
1.1 Introduction

1.1.1 This Construction Traffic Management Plan (CTMP) has been prepared by Prime Transport Planning (Prime) on behalf of Conrad (Wrexham) Limited, a subsidiary of Conrad Energy Limited, in respect of a proposed flexible power plant located within Wrexham Industrial Estate, Oak Road, Wrexham.

1.1.2 In response to a S73 application (Case number P/2020/0443) to reconfigure the site layout in relation to Planning Permission P/2018/0890, the Chief Environment & Technical Officer at Wrexham County Borough Council (WCBC) had no objections to the proposed development in principle, but required further details of the site access and the proposed parking/turning provision within the revised site layout, both during the construction period and once operational.

1.1.3 The Officer also requests that the applicant produce a CTMP, including the following information:

- *Anticipated no. of daily construction vehicle movements ie/ HGVs, cars, vans visiting the site.*
- *Details of maximum number of construction related vehicles likely to be on site at any one time.*
- *Details of maximum size / length of HGV likely to visit the site including swept path details of such vehicles entering / leaving the site.*
- *Detailed layout plan indicating number of contractor parking spaces including details of how larger HGVs will turn on site.*
- *Details of proposed warning signs (ie/ signage schedule) during construction phase on approaches to site and access itself. Proposed signage details will need to be included in a revised CTMP.*
- *Statement that wheel washing facilities will be available on site and that a road sweeper will be made available to ensure adjoining highway is kept free from debris/ mud.*
- *Statement that no parking or stacking of vehicles (ie/ either staff vehicles, HGVs or Construction vehicles) shall occur on the public highway during the construction works or following completion of the works.*

- 1.1.4 This is a live document and will be maintained, reviewed and updated by the project team, as necessary and as required throughout the development process. The monitoring of progress and review of environmental performance on a regular basis is an essential part of Conrad Energy Ltd company policy. This is the second submitted version of the document. It has been updated to address comments raised by WCBC in relation to the P/2020/0443 revised site layout application.

1.2 CTMP Objective

- 1.2.1 The objective of the CTMP is to ensure that the potential impacts that may arise during the construction phase of the development have been appropriately considered and that the traffic generated by the development through the construction phase is kept to a minimum, both in terms of physical impact and duration. Where possible, impacts will be avoided or mitigated through the management of the construction process.
- 1.2.2 The anticipated construction period will be approximately 6-months, during which this CTMP will remain in place.

1.3 Delivery Routing

- 1.3.1 The site is located to the north of Oak Road to the east of Wrexham Industrial Estate (WIE).
- 1.3.2 The site is afforded good access to the strategic road network. Oak Road forms parts of a major carriageway which provides a continuous connection from the A534 to the north of WIE via the Industrial Estate Road/Abenbury Way/Ash Road North/Bryn Lane roundabout, to the B5130 to the east. The A534 provides a connection to Crewe to the east and the A483 to the west via the A5156 bypass, the A483 provides a major link to Chester to the north and Welsh towns to the south. Due to the nature of WIE there are established routes southwards from the site, providing a connection to the A525, a major A-road route from Rhyl to Stoke-on-Trent.
- 1.3.3 A plan detailing this preferred construction traffic routing is provided in **Appendix A**.

1.4 Signage

- 1.4.1 Temporary signage appropriate for a 40mph road will be provided, warning motorists of the approaching site access. Delivery drivers will be informed of the routes utilising both the A525 and A534, therefore site access signage will be concentrated to the site entrance/exit. All signs are to be bi-lingual in Welsh over English.
- 1.4.2 Details of the signage are provided on the construction traffic routing plan in **Appendix A**.

1.5 Site Operational and Delivery Hours

- 1.5.1 In line with WCBC Information Leaflet L21, *Advice on Construction Noise*, operational hours should be limited to 07:30 to 18:00 Monday to Friday and 08:00 to 14:00 Saturday with no construction work or servicing undertaken on Sundays and Bank Holidays.
- 1.5.2 Whilst the number of expected daily trips will be minimal, delivery vehicle trips during the weekday AM and PM peak hours will be avoided so they do not coincide with the busiest peak periods on the local highway network. Delivery arrivals will also be staggered and managed so that each vehicle will have a minimum of 1.5 hours to offload.
- 1.5.3 The site will not generate any general traffic during operation other than occasional service vehicles, which will typically be transit vans, small vans or cars, with servicing taking place once a week on average. Major servicing will typically only be required around once every five years.

1.6 Site Access and Manoeuvring

- 1.6.1 The site is located off Oak Road in WIE which is industrial in nature and provides access to a number of light industrial units.
- 1.6.2 There is currently no formal access to the site therefore dropped kerbs will be provided on Oak Road to allow access during the construction period. The dropped kerbs will be retained post construction to allow servicing vehicles to enter and egress the site.
- 1.6.3 The development site itself will be surrounded by palisade fencing, with one access on the southern boundary, the site being predominantly self-contained and monitored remotely. During the construction phase, temporary construction fencing will be provided at the access for construction vehicles whilst keeping site secure.
- 1.6.4 An ecological mitigation area will be provided towards the eastern side of the site, therefore internal vehicle movements will be limited towards the western side of the site as much as possible to avoid this area.
- 1.6.5 Drawing P18108-002C appended to this report in Appendix B shows that a large articulated vehicle measuring 16.5m in length (this being larger than most of the vehicles expected to enter the site) is able to enter from either direction, turn within the site and leave again in forward gear. It is worth noting that there will only be a small number of articulated vehicle and crane trips to/from the site during the construction phase, with the other trips being predominantly smaller rigid/transit vans.
- 1.6.6 The left-hand window of drawing P18108-002C shows that the HGV is able to perform this manoeuvre with all of the equipment in place, therefore representing a very worst-case scenario. In reality, some units/pieces of equipment will be installed in their final positions once the largest construction vehicles have departed, leaving larger areas within the site's parameters for unloading/loading and

parking. The swept path analysis shows that construction vehicles will not have to enter the ecological mitigation area.

- 1.6.7 Once major construction works have been completed, a final security gate and fencing will be installed at the site access which will be limited to smaller vehicles such as transit vans for servicing. An area within the main site will be kept clear to ensure space is available internally for servicing, loading/unloading and parking. Vehicles will be able to turn within the main site and exit again in forward gear.
- 1.6.8 Drawing P18108-003C appended to this report in Appendix B shows a box van measuring 8m in length is able to access the site from Oak Road from either direction, turn within the site and leave again in forward gear. No formal vehicle parking will be required during operation as the facility will be unmanned however the site will have a large central area which can accommodate parking if required.

1.7 Vehicle Parking

- 1.7.1 No formal vehicle parking will be required during operation as the facility will be unmanned. Construction vehicles and the vehicles of construction workers will be parked on-site in a safe location away from any construction works. All parking and loading/unloading will take place off the public highway.
- 1.7.2 Post-construction, servicing vehicles will be able to park within the retained central area of the site.
- 1.7.3 Construction workers will be encouraged to car/van share where possible.

1.8 Vehicle Types and Frequency

- 1.8.1 The anticipated vehicle movements for the duration of the construction phase based on Conrad Energy Ltd's experience of similar sites is as follows:

Civils contractor:

- 2 large deliveries at the mobilisation phase for plant delivery
- 1 – 2 transit sized vans daily for the duration of the project (typical 12 – 16 weeks)
- 2 large deliveries at the de-mobilisation phase for plant off hire
- 2 – 3 deliveries per week (construction materials such as concrete mixers, stone etc.)

Electrical Contractor:

- 2 – 3 large deliveries for offloading transformers/switchgear/cable etc.
- 1 – 2 transit sized vans daily for the duration of their elements of the works (typically 4 weeks)

Generator Contractor:

- 5 – 6 large deliveries for offloading generation plant, BoP items etc.
- 1 x mobile crane (2 - 3 days) typically + ballast waggon
- 3 – 4 transit sized vans daily for the duration of their elements of the works (typically 4 weeks)

Gas Supplier:

- 2 large delivery's (gas meter + housing)
- 1 x transit van daily for duration of their element of the works (typically 1 – 2 weeks on site)

DNO/ICP Supplier:

- 2 large delivery's (switchgear + housing)
- 1 x transit van daily for duration of their element of the works (typically 1 – 2 weeks on site)

Project Management Team:

- 3-4 cars per week on an ad hoc basis

1.8.2 The site will be serviced, on average, one day per week with service personnel typically using transit vans, smaller vans or cars.

1.8.3 No parking or stacking of vehicles shall occur on the public highway during the construction works or following completion of works.

1.9 Materials Types and Waste Management

1.9.1 There will be no requirement for fuel deliveries to the site during operation.

1.9.2 The proposed engines will be gas-fired, with a mains supply and no gas will be stored on the site itself.

1.9.3 Any construction materials will be brought to and handled on site. Any construction waste materials will be removed and transported to a licenced transfer station for sorting, recycling and disposal to a licenced landfill site. All information regarding the destination of the waste generated will be recorded in the Site Waste Management Plan.

1.10 Excavation Management

1.10.1 The site currently consists of low-level vegetation and young trees surrounded by wooden fencing. The vegetation towards the eastern side of the site will be retained as much as possible to form part of the proposed ecological mitigation area, however the vegetation at the proposed site access and towards the western side of the site will be removed and replaced with a suitable construction surface.

- 1.10.2 Any excavated materials will be removed from site and transported to a licenced transfer station for sorting, recycling and disposal to a licenced landfill site.

1.11 Storage of Materials and Plant

- 1.11.1 Delivery vehicles will drive directly into the site for unloading in designated secure storage areas, which will be identified prior to works commencing. Construction materials will be kept in designated storage areas, and kept in a tidy condition.
- 1.11.2 Tools and equipment will be kept in locked containers; materials will be stacked in such a manner that they cannot be dislodged, collapsed, or easily moved; any hazardous substances will be stored in secure locked containers; and gas cylinders will be stored in locked cages away from any heat source or naked flames. Oils and chemicals will be stored in secure steel storage units. Fuel for construction plant, if needed, will be stored in bunded fuel bowzers and kept in the designated plant storage area. When not in operation, construction plant will be stored in a designated area within the site. All vehicles and plant will be effectively immobilised after work ceases.

1.12 Public Engagement and Delivery Management

- 1.12.1 Local residents/businesses will receive correspondence prior to commencement and during key stages of the construction period advising works involved, duration of development and necessary contact information. The site management team will liaise with residents and local businesses and make them aware of any changes to the working methods that may cause concern or have an impact on the local area. A contact number will be available and records kept for availability of local authority and health and safety representatives.
- 1.12.2 It is envisaged that an on-site delivery manager will be appointed who will minimise disruption to local residents and businesses. The role of this individual will be to populate and keep up-to-date this CTMP, and advise delivery drivers/companies of appropriate routing and procedures when accessing the site.

1.13 Vehicle Cleaning

- 1.13.1 Wheel washing facilities will be provided at the site access to minimise the spill-over of any debris generated by the construction works onto the local highway network.
- 1.13.2 It is envisaged that inspections of the access will be undertaken daily to monitor compliance with the use of washing facilities. If necessary, a road sweeper will be deployed on the approach to the site accesses to remove any debris.

1.14 Noise and Dust Control Measures

- 1.14.1 The site will be managed so as to minimise disruption to residents, buildings and the environment associated with any noise and dust generated by construction on the site. Construction will only take

place during the hours of 07:30 to 18:00 Monday to Friday and 08:00 to 14:00 Saturday with no construction work or servicing undertaken on Sundays and Bank Holidays.

- 1.14.2 Local damping will be employed by site labour using water hoses on any excavations and dust suppression tools will be provided.

1.15 Protection of Vulnerable Areas

- 1.15.1 No protected trees or listed buildings are present within the site, therefore special protection measures are not required however, an ecological mitigation area is being provided towards the eastern side of the site.

1.16 Welfare

- 1.16.1 It is anticipated that no more than 10 construction workers will be on-site at any one time, therefore there is no requirement for a welfare compound. Portable toilets will be provided on-site during construction.

1.17 Temporary Services

- 1.17.1 Appropriate arrangements will be made for temporary connection to utilities, if required.

1.18 Power Provision

- 1.18.1 Site power is likely to be provided by generators housed in anti-vandal steel containers with integral bunded fuel tanks.

1.19 Fire Safety

- 1.19.1 Appropriate fire safety measures to minimise the likelihood and severity of fire risk at the site will be provided. These will include appropriate fire extinguishers as well as first aid kits.

1.20 Security

- 1.20.1 A range of site security measures will be provided, as appropriate, including but not limited to, secure fencing, gated accesses and CCTV.

1.21 Conclusion

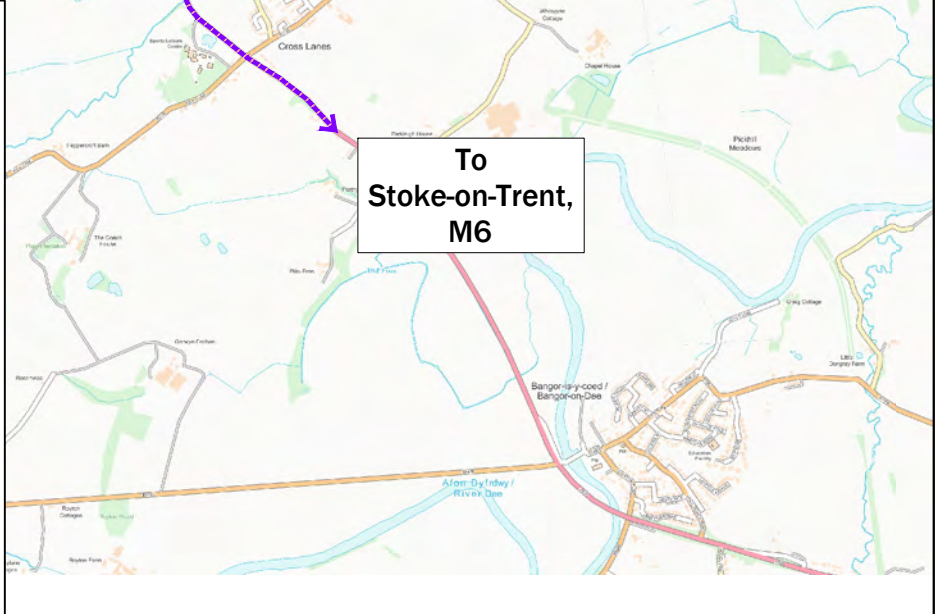
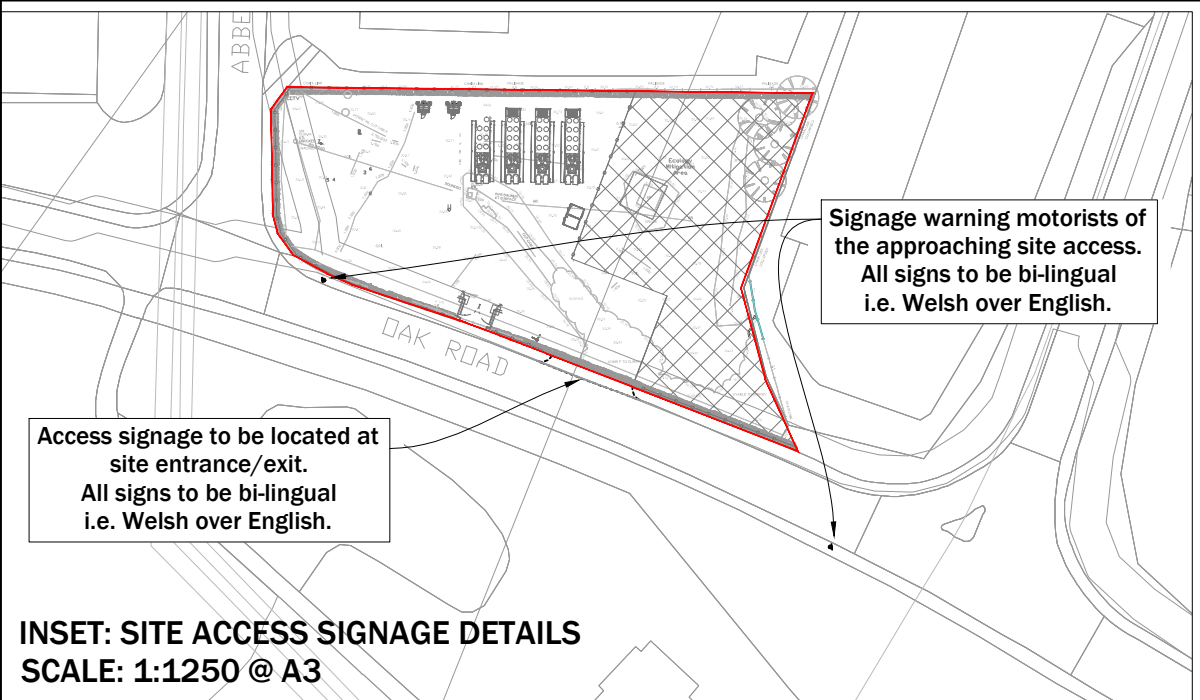
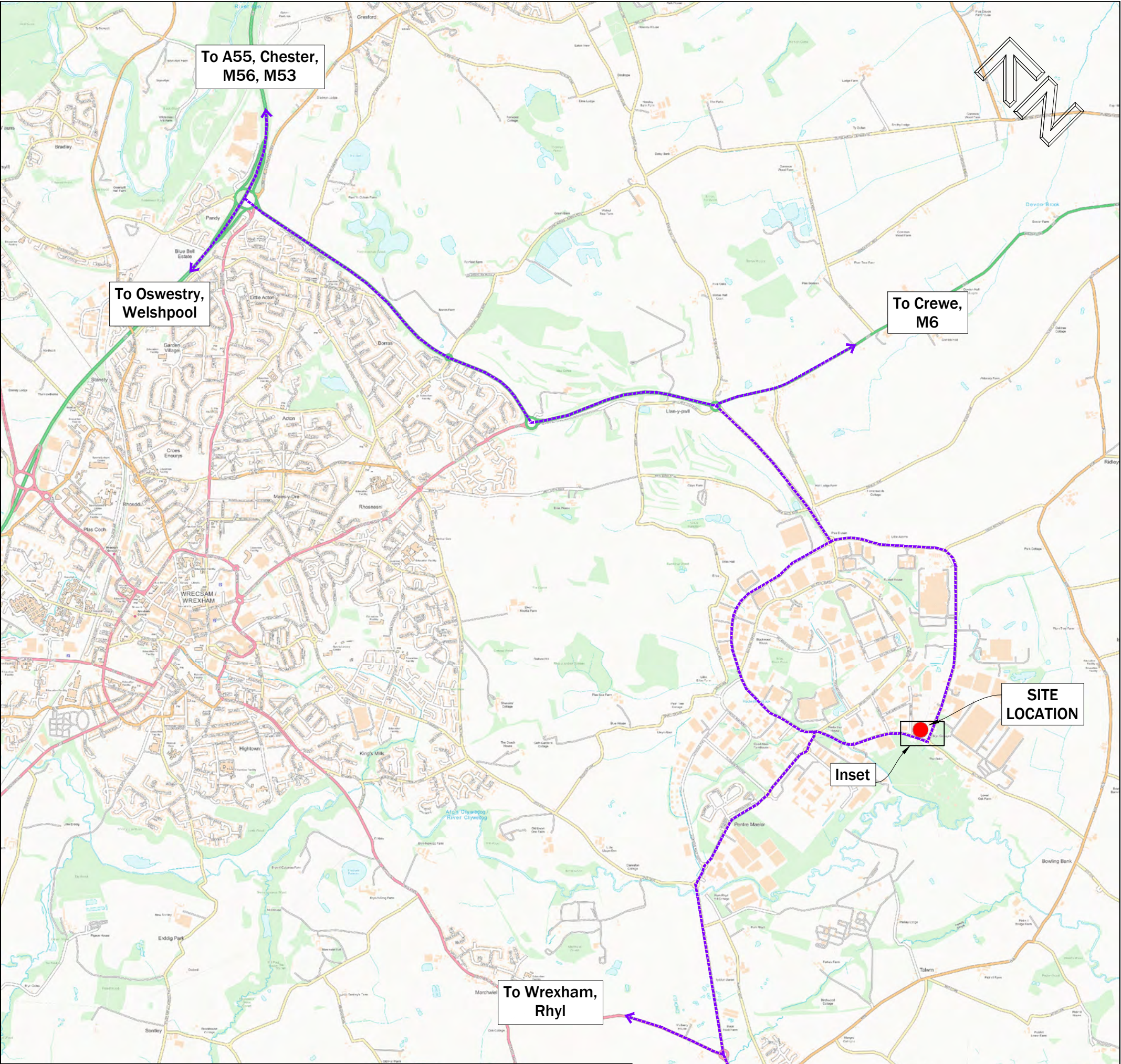
- 1.21.1 Conrad (Wrexham) Ltd and its contractors will adhere to this CTMP to ensure minimal impact to local residents, businesses and the local highway network. The key ways to achieve this are as follows:

- Liaison with local residents and businesses to make them aware of any operations taking place that have the potential to affect them;
- Ensure that the permitted site hours of operation and construction are adhered to at all times;

- Actively monitor and review the measures and practices detailed in this CMTP;
- Any complaints will be addressed in a professional and timely manner;
- Actively engage with Considerate Contractor Scheme (CCS) and best working practices;
- Ensure the workforce are educated on the need to minimise noise and dust; and
- Educate the workforce on the need to minimise the impact of their activities on local residents, businesses and the local highway network.

APPENDIX A – CONSTRUCTION TRAFFIC ROUTING PLAN

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 9 Hurricane Court Liverpool International Business Park Estuary Boulevard Liverpool L24 8RL www.primetp.co.uk 0151 728 1860				Project				Drawn by		Issue date	
				OAK ROAD FLEXIBLE POWER PLANT, WREXHAM				VB		06 DEC 2018	
				Title				Scale(s)		NTS	
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A				23.10.20				Status		FOR INFORMATION	
VB				REVISED SITE PLAN							

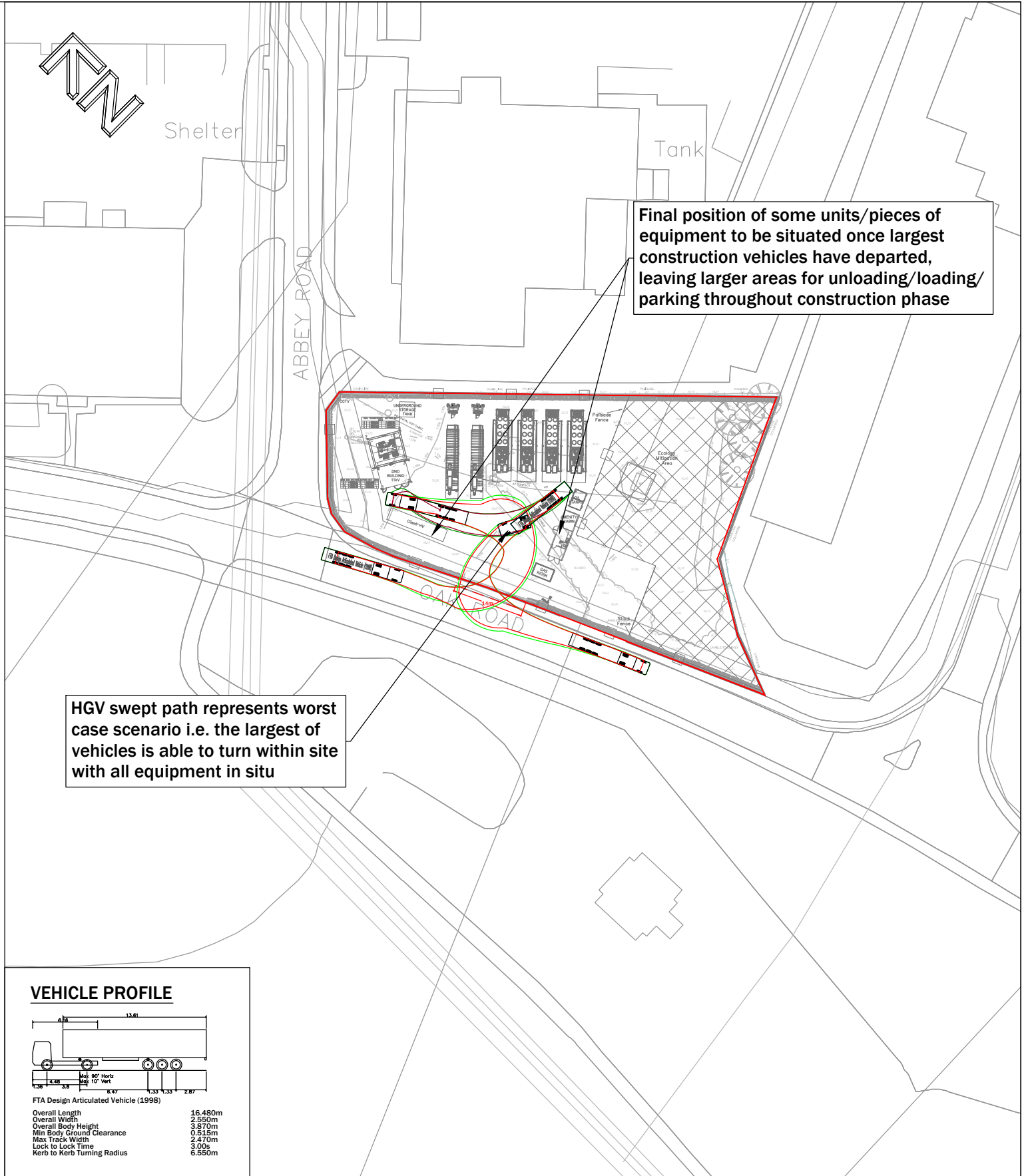
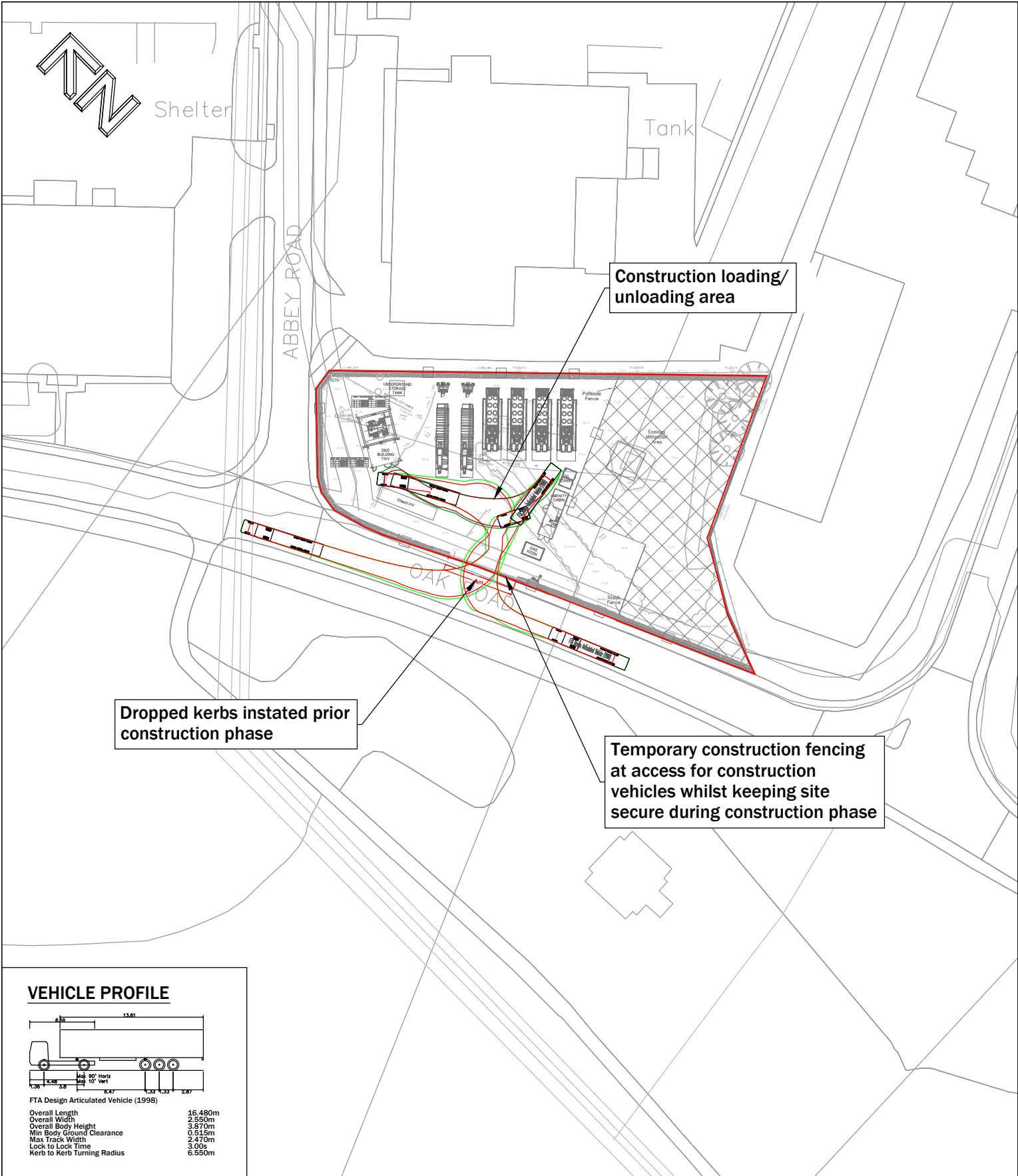
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APPENDIX B – SWEPT PATH ANALYSIS DRAWINGS

P18108-002C – Swept Path Analysis During Construction

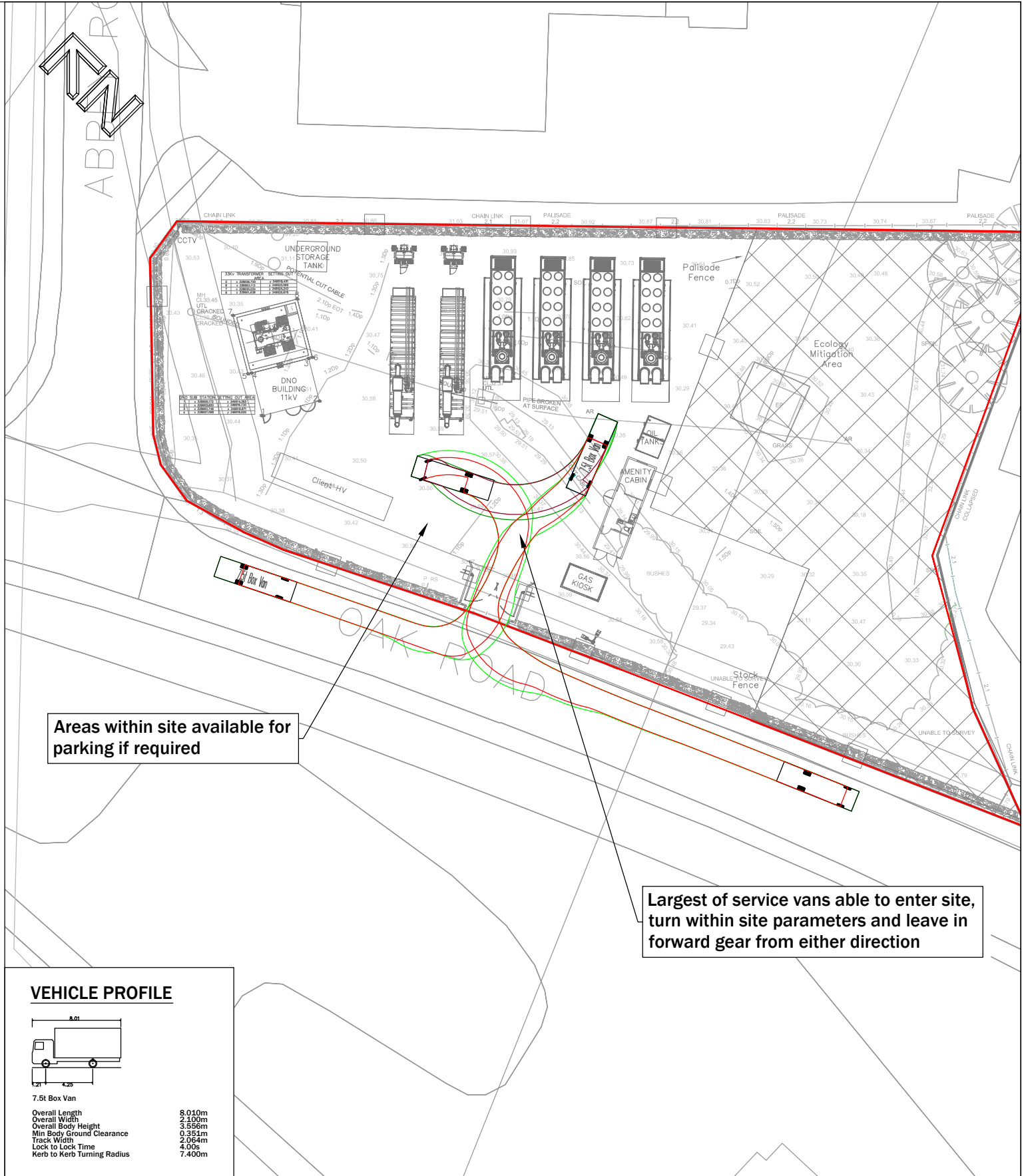
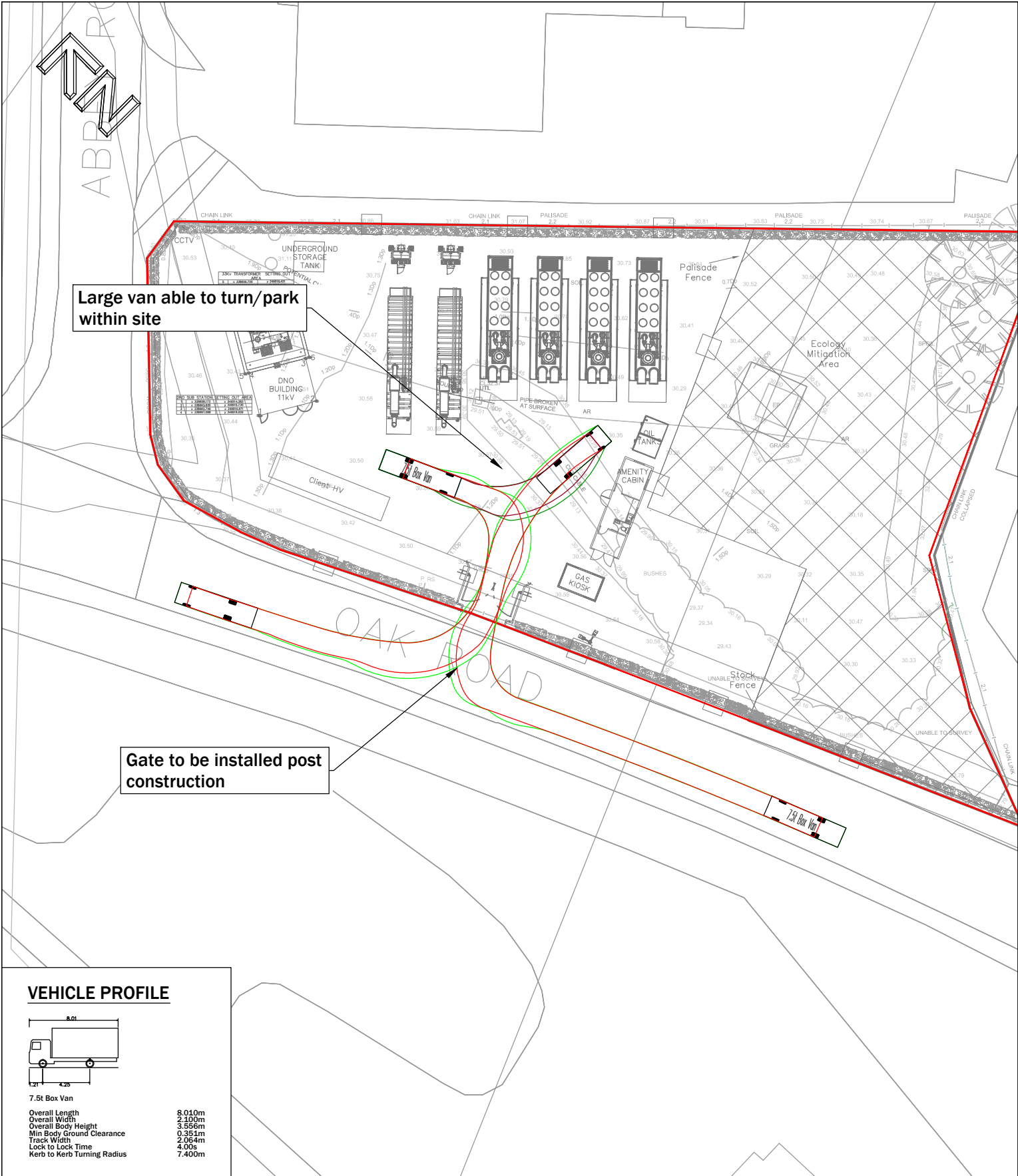
P18108-003C – Swept Path Analysis Post Construction

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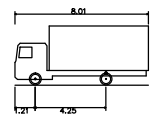


 9 Hurricane Court Liverpool International Business Park Estuary Boulevard Liverpool L24 8RL www.primetp.co.uk 0151 728 1860	C	28.09.20	VB	REVISED SITE PLAN	Project	OAK ROAD FLEXIBLE POWER PLANT, WREXHAM	Drawn by AM	Issue date 25 SEP 2019
	B	25.09.19	AM	ACCESS DIMENSION ADDED				
	A	27.03.19	VB	DRAWING AMENDMENT				
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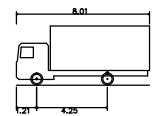


VEHICLE PROFILE



7.5t Box Van
Overall Length 8.01m
Overall Width 2.10m
Overall Body Height 3.55m
Min Body Ground Clearance 0.351m
Track Width 2.064m
Lock to Lock Time 4.00s
Kerb to Kerb Turning Radius 7.400m

VEHICLE PROFILE



7.5t Box Van
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A	27.03.19	VB	DRAWING AMENDMENT
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Status

FOR INFORMATION

Project

OAK ROAD FLEXIBLE POWER PLANT, WREXHAM

Title

SWEPT PATH ANALYSIS POST CONSTRUCTION

Drawn by
AM

Issue date
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