

Pennant Walters

Mynydd y Glyn Wind Farm

Draft Environmental Statement

Appendix 12B: Draft Construction Traffic Management Plan



This report was prepared by WSP Environment & Infrastructure Solutions UK Limited (formerly known as Wood Environment & Infrastructure Solutions UK Limited), company registration number 02190074, which is carrying out these services as a subcontractor and/or agent to Wood Group UK Limited



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Contents

1.	Introducti	on	5	
1.1	Overview		5	
1.2	Purpose of	f this report	5	
1.3	·		6	
1.4	Consultation	on	6	
2.	Project De	escription	7	
2.1	Overview		7	
2.2	Project Tir	nescales	7	
2.3	Vehicle Cl	assification	7	
2.4	Traffic Ger	neration	8	
2.5	Working H	lours	10	
3.	Access R	outes	11	
3.1	Introductio	on .	11	
3.2	Site Acces	es	11	
3.3	Route Opt	ions for construction HGV's	12	
3.4	Route Options for Abnormal Loads			
4.	Policies, I	Procedures, and due Process	15	
4.1	Normal Lo	ads	15	
4.2	Abnormal	Loads	15	
5.	Traffic Ma	nagement Measures	17	
5.1	Local High	way Issues and Constraints	17	
5.2	Mitigation	Measures	17	
6.	Managem	ent Structure	22	
6.1	Introductio	n	22	
6.2	Monitoring	and Review	22	
6.3	Compliand	ee e	22	
6.4	Enforceme	ent and Corrective Measures	23	
	Table 2.1	Typical Construction Vehicle Classification	8	
		Predicted traffic generation during construction phase - wind farm	8	
	Table 2.3 Table 2.4	Predicted traffic generation during construction of OHL Predicted peak construction traffic on local roads	9 10	



Figure 3.1 Proposed site access location from the A4233	12
Bibliography	24



1. Introduction

1.1 Overview

- 1.1.1 WSP E&IS UK Limited¹ has developed this Draft Construction Traffic Management Plan (CTMP) for the construction of a wind farm of seven turbines and connection to the grid distribution system ('the Proposed Development') on behalf of Pennant Walters Ltd.
- The purpose of the CTMP is to outline how the interaction between existing highway users and construction traffic is managed during the programme of works and to ensure that all relevant stakeholders are consulted and fully informed of the proposed works.
- Parts of the potential construction traffic route include the Strategic Road Network (SRN) in Wales. Within Wales the A465, and the M4 are the responsibility of South Wales Trunk Road Agent (SWTRA). Connecting the SRN and the Site of Proposed Development ('the Site') are several local network roads which could be used; the A4119, A4058 and A4233 managed by Rhondda Cynon Taf County Borough Council (RCTCBC) and parts of the A470 route is managed by Merthyr Tydfil County Borough Council (MTCBC). See **Section 3** for further details.
- All relevant highway authorities will be contacted in order to gain feedback on the suitability of the construction and abnormal load access routes and traffic management practices being proposed.
- Following agreement of the construction access routes and traffic management measures, Pennant Walters Ltd would be responsible for arranging all permits/licenses necessary to make any changes to public highways or Public Rights of Way (PRoWs).
- At this stage in the development of the construction programme, details of the appointed site contractor, the general construction materials suppliers and the origin of the wind turbine components are not currently available. Assumptions have been made with regard to likely routes to the Site, which will be confirmed once the aforementioned service providers have been appointed. As a result, this CTMP is a working document which sets out the principles by which traffic travelling to the Site should be managed, but it will require final confirmation of its suitability following the appointment of the Principal Contractor and relevant suppliers.

1.2 Purpose of this report

- The Draft CTMP details the measures to be implemented to provide mitigation for the traffic generated during the works programme. The Draft CTMP has been prepared to ensure that the management and mitigation measures contained within this document minimise the likely impact on existing road users. The primary objectives of the Draft CTMP are as follows:
 - ensuring the movement of people and materials in a safe, efficient, timely, and sustainable manner:
 - keep construction traffic to a minimum during peak network periods to reduce the impact on the highway network;
 - ensure that the impact and disruption on local communities is minimised;

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¹ Previously Wood Environment and Infrastructure.



- minimise vehicle trips where possible; and
- limit the impacts on the natural and built environment.

1.3 Report Structure

- 1.3.1 The remainder of this report is structured as follows:
 - Section 2: Project description;
 - Section 3: Principal access routes;
 - Section 4: Policies, Procedures, and due Process;
 - Section 5: Traffic management measures; and
 - Section 6: Management Structure.

1.4 Consultation

- 1.4.1 WSP E&IS UK Limited will consult RCTCBC and MTCBC as local highway authorities for comments on the scope and proposals related to HGVs movements within this Draft CTMP document.
- In terms of the Abnormal Indivisible Loads (AIL) delivery route, SWTRA and other relevant highway authorities (RCTCBC, MTCBC, Swansea Council (SC), Neath Port Talbot County Borough Council (NPTCBC), Bridgend County Borough Council (BCBC), and Vale of Glamorgan Council (VGC) will be consulted before a trial run is undertaken post planning approval. The wind turbine component supplier and transporter are yet to be identified. A desktop assessment of the AIL delivery route has been undertaken within the AIL access study (Appendix 12A) to understand if there are any improvements to the highway which will need to be made to accommodate the delivery of abnormal loads. The assessment identified temporary structural improvements were required at a number of junctions. All relevant permits for abnormal load transportation will be arranged prior to commencement of deliveries.
- A Section 278 Agreement of the Highways Act 1980 will be secured between the relevant local highways authorities and the developer to cover the associated highway works, needed to facilitate the delivery of the abnormal loads. The appropriate officer at each highways authority will be contacted in due course.
- This Draft CTMP will be reviewed and updated when necessary to incorporate any comments and additional measures which may be required to address comments received from key stakeholders during a wider consultation exercise for the EIA and draft planning application.



2. Project Description

2.1 Overview

- 2.1.1.1 The Proposed Development is to construct and operate a wind farm of up to seven turbines and associated infrastructure including access tracks, foundation, cabling, substation, and connection to a grid distribution system.
- 2.1.1.2 The construction period for the wind farm will last approximately 101 weeks. The construction process will consist of the following principal activities:
 - up-grading of existing tracks and construction of new access tracks and passing places inter-linking the turbine locations and substation; this will require importing suitable roadstone;
 - potential remedial works to the public highway to facilitate delivery of turbines which will be confirmed following discussion with the Highways Authority(s);
 - formation of site compounds including hardstanding and temporary site office facilities;
 - construction of crane hardstanding areas to facilitate erection of turbines;
 - construction of turbine foundations and transformer bases where required by the selected turbine;
 - construction of a site substation and transformer building;
 - excavation of trenches and cable laying adjacent to site roads;
 - connection of on-site distribution and signal cables;
 - delivery and erection of wind turbines; and
 - connection to national grid distribution system partly via Overhead Line (OHL) on-site, followed by underground cabling off-site.
- 2.1.1.3 Many of these operations will be carried out concurrently, although predominantly in the order identified to minimise the overall length of the construction programme. In addition, development will be phased such that at different parts of the Site, the civil engineering works will be continuing whilst wind turbines are being erected.

2.2 Project Timescales

The current timescales for the project are based on an expected site mobilisation and start date of 07 April 2025 and main works are proposed to start on 28 April 2025. The project completion date is expected to be June 2027.

2.3 Vehicle Classification

2.3.1.1 A number of vehicle types are expected be used during the course of construction, as outlined in **Table 2.1**.



Table 2.1 Typical Construction Vehicle Classification

Lights (LGVs)	Medium (MGVs)	Heavy (HGVs)	Abnormal Load Transporter
Car	15t & 9T Excavator	40 Tonne Truck	Wind turbine blade transporter
Van	Winch Tractor	Low Loader	Wind turbine tower transporter
4x4 Site Vehicle	Tractor and Trailer	Flatbed Truck	Transformer transporter
4x4 Transit	10 Tonne Truck c/w Hiab	Concrete Wagon	250t Crane
Welfare Vehicle	Merlo 40/30	60t Crane	

2.3.1.2 The vehicles and specifications provided above have been identified based on similar projects by scale and type and their use for the Proposed Development is subject to final confirmation following appointment of the Principal Contractor.

2.4 Traffic Generation

2.4.1.1 Where possible, construction operations would be carried out concurrently, thus minimising the overall length of the construction programme. An indicative 101 – week construction programme (commencing in 2025) has been assumed for the purposes of this assessment.

Wind Farm

2.4.1.2 As a worst-case scenario, it is assumed that 100% of all aggregate will be sourced from off-site via road. **Table 2.2** shows the predicted traffic generation during construction of the wind farm itself.

Table 2.2 Predicted traffic generation during construction phase - wind farm

Activity	Total loads	Total trips (two-way)
Delivery of Plant and Equipment	30	60
Delivery of Stone for Construction Compound	135	270
Delivery of Compound General Equipment	20	40
Delivery of Stone for Access Tracks	1,428	2,856
Delivery of Geogrid	7	14
Delivery of Culvert Materials	30	60
Delivery of Stone for Areas of Crane Operation	270	540
Delivery of Backfill Stone for Turbines	792	1,583
Delivery of Concrete for Turbines	1,100	2,200



Activity	Total loads	Total trips (two-way)
Concrete for transformer foundations	28	56
Delivery of Base Rings	4	8
Delivery of Shuttering	7	14
Delivery of Form work and reinforcing steel	44	88
Delivery of Stone for substation	71	142
Delivery of Fibre Optic Cabling	3	6
Delivery of Sand for cable trench	143	286
Delivery of Cabling	6	12
Delivery and Removal of Mobile Crane	24	48
Delivery of Turbines	70	140
Delivery of Concrete for Control Building Base	11	22
Delivery of Electrical Equipment	60	120
Delivery of External Transformers	2	4
Delivery of HV Plinth Concrete	34	68
Delivery of Met Mast	4	8
Removal of Plant and Equipment	30	60
Total	4,353	8,705

Grid Connection

2.4.1.3 At this stage, it is assumed that wooden poles would be used over the 1.4km length connection and distance between two poles would be 80m. Therefore, the total number of required wooden poles would be approximately 18. **Table 2.3** shows the predicted traffic generation during construction of the on-site OHL.

Table 2.3 Predicted traffic generation during construction of OHL

Activity	Total loads	Total trips (two-way)
Spoil removal	2	4
Plant deliveries and removal	4	8
Material deliveries	4	8
Total	10	20



Construction Traffic Distribution

- 2.4.1.4 A definite construction route is subject to the final sources of aggregate and routing agreement with RCTCBC and MTCBC. Therefore, at this stage the assessment assumes that 100% of HGV traffic will route on each construction route as a worst-case scenario.
- 2.4.1.5 **Table 2.4** shows the worst-case distribution of the construction traffic (two-way) on the local road network.

Table 2.4 Predicted peak construction traffic on local roads

Activity	Total loads
A4233 (Trebanog Road)	42
A4119 (Talbot Green)	42
A4058 (Trehafod)	42

2.4.1.6 Based on the construction program there would be a peak of 42 HGV movements two-way during a 12-hour weekday. This peak is predicted to occur during month 13 (April 2026) and therefore only for 4 weeks of the total 101-week construction programme.

2.5 Working Hours

2.5.1.1 At this stage, subject to caveats noted in **Chapter 4: Project Description**, it is assumed that normal working hours would be 07:00 to 19:00 hours Monday to Friday and 07:00 to 13:00 hours on Saturday.



3. Access Routes

3.1 Introduction

- 3.1.1.1 The primary considerations to account for when devising a construction vehicle route strategy are:
 - use of the shortest route available from the location of the access points to the Strategic Road Network (SRN);
 - use of a sliding scale approach with regards to route assignment and road classification, utilising the 'A' classified highway network as far as practicable, before resorting to lower classifications of highway only if absolutely necessary;
 - avoid single carriageway highways where alternatives are available; and
 - avoid settlements and sensitive receptors where possible.

3.2 Site Access

- 3.2.1.1 Access to the Proposed Development will be taken from the existing forestry haul road. The access is situated on:
 - A4233 (Grid Ref: 470703.52 (Easting), 5715135.81 (Northing)).
- The Site access is approximately 1.2 km north-east of the A4119/A4233 junction. The A4233 operates under the national speed limit (60 mph) in the vicinity of the Site access. The Site access route approach to the A4233 is on a low gradient. **Figure 4.2** shows the location of the proposed Site access from the A4233 Site access.



Figure 3.1 Proposed site access location from the A4233



Source: Google Street View

3.3 Route Options for construction HGV's

- 3.3.1.1 At this stage, it is assumed that construction materials would be sourced from one or more of the local quarries identified below:
 - Gryphonn Quarry, Trefil, Tredegar (to the north of the site); and
 - Tarmac Hendy Quarry, Miskin (to the south of the site)
- Both construction HGV routes have been included to present a robust assessment and are identified as follows:
 - HGV Route 1 (north): A465 A470 A4058 (north of the site access) A4233 Site access; and
 - HGV Route 2 (south): M4 A4119 (south of the site access) A4233– Site access.
- As a worst-case scenario, it is assumed that all construction vehicles would use just one of the above routes. However, a combination of the above routes may be used for construction traffic subject to the location of material suppliers and aggregate from local quarries.

Local Road Network

A4233

The A4233 is a two-lane single carriageway road and provides access to the Site. The A4233 has a north-east to south-west orientation, and it passes over a small burn and whilst in green space is bounded to the east by residential land use. The A4233 forms a roundabout with the A4119. The A4233 is a key route both for Site access and for



transitioning southbound to the M4. The A4233 operates at the national speed limit (60mph) but this changes to 30mph approximately 75 metres north of the proposed construction vehicle Site access location.

Footways and streetlighting are not present in the vicinity of the proposed temporary construction vehicle access however further north there is a formal pedestrian crossing as the A4233 Trebanog Road reaches the High Street and footways become available. Thereafter from Lewis Place there are pelican crossings and several other traffic signal crossings. At the junction with the A4058 there is also a signalised pedestrian crossing over the eastern arm.

A4119

- The A4119 is a two-lane single carriageway road and provides transition from the A4233 to the M4 to the south. The A4119 routes from the A4233 in the vicinity of Tonyrefail, 1.2km from the Site access after which point it leads southbound for approximately 10.6 km until it reaches the M4 Junction 34 near Miskin. For most of the route the speed limit is the national speed limit (60mph). For sections of the A4119 including Ely Valley Road, parts of this section of the route alternate between the 60mph and 40mph.
- From Trebanog Road, A4233 there are no footway or pedestrian provisions. This continues until Ely Valley Road roundabout where some footways can be found, dropped kerbs are present at the roundabout however no formal crossings are provided. Along Ely Valley Road there is a narrow footway along one side of the carriageway. Reaching Edwards business park roundabout there are substantial pedestrian provision on both sides of the carriageways and refuge islands to assist crossing. To the roundabout north of Talbot Green there is no pedestrian provision. From here heading into Talbot Green Crossroads there are narrow footways either side of carriageway. The crossing itself is signalised with pedestrian crossing facilities.

A4058

- The A4058 is a two-lane single carriageway road which provides routing from the A4233 at a T-junction approximately 2.2km north-west of the Site location. The route alternates between 30mph and 40mph whilst passing through a combination of urban areas and more rural areas respectively. Leaving Pontypridd, the route becomes a dual carriageway with a central reservation and the speed limit at this location is 40mph. As the route joins the A470 slip road the speed limit becomes 70mph and then as the route approaches the final junction to join the A470 the speed limit decreases to 30mph at the signal junction before joining the A470 at 50mph.
- For the majority of the route there are footways on at least one side of the carriageway and ample streetlighting. Parking along this route is prohibited. At the junction with the A4233 there is a signalised pedestrian crossing at the junction with tactile paving and dropped kerbs. Travelling through Llwyncelyn there are footways and streetlighting. From Coedcae Road roundabout there is no pedestrian infrastructure or streetlighting. From this location and approaching the urban areas, there are formal crossings and footways either side until reaching the junction to join the A470 where there are no pedestrian crossings provided.

Strategic Road Network (SRN)

The SRN comprises the routes of national strategic importance (motorways and trunk roads), which are operated and maintained by South Wales Trunk Road Agency.



The M4 is a long-distance route between Swansea and London. The M4 will provide the majority of the AIL construction vehicle route from Swansea seaport to the M4 Junction 34.

3.4 Route Options for Abnormal Loads

- 3.4.1.1 It is assumed that as the nearest and readily used port for the delivery of turbine components, the Port of Swansea will be used to import all the required turbine components for this project. The Port of Swansea is one of South Wales's major ports, located in Swansea, the port is well connected to the M4, offering great connectivity to the strategic road network (SRN). It is less than 54 kilometres from the Site access to junction 42 of the M4.
- 3.4.1.2 Based on the AIL access study, the following is the preferred route for AIL deliveries:
 - Swansea Docks Baldwins Crescent A483 A483/Ffordd Amazon/Ashleigh Terrace Roundabout - A483- A483/M4 - M4 - A4119 - A4233- Site.



4. Policies, Procedures, and due Process

4.1 Normal Loads

4.1.1.1 RCTCBC and MTCBC will be contacted to discuss the proposed HGV routes to secure their permissions. PRoWs management within the Site boundary will be discussed with the RCTCBC PRoW officer(s).

4.2 Abnormal Loads

- 4.2.1.1 The following is a review of current procedures for the movement of abnormal loads by road. A review of these procedures will be undertaken by the appointed haulage contractor and Pennant Walters Ltd prior to the delivery of the turbines to ensure that the correct procedures are followed, and approvals obtained.
- 4.2.1.2 Key to the successful management will be early and continuous communication with South Wales Trunk Road Agent (SWTRA), Swansea Council (SC), Neath Port Talbot County Borough Council (NPTCBC), Bridgend County Borough Council (BCBC), Vale Of Glamorgan Council (VGC), Rhondda Cyon Taf County Borough Council (RCTCBC) and Merthyr Tydfil County Borough Council (MTCBC).
- 4.2.1.3 This section of the report provides an overview of the relevant policies and procedures related to the movement of abnormal loads.
- 4.2.1.4 An 'abnormal indivisible load' is defined in the Road Vehicles (Authorisation of Special Types) (General) Order 2003² as a load that cannot, without undue expense or risk of damage, be divided into two or more loads for the purpose of being carried on a road and that:
 - on account of its length or width, cannot be carried on a motor vehicle of category N3
 or a trailer of category O4 (or by a combination of such vehicles) that complies in all
 respects with Part 2 of the Construction and Use Regulations; or
 - on account of its weight, cannot be carried on a motor vehicle of category N3 or a trailer of category O4 (or by a combination of such vehicles) that complies in all respects with Authorised Weight Regulations (or if those Regulations do not apply, the equivalent provisions in Part 4 of the Construction and Use Regulations); and Part 2 of the Construction and Use Regulations.
- 4.2.1.5 The approved haulage contractor will be required to consult with the appropriate authorities in order to ensure that all relevant permissions are obtained prior to the transportation of any abnormal loads. The responsibility for ensuring that a route is suitable for the transportation of abnormal loads and ensuring the correct notifications are given rests with the haulier.

National Highways

4.2.1.6 National Highways sets out the requirement to notify several authorities (with direct or delegated responsibility for maintenance of roads and bridges) that works may be

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² The Secretary of State for Transport. (2003). The Road Vehicles (Authorisation of Special Types). (online) Available at: https://www.legislation.gov.uk/uksi/2003/1998/contents/made. (Accessed October 2022).



required to their infrastructure before the movement of an abnormal load, including local police.

- 4.2.1.7 Notification forms and details of the procedures are available at:
 - https://nationalhighways.co.uk/road-safety/abnormal-loads-and-the-esdal-system/

South Wales Trunk Road Agent

- 4.2.1.8 South Wales Trunk Road Agent (SWTRA) acts as an agent to the Welsh Government and is responsible for the trunk roads in South Wales. SWTRA also suggest contacting the police, other highways authorities, bridge, and structure owners.
- 4.2.1.9 Details of the notification procedures are available at:
 - https://traffic.wales/swtra-street-works-and-abnormal-loads

South Wales Police

- 4.2.1.10 South Wales Police (SWP) helps to assure the road safety during abnormal load transportation on the roads within South Wales.
- 4.2.1.11 Abnormal loads are usually not allowed to travel in South Wales during:
 - 07.00 to 09.30 Monday to Friday;
 - 16.30 to 19.00 Monday to Thursday;
 - 15.00 to 19.00 Friday; and
 - hours of darkness.
- 4.2.1.12 Information related to notification is available at:
 - https://www.south-wales.police.uk/tua/tell-us-about/avl/v2/what-is-abnormal-load/



5. Traffic Management Measures

5.1 Local Highway Issues and Constraints

- 5.1.1.1 WSP undertook a desktop route audit to identify and review local highway issues and constraints. This included the identification and review of the following potential constraints:
 - height restrictions;
 - weight restrictions;
 - road classification;
 - road layout;
 - existing pedestrian crossing facilities;
 - existing traffic calming features;
 - sensitive receptors adjacent to the highway network;
 - visibility constraints;
 - restricted access;
 - speed limits and traffic speeds;
 - congestion;
 - gradient changes; and
 - PRoWs.

5.2 Mitigation Measures

- 5.2.1.1 To minimise the impact of construction traffic on the local road network and local communities surrounding the Proposed Development, this section sets out mitigation measures which are proposed as part of this CTMP.
- 5.2.1.2 Mitigation measures which are additional to this section include construction traffic routing strategies which are set out in **Section 3**. These routing strategies as mitigation are the principal measures to manage the impacts of construction traffic. However, there are numerous other mitigation solutions that should be implemented to reduce the impacts on the local highways network and local users. A summary of the measures included in this CTMP is set out below.

Access

A new construction vehicle access will be provided from the A4233. This will include the provision of a new right turn lane on the A4233 so that construction vehicles turning right into the Site will not block main road traffic (except for AIL vehicles) There will be an overrun area provided for AIL access. Once the construction of the Proposed Development is complete the new access will be retained to accommodate access for routine maintenance vehicles, albeit the overrun area will be returned to highway verge.



Fleet Operator Registration Scheme

- The Fleet Operator Registration Scheme (FORS Homepage FORS Fleet Operator Recognition Scheme (fors-online.org.uk) is a voluntary accreditation scheme to improve the quality, safety and environmental protection surrounding Fleet vehicles.
- 5.2.1.5 FORS strives for continuous improvement in the supply chain. Those who are FORS accredited operators also comply with CLOCS (Construction Logistics & Community Safety).
- The contractor should be registered with the scheme as a FORS Specifier and should require companies who are contracted to them supply fleet services in the transportation of goods to and from the site to be FORS Silver as a minimum. This will apply to subcontractors as well.

Adjustment to Existing Highway Layout for Abnormal Delivery

The AIL access study has identified the need for temporary measures along the AIL delivery route between Swansea Port and the Site access. The details of the required measures, and an additional management strategy, can be found in the AIL access study (Appendix 12A).

Vehicle Escorts

- 5.2.1.8 The SWP and SWTRA will be consulted with regards to vehicle escorts.
- The SWP will be involved with vehicle escorts upon specific request from the haulier or where it is deemed that a load, due to its size or other extenuating circumstances, necessitates a Police escort.

Dilapidation Survey

Dilapidation surveys will be required at the start and end of the construction programme to assess any damage to the highway caused by construction traffic on the access routes. Dilapidation surveys are expected to be carried out by an independent engineering consultant appointed by Pennant Walters Ltd who will work in conjunction with the relevant parties.

Working Hours and Timing of Movements

- The proposed core working hours for construction activities will be developed between Pennant Walters Ltd and the approved contractor. All construction activities will be limited to the core working hours to limit the effect of construction activities on the local highway network and the surrounding community.
- 5.2.1.12 In the interests of road safety and reducing possible nuisance, it is proposed that a planning condition is put in place that restricts traffic movements during the following periods:
 - no construction activities on Sundays;
 - no construction activities on Bank Holidays;
 - no construction activities outside the hours of 07:00 to 19:00 Mondays to Fridays; and
 - no construction activities outside the hours of 07:00 to 13:00 on Saturdays.
- All relevant parties involved in making deliveries to the Site would be informed of these restrictions, whilst for other contractors making regular deliveries these restrictions will



form part of their contractual obligations. This would be reinforced in the Principal Contractor's site induction and regular talks for site operatives.

Route Timing and Enforcement

- 5.2.1.14 Timing restrictions for deliveries can assist in ensuring that construction vehicles avoid peak periods in sensitive areas such as schools, and where necessary, areas that experience congestion.
- 5.2.1.15 Contractual arrangements with all appointed hauliers will set out the enforcement/disciplinary procedures in the event HGV drivers do not abide by the preferred routes or any timing restrictions.
- Road space along the abnormal load haulage routes will be booked in advance in compliance with the New Roads and Street Works Act 1991 (NRSWA). This will be undertaken as a precautionary measure to ensure that all haul roads are free of planned road works.

Route Signage

- Temporary signage will be installed along the construction route advising construction traffic of the correct route to the Site. In addition, and in the interests of road safety, the signage will also assist in advising other road users to be aware of construction vehicles. All new signage will be in accordance with the 2011 Traffic Sign Regulations and General Direction (TSRGD).
- 5.2.1.18 Construction traffic will not be allowed to enter the Site until the relevant local highway authority has agreed the signage design and confirmed in writing that the required signage is in place.

Public Information

Providing detailed information to local residents and interested groups is a key part of the construction of any wind farm. To ensure that local residents are given the opportunity to obtain information about the project, and offer their views and suggestions, the developer will undertake a variety of engagement methods.

Wheel Cleaning/Street Cleaning

In the interests of public safety, preventative measures to minimise any mud and debris deposited onto the A4233 will be operated on site and at the Site access. The Principal Contractor will arrange activities on site that minimise the carriage of mud and debris and shall provide, maintain, enforce and monitor the performance and proper use of cleaning facilities. The Principal Contractor shall promptly arrange street cleaning equipment either through RCTCBC or direct, when any significant mud and debris is carried onto public roads.

Vehicle Livery/Identification

To assist in enforcing this CTMP vehicle livery/identification will be added to contract vehicles making regular deliveries to the Site, thereby showing that they are associated with the development. This could simply be in the form of a board displaying the name of the wind farm development and/or Pennant Walters Ltd. An example of such livery/identification is to be submitted to the local planning authority for approval prior to the start of construction. No such construction vehicle will be allowed to enter the Site unless it is displaying approved livery/identification.

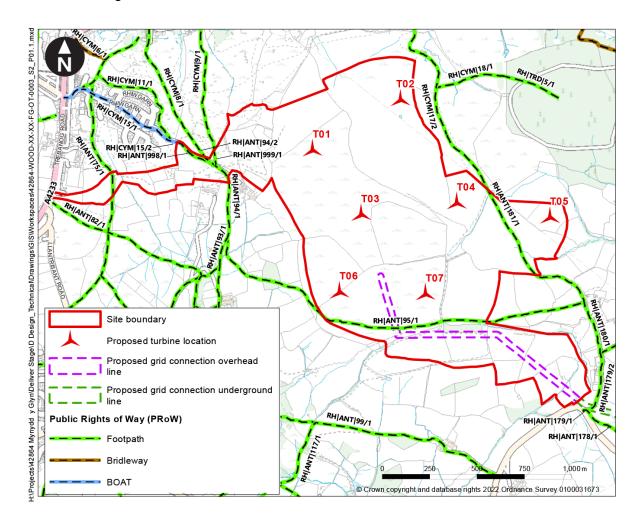


Construction Environmental Management Plan

5.2.1.22 A separate Draft Construction Environmental Management Plan (CEMP) has been prepared and will be submitted to RCTCBC (and other relevant highways authorities as relevant). The CEMP will include measures to control dust and debris resulting from the movement of HGVs.

PRoW Management

PRoWs crossing access track



- 5.2.1.23 Based on the final design freeze and the above PRoW information, there would be five locations within the Site boundary where the Site access tracks would cross existing PRoWs.
- All locations where construction access tracks cross the existing PRoWs will have appropriate warning signage, which will advise of dates and hours of working. Along access roads, appropriate signage will be erected to alert drivers of upcoming locations where there is an interface between construction traffic and public rights of way.
- However during certain periods during the construction programme it may be necessary to adopt active management measures with contractor staff patrolling key crossing points during periods of high construction activity or during the stringing of the lines. The need for active management on certain routes will be identified within the construction programme which will take into account delivery timescales and movements of plant and machinery.



The need for active management will be subject to specific risk assessments prepared by the Principal Contractor when analysing impacts of any construction activities which may bring pedestrians into proximity with construction traffic.

5.2.1.26 In this instance, PRoW users may have to wait for a short period of time whilst the footpath is in use by the construction team. Users will be advised when works are completed and it is safe to cross the footpath with Pennant Walters Ltd contractor's staff at the crossing point.

PRoWs crossing turbine buffers (200m)

- 5.2.1.27 **Chapter 16** of the Draft ES describes the management of the PRoWs which cross 200m buffers from each turbine.
- 5.2.1.28 The need for a PRoW management plan will be discussed with RCTCBC PRoW officer(s).

Information packs and Communications

- 5.2.1.29 Information packs will be provided to all contractors which will form part of the contractual agreement between the contractors and Pennant Walters Ltd. The information pack will contain the details of the following CTMP requirements:
 - construction routes;
 - non-compliance guidance;
 - complaints procedure;
 - internal Road Layout;
 - CTMP protocols and Code of Good Practice;
 - guidance on standard communication procedures between contractors and site management; and
 - CTMP contacts (emergency and non-emergency).
- 5.2.1.30 Information packs will be shared with the relevant local road authority(s) ahead of any construction works.
- Given the rural location of the Site in relation to the public transport network, the opportunity for contractors to travel to work by public transport is not a viable choice. The distance of the Site from the established cycle network and lack of footway connections to local amenities and establishments also means that travel by alternative sustainable modes is unlikely to be chosen by contractors. However, car-sharing is something that can be promoted by the contractors. To identify and support this, the Site's travel information pack will include information relating to a car-sharing club.



6. Management Structure

6.1 Introduction

- This section reviews the management structure that will oversee the CTMP. It is important that a strong management structure is in place to ensure the CTMP objectives are met, and that continued monitoring and review of the CTMP is maintained.
- A transport coordination officer (TCO) will be appointed by the contractors to implement the CTMP (approved by the relevant local planning authorities in consultation with all relevant highway authorities). The TCO will be appointed prior to commencement of the works and will have the following transport related responsibilities:
 - monitor contractor obligations with regards to the CTMP;
 - liaise with and report to relevant highways authorities about mitigation and any remedial measures, if required;
 - update the CTMP as required; and
 - resolve issues and problems through the liaison with relevant stakeholders.

6.2 Monitoring and Review

- The TCO appointed by the contractors will undertake monitoring as necessary to ensure compliance with the requirements of the CTMP and this will include the maintenance of records and traffic management measures.
- The contractor will ensure that a suitable, qualified, member of staff is employed to conduct surveys and monitor construction vehicle activity at specific locations along the construction route network to ensure adherence to the CTMP. This will include the monitoring of construction vehicles on the local road network and speed enforcement monitoring.
- 6.2.1.3 The TCO will monitor and review the CTMP. These reviews are required to ensure that the CTMP delivers on the commitments and achieves the agreed goals as set out in this document.

6.3 Compliance

- As part of the CTMP a series of mechanisms will be established to provide all parties with a clear understanding of the enforcement procedures that will be applied if the requirements contained within this CTMP are not achieved. It is anticipated that these mechanisms will be determined at a later stage and will include:
 - Risk Assessment Method Statement (RAMS) procedures The contractor, through the TCO, will implement the CTMP, adhere to the requirements and meet the goals through management practices. This will include site inductions for contractors, briefing on the obligations of standards, induction and adherence to RAMS procedures, DMS briefing, driver inductions and compliance guidance;
 - Contractual conditions to be employed as part of the CTMP compliance methodology and will be built into the contractor's contract, this will be subject to a performance review by Pennant Walters Ltd; and



• Actions – To be employed if the commitments of the CTMP are breached.

6.4 Enforcement and Corrective Measures

The TCO will ensure that appropriate measures are taken to ensure that contractor behaviour and performance is monitored and where appropriate corrective measures are taken to resolve, redress and enhance service performance which is in breach of the standards within the CTMP.



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