they will need to be updated on a regular basis by the Project Manager, and informed of any planned work, issues, or incidents. A 24-hour number should be provided for urgent contact.

Sub-contractors

- 3.2.12 Sub-contractors and suppliers will be obliged contractually to adhere to the requirements of the OCEMP and will ensure all their site personnel are inducted on the requirements of the OCEMP and are aware of it prior to commencing any work on Site.
- 3.2.13 Materials suppliers should provide details to the Principal Contractor(s) of the provenance of all materials they supply to the development.

3.3 Overview of Communications

- 3.3.1 The Principal Contractor(s), working with the Community Liaison Officer, will be required to establish a series of client approved communication protocols to ensure that relevant stakeholders are kept informed of construction progress and any issues arising. This will also help to establish lines of communication should any stakeholders wish to raise issues regarding the construction works.
- 3.3.2 The communication protocols will also establish appropriate relations between contractors, the client, any adjacent construction works and with occupants of properties near the site.
- 3.3.3 Where there is change of construction personnel between infrastructure delivery and construction stages, appropriate liaison and handover must take place.

Training

- 3.3.4 Environmental training is essential to implement the CEMP, protect the environment and minimise impacts during construction activities. It is also necessary to ensure compliance with environmental legislation. A short briefing note on the CEMP will be provided to visitors to the Site, prepared by the Principal Contractor(s).
- 3.3.5 A copy of the CEMP will be available in the main Site office reception.



- 3.3.6 No construction personnel, including office staff, will be permitted to work on the Site until they have attended a Site induction course which includes a briefing on the CEMP and ways of minimising environmental effects, waste management and responding to emergencies.
- 3.3.7 Toolbox talks, as certain activities take place or areas of high risk, are an effective means of focused communication to the Site staff.

Project Communications, Local Community and Third-Party Liaison

- 3.3.8 To minimise disruption to local residents and communities, all potentially affected residents will be made aware of the activities on Site.
- 3.3.9 The Community Liaison Officer will act as a central point of contact between CCC, the project manager, the Client, the local community and other third parties. They will be advised of the nature of the proposed works, proposed hours of work and their expected duration, including a summary of proposed phasing. This will be done through relevant communication channels such as letter drops, notices on Site hoardings, website communications, electronic and community (hard copy) newsletters, adverts in the local press etc. These communications should also give contact details for the Community Liaison Officer and a 24-hour contact telephone number. The local planning authority CCC will also be made aware of the work being carried out on Site.
- 3.3.10 Prior to commencement of construction works, the Community Liaison Officer will instigate a system for recording, investigating, remedying (where appropriate) and responding to comments. The records will keep a note of the date, the name and contact details for the person making the comment, the action taken and the date of the action.
- 3.3.11 A logbook system will be set in place to provide a place for the general public, visitors and neighbours to make comments regarding the Site and Proposed Development.



4 Construction Management and Methodology

4.1 Introduction

- 4.1.1 This section provides an overview of the proposed site management procedures.
- 4.1.2 Key legal and guidance references are provided for information purposes only. The lists are not exhaustive and should be reviewed periodically throughout the construction phase.

4.2 Risk Assessments

- 4.2.1 The approach to risk and compliance will follow up to date best practice methodology and such will be provided within the detailed CEMP.
- 4.2.2 Prior to commencement of works, appropriate notices will be served, where required, to inform occupiers of properties that may be affected by the works of any noise, dust, vibration and smoke that may occur as a result of the construction works.
- 4.2.3 Contact details of the appropriate persons will be provided alongside notices to ensure any complaints or emergencies are dealt with promptly and professionally.
- 4.2.4 Construction activities undertaken on-site will be subject to more detailed environmental risk assessment by the Principal Contractor(s), as appropriate, and will:
 - Identify potential environmental impacts that can be anticipated;
 - Assess the risks from these impacts;
 - Identify the control measures to be taken and re-calculate the risk based on those set out in this OCEMP; and
 - Report, to relevant stakeholders (such as NRW and CCC), where an unacceptable level of residual risk is identified so that action can be taken through design changes, rescheduling of work or alternative methods of working in order to reduce the risk to an acceptable level.
- 4.2.5 The results of risk assessments, and their residual risks, are only considered acceptable if:
 - The severity of outcome is reduced to the lowest practical level;
 - The number of risk exposures are reduced; and
 - All reasonably practical mitigating measures have been taken and the residual risk rating is reduced to a minimum.
- 4.2.6 The findings of the risk assessment and, in particular, the necessary controls would be explained to all contractors before the commencement of the relevant works using an agreed instruction format (e.g., toolbox talks).

4.3 Site Environmental Standards

4.3.1 Site Environmental Standards will be agreed with the Principal Contractor(s) and would detail the minimum measures that should be achieved for general operations falling outside the risk assessment in line with the measures set out in this OCEMP.



- 4.3.2 These will cover issues such as storage of materials, management of waste, noise and vibration, and water pollution control. The standards should be used as a briefing tool on Site. These standards will also form the basis of 'toolbox talks' which will inform all contractors working on Site of the potential environmental risks arising from construction activities.
- 4.3.3 Best practice construction site management techniques will be implemented to avoid/reduce the generation of excessive waste, dust, noise, lighting, noise and vibration the measures set out in this OCEMP.

4.4 Consents and Licenses

- 4.4.1 The Principal Contractor(s) will be responsible for any consents, permissions or licences necessary for the construction works that are not already in place.
- 4.4.2 A register of consents etc. must be kept, to include all applied for and secured, details of expiry dates, conditions and commitments that must be adhered to and all related correspondence. The Principal Contractor(s) should make sure that this is kept up to date.

Legislation and Guidance

- 4.4.3 It is the Principal Contractor(s)'s responsibility to check that construction works are undertaken in compliance with all relevant legislation applicable at the time of the works.
- 4.4.4 It is expected that through Site induction and toolbox meetings, staff will gain an awareness of the information contained within these documents.
- 4.4.5 Provision, communication and update of the list of environmental legislation during construction will be the responsibility of the Principal Contractor(s).

4.5 Emergency Planning & Incident Control Procedures

General

- 4.5.1 The Principal Contractor(s) will develop and implement an incident control procedure for the project. The aim of this incident control procedure is to prevent the release of pollutants (for example oil and fuels) into the environment and to protect health and safety of those on-site.
- 4.5.2 Emergency procedures are also to be prepared by the Principal Contractor(s).

Environmental Pollution Incident Recognition

- 4.5.3 The Principal Contractor(s) will undertake health, safety and environmental induction training courses to highlight the key potential environmental pollution issues to all relevant project personnel. Briefing topics will include:
 - Uncontrolled discharge/spillage of polluting substances such as chemicals, oil, concrete
 etc. into controlled waters or sewers;
 - Uncontrolled discharge of contaminated surface water run-off such as oil, chemical, suspended solids contamination into controlled waters;
 - Release of smoke (e.g., from fire) into the atmosphere;
 - General ecological, archaeological and environmental awareness; and
 - Spillage of solid waste into sensitive areas and risks of windblown litter and debris.



Emergency Planning

- 4.5.4 The Principal Contractor(s) will set up and manage systems, procedures and equipment for emergency planning which will include the following:
 - Provision of adequate spillage containment materials to stop and contain pollution, for example the use of available earth where stockpiles are strategically placed in environmentally vulnerable areas;
 - Provision of a site drainage plan identifying, and colour coding surface water drainage separate to foul sewer drainage. This will assist in the siting of storage containment areas and associated protection measures;
 - Emergency bunding /control packs to be available at key locations in the event of a pollution incident;
 - Liaison with the appropriate representatives from the Natural Resources Wales (NRW), and essential local emergency services to discuss, in particular, emergency pollution control plans and emergency communications strategy; and
 - Appointment of a site 'emergency pollution control response team' to respond to pollution incidents.

Incident Control and Reporting

- 4.5.5 Incident control procedures will be developed by the Principal Contractor(s) in liaison with NRW, CCC and essential emergency services. The control procedure in outline will include:
 - Containment of pollution at source;
 - Reporting incident immediately to Site management team;
 - Raising the alarm to the emergency pollution control response team;
 - Summoning emergency services where appropriate;
 - Safe disposal of pollution waste; and
 - Notifying the local NRW regional office.
- 4.5.6 All environmental incidents shall be recorded by the Principal Contractor(s) and reported to the Client as soon as practicable and if appropriate reported to NRW or other relevant stakeholders. The Principal Contractor(s) will complete an environmental incident report as part of the procedure.

4.6 Site Logistics Control and Site Planning

Construction Site Logistics

- 4.6.1 Schedules and plans to be prepared by the Principal Contractor(s) will show an overview of the logistics plan for construction and will be included in the detailed CEMP.
- 4.6.2 It will most likely follow the general principles outlined below unless otherwise agreed with stakeholders. Topics covered should include:
 - Site working hours;
 - Site layout (e.g., principal access/egress points, routing plans, site security);



- Site offices and welfare facilities;
- Site access routes (construction traffic management);
- Site demarcation and access control;
- Lighting arrangements;
- Delivery areas; and
- Storage and lay-down.

Welfare Facilities

4.6.3 In accordance with the *Construction (Design and Management) Regulations 2015*, and HSE guidance, welfare facilities will need to be provided on Site. These should include canteens, toilets and washrooms with hot water; drying/changing rooms; and a first aid post, as appropriate.

Site Security

4.6.4 The Principal Contractor(s) will provide boundary fencing/delineation, including suitable signage and any associated security in general accordance with *Construction (Design and Management) Regulations 2015*.

Operating Hours

- 4.6.5 Construction activities will be limited to 0800 1800 Monday to Friday and 0800 1300 on Saturday. No construction activities will take place outside of these hours, on a Sunday or Bank Holidays without prior approval of the Council and adherence to the Control of Pollution Act 1974.
- 4.6.6 During winter months, work may continue during hours of darkness within normal working hours subject to adequate artificial lighting to illuminate the works in question. However, where artificial lighting is proposed this will be subject to environmental restrictions as noted in this OCEMP.

General Types of Plant and Equipment

- 4.6.7 All key static plant and equipment (e.g., hoists, power distribution units, diesel storage tanks etc.) will be clearly identified on Site logistics drawings.
- 4.6.8 The Principal Contractor(s) will be required to complete a 'Register of Plant & Equipment and Statutory Certification' within their Health & Safety Plan prior to works commencing on Site.
- 4.6.9 The Register allows an inventory of on-site plant and equipment to be kept to check they are maintained in accordance with statutory test/examination/inspection requirements, and that specific operator training requirements are addressed. This list also assists by providing a useful cross-reference for noise level predictions and assessments of plant and machinery in respect to ensuring that excessive noise levels are identified, and suitable control measures implemented to reduce those noise levels.

4.7 Monitoring, Review and Complaints

4.7.1 The requirements for a programme of monitoring, review and complaints will be reviewed by the Principal Contractor(s).



4.8 Auditing and Reviewing

- 4.8.1 Checks will be undertaken on the effectiveness of the CEMP. Should deficiencies be identified, the CEMP will be updated to enable the document to continue to fulfil its objectives. This will include a review of current legislation, standards, plant, processes, etc. Revised copies of the CEMP will be provided in the Site office.
- 4.8.2 In addition, consideration will be given to regular environmental audits of the construction works to enable compliance with the CEMP. The scope of the audits could include:
 - Waste management & duty of care;
 - Noise & vibration;
 - Dust;
 - Demolition and construction traffic;
 - Fuel storage;
 - Pollution;
 - Community liaison; and
 - Biodiversity and ecology.
- 4.8.3 All audits undertaken should be documented in an Audit Report. Where non-conformances with the CEMP are identified, these will be recorded on a Non-Conformance Report, this should include:
 - Details of who and what is being audited;
 - Details of the non-conformance;
 - Corrective action required; and
 - Review of corrective action dated and signed.
- 4.8.4 The report allows subsequent audits to monitor the performance of the corrective action and then sign off the corrective action request once it has been successfully implemented. All completed Non-Conformance Reports will be held on Site in a designated file.



5 Construction Traffic

5.1 Introduction

- 5.1.1 Traffic will be generated during the construction of the Proposed Development, as a result of bringing plant and materials to the Site, removing waste, and construction personnel movements. This section identifies the mitigation measures required to limit potential impacts of highway works, transport and traffic movements arising from the construction of the Proposed Development.
- 5.1.2 A summary of potential impacts is provided below a full description of impacts resulting from the construction of the Proposed Development in relation to construction traffic is provided in the Transport Statement and the Outline Construction Traffic Management Plan, dated October 2025, prepared by Stantec.

5.2 Summary of Potential Impacts

- 5.2.1 Construction will be complete by 2031 and therefore there is the potential for construction effects to be long-term but not permanent.
- 5.2.2 Trip generation estimates, including both construction vehicles and construction workers, for the construction phase are:
 - 14 average daily construction vehicle movements; and
 - 62 average daily construction staff movements.
- 5.2.3 There will be a peak of 70 construction vehicle movements and 250 staff movements per day, which will only be for a single month of activity at the beginning of the programme, linked to site set up and the construction of the access road.
- 5.2.4 During the latter phases of the construction (connection, commissioning, demobilisation, and landscaping), there would be limited HGV movements. The works required would be carried out by individual personnel doing electrical and commissioning work over a period of seven months.
- 5.2.5 Construction traffic will primarily affect the A484, with access to the Site via a newly constructed access road. The majority of HGV movements will be routed via strategic roads including the A40 and A48, minimising impacts on sensitive receptors.
- 5.2.6 The Site is located in a rural area with low baseline traffic flows. Although percentage increases in traffic may appear high, the absolute number of additional vehicles is low and unlikely to cause congestion.
- 5.2.7 Impacts related to air quality and noise from construction traffic and plant movements are covered in **Chapter 6** and **Chapter 7** of this OCEMP.

5.3 Mitigation Measures

- 5.3.1 An Outline Construction Traffic Management Plan (OCTMP) has been prepared and a detailed CTMP will be submitted post-consent. This will assess the likely effects of construction traffic and outline mitigation measures.
- 5.3.2 The CTMP will include the anticipated number, frequency and size of construction vehicles, construction operation hours, construction vehicular routes to and from site, construction delivery hours, expected number of construction vehicles per day, specific measures to be adopted to mitigate construction impacts in pursuance of the Environmental Code of

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Construction Practice and a scheme to encourage the use of public transport amongst contractors.

- 5.3.3 The CTMP will be applied to all construction activities across the Proposed Development and will define the appropriate hours of operation and routes to be used by HDVs and other large construction vehicles.
- 5.3.4 All freight movements, construction vehicles and construction worker travel movements will need to be managed and coordinated to ensure movements only occur during operational hours.
- 5.3.5 Construction traffic will be directed via the A484 and strategic routes (A40, A48). Temporary Traffic Management (TTM) measures may be implemented to ensure safety and minimise disruption. Access to a nearby residential dwelling will be managed during construction.



6 Air Quality and Dust

6.1 Introduction

- 6.1.1 This section identifies the measures to mitigate the potential impacts on air quality arising from demolition and construction of the Proposed Development.
- 6.1.2 A summary of potential impacts is provided below a full description of impacts resulting from the construction of the Proposed Development in relation to air quality and dust is provided in the Air Quality Assessment, dated May 2024, prepared by Stantec.

6.2 Summary of Potential Impacts

- 6.2.1 There is an existing sensitive human receptor (residential property) located within 250 m of the Site boundary.
- 6.2.2 During construction, dust from on-site activities and off-site track out by construction vehicles has the potential to impact on sensitive human receptors within the study area; the main potential impacts are loss of amenity (as a result of dust soiling) and deterioration of human health (as a result of concentrations of PM_{10}).
- 6.2.3 The suspension of particles in the air is dependent on surface characteristics, weather conditions and on-site activities. Impacts have the potential to occur when dust generating activities coincide with dry, windy conditions, and where sensitive receptors are located downwind of the dust source(s).
- 6.2.4 Separation distance is also an important factor:
 - Large dust particles (greater than 30μm), can be potentially responsible for most dust annoyance, will largely deposit within 100 m of sources.
 - Intermediate particles (10-30 μm) can travel 200-500 m. Consequently, significant dust annoyance is usually limited to within a few hundred metres of its source.
 - Smaller particles (less than 10 μm), which are the predominant fraction that can be potentially responsible for human health impacts largely remain airborne.
 - However, the impact on the short-term concentrations of PM₁₀ occurs over a shorter distance due to the rapid decrease in concentrations with distance from the source due to dispersion.
- 6.2.5 The principal potential impact during construction, in relation to air quality, is in relation to the production and management of dust. The following activities have the potential to cause emissions of dust during construction of the Proposed Development:
 - Earthworks including clearance of vegetation, soil preparation and landscaping;
 - Materials handling such as storage of material in stockpiles and spillage;
 - Site preparation including delivery of construction material, erection of fences and barriers;
 - Movement of construction traffic including haulage, vehicles and plant movements;
 - Construction and fabrication of buildings, access roads and associated infrastructure; and
 - Disposal of waste materials off-Site.



6.3 Mitigation Measures

6.3.1 In relation to dust associated with enabling construction activities, the Institute of Air Quality Management methodology identifies the level of risk without mitigation, therefore the following mitigation measures (from the IAQM guidance) will be implemented:

Management

- Develop and implement a dust management plan.
- Record all dust and air quality complaints, identify causes and take measures to reduce emissions.
- Record exceptional incidents and action taken to resolve the situation.
- Make the complaints log available to the local authority when asked.
- Carry out regular site inspections to monitor compliance with the dust management plan and record results.
- Increase site inspection frequency during prolonged dry or windy conditions and when activities with high dust potential are being undertaken.
- Plan site layout so that machinery and dust causing activities are located away from receptors, as far as possible.
- Erect solid screens or barriers around dusty activities or the Site boundary at least as high as any stockpile on site.
- Fully enclose Site or specific operations where there is a high potential for dust production and the Site is active for an extensive period.
- Avoid site run off of water or mud.
- Keep site fencing, barriers and scaffolding clean using wet methods.
- Remove potentially dusty materials from Site as soon as possible.
- Cover, seed or fence stockpiles to prevent wind whipping.
- Ensure all vehicles switch off engines when stationary.
- Avoid the use of diesel or petrol powered generators where possible.
- Impose and signpost a maximum speed limit of 15 mph on surfaced and 10 mph on unsurfaced haul roads and work areas.
- Only use cutting, grinding and sawing equipment with dust suppression equipment.
- Ensure an adequate supply of water on-site for dust suppressant.
- Use enclosed chutes and conveyors and covered skips.
- Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use water sprays on such equipment where appropriate.
- Ensure equipment is readily available on-site to clean up spillages of dry materials.



No on-site bonfires and burning of waste materials on-site.

Construction

- Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless required for a particular process.
- Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored silos with suitable emissions control systems.
- Avoid scabbling (roughening of concrete surfaces) if possible.

Trackout

- Use water assisted dust sweepers on the Site access and local roads.
- Avoid dry sweeping of large areas.
- Ensure vehicles entering and leaving the Site are covered to prevent escape of materials.
- Record inspection of on-site haul routes and any subsequent action, repairing as soon as reasonably practicable.
- Install hard surfaced haul routes which are regularly damped down.
- Install a wheel wash with a hard-surfaced road to the Site exit where site layout permits.



7 Noise and Vibration

7.1 Introduction

- 7.1.1 This section identifies the measures required to mitigate the potential noise impacts arising from the construction of the Proposed Development.
- 7.1.2 A summary of potential impacts is provided below a full description of impacts resulting from construction of the Proposed Development in relation to noise and vibration is provided in the Construction Noise Assessment, dated June 2024, prepared by Stantec.

7.2 Summary of Potential Impacts

- 7.2.1 Noise associated with the construction phase could potentially increase the ambient noise levels at existing noise-sensitive receptors. There are five noise sensitive receptors in the vicinity of the site.
- 7.2.2 All construction works will be carried out during the hours of 0800 1800 Monday to Friday and 0800 1300 on Saturdays with no work on Sundays or bank holidays.
- 7.2.3 Precise details of the types of construction methods and plant are still to be determined; however, the assessment considers construction activities during the following principal stages.
 - Site preparation works
 - Ground works
 - Foundation construction
 - Site road construction
 - Mechanical and electrical services
- 7.2.4 Impacts are likely to be up to minor, temporary, and short-term. Whilst further mitigation measures are not strictly required, best practice measures could be applied to reduce the noise impact further.

7.3 Mitigation Measures

- 7.3.1 The following advice is based on the guidance provided in BS5228-1:2009+A1:2014 and will be applied as appropriate to minimise the noise breakout from the construction activities affecting noise sensitive receptors:
 - Ensuring the use of quiet working methods, the most suitable plant and reasonable hours of working for noisy operations, where reasonably practicable;
 - Locating noisy plant and equipment as far away from dwellings as reasonably possible, and where practical, carry out loading and unloading in these areas;
 - Screening plant to reduce noise which cannot be reduced by increasing the distance between the source and the receiver (i.e., by installing noisy plant and equipment behind large site buildings);
 - Shutting down any machines that work intermittently or throttling them back to a minimum;

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- Orientating plant that is known to emit noise strongly in one direction so that the noise is directed away from houses, where possible;
- Closing acoustic covers to engines when they are in use or idling;
- Lowering materials slowly, whenever practicable, and not dropping them; and
- Use of temporary acoustic barriers, where appropriate, and other noise containment measures, such as screens, sheeting and acoustic hoardings at the construction site boundary to minimise noise breakout and reduce noise levels at the potentially affected receptors.
- 7.3.2 In addition to the above, all reasonable steps will be taken to keep the local community informed of proposed construction operations. Measures for community liaison will be dealt with by a Community Liaison Officer to co-ordinate the dissemination of information (for example, by means of a regular newsletter).
- 7.3.3 The above range of environmental management controls represent measures that are regularly and successfully applied to large-scale construction projects in order to minimise noise and vibration effects on local communities. The application of similar control measures during the construction phases would likewise support that the works proceed with the minimum disturbance to local residents.



8 Contamination and Ground Conditions

8.1 Introduction

- 8.1.1 This section identifies the mitigation measures required to alleviate the potential impacts related to contamination and ground conditions during construction of the Proposed Development.
- 8.1.2 A summary of potential impacts is provided below a full description of impacts resulting from construction of the Proposed Development in relation to contamination and ground conditions is provided in the Phase 1 Ground Condition Assessment, dated 21st March 2024, prepared by Stantec.

8.2 Summary of Potential Impacts

- 8.2.1 The site is predominantly agricultural with no significant industrial history. The contamination potential is very low to low.
- 8.2.2 The site lies over Secondary A and Secondary Undifferentiated aquifers with medium to high vulnerability, potentially posing a risk of pollution from spills or improper waste handling. There are no Source Protection Zones or potable abstractions nearby.
- 8.2.3 No major surface water features are present on site, and the surrounding water body has "Good" Water Framework Directive (WFD) status. Flood risk from rivers is negligible. However, parts of the site are susceptible to surface water flooding during heavy rainfall events, especially in a 1 in 30 year scenario.
- 8.2.4 Geological hazards such as collapsible, compressible, and dissolvable soils, running sands, and swelling clays are negligible to very low. Slope stability is low, and no coal mining or natural cavities are present.
- 8.2.5 Although the site has low contamination potential, there remains a risk of potentially encountering unknown contaminants (e.g., hydrocarbons, asbestos, agricultural chemicals).

8.3 Mitigation Measures

- 8.3.1 A Phase 2 intrusive investigation is recommended to establish the nature of the ground conditions as part of the detailed design stage to confirm the anticipated ground conditions and support the design of the proposed scheme. A geotechnical assessment will be required to provide suitable information to assess the ground conditions and provide geotechnical parameters for the geotechnical design and any mitigation measures developed.
- 8.3.2 In accordance with current health and safety legislation, relevant mitigation measures that will be applied during construction stages include:
 - Construction activities will be carried out in full compliance with appropriate health and safety legislation, at current amendments, and with reference to appropriate guidance documents and approved codes of practice published by the Health and Safety Executive (HSE).
 - Suitable gas protection measures will be implemented.
 - Procedures for mitigating the potential risk of accidental discharges of potentially contaminative materials during the demolition phase include the appropriate use of temporary bunding and settlement ponds to allow for isolation and on-site treatment of any sediment laden or contaminated water prior to discharge to the receiving system.



Designated wheel washing areas, screening stockpiles of materials and dampening exposed soils will also be implemented as appropriate.

- The Principal Contractor(s) will need to ensure any construction works on Site refer to appropriate Guidance for Pollution Prevention (GPP) (and the older Pollution Prevention Guidelines) such as GPP 5: Works and maintenance in or near water and PPG 6 Working at construction and demolition sites.
- Each detailed CEMP prepared for each phase of works will include specific reference to pollution prevention measures concerning the use of plant and machinery; wheel washing and vehicle wash-down and disposal of resultant dirty water; oils/chemicals and materials; the use and routing of heavy plant and vehicles; the location and form of work and storage areas and compound and the control and removal of spoil and wastes.
- Soil resources will be used and disposed of sustainably, in accordance with DEFRA's Construction Code of Practice for the Sustainable Use of Soil on Development Sites.
- Measures to minimise and control runoff/leaching to controlled waters, specific measures to protect soils, and prevention measures including bunded storage; designated wheel washing areas; settling basins; screening stockpiles of materials; dampening exposed soils as appropriate will need to be identified by the Principal Contractor(s) and implemented within the detailed CEMP for each phase.
- In relation to the potential for exposure of current users/construction workers to ground gas, the detailed CEMP will include protocols for working in confined spaces, in accordance with HSE Approved Code of Practice 'Safe work in confined spaces'.
- Measures to minimise exposure to asbestos containing materials are contained in Chapter 13 - Materials Management.
- 8.3.3 In accordance with current health and safety legislation, the Principal Contractor will be required to adopt measures to mitigate the risk to Site workers. Such measures should include:
 - Informing Site workers the potential health effects from exposure to unexpected contamination through site induction and 'tool box talks';
 - The provision of appropriate protective clothing and equipment to be worn by Site workers; and
 - The adoption of good standards of hygiene to prevent prolonged skin contact, inhalation and ingestion of soils during construction.
- 8.3.4 The contamination risk for the site is considered very low. A protocol, in the event that unexpected contamination is encountered, will be set out in the detailed CEMP.
- 8.3.5 Measures will also be adopted to mitigate the risk to off-site users associated with airborne or settled dust arising from areas of potentially contaminated land. Such measures will include the selection of appropriate methods to reduce disturbance to the existing near-surface soils present on the Site, such as the spraying of stockpiles and other large, unsealed surfaces to limit the risk of generating airborne dust.



9 Water Resources and Flood Risk

9.1 Introduction

- 9.1.1 This section identifies the mitigation measures required to alleviate the potential impacts of flood risk and surface water runoff during demolition and construction of the Proposed Development.
- 9.1.2 A summary of potential impacts is provided below a full description of impacts resulting from the construction of the Proposed Development in relation to water resources and flood risk is provided in the Flood Consequences Assessment, prepared by Stantec.

9.2 Summary of Potential Impacts

Surface Water Bodies

- 9.2.1 Risks to water quality during construction originate from two sources; potentially polluting materials brought to Site for use during construction, or materials already within the Site such as the mobilisation of sediment or exposure of contaminated material, though this risk is low given the site's historical use.
- 9.2.2 During the construction phase, potential contamination of surface water could arise from the spillage of chemicals, fuels and cement from construction activities and the movement of materials and machinery within the Site. If not managed effectively, these contaminants could be washed away in surface water runoff.
- 9.2.3 With a comprehensive CEMP and its effective implementation in place the effect of construction works on water quality is expected to be negligible.

Groundwater Bodies

9.2.4 Construction may involve the delivery, use and storage of hydrocarbons and other chemicals. Accidental spillages of hydrocarbons or other chemicals in any areas of the Site could lead to pollution via contaminated groundwater and therefore there is considered to be a temporary minor adverse effect. This is anticipated to have a negligible effect on groundwater, if managed using appropriate techniques and measures included in the CEMP.

Flood Risk

- 9.2.5 Any temporary construction works could reduce the available storage volume in the locality, increasing the risk of flooding upstream or downstream of the Site and as such there is a likely temporary moderate adverse effect to existing properties upstream/downstream of the Site during construction.
- 9.2.6 During construction of the Proposed Development, the impermeable area of the Site will increase without mitigation. This has the potential to increase the likelihood of surface water flooding within the Site or outside the Site until the permanent drainage system is operational. This is considered to be a temporary minor adverse effect.
- 9.2.7 All construction sites have the potential to increase surface water runoff rates and volumes, alter drainage patterns and affect local and catchment wide flood risk. Key potential increases in surface water flood risk from construction activities include:
 - Alteration to the rate and route of surface water runoff in temporary drains while the operational surface water drainage system is being constructed;



- Stripping of soil or the import of fill affecting surface water runoff potential and drainage patterns through the compaction and smearing of soils; and /or
- Alteration to the surface water runoff regime through reprofiling of the ground surface and by the introduction of temporary drainage channels.
- 9.2.8 Therefore, there is a temporary minor adverse impact on the surface water runoff from the Site during the construction phase.

9.3 Mitigation Measures

Surface Water Drainage

- 9.3.1 The proposals include a surface water management strategy to control outflows to receiving systems and manage surface water sustainably within the Site. The key aspects of the strategy can be summarised as follows:
 - The substation platform will be constructed using gravel which will act as a permeable storage medium for surface water runoff. A sump above the base of the gravel layer will provide long-term storage, capturing runoff volumes that exceed greenfield conditions;
 - Two perimeter swales will intercept and convey both on-site and off-site runoff. These will accommodate flows from a 1 in 100-year rainfall event plus 40% climate change allowance:
 - Runoff from the swales will be directed to a newly created ephemeral wetland area. The
 wetland will retain water year round, supporting biodiversity and providing water quality
 benefits.
 - A separate SuDS system, including a filter strip and swale, will manage runoff from the new access road and direct surface water to two basins:
 - A biodiversity basin designed to retain water and support habitat creation; and
 - An attenuation basin sized to store 800m³ and discharge at a controlled rate of 4.7l/s to the A484 drainage network.
 - The scheme has been designed to manage surface water effectively on site and comply with BS604:2009 'The British Standard Code of Practice for Earthworks', which details methods for the general control of drainage on demolition and construction sites.
 - The scheme includes measures for managing silt that may be generated during the construction activities; and
 - A Foundation Works Risk Assessment (FWRA) would be undertaken by the Principal Contractor(s) once the proposed foundation solutions are known, and would be in accordance with 'Piling and Penetrative Ground Improvement Methods on Land Affected by Contamination: Guidance on Pollution Prevention' (CL:AIRE, 2025).
- 9.3.2 During construction, the use of best practice construction techniques (such as CIRIA publication C753 the SuDS Manual design code) will be adopted to manage the construction process, minimise the risk of a pollution incident, silt-laden runoff, or blockage of channels during the construction works, and thus mitigating the potential for adverse effects upon the surface water bodies.
- 9.3.3 The construction of the SuDS should occur before the Proposed Development to mitigate fluvial flooding impacts for the construction of the Site. Alternatively, temporary works (surface water storage) could be installed as mitigation if this is not possible.



- 9.3.4 In areas where it is possible to forecast flooding from rivers, NRW aims to give advanced warning of flooding to the public using a system of flood warning codes. Construction workers will be encouraged to sign up to these Flood Warnings via the NRW website, or by calling the Floodline on 0345 988 1188, in order to monitor the risk of flooding from the local watercourses during the construction phase.
- 9.3.5 Preparation of a flood evacuation plan will also be implemented should a flood warning be received. This should contain information on evacuation procedures for construction workers, prevention measures to avoid pollution including stopping materials from floating away, locating any materials/machinery outside the floodplain extent and ensuring that any temporary works in the floodplain can be safely and swiftly removed.
- 9.3.6 Measures that will reduce groundwater flooding to construction zones and ensure effects to surface water bodies (volumes and rates of discharge) are appropriately managed onsite include:
 - Run off areas will be identified and water drainage in those areas would be actively managed;
 - A toolbox briefing about the importance of the water supply, water bodies and use of pollution control packs will be disseminated to all Site staff;
 - Should the potential for a flood event be identified, all potential pollutants will be moved to a safe area, and it will be ensured that the river channels are free from obstruction.
- 9.3.7 Measures will be adopted to mitigate against risk to local watercourses and groundwater from contaminated surface water runoff arising from general construction activities and the operation of construction vehicles. Detailed measures will be developed at further Detailed CEMP stages by the Principal Contractor(s), but measures are likely to include:
 - The appropriate use of temporary bunding and settlement ponds to allow for isolation and on-site treatment of any sediment laden or contaminated water prior to discharge to the receiving system.
 - Oils and fuels will be stored within designated areas in impervious storage bunds to contain any leakages or spillages.
 - Any construction water runoff from the Site will require the filtering out of suspended solids before reintroduction to the water system;
 - Pollution control packs will be positioned within vulnerable areas to allow immediate reaction to any pollution incident;
 - Stockpiles will be designed and positioned to minimise the amount of pollutants entering the watercourse.
 - Route surface water runoff from worked areas to a silt trap before discharge, thereby ensuring that silt loading does not increase.
 - Designated wheel washing areas, screening stockpiles of materials; dampening exposed soils as appropriate.
 - Mitigation strategy to adhere to appropriate Guidance for Pollution Prevention (GPP) (and the older Pollution Prevention Guidelines) such as GPP 5: Works and maintenance in or near water and PPG 6 Working at construction and demolition sites.



10 Landscape and Visual Considerations

10.1 Introduction

- 10.1.1 This section identifies the mitigation measures relating to the potential landscape and visual impacts arising from construction activities of the Proposed Development.
- 10.1.2 A summary of potential impacts is provided below a full description of impacts resulting from the construction of the Proposed Development in relation to landscape and visual considerations is provided in the Landscape and Visual Appraisal, dated 6th October 2025, prepared by Stantec.

10.2 Summary of Potential Impacts

- 10.2.1 The potential landscape and visual impacts arising from the construction process would vary in significance throughout the construction phase. However, the construction period effects will be assessed based on the 'worst case scenario', that is the point at which it is considered the effects on individual receptors would be at their greatest. As time progresses, the landscape and visual effects from the construction activities would begin to be concentrated in smaller areas, while the designed appearance of the completed development, plus associated mitigation planting, would become more prominent.
- 10.2.2 The construction of the Site will lead to temporary changes in the landscape and to people's visual amenity which will be phased over a period of time.
- 10.2.3 Given the nature of the Proposed Development, it is understood that there would be large plant, such as cranes, on Site during the construction phase.
- 10.2.4 During the construction period, effects are likely to be temporary and are generally adverse in nature for the limited period of the works. Given the nature of the Proposed Development, it is anticipated that construction effects could be long term albeit temporary. The following effects may be experienced;
 - Removal of existing landscape features (including vegetation, fields, rhynes, etc.);
 - Views of machinery and equipment including tall cranes and workforce accommodation;
 - Noise (influencing landscape character) and views of construction equipment moving on Site;
 - Views of materials storage areas/earthworks;
 - Views of construction traffic entering and leaving the Site;
 - Views of construction lighting (mobile units and flashing lights from construction vehicles);
 and
 - Changes to the immediate local landscape character.
- 10.2.5 In terms of landscape and visual impact, the construction stage of the Proposed Development would potentially impact on the landscape elements, including vegetation and landform/topsoil.

Lighting

10.2.6 Potential effects of temporary construction lighting may affect existing sensitive receptors outside the Site.



- 10.2.7 Work during darkness lighting is required for safety and security.
- 10.2.8 The general lighting requirement is predictable and temporary for fixed elements of the construction works.
- 10.2.9 Task specific lighting to maintain safety around excavation areas, concrete pour Sites and other specific activities will vary according to weather conditions, programme and the particular tasks being undertaken.
- 10.2.10 Construction lighting tends to lead to more significant adverse effects than operational lighting because of its temporary nature, and the type of lighting equipment used. For ease of deployment and use, construction lighting tends to be mobile, and focus on providing the widest coverage of light from the fewest possible units in order to minimise time spent maintaining and installing the equipment. This, along with the fact that it is often poorly directed or installed, can result in problems with glare, light intrusion, and sky glow if good practice measures are not employed.
- 10.2.11 Lighting may also be present from construction vehicles and plant on Site, which often deploy flashing lights and strobes when operating, which can cause additional adverse effects to occupied residential areas.

10.3 Mitigation Measures

- 10.3.1 Several other chapters within this OCEMP include embedded mitigation measures such as ecological protections, lighting, working hours, noise and traffic movements during construction.
- 10.3.2 Due to the nature of the landscape and visual effects in this case, no further mitigation would be considered likely to change the assessment outcomes further, and therefore, no further mitigation is proposed.
- 10.3.3 Some high-level measures to aid and mitigate the effects to landscape and visual receptors associated with construction of the Proposed Development include:
 - Land / vegetation clearance will be limited to the minimum necessary for the works;
 - Construction areas will be laid out to minimise adverse impacts arising from temporary structures, construction activities and lighting;
 - Construction roads will use the same route as permanent access roads where reasonably practicable;
 - Maintenance of tidy and contained Site Compounds;
 - Hoardings erected around the area of construction works, for reasons of creating a visual barrier to construction activities and also as a safety measure, to prevent access to the general public (exact designs will be decided by the Principal Contractor once instated); and
 - Temporal measures including the removal of all temporary structures and stockpiles when no longer required, and prompt reinstatement of construction areas.
 - Existing vegetation will be retained where possible and new uses integrated into the existing landscape pattern.
 - Monitoring of the effectiveness of the mitigation (primarily the landscape strategy) will occur. Mitigation can be monitored and remedied if required (replacement planting) within the 5 years following completion of the works.



- Provision of a 3m landscape bund which will be constructed in the early stages of construction and will be planted with scrub up to an additional 5m to provide screening in views from the property to the southeast and from the A484.
- 10.3.4 An Arboricultural Impact Assessment (AIA) has been completed, in order to evaluate the effects which are likely to arise from a final design layout implementation and identify mitigation for the direct and indirect impacts on retained trees.
- 10.3.5 The development requires the full removal of eleven individual trees, three tree groups and two hedgerows, as well as the partial removal of five tree groups and twelve hedgerows. There will also be some incursions to the Root Protection Areas (RPAs) of one B grade tree and one grade group of trees. No ancient or veteran trees will be removed.
- 10.3.6 To mitigate these impacts, the following measures are proposed:
 - Tree protection fencing around all retained trees. Inside the protective fencing there will be no excavations; no storage of machinery, building materials, fuels, chemicals, or spoil; no fires; no vehicular or pedestrian access; no alteration to existing ground levels;
 - Ground protection measures to prevent soil compaction and root damage;
 - Excavation works inside the RPAs should proceed using hand tools, compressed air and soil vacuum excavation techniques; and
 - Supervision will be required during works in RPAs and after protection installation.
- 10.3.7 An Arboricultural Method Statement should be provided to detail how the necessary tree protection will be implemented. It is recommended that a suitable competent arboriculturist, undertakes any site observation and monitoring works. It is recommended that the Design Guide be adhered to any approval for a suitable tree planting scheme and for the production of an Arboricultural Method Statement implementation of tree protection, pre-commencement meetings and ongoing site supervision.

Lighting

- 10.3.8 The potential effects resulting from artificial lighting during construction can be mitigated through a range of design and control measures, including the use of shields and hoods on luminaires, appropriate working hours and operation of security lighting, as well as consideration of the orientation of luminaires, and the avoidance of 'over-lighting'.
- 10.3.9 General principles to mitigate the adverse effects of lighting associated with construction of the Proposed Development are listed below:
 - Construction lighting should be directed so it does not create light intrusion outside of the immediate working area;
 - Sufficient lighting units used to avoid the need for tall, wide beam lighting units to illuminate large areas;
 - Vehicle lights should be properly directed, and lenses must be intact to prevent unnecessary glare and breakout of obtrusive light (this is also an MOT requirement);
 - Lighting should be reduced when not required for safety purposes. Security lighting should be kept at the minimum level needed for visual and security protection;
 - If appropriate, to reduce the need for fixed visible lighting outside working hours, the use of infrared flood lighting and CCTV systems should be considered for security;

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- All lighting related to the works will be designed and fitted to minimise light intrusion onto any sensitive habitat such as hedgerows, mature trees and woodland;
- The use of visual screening, such as hoardings between more sensitive visual receptors and construction light sources in proximity to the Site;
- Dark corridors should be maintained during the evening, overnight or early morning (i.e., outside approximately one hour before dusk and one hour after dawn) along hedgerows, watercourses and any other linear features by avoiding light intrusion on these areas. This will avoid the fragmentation of habitat used by species such as bats, as well as avoiding disturbance of roosting features used by bats; and
- Consideration will also need to be given to the effect construction lighting will have on new residents on the Site, preventing obtrusive light affecting the adjoining hedgerows and trees beyond the Site boundary.



11 Ecology

11.1 Introduction

- 11.1.1 This section identifies the mitigation measures which will be implemented to limit potential impacts on ecologically sensitive habitats and species arising from construction activities of the Proposed Development.
- 11.1.2 A summary of potential impacts is provided below a full description of impacts resulting from the construction of the Proposed Development in relation to ecology and natural habitats is provided in the Ecological Impact Assessment, prepared by Stantec.

11.2 Summary of Potential Impacts

- 11.2.1 With regard to the characteristics of the Site, the surrounding area and the Proposed Development, impacts which may lead to potential adverse effects on ecological features during site clearance and construction within the Site include:
 - Habitat loss, degradation, or fragmentation
 - Species mortality, injury or disturbance

11.3 Mitigation Measures

General

- 11.3.1 The following general measures will also be implemented during construction activities to mitigate and minimise potential impacts on ecological receptors:
 - All works will be adhering to standard construction procedure and codes of good engineering practice any potential indirect impacts such as dust deposition and pollution risk will be mitigated.
 - Natural Resources Wales (NRW) licences (e.g. dormouse and badger) and associated working practices, including seasonal requirements of the mitigation implementation associated with the licence implementation will be required.
 - An Ecological Clerk of Works (ECoW) to be on site during the works, when required.
 - Any pits or trenches should be securely covered during night periods or a ramp provided to ensure that species have a means of escape.
 - Lighting of retained trees and hedgerows will be avoided.
 - Working hours outlined with paragraph 4.6.5 will be followed.
 - Storage of potential hazardous materials will be kept away from watercourses and spill
 procedures will be set up to ensure if an accidental spillage occurs it is dealt with swiftly;
 - Works compounds, access tracks and other construction activities will be located away from sensitive habitats including hedgerows, ancient woodland and purple moor grass and rush pasture.
 - Ecological information relating to working areas will be provided to the contractor prior to the commencement of the works, this will include maps indicating working areas and likely ecological constraints.



- No cut vegetation will be stockpiled within the working areas or associated access routes. Any cut material is to be chipped / shredded and placed in discrete piles outside the works footprint. Where this is not possible, cut vegetation is to be chipped and spread thinly across the site as instructed by the ecologist.
- 11.3.2 Prior to the start of works, all site staff will receive an ecological awareness tool-box talk which will include a briefing on all potential ecological constraints present on site, as well, legal protection species, the precautionary methods of working to be implemented, identification of protected/ notable species and the procedures to be followed if a protected/ notable species is observed within the work areas. All site staff will be required to sign a sign-off sheet before commencing works to confirm that they understand all the information contained with the tool-box talk.

Habitats

- 11.3.3 Retained woodland and hedgerows will be protected by fencing to prevent accidental damage to the trees and encroachment of vehicles into the root protection zones. A 15 m exclusion zone will be included for the ancient woodland in the south of the Site. These will be kept in place during the construction phase to ensure that no accidental damage is caused.
- 11.3.4 New water attenuation features will be created in the northwest of the Site as part of the surface water management strategy. These will be created as part of the earthworks phase. Any such waterbody will also be utilised to deliver ecological benefits. The newly created ponds will be fenced off during the construction phase to ensure that there is no accidental damage within these areas.
- 11.3.5 Works carried out in or near trees that have been identified for protection on Site will be undertaken in accordance with the relevant British Standards including BS3998: 2010 and BS5837: 2012 and accordance with any specific plans prepared.

Badgers

- 11.3.6 A pre-construction check for badger setts will be undertaken by a suitably qualified ecologist for all of the construction area. Furthermore, given the mobile nature of the species, throughout the construction period, new setts may be created as badgers explore new habitats and will require subsequent closure. Monitoring will be required, or areas made unsuitable to avoid this.
- 11.3.7 A licence from NRW will be obtained for on a scheme-wide basis. This will include the closure of all setts within the construction boundary as indicated by the pre-construction check. The licence will include a detailed method statement setting out the measures to be implemented. This method statement will update this OCEMP.
- 11.3.8 The closure of setts will be undertaken outside of the badger breeding season, between 30 June and 30 November. One-way gates will be placed across all entrances to the sett and heavy-gauge chain link or weld mesh fence will cover the habitat on and surrounding the sett to prevent digging and re-entry to the sett. These one-way gates will be kept in place for 21 days from the last sign of badgers accessing the sett and will be checked at least once every 3 days by a suitably qualified ecologist for signs of badgers entering or leaving the sett.
- 11.3.9 Once the suitably qualified ecologist has confirmed that badgers have been successfully excluded from the sett it should be destroyed as soon as possible using a suitable excavator and under supervision by a suitably qualified ecologist to reduce the chances of badgers reoccupying.
- 11.3.10 As it is anticipated that no main setts require closure, the creation of artificial setts is not required. Any active setts, which won't be lost to the Proposed Development will have an appropriate exclusion / sensitivity area demarked on the ground where no storage or construction activity (excavation) can take place. Such areas will be determined by a suitably



qualified ecologist using professional judgement based on the location, type and orientation of the sett. It is envisaged that in some instances the exclusion zones will extend to around 30m, while in other circumstances a reduced exclusion zone could be appropriate.

11.3.11 No buckets or barrels of liquids will be left uncovered or heavy objects left propped against trees or other structures overnight. Badgers are highly inquisitive and strong mammals and will easily push over such objects.

Breeding Birds

- 11.3.12 Immediately prior to the commencement of the vegetation clearance a walkover survey will be undertaken by a suitably experienced ecologist to identify the presence of any nests immediately prior to its removal. This will include a check of any vegetation to be cleared to identify any active tree / hedge nesting birds and to identify any ground nesting birds such as skylark and lapwing. The pre-works survey will be valid for a maximum period of 48 hours, after which If the habitat hasn't been cleared, another check will be required.
- 11.3.13 If any nests are identified an appropriate exclusion zone will be set up (on advice from a suitably qualified ecologist). A typical minimum exclusion zone for tree / hedge nesting birds is 5 m, to prevent any accidental damage to the bird's nest (this may increase depending on species and nest location). The typical minimum exclusion zone for ground nesting birds is 10-20m (this may increase depending on species, location and scope of activities).
- 11.3.14 Any exclusion zone set up for the protection of birds will be defined on the ground. Where practicable a physical barrier will be used, but alternative methods of defining the exclusion zone such as signage of routes may be required if a barrier would be disturbing to the nesting birds. Site staff will be updated on a daily basis as to the exclusion zones in operation and the means by which they are to be recognised. Any exclusion zone set up due to nesting birds will be maintained until the ecologist has confirmed in writing that the area is no longer in use. Depending on when the nest is detected, exclusion may be required for a period ranging from a few days to 6 weeks or more. After the ecologist has confirmed that young birds have fledged and left the nest the exclusion zone will cease. Works should proceed promptly after the end of an exclusion period as some birds may return to an old nest site for a second brood. Another bird check is required prior to works within a former exclusion zone if the works start more than 48 hours of the end of an exclusion period.

Bats

- 11.3.15 Update bat roost surveys will be undertaken on any trees classified as PRF-I or PRF-M, where those trees may be subject to direct loss or indirect disturbance. Immediately prior to felling (if the tree is to be lost) PRFs will be inspected at height by a NRW licenced bat ecologist, if a tree cannot be fully inspected from the ground or via rope access, a re-entry survey will be carried out to confirm the continued absence of bats.
- 11.3.16 No site clearance or works activities that could impact a potential bat roost will be undertaken until a suitably qualified ecologist has confirmed the continued absence of roosting bats. If a bat roost is identified during pre-works surveys, all potentially impacting activities will only commence once a NRW licence has been obtained. The licence will include a detailed method statement setting out the measures to be implemented. This method statement will update this OCEMP.

Dormouse

11.3.17 The removal of hedgerows has the potential to harm or kill dormice. Any works impacting dormouse habitat will be undertaken under a NRW licence. The licence will include a detailed method statement setting out the measures to be implemented. This method statement will update this OCEMP. The following measures will be required to minimise mortality of dormice and includes the sensitive displacement of dormouse from hedgerows proposed to be removed/ translocated for the Proposed Development.



11.3.18 In autumn single-stage clearance will be undertaken in which vegetation will be cleared in a direction which will displace dormice towards retained habitat. The removal of habitat will be phased so that a maximum of 150 m from each hedgerow will be removed in a day. A physical check by a suitability experienced ecologist to check for torpid dormice or dependent young immediately prior to clearance will be undertaken. No clearance of vegetation within 20-30m of a nest with dependent young will be undertaken.

Reptiles

- 11.3.19 Vegetation clearance of purple moor-grass and rush pasture and hedgerows during construction works has the potential to harm or kill reptiles. Where vegetation clearance is undertaken in areas of suitable reptile habitat the following avoidance and mitigation measures will be undertaken including phased vegetation clearance and removal of potential reptile sheltering habitat.
- 11.3.20 Translocation of reptiles is not considered appropriate given the relatively limited extent of habitat with suitability for reptiles within the Site and the suitability of retained habitat within and adjacent to the Site.
- 11.3.21 Phased vegetation clearance of areas of purple moor grass and rush pasture will be completed between April and October, outside of the reptile hibernation period. This work will be overseen by a suitably experienced ecologist, and will include the strimming of vegetation at staged intervals to encourage reptiles to move into nearby suitable habitat via following steps:
 - Cut vegetation down to 150mm (i.e. brush-cutting and strimming) to avoid harm to reptiles
 which may be present at ground level. Rake off the arisings and remove from works
 footprint. Leave the cleared area undisturbed for at least 24 hours of dry weather.
 - If a significant density of vegetation remains (i.e. that there is sufficient vegetation below 150mm in which reptiles may rest) cut vegetation to ground level. Rake off the arisings and remove from works footprint. Leave the cleared area undisturbed for at least 24 hours of dry weather.
 - Remove potential reptile refuges (as described below) from the footprint of the works, by hand or using a small excavator.
 - If woody vegetation requires chipping, then this material should be undertaken off-site to ensure all arisings are outside of the works footprint.
 - The vegetation in cleared areas must be kept short until the works have finished. This will ensure that reptiles are discouraged from returning into the works areas.
- 11.3.22 When removing potential reptile sheltering habitat the following measures will be implemented:
 - A destructive search will be undertaken to carefully dismantle each feature under the supervision of a suitably experienced ecologist.
 - Sheltering features will be removed from the works footprint or, if possible, they may be placed in suitable reptile habitat which will remain unaffected close to the working area. The ecologist will advise how sheltering features must be disposed of and suitable areas for reinstatement of reptile refuges/ hibernacula.
 - Destructive searches will be undertaken prior to the reptile hibernating season which is temperature dependent but generally ranges from October to February inclusive. Actual dates will be influenced by climatic conditions. No dismantling of suitable hibernation features will be undertaken during the hibernation period.



Invasive Non-Native Species

- 11.3.23 There have been no invasive non-native species recorded within the Site, although, Japanese rose is known to occur in the surrounding area. These species can be spread unintentionally and could cause damage to habitats within the Site if introduced.
- 11.3.24 A suitably experienced ecologist will inspect all working areas to identify the current presence of any invasive non-native species. Where these are discovered, a general principle of avoidance will be employed except where this is not possible, in which case advice will be provided by the ecologist. Strict biosecurity protocols should be implemented when working within proximity to invasive non-native plant species, including predesignated routes and cleaning stations.
- 11.3.25 All invasive non-native species plant material and impacted soils due to be disposed off-site must be taken to a waste disposal facility that is licensed to receive controlled waste (e.g. non-hazardous or green waste, etc.). The waste facility should supply evidence of the correct licence. Before any soil waste is moved off-site, soil samples from the affected area may have to be tested by a suitable laboratory, and the results sent to the receiving landfill site for their approval before they will accept the waste.
- 11.3.26 All waste material should be removed from the Site by a suitably licensed carrier and should be accompanied by a Waste Transfer Note, or, if hazardous, a Consignment Note, which clearly states the presence of the species in the waste's destination. All tickets should be checked by the ECoW before signing and copies of all Transfer and Consignment documentation should be filed and kept for the legally required time.

Steps to take if a protected or notable species is discovered during works

- 11.3.27 The following steps should be taken if a protected or notable species is discovered during works:
 - Stop work in the area immediately;
 - contact the Project Manager and Ecologist (if applicable);
 - the Project Manager will (in consultation with a suitably experienced ecologist) will formulate a suitable method of works; and
 - do not resume work in the area until advised to do so by the Project Manager / Ecologist.



12 Archaeology and Cultural Heritage

12.1 Introduction

- 12.1.1 This section identifies the mitigation measures required to alleviate the potential impacts of the Proposed Development on archaeological features and cultural heritage assets.
- 12.1.2 A summary of potential impacts is provided below a full description of impacts resulting from the construction of the Proposed Development in relation to archaeology and cultural heritage is provided in The Archaeology and Heritage Technical Summary Note, dated 19th September 2025, prepared by Stantec.

12.2 Summary of Potential Impacts

Direct Impact - Archaeology

- 12.2.1 Any adverse effects to buried archaeological features would be permanent and irreversible in nature. Even in areas where the scale of intrusive groundworks may be relatively small, the magnitude of impact on an archaeological asset may be high.
- 12.2.2 The construction phase of the Proposed Development has the potential to result in direct permanent, adverse effects on archaeological remains within the Site. Activities associated with the Proposed Development which could have below ground effects comprise:
 - Creation of a development platform;
 - Excavation of trenches/piling for foundations;
 - Installation of services and utilities; and
 - Hard and/or soft landscaping.
- 12.2.3 The potential for archaeological remains to be present within the Site is generally low, based on the results of previous investigations including geotechnical monitoring, geophysical survey, and trial trenching. Most anomalies identified were geological or related to agricultural activity, with limited archaeological features encountered.
- 12.2.4 Expert analysis suggests that the most significant archaeological feature is the projected line of the *Via Julia Maritima* Roman road. A shallow linear feature potentially representing a roadside ditch was identified in Trench 21, although no datable material was recovered. The road's preservation may be better elsewhere, and its archaeological interest lies in its potential to reveal information about Roman infrastructure and movement through the landscape.
- 12.2.5 There is a moderate likelihood of encountering post-medieval agricultural remains such as drainage ditches, gullies, and ploughmarks. These features were identified during trenching and are considered to be of low significance, as they are unlikely to contribute substantial new information to the current understanding of the landscape's use.
- 12.2.6 Given the historic agricultural use of the Site and the limited disturbance recorded during geotechnical works, any surviving remains, particularly those associated with the Roman road, may be relatively well preserved. However, the overall archaeological potential remains low.



12.3 Mitigation Measures

- 12.3.1 The nature of the Proposed Development and the construction methodologies required means that there are no design solutions which can mitigate the potential impact on buried archaeological remains.
- 12.3.2 For the basis of this assessment, a conservative scenario has been therefore assumed whereby any below ground archaeological remains will be entirely lost.
- 12.3.3 In relation to potential effects on the setting of designated heritage assets, particularly the projected line of the *Via Julia Maritima* Roman road, archaeological monitoring and recording (watching brief) will be implemented. This will be focused on the vicinity of the Roman road where a shallow linear feature was identified, possibly representing a roadside ditch. Monitoring will be carried out in accordance with a Written Scheme of Investigation agreed with Heneb (The Welsh Archaeological Trust) and will be a condition of planning.
- 12.3.4 While the Site does not contribute to the setting of designated built heritage assets, embedded mitigation measures such as the landscaping design will help reduce visual intrusion.

Direct Impacts – Archaeology

- 12.3.5 It is considered that the Proposed Development has the potential to affect subsurface archaeological remains. It is proposed to mitigate any potential effects through the implementation of archaeological monitoring and recording in the vicinity of the line of the Roman road.
- 12.3.6 Archaeological monitoring and recording (formally known as a watching brief) will require:
 - Agreement with Heneb on the exact area to be monitored.
 - Appointment of an archaeological contractor to undertake monitoring.
 - A Written Scheme of Investigation to be prepared by the archaeological contractor to ClfA standards and approved by Heneb.
 - Coordination with groundworks contractor to ensure they are aware of the requirement and allow sufficient time and allowance within the programme for the monitoring.
 - Provision for consultation, dissemination of results and archiving.



13 Materials Management

13.1 Introduction

13.1.1 The Proposed Development will generate waste material from construction which will require appropriate handling, storage, treatment, transportation and disposal. Therefore, this section identifies the mitigation measures required to alleviate the potential impacts of waste generated during construction of the Proposed Development.

13.2 Summary of Potential Impacts

- 13.2.1 Potential impacts associated with waste arising from the construction period of the Proposed Development have been assessed:
 - Transport (i.e., vehicle movements associated with collection / transfer of waste);
 - Dust (and odour) (arising from excavation activities, storage of stockpiles and waste); and
 - Noise (arising from demolition and construction activities, handling of waste).
- 13.2.2 Specific mitigation measures associated with these are included within the individual topic chapters within this OCEMP.

13.3 Mitigation Measures

- 13.3.1 Overall, the hierarchy of waste management will be adopted, in accordance with national policy requirements. The waste management methods in order of preference are as follows:
 - Waste Prevention Through good design and procurement mechanisms;
 - Preparation for Reuse To provide design features to the Proposed Development to use materials in their current state and form, this can occur either on or off site;
 - Material Recovery By using waste materials found on site and recycling / recovering them into an alternative form that can be used for construction purposes;
 - Other Recovery Energy recovery from biodegradable or combustible materials; and
 - Disposal The least preferred option where the waste stream would be subject to a final disposal route, such as landfill.
- 13.3.2 During construction, materials recovered from any on site works may be suitable for reuse on site, reducing the costs of transportation and procurement of virgin materials. This, combined with considerate design practice, will help to minimise construction waste in line with the Waste Hierarchy.

Procurement

- 13.3.3 For each stage of construction, the procurement and delivery of materials will be managed by a Principal Contractor(s), as necessary, to support material usage optimisation and minimisation of waste quantities.
- 13.3.4 Once the Principal Contractor(s) is appointed, a Sustainable Procurement Plan could be developed and secured by a suitable planning condition. A Sustainable Procurement Plan sets out a framework for responsible sourcing of materials to guide procurement throughout a



- project. It is generally prepared and adopted at an organisational level by a Principal Contractor(s) prior to the construction phase.
- 13.3.5 The Principal Contractor(s) will evaluate the use of materials required throughout the construction process and identify where there is the potential for returning unused materials to the supplier under a buy-back scheme, as necessary. An example of a method to reduce overordering is to focus on accurate ordering (accurate material requirements, realistic wastage rates).

Excavation and Construction

- 13.3.6 The detailed CEMP the Proposed Development will outline the estimated tonnage and composition of waste expected during this phase.
- 13.3.7 The client is committed to onsite reprocessing of suitable material where possible to minimise non-suitable material being removed from site.
- 13.3.8 By quantifying the waste predicted to be generated, it is possible to assess quantities of waste that can be reused and recycled, and benchmarks set to reduce or eliminate volumes of waste entering landfill.

Monitoring and Reviewing

- 13.3.9 Waste arisings will be monitored and reviewed by the Client through the mechanisms of a SWMP. The volume/tonnage of waste generated (or sent off site) as well as the percentage or volume/tonnage reused, recycled or disposed will be recorded throughout the construction phase.
- 13.3.10 The Principal Contractor(s) are responsible for ensuring that each SWMP produced is reviewed and updated accordingly at regular intervals, and as necessary throughout the construction phase.



14 Consideration for Others and the Environment

- 14.1. Membership of the Considerate Constructors Scheme (CCS) will be promoted. The objectives of such schemes are to foster communication and good relations with the neighbourhood and to seek and check that any construction work is undertaken without making life unpleasant for those who live and work nearby. The appointed contractor will be promoted to follow a voluntary code of professional conduct, demonstrating minimum standards for practices that affect the environment around construction sites, including:
 - Considerate Consideration for residents, workers, pedestrians, visitors, neighbouring
 occupiers, businesses and highway users at times and in a manner that will reduce
 disturbance. Special attention is to be shown to the needs of those who have difficulties
 with sight, hearing or mobility, those in wheelchairs, or pushing prams and pushchairs;
 - Quiet Noise from works, machinery, workers, radios, music, vehicles and all other sources is to be kept to a minimum. There are to be no works that are audible at the nearest residential boundary outside permitted hours of work, unless prior agreement has been reached with the Council;
 - Clean Footways, carriageways, public areas adjacent to the Site, as well as all visible
 aspects of Site activities such as hoardings, scaffolding and warning lights, are to be kept
 clean and in good order. Dust and smoke are to be kept to a minimum. Mud and spillage
 are to be cleaned off pavements, roads and public areas immediately;
 - Responsible The contractor is to check that all employees, agents, sub-contractors, suppliers, drivers and others working on or near the project or activity maintain all aspects of the Code of Good Practice;
 - Tidy Pride in the condition and appearance of the project or activity, adjacent highways and public areas is to be shown in every way, including the tidiness of temporary structures, materials, machinery and the constant removal of litter and rubbish;
 - Safe Projects, activities and vehicle movements are to be carried out with utmost care for safety of passers-by, adjacent neighbours and for workers. All plant and machinery items are to be maintained in safe working order and the safety of structures is to be checked frequently; and
 - Accountable A contact board is to be clearly displayed by the project or activity giving names and telephone numbers of staff who can be contacted promptly and take immediate action in response to issues raised by residents, businesses and others.

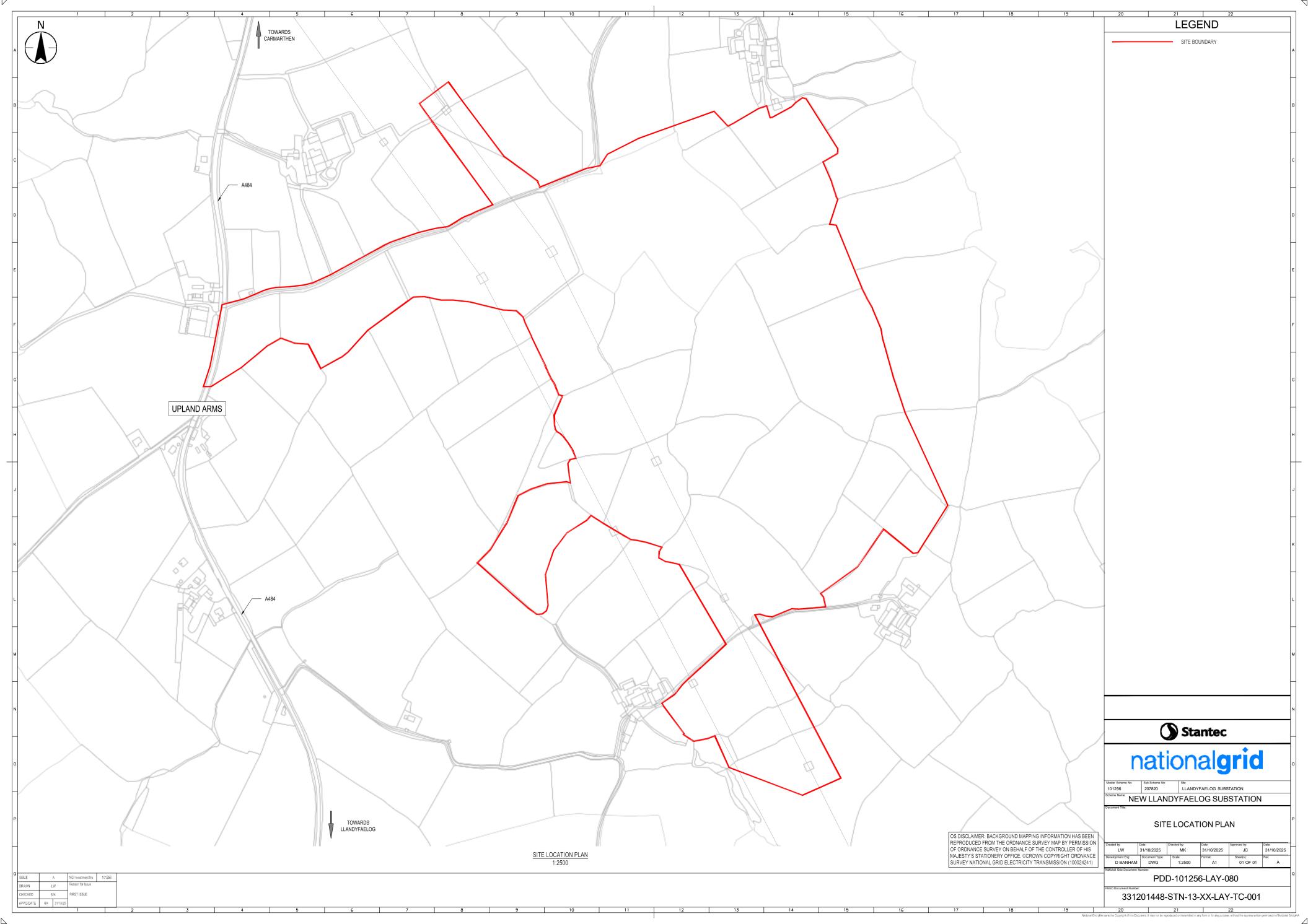


15 Summary

- 15.1. This OCEMP has been prepared as the strategic environmental management plan for the Proposed Development.
- 15.2. The objectives of this OCEMP are to:
 - Minimise, (eliminating where practicable), the environmental effects of the construction of the Proposed Development;
 - Document the environmental controls to be adopted during construction;
 - Enable agreement with the relevant approval authorities on mitigation measures to be adopted during construction; and
 - Provide a framework for contractors to manage construction impacts.
- 15.3. This OCEMP will be taken forward and developed by the Principal Contractor(s) into a detailed CEMP for each phase of the Proposed Development.
- 15.4. Mitigation measures have been outlined to limit potential impacts of construction traffic, air quality and dust, noise and vibration, contamination and ground conditions, water resources and flood risk, landscape and visual considerations, ecology and natural habitats, archaeology and cultural heritage.
- 15.5. It has also outlined a series of general best practice principles which should be adhered to, including; a register of environmental impacts, the production of risk assessments, the adherence to Site Environmental Standards, the monitoring and measurement of construction activities and the roles and responsibilities of key Site staff.



Appendix A Site Location Plan

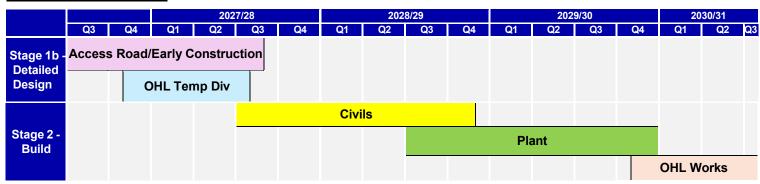




Appendix B Construction Programme

Construction Schedule

Construction Schedule - Summary



Construction Schedule - Detailed

