

# St Asaph Solar Farm

**At**

**Cefnmeiriadog,**

**St Asaph,**

**Denbighshire,**

**Wales,**

**LL17 0HF**

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Approved by:		
Issued to:	Sharon Thomas	

## Review record

This plan will be reviewed against the construction works and at least monthly to ensure its relevance.

Date	Revision / section	Signature
11.05.2022	Initial plan	Liam Leadbetter
22.12.2022	Review	Laura Murphy
28.04.2023	Site layout figures amended	Laura Murphy
16.04.2025	Update to multiple details	Josh O'Hanlon
28.04.2025	Review and Site Layout figures amended	Sharon Thomas

# CONSTRUCTION & TRAFFIC MANAGEMENT PLAN



FO-SHE-115a

Rev.1.0

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## 1. Introduction

- The site currently comprises two plots of land circa 35.42 hectares in area. This planning application seeks permission for the construction, operation and decommissioning of a ground mounted photovoltaic (PV) solar farm, together with associated equipment, infrastructure and ancillary works (the 'Development') on land at Cefn Meiriadog, St Asaph, Denbighshire (the 'Site')
- This document has been prepared to support in the mobilisation and subsequent vehicular and pedestrian traffic to, from and on the site throughout the entire project.
- A detailed description of the proposed Solar Farm has been provided in the accompanying Planning, Design and Access Statement.

## 2. Scope of works

- The project will consist of an 18.44MW (megawatt) ground mounted photovoltaic solar farm. The ground mounted solar will comprise of PV modules and associated framework including bases and associated cabling and infrastructure, Inverters, Transformers, customer substations and DNO substation. The site is located within the administrative boundary of Denbighshire County Council (DCC).
- The solar panels, frames and other site construction materials would be transported to the application site on articulated lorries up to 16.5m in length.

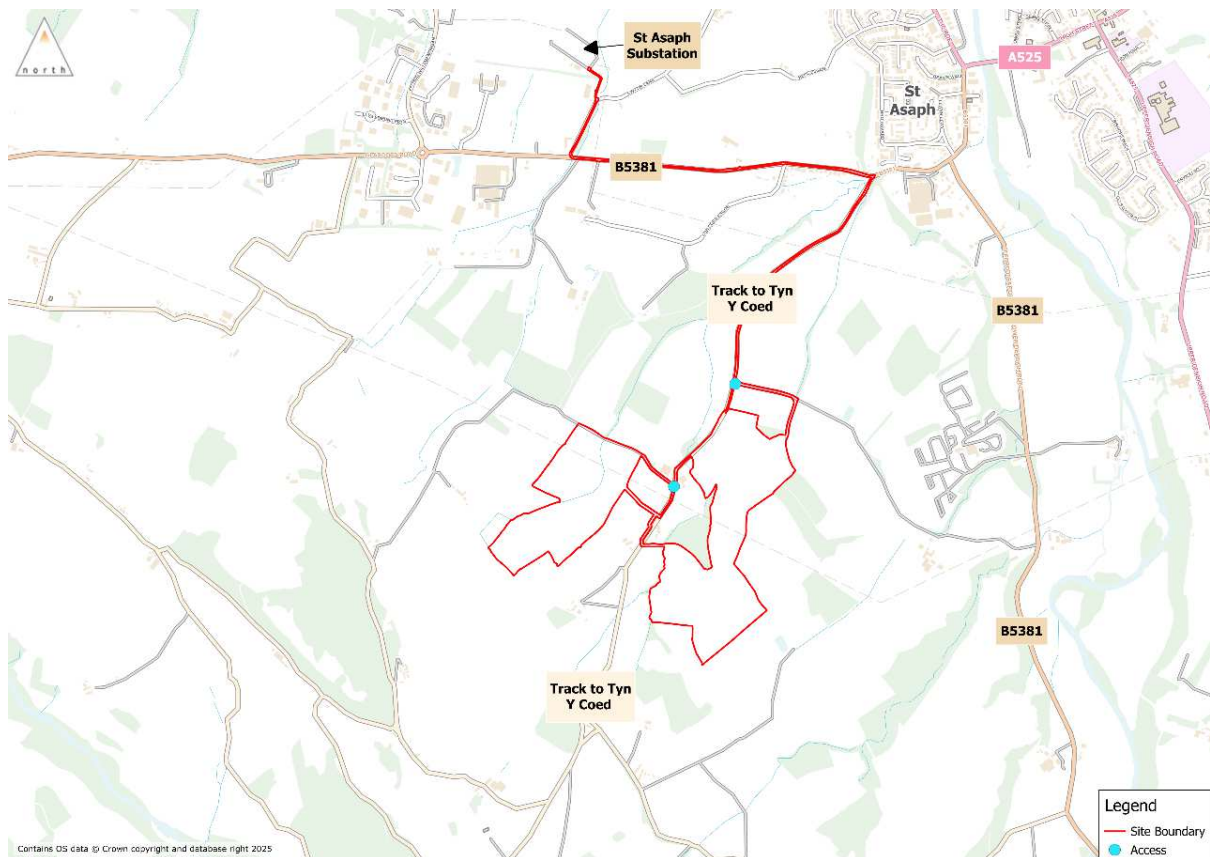


Figure 1 - Site Location, Cefnmeiriadog, St Asaph, Denbighshire, Wales, LL17 0HF

- There will be enabling works so that construction can be undertaken safely and with minimal effect on the surrounding environment and infrastructure.
- Through the use of service searches, the following apparatus and/or underground assets are known to exist on site, or in the vicinity of the site, and will be suitably controlled throughout the construction and operation phases:
  - Western Power Distribution – Decommissioned 11kV underground cable
  - LV navigation Light Power supply and underground cable
  - Overhead Power lines
- The welfare, car parking and turning areas will be on temporary, stabilised ground. These stabilised areas are created using terra firma matting and stone where required.
- The point of connection to the grid will be the St Asaph substation which is located north of the site. The cabling between the point of connection and the point of supply will be buried underground within the highway.

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- The cable will run under the track to Tyn Y Coed, Glascoed Road and Cwttir Lane from the Site to St Asaph Substation and will require temporary roadworks. All road works will be undertaken in accordance with “Traffic Signs Manual – Chapter 8 - Traffic Safety Measures and Signs for Road Works and Temporary Situations – Part 1 Design – 2009”.
- Site landscaping and planting will be carried out in accordance with the recommendations of the Landscape Plan. Biodiversity will be controlled as per the Landscape and Ecological Management Plan.
- All construction works will be undertaken between the hours of Mon-Fri 07:00 to 18:00 and Sat 08:00-14:00 only unless otherwise specified in writing by the Local Planning Authority. There will be no working on Sundays or Bank Holidays.
- Personal Injury Collision (PIC) data was obtained from CrashMap for the adjoining highway network for the most recent five year period available, up to 2023 No PIC’s were identified in the road network adjacent to the application site.

### 3. Planning conditions

- There are no planning conditions at this stage.
- Any traffic related conditions should they arise will be discharged with the use of this plan when revised.

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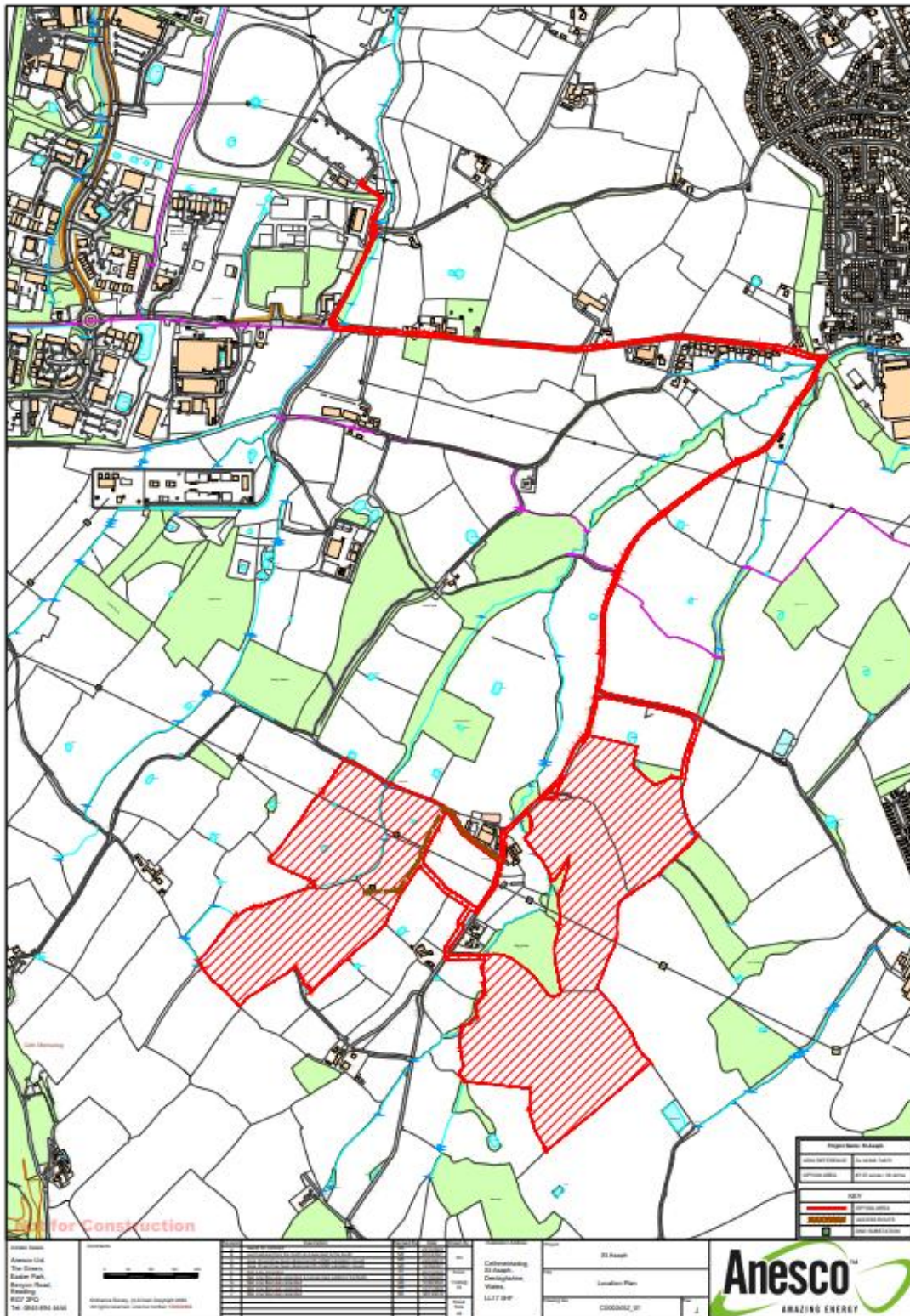
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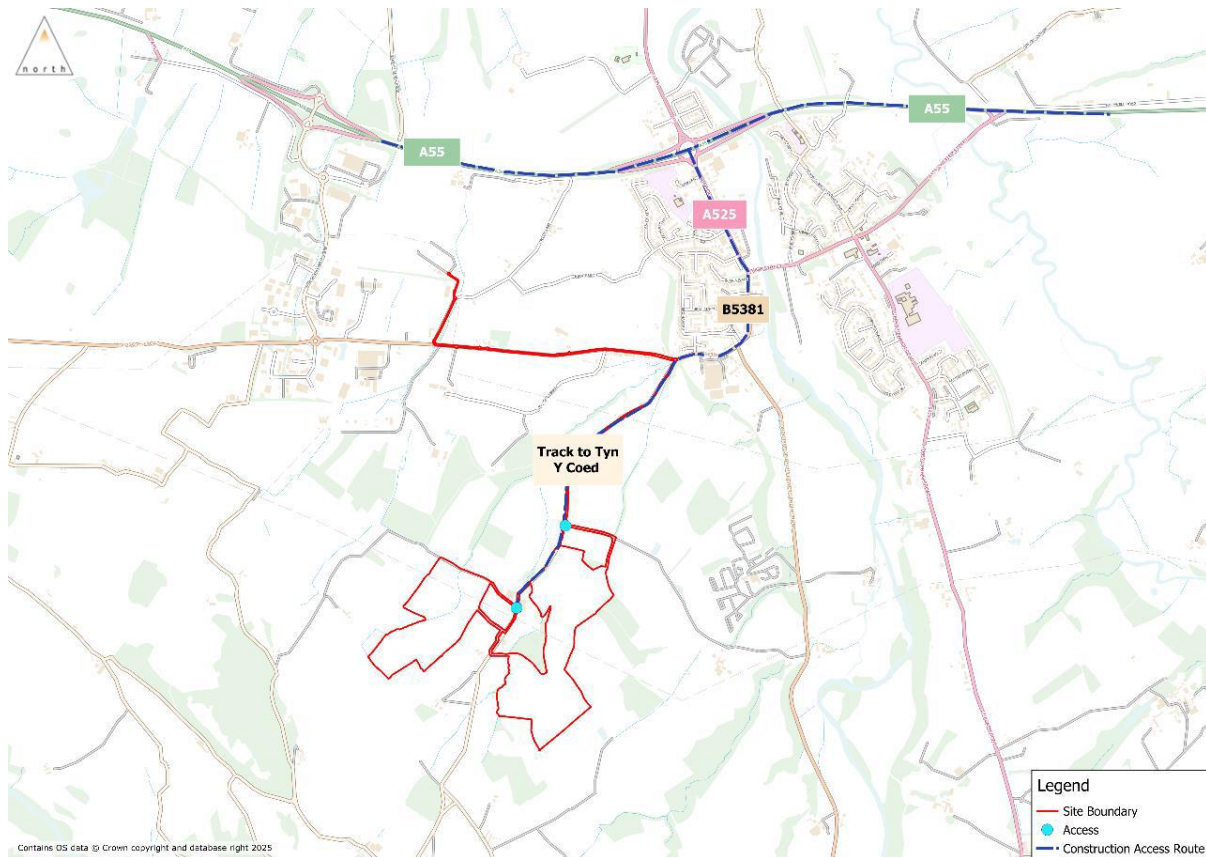
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Pic 1 – Location Plan



**Pic 2 – Traffic Route Plan**



- Access to site entrance from A55 exiting at exit 27, approximately 1.77 miles.
- The Local Highway network is centred around Cerfn Meiriadog, this connects to the north to the B5381 and to the southeast to the B5381 as well. Cerfn Meiriadog is a single carriageway with one lane. Cerfn Meiriadog has no footway, no street lighting and an unrestricted speed limit.



## 4. Site Access

- The application site can be reached via taking the A525 south off the A55. Follow the A525 south until the roundabout with the B5381 then follow the B5381 southwest until Cerfn Meiriadog is reached. Travel south down this road until the application site is reached. No vehicle parking, loading or unloading will take place within the public highway or along the access route. All routes will be kept free of obstacles and trip hazards during the period of installation.

## 5. Vehicle movements (construction deliveries)

- Deliveries will be on 40t HGVs. All HGV deliveries will be coordinated to be “Just in Time” to control traffic flow. They will be asked to pull up away from the site where they will be required to call ahead to ensure that the way is clear and that no other vehicles are present that may create a traffic issue.
- The modules will be delivered on HGVs which are typically carried to the site on a 16.5m long articulated vehicle. Typical dimensions for a 16.5m long articulated vehicle are:
  - (i) 16.5m long;
  - (ii) 2.5m wide;
  - (iii) 3.65m high; and
  - (iv) approx. 11.2 tonnes unladen.
- The proposed deliveries will therefore not weigh the maximum legal limit of 40 tonnes.

**Pic 4 - Typical HGV – Carrying Solar PV System**



## 6. Heavy Goods Vehicle Movements – Construction Period

- The Proposed Development comprises two phases: construction and operation. Forecast average daily two-way traffic movements associated with both phases is presented in the Table below.

Phase	Duration	Average daily two-way traffic movements
<b>Construction</b>	36 weeks	4 two-way HGV movements per day
<b>Operation</b>	Permanent	4 two-way movements each month

Table 1: Forecast Development Average Two-way Traffic Movements

- Table.1 above demonstrates that there will be up approximately 4 deliveries per day on average over the 36-week. During peak construction activities we will expect up to 19 deliveries per day over an 8-week period (Monday to Saturday). This will vary in line with the build process.
- In addition to the HGV movements identified in the table, there will also be a small number of construction movements associated with smaller vehicles such as the transport of construction workers and sub-contractors.
- Reversing will not need to be undertaken as HGVs will drive on to site in forward gear and turn within the turning area and then leave in forward gear.
- No excavated materials will require removal from the site. Any excavated soil will be reused for backfilling or in the creation of banks.
- There will be no contact with muddy/dirty ground as all delivery vehicles traverse the hard standing and therefore none or very little debris should be tracked out on to the road outside, with no field plant tracking on to road outside. There will be road sweeping and wheel washing services available should the need arise, which will depend on the prevailing weather conditions.
- Delivery of the components shall be made directly to the construction compound area. A new access track will be utilised during construction, future maintenance and subsequent decommissioning of the proposed solar farm.
- There are no abnormal loads proposed in relation to the Proposed Development.

## 7. Vehicle movements (construction site staff)

- There will be up to twenty operatives on site at the busiest time therefore to reduce traffic onto site all operatives are encouraged to share vehicles.
- A Banksman will be used to aid HGV deliveries arriving and leaving the site where required.
- Where possible labour will be resourced locally.

## 8. Car Parking for Construction and Maintenance Staff

- The parking of vehicles is permissible only within the welfare area during construction of the site. There may be some space made available elsewhere on site for vans if there is a requirement but the project manager will decide this.

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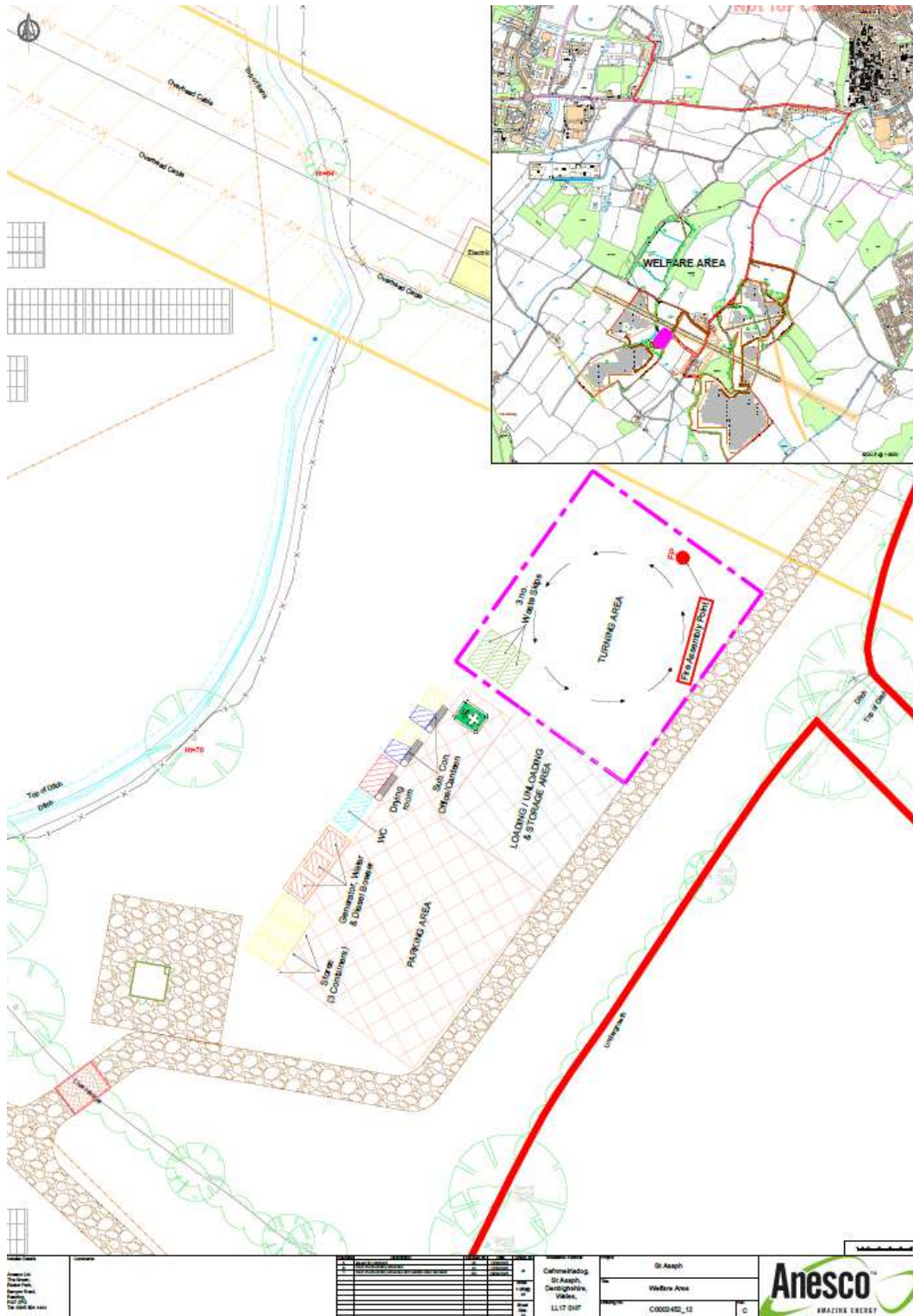
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Pic 5 –Welfare set up (Subject to change)



## 9. Directions to site

- HGV construction traffic will route to the application site via taking the A525 south off the A55. Follow the A525 south until the roundabout with the B5381 then follow the B5381 south west until Cerfn Meiriadog is reached. Traveling south down this road until the application site is reached.
- The development is connected to the national highways network, which enables straightforward transport of materials, equipment and labour.
- A banksman will be used to aid HGV deliveries arriving and leaving the site. Traffic Marshal/Banksman will only act for off highway operations.
- Where appropriate, Anesco will make reasonable endeavours to contact residents and businesses in the area and reach an agreement to keep the access routes as free of traffic as is possible during the hours of operation, in order to maintain safe and efficient access to and from the site.
- The surrounding roads are already subject to use by agricultural and industrial vehicles. Therefore it is considered suitable for use by the anticipated number of HGVs that will be associated with the temporary construction period. The likelihood of background traffic being delayed significantly is low.
- Anesco will put in place measures to minimise the likelihood of background traffic meeting an HGV associated with the construction phase on this route (see Pic.6). This would comprise:
  - Supplying this document and/or the access/egress routes to those who are to deliver to site
  - Signs noting the site and access/egress
  - All HGV deliveries will be coordinated to be “Just in Time” to control traffic flow. They will be asked to pull up away from the site. They will be required to call ahead to ensure that the way is clear and that no other vehicles are present that may create a traffic issue.
- The Application Site consists of two separate parcels, all being accessed off Cerfn Meiriadog road. This road runs north to south.
- There is an existing large access on the eastern side of the track to Tyn Y Coed, this track provides access to Tyn-y-Coed Farm as well as the surrounding agricultural fields. This track will provide access to the areas within the Site that are on the eastern side of the track to Tyn Y Coed.

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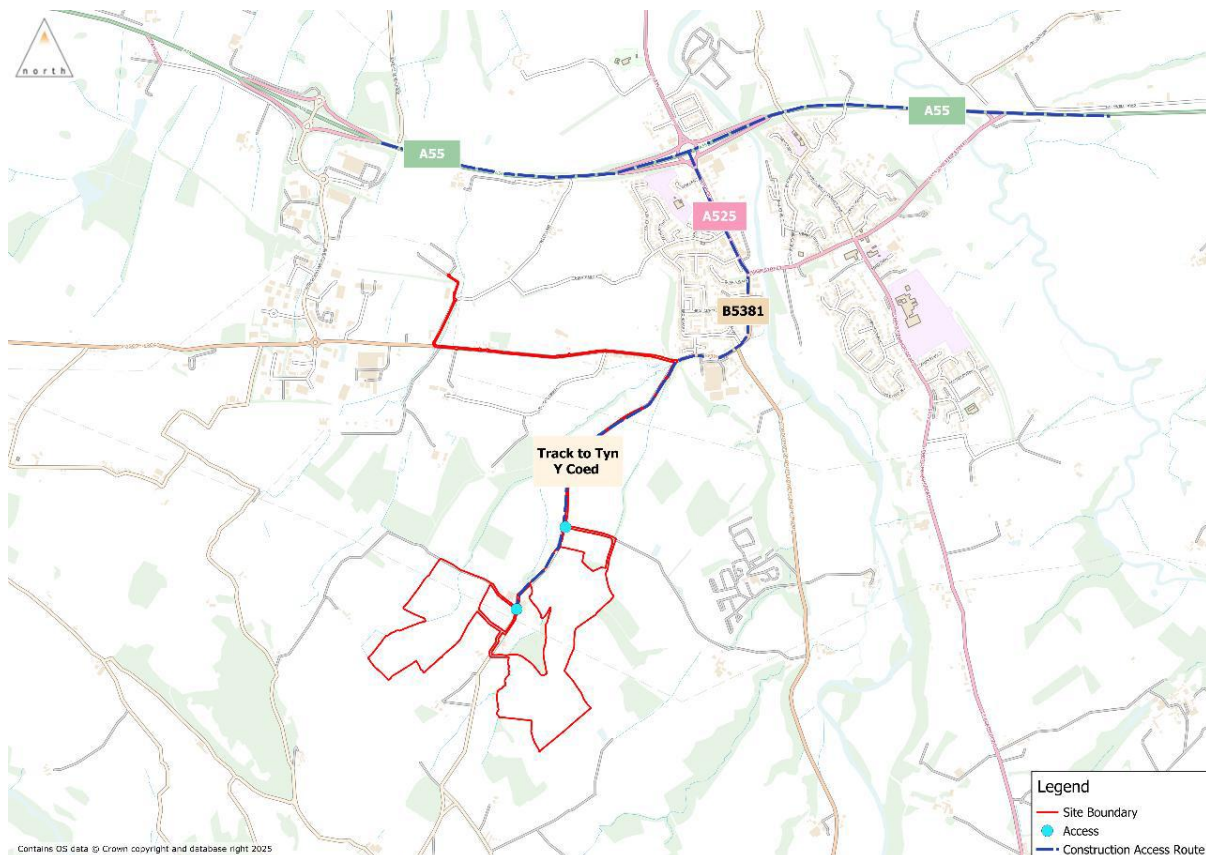
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- There is an existing access on the western side of the track to Tyn Y Coed, this track provides access to Tyn-y-ffordd-bach as well as the surrounding agricultural fields. This track will provide access to the areas within the Site that are on the western side of the track to Tyn Y Coed.
- The provision of an area of hardstanding within the application site for vehicles to manoeuvre in and over which they would drive prior to accessing the public road network would reduce the risk of mud being trafficked onto the public road network and the ensuing nuisance this can cause.
- Each of these accesses will be provided with an area of hardstanding for vehicles to manoeuvre in and over which they would drive prior to accessing the public road network would reduce the risk of mud being trafficked onto the public road network and the ensuing nuisance this can cause. Each parcel will be provided with an area of hardstanding to allow large articulated vehicles to turn, park as well as car parking for workers.

**Pic 6a Road Access route**



Access to site entrance from A55 exiting exit 27, approximately 1.77 miles

## 10. Delivery restrictions

- During the construction phase of the development construction deliveries and contractors will arrive at or leave the site between Mon-Fri 07:00 to 18:00 and Sat 08:00-14:00.
- There is a strict 5mph speed limit on site
- Only one HGV is allowed on site at any one time and these will enter in forward gear and exit the site in forward gear
- Articulated vehicles coming to site are call ahead for authorisation on to site.

- Once through the entrance drivers are to pull up to the turning area and report to the site office.

## 11.Directions on site

- All vehicles are to follow the Anesco site and road management signs and stay within the 5-mph speed limit
- Signs and barriers are to be installed to help manage the track users with all on site having this covered during induction
- HGV's are to come to site and proceed to the turning/unloading area with the use of a banksman before being off loaded by use of the excavators with fork attachments where stock will be placed on the put down area
- Mobile cranes under contract will unload larger items.
- Whilst unloading is taking place no personnel will be permitted to work in the area
- Skips are placed next to the turning/unloading area where waste carriers can easily access them, this will be done with a banks man present
- The welfare area will have pedestrian and vehicular routes leading to and from it and have signs noting this
- Depending on what phase the build is in will determine the pedestrian and vehicular routes, but they will be signed
- Pedestrian areas within the welfare area are separated from plant with the use of heras fencing and the line of welfare cabins
- When crane lifts are being undertaken then the project manager will advise all on site of routes

## 12.Safe use of vehicles and plant on site

- Only tracked vehicles are allowed to traverse the grassed areas or per Project Manager authorisation
- All vehicles are to be legally parked and operated by trained, competent, authorised, licensed and insured personnel

- Reversing will be kept to a minimum as one-way routes are in effect. Where this is necessary a vehicle banksman will be in attendance. Pedestrians not associated with the unloading will not be within lay down areas.
- The vehicles will be serviced and kept to a road/work worthy state through regular inspections
- The Safe Working Load of any given vehicle will be adhered to
- The service road has a maximum speed limit of 5mph
- Whilst not on the service road the maximum speed limit is 5mph
- Traffic management signs will be displayed throughout and outside of the site
- No muddy/dirty plant that would deposit material on adjacent highway is to traverse outside of the site before being washed down
- All plant is to be stored safely in the compound and left locked when not in use
- Fuels are to be stored within the fuelling area/diesel bowser where they must be stored in double skinned bunded tanks with drip trays and spill kits. Fuelling is prohibited elsewhere on site.
- All excavations to be guarded against
- All crane lifts will be done as per lift plan and permit to lift system.
- Overhead power lines will only be crossed at designated points (goalposts) and safety areas will not be encroached unless under permit to dig.

### 13.Site access and segregation for vehicles and pedestrians

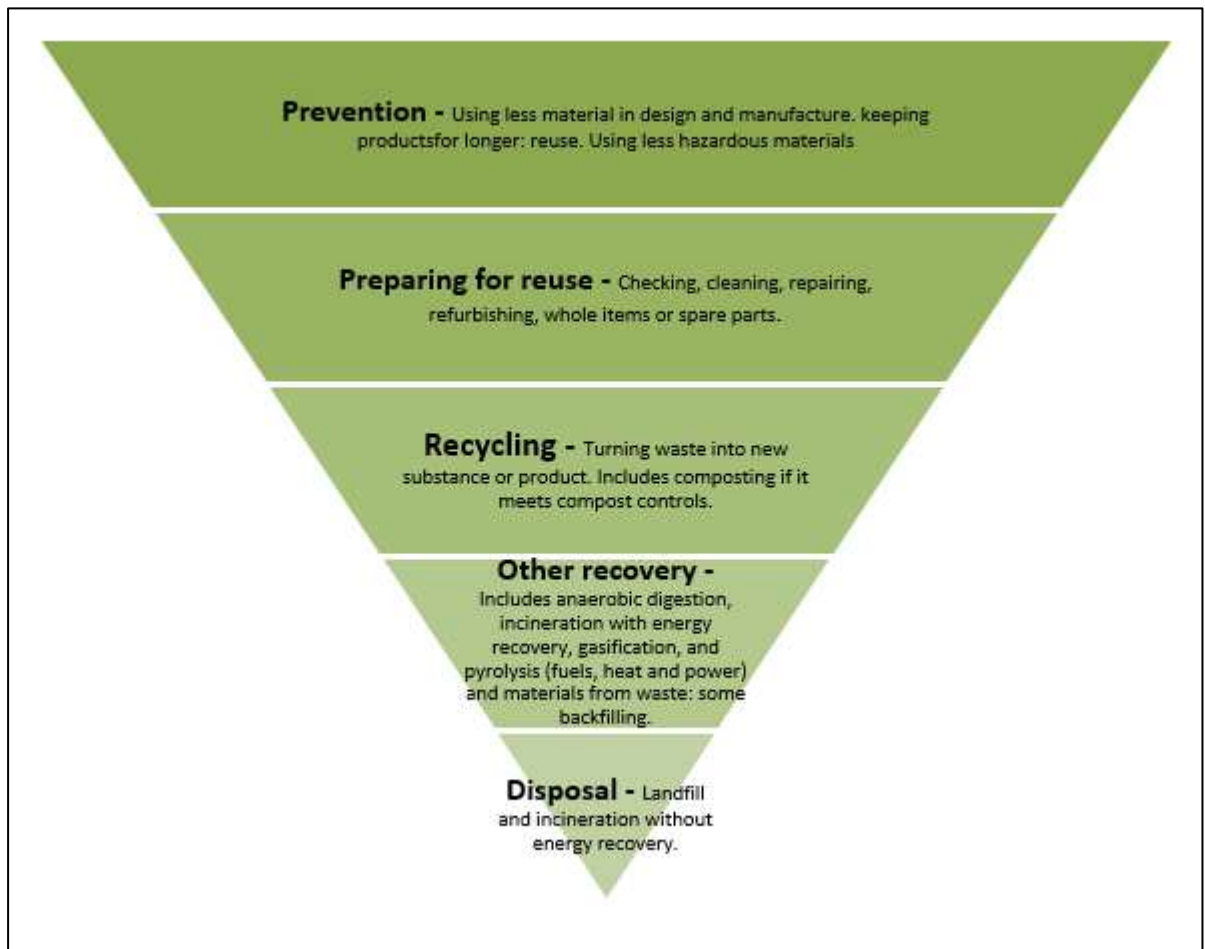
- Vehicle parking is only permissible only within the welfare area.
- Keep the road accessible for the safe egress/access of pedestrians and road users
- All pedestrians and vehicle users are to be extra vigilant around any cross over areas
- Segregation will be by suitable barriers e.g Heras panelling.
- Vehicles and pedestrians to use designated routes

## 14. Construction Process

- During the construction period the following activities will be undertaken:
  - Site preparation
  - Creating the access track and compound area
  - Erecting the security fence;
  - Excavating the site for the earthing and foundations;
  - Pouring the concrete base;
  - Piling of PV framing (concrete ballast foundation for archaeological area)
  - Installation of PV modules and associated equipment
  - Installation of LV equipment;
  - Installation of the HV electrical equipment
  - Installation of cables to the St Asaph Substation
  - Connecting all the cables up and backfilling the cable trenches (where required);
  - Commissioning and Energisation
  
- The construction phase of the Proposed Development would lead to a temporary increase in traffic on the road network surrounding the application site. This would be for a temporary 36-week period. On average during this 36 week period, it is expected that the Proposed Development would lead to an increase in traffic movements of 34 two-way vehicle movements per day. Changes of this magnitude would have a de minimis impact on road capacity.
  
- Due to the proximity of the site to the Strategic Road Network it is likely that commercial vehicle movements in the vicinity of the site are sufficiently high that an increase of four two-way daily vehicle movements is unlikely to cause a disturbance to other users.
  
- The temporary increase in traffic volumes and especially the heavy vehicle component of the traffic volume has the potential to lead to adverse highway safety impacts. However, as concluded in the TS, The changes associated with the construction of the Development are considered to be minimal and would have an imperceptible impact on the operation of the local highway network.

## 15. Waste

- All waste is disposed of responsibly from the site and will be undertaken by a local registered waste collection contractor.
  
- Waste will be disposed of using the Waste hierarchy shown below:



## 16. Security and Safety

- It is intended that the security fence that will surround the site for the duration of its life will be erected prior to the main construction phase, thus ensuring the site is secure during this phase.
- A Health and Safety board identifying potential hazards will be updated daily with all visitors required to sign in and adhere to on-site Health and Safety practices. All personnel working on site will be required to wear a high visibility vest or jacket, steel cap boots, and safety helmet, safety goggles and safety gloves as well as any other activity-specific safety wear.

## 17. Storage

- No long-term on-site storage is required as the HGVs will provide the materials at regular intervals throughout the construction period as construction progresses, rather than being delivered all in one go.

## 18.Noise Management

- Contractors will be required to conform to the construction noise code of practice BS 5228.
- All construction and decommissioning works will be undertaken between the hours of Mon-Fri 07:00 to 18:00 and Sat 08:00-14:00 only unless otherwise specified in writing by the local planning authority. There will be no working on Sundays or Bank Holidays. No works to be undertaken outside of those hours.

## 19.Air Quality and Dust Management

- Given the nature of the site, we do not anticipate any significant dust issues to arise.

## 20.Incident & Pollution Prevention and Emergency Response

- If an incident occurs, notification shall be made by the Site Manager to the Project Manager within 30 minutes of the incident occurring. Thereafter an incident report shall be submitted in line with Anesco's Incident Reporting procedure.
- Near miss and hazard identification is to be recorded on lauditor and appropriate parties informed.
- All incidents will be recorded on weekly reports and discussed in progress meeting.
- An appropriate number of spill kits will be located on the site with at least one within the fuelling area and one in the office with others placed where required. It is the responsibility of the site management to ensure all spill kits are fully stocked at all times.

## 21.Archaeological Importance

- No further Archaeological investigations, or excavation works are required to be undertaken for this development.

## 22.Management and Protection of Ecological Resources

- A Landscape and Ecological Management Plan has been developed, which includes a detailed description of ecological enhancement measures and management practices which will deliver a net gain to biodiversity on the Site and any mitigating actions to be undertaken during the construction and operational phase.

## 23.Operational Phase

- Once operational, there would be a minimal increase in traffic volumes with operational traffic (one van) expected to access the site on two occasions per month at the most. This maintenance will be carried out by Anesco.
- Whilst Anesco's compound will have been removed, the turning/unloading area will be left for vehicles to access the compound and be able to turn around to ensure that reversing will not occur on the track way. Any damage that was caused during the construction phase at the site entrance will be made good, although this is thought unlikely to occur at this site.