Common Farm Solar Park

Construction Method Statement

Common Farm Solar Park Limited

Project Reference: Common Farm
Project number: 60726347

May 2025

Delivering a better world

Quality information

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1 Introduction

1.1 Document Purpose

1.1.1.1 AECOM has been appointed by Common Farm Solar Park Limited to prepare a Construction Method Statement (CMS) to support the development of a solar energy park at Common Farm, Bookers Lane, Dinnington.

1.1.1.2 This Construction Method Statement has been produced to discharge Planning Condition 10 of the previously consented scheme (Planning Application No. RB2024/1311), which was approved with conditions on 3rd December 2024. Planning Condition 10 of the consent states the following:

'*No development shall commence until a Construction Method Statement has been submitted to and approved in writing by the Local Planning Authority. The Statement shall include detail of the measures that will be taken to minimise the adverse impact on occupiers of nearby properties by effectively controlling:*

i) Noise and vibration arising from all construction related activities. Best practical means should be used to minimise noise on site. Regard should be had to the guidance details in BS5228 2009: Noise and Vibration Control on Construction Sites.

ii) Dust arising from all construction related activities. Best practical means should be used to minimise dust on site. Regards should be had to the guidance detailed in the Institute of Air Quality Management – Guidance of the Assessment of Dust from Demolition and Construction 2014.

iii) Artificial lighting used in connection with all construction related activities and security of the construction site. Best practical means should be used to minimise light nuisance on site. Regards should be had to the guidance detailed in the Institute of Lighting Professionals – Guidance Note 01/21 – Reduction of Obtrusive Light.'

1.1.1.3 This document includes an indicative methodology for the construction works associated with Common Farm Solar Park, hereby referred to as the site.

1.2 Site Overview

1.2.1.1 Common Farm Solar Park is to be located approximately 9 km south-east of Rotherham in South Yorkshire and is bound on the south by the B6463, the west by Common Road / Long Road and to the north and east by open fields. Todwick Park Industrial Estate is located immediately to the east of the site. Currently the site is undeveloped, with the majority of its area used for agriculture. The site's development will be delivered by OnPath Energy and its location in relation to the immediate area is shown in Figure 1.

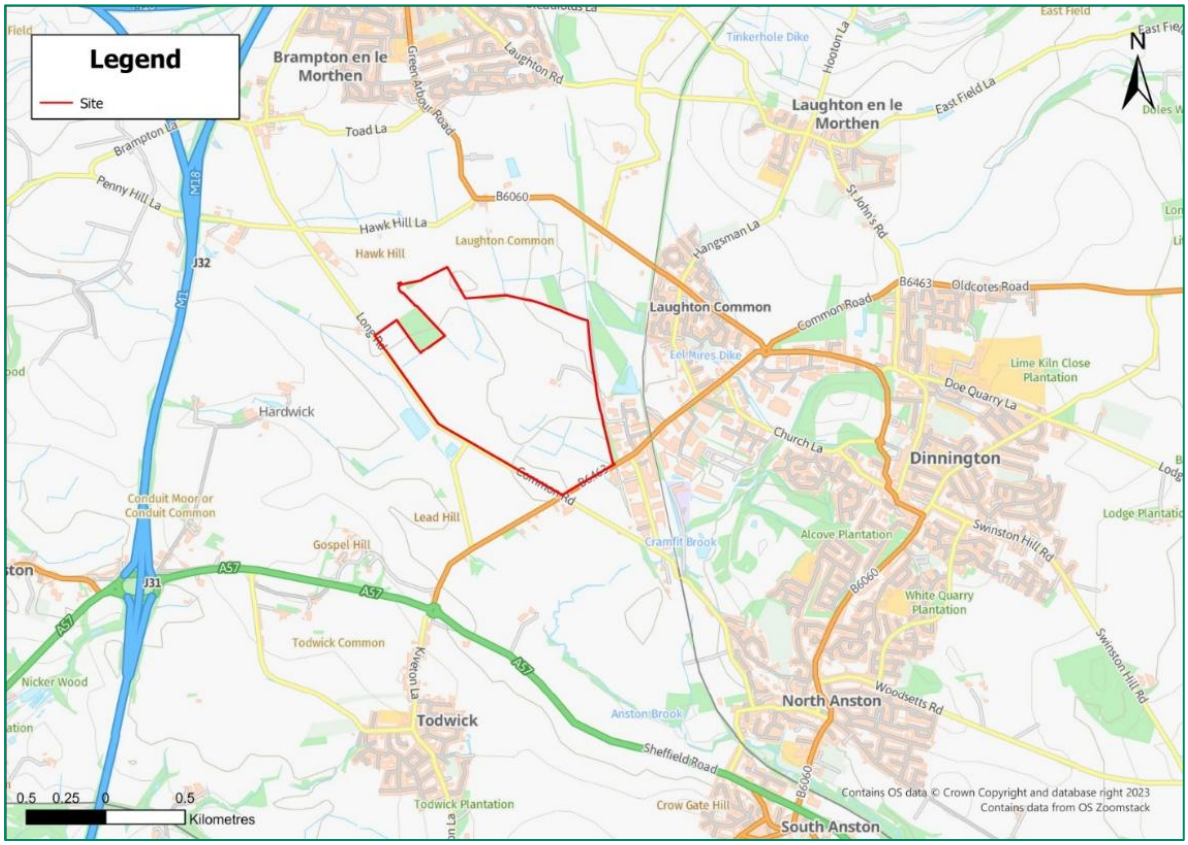


Figure 1. Site Location

1.2.1.2 The key details of the development are described as follows:

- The development will utilise ground mounted solar panels and associated infrastructure, arranged in south facing rows with an installed capacity of 49.9 MW AC.
- In addition, there will be a 50 MW Battery Energy Storage System and associated infrastructure located in the northern area of the site.
- The development has secured planning consent, which has been attributed the reference number RB2024/1311. The Local Planning Authority (LPA) is Rotherham Metropolitan Borough Council (RMBC).
- The site will have a 33 kV substation building, which will house all the 33 kV switchgear and also an outdoor transformer compound, where the 66/33 kV transformer and associated electrical infrastructure will be located.
- Electricity generated from the development will be taken via underground cables to Thurcroft Primary Substation.
- A new priority junction off Long Road will form the site access, with approximately 5 km of new internal tracks required to provide access to the solar panels and the supporting infrastructure.
- A 2 m high fence will be erected around the perimeter of the solar panel area, with pole mounted security cameras which will use infra-red technology, positioned throughout the site.

1.2.1.3 This CMS provides a framework for the planning and implementation of construction activities in accordance with environmental considerations and other requirements set by the LPA.

1.2.1.4 The development of the site in accordance with the methodology contained within this document, will prevent any long-term adverse effects on the environment after the operational lifetime of the scheme.

1.2.1.5 The CMS will be kept under review and updated where required to reflect circumstances on site. The LPA will be notified of any revisions to the CMS.

1.2.1.6 As per Condition 10 of the planning consent, the CMS will be uploaded to the development's website and be publicly available for the duration of the construction phase.

1.3 Construction Scope

1.3.1.1 Construction activities will principally involve the following:

- Securing the site via the erection of fencing, gates, and other security / public safety equipment.
- Construction of the site access junction and new access tracks throughout the site.
- Establishing temporary site facilities including site office, car parking, construction laydown and storage areas. One temporary compound / laydown area will be utilised. Smaller and temporary satellite laydown areas may also be used throughout the site.
- Earthworks, drainage, and all civil works for the provision of solar array areas, LV/MV transformer pads, the 33 kV indoor substation building, the 66/33 kV outdoor transformer compound and the Battery Energy Storage System (BESS) facility.
- Setting out and construction of the foundations and frames to support the solar panels with associated foundations.
- Construction of the mounting structure to support the string inverters.
- Delivery, storage and installation of all system components, including the PV modules, the string inverters, the mounting structure, the LV/MV Stations, auxiliary transformers, gates, main 66/33 kV transformer, 33 kV switchgear etc.
- Cable trenching works throughout the site. The trenches will include DC cabling in ducts, LV and MV cables. More specifically, cable trenching shall include:
  - Installation of DC cabling from panels to string inverters.
  - Installation of the AC cabling from the string inverters to the LV/MV Stations.
  - Installation of underground 33 kV AC cabling from each field LV/MV transformer station to the 33 kV indoor substation.
- Erection of the 33 kV circuit connecting the indoor substation to the step up 66/33kV transformer.
- Installation of a 50 MW BESS facility.
- Reinstatement of cable trenches and track edges.
- Installation of the earthing throughout the site.
- Erection of weather stations and CCTV equipment.
- All testing and commissioning activities on site.
- Construction of habitat management elements
- Demobilisation from site.

1.4 Environmental Considerations

1.4.1.1 Environmental considerations will be in accordance with the submitted Construction Environmental Management Plan (CEMP), which is required to discharge Condition 18 of the planning consent.

1.4.1.2 An Environmental Constraints Plan has been produced and is included in Appendix A. The development's design has taken cognisance of the identified constraints.

2 Programme and Phasing Details

2.1 Site Layout

2.1.1.1 The consented development includes a 49.9 MW solar farm comprising an array of ground mounted solar PV panels with associated infrastructure including inverters, battery storage, access tracks and a substation. Figure 2 shows the consented site layout, with all figures referenced in this section included at a larger scale in Appendix B.

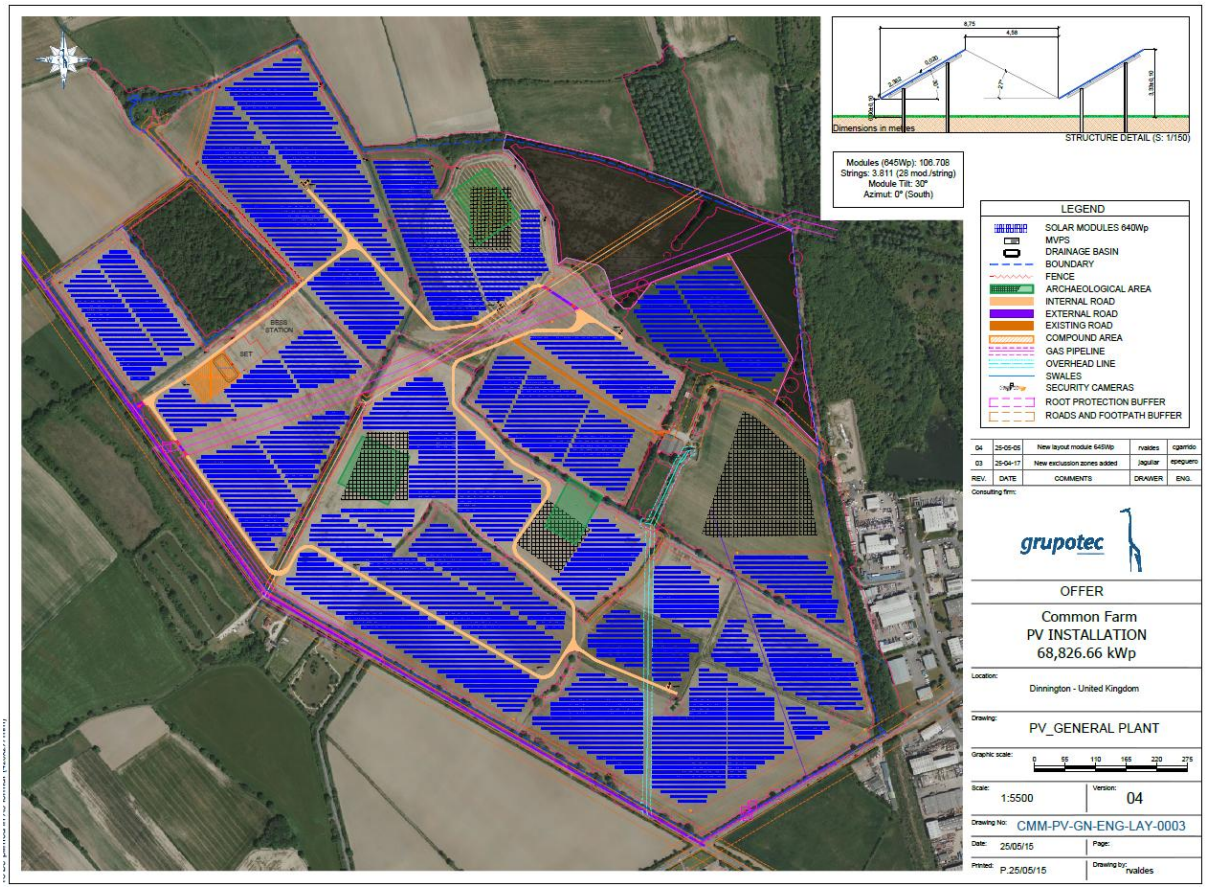


Figure 2. Site Layout

2.2 Operational Hours

2.2.1.1 As per Condition 30 of the planning consent, the core working hours will be restricted to 07:00 to 19:00 Monday to Friday and 07:00 to 13:00 on Saturday. There will be no Sunday or Bank Holiday working.

2.2.1.2 Works that need to be undertaken outside of these hours would be subject to advance notification and approval in writing by the LPA, unless in cases of emergency where a situation poses an immediate risk to health, life, property or environment.

2.3 Duration of Construction Works

2.3.1.1 The following dates are anticipated to form the skeleton of the programme for the construction phase of work on site following the formation of the proposed site access junction.

- Commencement of enabling works: June 2025
- Commencement of main construction works: August 2025
- Overall construction duration: 21 months
- Anticipated completion of construction activities: March 2027

2.3.1.2 Figure 3 shows the key elements of the construction programme in relation to the above timeframe.

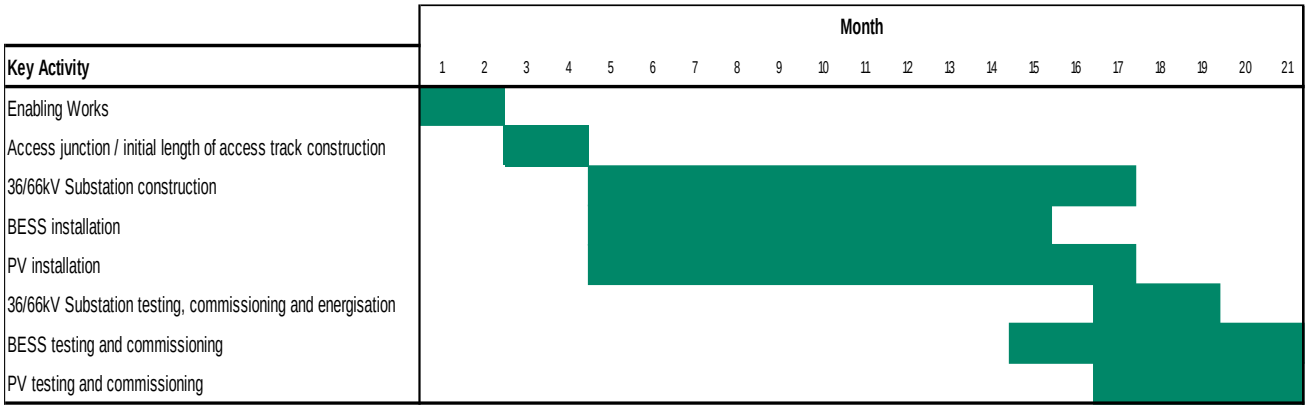


Figure 3. Construction Programme

2.3.1.3 The appointed Principal Contractor shall prepare and issue a final programme for the construction phase based on availability of plant, materials, and projected delivery dates; an indicative scope of works is presented in Section 1.3 of this CMS.

2.4 Pre-Construction and Enabling Works

2.4.1.1 Prior to commencement of the construction phase, a series of site investigation works shall be undertaken, with these including geotechnical site investigation, soil resistivity and thermal conductivity measurements and pull-out testing where required.

2.4.1.2 The site access junction will be constructed in accordance with the approved S278 in advance of the commencement of on-site construction activities. There will then be a period of site preparation, compound construction and clearance of any vegetation which is required to enable the main construction works to proceed. This will include preparing the perimeter through the installation of fencing.

2.4.1.3 Temporary welfare amenities for construction workers will be installed prior to the establishment of the construction compound. A proportion of access tracks and site drainage will be installed at this stage to facilitate enabling works.

2.4.1.4 Site preparation shall include the following activities:

- Management of existing ground conditions and installation of any necessary environmental protection measures.
- Installation of access tracks.
- Preparation of hard standings, consisting of compacted stone or similar, for the construction compound.
- Preparation of hard standings for the 33 kV substation building, outdoor LV/MV transformer stations and 66 kV outdoor transformer compound.
- Installation of perimeter fence.
- Installation of portable cabin structures which will be used to provide temporary site office. These will be managed and serviced on a weekly basis or more frequently if required and will be removed from the site on completion of the construction phase.

2.5 Temporary Facilities

2.5.1 Construction Compound

2.5.1.1 In line with health and safety legislation, temporary site office, car parking for all workers, welfare facilities and storage areas will be provided in the construction compound / laydown area which is to be provided to the east of the proposed site access junction.

2.5.1.2 The office will be supported by all necessary facilities, including an internet connection, potable water supply, kitchen area and container storage units will be provided for storing tools and materials.

2.5.1.3 The drainage of the temporary compound will be in line with the Drainage Strategy which has been prepared as a separate document to support the discharge of Condition 34, to ensure that the site is connected to suitable drainage systems prior to the commencement of construction activities.

2.5.2 Site Office and Welfare

2.5.2.1 The site office will be identified with a sign providing instruction on how the Site Manager can be contacted if the office is unattended.

2.5.2.2 The site office will be clean, tidy, and free from excessive mud or dust on the floor. The external condition of the site office will be maintained in good repair.

2.5.2.3 The main welfare facilities including toilets, washing facilities, drinking water and changing rooms will be provided within site office. Smaller, mobile self-contained welfare units may be placed across the site at locations that tie in with work interfaces. Welfare facilities will be maintained in a clean and hygienic condition suitable for visitor use if required.

2.5.2.4 All discharge from sinks, showers and toilets will be collected to a septic tank, with the discharge taken off-site at appropriate intervals by a licenced operator.

2.6 Construction Phase

2.6.1.1 The construction phase work would comprise of all of the elements presented in Section 1.3 of this CMS. Further detail is provided below with regard to each of the key construction phases.

2.6.2 Erection of fencing, gates, and other security equipment

2.6.2.1 To secure the site, temporary / permanent fencing and gates will be installed in a phased manner to keep the working area secure for the safety of the workers and public. The permanent site access has been designed to ensure that appropriate sightlines are provided, with use of the access to be secured using a double leaf security gate.

2.6.2.2 The fencing will be constructed using 2 m high fencing around the area of the solar panels, with wildlife flaps provided to allow animals to pass in and out of the site. The form of the fencing and locations of the mammal gates are shown in the drawings included within Appendix C.

2.6.2.3 A number of security cameras will be mounted at various points around the site. There will be no requirement to light the solar farm overnight as the security cameras will be infra-red sensitive. The cameras will not point toward the external area of the site or towards any external landowners or properties.

2.6.2.4 In addition, a number of temporary cameras will be erected across the site during the construction period. These will be removed at the end of the construction period.

2.6.3 Construction of site access junction and new access tracks

2.6.3.1 It is noted that prior to the main construction phase, there are works required to form a new access junction on Long Road, the form of which has been subject to a S278 application.

2.6.3.2 An access track network will be required throughout the site to facilitate construction of the solar farm and substation.

2.6.3.3 Use of low compaction track or tyre equipment for this aspect of the works will minimise direct soil impacts. Ground protection mats will be used if necessary where access is required to areas where no access tracks are proposed. These mats will also be used in areas where stability is required for moving heavy equipment, to prevent sinkage.

2.6.3.4 Topsoil will be stripped from track construction areas using the excavator/dumper truck method which avoids traffic on stripped surfaces (as described in the Construction Code of Practice for the Sustainable use of Soils on Construction Sites), to an appropriate depth.

2.6.4 Temporary site facilities including site office, car parking, construction laydown and storage areas

2.6.4.1 One temporary compound/laydown area will be utilised, with this established immediately to the north-east of the proposed access junction. This will be used to facilitate construction activities and shall also be used as a contractor laydown area for material storage. The area has been sized to accommodate HGVs being able to turn and return to the external highway network in a forward gear. A number of smaller temporary satellite laydown areas may also be used throughout the site.

2.6.4.2 Although many deliveries will conform to a 'just in time' concept, where it is not possible to apply this approach, deliveries will be stored at this compound until they are ready to be installed on site. Smaller vehicles will then be used to transport divisible items to the appropriate locations within the site. The compound will also support the parking of 20 cars and vans to accommodate the anticipated demand for worker parking.

2.6.4.3 As described in Section 2.5, the construction compound will accommodate the site office / staff welfare facilities and will be equipped with all essential infrastructure.

2.6.5 Site Wide Works

2.6.5.1 These include all earthworks/clearance works/ levelling/ foundation works related to accessing and working on the different solar array areas. The civil works also include installation of the security fencing, LV/MV transformer pads, the 33 kV substation building, the 66/33 kV outdoor transformer compound, the BESS facility and the mounting structure works associated with the solar PV modules.

LV/MV Transformer Station Pads

2.6.5.2 LV/MV transformer station pads will be required throughout the site and comprise level hardstanding of approximately 3 m x 7 m in size. This is provided as an indication only and the specification of these areas will be dictated by the type and size of the LV/MV stations, the local ground conditions and the load being imposed by lifting operations.

2.6.5.3 All civil works associated with the LV/MV transformer stations will be in line with the manufacturer's guidelines.

Fencing

2.6.5.4 Fencing will be installed to secure the site's perimeter, with this including on an alignment which is located adjacent to the public right of way which passes through the northern area of the site but will be retained on its current alignment through the construction and operational periods.

2.6.5.5 Electric palisade fencing will also be installed around the outdoor 66/33 kV transformer compound, which will include open busbar systems.

33kV substation building and outdoor 66/33kV transformer compounds.

2.6.5.6 The 33 kV substation building will be split into different rooms, as follows:

- 33 kV switchgear room.
- Storage room, where any spare components will be kept
- A permanent toilet and a control room.

2.6.5.7 The outdoor switchyard will house the 66/33 kV transformer and all associated electrical equipment such as neutral earthing resistors, earthing transformers, 66 kV busbars and disconnectors. The compound will be surrounded by an electric fence.

2.6.5.8 The construction phase shall include the erection of the transformer plinth, and any other pads required to mount the other electrical equipment as described above.

2.6.5.9 The DNO transformer will be supported by a separate control building accommodating storage and welfare facilities required to support its operation.

2.6.5.10 Major construction elements associated with the transformer's installation include but are not limited to:

- Earthworks to achieve a flat working area for the compound.
- Installation of surface water drainage pipework.
- Excavation of structural foundations to formation level for the control buildings and outdoor equipment and pouring of ready-mixed concrete to bases and floors.
- Installation of ducting for electrical cables, communication cables, lighting, etc.
- Construction of control buildings.
- Installation of 66 kV transformer within impermeable bunds / oil interceptor and all other high voltage (HV) equipment.
- Wiring and cabling of HV equipment and protection and control cabinets.
- Commissioning of all newly installed equipment.

Solar PV Piled Foundations

2.6.5.11 The structural design of the mounting system to be used on site is yet to be finalised and will be determined in prior to installation on site. However, the solar panel frames will likely be supported by piles driven into the ground or via an auger screw pile. Pile foundation design is yet to be finalised and will depend on the site investigation reports and pull-out tests. The foundation solution will be designed as required with the Employer Requirements and shall achieve suitable bearing capacity as required for the forces calculated on the foundations. The number of piles driven on site will be predetermined by on site trials.

2.6.5.12 Piling rigs will travel around the site and be used to drive or screw the mini piles into the underlying soils to a depth which achieves suitable bearing capacity, to a suitable embedment depth to support the frames.

2.6.5.13 Temporary support, in the form of bog mats/temporary matting, will be used to support machines to execute piling and the transfer of materials in areas where the soil is of poor stability.

2.6.5.14 Dumpers will be used to transfer materials around the site and where there are suitable bearing stratum double wheeled vehicles will also be used for transport of materials from the holding areas to the work areas.

Installation of frames, PV Modules, PV Panels and String Inverters

2.6.5.15 The framework will be constructed from galvanised steel, with tables arranged in rows from north to south with panels facing south. The PV panels will be mounted directly to the framework.

2.6.5.16 The solar PV modules and string inverters shall be installed as per the manufacturer's recommendations. The inverters will be mounted to the back of the array frames and be protected from the elements. The mounting height of the inverters will ensure that appropriate clearance distance to the ground level will be maintained to avoid any interference with vegetation and prevent any risk for sheep grazing around the site.

Installation of LV/MV Stations, 33 kV switchgear, 66/33 kV transformer and other ancillary electrical equipment

2.6.5.17 These will be mounted to the pads prepared as part of the civil works for the site.

2.6.5.18 Provision shall be made for cable terminations. Most of the cables will enter the equipment from below and appropriate ducts will be left in place to allow for cable entry.

2.6.5.19 Regarding equipment delivery and distribution:

- Vehicles will deliver equipment to the construction compound / laydown area or substation yard via the main access track, from which the equipment will then be distributed as needed.
- Due to the extent of the site and the large amount of equipment that will be handled, traffic within the site will be managed and controlled to avoid unnecessary distribution journeys. Where these journeys are made, they will be within restricted zones to further reduce the likelihood of significant soil compaction.
- Delivery and placement of heavy components will be limited to the use of roadways and access tracks. If deliveries require access to other areas, low pressure matting will be employed.

2.6.5.20 The installation of any other LV equipment, such as weather stations, control panels, CCTV and security systems will be undertaken by relevant qualified contractors.

Installation of BESS facility

2.6.5.21 The installation of the Battery Energy Storage System, model MC10C-B4659-E-R2M01 by BYD, will follow a modular, factory-integrated approach to facilitate rapid on-site deployment.

2.6.5.22 The BESS units will be installed on foundations, with all MC Cubes delivered to the site pre-installed within the IP55-rated enclosure, with batteries partially charged. Auxiliary components (e.g., anchoring kits and interconnection cables) will be delivered separately.

2.6.5.23 The BESS container will be offloaded and placed on the foundation using a crane, aligned with pre-installed conduit stub-ups. Anchoring is performed using expansion bolts and hardware, with MC Cubes then secured and aligned internally.

2.6.5.24 The BESS units include DC cabling to PCS, auxiliary power (400VAC, 60kVA min), grounding, signal and communication wiring (Modbus TCP/IP).

Cable Laying

2.6.5.25 The DC strings will run in two differing installation methods, as follows:

- DC cabling will run on cable trays or through conduit in the mounting frame along the length of the rows.
- DC cabling will be in ducts when changing rows.

2.6.5.26 Suitable wiring methodology will be adopted (horse soe, leapfrog or similar) aiming to minimise DC cable runs.

2.6.5.27 The DC string cables will then be connected to the DC inputs of the string inverters. The inverters will be mounted behind the PV modules as specified elsewhere in this CMS.

2.6.5.28 Consideration shall be given to the sheep grazing around the Site. DC cabling running above ground level shall be contained in cable trunking or be installed behind a wire mesh (or similar) to prevent any interference with the sheep.

2.6.5.29 LV AC cables exiting the inverters will be placed in trenches approximately 800 mm deep and located as close as possible along the access track, taking cognisance of any onsite constraints including root protection areas and existing buried services, to minimise trenching through the solar panel areas. The cables along the track can be laid in ducting or be directly buried in trenches in the original ground and over filled with sand and marker tape to the cable designer’s specification, and the excavation backfilled to ground level. This will be undertaken by a wide track excavator.

2.6.5.30 All LC AC cables from the inverters will then be terminated into the LV side of the field LV/MV transformer stations.

2.6.5.31 The LV/MV transformer stations will then be connected through underground 33 kV cables to the switchgear room at the 33 kV substation building. The 33 kV cable runs will follow site access tracks. Appropriate warning marker tapes will be installed in the cable trenches.

2.6.5.32 The 33 kV switchgear room will also be connected to the 33 kV side of the 66/33 kV transformer to be installed in the outdoor compound. The 33 kV interconnecting circuit will comprise 33 kV conductors buried into the ground, likely placed in ducts.

2.6.5.33 Where appropriate, the vegetation and top 150 mm of soil will be stripped and laid beside the trench, and used to reinstate to original ground level immediately after the cables have been installed.

2.6.5.34 All on-site communication and other LV cables will be installed using the same methodology.

2.6.5.35 The maximum depth of the cable trenches may be more than 1 m and may have a width of greater than 0.6 m. Excavated topsoil and subsoil will be separately stockpiled before replacement. Stockpiled subsoil will be placed on geotextile matting.

2.6.5.36 Trenching operations will be undertaken preferably during dry weather between May and October to avoid soil structural damage. However, this depends on the programme of the works which will be provided by the EPC Contractor.

Wider Electrical Installation

2.6.5.37 LV cables will not be routed through buildings unless they connect to service terminations within the building.

2.6.5.38 All cables shall be attached to cable trays (where possible) or cable trunking systems. The whole electrical installation will be carried out by qualified personnel and will be tested and labelled as required.

Installation of the earthing system throughout the site

2.6.5.39 The earthing system of the site will comprise a main earth ring around the site, and all mounting frames and structures will be attached to it.

2.6.5.40 The ring will comprise stranded copper of suitable size (50 mm^2, 70 mm^2, 95 mm^2 or other), which will be dictated by the earthing study of the site.

2.6.5.41 All HV equipment will be surrounded with a ring of conductor to control touch potentials, and the equipment is to be connected to the MES by two fully rated conductors.

2.6.5.42 A number of earth rod electrodes, earthing tapes etc will also be utilised.

2.6.5.43 The rebar in the concrete foundation slab of the substations will be modelled accordingly to control touch and step potentials.

2.6.5.44 Substation compounds will utilise appropriate earthing bars to allow for terminations of the components of the earthing systems.

Erection of the Grid Connection of the site

2.6.5.45 The site will be connected to Thurcroft Primary Substation which is owned and operated by the DNO. The voltage at the point of connection is 66 kV.

2.6.5.46 The 66 kV cable exiting the outdoor transformer compound will be connected to the 66 kV outdoor yard in accordance with any DNO requirements. The 66 kV circuit will be installed underground with suitable warning tape used.

Testing and Commissioning

2.6.5.47 This will be undertaken once all civil, mechanical and electrical works are completed.

2.6.5.48 Functional tests and pre-commissioning checks shall be carried out in accordance with the programme to be provided by the EPC Contractor.

2.6.5.49 Relevant Personnel, such as Authorised Persons (APs) and Senior Authorised Persons (SAPs), will be present during these tests and all switching activities will be done in accordance with an approved switching schedule.

3 Site Management

3.1 General Site Management

3.1.1.1 A full construction management team will be deployed on site by the appointed contractor in accordance with routine site construction procedures. This team will consist of site manager(s), assistant engineer(s), quality engineer(s) and other project manager(s).

3.1.1.2 This team will be responsible to ensure health and safety on site and will be responsible for co-ordinating any other subcontractors working on the site. The site will be managed in accordance with the Construction (Design & Management) Regulations 2015.

3.1.1.3 Site visitors will receive a full induction and will be accompanied in their time on site. Prior to the commencement of the works, full Risk Assessment and Method Statement (RAMS) will be prepared and Safety Systems of Work will be implemented for all works.

3.1.1.4 An Ecological Clerk of Works (ECoW), who will be supported by an independent Project Ecologist, will be appointed for the duration of the works to ensure compliance of ecological mitigation measures.

3.1.1.5 A Geotechnical Supervisor, supported by a Geotechnical Engineer as appropriate, will be part of the site staff when required.

3.1.1.6 All construction works will be carried out under appropriate supervision and by experienced contractors using appropriate and established safe methods of construction. All requirements arising from statutory obligations including the Safety, Health and Welfare at Work Act and associated regulations will be met in full.

3.1.1.7 It is noted that a Written Scheme of Archaeological Investigation (WSI) has been approved by the LPA and construction activities will adhere to the requirements of this document where required.

3.2 Contact Details

3.2.1 Site Manager

3.2.1.1 The Site Manager's contact details are provided below:

- Name: Ignacia Sparo
- Mobile: 07307 365979
- Email: isparo@grupotec.co.uk

3.2.2 Site Liaison Committee

3.2.2.1 A site-specific liaison committee will be established prior to commencing the site construction phase and regular updates will be provided during the construction phase through a combination of emails, newsletters, social media, and press releases.

3.2.2.2 The purpose of the committee will be to discuss any issues that arise which could have an impact on people in nearby properties or users of the adjacent highway and footpath networks.

3.2.2.3 Members of the local Parish/Town Councils will be invited to form the committee along with representatives from OnPath Energy and their contractors.

3.2.2.4 The aim of the committee is to act as a forum for the exchange of information on progress of the development and provide a means by which any local concerns can be raised. An email group will be established for key residents and committee members to receive updates and ask questions related to the development.

3.2.2.5 The closest properties to the site will be contacted directly by OnPath ahead of construction starting on site.

3.3 Complaints Procedure

3.3.1.1 A complaints and notifiable incidents procedure will be in place that states how any complaint or incident of a notifiable nature will be managed. This will cover any complaints received and the procedures for dealing with all incidents on site, including pollution of soils, water or air, incidents involving protected species or habitats, and incidents involving archaeological remains. The procedure will be followed by the Principal Contractor.

3.3.1.2 Any complaints received will be logged at the site. All complaints and incidents will be investigated, and any necessary corrective and/or preventative action will be taken and recorded by the Principal Contractor.

3.3.1.3 Contact telephone numbers will be published in leaflets distributed to occupants of neighbouring premises in advance of the commencement of construction activities and will also be detailed on the signage posted at the site access. Local residents / employers will also be provided with the contact details of the OnPath Energy community representative:

- Name: Tom Chaplin
- Mobile: 0330 335 8010
- Email: chaplin@onpathenergy.com

3.3.1.4 Any complaints will be fully investigated, resolved and closed out as per the complaints and notifiable incidents procedure.

4 Construction Traffic Management

4.1 Construction Traffic Routing

4.1.1.1 The local highway network is considered to be of a good standard and was recorded to accommodate HGV movements by surveys undertaken to support the Transport Statement submitted in association with the planning application. As part of the consultation undertaken to support the report's preparation, RMBC indicated that the use of Pocket Handkerchief Lane would be preferrable to using the eastern end of Common Road to access the site from the B6463. The proposed access strategy has therefore taken cognisance of this.

4.1.1.2 The site is located approximately 2km to the north-east of Junction 31 of the M1 and the proximity of the motorway will support convenient access to the area for construction vehicles. The A57 supports convenient access from the motorway to the B6463 and it is proposed to identify this as the preferred route for deliveries. The proposed access route is shown in Figure 4.

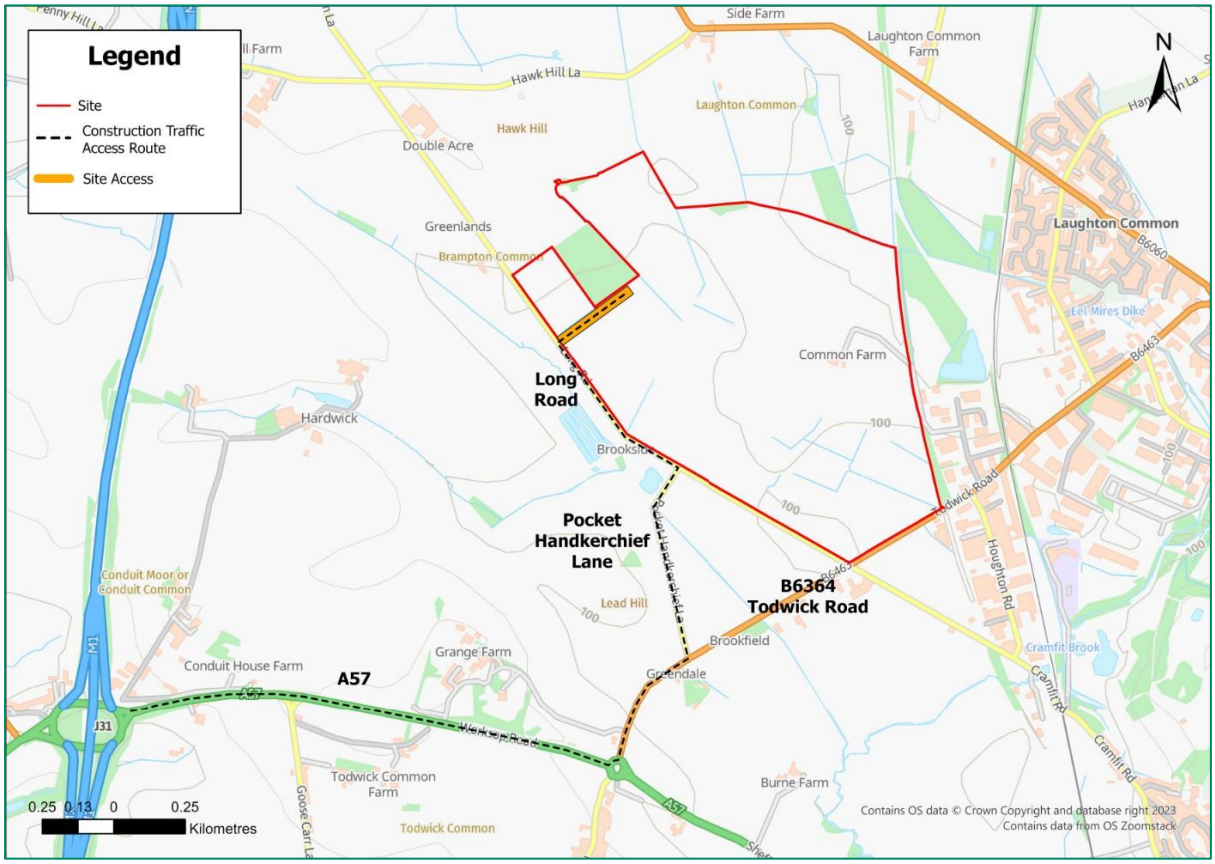


Figure 4. Construction Access Route

4.1.1.3 The proposed access route from the M1 is rural in nature and has no signed height or weight restrictions which would prevent the route being used by HGVs supporting construction activities. There are also no sensitive receptors considered to be on the route, which would require the implementation of any restrictions on the timings of deliveries to the site. The route is therefore considered to be appropriate to accommodate the temporary increase in traffic generated by construction activities.

4.2 Construction Traffic Signage

4.2.1.1 Temporary road signage will be placed along the access route in the vicinity of the site to inform drivers of the potential to encounter construction traffic and direct construction traffic to the site. This is reflected in the indicative signage strategy presented in Figure 5.

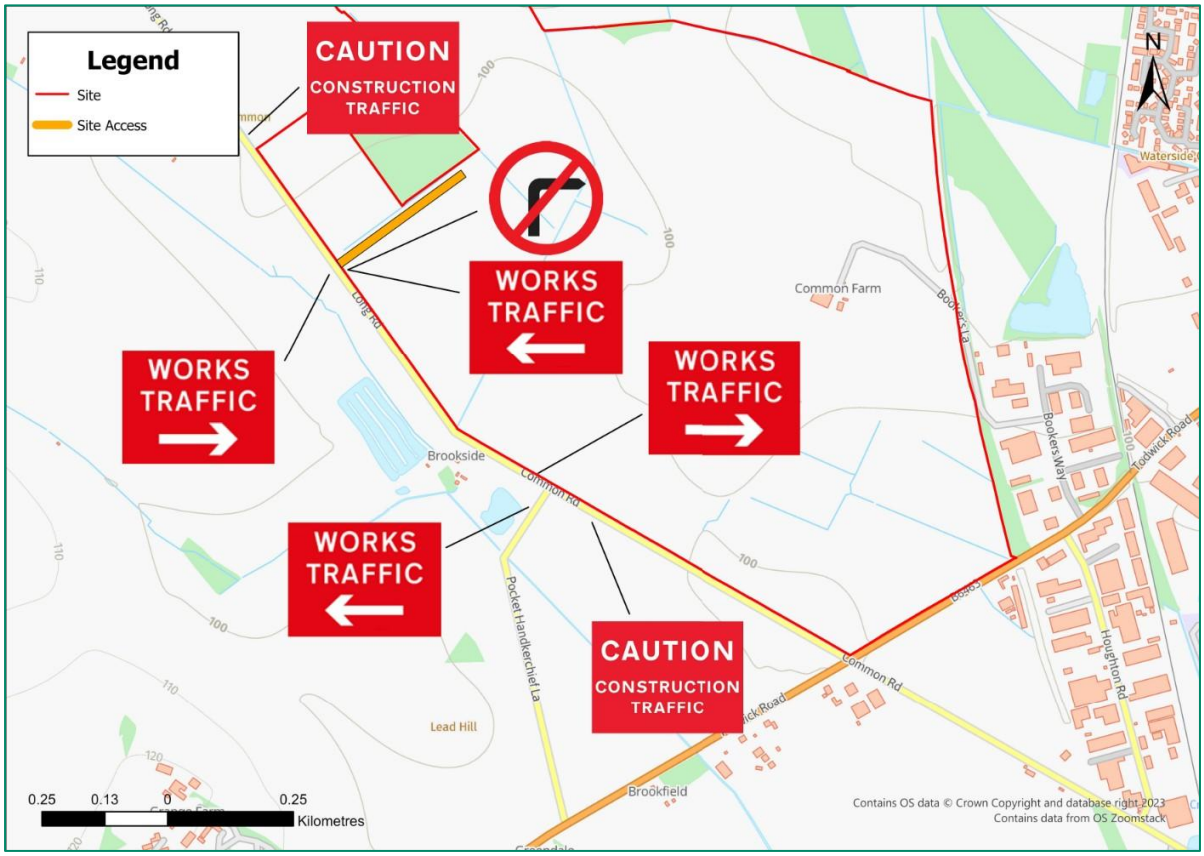


Figure 5. Indicative Temporary Signage Strategy

4.2.1.2 All site workers will be made aware of the proposed construction traffic route and for contractors making regular deliveries, this will form part of their contractual obligations and be reinforced within site inductions and regular toolbox talks.

5 Site Access, storage and movement of materials

5.1 Site Access

5.1.1.1 A new junction will be formed on Long Road to support access for vehicles associated with both construction and operational activities. The form of the junction has been approved by RMBC (Section 278 Agreement Reference 100863 dated 11th February 2025), with the junction to be installed in advance of the commencement of construction activities. The Section 278 agreement letter is included in Appendix D.

5.1.1.2 Access to the site will be prevented by a gate outwith the hours of construction.

5.1.1.3 It is anticipated that the majority of construction vehicles, and all HGVs associated with construction activities, will use the B6463, Pocket Handkerchief Lane and Long Road / Common Road to access the site from the A57.

5.1.1.4 The site access junction will be provided with the following:

- Lockable gates;
- A sign stating the name of the site and the operator, contact names and 24-hour telephone number; and
- Signs will be placed on Long Road warning of the site access, with an indicative signage strategy shown in Figure 5.

5.2 Equipment Storage

5.2.1.1 The majority of on-site equipment will be stored within the construction compound under suitable security when not in use. Equipment will also be stored in small temporary laydown areas throughout the site as required.

5.2.1.2 A number of vehicles will deliver loads to the site but will not be stored on site. These include HGVs delivering panel components, including transformers, structural steelwork, tools, cables and steel rods for concrete reinforcement.

5.2.1.3 To prevent mud entering the public road system, the wheels of vehicles leaving the site will, where required, be cleaned.

5.3 Storage / Movement of Materials

5.3.1 Construction Materials

5.3.1.1 A variety of materials are utilised during the construction of solar parks including, but not limited to concrete, timber for joinery work and shuttering, crushed rock for track construction, drainage pipes and general construction sundries.

5.3.1.2 Should there be a requirement to import subsoil / topsoil / virgin materials to the site, these will be obtained from a certified source, with evidence provided by the supplier of their testing regime to demonstrate that the materials are free from contamination and suitable for their intended use within the site. The supplier's certification and evidence of the suitability of the materials, will be retained for examination by the LPA if required.

5.3.1.3 Handling of potentially hazardous materials shall be carried out in accordance with relevant regulations (e.g. COSHH). For example, the preparation of contingency plans, and briefing operatives on the procedure to following if a spillage occurs, shall be covered by the Principal Contractor.

5.3.1.4 A laydown area / construction compound will be provided within the site to support the unloading and storage of plant and materials.

5.3.2 Site Deliveries

5.3.2.1 Construction materials, solar panels and associated infrastructure including batteries and transformers, will be delivered to the site using HGVs. Construction activities will also be supported by smaller vehicles, including vans and cars, facilitating workers accessing the site.

5.3.2.2 There will be a requirement for the main 66/33 kV transformer to be delivered to the site as an abnormal load. Whilst the vehicle which will be used to deliver the transformer will be only marginally longer than that classified as a standard-length HGV, the vehicle will be classified as an abnormal load and therefore be escorted to the site. Further detail is provided on these movements within the Construction Traffic Management Plan which has been submitted to discharge Condition 9 of the planning's consent.

5.3.2.3 Large vehicle deliveries will be coordinated directly between the project team and the supplier. Prior to arriving on site, the supplier / driver will notify the Site Manager to indicate their anticipated time of arrival. If in the rare event a problem with access to the site is identified whilst the delivery is in transit, the supplier or driver will be advised to wait at an appropriate and safe location, until such time as access becomes available.

5.3.3 Site Delivery Access

5.3.3.1 All deliveries will access the site from Long Road.

5.3.3.2 All traffic movement requirements will be issued by the Principal Contractor to all suppliers and sub-contractors to ensure that they are aware of the requirements. This will include notification of the approved route plan, the requirement to go to the site compound or site control cabin / office to sign in and out and the permitted hours of operation.

5.3.3.3 All loaded HGV's will be sheeted before travelling to or leaving the site.

5.3.3.4 Within the site there will be a 15-mph speed limit, with 5mph speed limits imposed over sensitive areas as directed by the ECoW.

5.3.3.5 Regular inspections will be undertaken throughout the working day to ensure the public highway is clear of dust, mud or debris as a result of any of the site plant or vehicles. Where required, a road sweeper will be employed to ensure the public highway remains clear of mud and dirt from the construction site.

5.3.4 Site Delivery Times

5.3.4.1 Site deliveries will only be permitted within the construction operational hours detailed in Section 2.2.

6 Dust, Debris and Mud

6.1 Dust Suppression

6.1.1.1 All construction activities will be undertaken in accordance with good practice as set out in the Institute of Air Quality Management - Guidance of the assessment of Dust from Demolition and Construction 2014.

6.1.1.2 It is not expected that the internal site tracks will produce notable quantities of dust emissions due to their construction from stone material. However, a water bowser will be present on site and routinely spray water onto the surface of the tracks if required, particularly during dry weather conditions, to control dust emissions. Where necessary, water may also be used to spray areas during excavation to prevent dust emissions.

6.1.1.3 If for any reasons these precautions are not effective at preventing dust emissions from leaving the site, the Principal Contractor will suspend operations giving rise to the emissions until weather conditions change or effective dust control measures have been implemented. The Principal Contractor may also move site activity to another part of the site where operations can proceed without giving rise to dust emissions.

6.1.1.4 HGV's carrying spoil or construction materials to/from site will be sheeted to prevent the release of fugitive dust.

6.1.1.5 Stockpiles will generally be avoided on site. When they are created, they will be for the shortest time necessary and be kept away from site boundaries. Any soil stockpiles that will be present for a significant period of time, will be grass seeded as soon as possible.

6.2 Vehicle Wheel Cleaning

6.2.1.1 A dry wheel cleaning facility, as per the image below, will be available at the site entrance. It will be established to clean the wheels and underside of all lorries that pose a risk to depositing mud and debris on the public highway. Signs will be erected directing applicable vehicles to use the wheel cleaning facilities before leaving the site if required.

6.2.1.2 The wheel cleaning facility will work based on the vibration effect created by vehicle tyres driving over inverted steel angle. It requires no power or no water, and therefore no drainage.

6.2.1.3 Regular inspections will be undertaken throughout the working day to ensure the public highway is clear of dust, mud or debris as a result of any of the site plant or vehicles. Where required a road sweeper will be employed to ensure the public highway remains clear of mud and dirt from the construction site.

6.3 Control of Oils and Fuel

6.3.1.1 Oils and fuels may be used in plant and equipment during the construction phase, and the following procedures will be implemented for managing fuels, lubricants and hydraulic fluids used on the site:

- An inventory of all oils, fuels and other chemicals that are stored in significant quantities within the site, with the potential to have significant environmental impact, will be kept on site by the Principal Contractor, recording the maximum amount, type and hazard associated with the substances.
- All chemicals, oils and fuels will be stored in labelled containers which are of sufficient strength and structural integrity to ensure that they are unlikely to burst or leak during ordinary use. Chemicals, oils and fuels will be stored on impermeable areas of hardstanding within the construction compound.
- Fuels, oils and chemicals will be stored within an impermeable bund of at least 110% capacity, with a rainwater sump. Any bunding that is exposed to the elements will be checked by the Principal Contractor at least weekly for accumulated rainwater and litter, with the litter removed. This will be recorded on the weekly inspection once completed.
- All fuels, oils and chemicals will be stored over 50m from watercourses.
- Drip trays will be used where necessary and during re-fuelling. Re-fuelling will only take place within designated areas.
- Waste oil will be drained into waste oil drainage tanks and transported to the waste oil storage tanks which will be labelled and double skinned and have blanking values to protect leaks.
- All deliveries of oil and fuel to the site will be supervised by the Principal Contractor to ensure that storage tanks are not overfilled. A record of this will be kept on site.
- An emergency spill plan will be prepared by the Principal Contractor setting out the procedure to be followed in the event of an accidental spillage. Emergency spill kits will be kept on site adjacent to fuel storage and provided on larger items of plant.
- All accidental spillages will be immediately cleaned up in accordance with the emergency spillage procedure. Sufficient quantities of absorbent materials, booms and mop up sheets will be provided in labelled, waterproof containers and available for use in the event of accidental spillage.

6.3.1.2 The Principal Contractor will have an emergency response company on standby in the event of a spillage which cannot be suitably addressed by on-site staff.

7 Noise and Vibration Control

7.1 Noise Control

7.1.1.1 All construction activities will be undertaken in accordance with good practice as set out in BS5228-1: 2009+A1: 2014 ‘Code of Practice for Noise and Vibration Control on Construction and Open Sites’.

7.1.1.2 Activities on the site, which could give rise to construction noise impacts include:

- Site preparation i.e. constructing access tracks, light trenching for cables.
- Deliveries of material, equipment and plant via Heavy Goods Vehicles (HGVs).
- Construction of the proposed development including assembly of solar PV panels and metal frames on the ground, construction of a small control building. The driving in of solar table foundations legs.

7.1.1.3 All equipment will be maintained in good working order and noise control measures will be fitted where appropriate. All vehicles, plant and machinery will be fitted with effective exhaust silencers which will be used and maintained in accordance with manufactures’ instructions. Where possible the quietest working equipment available will be utilised, e.g. electric/battery powered equipment.

7.1.1.4 Where flexibility exists, activities will be separated from residential neighbours by the maximum possible distances and using natural land features to screen the works. All ancillary plant such as generators and pumps, will be positioned to cause minimum noise disturbance and if necessary, temporary acoustic screens or enclosures will be provided.

7.1.1.5 Wherever possible pumps, generators and lighting sets will be located to ensure that they are inaudible at the nearest noise sensitive premises.

7.1.1.6 Plant and equipment will be shut down or throttled down to a minimum between work periods.

7.1.1.7 Any material handled and laid down on-site will be done, either along the site track close to the operation that will be using the material in order to minimise a requirement to re-handle, or adjacent to the compound area. Vehicles will be loaded carefully to ensure minimal drop heights.

7.1.1.8 Local residents will be kept informed of the proposed working schedule, including times and duration of any abnormally noisy activity.

7.2 Alternative Warning Devices

7.2.1.1 All fixed and mobile plant used within the site will be required to be fitted with a multifrequency broadband sound alarm.

7.2.1.2 No fixed or mobile plant will incorporate bleeping type warning devices that are audible at noise sensitive receptors - single frequency alarms and/or bleeping type devices will not be permitted for use on site.

8 Artificial Lighting

8.1.1.1 All construction activities will be undertaken taking cognisance of good practice as set out in the Institution of Lighting Professionals – Guidance Note 01/21 – Reduction of Obtrusive Light where appropriate.

8.1.1.2 The site is located in a rural area and is relatively remote from the nearest residential areas. Whilst mobile lighting rigs will be used throughout the site where required to support construction activities, static lighting will be installed to illuminate the area which is to accommodate the construction compound / welfare facilities and BESS / substation installation sites where the greatest amount of activity will be generated. The nearest residential property (Brookside) is located over 400m to the south of this area with the nearest residential areas (Thurcroft and Laughton Common), located over 1km from this area of the site. It is considered that this will minimise the potential for the illumination of this area to reach any properties.

8.1.1.3 The potential for illumination to spill outwith the site will be further minimised by the use of downward / inward facing lighting and the final location of this will be determined with input from the ECoW, avoiding close proximity and light-spill onto existing vegetated corridors and trees supporting PRFs.

8.1.1.4 The core construction hours will be restricted to 07:00 to 19:00 Monday to Friday and 07:00 to 13:00 on Saturday, as per Condition 30 of the planning consent. These working hours will limit the amount of time that construction activities would be undertaken within darkness, particularly during the summer months, with this reducing the requirement for artificial lighting to support construction activities. Lighting will only be used when required and will be switched off during daylight hours, unless there is a safety requirement for them to be switched on.

8.1.1.5 It is anticipated that the only use of external artificial lighting to support the development's operation will be at the substation, BESS and welfare compound which have been located away from the site boundary to minimise the potential for illumination to spill outwith the site.

9 Waste Management

9.1.1.1 All waste will be managed in accordance with applicable legislation and recognised best practice within the construction industry. The burning or burying of waste or packaging materials will not be allowed at any time.

9.1.1.2 Table 1 summarises the anticipated sources of waste associated with construction activities.

Table 1. Waste Sources

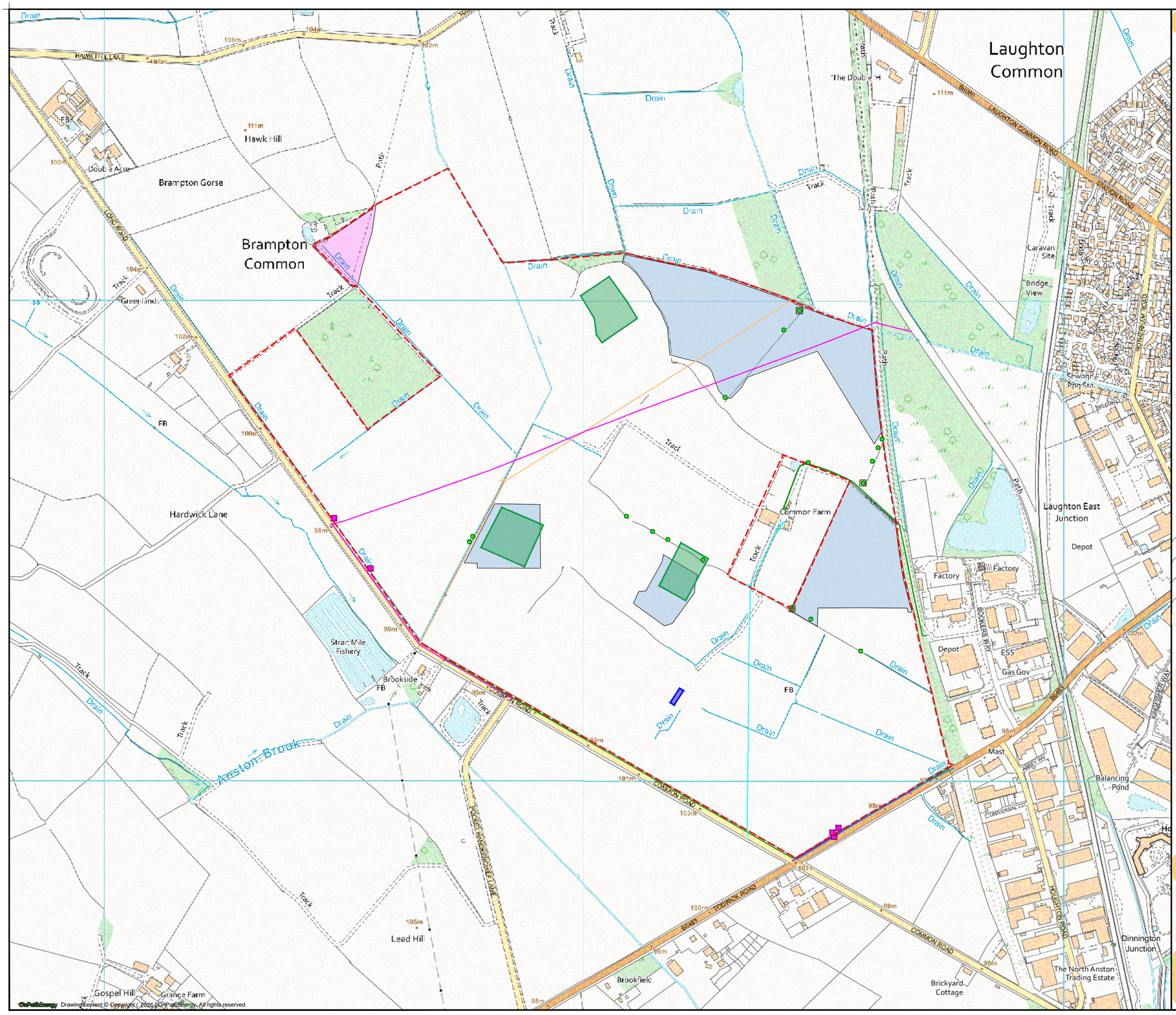
Waste	Source
Canteen and office waste	Staff welfare facilities and site office.
Hardcore, stone, gravel, and concrete	Temporary surfaces to facilitate construction activities.
Concrete blocks and miscellaneous building materials	Left over from construction of the control building and temporary office accommodation.
Timber	Temporary supports, shuttering and product deliveries.
Steel	Steel that is unused in reinforced concrete structures, fencing or panel foundations.
Lubricating Oils, Diesel	Unused quantities at end of construction period.

9.1.1.3 Waste materials will be dealt with as follows:

- Non-hazardous Office & Canteen Waste: A licensed waste disposal contractor will transport this waste to a licensed landfill.
- Construction Waste: This waste will be stockpiled on site and will be transported to a licensed landfill for final disposal.
- Steel: All waste steel reinforcing bars will be stockpiled. Unused material may be gathered for reuse elsewhere and scrap items will be collected for recycling by a scrap metal merchant.
- Timber: Timber waste will be minimised through reuse of shuttering, etc. throughout the site. At completion it is expected that the majority of timber will be gathered for reuse elsewhere at a different site.
- Fuel, Oils and Hydraulic Fluids: Waste fuels, oils and fluids will be stored on site in labelled containers and will be collected by a licensed oil recycling contractor as necessary.
- Electrical Waste: All electrical waste will be stored on site in labelled containers and will be collected by a licensed recycling contractor as necessary.

9.1.1.4 Appropriate waste management records will be maintained.

Appendix A Environmental Constraints Plan



Key:

- SITE BOUNDARY 115.5ha (285.4acres)
- JAPANESE KNOTWEED LOCATIONS
- WATCHING BRIEF
- No Dig Area
- Trees With Bat Roost Potential
- Barn Owl Boxes
- Brampton Common LWS
- Protection Zone
- GAS PIPELINE
- LP PE GAS PIPELINE
- 11kV OVERHEAD POWER LINE
- 66kV OVERHEAD POWER LINE
- WATER
- TELECOMS

Revision:	Description:	Drawn:	Originator:	Approved:	Date:

Linear Scale: 0m 50m 150m 250m 100m 200m

Scale: 1:7500@A3

Sheet: 1/1

Source information:

Drawn: CM | Originator: RE | Checked: RE | Appd: 19.05.25

Shared Document Information:

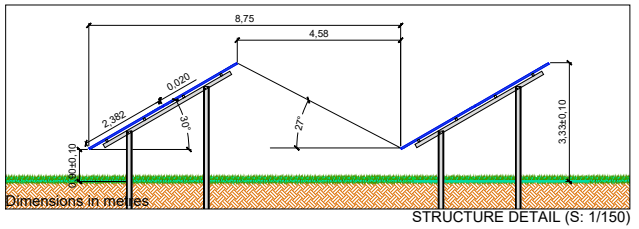
Project: COMMON FARM SOLAR PARK

Title: Environmental Constraints Plan

Ref: OPE / 4133 / 75

OnPathEnergy
Chase House, 4 Mandarin Road, Houghton-Le-Spring. DH4 5RA
T: +44 330 335 8010 W: www.onpathenergy.com

Appendix B Site Layout



STRUCTURE DETAIL (S: 1/150)

Modules (645Wp): 106.708
Strings: 3.811 (28 mod./string)
Module Tilt: 30º
Azimut: 0º (South)

LEGEND

- SOLAR MODULES 640Wp
- MVPS
- DRAINAGE BASIN
- BOUNDARY
- FENCE
- ARCHAEOLOGICAL AREA
- INTERNAL ROAD
- EXTERNAL ROAD
- EXISTING ROAD
- COMPOUND AREA
- GAS PIPELINE
- OVERHEAD LINE
- SWALES
- SECURITY CAMERAS
- ROOT PROTECTION BUFFER
- ROADS AND FOOTPATH BUFFER

REV.	DATE	COMMENTS	DRAWER	ENG.
04	25-05-05	New layout module 645Wp	rvaldes	cgarrido
03	25-04-17	New exclussion zones added	jaguilar	epeguero

Consulting firm:

grupotec

OFFER

Common Farm
PV INSTALLATION
68,826.66 kWp

Location:

Dinnington - United Kingdom

Drawing:

PV_GENERAL PLANT

Graphic scale: 0 55 110 165 220 275

Scale: 1:5500

Version: 04

Drawing No: CMM-PV-GN-ENG-LAY-0003

Date: 25/05/15

Page:

Printed: P.25/05/15

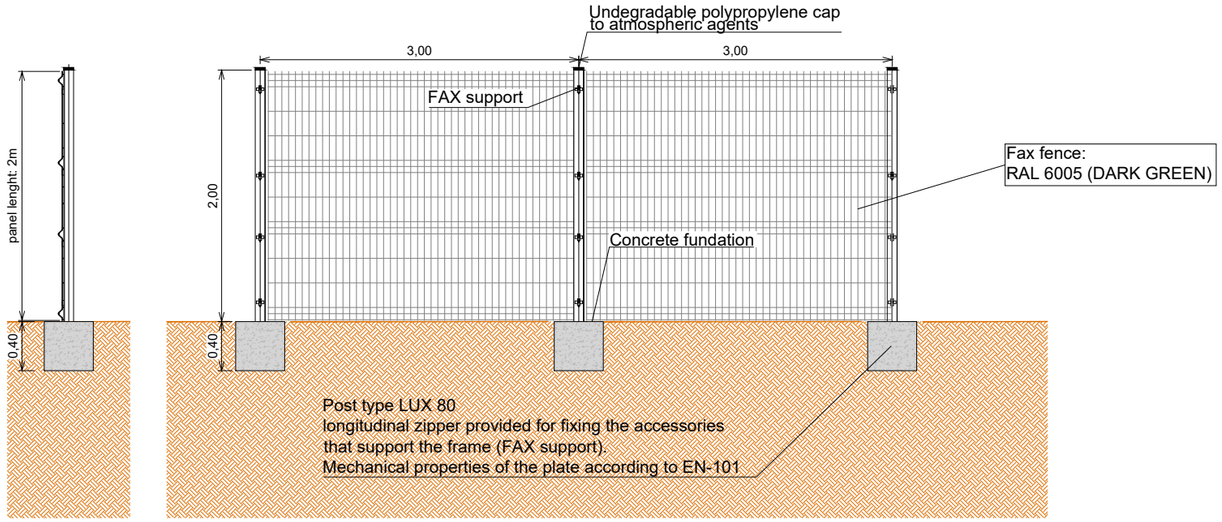
Drawing by: rvaldes

To be printed in A3 format (420x297mm)

Appendix C Fencing Details

PERIMETRAL FENCE

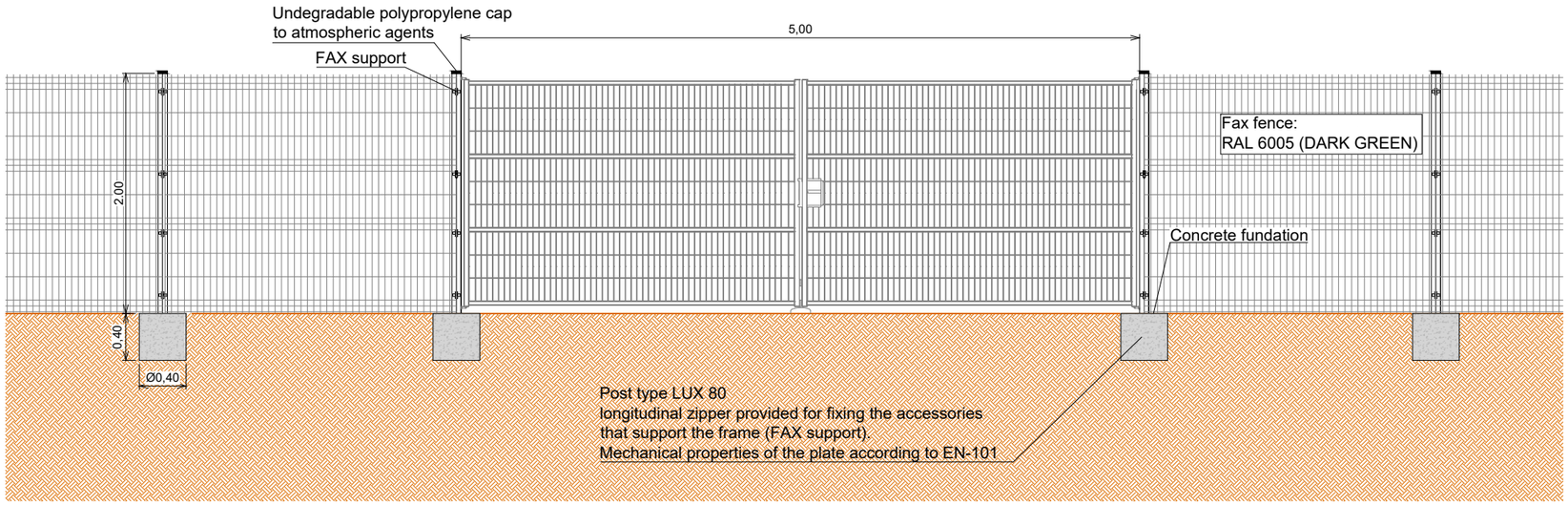
FENCE ANCHORED TO WALL



SECTION VIEW FRONT VIEW

TOP VIEW

ACCESS GATE (FRONT VIEW)



NOTE:

Mammal gates will be provided at intervals as set out in the Construction Management Plan

Dimensions in metres

REV.	DATE	COMMENTS	DRAWER	ENG.
04	25-05-05	New layout module 645Wp	rvaldes	cgarrido
03	25-04-17	New exclussion zones added	jaguilar	epeguero

Consulting firm:

grupotec

OFFER

Common Farm
PV INSTALLATION
68,826.66 kWp

Location:
Dinnington - United Kingdom

Drawing:
PV_PERIMETER FENCE

Graphic scale: 0 0,5 1,0 1,5 2,0 2,5

Scale: 1:50

Version: 01

Drawing No: CMM-PV-CV-ENG-LAY-0001

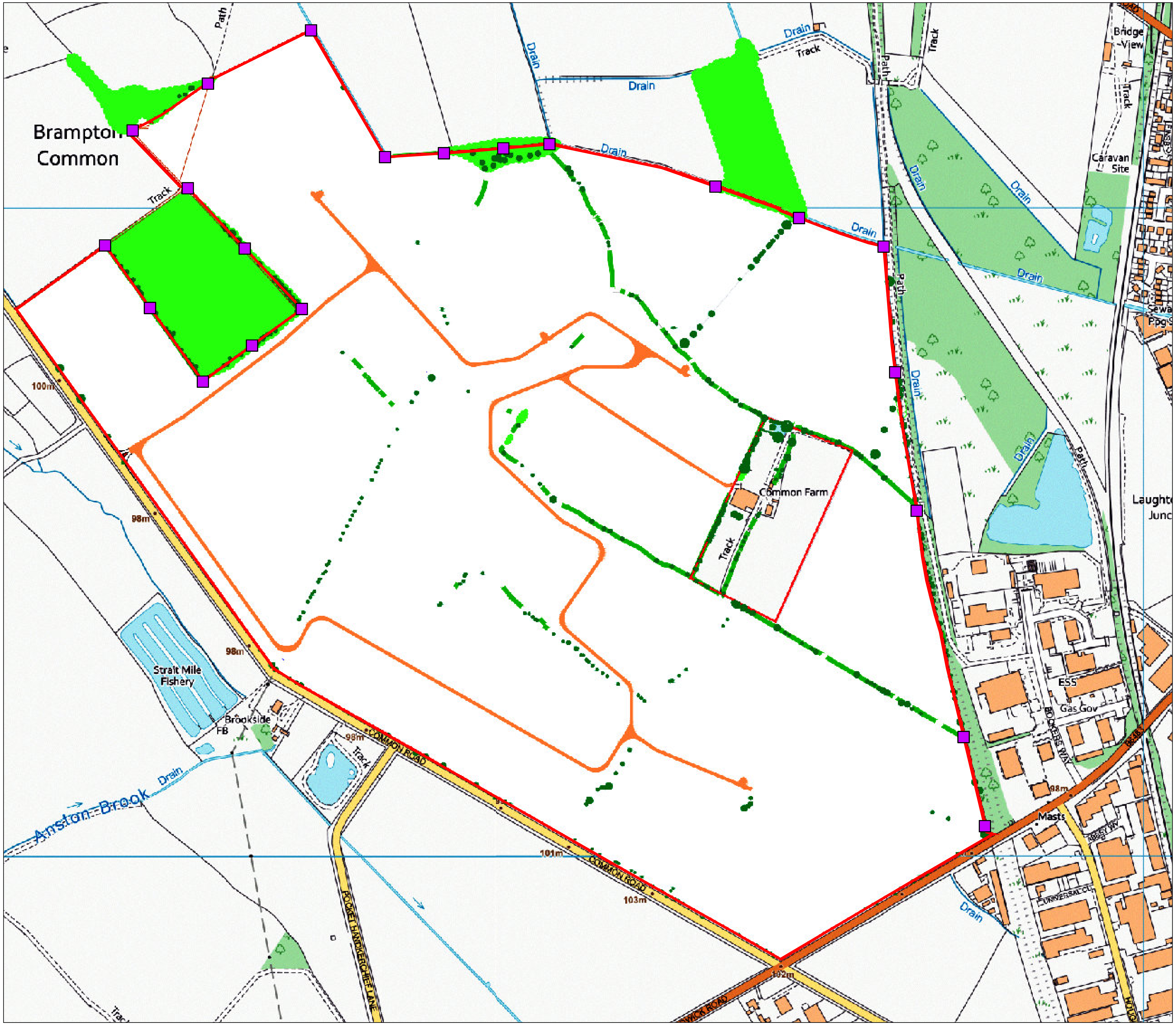
Date: 25/05/14

Page:

Printed: 25/05/14

Drawing by: rvaldes

To be printed in A3 format (420x297mm)



Legend

- Site Boundary
- Indicative Wildlife Gate Locations

0 75 150 225 300 Meters

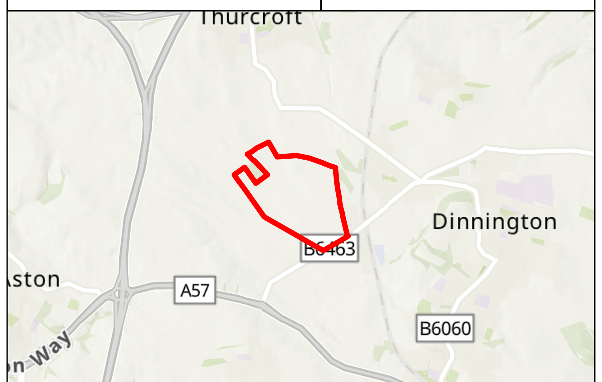
N

Figure	Indicative Locations of Wildlife Gates
Job	Common Farm Solar Park
Client	OnPath Energy Limited

Figure No.	Revision	Date
1	B	20/05/2025

Drawn	Checked	Scale
JV	JS	1:5,500 @ A3

Job No.	Central GR
126177.655636	450144E 386529N



DO NOT SCALE.
NOT FOR CONSTRUCTION.

Lucion
Protecting people and planet

Appendix D Section 278 Agreement

Rotherham Metropolitan Borough Council
Riverside House| Main Street| Rotherham| S60 1AE
01709 382121

Our Reference: 100863
Our contact: Simon Gammons, simon.gammons@rotherham.gov.uk

To:
ONPATH ENERGY LIMITED
Chase House,
4 Mandarin Road,
Houghton le Spring,
Durham DH4 5RA
Unit 15

For the attention of Peter Faraday Date: 11th February 2025

Common Road/Long Road, Dinnington, Sheffield- Proposed Highway Works, Section 278 Agreement
Planning Reference RB2022/1203 (approved 13th. June 2023)
Designer: Carlos Botello, Aecom.

Dear Sirs,

With reference to the above, and the envisaged agreement to be entered into for works to provide a new access, I can confirm that the following drawings and designer's response to the stage 2 Road Safety Audit are considered acceptable and I therefore grant Technical Approval.

The drawings are:

60669425 ACM UK XX DR IM 0001 PO7 General Arrnagement
60669425 ACM UK XX DR IM 0002 PO4 Site Location Plan
60669425 ACM UK XX DR IM 0003 PO7 Visibility Splays
60669425 ACM UK XX DR IM 0004 PO5 Swept Paths
60669425 ACM UK XX DR IM 0005 PO4 Swept Paths
60669425 ACM UK XX DR IM 0006 PO6 Proposed Surfaces
60669425 ACM UK XX DR IM 0007 PO6 Levels and Contours
60669425 ACM UK XX DR IM 0008 PO7 Horizontal and Vertical Alignments
60669425 ACM UK XX DR IM 0010 PO6 Drainage
60669425 ACM UK XX DR IM 0201 PO6 Site Clearance
60669425 ACM UK XX DR IM 1501 PO6 Standard Construction Details 1
60669425 ACM UK XX DR IM 1503 Standard Construction Details 2
60669425 ACM UK XX DR IM 1502 PO5 Typical Drainage Details

The Road safety Audit Designers Response is:
60718466 RSA 2 – Designers Response 7/11/24 as added to by the Overseeing Organisation (RMBC) and dated 6/2/25. I have enclosed a copy of the audit response with this letter.

The agreement, when completed, will allow for minor changes to approved design should they become necessary before or during the works.

For and on behalf of
Rotherham Borough Council

Simon Gammons
Transportation Infrastructure Services