



# MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

**Outline Highway Access Management Plan** 



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## Glossary

Term	Meaning
400 kV grid connection cable corridor	The corridor within which the 400 kV grid connection cables will be located.
Applicants	Morgan Offshore Wind Limited (Morgan OWL) and Morecambe Offshore Windfarm Ltd (Morecambe OWL).
Commitment	This term is used interchangeably with mitigation and enhancement measures. The purpose of commitments is to avoid, prevent, reduce or, if possible, offset significant adverse environmental effects. Primary and tertiary commitments are taken into account and embedded within the assessment set out in the ES.
Environmental Statement	The document presenting the results of the Environmental Impact Assessment process.
Generation Assets	The generation assets associated with the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm include the offshore wind turbines, inter-array cables, offshore substation platforms and platform link (interconnector) cables to connect offshore substations.
Haul road	The haul road will provide vehicle access along the onshore export cable corridor and 400 kV grid connection cable corridor off the public highway and will be used where needed throughout the installation of the onshore export cables and 400 kV Grid Connection Cable. The haul road will be 6 m wide (excluding passing places).
Highway Authorities	Lancashire County Council and Blackpool Council as the Local Highway Authority and National Highways as the highway authority for the strategic network collectively referred to as the Highway Authorities.
Landfall	The area in which the offshore export cables make landfall (come on shore) and the transitional area between the offshore cabling and the onshore cabling. This term applies to the entire landfall area at Lytham St. Annes between Mean Low Water Springs and the transition joint bay inclusive of all construction works, including the offshore and onshore cable routes, intertidal working area and landfall compound(s).
Local Highway Authority	A body responsible for the public highways in a particular area of England and Wales, as defined in the Highways Act 1980.
Local Planning Authority	The local government body (e.g., Borough Council, District Council, etc.) responsible for determining planning applications within a specific area.
Mean High Water Springs	The height of mean high water during spring tides in a year.
Mean Low Water Springs	The height of mean low water during spring tides in a year.
Mobilisation period	Period before and after standard construction working hours for deliveries, arrival of construction workers etc.
Morecambe Offshore Windfarm: Transmission Assets	The offshore export cables, landfall and onshore infrastructure required to connect the Morecambe Offshore Windfarm to the National Grid.
Morgan Offshore Wind Project: Transmission Assets	The offshore export cables, landfall and onshore infrastructure required to connect the Morgan Offshore Wind Project to the National Grid.

Term	Meaning
Morgan and Morecambe Offshore Wind Farms: Transmission Assets	The offshore and onshore infrastructure connecting the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm to the national grid. This includes the offshore export cables, landfall site, onshore export cables, onshore substations, 400 kV grid connection cables and associated grid connection infrastructure such as circuit breaker compounds.
	Also referred to in this report as the Transmission Assets, for ease of reading.
Onshore export cable corridor	The corridor within which the onshore export cables will be located.
Onshore substation	The onshore substations will include a substation for the Morgan Offshore Wind Project: Transmission Assets and a substation for the Morecambe Offshore Windfarm: Transmission Assets. These will each comprise a compound containing the electrical components for transforming the power supplied from the generation assets to 400 kV and to adjust the power quality and power factor, as required to meet the UK Grid Code for supply to the National Grid.
Outline Construction Traffic Management Plan	A plan establishing vehicle routing and to ensure that vehicles can safely access the onshore elements of Transmission Assets.

## **Acronyms**

Acronym	Meaning
AIL	Abnormal Indivisible Load
СоТ	Commitment
СТМР	Construction Traffic Management Plan
DCO	Development Consent Order
DMRB	Design Manual for Roads and Bridges
ES	Environmental Statement
HAMP	Highways Access Management Plan
HGVs	Heavy Goods Vehicles
MfS	Manual for Street (standards)
MLWS	Mean Low Water Springs
OCTMP	Outline Construction Traffic Management Plan
ОНАМР	Outline Highways Access Management Plan
PSL	Posted Speed Limit
RSA	Road Safety Audit

## **Units**

Unit	Description
kV	Kilovolt
mph	Miles per hour
mm	Millimetres

## 1 Outline Highway Access Management Plan

#### 1.1 Background

#### 1.1.1 Introduction

1.1.1.1 This document forms the Outline Highway Access Management Plan (OHAMP) prepared for the Morgan and Morecambe Offshore Wind Farms: Transmission Assets (referred to hereafter as 'the Transmission Assets').

#### 1.1.2 Project overview

- 1.1.2.1 Morgan Offshore Wind Limited (Morgan OWL), a joint venture between JERA NEX bp (JNbp) and Energie Baden-Württemberg AG (EnBW), is developing the Morgan Offshore Wind Project. The Morgan Offshore Wind Project is a proposed wind farm in the east Irish Sea.
- Morecambe Offshore Windfarm Ltd (Morecambe OWL), owned by Copenhagen Infrastructure Partners' (CIP) fifth flagship fund. Copenhagen Infrastructure V (CI V), is developing the Morecambe Offshore Windfarm, also located in the east Irish Sea.
- 1.1.2.3 The purpose of the Transmission Assets is to connect the Morgan Offshore Wind Project: Generation Assets and Morecambe Offshore Windfarm: Generation Assets (referred to collectively as the 'Generation Assets') to the National Grid.—
- 1.1.2.4 Morgan OWL and Morecambe OWL (the Applicants) are jointly seeking a single consent for their electrically separate transmission assets comprising aligned offshore export cable corridors to landfall and aligned onshore export cable corridors to separate onshore substations, and onward connection to the National Grid at Penwortham, Lancashire.
- 1.1.2.5 The key components of the Transmission Assets include offshore elements, landfall and onshore elements. Details of the activities and infrastructure associated with the Transmission Assets are set out in Volume 1, Chapter 3: Project Description of the Environmental Statement (ES) (document reference F1.3).
- 1.1.2.6 This OHAMP has been developed for onshore elements of Transmission Assets, landwards of Mean Low Water Springs (MLWS). The elements of the Transmission Assets relevant to this plan are:
  - Landfall:
    - landfall site: this is where the offshore export cables are jointed to the onshore export cables via the transition joint bays. This term applies to the entire area between Mean Low Water Springs (MLWS) and the transition joint bays.
  - Onshore elements:

- onshore export cables: these export cables will be jointed to the offshore export cables via the transition joint bays at the landfall site, and will bring the electricity generated by the Generation Assets to the onshore substations;
- onshore substations: the two electrically separate onshore substations will contain the components for transforming the power supplied via the onshore export cables up to 400 kV; and
- 400 kV grid connection cables: these export cables will bring the electricity generated by the Generation Assets from the two electrically separate onshore substations to the existing National Grid substation at Penwortham.
- 1.1.2.7 Full details of the activities and infrastructure associated with the Transmission Assets are set out in Volume 1, Chapter 3: Project Description of the Environmental Statement.

## 1.1.3 Purpose of the Outline Highway Access Management Plan

- 1.1.3.1 The purpose of this OHAMP is to present the details and preliminary access designs for the accesses and haul road crossings associated with the Transmission Assets. The general arrangement for any street works which may be necessary to facilitate the installation of any site accesses has also been included.
- 1.1.3.2 The detailed HAMP(s) will set out any updates to the access designs including the location, frontage, general layout, visibility and embedded mitigation measures for points of access to the Transmission Assets.
- 1.1.3.3 This OHAMP references the Outline Construction Traffic Management Plan (OCTMP) (Document reference J5). Wider traffic management measures, including information on delivery routes and any potential monitoring are provided in the OCTMP (see document reference J5).
- 1.1.3.4 Following the submission of the DCO application, comments have been provided by stakeholders regarding the design of accesses. The following provides a summary of the key amendments that have been made in response:
  - Minor revisions to the access designs and principles as requested by Lancashire County Council and presented in Section 1.4 and Appendix A;
  - Updates to Section 1.2 and Section 1.3 in relation to agreeing access arrangements and protocols to Blackpool Airport with Blackpool Airport Operations Limited;
  - Updates to Section 1.4.3 in relation to agreeing the final placement of signage with the relevant highway authority, following comments from Lancashire County Council;
  - Updates to Section 1.5 following comments from Lancashire County Council and Blackpool Borough Council to include the requirement

- to agree the final design of traffic management with the relevant highway authority and to book road works via Street Manager;
- Minor corrections to drafting noted by the Applicants;
- Minor revisions to the locations of access A63 presented in Appendix A;
- Clarification of the roles and responsibilities for implementing this outline management plan; and
- Clarification of the measures within this outline management plan that will be implemented during the onshore site preparation works;
- Minor revisions to the locations of accesses A7/A8, A9 and the addition of access A9b following the acceptance of the Change Request.

#### 1.1.4 Structure of this document

- 1.1.4.1 This document is set out as follows.
  - **Section 1.1** presents an introduction to the OHAMP.
  - Section 1.2 presents the roles and responsibilities.
  - Section 1.3 presents outline details for highway accesses.
  - **Section 1.4** presents the preliminary access designs and requirements for securing accesses.
  - Section 1.5 presents traffic management relating to accesses and haul road crossings.

## 1.2 Roles and responsibilities

#### 1.2.1 Overview

1.2.1.1 The key roles and associated responsibilities with regard to this OHAMP are set out below. The Construction (Design and Management) Regulations 2015 also identify the legal duties, responsibilities and obligations of all the major roles within the construction team. The responsibilities of each role will be refined in the detailed HAMPs.

## 1.2.2 Applicants

- 1.2.2.1 The Applicants will be responsible for the following:
  - Ensuring that the HAMP(s) are implemented effectively;
  - Giving necessary direction to contractors (for example, setting contractual obligations); and
  - Preparing the detailed HAMP(s) and undertaking reviews and refining the HAMP(s) (where necessary) in conjunction with the Principal Contractors.

#### 1.2.3 Contractors/Subcontractors

1.2.3.1 Contractors and subcontractors will be required to understand their responsibilities and implement the measures within the outline and detailed HAMP(s).

## 1.2.4 Implementation of the Outline Highway Access Management Plan

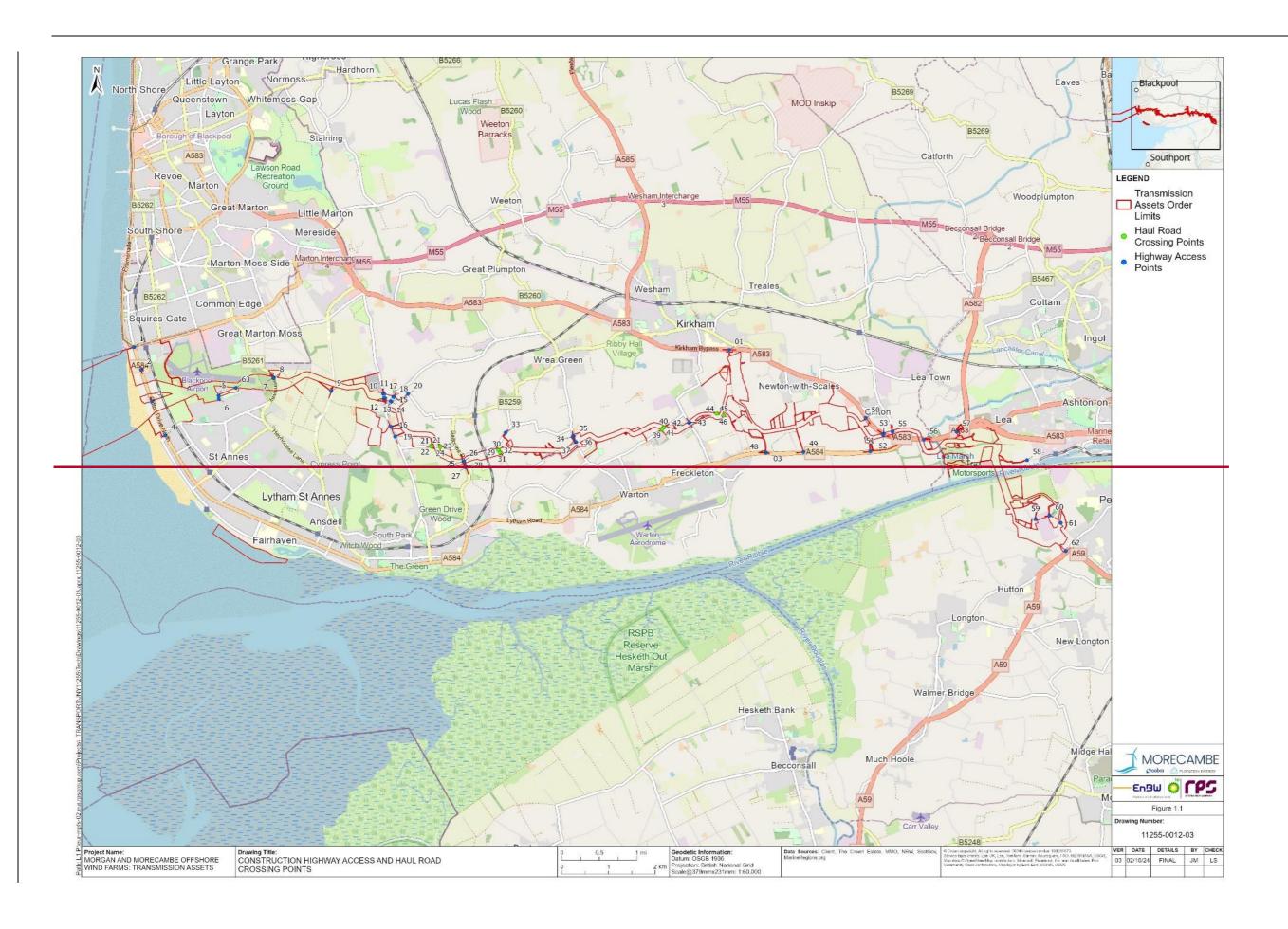
- 1.2.4.1 Following the granting of consent for the Transmission Assets, detailed Highway Access Management Plan(s) (HAMP) will be prepared on behalf of Morgan OWL and/or Morecambe OWL, prior to commencement of the relevant stage of works and will follow the principles established in this OHAMP. The detailed HAMP(s) will require approval by the relevant highways authority.
- 1.2.4.2 The Applicants have committed to the implementation of detailed HAMPs via the following commitment, CoT23 (see Volume 1, Annex 5.3: Commitments Register, document reference F1.5.3), and is secured by inclusion of Requirement 10 of the draft Development Consent Order (DCO) (document reference C1) Schedules 2A & 2B.
- 1.2.4.3 Below sets out the requirement wording for Morgan Transmission
  Assets (referred to as Project A in the draft DCO). Morecambe
  Transmission Assets (Project B) requirements mirror those of Project A
  for this requirement and are, therefore, not repeated):
  - 10.—(1) No new temporary or permanent means of access to a highway to be used by vehicular traffic, or any temporary or permanent alteration to an existing means of access to a highway used by vehicular traffic, may be formed for the Project A onshore works or Project A intertidal works until a highways access management plan for that access has been submitted to and approved in writing by the relevant planning authority in consultation with the relevant highway authority, and in relation to the Project A Blackpool Airport works, BAOL to the extent specified in the outline highway access management plan.
    - (2) Each highways access management plan must accord with the outline highways access management plan.
    - (3) The highway accesses must be implemented as approved.
- 1.2.4.4 The Transmission Assets may adopt a staged approach to the approval of DCO requirements enabling requirements to be approved in part or in whole, prior to the commencement of the relevant stage of works according to whether a staged approach is to be taken to the delivery of each of the offshore wind farms.
- 1.2.4.5 For onshore and intertidal works this approach will be governed by the inclusion of Requirement 3 within the draft DCO, which requires notification to be submitted to the relevant planning authority/authorities detailing whether Project A or Project B relevant works will be

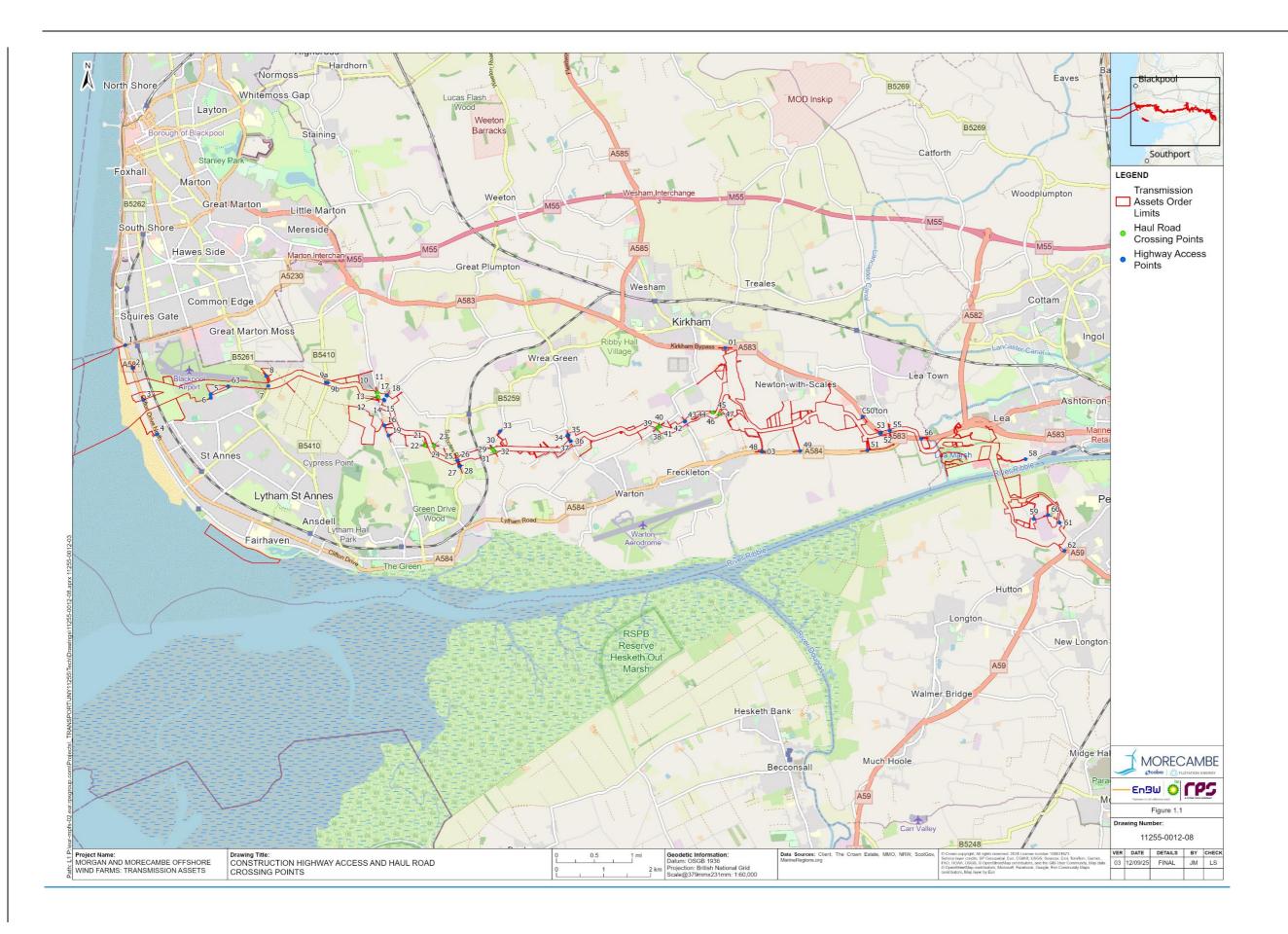
- constructed in a single stage; or in two or more stages to be approved prior to the commencement of the authorised development.
- 1.2.4.6 Onshore site preparation works are defined in Article 2 of the draft DCO (document reference C1). This OHAMP applies to the onshore site preparation works and construction activities for the Transmission Assets located landward of Mean Low Water Springs (MLWS) and does not consider impacts seaward of MLWS.
- 1.2.4.7 Onshore site preparation works include the creation of new site accesses and as such technical approval and implementation will be undertaken in accordance with Requirement 10 (1), (2) and (3) and this OHAMP as certified through the DCO.

### 1.3 Highway accesses

- 1.3.1.1 This OHAMP includes temporary construction accesses onto the public highway and haul road crossings of the public highway as presented in **Figure 1.1**.
- 1.3.1.2 The construction accesses provide for both ingress and egress to and from the public highway.
- 1.3.1.3 Access points assigned as 'haul road crossing only points' will only permit construction traffic to cross from one side of the existing public highway to the other (from one part of the haul road to another). No construction ingress or egress to or from the public highway would be permitted at these points.
- 1.3.1.4 There are some highway access points presented on **Figure 1.1** that also act as haul road crossing points. These will provide for both ingress and egress to and from the public highway and will also be used to cross the public highway from one part of the haul road to another.
- 1.3.1.5 The onshore substation temporary accesses (access 01 and 03, shown on **Figure 1.1**) will also be retained as permanent access points to enable ongoing access for operation and maintenance phases.
- 1.3.1.6 The access to Blackpool Airport from Leach Lane (access 6 shown on Figure 1.1) will also be retained as a permanent access point to enable ongoing access during operation and maintenance phases at Blackpool Airport. As well as consulting the relevant highway authorities in regard to the design of this access, the Applicants would also consult and agree the design and access management measures and protocols (for both the construction and operational phases) with Blackpool Airport Operations Limited (BAOL).







#### 1.4 Access and Crossing designs

- 1.4.1.1 Outline access designs for all accesses and crossings are included at **Appendix A**. These designs include details of geometry, visibility splays, road markings and provision for non-motorised users, as required.
- 1.4.1.2 To validate that HGVs can enter and exit each access (where HGV access is permitted) in forward gear, swept path analysis has been undertaken for each access. This swept path analysis (presented within **Appendix A**) has been undertaken using a maximum legal articulated vehicle. This provides a representation of the largest standard vehicle that would use the accesses. The exception to this approach is access 01 and 04 which would only be used by light vehicles.
- 1.4.1.3 Swept path analysis of the onshore substation accesses (01 and 03) has also been undertaken for the inbound abnormal indivisible load (AlL) movement (also presented in **Appendix A**). Outbound movements are not included noting that the AlL vehicles are disassembled on to standard HGVs for their return journey.
- 1.4.1.4 The general guiding principle for the access and crossing designs is to keep engineering works to a minimum to reduce the environmental impact of the proposed Transmission Assets, to ensure timely reinstatement to baseline conditions can be attained. This has included minimising vegetation that needs to be removed, to provide forward visibility.
- 1.4.1.5 **Table 1.1** provides a summary of the required visibility splay for each access and crossing in accordance with the measured 85<sup>th</sup> percentile speeds (the speed at which 85 percent of all vehicles are observed to travel), or the posted speed limit.
- 1.4.1.6 It can be noted from **Table 1.1** that the provision of the full splay for access 59, crossings 38 41 and crossings 44 47 cannot be achieved for the 85<sup>th</sup> percentile speeds and the following management measures are proposed:
  - Access 59: Existing speeds and traffic flows are very low along this road; therefore it is proposed that egress is managed via the provision of a banksperson. The banksperson would be required to check for oncoming traffic before advising the driver when it is clear to depart.
  - Crossings 38 41: It is proposed that vehicles crossing at this location would be managed via temporary traffic signal control.
     Traffic on the haul road would be required to wait for a green signal before proceeding to cross the highway.
  - Crossing 44 to 47: Whilst a splay in accordance with the 85<sup>th</sup> percentile speeds can't be fully achieved, splays in accordance with the average speeds are achievable. In this location, it is proposed to implement a temporary traffic regulation order to reduce the speed limit to 30mph (in line with the average

speeds) and consequently reduce the requirement for hedgerow removal.

- 1.4.1.7 **Table 1.1** presents details of the accesses and crossings for which construction works are required and the preliminary design drawing numbers (contained within **Appendix A**) related to each.
- 1.4.1.8 Where the haul roads cross the public highway, traffic management would be used to ensure the safety of highway users and haul road vehicles.
- 1.4.1.9 Measures proposed are detailed in **Appendix A** (drawing number PC1165-RHD-ZZ-SW-TP-0156) and encompass the following:
  - A temporary 10mph speed limit on the haul road;
  - Give-way/stop markings and signs on the haul road at the junction with the highway;
  - Advanced give-way signs, junction warning signs and slow markings on the haul road;
  - Warning signs on the highway to advise the public of the potential for crossing traffic; and
  - Speed cushions on the approach to certain crossings (to be agreed with the relevant highway authorities.
- 1.4.1.10 In addition to the measures outlined above, the OCTMP also includes a commitment to driver inductions. These would include matters such as crossing of haul roads and compliance with the haul road speed limit.
- 1.4.1.11 Should changes to these accesses and crossing designs need to be made post-consent, including the movement of the location of the access points within the Order Limits, these will be agreed in accordance with Requirement 10 of Schedules 2A and 2B to the DCO.

Table 1.1: Preliminary access design summary

Access ID	Road name	Access type	Posted Speed Limit (PSL) or measured 85 <sup>th</sup> percentile speed (mph)	Required visibility splay distance for the PSL or measured speed (*), **, ***	Drawing number	Notes
A1	Starr Gate	Existing Access	30 (PSL)	N/A	PC1165-RHD-ZZ- XX-SW-TP-0066	Access is proposed by light vehicles, e.g. a 4x4 towing a boat. No access proposed by HGVs.
A2	Clifton Dr N	Existing Access	30 (PSL)	90m	PC1165-RHD-ZZ- XX-SW-TP-0149 & 0150	N/A
A3	A584	Existing Access	33.5 (Measured Speed)	90m	PC1165-RHD-ZZ- XX-SW-TP-0001 & 0050	N/A
A4	A584, opp. Norwood Road	Existing Access	30 (PSL)	90m	PC1165-RHD-ZZ- XX-SW-TP-0074 & 0068	Access is proposed for light vehicles.
A5	Blackpool Road N/ Leach Lane	New Access (Existing pedestrian access)	20 (PSL)	33m (MfS)	PC1165-RHD-ZZ- XX-SW-TP-0147 & 0148	N/A
A6	Leach Lane	New Access	20 (PSL)	70m	PC1165-RHD-ZZ- XX-SW-TP-0002 & 0051	Blackpool Airport Operations Limited to be consulted on the design and access management protocols.

Access ID	Road name	Access type	Posted Speed Limit (PSL) or measured 85 <sup>th</sup> percentile speed (mph)	Required visibility splay distance for the PSL or measured speed (*), **, ***	Drawing number	Notes
A7 & A8	B5261	New Access	40 (PSL)	120m	PC1165-RHD-ZZ-	N/A
	B5261	New Access	40 (PSL)	120m	XX-SW-TP-0004 & 00520161, 0162, 0163 & 0164	N/A
A9A9a and A9b	B5410	New Existing Access	45.7 (Measured Speed)	160m	PC1165-RHD-ZZ- XX-SW-TP-0007 & 0008	N/A
		Existing Access	45.7 (Measured Speed)	<u>160m</u>	PC1165-RHD-ZZ- XX-SW-TP-0165 & 0166	The use of access A9b would require the minor realignment of the existing Public Right of Way that utilises the existing access track. The proposed realignment would be agreed as part of developing the detailed Public Right of Way Management Plan(s) which is secured by inclusion of Requirement 8 of the draft Development Consent Order (DCO) (document

Access ID	Road name	Access type	Posted Speed Limit (PSL) or measured 85 <sup>th</sup> percentile speed (mph)	Required visibility splay distance for the PSL or measured speed (*), **, ***	Drawing number	Notes
						reference C1) Schedules 2A & 2B
A10 & A11	Peel Road	New Crossing	40 (PSL)	120m	PC1165-RHD-ZZ-	N/A
		New Crossing	40 (PSL)	120m	XX-SW-TP-0084	
A12 & A13		New Crossing	40 (PSL)	120m	PC1165-RHD-ZZ- XX-SW-TP-0086	
		New Crossing	40 (PSL)	120m		
A14 & A15	Ballam Road	New Access	40 (PSL)	120m	PC1165-RHD-ZZ- XX-SW-TP-0088, PC1165-RHD-ZZ- XX-SW-TP-0089	N/A
		New Access	40 (PSL)	120m		
A16	Ballam Road	New Access	47.2 (Measured Speed)	160m	PC1165-RHD-ZZ- XX-SW-TP-0005 & 0053	N/A
A17 & A18	Ballam Road	New Access	40 (PSL)	120m	PC1165-RHD-ZZ-	N/A
		New Access	40 (PSL)	120m	XX-SW-TP-0090, PC1165-RHD-ZZ- XX-SW-TP-0091	
A19	Ballam Road	New Access	47.2 (Measured Speed)	160m	PC1165-RHD-ZZ- XX-SW-TP-0006 & 0054	N/A
A21 & A22	Peg's Lane	New Crossing	40.0 (Measured Speed)	120m	PC1165-RHD-ZZ- XX-SW-TP-0094	N/A

Access ID	Road name	Access type	Posted Speed Limit (PSL) or measured 85 <sup>th</sup> percentile speed (mph)	Required visibility splay distance for the PSL or measured speed (*), **, ***	Drawing number	Notes
	Peg's Lane	New Crossing	40.0 (Measured Speed)	120m		
A23 & A24	Peg's Lane	New Crossing	40.0 (Measured Speed)	120m	PC1165-RHD-ZZ- XX-SW-TP-0093	
	Peg's Lane	New Crossing	40.0 (Measured Speed)	120m		
A25 & A26	B5259	New Access	46.7 (Measured Speed)	160m	PC1165-RHD-ZZ- XX-SW-TP-0011 & 0056	N/A
	B5259	New Access	46.7 (Measured Speed)	160m		
A27 & A28	B5259	New Access	46.7 (Measured Speed)	160m	PC1165-RHD-ZZ- XX-SW-TP-0013	N/A
	B5259	New Access	46.7 (Measured Speed)	160m	& 0057	
A29 & A30	Huck Lane	New Crossing	23.4 (Measured Speed)	70m	PC1165-RHD-ZZ- XX-SW-TP-0044	N/A
	Huck Lane	New Crossing	23.4 (Measured Speed)	70m		
A31 & A32	Huck Lane	New Crossing	23.4 (Measured Speed)	70m	PC1165-RHD-ZZ- XX-SW-TP-0045	
	Huck Lane	New Crossing	23.4 (Measured Speed)	70m		

Access ID	Road name	Access type	Posted Speed Limit (PSL) or measured 85 <sup>th</sup> percentile speed (mph)	Required visibility splay distance for the PSL or measured speed (*), **, ***	Drawing number	Notes
A33	Cartmell Lane	New Access	37.2 (Measured Speed)	90m	PC1165-RHD-ZZ- XX-SW-TP-0138 & 0139	N/A
A34 & A35	Bryning Lane	New Access	41.4 (Measured Speed)	120m	PC1165-RHD-ZZ- XX-SW-TP-0015 & 0058	N/A
	Bryning Lane	New Access	41.4 (Measured Speed)	120m		
A36 & A37	Bryning Lane	New Access	41.4 (Measured Speed)	120m	PC1165-RHD-ZZ- XX-SW-TP-0017	
	Bryning Lane	New Access	41.4 (Measured Speed)	120m	<b>1</b> & 0059	
A38 & A39	Hillock Lane	New Crossing	45.5 (Measured Speed)	128m ***	PC1165-RHD-ZZ- XX-SW-TP-0019	Crossing controlled by temporary traffic
	Hillock Lane	New Crossing	45.5 (Measured Speed)	128m ***		signals
A40 & A41	Hillock Lane	New Crossing	45.5 (Measured Speed)	128m ***		
	Hillock Lane	New Crossing	45.5 (Measured Speed)	128m ***		
A42 & A43	Kirkham Road	New Access	40 (PSL)	120m	PC1165-RHD-ZZ-	N/A
	Kirkham Road	New Access	40 (PSL)	120m	XX-SW-TP-0022 & 0060	

Access ID	Road name	Access type	Posted Speed Limit (PSL) or measured 85 <sup>th</sup> percentile speed (mph)	Required visibility splay distance for the PSL or measured speed (*), **, ***	Drawing number	Notes
A44 & A45	Lower Lane	New Crossing	40.1 (Measured Speed)	120 (Reduced to 70m)	PC1165-RHD-ZZ- XX-SW-TP-0023	limit on Lower Lane is 60mph and measured speeds at this location are average 32.8mph, with an 85th percentile speed of 40.1mph. This 85 <sup>th</sup> percentile speed requires a visibility splay of ~120m, whilst the average requires ~70m applying the requirements of the DMRB or ~59m applying the requirements of MfS.
	Lower Lane	New Crossing	40.1 (Measured Speed)	120 (Reduced to 70m)		
A46 & A47	Lower Lane	New Crossing	40.1 (Measured Speed)	120 (Reduced to 70m)	PC1165-RHD-ZZ- XX-SW-TP-0024, 0156 & 0160	
	Lower Lane New Crossin	New Crossing	40.1 (Measured Speed)	120 (Reduced to 70m)		
						A temporary reduction in the speed limit to 30mph (equivalent to the average) at this location is proposed.
A48 (incorporating A03)	A584/Preston New Road	New Access for construction and operational traffic	54.2 (Measured Speed)	165m ***	PC1165-RHD-ZZ- XX-SW-TP-0107,	Transformer consideration for A03 only.

Access ID	Road name	Access type	Posted Speed Limit (PSL) or measured 85 <sup>th</sup> percentile speed (mph)	Required visibility splay distance for the PSL or measured speed (*), **, ***	Drawing number	Notes
					0108, 0121 & 0157	
A49	A584/Preston New Road	New Access	54.2 Measured Speed)	165m ***	PC1165-RHD-ZZ- XX-SW-TP-0126, 0127 & 0157	N/A
A50	A583	New Access	49.6 (Measured Speed)	160m	PC1165-RHD-ZZ- XX-SW-TP-0025, 0061 & 0158	N/A
A51	A584	New Access	56.3 (Measured Speed)	180m	PC1165-RHD-ZZ- XX-SW-TP-0026, 0062 & 0157	N/A
A52 & A53	A583	New Access	49.9 (Measured Speed)	160m	PC1165-RHD-ZZ- XX-SW-TP-0028, 0063 & 0158	N/A
	A583	New Access	49.9 (Measured Speed)	160m		
A55	Lodge Lane	New Access	50 (PSL)	160m	PC1165-RHD-ZZ- XX-SW-TP-0029 & 0064	N/A
A56	A583/Preston New Road	New Access	51.5 (Measured Speed)	160m	PC1165-RHD-ZZ- XX-SW-TP-0113, 0114 & 0158	N/A
A57	A583/Blackpool Road	Existing Access	52.5 (Measured Speed)	160m	PC1165-RHD-ZZ- XX-SW-TP-0124 & 0125	Banksperson to be used to control interaction with

Access ID	Road name	Access type	Posted Speed Limit (PSL) or measured 85 <sup>th</sup> percentile speed (mph)	Required visibility splay distance for the PSL or measured speed (*), **, ***	Drawing number	Notes
						pedestrians and cycles.
A58	Wallend Road	New Access	20 (PSL)	43m (MfS)	PC1165-RHD-ZZ- XX-SW-TP-0115 & 0116	N/A
A59	Howick Cross Lane	Existing Access	30 (PSL)	43m (MfS)	PC1165-RHD-ZZ- XX-SW-TP-0134 & 0135	Banksperson will be utilised at this location to control egress.
A60	Howick Cross Lane	Existing private access + proposed widening	30 (PSL)	43m (MfS)	PC1165-RHD-ZZ- XX-SW-TP-0136 & 0137	N/A
A61	Howick Cross Lane	Existing Access	30 (PSL)	43m (MfS)	PC1165-RHD-ZZ- XX-SW-TP-0154 & 0155	N/A
A62	A59/Liverpool Road	Existing Access	40 (PSL)	120m	PC1165-RHD-ZZ- XX-SW-TP-0132, 0133 & 0159	N/A
A63	The Hamlet	New Access	20 (PSL)	43m (MfS)	PC1165-RHD-ZZ- XX-SW-TP-0152 & 0153	N/A
A01	A583/Kirkham Bypass	New Access for construction and operational traffic	52.5 (Measured Speed)	160m	PC1165-RHD-ZZ- XX-SW-TP-0103, 0104 & 0119	N/A

Access ID	Road name	Access type	Posted Speed Limit (PSL) or measured 85 <sup>th</sup> percentile speed (mph)	Required visibility splay distance for the PSL or measured speed (*), **, ***		Notes
A02	Lower Lane (West of Morecambe Substation)	New Operational Access (no construction traffic)	41.5 (Measured Speed)	120m	PC1165-RHD-ZZ- XX-SW-TP-0142 & 0143	Access for operational traffic only. No HGV traffic proposed.

<sup>\*</sup> Number in brackets represents where a visibility splay less than required for the posted speed limit has been assumed. Further explanation of the rational for this adopted approach is provided within the notes column.

<sup>\*\*</sup> Visibility splays have been informed by the requirement of the Design Manual for Roads and Bridges unless noted otherwise by (MfS) where Manual for Street standards have been adopted.

<sup>\*\*\*</sup> Notes where the visibility splay requirements have been interpolated between bands.

### 1.4.2 Road safety

- 1.4.2.1 The following mitigation measures are proposed to reduce the risk to the travelling public and construction personnel.
  - Temporary direction and warning signs to advise of turning vehicles would be provided for all accesses. This signage would highlight the proposed accesses to construction personnel traffic to avoid late breaking manoeuvres and highlight to the travelling public the potential for turning vehicles.
  - Temporary warning signs to advise of crossing vehicles would be provided for all crossings. This signage would highlight to the travelling public the potential for crossing vehicles.
  - Where applicable, crossings constructed to prevent access from the highway, ensuring vehicles do not attempt to access or egress these locations.
  - All priority-controlled accesses and crossings provided with appropriate visibility splays to allow vehicles to safely ingress and egress. Visibility splays identified within the Order Limits will be maintained by the Principal Contractor(s) for the duration of use of the access.
  - All accesses onto and crossings over the public highway to incorporate a bound (concrete or asphalt) surface to prevent dust and dirt being tracked on to the highway.
  - Temporary reduction in the existing speed limit in the vicinity of all accesses and crossings to be considered to reduce the speed of vehicles in the vicinity of these locations. Any such traffic management would be agreed prior to construction.
  - Where appropriate a banksperson will be situated at an access to assist construction vehicles to ingress and egress.

## 1.4.3 Technical approval

- 1.4.3.1 Once Principal Contractor(s) have been appointed, any updates to the detailed designs for the accesses, crossings and any associated traffic management measures will be submitted to the relevant highways authority, in accordance with DCO (document reference: C1).
- 1.4.3.2 The technical approval process will include submission of updated detailed construction drawings, showing information, including any relevant access and crossing arrangements, drainage, lighting, signing, and standard construction details.
- 1.4.3.3 The final location of signage will be confirmed and agreed with the relevant highway authority at the technical approval stage. The final sighting of signs will have regard to ensuring clearance between the edge of the sign and road of at least 450mm, ensuring the passage of non-motorised users is not obstructed and that the sign and post are located within the highway boundary or order limits.

- 1.4.3.4 The accesses highlighted within this OHAMP are temporary, save for those to the permanent access points for each of the onshore substations, and once a construction site access is no longer required, measures would be introduced to prevent unauthorised use and the access will be removed and the area reinstated (as soon as practicable and in any event no longer than 12 months following the completion of the relevant stage of onshore works unless otherwise agreed with highway authority in consultation with the relevant planning authority / authorities).
- 1.4.3.5 All temporary speed limit restrictions associated with temporary accesses will be implemented by the relevant highways authority following an application by the Applicant(s) or Principal Contractor(s).

#### 1.4.4 Road safety audit

1.4.4.1 The technical approval process will comply with the Road Safety Audit (RSA) process (as outlined within the Design for Manual Roads and Bridges GG 119, National Highways, April 2025) for all accesses and crossings. The RSA process comprises of a systematic process for the independent safety review of highway schemes. The purpose of the RSA process is to minimise the future occurrences and severity of collisions once a scheme has been built.

## 1.5 Traffic management for temporary highway access points

#### 1.5.1 Overview

Temporary traffic management will be implemented at each of the accesses and crossings during construction/removal to maintain highway safety and to ensure minimal delays to existing road users.

1.5.1.1 In addition, to minimise the impacts of construction traffic on the wider highway associated with the construction of the accesses and crossings, wider control measures proportionate to the scale of the proposed works are detailed below.

#### 1.5.2 Road works

- 1.5.2.1 Traffic management measures may be required for various reasons and the type of traffic management measure to be adopted will depend upon the location on the highway, the nature and level/speed of traffic on the highway, what is served by the highway, and the alternative routes available.
- 1.5.2.2 Traffic management measures that could be used would include stopping traffic on the highway, this could be via temporary portable signals or via manually operated stop/go signs.
- 1.5.2.3 Shuttle working is where one direction of travel receives priority over the other. This could be via temporary portable signals or via give way signs.

- 1.5.2.4 Some example layouts of these traffic management measures and features are shown on **Figure 1.2** to **Figure 1.5**. These examples are extracted from The Traffic Signs Manual, Chapter 8, Part 1, Traffic Safety Measures and Signs for Road Works and Temporary Situations, Department for Transport/Welsh Government/Transport Scotland/ Department for Infrastructure, 2009. The extracts are generic in nature, and they are not designed to be specific to any particular location or circumstance but designed to be implemented in accordance with the advice contained within the document.
- 1.5.2.5 The final form of traffic management would be agreed with the relevant highway authority, and Street Works will be in accordance with the provisions of the DCO, the New Roads and Streetworks Act. Applications for road space booking would be made via the DfT online digital portal, 'Street Manager'.

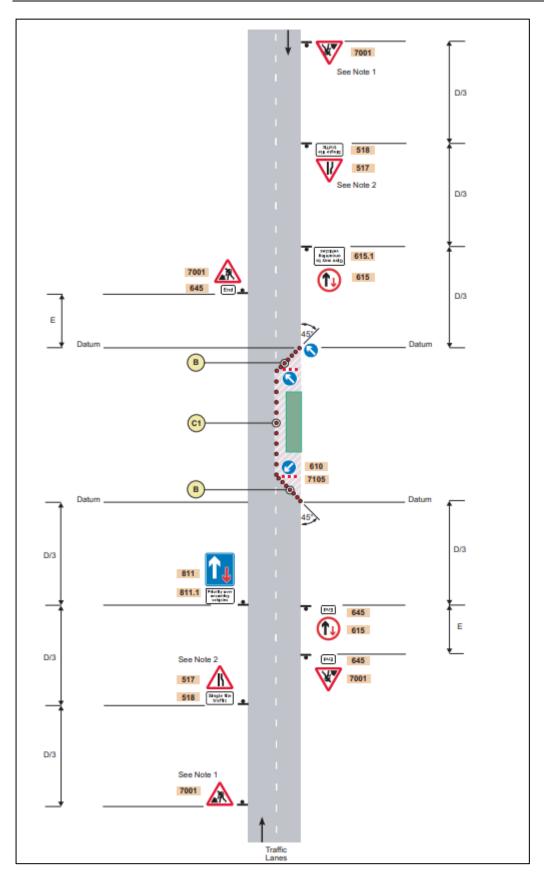


Figure 1.2: Priority signs on a two-lane single carriageway road

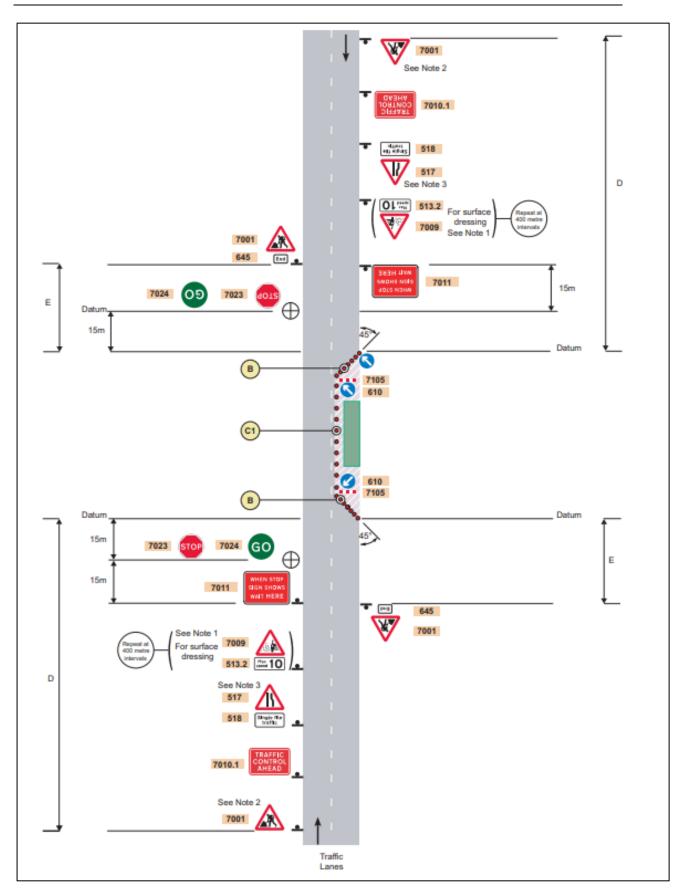


Figure 1.3: Stop/go signs on a two-lane single carriageway road

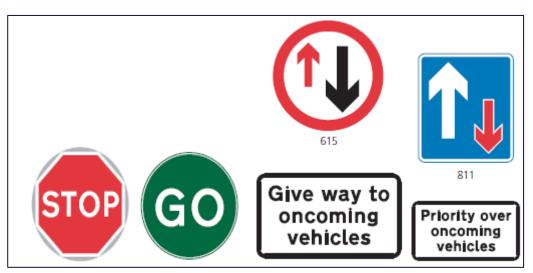


Figure 1.4: Manually operated stop/go signs and priority signs

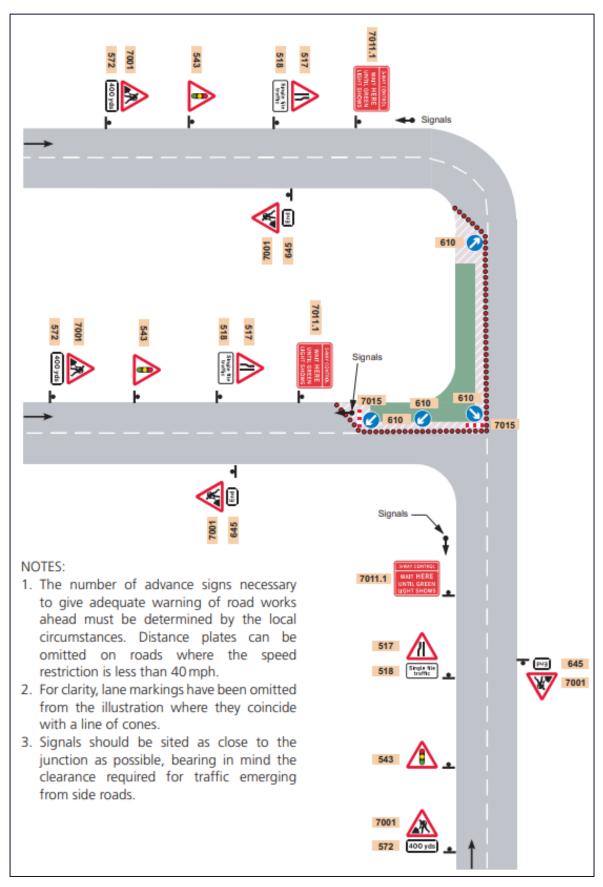


Figure 1.5: Roadworks at a T-junction – traffic control by means of portable traffic signals.

#### 1.6 References

Department for Transport/Welsh Government/Transport Scotland/Department for Infrastructure (2009) Traffic Signs Manual Chapter 8, Traffic Safety Measures and Signs for Road Works and Temporary Situations Part 1: Design. Available at https://assets.publishing.service.gov.uk/media/5a74adeaed915d7ab83b5ab2/traffic-signs-manual-chapter-08-part-01.pdf. Accessed May 2025.

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The Chartered Institute of Highways and Transportation (2010) Manual for Streets 2 – Wider Application of the Principles. Available at https://www.tsrgd.co.uk/pdf/mfs/mfs2.pdf. Accessed May 2025.

# Appendix A: Preliminary access and crossing designs





