

SHEIRDRIM RENEWABLE ENERGY DEVELOPMENT

Technical Appendix 12.2: Outline Construction Traffic Management Plan

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- Appendix 01: Site Access Drawings (Figure 3.12 and Figure 3.13 from the EIA Report)
- Appendix 02: Abnormal Load Routes (Figure 12.2)

1.0 Introduction

1.1 Purpose and Scope

This outline Construction Traffic Management Plan (CTMP) provides information to Argyll and Bute Council (A&BC) in regard to the management of all site traffic, with particular reference to environmental safeguards and mitigation required to address impacts identified in the Environmental Impact Assessment (EIA). **Chapter 12 of the EIA Report Access, Traffic and Transport** has been referenced where relevant.

The purpose of the outline CTMP is to set out the areas for consideration when preparing the programme of works and when undertaking the Site construction. It would be used during the construction phase of the development and updated as necessary, acting as a ‘live’ document to ensure it is always current. Where the document is updated it will clearly be noted as a variation.

In particular, this CTMP will need to be updated by the Principal Contractor, with detailed traffic management measures for various sections of the construction route for the abnormal loads.

1.2 Key Considerations

This CTMP is the first stage of the requirement to manage and control all related traffic activity during the construction phase of the development. This CTMP contains the following information outlined in **Table 1-1**:

Table 1-1
Key Topics Covered

Section	Topic
Section 2	Background to the Development
Section 3	Construction
Section 4	Mitigation Measures
Section 5	Complaints and Enquires Procedure
Section 6	Summary and Closure

The principal mitigation measures that the CTMP will cover may be summarised as follows:

- Methods for accessing the Site;
- Site access improvements;
- Contractor responsibilities;
- Abnormal load management;
- On-site management;
- Adverse weather conditions; and
- Driving and speed restrictions.

2.0 Background

2.1 Proposed Development

Sheirdrim Renewable Energy Development (proposed Development) is located on the Achaglass and Gartnagrenach Estates which are located to the east of the A83 at the northern end of the Kintyre peninsula approximately 11 km southwest of Tarbert.

The proposed Development is a renewable energy development that intends to make the best use of available renewable energy technologies to maximise and optimise the renewable energy potential of the Site. For this consent application, SPR intend to construct a blend of renewable energy technologies, including 19 three-bladed horizontal axis wind turbines, 16 turbines up to 149.9 m tip height and 3 turbines up to 135 m tip height, with a combined rated output in the region of around 114 megawatts (MW) and around 20 MW of ground mounted solar arrays producing a combined output of around 134 MW or 360 to 380 GWh of electricity annually. This equates to the annual power consumed by approximately 99,200 average UK households. Around 38 MW of battery storage would also be installed to store energy enabling the flexible balance of energy output to meet the demands of the national grid.

The proposed two site access options are shown in **Figure 3.12** and **Figure 3.13** of the Environmental Impact Assessment Report (EIAR), as provided in **Appendix 01** of this CTMP.

2.2 Local Highway Network

2.2.1 Site Access

There is an existing access track off the main highway network (the A83), adjacent to Glebe Cottage, south of Gartnagrenach.

2.2.2 A83

From Tarbert, the A83 follows the western shore of Loch Fyne via Lochgilphead and Ardrishaig, where it crosses the entrance to the Crinan Canal. From Ardrishaig the road continues south to Tarbert, where it crosses over to the western shore of the Kintyre Peninsula. Following the western shore of the Kintyre Peninsula, it passes through the villages of Whitehouse, Clachan, Tayinloan, Muasdale and Bellochantuy before finally crossing back to the east of the peninsula, on the Firth of Clyde coast, as it reaches Campbeltown.

The A83 is a major road of two that runs north-south along the peninsula, with the other road, the B842, being a single-track road with passing places, as such there is no viable diversion route for traffic. Therefore, the A83 is considered an important route for the community.

3.0 Site Construction

3.1 Programme

It is anticipated that the proposed Development would be constructed over a period of approximately 22 months. It is assumed that construction is likely to begin in the first quarter of 2022. The main construction works will be undertaken during months 5 to 12. The final two months of the construction programme would comprise a Wind Turbine Reliability Run and snagging followed by take-over activities.

Activities will include:

- Off-site highway works;
- Site establishment (Construction Compounds);
- Forestry felling and export;
- Construction of access tracks and crane pads;
- Turbine and Solar Foundation Construction;
- Substation civil and electrical works;
- Cable delivery and installation;
- Turbine delivery and erection;
- Solar panel delivery and installation
- Site Commissioning; and
- Reinstatement/Restoration.

3.2 Construction Staff

The number of people employed during the construction period would vary depending on the stage of construction and the activities ongoing on site.

It is anticipated that the peak workforce requirement would be 150 construction staff.

3.3 Hours of Working

The construction working hours for the proposed development would be 07:00 to 19:00 Monday to Friday and 07:00 to 16:00 on weekends. It should be noted that out of necessity some activity, for example abnormal load deliveries, during large concrete pours and also during the lifting of the turbine rotors, may need to occur outside the specified hours stated, although they would not be undertaken without prior approval from A&BC.

3.4 Construction Access

It has been proposed that either the existing junction for the access track at Glebe Cottage or the access to the south of Glebe Cottage would be used for construction. Workforce and maintenance traffic would use the A83, to the west of the Site.

The Site currently comprises 4.98km of existing track. Approximately 13.66 km of new onsite access tracks and approximately 4.4 km of upgraded track would be required to provide access to the wind turbines, control

building compound, solar areas and construction compound.

The internal access tracks require several watercourse crossings, which are set out in EIAR **Chapter 10: Hydrology, Hydrogeology, Geology and Soils, Technical Appendix 10.4.**

3.5 Construction Movements

3.5.1 HGV Movements

The maximum level of two-way trip generation would likely occur between months 7 to 11 of the 22-month programme, with a maximum of 325 HGVs when material would be imported for internal access track construction, the construction compound, turbine foundations and hardstandings and materials for the control buildings and substations.

The routes for turbine components, which will arrive at Campbeltown Harbour or originate at CS Wind Factory is shown in Appendix 02, and described below:

Route from Campbeltown Harbour to Machrihanish Airport / A83 Junction

- Loads would depart Campbeltown Harbour and turn right onto Hall Street before continuing onto Kinloch Road;
- Loads would turn left onto the Aqualibrium Avenue and then right onto the A83; and
- Loads would continue north on the A83 to the Machrihanish Airport Junction.

Route from tower factory to Machrihanish Airport / A83 Junction:

- Tower loads would depart the factory and turn right before continuing east and

Route from Machrihanish Airport / A83 Junction to the Proposed Site Access:

- All loads would continue north on the A83; and
- It is proposed that loads would turn right into the existing Cour Wind Farm access junction or the proposed new access junction.

Within the site, loads would then proceed ahead to the turbine locations.

3.5.2 LGV Movements

Light vehicle trip generation would be a maximum of 300 two-way movements per day at the peak of construction, which will be distributed between the A83 north and A83 south, although likely to be much less with construction staff car sharing.

4.0 Mitigation Measures

4.1 Contractors

Contractors with experience of the nature of the construction works proposed and of this type of development, would be appointed following a tendering process. ScottishPower Renewables would appoint an Environmental Clerk of Works (EnvCoW) who would liaise with the Contractor to ensure that all activities on site comply with appropriate construction methods, relevant planning conditions and protection of the environment. The EnvCoW would act as the first point of contact for any concerns.

All Contractors would be required to supply detailed method statements which would incorporate all planned mitigation methods. All Sub-Contractors are required to read, understand and adopt all procedures outlined within the final CTMP.

Sub-Contractors who formulate a CTMP for their work activity must issue it to the Principal Contractor for approval and acceptance prior to site issue. Any traffic management procedures required to secure a work area or safeguard Sub-Contractor operatives must be co-ordinated with ScottishPower Renewables (e.g. use of banksmen, operatives carrying out works roadside).

The Principal Contractors Site Management must be informed of any planned site activity and movement of site traffic; the issue of this information must be received within a suitable and agreed timescale to allow co-ordination of other site activities.

4.2 Signage

Any signage required on the public highway would be erected and positioned in accordance with the requirements of the Traffic Signs Manual and Safety at Street Works and Road Works – A Code of Practice, and in consultation with the A&BC.

Any permanent signs and street furniture which are required to be relocated to allow abnormal loads to pass shall be identified in consultation with A&BC and through the trial run.

Warning signage on the Site must be complied with at all times. The two most important signs are “no entry” and “no unauthorised vehicles”. In order to proceed beyond these signs, vehicle drivers must stop and contact the ganger/ foreman in control of the area to be escorted through the local area.

4.3 Abnormal Load Management

An Abnormal Loads Assessment would set out the key points and issues associated with the selected route for the abnormal loads, to verify that the route is feasible for the selected turbine delivery, subject to physical and operational mitigation works.

Detailed abnormal load delivery traffic management measures would need to be identified and included in the final CTMP (or provided as stand-alone report) setting out the mitigation required to address the potential issues the Abnormal Loads Assessment might identify.

Prior to the movement of abnormal loads, extensive public awareness is required to allow residents to plan and time their journeys to avoid disruption. The haulage Contractor shall remain responsible for obtaining all necessary permits from the relevant road and bridge authorities along the access route.

The movement of abnormal loads will be timed to avoid periods of heavy traffic flow (i.e. it is proposed to move

the loads during the night) to minimise disruption to the public. Specific timing restrictions imposed by the police or local authority have not been determined at this stage.

Through urban areas temporary parking restrictions may be necessary to guarantee a clear route for the abnormal loads, and these need to be arranged in advance through the appropriate local authority. The parking restrictions would need to be locally enforced.

Due to the size of vehicles required to transport these loads, escorts would be required for the entire route to control oncoming and conflicting traffic.

4.4 Adverse Weather Conditions

All works would be forward planned wherever practicable taking into account the anticipated weather conditions. At the start of the day, the Site foreman would assess the weather conditions prior to permitting their operatives to access the Site.

Due to the location and topography of the Site the weather can be severe, resulting in an adverse effect on visibility. The weather would be constantly monitored and if necessary, all plant / vehicle movements would be stopped / suspended by the Site foreman if they deem it is unsafe for work to continue.

The site foreman would assess the track and site conditions at the start of each day to determine if conditions are suitable to allow access to plant or vehicles.

During winter or poor weather, a separate procedure would be introduced to allow the track conditions to be communicated to all parties accessing the Site. An assessment would be carried out every morning by the general foreman or the foreman in control of site operations which would then be communicated to the gatehouse. Contractors should contact the Principal Contractors general foreman to find out the situation at the Site prior to arrival to the Site, if required.

An example of how the day-to-day track conditions would be advised to all visitors is via a display board situated at the Site compound and the track condition would be rated as either:

Condition Red: The access track is closed to all vehicular traffic.

Condition Amber: The access track is open to 4x4 vehicles only (operating in full 4x4) and is not suitable for delivery vehicles.

Condition Green: The main Site access track is considered open to all permitted vehicles.

All Contractors would be required to make their own assessment of track conditions during access or egress from the Site and take appropriate action determined during their assessment. During the course of the day, and in the event of weather conditions deteriorating, the Principal Contractor would notify the nominated personnel from the Contractors on site to the present condition.

Contractors would be reminded that they have a duty to consider the weather and track conditions throughout the day and come back down off the hillside if they feel unsafe at any time.

4.5 On-Site Management

4.5.1 On-Site Safety

All personnel entering the working area would wear hi-visibility vest or jacket, head protection, safety footwear, eye protection and gloves at all times when out with the vehicle.

Everyone required to work within the Site would be made aware that they have a responsibility for the safety of themselves and others. All site operatives and visitors have a “duty of care” to themselves and others and need to be conscious of the surroundings and ongoing activities locally. In the event of an emergency, right of way to all emergency services would be given at all times. Emergency services and control of access would be carried out in compliance with the Site emergency procedures.

4.5.2 Parking

Parking areas located at the Site construction compound would have safe and secure barriers to segregate all personnel from site plant and vehicle routes. All signage within designated car parking areas must be followed, with no vehicles parked in a way which restricts either vision or access. No parking whatsoever would be allowed on public roads; all cars that are directed to the Site car park would be required to reverse park to comply with ScottishPower Renewables and the Principal Contractors requirements.

4.5.3 On-Site Tracks

Access tracks would be monitored on a daily basis to identify any deterioration of the track condition. Non-emergency remedial works to the track would be carried out at times outside peak times of usage and significant emergency repairs would be undertaken immediately and adjacent track sections would be restricted from use as required to safely accommodate works.

All routes would be monitored for dust and control or suppression methods would be deployed as appropriate through the use of towed dust suppression systems.

4.5.4 Site Traffic

All traffic visiting the Site would be required to report to site security where they would obtain clear instructions, before further movement is acceptable. If applicable an induction would be completed, vehicle permits would be issued, and the Site rules & emergency procedure would be explained.

All traffic would use the signed site passing places and all drivers would accommodate other track users in a courteous manner. Reversing (other than to park) within the compound areas is not permitted.

Full time site traffic (vehicles/plant situated on-site for majority of construction phase) that requires re-fuelling would follow the instructions supplied at their induction and also the guidelines within their method statement for the works.

Heavy site traffic would be equipped with audible reversing warning with additional visual aids e.g. reversing cameras, mirrors utilised on all plant. All safety features must be inspected on a daily basis with faults immediately reported to the Foreman Fitter who would assess and repair any damage to the plant. Management would ensure that all loads are covered fully to limit the loss of material in transit.

4.5.5 Vehicle Cleaning

Given the length of the access rack to and from the A83, it is likely that the majority of loose materials will not be

deposited onto the highway. Should there be evidence of this following the commencement of construction, suitable measures would be implemented within the Site to ensure materials are not transferred onto the highway, and road cleaning would take place if required to remove any deposits that are carried from the Site.

4.6 Driving and Speed Restrictions

All vehicles (cars, LGVs, HGVs and ALs) shall be driven in a safe and defensive driving manner at all times within speed limits. A zero-tolerance policy shall be adopted by all Contractors, such that any infringement results in that person not returning to site.

All cars and drivers of site operative vehicles used for commuting to and from site must be road worthy and legally compliant. All commercial vehicles and drivers must be road worthy and legally compliant.

5.0 Complaints and Enquiries Procedure

It is important that members of the public or interested parties are able to make valid complaints or enquiries about the transport elements of the construction works. Such complaints and enquiries can provide a valuable feedback mechanism which helps reduce potential impacts on sensitive features and would also allow the construction techniques to be refined and improved.

It is anticipated that the complaints and enquiries procedure can be made either directly to the Site Contractor or via A&BC, who in turn would provide feedback to the Site Contractor.

All complaints and enquiries would be logged promptly by the Site Contractor and kept on site for review by A&BC upon request.

5.1 Checking and Corrective Action

As outlined above, it is intended for the CTMP to be a ‘living document’ which is updated periodically as and when required.

The Contractor would be responsible for establishing a programme of monitoring, the results of which shall be fed back for inclusion within the CTMP if necessary.

Any checking or corrective action required would also be monitored. This methodology would ensure that the construction activities are being undertaken in accordance with the CTMP and that the Contractors are held to account.

A procedure for addressing non-conformance/compliance and ensuring that corrective actions are undertaken is outlined below:

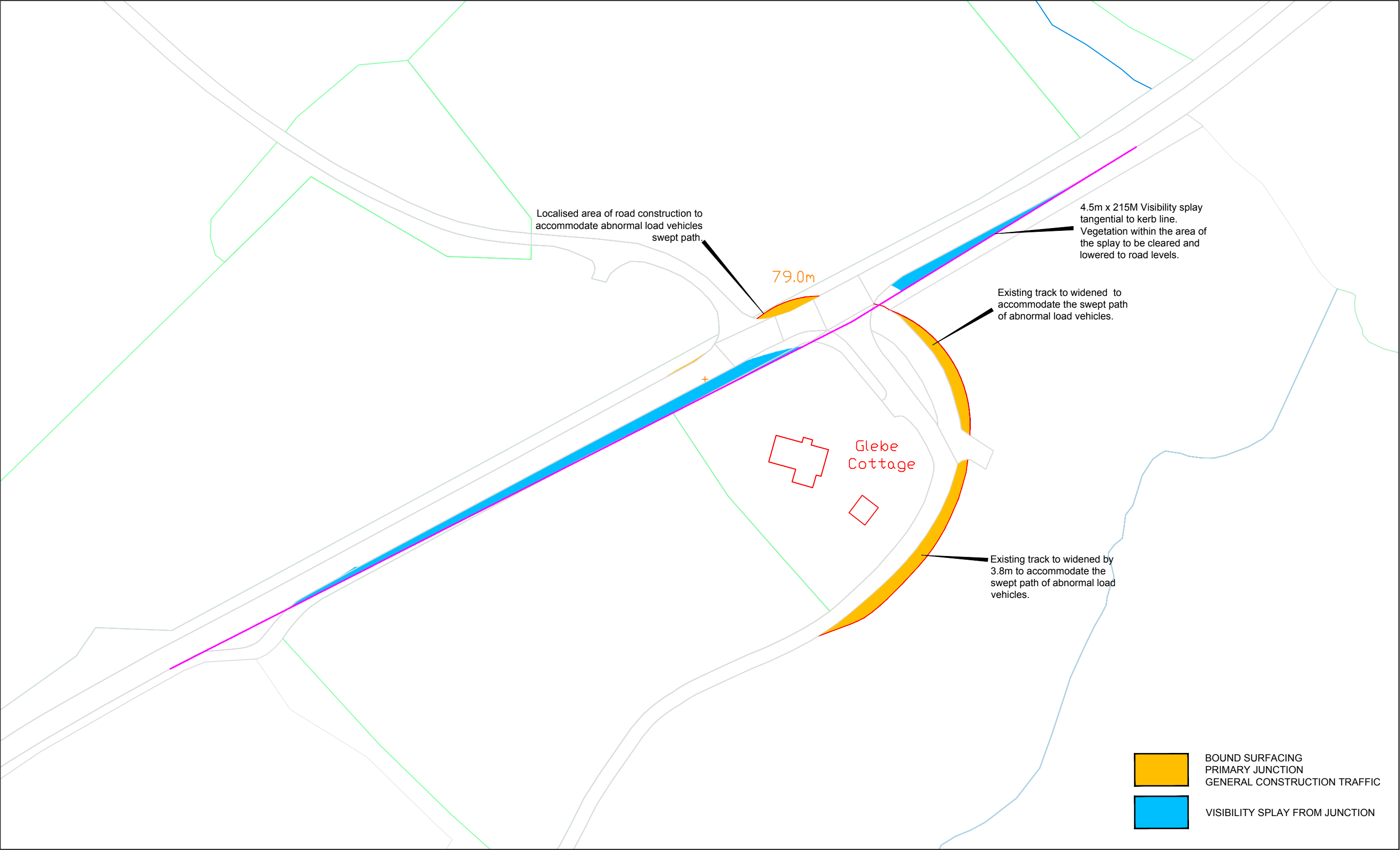
- Completion of a Non-Conformance Report – this would record any traffic related incident and work that has not been carried out in accordance with the CTMP or Method Statement;
- Completion of a Corrective Action Report – this would record any identified deficiency as a result of monitoring, inspection, surveillance and valid complaint; and
- Action – any necessary actions identified as a result of the above would be allocated to a responsible person, along with a timescale for the action to be undertaken.


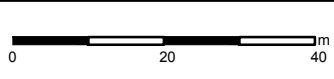
Records of the above would be retained by the Contractor throughout the construction process. The records

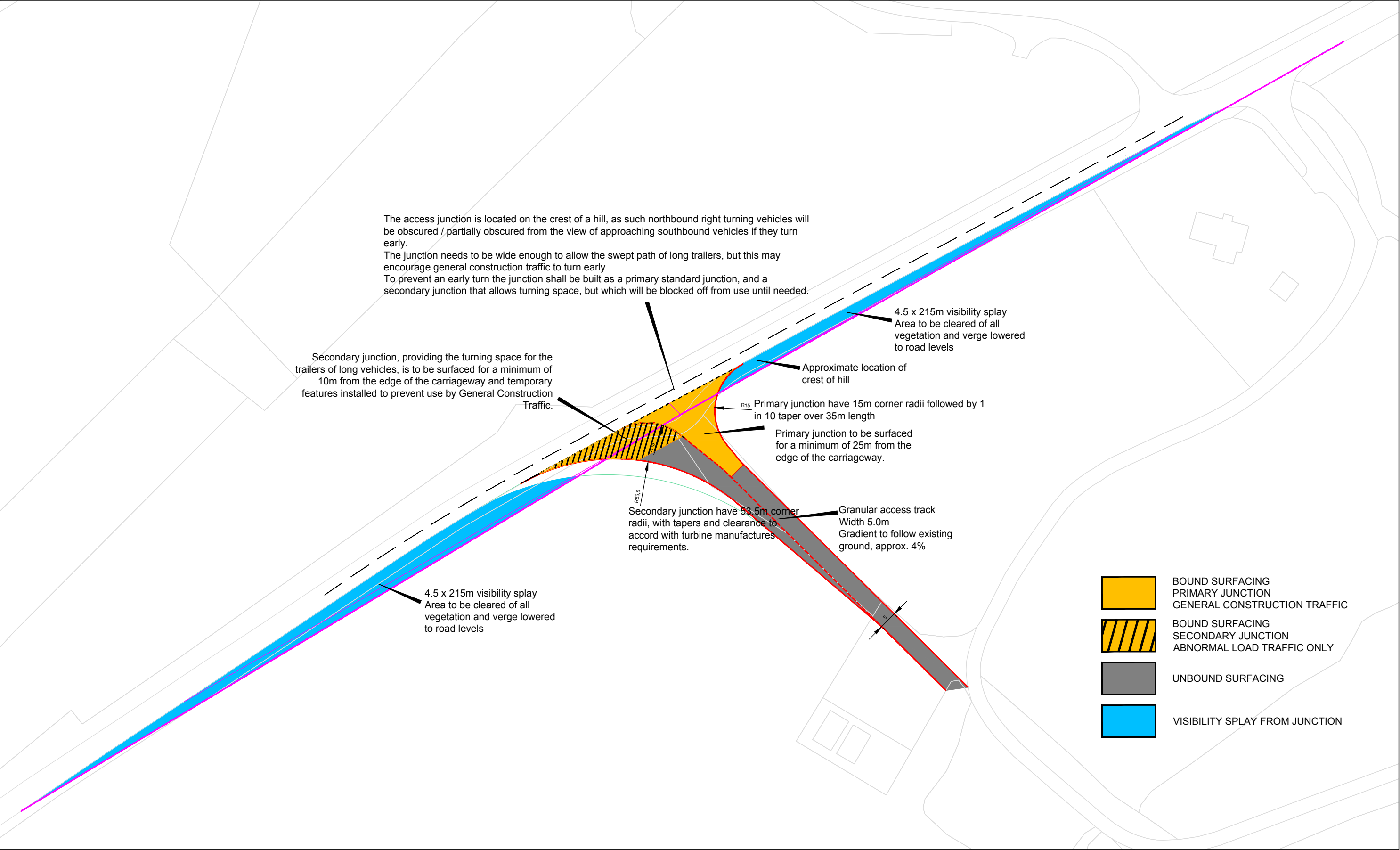
would be maintained either in hard copy or electronically in such a manner that they are readily identifiable, retrievable and protected against damage, deterioration or loss.

APPENDIX 01

Site Access Drawings (Figure 3.12 and Figure 3.13 from the EIA Report)

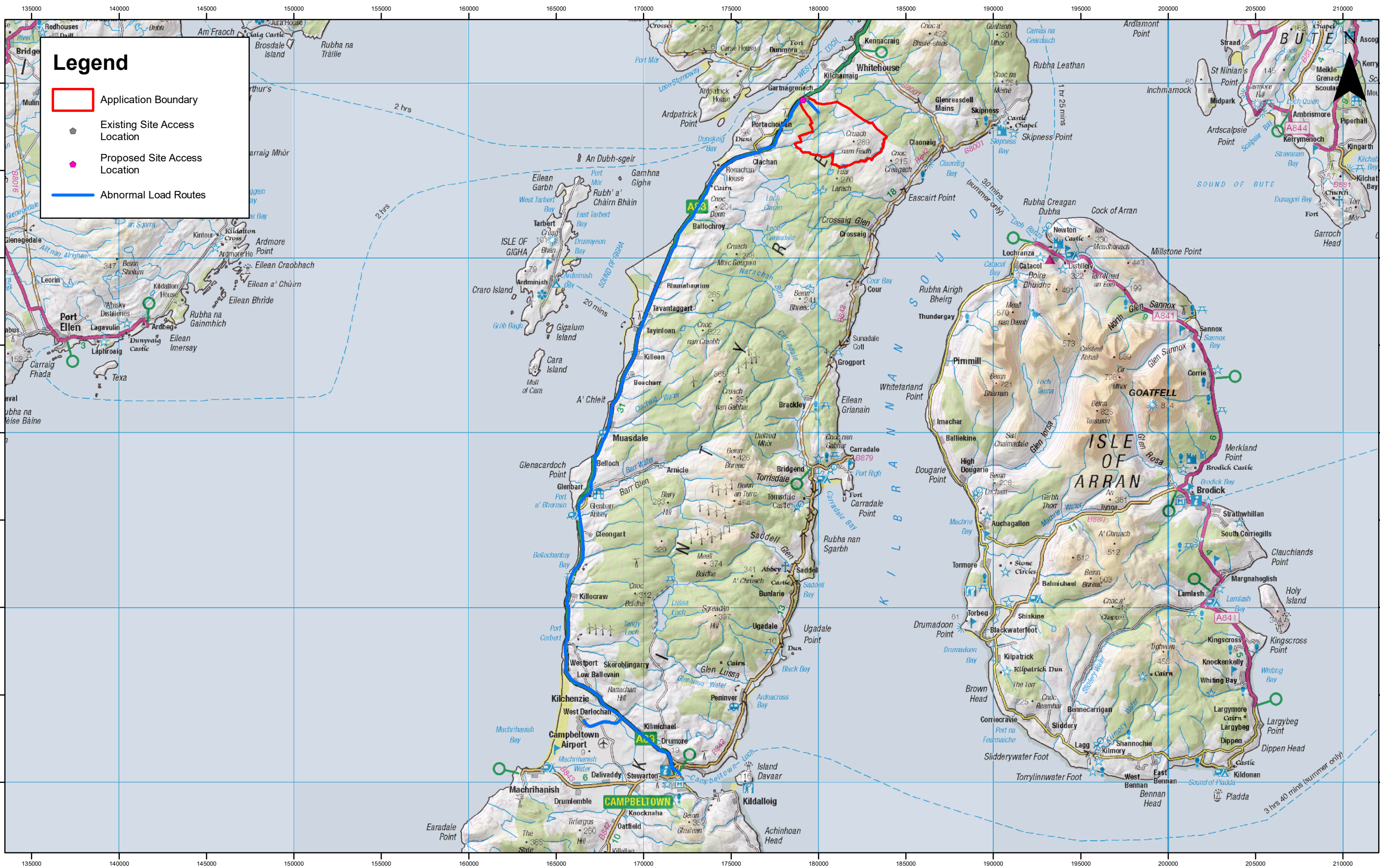



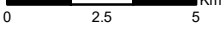
					1:1,000		Sheirdrim Renewable Energy Project EIAR Chapter 3 Proposed Development Proposed Access Junction Glebe Cottage	Drg No.	00481.00051.12.3.12.0
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	Rev	Date	By	Comment				Figure	3.12



APPENDIX 02

Abnormal Load Routes (Figure 12.2)



					1:200,000 Scale @ A3		© Crown Copyright 2019. All rights reserved. Ordnance Survey Licence 0100031673.	Sheirdrim Renewable Energy Development - EIAR Access, Traffic and Transport Abnormal Load Routes	Drg No 00481.00051.12.2.0		
	A	28/10/19	WR	First Issue.					Rev	A	Datum: OSGB36
	Rev	Date	By	Comment					Date	28/10/19	Projection: TM
									Figure	12.2	

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