



Trecelyn Wind Farm

Draft Environmental Statement

Appendix 12B: Outline Construction Traffic Management Plan





Report for

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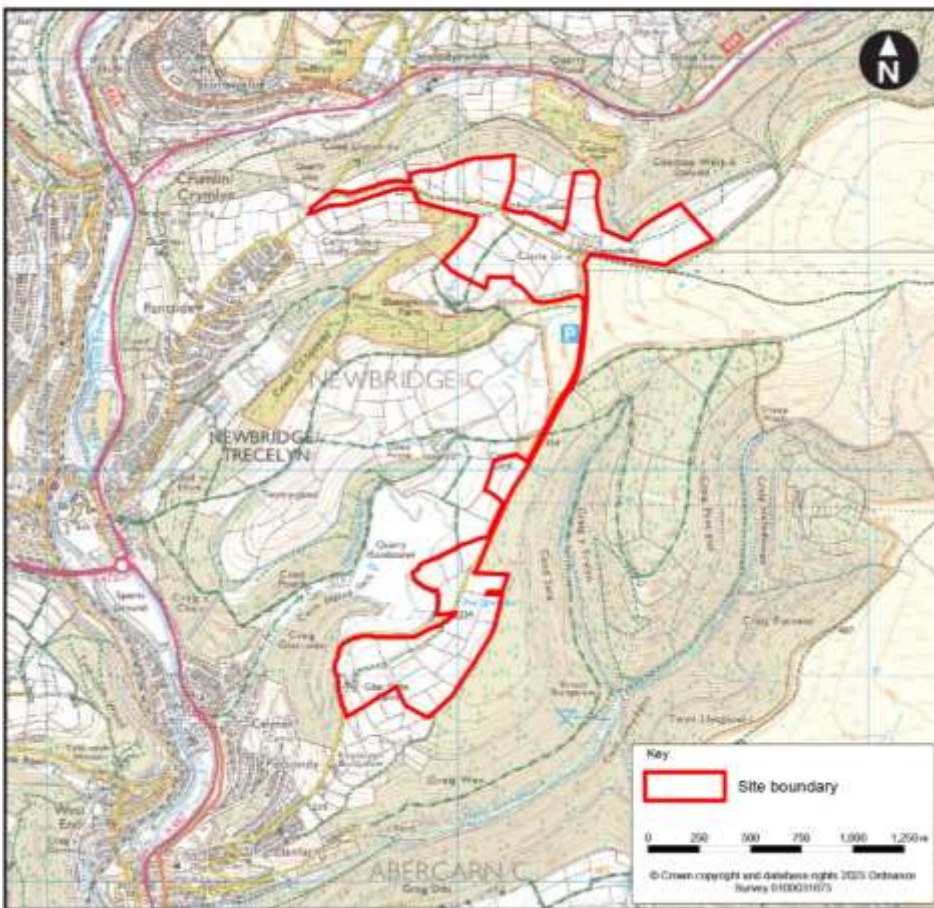
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1. INTRODUCTION

1.1 OVERVIEW

- 1.1.1 WSP UK Limited has been appointed by Pennant Walters Limited to develop a Construction Traffic Management Plan (CTMP) for the proposed construction of a wind farm of up to four turbines and connection to the grid distribution system in Trecelyn Wind Farm, also referred to as ‘the Proposed Development’.
- 1.1.2 The Proposed Development is located on elevated ground between Crumlin and Hafordyrnys. The Proposed Development is expected to be accessed via four access points from an unclassified road. The location of the Proposed Development is shown in **Figure 1-1**.

Figure 1-1 - Proposed Development Location



- 1.1.3 This CTMP discusses the proposed construction traffic and Abnormal Indivisible Load (AIL) routes. Potential routes include elements of the Strategic Road Network (SRN) including the A4042 and the M4; these roads are the responsibility of South Wales Trunk Road Agent (SWTRA) within Wales and the M49 and M4 which are the responsibility of National highways within England. Connecting the SRN and the Proposed Development site ('the Site'), are several local network roads which could also be used. The A4046 and parts of the A467 are the responsibility of Blaenau Gwent County Borough Council (BGCBC), while parts of the A467 and parts of the A472 are the responsibility of

Caerphilly County Borough (CCB) and parts of the A472 are the responsibility of Torfaen County Borough Council (TCBC). See **Section 3** for further details.

- 1.1.4 All relevant highway authorities will be contacted as part of the consultation of the Proposed Development in order to gain feedback on the suitability of the proposed construction and abnormal load access routes and traffic management practices.
- 1.1.5 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).
- 1.1.6 At this stage of the development, the adopted 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 to be finalised following the appointment of the Principal Contractor and relevant suppliers.

1.2 PURPOSE OF THIS REPORT

- 1.2.1 This CTMP identifies measures which could be implemented to provide mitigation for the traffic generated during the works programme to ensure the likely impact on existing road users could be minimised through a combination of management and mitigation measures contained within this document.
- 1.2.2 The primary objectives of this CTMP therefore are to:
- 1.2.3 Ensure 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;
 - 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: 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 All relevant highway authorities will be consulted on the scope and proposals related to HGVs movements and Abnormal Indivisible Load (AIL) delivery route and their responses will be used in the further development of this CTMP. A summary of the relevant responses received and confirmation of how these will be addressed, will be captured and presented in this section.

2. PROJECT DESCRIPTION

2.1 OVERVIEW

- 2.1.1 The Proposed Development is to construct and operate a wind farm of up to four turbines and associated infrastructure including access tracks, foundation, cabling, substation and connection to a grid distribution system.
- 2.1.2 The construction period for the wind farm is expected to last approximately 104 weeks (24 months). 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 via Overhead Line (OHL) on-site.
- 2.1.3 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, the Proposed Development will be phased as such that at different parts of the Site, the civil engineering works will be continuing whilst the wind turbines are being erected.

2.2 PROJECT TIMESCALES

- 2.2.1 The current timescales for the project are based on an expected site mobilisation and start date of March 2026 and the main works are proposed to start on April 2026. The project completion date is expected to be November 2027.

2.3 VEHICLE CLASSIFICATION

- 2.3.1 A number of vehicle types are expected be used during the course of construction, as outlined in **Table 2-1** below.

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	

2.3.2 The vehicles and specifications provided above have been identified based on similar projects by scale and type. These assumptions are subject to final confirmation following appointment of the Principal Contractor.

2.4 TRAFFIC GENERATION

2.4.1 Where possible, construction operations would be carried out concurrently, thus minimising the overall length of the construction programme. An indicative 104 – week (24 months) construction programme (commencing in 2026) has been assumed for the purposes of this assessment.

2.5 Wind Farm

2.5.1 As a worst-case scenario, it is assumed that 100% of aggregates will be sourced from off-site via road. **Table 2-2** shows the predicted traffic generation during construction of the wind farm.

Table 2-2 - Predicted traffic generation during construction phase - wind farm

ACTIVITY	Total Loads	Total Trips (Two way)
Site Mobilisation		
Delivery of Plant and Equipment	30	60
Construction Compound and Access Point		
Delivery of Tarmac for Access	3	6
Delivery of Compound General Equipment	20	40
Track and Hardstanding Areas		
Delivery of Road Stone for Access Tracks	965	1,930
Delivery of Road Stone for Areas of Crane Operation	638	1,276
Turbine Foundations		
Delivery of Backfill Stone for Turbines	30	60
Delivery of Concrete for Turbines	195	390
Substation Construction		

ACTIVITY	Total Loads	Total Trips (Two way)
Delivery of Road Stone for Substation	97	194
Delivery of concrete for substation	6	12
Trenches, cabling		
Delivery of Sand for cable trench	53	106
Turbine Delivery and Install		
Delivery and Removal of Mobile Crane	24	48
Delivery of Turbines	40	80
Energy Storage Compound		
Site Restoration Turbine Fit and Commission		
Removal of Plant and Equipment - phases throughout construction	30	60
Removal of Plant and Equipment and Commission Equipment	30	60
Total	2,161	4,322

CONSTRUCTION TRAFFIC DISTRIBUTION

- 2.5.2 Based on the construction program there would be a peak of 48 HGV movements two-way during a 12-hour weekday. This peak is predicted to occur during month 2 (April 2026) and therefore only for 4 weeks of the total 24-month construction programme.
- 2.5.3 The final construction route is subject to agreements to source of aggregate, route selection identified by the appointed contractor and agreement by relevant local highways authorities. For purposes of assessment, it has been assumed that construction traffic would be distributed using a 50% split between Trefil Quarry and Hafod Quarry. This results in 24 HGVs routing northbound along the A467 and the A4046 to Trefil Quarry and 24 HGVs routing southbound on the A467 towards Hafod quarry.

Table 2-3 shows the worst-case distribution of the construction traffic (two-way) on the local road network.

Table 2-3 - Predicted peak construction traffic on local roads

Local road	Total loads
A4046, (Ebbw Vale) - (North of Central Avenue)	24
A467, (Swffryd) - (North of Central Avenue)	24
A467, (Pantside) - (South of Central Avenue)	24

2.6 WORKING HOURS

- 2.6.1 At this stage, subject to caveats noted in **Chapter 4: Description of the Proposed Development**, 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 The following considerations have been used to develop a construction vehicle routing strategy:
- 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.
- 3.1.2 Construction traffic routes selected are presented in **Section 3.3** and are based on providing a route between local quarries to the proposed development.

3.2 SITE ACCESS

- 3.2.1 Whilst the proposed scheme(s) for providing access into the Site are to be determined it is expected that at locations where access will be required, proposed schemes will be developed to provide improvements to ensure construction vehicles can safely and efficiently access or egress the Site from the local road network. Improvements may include, but not be limited to the following;
- Provision of an access junction into the Site which can accommodate the swept path of construction vehicles and (where required) Abnormal Load deliveries.
 - Provision of adequate surfacing at the site access.
 - Ensure access provides an adequate visibility splay based on the relevant guidance (Manual for Streets for the Local Road Network)
- 3.2.2 At this stage, it is expected that there will be four accesses into the Site, as shown in **Figure 3.1**. Access 1 will provide access to the proposed substation site, while accesses 2, 3 and 4 will provide access to WTG 1, 2, and 3+4 respectively.

Figure 3-1 - Potential site access locations



3.3 ROUTE OPTIONS FOR CONSTRUCTIONS HGVS

- 3.3.1 For the purposes of assessment, it is assumed that construction materials would be sourced from the two local quarries identified below, located south and north of the Site respectively:
- Route 1: Hafod Quarry, Abercan, Newbridge (directly to the south of the Site);
 - Route 2: Trefil Quarry (to the North of the Site via the A467 and A4046);
- 3.3.2 Route 1 to Hafod quarry would require construction traffic to route to the A467 via Old Pant Road and Central Avenue then head southbound on the A467 to the roundabout with the B4591 and Coed Celyn Road. Construction vehicles would be required to route via the B4591, Brook Street and Lower Brook Street to the access into the Hafod Quarry site.
- 3.3.3 Route 2 to Trefil Quarry would require construction traffic to route to the A467 via Old Pant Road and Central Avenue then head northbound on the A467 to the A4046 at Aberbeeg. Construction traffic would continue on the A4046 through Cwn and Ebbw Vale to Bryn Serth Road where access to the existing tracks to Trefil Quarry can be accessed via Crown Avenue adjacent to Crown Business Park.
- 3.3.4 Quarry locations and routing options are presented in **Figure 12-2** of the traffic and transport chapter of the Environmental Statement.

LOCAL ROAD NETWORK

UNCLASSIFIED ROAD

- 3.3.5 The Unclassified Road included within the scope of this assessment includes a section of highway between Old Pant Road and a potential access to WTG's 3 and 4. The road is subject to the National Speed limit and is rural and constrained in nature. The carriageway width is typically 3m wide and constraints including hedgerow and dry-stone walling are located in proximity to the edge of the carriageway at various sections of the road. A cattle grid is located adjacent to an agricultural property.

OLD PANT ROAD

- 3.3.6 Old Pant is a single carriageway road which is approximately 6m in width. The road routes between the site access and Central Avenue in a northeast/southwest alignment. Between the site access and residential properties at Panside, the road is subject to the National Speed Limit. Where Old Pant Road passes through residential sections of road through Panside to Central Avenue, the road is subject to a 30-mph speed limit.
- 3.3.7 Throughout the residential section of Old Pant Road streetlighting is provided and footways are located on both sides of the carriageway. Residential properties and driveways front onto the road and Bus stops are located intermittently along the road. A short section of Old Pant Road routes along the eastern boundary of Panside Primary School, this section is subject to a 20-mph speed limit and traffic calming measures are provided within the carriageway including speed humps and a buildout with priority control of traffic.

CENTRAL AVENUE

- 3.3.8 Central Avenue is a single carriageway road approximately 6m wide, subject to a 30mph speed limit and approximately 620m long in a south to north alignment from A467/Central Avenue junction to Central Avenue/ Old Pant Road roundabout. There is streetlighting and footways on both sides of the road. For the majority of its route, Central Avenue is fronted by residential properties on either side of the road accessed through dropped kerb driveways and private accesses. There are buildouts at sections along the road and on street-parking provisions. There are two southbound bus stops are provided approximately 70 meters and 265m from A467 Pant Road/ Central Avenue junction.

A467

- 3.3.9 Within the scope of assessment, the A467 routes in a north/south alignment between Junction 28 of the M4 and the A467/A472 junction at Crumlin. The road is a dual carriageway between Junction 28 of the M4 and the A467/B4251 junction at Crosskeys and is a single carriageway for the remaining route through Abercarn, Newbridge and Crumlin to the A472 junction. The road is subject to various speed limits along its route but is predominantly subject to the National speed limit along the dual carriageway section. The speed limit on the single carriageway section is reduced to 30mph as the A467 enters Crumlin.

A472

- 3.3.10 Within the scope of assessment, the A472 routes from the A472/A4042 roundabout in Pontypool to the A472/A467 signalised junction in Crumlin. From the A472/A4042 roundabout, the road is subject to a 50mph speed limit along a section of dual

carriageway approximately 1.5km in length. West of the A472/A472/A4043 roundabout the A472 is a single carriageway road for which the speed limit varies between 30mph,40mph and the national speed limit.

- 3.3.11 Street lighting is provided along the full length of the A472 with footways provided intermittently connecting the Site to the nearby settlements. As the A472 enters Hafodyrynys the road is subject to a 30mph speed limit, and residential properties and footways exist on both sides of the carriageway.

A4

- 3.3.12 Within the Avonmouth area, the A4 route goes south from Avonmouth Port Exit, at King Road Avenue/Saint Andrews Road/ McLaren Road/ Crowley Way roundabout towards Bristol city centre. Within the Avonmouth Dock area, the A4 is a dual carriageway which is subject to a 40mph speed limit and streetlighting is provided. The road is fronted by numerous industrial and commercial properties and pedestrian footways are provided on both sides of the carriageway. A signal-controlled pedestrian crossing is present on the A4 Crowley Way.

STRATEGIC ROAD NETWORK

- 3.3.13 The Strategic Road Network (SRN) comprises the routes of national strategic importance (motorways and trunk roads), which are operated and maintained by South Wales Trunk Road Agency in the vicinity of the Site and by National Highways on the potential route from Avonmouth Dock.
- 3.3.14 The A4042 and M4 are the strategic roads in the vicinity of the Site, and within Wales are maintained by the South Wales Trunk Road Agency. Within England, the M4 and M49 are strategic roads on the potential route from Avonmouth Dock and are maintained by National Highways
- 3.3.15 The M4 is a long-distance route between Swansea and London and the M49 is a strategic link between Avonmouth Dock and the M4 at Piling Interchange. The A4042 provides a north-south connection between Newport and the A465 Heads of Valleys Road.

3.4 Routes for abnormal loads

- 3.4.1 It is assumed that as the nearest port which can accommodate the delivery of turbine components is the Port of Avonmouth. It is expected that Avonmouth will be used to import all the required turbine components for this project. The Port of Avonmouth is one of England's major ports and is located west of Bristol. The Port is well connected to the strategic road network (SRN) with immediate connections to the M49, M4 and M5.
- 3.4.2 Based on the AIL access study (**Annex A, Section 5.2**), the preferred route from Port of Avonmouth Docks includes the following roads:
- A4 to M49
 - M49 to M4 at the Piling Interchange
 - M4 Piling interchange to M4 junction 24 onto the A4042
 - A4042 to A472 in Pontypool
 - A472 to the A467 at Crumlin
 - A467 to Central Avenue
 - Central Avenue to Old Pant Road
 - Unclassified Road
 - Site

4. POLICIES, PROCEDURES, AND DUE PROCESS

4.1 NORMAL LOADS

4.1.1 Relevant highway authorities will be consulted in relation to this CTMP, their responses will then be added in **Section 1.4**. Any post-submission actions identified in the consultation process will be considered and actioned where appropriate in due course.

4.2 ABNORMAL LOADS

4.2.1 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.

4.2.2 Key to the successful management will be early and continuous communication with all relevant local highway authorities.

4.2.3 This section of the report provides an overview of the relevant policies and procedures related to the movement of abnormal loads.

4.2.4 An 'abnormal indivisible load' is defined in the Road Vehicles (Authorisation of Special Types) (General) Order 2003¹ 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.

4.2.5 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.

4.3 NATIONAL HIGHWAYS

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

¹ 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 2023).

required to their infrastructure before the movement of an abnormal load. The key stakeholders include local police.

4.3.2 Notification forms and details of the procedures are available at:

<https://nationalhighways.co.uk/road-safety/abnormal-loads-and-the-esdal-system/>

4.4 SOUTH WALES TRUNK ROAD AGENT

4.4.1 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 suggests consultation with the police, other highways authorities, bridge and structure owners.

4.4.2 Details of the notification procedures are available at:

<https://traffic.wales/swtra-street-works-and-abnormal-loads>

4.5 SOUTH WALES POLICE

4.5.1 South Wales Police (SWP) helps to assure the road safety during abnormal load transportation on the roads within South Wales.

4.5.2 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.

4.5.3 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

General construction Traffic

5.1.1 WSP undertook a desktop route audit to identify and review local highway issues and constraints for general construction traffic. 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.

5.1.2 Based on the criteria above the following issues have been identified for access for general construction traffic:

- A section of traffic calming exists along Old Pant Road outside Panside Primary School. Traffic calming includes a build out with priority control, a 20-mph speed limit, speed humps and road markings.
- Central Avenue and Old Pant Road route through the Panside which is a predominantly residential area. There is evidence of on-street parking at locations along Central Avenue and Old Pant Road
- Route 2 to Trefil Quarry requires construction vehicles to travel through a more sensitive section of the A4046 through Ebbw Vale.

5.1.3 Mitigation measures to minimise the impact of construction vehicles are provided within **Section 5.2**.

Abnormal Load delivery Route

5.1.4 Constraints and pinch points for the preferred AIL delivery route have been identified within a Route Survey Report (RSR) prepared by Pell Frischmann, the RSR is appended to the AIL study (**Appendix 12A**). The RSR identifies requirements for physical mitigation measures, a Temporary Traffic Regulation Order (TTRO) and a traffic management scheme for the AIL delivery vehicle to undertake a "U-Turn" manoeuvre at the A467/A472 roundabout.

5.1.5 Physical mitigation measures have been identified by swept path analysis and they include the provision of road widening/overrun areas outside the carriageway and

clearance of street furniture, vegetation and other obstacles identified within the swept path analysis within the RSR undertaken by Pell Frischmann.

- 5.1.6 A Temporary Traffic Regulation Order (TTRO) or a voluntary agreement with residents would be required to temporarily restrict on-street parking along Central Avenue and Old Pant Road to ensure the full width of the road is made available for the delivery of Wind Turbine components by AIL vehicles.
- 5.1.7 A temporary traffic management scheme at the A467/A472 Roundabout would be required to allow abnormal load delivery vehicle to negotiate the roundabout safely. This may require the use of vehicle escorts to temporarily close access to the roundabout while the AIL delivery vehicle completes the “U turn” manoeuvre.

5.2 MITIGATION MEASURES

- 5.2.1 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.
- 5.2.2 Mitigation measures which are additional to this section include construction traffic routing strategies which are set out in **Section 3**. These routing strategies are the principal measures to manage the impacts of construction traffic. However, there are numerous other mitigation solutions that could be implemented to reduce the impacts on the local highways network and local users. A summary of the potential measures included in this CTMP is set out below.

ACCESS

- 5.2.3 As per **Section 3.2**, final access arrangements are to be determined. It is expected that there will be four accesses provided across the Site to provide access to the respective locations of site infrastructure including Substations and WTG locations.

ADJUSTMENT TO EXISTING HIGHWAY LAYOUT FOR ABNORMAL LOAD DELIVERY

- 5.2.4 The AIL access study has identified the need for temporary measures along the AIL delivery route between Avonmouth Docks and the Site access. The details of the pinch points identified and required mitigation measures can be found in the AIL access study (**Appendix 12A**).

VEHICLE ESCORTS

- 5.2.5 The SWP, SWTRA and National Highways will be consulted with regards to vehicle escorts.
- 5.2.6 The SWP will be involved with vehicle escorts upon a 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

- 5.2.7 Dilapidation surveys will be required at the start and end of the construction programme to assess any damage to the highway caused by the construction traffic on the proposed 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

- 5.2.8 The proposed core working hours for construction activities will be developed between Pennant Walters Ltd and the appointed 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.
- 5.2.9 In the interests of road safety and reducing possible nuisance, traffic movements during the following periods will be avoided:
- 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.
- 5.2.10 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

- 5.2.11 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.
- 5.2.12 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.
- 5.2.13 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

- 5.2.14 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 2016 Traffic Sign Regulations and General Direction (TSRGD).
- 5.2.15 Construction traffic will not be allowed to enter the Site until the relevant local highway authority has agreed on the signage strategy and design and received a confirmation in writing that the required signage is in place.

PUBLIC INFORMATION

- 5.2.16 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

- 5.2.17 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 Caerphilly County Borough Council or directly when any significant mud and debris is carried onto public roads.

VEHICLE LIVERY/IDENTIFICATION

- 5.2.18 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

- 5.2.19 A separate Draft Construction Environmental Management Plan (CEMP) has been prepared and will be submitted to Caerphilly County Borough Council (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

- 5.2.20 Based on the Site boundary at the Consultation stage of the project it has been identified that there are 10 Restricted Byways, 9 Footpaths and 1 Bridleway which are located within the site boundary and could be affected by the proposed development. Onsite PRow is identified within **Figure 12-4** of the **Chapter 12 (Traffic and Transport)** of the Draft ES.
- 5.2.21 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 the 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.
- 5.2.22 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. 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.
- 5.2.23 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.

INFORMATION PACKS AND COMMUNICATIONS

- 5.2.24 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).
- 5.2.25 Information packs will be shared with the relevant local road authority(s) ahead of any construction works.
- 5.2.26 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 considered 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.

FLEET OPERATOR REGISTRATION SCHEME

- 5.2.27 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.
- 5.2.28 FORS strives for continuous improvement in the supply chain. Those who are FORS accredited operators also comply with CLOCS (Construction Logistics & Community Safety).
- 5.2.29 The contractor should be registered with the scheme as a FORS Specifier and should require companies who are contracted to them to supply fleet services in the transportation of goods to and from the Site to be FORS Silver as a minimum. This will apply to sub-contractors as well.

6. MANAGEMENT STRUCTURE

6.1 INTRODUCTION

- 6.1.1 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.
- 6.1.2 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

- 6.2.1 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.
- 6.2.2 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.
- 6.2.3 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

- 6.3.1 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

- 6.4.1 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.