



CONSTRUCTION TRAFFIC MANAGEMENT PLAN

February 2022



Proposed Solar Park North of Maelor Gasworks



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Revision History

Issue 1	7 th December 2020	
Issue 2	15 th January 2021	
Issue 3	2 nd February 2021	
Issue 4	21 st February 2022	Revised Layout
Issue 5	23 rd February 2022	Revised Access

1414.2 Wrexham Ind Est Solar CTMP.docx

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1 Introduction

- 1.1 This Construction Traffic Management Plan (CTMP) has been prepared in respect to the proposed development of a solar farm to the north of Maelor Gas Works and to the south of Wrexham Industrial Estate. The site's location is shown in Appendix 1.

[Appendix 1 Location Plan](#)

- 1.2 The purpose and aim of this CTMP is to outline the measures to be followed by all persons and companies visiting, travelling, or delivering items to the site. The guidance will provide information on the safest and best practice procedures to follow when considering movements to and from site by all construction vehicles.
- 1.3 Following this plan will help to reduce the negative effects of off-site construction traffic on the local environment. It will set a standard to follow which has the safety of all road users as its core value.
- 1.4 This is a live document and is subject to change as the scope of work develops and site conditions change.
- 1.5 The content of the CTMP will be communicated at the following appropriate points:
- Sub-contractor Tender Enquiries
 - The Pre-Start Health, Safety and Environmental meetings
 - All site inductions will include a section on the CTMP
 - During on-going Toolbox Talks throughout the course of the works
- 1.6 Throughout the period of the works a nominated member of staff will act as a point of contact to manage liaison and handle local issues and points of concern.

2 Existing Conditions

Location

- 2.1 The site is shown in the context of the surrounding transport network in Appendix 2.

Appendix 2 Site Context

- 2.2 The site is located adjacent to an existing solar farm and to the north of Maelor Gasworks and south of Wrexham Industrial Estate.
- 2.3 Access to the site for construction traffic will be via an unnamed no-through road that is accessed from the B5130 at Talwrn.
- 2.4 The un-named road serves a small number of properties and is lightly trafficked. The dimensions of the junction with the B5130 are generous and will allow the free flow of two-way traffic. North of the junction the un-named road becomes a single track lane. Traffic management measures will be put in place to minimise the potential for opposing construction traffic to meet on the single track section of road and to minimise disruption to residents and other users. Further details are provided in the following sections.



Figure 1 B5130 Junction at Talwrn

3 Proposed Development

3.1 The proposed development layout is shown in Appendix 3.

Appendix 3 Proposed Development Layout

3.2 The development comprises of four areas Fields 1A, 1B and 1C are located on the eastern edge of the existing solar farm. Field 2 is located to the north of the existing solar farm development.

3.3 The proposed works will comprise of:

- Solar photovoltaic (PV) panels, mounted to a railing sub-structure;
- Inverter/transformer stations distributed evenly across the site;
- Battery storage;
- Compacted gravel tracks (constructed on a sub layer geogrid membrane) to allow vehicular access around the solar farm;
- Underground cabling to connect the panels to the substation;

Construction Programme & Traffic Generation

3.4 An indicative 16-week programme for the construction works is provided overleaf. The programme also shows the anticipated number of HGV delivery movements and number of personnel that will be on site throughout the course of the construction works.

3.5 To provide a robust assessment it has been assumed that the total number of HGV deliveries for each programmed task will occur within the first week of that task. For example, some 20 HGV deliveries is expected during the erection of solar array frames, which is programmed over six weeks. We have assumed that those 20 deliveries will occur during the first week rather than spread over the six-week period. Our assumptions therefore are based on deliveries for each task being concentrated into shorter timeframes than are likely to occur in practice. This allows for a worst-case assessment.

3.6 The most intensive period of HGV traffic is expected to occur during Week 2, when up to 30 HGV movements per day are expected. Assuming that these deliveries arrive at a constant rate throughout the day, this equates to around four HGV movements per hour, or one every 15 minutes or so.

3.7 It is expected that a maximum of up to around 25 personnel will be working on site during the construction phase. It is typical that construction personnel travel to and from site in a works mini-bus, vans or shared cars. Based on a worst case average vehicle occupancy it is expected that the personnel might generate some 12 or 13 vehicle arrivals at the start of the working day and the same number of departures at the end of the day. Adequate parking space will be provided within the site.

3.8 The largest anticipated vehicles that will access the site during construction will be flat-bed lorries, low-loaders and articulated lorries. In this respect the type of traffic movements generated during the construction phase will be no different to the HGV traffic already present on the highway network in the vicinity of the development.

3.9 No abnormal indivisible loads (AIL) are expected. However, should any AIL movements be necessary, for example for the crane to lift batteries, the Highway Authority and North Wales Police will be informed by way of the necessary AIL Movement Application Form or Electronic Service Delivery for Abnormal Loads (ESDAL).

- 3.10 Following the completion of construction, the operation of the solar farm will generate little traffic. Operational traffic will be limited to occasional visits for management and maintenance of the site.



Figure 2 Indicative Construction Programme

4 Construction Traffic Management Measures

- 4.1 This section outlines the intended construction traffic management measures that could be introduced to mitigate any impacts resulting from the proposals, specifically during the construction phase.

Access & Site Set-up

- 4.2 Access to the site for construction traffic will be via an unnamed no-through road that is accessed from the B5130 at Talwrn.
- 4.3 The un-named road serves a small number of properties and is lightly trafficked. The dimensions of the junction with the B5130 are generous and will allow the free flow of two-way traffic. North of the junction the un-named road becomes a single-track lane. Traffic management measures will be put in place to minimise the potential for opposing construction traffic to meet on the single-track section of road and to minimise disruption to residents and other users.
- 4.4 Wherever possible, deliveries to the site will be arranged for staggered time-slots, thereby minimising the prospect of opposing HGV's meeting on the single track section of road. No deliveries will be arranged for commuting peak hours in order to minimise disruption to existing residents.
- 4.5 At busy periods marshals will be deployed at the B5130 junction and the site's entrance and will be in radio contact. The marshal at the B5130 junction will inform the other when traffic turns into the un-named road allowing departing traffic to be held on-site until the arriving vehicle has cleared the single-file section of road.
- 4.6 Through these measures the potential for disruption can be minimised. In any event, the construction period and its associated traffic will be over a relatively short period and conditions will return to those that currently exist following completion of the works.
- 4.7 Beyond the un-named road described above, construction traffic will utilise the network of roads that serve Wrexham Industrial Estate, which have been designed for and accommodate large numbers of HGV movements. There are no traffic sensitive roads or receptors e.g. narrow country lanes, residential areas, schools etc. that might be impacted by construction traffic travelling to and from the proposed development. As such, it is considered unnecessary to specify specific routes for construction traffic to follow and areas to avoid.
- 4.8 The following measures will be adopted to safely control access to the site and manage the movement of vehicles and construction plant within it.
- Only the identified access point is to be used to access and egress the site;
 - The site access will be manned during working hours to ensure that access and egress to the site is adequately managed and maintain site security;
 - Adequate parking area to be provided within the development to avoid on-street parking;
 - All drivers must report to the gateman when arriving on site;
 - All drivers must adhere to site signage and 10mph speed limit;
 - Strictly no reversing without the presence of a trained banksman;
 - All drivers must wear full PPE when leaving their vehicle;

- Any lifting equipment e.g. Hiab/Crane must have relevant certificate prior to use on-site & documents must be inspected by the Site Manager;
- Operatives must ensure that plant, machinery, cabins and containers are secured at the end of the working day and keys removed during meal breaks;
- All vehicle drivers must ensure that their wheels are clean prior to entering the public highway;
- Any members of the public attempting to enter the site with a query must be accompanied to the Site Manager's Office;

Signage

4.9 Temporary signage will be erected to:

- Advise delivery drivers approaching the site of the correct route and access point;
- Warn other road users of the increased HGV activity on the construction traffic route together with dates for the start and end of the construction activity;
- Provide details of how the contractor can be contacted during working hours and in the event of an emergency.

4.10 The precise location of temporary signage will be agreed between the Principal Contractor and Wrexham Council's Highways Department.

Parking Arrangements

4.11 There is ample space within the site to accommodate all construction related parking demand and to accept delivery lorries within the site. No parking or unloading on the public highway will be permitted.

Road Cleaning

4.12 During periods of the construction there is a risk of transporting spoil (through dirty wheels) on to the road network and to mitigate this risk wheel-wash facilities will be provided.

4.13 During dry periods, damping down exposed excavations and transitional surfaces will be adopted as and when required to prevent mud / site debris from vehicles leaving the site contaminating the local highway network, whilst also helping to suppress dust.

Work Related Road Risks

4.14 The Principal Contractor will adopt the CLOCS standards to manage work related road risk (WRRR) beyond the boundary of the site. The CLOCS Standard is a national industry standard and sets out a series of requirements for contractors and logistics operators designed to reduce the risk of collisions with vulnerable road users.

4.15 In accordance with the CLOCS standard, it will be a requirement that all suppliers delivering to the site be a member of (or working towards membership) recognised independent audit bodies such as:

- Fleet Operator Recognition Scheme (FORS)
- Van Excellence

4.16 Some of the minimum standards that apply for vehicles are listed below:

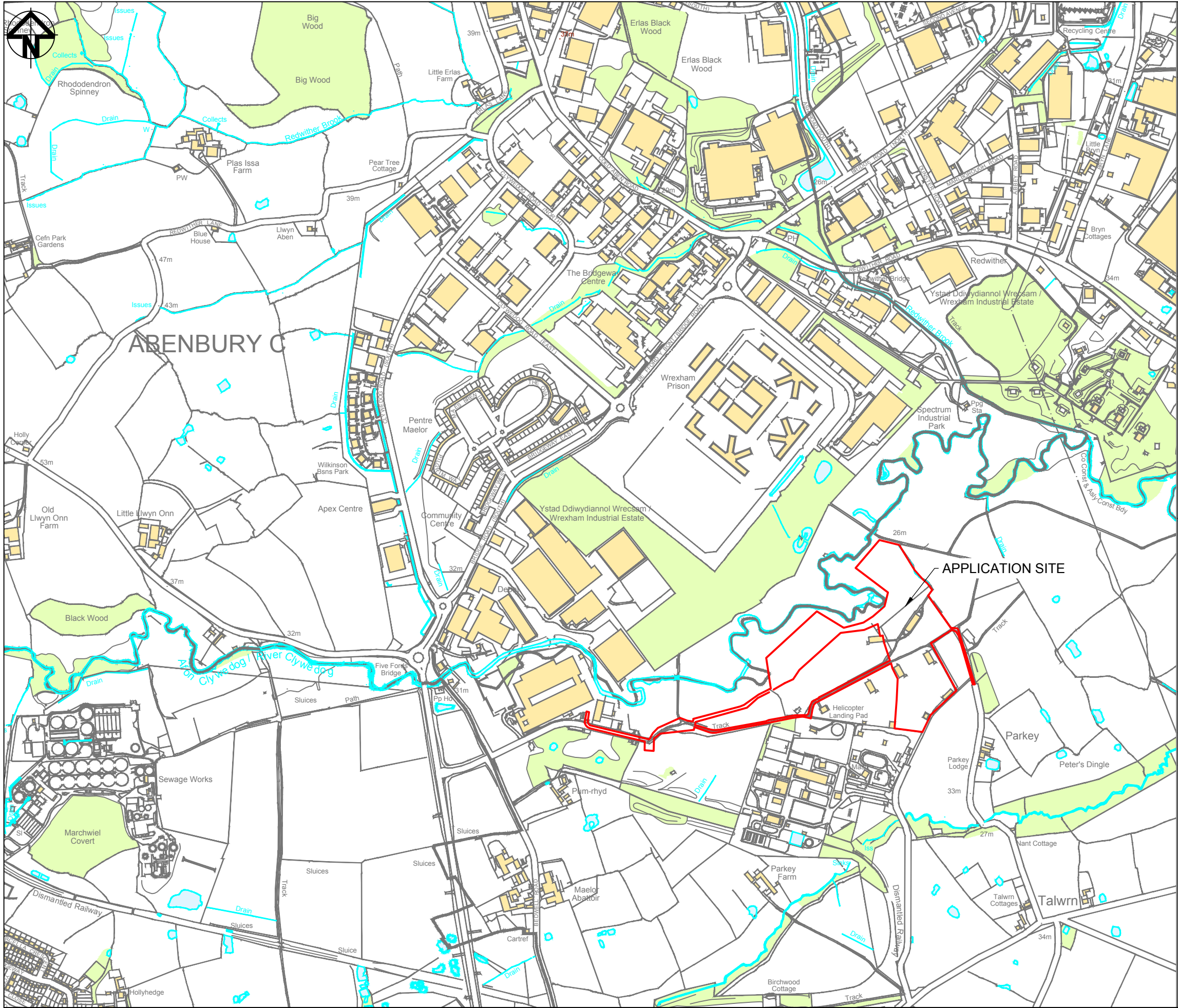
- Operators of vehicles over 3.5T to be accredited to FORS (Bronze) or similar
 - 3.5T+ vehicles to have prominent signage fitted
 - 3.5T+ vehicles to have side under-run protection
 - 3.5T+ vehicles to have audible warning when turning left

- 3.5T+ vehicles to have clear all round vision via CCTV, mirrors etc
- A management and reporting system in place for Collision Reporting
- Driver License checks
- Driver training and development programmes covering the safety of vulnerable road users

5 Summary & Conclusion

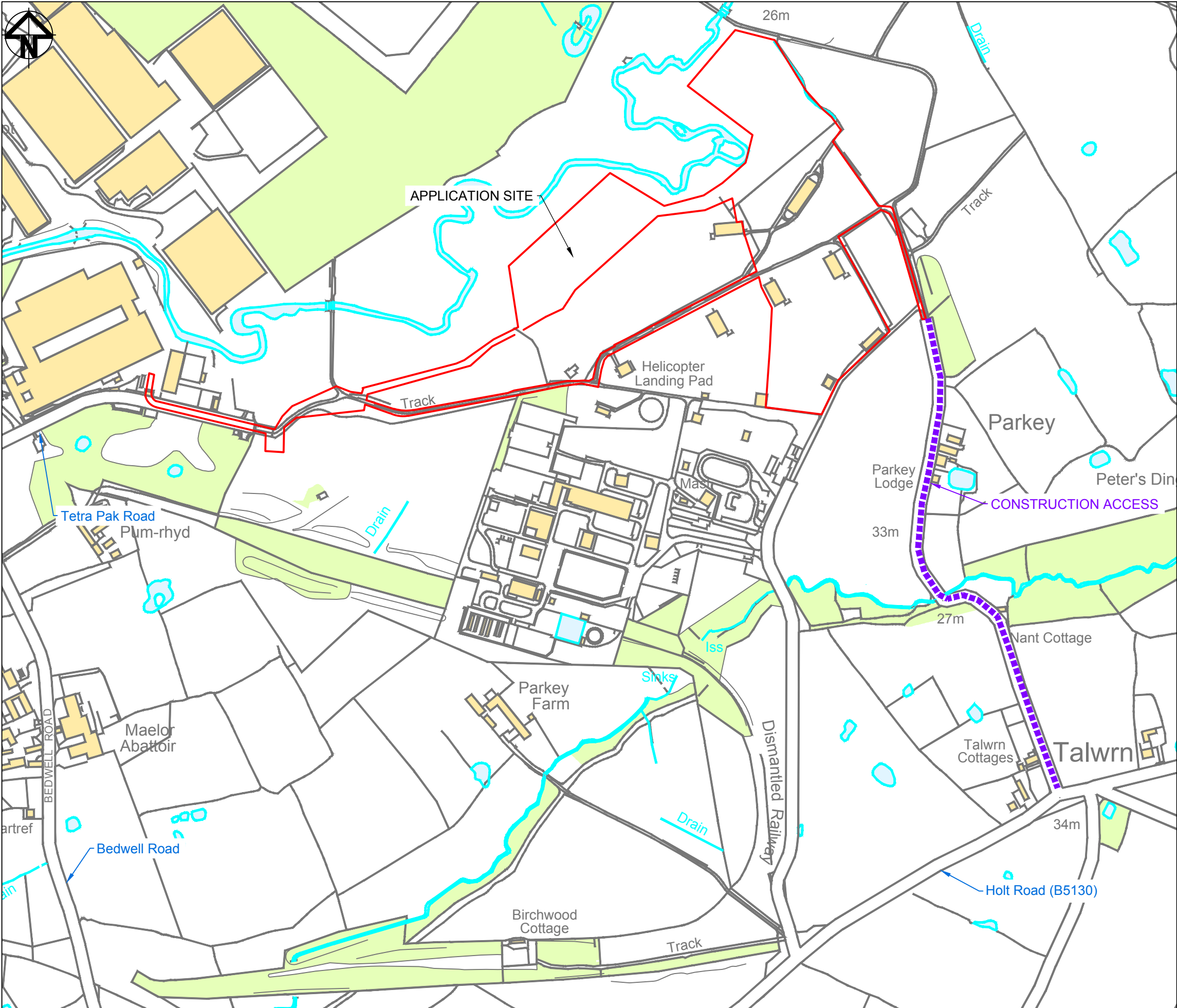
- 5.1 This Construction Traffic Management Plan (CTMP) has been prepared in respect to the proposed development of a solar farm at Pentre Maelor, to the south of Wrexham Industrial Estate.
- 5.2 It is anticipated that the development will have a 16-week construction phase. It is anticipated that, during peak periods, some 30 HGV movements per day could be generated.
- 5.3 Construction traffic will access the site via an existing no-through road accessed from the B5130.
- 5.4 A number of measures are proposed that will manage the movement of construction traffic and minimise the short-term impacts of construction traffic on the surrounding highway network.

Appendix 1 Location Plan



C	Revised Red Line	21-02-22
B	Revised Red Line	15-01-21
A	First Issue	04-12-20
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WREXHAM PV EXTENSION		
LOCATION PLAN		
1414.2	001	C
	1:10,000	@ A3

Appendix 2 Site Context



E	Construction Access	23-02-22
D	Construction Access	21-02-22
C	Construction Access	02-02-21
B	Revised Red Line	15-01-21
A	First Issue	04-12-20

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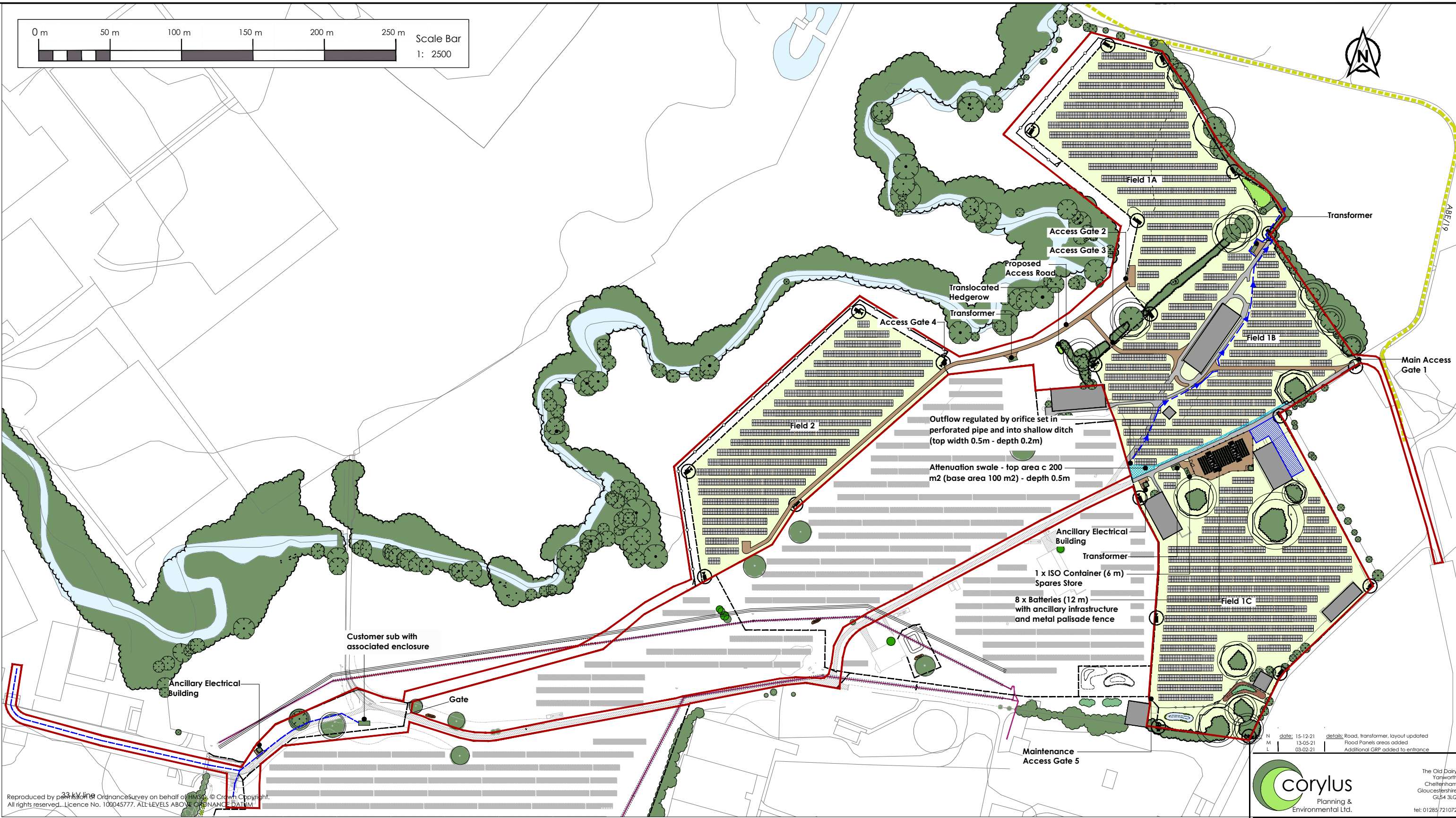
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WREXHAM PV EXTENSION

SITE CONTEXT

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	1:5,000	@ A3

Appendix 3 Proposed Development Layout



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Key:					
	Planning Application Boundary		Existing Hedgerow		Battery store
	Soil Storage area		Proposed Planting		Proposed Access Road
	Existing Building		Public Right of Way		Existing site roads
	Cable route		Deer fencing		Palisade fence
	Shallow ditch		CCTV		
	Soil Bund		Attenuation Swale		

rev	K	date	02-02-21	details	RP2 updated, PV panels, pond and battery store updated.
J		28-01-21			Battery store and access + transform / ISO container relocated. Pond and cable route adjusted.
i		19-01-21			(JLB) Annotations removed, customer control updated.
H		16-12-20			(JLB) Tables changed to 2 x portrail arrangement
G		26-11-20			(JLB) Services removed, swales added & other updates
F		12-11-20			(JLB) Red line, cable & planting updated
E		12-11-20			(JLB) Red line, Road & Layout updated
D		19-10-20			(JLB) Red line and Eco enhancements added
C		12-10-20			(JLB) Road alignment adjusted
B		02-10-20			(JLB) Substation moved away from gas main
A		15-09-20			(JLB) Layout Amended

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client:

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project:

Solar Park to the north of Maelor Gasworks

title:

Design Layout

scale:

1:2500

date:

06/08/20

drawn by:

JLB

checked by:

size:

A3

Project ref:

258

dwg no:

WR-EX-258-06-1

rev:

N



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