

Construction Environment Management Plan (CEMP)

(document application reference 25/01911/DOC)

Tophams Solar

Applicant

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Site Address

Land west of Ashwell Rd.
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Project	Tophams Solar Farm		
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ISSUE	DATE	COMMENTS	APPROVED
1	31/07/2025		CW
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1. Introduction

1.1 Purpose and Objectives

This Construction Environment Management Plan (CEMP) has been prepared by PACE Jolt Energy Ltd to enable North Hertfordshire Council, as Local Planning Authority (LPA), to understand and agree the specific construction management arrangements for the development of Tophams Solar Farm.

The CEMP addresses the requirements of Planning Condition 6 of planning permission reference 22/00741/FP, accompanying discharge application reference 25/01911/DOC. It incorporates the mitigation measures set out in Section 5.17 of the Noise Assessment prepared by 24 Acoustics (2024) and addresses the following condition elements:

- (a) Details and timing of the removal of any site waste;
- (b) Measures to minimise dust during construction;
- (c) Site set-up and general arrangements for the delivery and storage of plant, materials, machinery and equipment, temporary offices and other facilities, construction vehicle parking, loading/unloading and vehicle turning areas;
- (d) Construction traffic route signage, monitoring and enforcement measures;
- (e) End-of-day tidying procedures to ensure protection of the site outside the hours of construction, designed and undertaken in accordance with British Standard 5228;
- (f) Wheel washing facilities for construction vehicles leaving the site;
- (g) Storage and removal of building waste for disposal or recycling.

1.2 Scope of Works

The scope of works under the construction contract includes all works necessary to design, construct, test, commission, energise and train staff in the operation of a 40.00 MW Export and 8.00 MW Import co-located solar PV and BESS facility. The site element of the scope includes, but is not limited to:

- Site preparation - mowing, setting out and marking the installation;
- Erecting the perimeter fencing and access gates;
- Construction of internal access tracks (including access/egress);
- Installation of a closed-circuit television (CCTV) system;
- Inserting solar PV frames into the ground;
- Affixing solar PV panels to the mounting frames;
- Installation of inverters, battery energy storage system (BESS) and transformer cabinets/containers;
- Distribution Network Operator (DNO) substation building;
- Trenching for cable runs to approximately 1m depth, laying cables, and backfilling;
- Connecting all cables;
- Planting of approved landscaping and mitigation works.

2. On-Going Community Consultation

The Principal Contractor is committed to proactive and ongoing dialogue with the local community and key stakeholders throughout the construction programme. Given the level of local interest in the development, PACE intends to commence community engagement as soon as practicable following condition discharge.

The consultation arrangements in this CEMP are aligned with those set out in the CTMP (ref. 25/01998/DOC). A single PACE-appointed contact will be responsible for all community liaison during construction, ensuring a consistent and co-ordinated approach across both documents.

2.1 Pre-Commencement Activities

- A pre-commencement letter will be distributed no less than three weeks prior to the start of construction to all residential properties, Bygrave Parish Council and businesses within 500 metres of the site on Ashwell Road and Bygrave Road and those further along the construction route. This letter will introduce the site contacts, summarise the construction programme, confirm HGV operating hours and the consented vehicle route, and provide details of the complaints procedure;

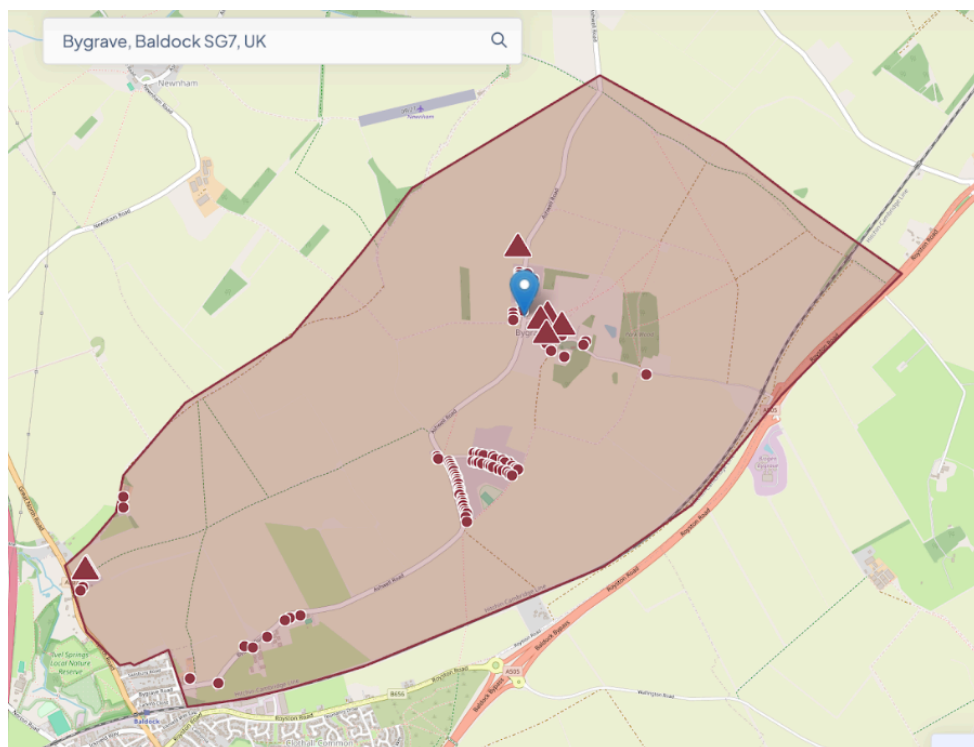


figure 1: all homes and businesses that will be contacted.

- A site contact board will be erected at the site entrance, clearly visible from the public highway, displaying the name and direct contact details of the designated PACE contact and a summary of traffic management commitments;

- Copies of pre-commencement letters will be sent to Hertfordshire County Council's network management team at nm.north@hertfordshire.gov.uk, consistent with the CTMP.

2.2 During Construction

- Regular written progress reports will be provided to North Hertfordshire Council's planning team;
- All community complaints and concerns will be received, investigated and if necessary actioned by the Principal Contractor. A log of all complaints and responses will be maintained and shared with Bygrave Parish Council upon request;
- Bygrave Parish Council and residents are welcome to schedule visits to see progress on site.

3. Construction Traffic Management

3.1 Existing Environment

The site comprises approximately 53.62 ha and is located in Hertfordshire (latitude 52.017, longitude -0.163; nearest postcode SG7 5EB), primarily used for agriculture. An Access Road Condition Survey will be carried out prior to construction commencement and any abnormal wear attributable to construction traffic will be repaired following construction, or earlier where required. Further details of the highway condition survey methodology are set out in the CTMP (ref. 25/01998/DOC).

3.2 Consented Vehicle Route

All construction traffic will travel from the A1 Northbound (Stotfold Interchange) via the A507 North Road, turning left onto Bygrave Road, continuing onto Ashwell Road, and entering the site at the southern access point (Figure 1). The emergency access point is located further north on Ashwell Road and will not be used for routine construction traffic.

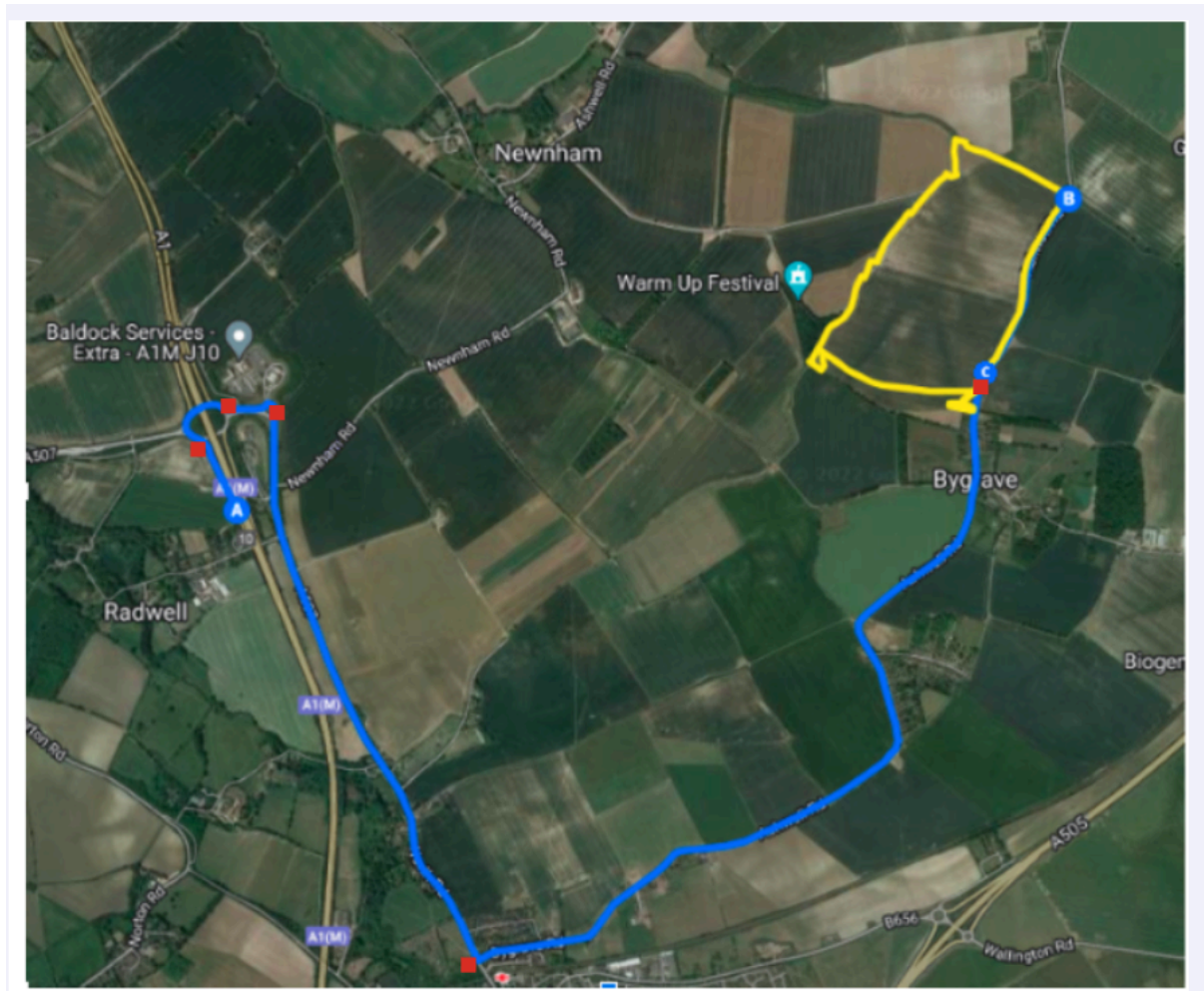


Figure 2 - The consented route to site follows A - C (construction Entrance), point B is emergency access. Red marks denote directional signage.

All construction vehicles will be issued with a site access route plan clearly identifying the consented route. 'Construction Traffic' directional signage will be placed at key points along the route at every change in direction that is not straight ahead in accordance with CLOCS requirements. Further details, including swept path analysis, are contained in the CTMP.



Figure 3: example signage along consented route

3.3 Approved Working Hours and Delivery Times

No construction works or project vehicle movements will take place outside the following approved hours:

Period	Permitted Hours
Monday to Friday	08:00 to 18:00
Saturday	08:00 to 13:00
Sunday and Bank Holidays	No working
Articulated lorry deliveries (Mon–Fri only)	09:30 to 14:30 only, in accordance with Condition 26

Light vehicles (site staff and contractors) may arrive and depart outside artic delivery hours within the normal permitted site working day. No vehicles will wait on the public highway with their engines running.

PACE commits to limiting daily articulated lorry movements as per condition 26 the duration of the construction period. All delivery booking and scheduling is managed through the booking system described in the CTMP.

3.4 Speed Limits

The A1(M) is a national speed limit dual carriageway (70 mph). On turning from the A1(M) onto North Road (A507), the speed limit is 60 mph. Along the consented route via Bygrave Road and Ashwell Road, the speed limit is variable: drivers must observe all posted limits, which along this stretch include 20 mph, 40 mph, 60 mph, 30 mph and 40 mph zones. Once vehicles enter the site, a strict 10 mph speed limit applies throughout the access road and all internal site tracks, enforced by posted signs. Operatives must reduce speed further as ground and weather conditions require.



Sign 1: 10mph Sign

Speed management will be reinforced through toolbox talks and driver briefings at site induction.

3.5 Site Access, Egress and On-Site Traffic

The main site access is located in the south-east corner of the site, off Ashwell Road. The northern access point is for emergency use only. New internal access tracks will be constructed in accordance with County Council specifications and the Flood Risk Assessment and Surface Water Management Plan.

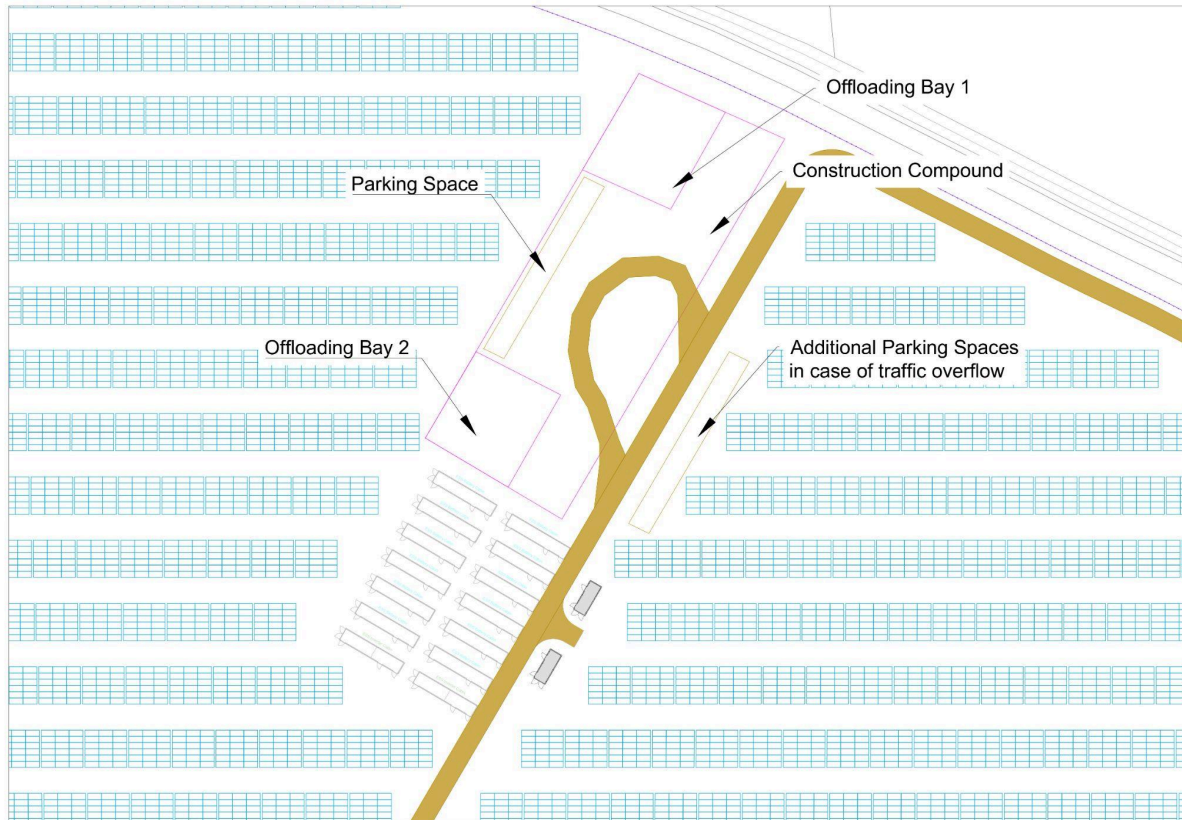


Figure 4 - Construction Compound

Twenty parking spaces will be provided within the main construction compound, with a further twenty as overflow if required. A vehicle turning circle within the compound functions simultaneously as a holding area, allowing a second HGV to wait parallel to the one in the unloading area. These arrangements ensure that no vehicles need to wait or queue on the public highway and that all vehicles can leave the site in forward gear.

A reverse-parking policy will apply within the compound to expedite emergency vehicle movements and minimise blind reversing. A clear pedestrian route, physically segregated from vehicle movements by barriers, will be maintained throughout the site compound. Banksman will direct all HGV arrivals and departures.

3.6 Loading, Unloading and Storage

A designated loading and unloading area will be provided within the site boundary. All materials and plant will be stored within the application site footprint. Telehandlers or equivalent plant will be used to offload deliveries; materials will be taken to storage containers or retained in the offloading area as required. Appointed persons and/or banksman will co-ordinate all activities involving lifting. No public highway will be used for storage of any equipment or materials.

3.7 Wheel Washing and Highway Cleanliness

Wheel washing facilities will be installed at the site entrance prior to mobilisation (Wheelwash Ltd Ecowash or equivalent), incorporating on-site cleaning and wastewater capture for safe disposal on site. All vehicles leaving the site must pass through the wheel

wash to ensure clean wheels and to prevent the transport of mud or dust onto the public highway. The wheel wash is not intended for washing out concrete wagons; this will be made clear to all drivers at induction.

Daily logged visual checks of the wheel wash and access road surface will be carried out. If required, a telehandler bucket-brush attachment or equivalent will be used to clean the highway at least once per week, or following any daily inspection identifying the need, under traffic marshal supervision. During dry periods, water-dousing of surfaces and vehicles will also be used to suppress dust (see Section 4).

3.8 Horse and Rider Sensitivity Buffers

The site is in close proximity to bridleways used by horse riders. PACE has consulted the British Horse Society (BHS) on appropriate construction measures. A Horse Rider Management Plan was submitted on 11 August 2025. Sensitivity buffer zones (red) have been identified along bridleways (pink) and horse routes adjoining the site boundary, including the bridleway running along the western boundary of the site. Entrance to the buffer zones will be marked with horse and rider signage.



Figure 6: Sensitivity Buffer

These buffer zones indicate areas where enhanced care must be taken by plant operators and vehicle drivers when horse riders may be present. Horse and rider warning signs will be posted at the entrances to each sensitivity zone. Through toolbox talks, all operatives will be

instructed to reduce noise and switch off machinery when horse riders are travelling within sight or earshot, and to restart equipment only once riders have safely passed.



Sign 2: horse and rider warning sign

Additional measures include:

- No construction vehicles or contractors will enter the bridleways;
- A banksman will guide all construction traffic at site entry and exit points;
- Horse-safe fencing will be installed along the bridleway boundary;
- A clear site contact will be available at the site entrance to handle any horse rider concerns.

3.9 Closures of Footpaths, Cycleways or Roads

The site has a dedicated access route off Ashwell Road. All construction traffic will enter and exit exclusively via this designated route.

3.10 Security Fencing and Hoarding

All fencing and hoarding for site security and safety will be installed entirely within the application site boundary. No highway-based hoarding or scaffolding is anticipated; no related licence applications or highway authority consents will be sought. Unobstructed highway use for all road users will be maintained throughout construction.

3.11 Cumulative Impacts

PACE has reviewed the North Hertfordshire planning portal to identify local construction projects with potential cumulative traffic impacts on the consented route. The following permissions have been identified and will be taken into account and if possible contacted prior to the construction of the development.

- Ref. 25/00402/DOC - Bygrave Road, Baldock SG7 5DS: Two new-build dwellings (reserved matters under outline permission 23/02113/OP).
- Ref. 25/02219/FP - Construction of a new dwelling on land immediately adjacent to the solar farm site;
- Ref. 25/01672/S73 - Construction of a new dwelling on Ashwell Road, Upper Bygrave.

The portal also identifies two further developments along the construction route: ref. 25/03197/FP (erection of a detached industrial storage building on Bygrave Road - development has commenced) and ref. 25/03245/AG (erection of a straw shed - assessed

as very low impact). For all identified sites, PACE will make contact prior to commencement to establish current construction status and, where works are likely to overlap with the Tophams construction programme, will co-ordinate HGV delivery scheduling through the CTLO to minimise cumulative impacts on Ashwell Road and Bygrave Road.

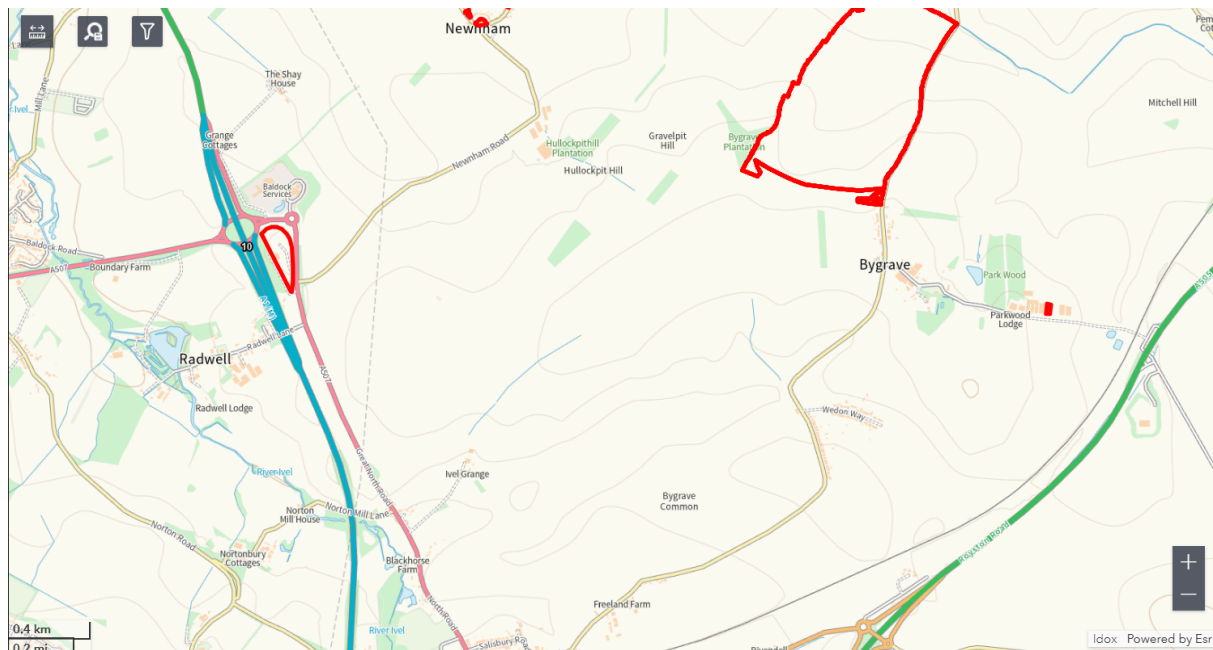


Figure 7: applications along construction route

4. Dust Management

Dust generation can arise from solar farm construction, particularly during dry periods when earthworks, frame piling, track construction and vehicle movements on unpaved surfaces are active. The Principal Contractor will implement the following measures to minimise dust impacts on the public highway, neighbouring properties and the surrounding environment.

4.1 Preventative Measures

- Water suppression: During dry conditions, water can be used to douse internal site roads, disturbed surfaces and construction vehicles before and during active earthworks and piling activities;
- Vehicle speed: The 10 mph site speed limit will be enforced; during dry or dusty conditions, speeds will be further reduced to 7mph to limit dust entrainment from unpaved tracks. Drivers will be made aware as they enter site;
- Surface stabilisation: Internal site tracks will be constructed and surfaced at the earliest practicable opportunity to reduce the area of exposed unpaved surface;
- Stockpile management: Soil and aggregate stockpiles will be dampened during dry and windy periods and, where practicable, covered or formed with shallow side slopes to minimise wind-blown dust. Drop heights reduced in windy conditions;
- Wheel wash: All vehicles will use the wheel wash on exit to prevent mud and dust being carried onto the public highway (see Section 3.7);
- Material handling: Pre-packaged components will be managed to minimise unnecessary unpacking; packaging waste will be promptly cleared to prevent wind-blown debris.
- Piling: All piling locations areas to be damped down with water if required following prolonged dry conditions.

4.2 Monitoring and Response

- If dust nuisance is reported by neighbouring properties, the site manager will respond promptly, investigate the source and implement further mitigation - which may include suspension of dusty activities during adverse wind conditions;
- All dust complaints will be logged in the site complaints record and followed up by the PACE designated contact.

5. Waste Management

The majority of materials are delivered as pre-packaged components for assembly on site, limiting overall waste volumes. Waste management will follow the waste hierarchy: reduce, reuse, recycle. Following the Resources and Waste Strategy for England (2018) and the Environmental Protection Act 1990 (Duty of Care Regulations 1991).

5.1 Typical Waste Streams

Likely waste streams include:

- Packaging waste: cardboard, wood, pallets, plastic wrapping and banding;
- Metal off-cuts (principally aluminium from frame components);
- Cable off-cuts and conduit ends;
- General construction waste: timber, concrete, gravel;
- Excavated soils (from compound formation, access track construction and cable trenching);
- Welfare waste from site cabins.

Where possible, packaging materials will be returned directly to suppliers and manufacturers. All remaining waste will be segregated at source into dedicated on-site skips.

5.2 Storage, Removal and Timing

- All waste will be stored within the construction compound, away from watercourses and drainage features;
- Segregated roll-on-roll-off and static skips will be used for different waste streams. Skip collections will be co-ordinated with the site manager to minimise overlap with incoming deliveries along the consented route;
- Waste collections by articulated vehicles are subject to the same restrictions as deliveries and must take place between 09:30 and 14:30, Monday to Friday only, in accordance with Condition 26;
- All waste will be removed by a licensed waste carrier. Waste transfer records will be maintained in accordance with the Duty of Care Regulations 1991;
- No burning of waste will take place on site.

5.3 Hazardous Materials

- Hazardous materials (solvents, fuels and chemicals) will be stored in sealed containers in bunded storage areas at the end of each working day;
- Spillage kits will be available on relevant vehicles and at key locations around the site;

5.4 Excavated Soils

- Storage methods will comply with aerodrome safeguarding and bird control requirements (e.g., STAL standards).
- Materials will be replaced separately to minimise soil damage and provide optimal conditions for future site restoration

6. Noise Control

Construction activities will include soil movement, frame piling, track construction, installation of plant and PV equipment. Typical noise-generating plant includes: mini-piling rig; excavators (20–75 tonne); 16-tonne vibratory roller; 25–30 tonne dumper; generator; dozers; and hand tools (angle grinders, circular saws, lump hammers).

In accordance with BS 5228-1:2009+A1:2014 and Section 5.17 of the 24 Acoustics Noise Assessment, the following mitigation measures will be implemented:

- Only plant conforming with relevant national and international noise and vibration standards will be used, operated in low gear at no more than 10 mph;
- Plant will be located as far as reasonably practicable from adjacent occupied buildings;
- Plant will be shut down when not in active use; no idling is permitted;
- Electrical equipment will be used in preference to diesel or petrol-powered equipment wherever practicable;
- Where practicable, noisier activities will not be scheduled concurrently;
- All plant will receive regular maintenance to ensure optimal performance and minimised noise output;
- The site manager will maintain regular contact with neighbouring properties to ensure works are not causing unacceptable impact;
- All operatives will be briefed on best practicable means to reduce noise and vibration at site induction;
- Deliveries will be managed on a time-slot basis; no vehicles will wait on the public highway with their engines running.

All construction activities shall be designed and undertaken in accordance with the Code of Best Practice set out in British Standard 5228 (and current version), unless otherwise agreed in writing by the Local Planning Authority.

7. End-of-Day Procedures

To safeguard the amenity of the surrounding area and ensure the site remains secure and environmentally compliant outside approved construction hours, the Principal Contractor will implement the following end-of-day procedures:

- All construction plant and equipment will be shut down, secured and stored within designated compounds;
- Materials will be safely stored in designated offloading areas to prevent wind-blown debris, dust nuisance or encroachment beyond the site boundary;
- Temporary protective measures including; fencing, sheeting, stockpile covers and spill protection for fuels and chemicals will be checked and reinstated at the close of each working day;
- All access points will be inspected to confirm gates, barriers and wheel-wash facilities are left in a safe and secure condition;
- Waste and packaging materials will be cleared from working areas daily and stored in segregated skips;
- Particular regard will be given to the protection of ecological buffers, drainage features and neighbouring receptors to prevent adverse environmental effects outside working hours.

These procedures will be incorporated into the site induction process and reinforced through regular toolbox talks, ensuring all staff and subcontractors are aware of their responsibilities.

8. Plant and Vehicle Maintenance

A regular maintenance schedule for all plant and vehicles, including heavy goods vehicles, will be implemented by the Principal Contractor and relevant Sub-Contractors. The schedule will include:

- All plant and vehicles will be maintained in accordance with manufacturer's instructions;
- Records of maintenance, consumables, tyres, oils and batteries will be kept for all relevant vehicles;
- Spillage kits will be provided to all relevant vehicles and positioned at key locations around the site;
- All plant operators and vehicle drivers will be trained in their responsibilities, site policies and procedures prior to starting work.

In the event of plant or machinery breakdown on site, the responsible Sub-Contractor will be notified immediately. A repair, recovery and/or replacement plan will be formulated. Broken-down plant will be safely isolated, secured and fenced off if necessary. All on-site maintenance and emergency repairs will be controlled through risk assessments and method statements, supervised by the site management team.

9. Materials and Resource Use

Solar panels and frames will be delivered as pre-packaged components and assembled on site. New internal access tracks will be constructed using crushed stone rolled in layers over excavated and prepared subgrade, in accordance with County Council specifications. Soil management will follow the principles set out in Section 5.4.

Electrical equipment will be used in preference to diesel or petrol-powered plant wherever practicable to reduce fuel use and emissions. Car pooling will be actively encouraged to minimise light vehicle movements; workforce travel arrangements will be reviewed at induction and periodically thereafter through the site sign-in process.

Drainage for new tracks and traffic areas will follow the recommendations of the approved Flood Risk Assessment and Surface Water Management Plan.