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10 TRAFFIC AND TRANSPORT

10.1 Introduction

10.1.1 This Traffic and Transport chapter assesses the potential effects of the Proposed Development on the road network (in transport terms) and its users. This chapter should be read in conjunction with **Volume 2, Chapter 2: Proposed Development and Design Evolution.**

10.1.2 The chapter describes the assessment methodology that has been adopted and identifies how baseline conditions have been established. The Traffic and Transport receptors have been identified within a defined assessment area (the 'Study Area'), which have the potential to be adversely or positively impacted by the Proposed Development.

10.1.3 The assessment detailed within this chapter includes reasonable worst case assumptions, relating to excess aggregate, made for the purpose of forming a robust assessment of the Proposed Development within the parameters identified elsewhere within the **Chapter 2: Proposed Development and Design Evolution.**

10.1.4 An assessment has been made of the potential effects of the Proposed Development, with a focus on the construction phase, including the decommissioning of the existing 14 turbines, on the basis that this phase will have the greatest impact on the local transport network within the Study Area. Where required, mitigation measures have been defined to reduce any significant effects.

10.1.5 This chapter is supported by the following figures and technical appendices, which are contained in Volume 3a and Volume 4, provide further information and are referenced throughout the text:

- **Figure 10.1** – Traffic Study Area;
- **Figure 10.2** – Traffic Count Points;
- **Figure 10.3** – Traffic Accident Data;
- **Figure 10.4** – Access Junction Design;
- **Figure 10.5** – Core Paths
- **Figure 10.6** – Abnormal Load Route**;** and
- **Technical Appendix 10.1 –** Construction Traffic Management Plan.

10.1.6 **Volume 3a, Figure 10.4** specifically relates to the junction modifications required to the main access from the A85(T) with the Fearnoch Forest access track to enable construction of the Proposed Development which is managed and maintained by Transport Scotland as the Trunk Road Authority. Other minor road junction modifications are required to enable the construction works, specifically to access points to/from the (C32) Glen Lonan Road which is managed and maintained by Argyll & Bute Council Roads Department, as the Local Road Authority. Details of the latter are provided in **Chapter 2: Proposed Development and Design Evolution** (with accompanying figures) which are referenced in **Table 10.1** of this chapter.

10.2 Statutory and Planning Context

10.2.1 This chapter has been prepared taking cognisance of the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017 (EIA Regulations) and relevant documents set out in **Volume 2, Chapter 4: Statutory and Policy Framework** of this EIA Report.

10.2.2 Relevant National, Regional and Local Policies are as follows:

National Policy

10.2.3 The Scottish Government's vision for transport at a national and regional level is set out in National Policy Frameworks which include:

- Scotland's National Transport Strategy 2 (2020): This sets out the objectives, priorities and plans for the long-term future for transport in Scotland; and
- The Scottish Government – 'National Planning Framework' (NPF4) (2023).

Regional Policy

10.2.4 The Highlands and Islands Regional Transport Strategy 2008 – 2022 (HITRANS RTS) was approved by Scottish Ministers in 2008. It was informed and influenced by public and stakeholder consultation. The RTS projects and horizontal themes form the associated delivery plan, set out the key policies and proposals required to deliver Argyll & Bute Council's (A&BC's) vision for transport in the region. The current RTS is being updated, with the final draft submitted to Ministers in November 2024. The strategy aims to deliver a transport system that reduces inequalities, tackles climate change, supports economic growth, and improves health and wellbeing.

10.2.5 The RTS Refresh published in 2017, captures the projects that are now committed to improve the transport of the region, and highlights the further action that is required to support sustainable economic growth and to reduce barriers to participation in employment, learning, social, leisure, health and the wealth of cultural activities that the region has to offer.

10.2.6 The Strategic Transport Projects Review 2 (STPR2) was published in 2021 and intended to inform transport investment for the following 20 years.

Local Policy

10.2.7 The Argyll & Bute Council Local Development Plan 2 (LDP2) provides the local planning framework for the Council area, excluding the Loch Lomond and Trossachs National Park area. The LDP2 provides the general policy context against which planning applications for new development proposals should be assessed. Policy 30 states that the Council will support renewable energy developments when these are consistent with the principles of sustainable development and it can be adequately demonstrated that there would be no unacceptable environmental effects, whether individual or cumulative, on local communities, natural and historic environments, landscape character and visual amenity, and that the proposals would be compatible with adjacent land uses. This policy provides the criteria for which applications for all wind turbine developments will be assessed against. In reference to this chapter, this includes impacts on road traffic and adjacent trunk roads.

10.3 Consultation Undertaken

10.3.1 The scoping process involved a review of available environmental baseline information, preliminary factor-specific studies and appraisals, the relevant potential impacts and an overview of the proposed method of assessment of each. Where relevant, the technical areas were assessed in the context of industry guidance, best practice, and likely design of the Proposed Development.

10.3.2 Following receipt of the Scoping Request, the Energy Consents Unit (since at that time the Proposed Development was for a project of 50 MW or more) undertook consultation with statutory and non-statutory agencies and other environmental bodies with knowledge of the Proposed Development Site. Because this scoping exercise related to a larger proposal and taller turbines it was decided that it was adequate for the current Proposed Development.

10.3.3 **Table 10.1** summarises the consultation responses regarding Traffic and Transport matters and provides information where and/or how they have been addressed in this assessment.

10.3.4 The following regulatory bodies made comment on transport matters during Scoping held in 2022:

- Transport Scotland (TS) (as Trunk Road agency).

10.3.5 No responses were received from the following consultees:

- A&BC Roads Department.

10.3.6 Direct consultation was undertaken with A&BC Roads Department in December 2024 to determine the minimum junction visibility standard that would apply to proposed modifications to the construction vehicle routing access points with the (C32) Glen Lonan Road. Traffic speed data collection results from specifically commissioned surveys were furnished to A&BC for the purpose of this consultation.

Table 10.1: Summary of consultation responses

Consultee	Summary of Key Issues	Response/Action Taken
Statutory Consultees		
Transport Scotland	**Site Access** Any proposed changes to Trunk Road networks (A85(T)) must be discussed and approved by the appropriate area manager. **Assessment of Environmental Impacts** Transport Scotland agrees with the proposed methodology for assessment of access, traffic and transport. **Study Area** Transport Scotland consider the approach to scope out any impacts associated with operational and	**Site Access** Consultation has taken place with Transport Scotland's Area Manager for the A85(T) regarding proposed alterations to the access junction to Fearnoch Forest to facilitate use by abnormal load transport vehicles A preliminary layout drawing showing the alterations to the A85(T) / Fearnoch Forest access junction has been prepared and is included as part of the EIA submission (see **Figure 10.4**). A Stage 1 Road Safety Audit (RSA) has been undertaken to support the

Consultee	Summary of Key Issues	Response/Action Taken
	decommissioning phases appropriate. Considering the timing of decommissioning for the operational turbines and construction of the Proposed Development, including potential periods of overlap within the EIA is also considered as an appropriate approach. Transport Scotland also state that methods of obtaining traffic count data are acceptable. However, raise the point that they do not accept estimated count data from the Department for Transport (DfT) database. **Abnormal Loads Assessment** Transport Scotland will require to be satisfied that the size of the turbines can negotiate the selected route and that their transportation will not have any detrimental effect on structures within the Trunk Road route path.	proposed access alterations. The findings of the RSA have been reviewed; appropriate updates made to the proposed layout and a supporting Designer's Response has been submitted to and approved by the Transport Scotland Area Manager. **Figure 10.4** reflects the A85(T) modified access layout that has been agreed in principle with Transport Scotland through the direct consultation process. **Assessment of Environmental Impacts** The EIA report chapter has been prepared in accordance with the approved scope and response from Transport Scotland, **Study Area** The decommissioning of the existing 14 turbines is included in the assessment of construction phase impact. Noted that estimated count data is not accepted. **Abnormal Loads Assessment** A preliminary Abnormal Loads Route Assessment (ALRA) has been undertaken as part of Site feasibility for the delivery of turbine components from port of entry to the Site.
A&BC Roads Department	**Modifications to access points of the construction vehicle route with Glen Lonan Road – Visibility Splays**	Direct consultation was carried out with A&BC to determine the minimum junction visibility requirements that would be applicable for any proposed access points or modifications to existing access points with Glen Lonan Road. Traffic data collection was carried out on Glen Lonan Road to inform the Traffic & Movement assessment of the Proposed Development. This included the collection of speed data of vehicles currently using the road. This

Consultee	Summary of Key Issues	Response/Action Taken
		determined that the 85th Percentile vehicle speeds on the section of the road that would be used by construction vehicles is less than 30mph. A&BC Officers agreed that the speed survey results could be used to determine the minimum visibility standard. However, if larger visibility splays could be physically achieved this would be the preference of A&BC Officers. The following figures have been prepared to support **Chapter 2: Proposed Development and Design Evolution**, and should be referred to for information regarding the proposed modifications to access points of the construction access route with the Glen Lonan Road: **Volume 3a, Figure 2.10b:** C32 Glen Lonan Road / Fearnoch Forest Access Track indicative access modifications. **Volume 3a, Figure 2.10c:** C32 Glen Lonan Road / Wind Farm Access Track indicative access modifications. **Volume 3a, Figure 2.10d:** Indicative Construction Compound Access Options - Glen Lonan Road.

10.4 Summary of Proposed Development

Construction Phasing

10.4.1 The Proposed Development is fully described in **Chapter 2: Proposed Development and Design Evolution**. A summary is provided here, highlighting those features pertinent to the assessment of Traffic and Transport effects.

10.4.2 During the construction period, the following traffic will require access to the Site.:

- Staff transport (cars or staff minibuses);
- Construction equipment and materials, deliveries of machinery and supplies such as ready mixed concrete, and equipment and materials for the dismantling and removal of the existing wind turbines and associated redundant infrastructure (including removal of timber);

- Abnormal loads consisting of the wind turbine sections and also a heavy lift crane, transported to Site in sectional loads;
- Turbine blades are anticipated to be transported using a blade lifter.

10.4.3 The earliest date at which construction is anticipated to commence is October 2032 and be completed over a construction phase of 23 months.

10.4.4 It is expected that excess aggregate generated by construction works will be stored on Site so that it can be re-used for track repairs. Surplus aggregate would be removed from Site in a responsible manner.

Construction Materials

10.4.5 The Proposed Development would require the transportation of a range of construction materials to the Site. The key elements of construction work which would result in the generation of vehicular trips have been summarised in later sections in **Table 10.9**.

10.4.6 The Proposed Development would require crushed stone to construct new tracks, create hardstanding areas for the cranes and lay the turbine foundations which is expected to be won from the Site. It is anticipated from initial assessments that the rock onsite would be suitable for track and hardstanding construction.

10.4.7 Rock extraction by means of blasting operations is anticipated to be required along the Site Access and when constructing crane pads and turbine foundations. For the purpose of the Traffic and Transport assessment it has been assumed that no construction materials other than ready-mixed concrete will be imported into the Site.

10.4.8 A reasonable worst-case scenario has been included in this assessment of Traffic and Transport effects, where it is assumed that 114,000 m^3 of excess aggregate would be required to be removed from the Site.

10.4.9 Concrete for the foundations would either be delivered to the Proposed Development in a “ready mix” form or processed in a concrete batching plant located onsite within a construction compound. A reasonable worst-case scenario has been included in this assessment of Traffic and Transport effects, where it is assumed that concrete would be imported from nearby quarries. In this study, several quarries have been identified for this purpose – Barrachander Quarry, Bonawe Quarry and Benderloch Quarry. This information is subject to confirmation post-approval but has been included in traffic flow estimations.

10.5 Scope and Methodology

Guidance

10.5.1 The following policy documents and guidelines, specific to the Traffic and Transport subject matter, have been used to inform this assessment:

- Institute of Environmental Management and Assessment (IEMA) (2023). Guidelines for the Environmental Assessment of Road Traffic;
- LA104, Environmental assessment and monitoring, Design Manual for Roads and Bridges (DMRB) (Standards for Highways, 2020);
- Transport Scotland (2012) Transport Assessment Guidance; and

- Scottish Government, Planning Advice Note (PAN) 75, Planning for Transport.

Study Area

10.5.2 The assessment will focus on the routes used for access by construction vehicles, such as heavy goods vehicles (HGVs), light goods vehicles (LGVs), cars and abnormal loads. The geographic scope was determined through the review of OS mapping and an assessment of the potential origin locations of construction staff and supply locations for construction materials to be transported by HGV / abnormal loads.

10.5.3 The Study Area for construction vehicles is focused on the immediate roads surrounding and leading to the Proposed Development, as it is expected that traffic flows outside of this area would be dissipated on the wider road network without any significant effect. This chapter therefore only considers the likely increases in traffic along these routes associated with the Proposed Development.

10.5.4 Access to the Site would be taken along the existing forestry track through Fearnoch Forest and then along Glen Lonan Road before connecting with the existing Beinn Ghlas Wind Farm Site entrance.

10.5.5 The construction traffic access routes considered in this assessment, as outlined during Scoping consultation, are illustrated in **Volume 3a, Figure 10.1** and are as follows:

- A85(T) between Tyndrum and Oban;
- A828 south of Benderloch to Connel; and
- (C32) Glen Lonan Road.

10.5.6 Since scoping consultation took place, the A819 and A83 have been removed from the study area, as further assessment revealed that it was unlikely for construction traffic to utilise these routes. The A85 has also been extended from between Oban to the A819 junction to extend west to Tyndrum.

10.5.7 It is anticipated that abnormal loads would journey southwest bound from Corpach Harbour. The route for abnormal loads is illustrated in **Volume 3a, Figure 10.6** and is as follows:

10.5.8 A82(T) between Corpach and A82(T)/A85(T) Junction;

- A85(T) between Tyndrum and A85(T)/A819 Junction; and
- A85(T) between A85(T)/A819 Junction and Fearnoch Forest Site Access before continuing to the Site via the forestry track through Fearnoch Forest and along Glen Lonan Road before connecting to the existing Beinn Ghlas Wind Farm Site entrance.

Baseline Data Collection

10.5.9 A desk-based assessment of the Study Area, which was further supplemented by a review of dashcam footage collected as part of various visits to the Site and surrounding area, was carried out to gain an understanding of the local area and to identify all sensitive receptors situated within.

10.5.10 To determine the baseline conditions against which the effects of the Proposed Development have been assessed, data has been obtained from the Department for

Transport (DfT) Traffic Statistics database for the A85 and A828. Annual traffic statistics for the Study Area have been accrued through, either; manual counts, or permanent Automatic Traffic Counters (ATCs) maintained by the local and Trunk Road authorities. A traffic survey was also commissioned on Glen Lonan Road. The locations of the count Sites are shown on **Volume 3a, Figure 10.2** and discussed in further detail in **Section 10.6**.

10.5.11 In addition to the above, road traffic collision data for the most recent period from 2019 – mid-2024 were obtained from the Department for Transport (DfT). The locations of these reported accidents in the Study Area are illustrated in **Volume 3a, Figure 10.3**.

Effects Scoped In

10.5.12 The scope of the assessment has been informed by consultation responses summarised in **Table 10.1**.

Construction

10.5.13 Potentially significant environmental effects (including cumulative effects if more than one development is constructed at the same time) associated with Traffic and Transport may result from two forms of potential impacts:

- The movement of turbines including blade, tower sections, and nacelle of the wind turbines that are transported as abnormal loads. Abnormal loads are those which exceed the length, weight or height criteria defined in 'Abnormal Load Movements – A brief guide to Notification and Authorisation requirements' (Transport Scotland, June 2007);
- General construction traffic – LGVs, such as cars / vans, and import of materials transported via 'conventional' HGVs and low loaders.

10.5.14 The decommissioning and restoration of the existing Beinn Ghlas Wind Farm forms part of the application for the Proposed Development. As stated in **Chapter 2: Proposed Development and Design Evolution**, the approach to decommissioning and restoration will either involve (a) concurrent construction and decommissioning of the existing Beinn Ghlas Wind Farm or (b) decommissioning first followed by the construction of the repowering wind turbines. A reasonable worst case assessment of (a) is therefore scoped into the assessment under construction impacts.

Effects Scoped Out

Operation

10.5.15 A wind farm is designed to operate automatically and unmanned, however routine maintenance, such as planned servicing; safety checks; and repairing of any faults will be carried out. These visits would normally require the use of a 4x4 vehicle. The current wind farm asset manager and service technicians have access to the Site via Glen Lonan Road. It is anticipated that this arrangement will continue for the Proposed Development. The frequency of these visits would depend on the turbine manufacturer. The trips generated by the operational activities onsite are anticipated to be low in volume, and as such are not expected to be greater than the construction phase, nor greater than those expected to occur in the normal background daily variations to existing traffic flows or in

existing conditions as the Site is operational. Negligible traffic flows would be indistinguishable from normal daily traffic flows and, therefore, assessment of operational effects has been scoped out of this assessment, as agreed by Transport Scotland in their consultation response.

10.5.16 As the operational impacts of the Proposed Development on the Study Area are anticipated to be indiscernible, the operational cumulative effects have not been assessed from a Traffic and Transport perspective in this chapter.

Decommissioning

10.5.17 The Proposed Development is anticipated to have an operational life of approximately 35 years (excluding construction which is estimated to take approximately 23 months and decommissioning which is estimated to take 1 year). Any effects of decommissioning of the Proposed Development after operations have ceased would be less than those resulting from the construction of the Proposed Development and are, therefore, scoped out of this assessment.

Approach to Assessment of Effects

10.5.18 The following outlines the steps taken in this assessment to establish the effects on road users due to traffic associated with the construction of the Proposed Development:

- An assessment of the surrounding road network to determine its suitability to accommodate the anticipated volume of construction traffic (e.g. LGVs and HGVs);
- Future traffic increases associated with the construction of the Proposed Development have been measured against baseline flows with a low National Road Traffic Forecast (NRTF) growth factor (Trunk Roads); and
- An assessment of the increase in traffic compared to baseline traffic flows for the opening year of construction (assumed to be 2032) based on the construction material assumptions for the road links included in the identified Study Area. The approach for this has been to define the level of traffic anticipated to access the Proposed Development during its construction phase, calculated from the estimated material quantities required and distributed over the anticipated construction programmes.

10.5.19 Based on the IEMA guidance, the following factors have been identified as being the most discernible potential environmental impacts likely to arise from changes in traffic movements. Therefore, these are considered in the assessment which may arise from changes in traffic flows resulting from the Proposed Development:

- **Severance of communities** – The perceived division that can occur within a community when it becomes separated by major transport infrastructure. The term is used to describe a complex series of factors that separate people from places and other people;
- **Road vehicle driver and passenger delay** – Traffic delays impacting non-development traffic can occur at points on the road network surrounding a development Site including: Site entrance, highways passing development Site,

key intersections along highway and side roads where availability of gaps to circumvent delay are reduced;

- **Non-motorised user delay** – Changes in volume, composition or speed of traffic may affect the ability of people to cross roads. In general, increases in traffic levels are likely to lead to greater increases in delay. This is also dependent on existing level of activity, visibility and conditions;
- **Non-motorised amenity** – Defined as the relative pleasantness of a journey, and is considered to be affect by traffic flow, traffic composition and pavement width/separation from traffic;
- **Fear and intimidation on and by road users** – Shares a similar definition to non-motorised road user amenity, however, is not subject to commonly agreed thresholds. Fear and intimidation also considers other modes of travel including: horses, cycles, mobility scooters, e-scooters and e-cycles, if appropriate;
- **Road user and pedestrian safety** – Consists of an approximation of the potential for road safety impacts through the calculation of collision rates (slight, serious and fatal). Collision clusters are identified by a detailed review of the baseline characteristics to determine the road safety sensitivity of discrete areas of the road network; and
- **Hazardous/large loads** – Some developments may involve the transportation of dangerous or hazardous loads by road. Such movements may involve specialist loads that might be involved in the construction or decommissioning phases of the development (e.g. wind turbine generator components).

10.5.20 The significance of likely effects has been determined by consideration of the sensitivity of receptors to change, taking account of the specific issues relating to the Study Area, and then the magnitude of that impact.

IEMA Guidance Rule 1 and Rule 2

10.5.21 As identified during scoping, within this assessment, the predicted increase in traffic as a result of the Proposed Development will be compared against the threshold tests 'Rule 1' and 'Rule 2' defined in the IEMA guidance. Below these thresholds the significance of the effects can be stated to be low or insignificant and further detailed assessments are therefore not warranted. Where construction flows do exceed these thresholds, the significance in relation to the transport resource (including cumulative) will be determined by assessing the sensitivity of receptors against the magnitude of change to categorise significance.

10.5.22 It should be noted that the day-to-day variation of traffic on a road is frequently at least + or – 10 %. At a basic level, it should therefore be assumed that projected changes in traffic of less than 10% create no discernible environmental impact and would therefore be classified as insignificant, requiring no further detailed assessments.

IEMA Guidance: Rule 1

- Include highway links where traffic flows will increase by more than 30% (or the number of HGVs will increase by more than 30%).

IEMA Guidance: Rule 2

- Include highway links of high sensitivity where traffic flows have increased by 10% or more. Normally, it would not be appropriate to consider links where traffic flows have changed by less than 10%, unless there are significant changes in the composition of traffic.

Sensitivity of Receptors

10.5.23 The potential sensitivity of receptors to change in traffic levels has been determined by considering the Study Area and the presence of receptors in relation to each potential impact.

10.5.24 In this context, the assessor makes a professional judgement based on experience and the nature of the Study Area. Each receptor has been assessed individually to determine its sensitivity and the assessment criteria chosen are shown in **Table 10.2** below. **Table 10.3** provides a more detailed criteria for the assessment of receptor sensitivity and sets out different types of sensitive receptors relevant to traffic and transport.

Table 10.2: Sensitivity of a receptor

Negligible	Low Sensitivity	Medium Sensitivity	High Sensitivity
Receptors with negligible sensitivity to change in traffic flows including Motorways and Dual Carriageways and/or land uses sufficiently distant from affected routes and junctions	Receptors with low sensitivity to change in traffic flows: places of worship, public open space, nature conservation areas, listed buildings, tourist/visitor attractions and residential areas with adequate footway provision	Receptors of medium sensitivity to change in traffic flows, congested junctions, doctor's surgeries, hospitals, shopping areas with roadside frontage, roads with narrow footway, unsegregated cycleways, community centres, parks and recreation facilities	Receptors of high sensitivity to change in traffic flows: schools, colleges, playgrounds, accident blackspots, retirement homes and urban/residential homes without footways that are used by pedestrians and cyclists

Table 10.3: Receptor sensitivity to traffic and transport

Affected party (sensitive receptor)	Built environment indicator on link	Sensitive receptor
People at home	Residential properties	• Negligible: No properties with direct frontage. • Low: Few properties (e.g. one side of the link) with direct highway frontage on construction traffic routes. • Medium: A number of properties with direct highway frontage (e.g. two sides of the link – low density) on construction traffic routes. • High: A large number of properties with direct frontage (e.g. two sides of the link – higher density).
People at work	Employment uses (Offices, Industrial Units etc)	• Negligible/Low: Not adversely impacted when at work.
Sensitive groups (children; youth; elderly; income; persons with disabilities; ethnic and racial minorities; people with social disadvantages; and access/geographic factors)	Disabled parking bays, retirement/care centres, playgrounds/centres and schools	• Negligible: No indication of sensitive groups present. • Low: At least 1 indicator of sensitive groups present, with direct highway frontage. • Medium: Low number of sensitive groups present, with direct highway frontage. • High: Multiple indicators of sensitive groups present, with direct highway frontage.
Sensitive locations	Hospitals, schools, historic buildings, places of worship	• Negligible: No indication of sensitive groups present. • Low: At least 1 indicator of sensitive groups present, with direct highway frontage. • Medium: Low number of sensitive groups present, with direct highway frontage.

Affected party (sensitive receptor)	Built environment indicator on link	Sensitive receptor
		• High: Multiple indicators of sensitive groups present, with direct highway frontage.
Users walking	Crossing points, PRoW, footways	• Negligible: No indication of sensitive groups present. • Low: At least 1 indicator of sensitive groups present. • Medium: Medium use by receptor group – footways present. • High: High receptor use with no footways.
Users cycling/scooting	On/off-road routes, designated routes or infrastructure	• Negligible: No indication of sensitive groups present. • Low: At least 1 indicator of sensitive groups present e.g. off-road cycle route. • Medium: On-road cycle route present with segregation. • High: On-road cycle route present with no segregation.
Recreational areas/Open spaces	Parks, playgrounds/areas, shopping and community centres	• Negligible: No indication of sensitive groups present (unlikely usage) • Low: At least 1 indicator of sensitive groups present. • Medium: Low number of sensitive groups present. • High: Multiple indicators of sensitive groups present e.g. children present.

Affected party (sensitive receptor)	Built environment indicator on link	Sensitive receptor
Road users	Road links/junctions, baseline traffic volume, existing signage/infrastructure.	• Presence of affected parties outlined in this table determine the sensitivity.

10.5.25 A level of sensitivity, based on the criteria set out in **Table 10.3,** has been allocated to the receptors scoped into the assessment, typically taking into account multiple influences such as adjoining land uses, presence of sensitive groups, types of road users and collision data.

10.5.26 Owing to the length of some roads within the Study Area and the varying road conditions of the routes, the sensitivity of receptors may vary along different sections of the same road. The assessment of receptor sensitivity on roads within the Study Area has subsequently been split into multiple sections of road and are referred to in the assessment as 'links', summarised in **Table 10.4**.

Table 10.4: Link Sensitivity

Description	Assumed Sensitivity	Built Environment Indicators and Justification
A828 from Benderloch to A85(T) in Connel	Low	• Limited property frontage • Access to North Ledaig Caravan Park • Pedestrian footpaths present on both sides of the carriageway • No dedicated cycling infrastructure • Connel Bridge forms part of the Core Path Network (C152(k) - Oban to Appin (National Cycle Network) • No schools, hospitals, accident blackspots, retirement homes or playgrounds directly front the A828
A85(T) from Oban to A828 in Connel	Medium	• A number of residential properties, commercial units and hotels directly front the carriageway in Oban • Pedestrian footpaths on both sides of the carriageway in Oban • No designated cycling infrastructure No schools, hospitals, accident blackspots, retirement homes or playgrounds directly front the A85(T)
A85(T) from A828 in Connel to Fearnoch Forest Access	Medium	• Few properties directly front the carriageway in Connel • Core Paths C164(c) and C177(a) form part of the A85(T) • Passes primary school to the east of Connel Pedestrian footpath is present along both sides of the carriageway No dedicated cycling infrastructure

Description	Assumed Sensitivity	Built Environment Indicators and Justification
A85(T) from Fearnoch Forest Access to A82(T) in Tyndrum	Low	• Few properties directly front the carriageway in Taynuilt and Damlally • No schools, hospitals, accident blackspots, retirement homes or playgrounds directly front the A85(T) • Pedestrian footpaths present to one side as a minimum through Taynuilt and Dalmally No dedicated cycling infrastructure
Glen Lonan Road	Medium	• Minimal presence of existing communities in the area under consideration. • Forms part of Argyll & Bute's Core Path Network • Road User and Pedestrian Safety – Road shared by pedestrian / non-motorised users

Magnitude of Impact

10.5.27 The magnitude of impact has been undertaken by considering the parameters of the Proposed Development, establishing the scope of the receptors that may be affected and quantifying these effects utilising IEMA Guidelines and professional judgement. The magnitude of impact or change has been considered according to the criteria defined in **Table 10.5**.

Table 10.5: Magnitude of Impact Assessment Criteria

Impact	Negligible	Low	Medium	High
Severance of Communities	< 30 % Increase in traffic	30 % - 60 % Increase in traffic	60 % - 90 % Increase in traffic	> 90 % Increase in traffic
Road Vehicle Driver and Passenger Delay	< 10 % Increase in traffic	Quantitative assessment of road capacity based on existing traffic flows and predicted future levels		
Non-Motorised User Delay	< 10 % Increase in traffic	An increase in total hourly traffic of approximately 30 % can double the delay experienced by pedestrians attempting to cross a road. Whether or not the increase in traffic results in a significant effect should be determined using professional judgement.		
Non-Motorised Amenity	Assessment of this link is based on a desktop review of non-motorised user facilities on links used by construction traffic			

Impact	Negligible	Low	Medium	High
Fear and Intimidation on and by road users	Negligible - No change in step changes.	One step change in level, with • <400 vehicle increase in average 18hr all vehicles two-way all vehicle flow; and/or • <500 heavy vehicles increase in total 18hr heavy vehicles flow	One step change in level, but with • >400 vehicle increase in average 18hr all vehicles two-way all vehicle flow; and/or • >500 heavy vehicles increase in total 18hr heavy vehicles flow	Two step changes in level
Road User and Pedestrian Safety	Professional judgement is used to assess the implications of local circumstances, or factors which may elevate or lessen risks of accidents. Collision cluster analysis is required. A cluster corresponds to a high concentration of accidents in a specific location (e.g. a specific junction) within the analysed time frame. In this assessment, a collision cluster = 3 accidents within a 100 m radius are assumed as specific criteria for collision cluster analysis is not provided by Argyll & Bute Council. It should be noted a commonly used criterion is 5 accidents within a 100 m radius over a five-year period.			
Hazardous/Large Loads	< 30 % increase in traffic	Quantitative assessment of road capacity based on existing traffic flows and predicted future levels		

Significance of Effect

10.5.28 Sensitivity and magnitude of change as assessed under the detailed criteria, have then been considered collectively to determine the potential effect and their significance. The collective assessment is an assessment undertaken by the assessor, based on the likely sensitivity of the receptor to the change (e.g., is receptor present which would be affected by the change), and then the magnitude of that change.

10.5.29 The Significance of Effect Matrix in **Table 10.6** is reached by combining the Sensitivity of Receptor against the Magnitude of Impact. **Table 10.6** is used as a guide to determine the level of effect. 'Major' and 'Moderate' effects are considered to be 'Significant' in terms of the EIA Regulations.

Table 10.6: Significance of Effect Matrix

Sensitivity of receptor	Magnitude of Impact			
	High	Medium	Low	Negligible
High	Major	Moderate	Moderate	Minor
Medium	Moderate	Moderate	Minor	Negligible
Low	Moderate	Minor	Negligible	Negligible
Negligible	Minor	Negligible	Negligible	Negligible

Potential Cumulative Effects

10.5.30 An assessment of the cumulative effect on the Study Area of all relevant developments, including local wind farms, within a 20 km radius of the Site in respect to either submitted planning applications or consented developments pending construction, which may utilise the same access routes during the same construction period as the Proposed Development, has been undertaken.

Data Assumptions and Limitations

10.5.31 Reasonable care has been used to identify the location of potential material suppliers that may be used during the construction of the Proposed Development and the routes that would be used by vehicles from those suppliers to the Site location. It has been assumed for the assessment that the supply of materials will be shared by the identified sources rather than one specific source being able to supply all the materials in the quantity and at the rate required. In practice, selection of the supplier(s) will ultimately be determined by the main contractor employed to carry out the works, post consent.

10.5.32 As outlined in **Chapter 2: Proposed Development and Design Evolution**, the construction working hours for the Proposed Development are proposed to be 07:00 to 19:00 Monday to Sunday. However, noise generating activities are to be restricted at weekends. Additionally, working hours for construction works within 500 m of residential properties are to be prohibited by the CEMP, specifically 13:00-19:00 on Saturday and all-day Sunday. For the Traffic and Transport subject matter the calculation of construction traffic movements used in this assessment has been based on the former working hours – 12-hours per day, 7 days per week during the construction programme.

10.5.33 Construction hours also generally apply to the delivery of materials to the Proposed Development. However, abnormal loads may be delivered outside these hours, when the road network is at its quietest, to reduce traffic disturbance. Delivery of the hubs/nacelles, towers and blades to the Proposed Development Site would require the use of abnormal sized and slow-moving load vehicles. These vehicles would require a police escort, and the timing of these deliveries may be dictated by the police. The timing of the delivery of abnormal loads (i.e. wind turbine blades) will be agreed with the relevant authorities after detailed investigation.

10.5.34 The assessment is based upon an assumed construction programme (**Chapter 2: Proposed Development and Design Evolution**) for the Proposed Development and is based upon average traffic flows in one-month periods. During the peak construction month there may be localised peak days where construction activity may be higher.

10.5.35 It should be noted that, in the scenario that the Proposed Development did not proceed, traffic growth on the local highway network will still occur.

10.5.36 The information presented within the assessment is sufficient to identify and assess the likely significant environmental effects of the Proposed Development on Traffic and Transport receptors.

10.6 Existing Environment

10.6.1 The Site lies to the west of the A819 and south of the A85(T), which are principal roads connecting Oban, Connel, Taynuilt, Tyndrum, Kilchurn Castle and Inveraray. They are high-quality rural single carriageway roads which change to more urban character with the provision of contiguous footways through settlements. The Study Area is illustrated in **Figure 10.1**.

10.6.2 The entrance to the Proposed Development Site for vehicles delivering both construction materials, turbine components, such as tower sections and blades would be from the existing junction with the A85(T) at Fearnoch Forest to the north of the Site.

10.6.3 Access to the Site would be taken along the forestry track through Fearnoch Forest and then along Glen Lonan Road before connecting with the existing Beinn Ghlas Wind Farm Site entrance. The existing onsite track network will be reused where possible.

Baseline Traffic Surveys

10.6.4 Annual traffic statistics for the Study Area have been obtained from the DfT Traffic Count point database which uses either manual counts or permanent Automatic Traffic Counters (ATCs). One 'estimated' count Site has been used due to lack of other data (point 40771 below), however this is deemed suitable due to the estimated distribution of construction traffic and abundance of other count points. These are all maintained by the local and Trunk Road authorities.

10.6.5 The count Sites that have been used are as follows:

- 50797 - A828 between A85(T) and B845 (On Connel Bridge);
- 40771 - A85(T) between A816 and A828 (West of Connel);
- 74341 – A85(T) between A816 and A85(T) merge (Oban);
- 80339 - A85(T) between A828 and A819 (Taynuilt); and
- 30775 – A85(T) between A819 and Local Authority boundary (Arrivain).

10.6.6 In addition, a traffic survey was commissioned and conducted between 24th June – 7th July 2024 on Glen Lonan Road to capture existing traffic volume and speed of traffic at this location.

10.6.7 The locations of the DfT traffic count Sites and commissioned traffic survey used in this assessment are illustrated in **Figure 10.2.** This data allows the traffic flows to be split in vehicle classes and has been summarised into LGVs and HGVs.

10.6.8 To assess the likely effects during the construction period, construction year baseline traffic flows were determined by applying a National Road Traffic Forecast (NRTF) growth factor to the 2024 traffic flows.

10.6.9 Construction of the Proposed Development is anticipated to commence at the earliest in October 2032 if consent is granted and is anticipated to take approximately 23 months to complete, depending on weather conditions, ornithological considerations and results of Site investigations.

10.6.10 The NRTF low growth factor for 2024 to 2032 is 1.036. This factor was applied to the 2024 data to estimate the baseline 2032 traffic flows on the road network (shown in **Table 10.7**, which are used in the construction peak traffic impact assessment).

10.6.11 **Table 10.7** summarises the Annual Average Daily Traffic (AADT) traffic conditions for 2024 and 2032 for the Study Area.

Table 10.7: Baseline Annual Average Daily Traffic (AADT) Conditions

Survey Location (Count Point ID)	HGVs		Total Baseline Vehicles	
	2024	2032	2024	2032
74341	218	226	15484	16041
40771	264	274	8401	8703
50797	243	252	5289	5479
80339	324	336	4682	4851
30775	244	253	2842	2944
ATC Survey - Glen Lonan Road	11	11	62	65

Baseline Road Safety Review

10.6.12 The time period for the accident analysis includes the period between 2019 and mid-2024 (inclusive). The locations of recorded accidents are shown on **Figure 10.3.**

10.6.13 The accident analysis is used to inform the review of the proposed route where any deficiencies in the road layout and condition are identified. A total of 50 accidents were recorded across the Study Area during the five-year period. Of these, 22 resulted in 'slight' injury (e.g. slight shock with occurrences of sprains or bruises), 21 resulted in 'serious' injury (e.g. breakages, lacerations, concussion, or hospital admittance) and 7 resulted in 'fatal' injury (resulted in a mortality/death within 30 days after the accident).

10.6.14 The number and severity of accidents recorded in the Study Area is provided in **Table 10.8**.

Table 10.8: Number and Severity of Accidents Summary

Link	Description	Slight	Serious	Fatal
1	A828 from Benderloch to A85(T) in Connel	1	0	0

2	A85(T) from Oban to A828 in Connel	7	7	0
3	A85(T) from A828 in Connel to Fearnoch Forest Access	1	1	2
4	A85(T) from Fearnoch Forest Access to A82(T) in Tyndrum	13	13	5
5	Short section of Glen Lonan Road to the east of Angus's Garden to be used by BESS traffic	0	0	0

Baseline Sustainable Travel Infrastructure Review

10.6.15 Argyll & Bute Council's Core Path network traverses east-west to the north of the Proposed Development (C160(k), C175(a) and C158. To the east of the Site running generally north-south, the C300a (Kilchurn – Taynuilt) follows the B845. The C160 also forms part of the National Cycle Network. The C32 (Glen Lonan Road) is a single-track road also used by vehicles and is crossed by the access route to the Development Site from the A85(T). These are illustrated in **Volume 3a, Figure 10.5**.

10.6.16 Pedestrian footways are provided on the principal roads through the main settlements along the access routes, to one side as a minimum.

10.6.17 There are no public transport services close to the Site with the nearest bus stops located in Taynuilt to the northeast with connections to/from Oban on services 975, 403, 415, 978 and 976.

10.7 Predicted Impacts

Traffic Generation

LGV Trip Generation

10.7.1 LGVs (i.e., smaller vehicles such as cars and vans, which would typically be associated with the workforce) have been calculated to provide total two-way vehicle movements predicted to arise from the Proposed Development.

10.7.2 At peak, LGV trips would be generated by approximately 50 workers who would be working on-Site during the construction phase, with a maximum of 100 two-way movements daily, based on single car occupancy.

HGV Trip Generation

10.7.3 **Table 10.9** shows the predicted worst-case two-way vehicle movements during the construction phase for each scenario, respectively.

Table 10.9: Predicted Traffic Generation during Construction Phase

Infrastructure		No of Loads	Two Way Movements
Forestry Clearance	Timber (logs) + Brash	13	26
Turbine Bases	Concrete	1,225	2,450

Infrastructure		No of Loads	Two Way Movements
Inductive Reactor	Concrete	116	232
Turbine Foundations	Blinding	73	146
	Installation of Can/Bolts	7	14
	Reinforcement	25	50
	Formwork	3	6
	Ducts (200mm diameter)	1	2
	Ducts (75mm diameter)	1	2
	Transformer Plinths	7	14
	Step Plinths	7	14
Electrical Connection	Sand Layer	232	464
	Cable - Drums hold 500m	3	6
Geotextile	Access Tracks	4	8
Turbine delivery, erection and commissioning		70	140
Met Mast	Blinding (9m x 9m x 0.075m)	1	2
	Reinforcement (150kg/m3)	2	4
	Shuttering (9m x 9m sides x 2m high)	1	2
Decommissioning	Tower Sections (steel) HH 64m	21	42
	Blades (m) GRP	22	44
	Nacelle Rotor Generator (ton)	14	28
	Stairs (external)	1	2
	Foundations Concrete Top 0.5	71	142
	Rebar (13 % of volume)	10	20
Restoration		20	40
Excess Aggregate Material		11,406	**22,812**
Total		**13,356**	**26,712**

Construction Programme

10.7.4 This section should be read in conjunction with **Chapter 2: Proposed Development and Design Evolution.**

10.7.5 The two-way movements for HGVs have been distributed over the anticipated construction programme according to the relevant Site activity. The total two-way trip generation has been divided by the number of operational days in each month (28 in any one month), to provide daily two-way trip generation which is summarised in **Table 10.10**. The month with the highest volume of traffic has been highlighted in blue.

Table 10.10: Two-way movements by Construction Vehicles (Worst-Case)

Activity	Month																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
New wind farm construction																							
Access road works (inc. forestry felling), foundations and platforms	20	20	20	20	20	20	20						20	20	20	20		20	20	20			
Cable Trenching and Installation		43	43	43	43	43	43							43	43	43			43	43			
Turbine installation and commissioning															433	434				434	434	434	434
Reinstatement and Restoration															10					10	10	10	
Substation works														116	116								
Decommissioning of existing wind farm																							
Access roads and platforms and turbine dismantling	25	25	25	25	25	25	25							25	25	25	25						
Restoration works														10	10	10	10						
Excess aggregate removal																							
Excess material from rock blasting not used in construction	1267	1267	1267	1267	1267	1267	1267						1267	1267	1267	1267	1267	1267	1267	1267	1267	1267	1267

Activity	Month																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Monthly General Site Traffic (Personnel)	2800	2800	2800	2800	2800	2800	2800						2800	2800	2800	2800	2800	2800	2800	2800	2800	2800	2800
Monthly ALL Total	4112	4155	4155	4155	4155	4155	4155						4087	4281	4724	4599	4103	4087	4130	4574	4512	4512	4502
Daily ALL Total	148	150	150	150	150	150	150						146	154	170	166	148	146	148	164	162	162	162
Monthly HGV Total	1312	1355	1355	1355	1355	1355	1355						1287	1481	1924	1799	1303	1287	1330	1774	1712	1712	1702
Daily HGV Total	48	50	50	50	50	50	50						46	54	70	66	48	46	48	64	62	62	62

HGV Trip Generation Summary

10.7.6 The maximum level of two-way HGV trips generated is 70 (Nov – Month 15).

Total Trip Generation

10.7.7 The total trip generation (maximum daily and average) for both construction programmes for HGVs and LGVs is set out in **Table 10.11**.

Table 10.11: Maximum and Average Daily Two-way Vehicle Movements

	HGV	LGV	Total
Maximum	70	100	170
Average	56	100	156

10.7.8 Construction HGV traffic flows would be spread across the working day (07:00-19:00), which at peak would equate to a maximum of 6 two-way trips per hour, or 3 HGVs in each direction, equivalent to one HGV approximately every 10 minutes in each direction.

10.7.9 The distribution of construction trips on the local highway network will vary depending on the types of loads being transported.

10.7.10 It has been assumed that 50% of the excess aggregate will be transported away from Site to the west (Connel) via the A85(T) and A828 and 50% to the east (Tyndrum) via the A85(T).

10.7.11 It has also been assumed that general construction, building supply deliveries, geotextiles, cable and reinforcement deliveries will be made from the east (50%) and west (50%) via the A85(T).

10.7.12 It has been assumed that staff working at the construction Site would live locally, with 50% travelling eastbound from settlements such as Oban (from the southwest via A85(T)), 20% from Benderloch (from the north via the A828) and 30 % westbound from settlements such as Taynuilt, Dalmally and Tyndrum (from the east via the A85(T)).

10.8 Construction Traffic Impact

10.8.1 The increase in traffic flow along the A85(T) and A828 has been calculated, considering the maximum trip generation occurring over the construction period.

10.8.2 **Table 10.12**Table 10.12 shows the predicted daily total and HGV traffic increases on the study area during the construction period.

10.8.3 The baseline traffic flows are those presented in **Table 10.7**.

Table 10.12: Predicted Increases in Traffic (Two-Way) - Peak Month of Construction

Count Point	Description	2032 Baseline		2032 Baseline + Construction		Increase %	
		Total	HGVs	Total	HGVs	Total	HGVs
74341 (2022)	A85(T) between A816 and A85(T) merge (Oban)	16,041	226	16126	261	0.53%	15.50%
40771	A85(T) between A816 and A828	8,703	274	8753	274	0.57%	0.00%
50797	A828 between A85(T) and B845 (On Connel Bridge)	5,479	252	5534	287	1.00%	13.90%
80339	A85(T) between A828 and A819 (Taynuilt)	4,851	336	4916	371	1.34%	10.43%
30775	A85(T) between A819 and Local Authority boundary (Arrivain)	2,944	253	3009	288	2.21%	13.85%
ATC Survey - Glen Lonan Road (2024)	Glen Lonan Road	65	11	235	81	263.08%	643.50%

Construction Traffic Increase Summary

10.8.4 Excluding the short section of Glen Lonan Road to be used by construction traffic, the results in **Table 10.12** show that the maximum daily increase in total traffic volumes across all assessed roads within the Study Area would be no greater than 2.2 % (A85 between A819 and the local authority boundary at Arrivain). This increase is well within the acceptable threshold of the 30 % increase specified in IEMA guidance (Rule 1).

10.8.5 The highest maximum daily increase in HGV traffic volume is shown to be on Glen Lonan Road, with an increase of 644%.

10.8.6 The highest maximum daily increase in total traffic volume is also shown to be on Glen Lonan Road, with an increase of 263%.

10.8.7 In summary, traffic levels are within the IEMA thresholds of a 30 % increase to HGV and total traffic volumes (Rule 1) across the Study Area, except from Glen Lonan Road where HGV and total traffic volumes during the peak month of construction exceed Rule 1.

10.8.8 As a comparison in absolute terms, on Glen Lonan Road, the absolute change (in maximum terms) would be an additional 70 two-way HGV movements daily over existing baseline figures, or an additional 35 HGVs in each direction, equating to 6 HGV movements per hour for the duration of development construction or one HGV approximately every 10 minutes in each direction.

Construction Traffic Impact Summary

10.8.9 To summarise, the following links, summarised in **Table 10.13,** have exceeded Rule 1 or Rule 2 of the IEMA Guidance and have been taken forward for further assessment.

Table 10.13: Links Taken Forward for Further Assessment

Description	Assumed Sensitivity	Notes
Glen Lonan Road	Medium	Percentage increase in total traffic is 263%, which exceeds Rule 1 of the IEMA Guidance

10.9 Potential Effects

Effect on Severance

10.9.1 The IEMA guidance states that severance consists of a series of complex factors that separate people from places and other people. Severance may result in difficulty crossing a heavily trafficked road or a physical barrier created by infrastructure. The measurement and prediction of severance is extremely difficult. The correlation between the extent of severance and the physical barrier of a road is not clear and there are no predicative formulae that give simple relationships between traffic factors and levels of severance.

10.9.2 The effect on severance is summarised in **Table 10.14**, based on the criteria in **Table 10.5**.

Table 10.14: Effect on Severance

Link description	Sensitivity	Magnitude of change	Significance of Effect	Notes
Glen Lonan Road	Medium	High	Moderate adverse (**Significant**)	Increase in total traffic and HGV flow is over 90 %. However, it should be noted that the significant increase in traffic volume resulting from construction traffic is due to the low levels of existing traffic on this section of road. Furthermore, construction vehicle movements would be confined to a very short section of Glen Lonan Road. In absolute terms,

				there would be an additional 100 two-way car / LGV movements and 70 two-way HGV movements. Spread across a 12-hour working day, this equates to an additional 10 two-way car / LGV movements and 6 two-way HGV movements per hour and therefore the significance of effect can be deemed Minor.

10.9.3 The assessment has concluded that the effect on severance caused by construction of the Proposed Development would be **'Not Significant'**.

Effect on Road Vehicle Driver and Passenger Delay

10.9.4 IEMA guidance states that traffic delays to non-development traffic can occur at several points on the network surrounding a development Site including:

- At the Site entrance where there will be additional turning movements;
- On the highways passing the development Site where there is likely to be additional traffic and the flow might be affected by additional parked cars;
- At other key intersections along the highway which might be affected by increased traffic; and
- At side roads where the ability to find gaps in the traffic may be reduced, thereby lengthening delays.

10.9.5 IEMA guidance also states that these delays are only likely to be significant when the traffic on the network surrounding the development is already at, or close to, the capacity of the system.

10.9.6 In this assessment, suitable baseline traffic data including the proportions of goods vehicles for roads on the A828 and Glen Lonan Road, has been gathered and an assessment of the magnitude of impact of traffic associated with the Proposed Development in accordance with IEMA guidelines has been performed. Road categories and link capacities have been taken from the NESA Manual (Volume 15 Economic Assessment of Road Schemes in Scotland, Section 1 – Design Manual for Roads and Bridges). The assessment is summarised in **Table 10.15**.

Table 10.15: Theoretical Road Capacity

Count Point	2032 Baseline	2032 Baseline + Construction	Theoretical Road Capacity (12 hr)	Spare Road Capacity (%)
Glen Lonan Road	65	235	3360	93

10.9.7 The results indicate that there are no road capacity issues with the addition of the construction traffic associated with the construction of the Proposed Development and ample spare capacity exists within the local road network to accommodate all construction phase traffic.

10.9.8 The effect on road vehicle driver and passenger delay is summarised in **Table 10.16** based on the criteria in **Table 10.5**.

Table 10.16: Effect on Road Driver and Passenger Delay

Link description	Sensitivity	Magnitude of change	Significance of Effect	Notes
Glen Lonan Road	Medium	Low	Minor adverse (**Not Significant**)	No significant areas of congestion on this link. Very few junctions and therefore potential areas for the delay of other road users by turning traffic. Furthermore, the existing flows on this link are low, hence, there is sufficient available capacity to accommodate additional vehicle movements without causing delay to other road users. Finally, construction vehicle movements would be confined to a very short section of Glen Lonan Road.

10.9.9 The assessment has concluded that the effect on road vehicle driver and passenger delay caused by construction of the Proposed Development would be **'Not Significant'**.

Effect on Non-Motorised User Delay

10.9.10 IEMA Guidance states that pedestrian delay and severance are closely related effects and can be grouped together. Changes in the volume, composition or speed of traffic may affect the ability of people to crossroads. In general, increases in traffic levels are likely to lead to greater increases in delay. Delays will also depend on the general level of pedestrian activity, visibility and general physical conditions of the development Site.

10.9.11 The effect on severance is summarised in **Table 10.17** based on the criteria in **Table 10.5**.

Table 10.17: Effect on Non-Motorised User Delay

Link description	Sensitivity	Magnitude of change	Significance of Effect	Notes
Glen Lonan Road	Medium	High	Moderate adverse (**Significant**)	Glen Lonan Road forms part of the C160 Core Path. However, construction vehicle movements would be confined to a very short section of Glen Lonan Road. During peak

				construction, there would be an additional 100 two-way cars/LGVs and 70 HGV movements per day on Glen Lonan Road. Spread across a 12-hour working day, this equates to an additional 10 two-way car / LGV movements and 6 two-way HGV movements per hour and therefore the significance of effect can be deemed Minor.

10.9.12 The assessment has concluded that the effect on non-motorised user delay caused by construction of the Proposed Development would be **'Significant'**.

Non-Motorised User Amenity

10.9.13 IEMA Guidance states that pedestrian amenity is broadly defined as the relative pleasantness of a journey, and is considered to be affected by traffic flow, traffic composition and pavement width/separation from traffic. This definition is considered to represent a broader category, incorporating the impact of noise and pollution as a result of construction traffic and development works.

10.9.14 In regard to the impact of construction traffic associated with the Proposed Development, sensitive receptors related to non-motorised user amenity include pedestrian footpaths, core paths, cycleways and residential land uses wherein non-motorised movements would be more frequent.

10.9.15 Intersecting core paths and cycleways are shown on **Figure 10.5**.

10.9.16 The IEMA Guidelines note that pedestrian amenity is affected when traffic flow is halved or doubled.

10.9.17 The effect on non-motorised user amenity is summarised in **Table 10.18** based on the criteria in **Table 10.5**.

Table 10.18: Effect on Non-Motorised User Amenity

Link description	Sensitivity	Magnitude of change	Significance of Effect	Notes
Glen Lonan Road	Medium	High	Moderate adverse (**Significant**)	Percentage increase in total traffic is 263%. Core Path C160 forms part of Glen Lonan Road. No existing cycling infrastructure. No pedestrian footpaths. However, it should be noted that the significant increase in traffic volume resulting from construction traffic is due to the low levels of existing traffic on this

				section of road. . However, construction vehicle movements would be confined to a very short section of Glen Lonan Road. During peak construction, there would be an additional 100 two-way cars/LGVs and 70 HGV movements per day on Glen Lonan Road. Spread across a 12-hour working day, this equates to an additional 10 two-way car / LGV movements and 6 two-way HGV movements per hour and therefore the significance of effect can be deemed Minor.

10.9.18 The assessment has concluded that the effect on non-motorised user amenity caused by construction of the Proposed Development would be '**Significant**'.

Fear and Intimidation

10.9.19 IEMA guidance states that measuring the extent of fear and intimidation as a result of development traffic is dependent on the following factors:

- The total volume of traffic;
- The heavy vehicle composition;
- The speed these vehicles are passing; and
- The proximity of traffic to people – and/or the feeling of the inherent lack of protection created by factors such as a narrow pavement median, a narrow path or a constraint (such as a wall or fence) preventing people stepping further away from moving vehicles.

10.9.20 IEMA suggests defining the degree of hazard to pedestrians in 3 stages:

1) Fear & Intimidation (F&I) Degree of Hazard - By calculating average (a) 18hr total traffic flow, (b) 18hr heavy vehicle flow and (c) average speed (mph). Each with suggested thresholds of traffic number flows and average vehicle speeds. These thresholds in-turn sort the assessment results into a 'degree of hazard' score of 0-30. This is calculated for baseline 2027 traffic flows, and baseline + development traffic flows (Shown in

2) **Table** 10.19).

Table 10.19: IEMA F&I Degree of Hazard Guidance

Stage 1: Fear and Intimidation Degree of Hazard

Average traffic flow over 18-hour day – all vehicles/hour 2-way (a)	Total 18-hour heavy vehicle flow (b)	Average vehicle speed (c)	Degree of hazard score
+1800	+3000	>40	30
1200-1800	2000-3000	30-40	20
600-1200	1000-2000	20-30	10
<600	<1000	<20	0

3) Levels of F&I – Levels of F&I are categorized as: 'Extreme', 'Great', 'Moderate' or 'Small' according to a total hazard score provided by combining the elements of stage 1 - (a)+(b)+(c). (Demonstrated in **Table 10.20**).

Table 10.20: IEMA Level of F&I Guidance

Stage 2: Levels of Fear and Intimidation	
Level of fear and intimidation	Total hazard score (a) + (b) + (c)
Extreme	71+
Great	41-70
Moderate	21-40
Small	0-20

4) F&I Magnitude of Impact – The level of impact is then approximated with reference to the changes in the level of fear and intimidation from baseline conditions. Magnitude of impact is categorized according to 'change in step/traffic flows (AADT) from baseline conditions as:

- 'high' (two step changes in level);
- 'medium' (One step change in level with >400 vehicle increase in average 18hr all traffic flow and/or >500 increase in total 18hr HGV flow);
- 'low' (one step change in level with <400 vehicle increase in average 18hr total vehicle flow and/or <500 HGV flow increase in total 18hr HGV flow); and
- 'negligible' (no change in step changes).

10.9.21 Stage 3 of F&I IEMA guidance is demonstrated in **Table 10.21**.

Table 10.21: IEMA F&I Magnitude of Impact

Stage 3: Fear and Intimidation Magnitude of Impact	
Magnitude of Impact	**Change in step/traffic flows (AADT) from baseline conditions**
High	Two step changes in level
Medium	**One step change in level, but with** • >400 vehicle increase in average 18hr AV two-way all vehicle flow; and/or • >500 HV increase in total 18hr HV flow
Low	**One step change in level, with** • <400 vehicle increase in average 18hr AV two-way all vehicle flow; and/or • <500 HV increase in total 18hr HV flow
Negligible	No change in step changes

Table 10.22: F&I Baseline

Fear and Intimidation Degree of Hazard (Baseline Only)					
Link	**Average traffic flow over 18 hour-day – all vehicles/hour 2-way (a)**	**Total 18-hour heavy vehicle flow (b)**	**Average Vehicle Speed (c)**	**Degree of Hazard Score**	**Level of F & I**
Glen Lonan Road	4	10	23	10	Small

Table 10.23: F&I Baseline + Development Traffic

Fear and Intimidation Degree of Hazard (Baseline+Development)					
Link	**Average traffic flow over 18 hour-day – all vehicles/hour 2-way (a)**	**Total 18-hour heavy vehicle flow (b)**	**Average Vehicle Speed (c)**	**Degree of Hazard Score**	**Level of F & I**
Glen Lonan Road	10	62	23	10	Small

10.9.22 As shown in **Table 10.22**, baseline average all-traffic flow 18hr/hour 2-way (a) is under <600 on Glen Lonan Road. As such, column '(a)' for baseline traffic has a degree of hazard score of '0'. In column (b), total 18-hour heavy vehicle flows (HGVs) are similarly well below IEMAs lowest threshold of up to 1,000 and therefore, also provides a degree of hazard score of '0'. The calculated average speed of 23 mph for Glen Lonan Road (from commissioned traffic surveys) provides a degree of hazard score of '10'. In summary, baseline traffic flow and average speed data provides a combined degree of hazard score (a+b+c) of 10 for Glen Lonan Road.

10.9.23 As shown in **Table 10.23**, when development traffic is added to baseline flows, pre-existing categorisations remain unchanged. Baseline and development all traffic flow over 18hr/hour 2-way (a) remain under <600 threshold provided by IEMA guidance. In column (b), total 18hr HGV traffic similarly does not exceed the <1000 lowest threshold specified on Glen Lonan Road. Lastly, assumed average vehicle speed (c) remains at 23 mph for Glen Loan Road and therefore provides a hazard score of 10. When combined, (a+b+c) the degree of hazard score of 10 shown in baseline data (**Table 10.22**) is demonstrated to be unchanged by adding traffic associated with the Proposed Development.

10.9.24 When factored into IEMA guidance (**Table 10.20**) the combined data of: average traffic flow over 18hr/hour 2-way (a) + total 18hr heavy vehicle flow (b) + average vehicle speed (c) resulting a 'total degree of hazard score' of '10' provides a 'level of fear and intimidation' of 'Small' (0-20). It should be noted that this level of fear and intimidation is shared by both baseline and baseline + development traffic (impact remains unchanged).

Table 10.24: Effect on Fear and Intimidation

Link description	Sensitivity	Magnitude of change	Significance of Effect	Notes
Glen Lonan Road	Medium	Negligible	Negligible (**Not Significant**)	No change in step changes. Furthermore, construction vehicle movements would be confined to a very short section of Glen Lonan Road. During peak construction, there would be an additional 100 two-way cars/LGVs and 70 HGV movements per day on Glen Lonan Road. Spread across a 12-hour working day, this equates to an additional 10 two-way car / LGV movements and 6 two-way HGV movements per hour

10.9.25 The assessment has concluded that the effect on fear and intimidation caused by construction of the Proposed Development would be **'Not Significant'**.

Impact on Road Safety

10.9.26 IEMA guidance suggests the analysis of collision clusters for the purpose of determining road safety sensitivity. The collision cluster criterion is based on a defined number of

personal injury accidents (PIAs) occurring between 2019 – mid-2024 (inclusive) (see **Table 10.5**).

10.9.27 Whilst there are limitations to using a retrospective assessment, using this analysis to address cluster locations and identify possible common causes for potential mitigation is a useful application of accident analysis.

10.9.28 The number and severity of accidents recorded is provided in **Table 10.25**. No accidents have been recorded on this section of Glen Lonan Road.

Table 10.25: Number and Severity of Accidents Summary

Section	Slight	Serious	Fatal	Notes
Glen Lonan Road	0	0	0	No clusters identified as per the criteria in **Table 10.5**

10.9.29 The effect on road safety is summarised in **Table 10.26**

10.9.30 Table 10.24 based on the criteria in **Table 10.5**.

Table 10.26: Effect on Road Safety

Link description	Sensitivity	Magnitude of change	Significance of Effect	Notes
Glen Lonan Road	Medium	Negligible	Negligible (**Not Significant**)	No accidents recorded in the study period.

10.9.31 The assessment has concluded that the effect on road safety caused by construction of the Proposed Development would be '**Not Significant**'.

Impact of Hazardous/Abnormal Loads

10.9.32 The route from the Port of Corpach to the Proposed Development Site is considered suitable for the movement of assumed abnormal loads (wind turbine generator components – nacelles, tower sections, blades etc.), subject to the potential need for localized temporary works at junctions to facilitate movements. Any modifications to junction layouts would be confirmed through trial run and further surveys, and any modifications or works required to accommodate abnormal loads would be discussed with Transport Scotland and the necessary consents and permits would be obtained in advance of any works or delivery periods.

10.9.33 As part of this assessment, the estimated number and composition of loads has been clearly outlined in **Table 10.9** as per IEMA guidance.

10.9.34 Transportation of wind turbine generator components would lead to the following effects:

- The rolling closures of roads and footways causing temporary driver and pedestrian delay; and
- The perceived effect to pedestrians and vulnerable road users caused by the movement of large turbine components in proximity to property and infrastructure.

10.9.35 The severity of these impacts is considered as follows:

- Delays due to lane/road closures would be inevitable, although abnormal loads would be timed to avoid peak hours and, therefore, abnormal loads would have a temporary minor adverse effect; and
- The perceived effect to residents is subjective and it is possible that the transport of abnormal loads close to properties (e.g. through settlements such as Connel) could lead to local objection, fear and intimidation.

10.9.36 Deliveries of abnormal loads will be delivered to Site under police escort. Other large components would be moved in accordance with an agreed Construction Traffic Management Plan (CTMP). The abnormal loads must be delivered to the Site under controlled conditions and under suitable escort. The manner in which abnormal loads are transported along the public highway/Trunk Road network would be subject to the approval of Transport Scotland, A&BC, and Police Scotland in advance and would be planned to ensure road safety is not compromised.

10.9.37 The sensitivity of users of links used for AIL delivery is high, and the magnitude of impact, following additional mitigation, is **'Negligible'**. Therefore, in terms of hazardous and large loads, there is likely to be a temporary **'Minor adverse'** residual effect on users of links used for AIL delivery following the implementation of additional mitigation measures, which is considered to be **'Not Significant'**.

10.9.38 IEMA guidelines state that "The movement of large (abnormal) loads is regulated by National Highways and will be subject to separate agreement with the relevant highway authorities and police". The anticipated route of Abnormal Load transportation associated with this development is illustrated in **Figure 10.6**.

Cumulative Impacts

10.9.39 The cumulative assessment of Traffic and Transport effects only considers wind farms and other major development that are consented but not yet under construction and submitted but pending decision or at appeal. There is no potential for significant cumulative effects to occur from those wind farms which will be operational during the construction of the Proposed Development due to the minimal vehicle trips attributed to the operational phase of a development. Vehicle movements associated with wind farms and other major developments that are already operational will be captured within the baseline data.

10.9.40 Only developments where the construction period would coincide with the Proposed Development and would impact on the same Study Area (road network) as the Proposed Development have been included in the cumulative assessment.

10.9.41 If the construction of the Proposed Development coincided with another, using the same transport routes, then engagement will be undertaken with the other developers with the common aim to mitigate effects. This would be delivered through the Construction Traffic Management Plan (CTMP) (see **Section 10.10**).

A review of the Scottish Government's Energy Consents Unit (ECU) and A&BC portals was undertaken to identify any developments within the vicinity of the Proposed Development which would generate significant traffic. Details of the estimated construction vehicle trip generation, the affected road links and

construction programmes were extracted for each development from the relevant EIA Report chapter. A summary is provided in

10.9.42 Table 10.27

10.9.43 Using the criteria above, this assessment has identified one potential cumulative development located within 20 km of the Proposed Development Site that would overlap in study area and construction period with the Proposed Development.

10.9.44 Details of the estimated peak construction vehicle trip generation and affected road links were extracted from the relevant EIA Report Chapter. Combining these with the respective link flows from the Assessment of Effects provides the following cumulative assessment, summarised in **Table 10.28**.

Table 10.27: Cumulative Developments within 20 km

Cumulative Development	Planning reference	Number of turbines	Blade tip height	Approximate Distance from Proposed Development	Application Stage	Comments
Developments that are in planning / consented and are included in the Cumulative Assessment						
Corr Chnoc	ECU00006023	12	200 m	4.1 km	In Planning	Construction of this development is anticipated to begin in 2031 and take less than two years to complete. As construction of the Proposed Development is not anticipated to begin until 2032, this development has been included in the cumulative assessment.
Developments that are in planning / consented and are not included in the Cumulative Assessment						
Blarghour	EC00005267	14	180 m	11.5 km	Consented or Under Construction	As the development is already consented, and construction of the Proposed Development is not anticipated to begin until 2032, it is likely that the development will be completed prior to the timescales of the Proposed Development. This development is therefore excluded from the cumulative assessment.
Ladyfield Renewable Energy Park	ECU00003291	13	180 m	14.8 km	Consented or Under Construction	Construction of this development is anticipated to begin in 2026. As construction of the Proposed Development is not anticipated to begin until 2032, it is likely that the development will be completed prior to the timescales of the Proposed Development. This development is therefore excluded from the cumulative assessment.
An Carr Dubh	ECU00004781	13	180 m	12.8 km	In Planning	Construction of this development is anticipated to begin in 2027. As construction of the Proposed Development is not anticipated to begin until 2032, it is likely that the development will be completed prior to the timescales of the Proposed Development. Furthermore, the study area noted within the relevant transport chapter of the EIA does not overlap with that of the Proposed Devlopment. This development is therefore excluded from the cumulative assessment.

Cumulative Development	Planning reference	Number of turbines	Blade tip height	Approximate Distance from Proposed Development	Application Stage	Comments
Cruach Clenamacrie	ECU00004841	6	200m	4.1 km	In Planning	Construction of this development is anticipated to begin in 2030 and take less than two years to complete. As construction of the Proposed Development is not anticipated to begin until 2032, it is likely that the development will be completed prior to the timescales of the Proposed Development. This development is therefore excluded from the cumulative assessment.
Eredine	ECU00004517	22	200 m	18.3 km	In Planning	The study area of this development does not overlap with that of the Proposed Development. This development is therefore excluded from the cumulative assessment.
Developments in Screening/Scoping that are not included in the Cumulative Assessment						
Barachander	ECU00004865	11	180 m	2.4 km	In Scoping	As this development is only in scoping, traffic generation assumptions are not available. This development is therefore excluded from the cumulative assessment
Musdale	EC00005224	26	200 m	0.8 km	Withdrawn	As this development is only in scoping, traffic generation assumptions are not available. This application has also been withdrawn at the time of writing. This development is therefore excluded from the cumulative assessment.

Table 10.28: Cumulative Construction Trip Assessment

Link		Baseline 2032		Proposed Development		Corr Chnoc Wind Farm		Cumulative 2032		% Change	
Count ID	Description	Total	HGVs	Total	HGVs	Total	HGVs	Total	HGV	Total	HGV
74341 (2022)	A85(T) between A816 and A85(T) merge (Oban)	16041	226	85	35	101	95	16227	356	1%	58%
40771	A85(T) between A816 and A828	8703	274	50	0	146	95	8899	369	2%	35%
50797	A828 between A85(T) and B845 (On Connel Bridge)	5479	252	55	35	146	95	5680	382	4%	52%
80339	A85(T) between A828 and A819 (Taynuilt)	4851	336	65	35	18	5	4934	376	2%	12%

10.9.45 When considering the cumulative construction phase, both the total traffic and HGV traffic flows assessment results indicate a small increase on the links shared by the Proposed Development and Corr Chnoc Wind Farm. However, the highest impact is on A85(T) between A816 and A85(T) merge (Oban) which is predicted to experience a 58% increase in HGV traffic if the peak of construction occurred concurrently.

10.9.46 It should be noted that the construction period of a renewable development is transitory in nature and all impacts are short lived and temporary. Should the construction of committed developments take place at the same time as the Proposed Development, it would be mitigated through the use of an overarching Traffic Management Plan (TMP) for all of the Sites and by introducing a phased delivery plan which would be agreed with the relevant road authority, Police Scotland and other relevant stakeholders.

10.10 Mitigation

Construction Phase Mitigation

10.10.1 A CTMP would be in place to actively mitigate the effects as discussed above and an outline CTMP has been prepared at this stage and submitted as part of the Planning Application to outline the mitigation measures recommended during the construction stage. This is provided as **Volume 4, Technical Appendix 10.1.**

10.10.2 The following measures would be implemented through a CTMP during the construction phase. The CTMP would be agreed with A&BC prior to construction works commencing:

- Where possible, further detailed design processes would minimise the volume of material to be imported to Site to help reduce HGV numbers;
- A site worker transport and travel arrangement plan, including transport modes to and from the worksite (including pick up and drop off times);
- A Traffic Management Plan to control the operation of the access junctions;
- All materials delivery lorries (dry materials) should be sheeted to reduce dust and stop spillage on public roads;
- Specific training and disciplinary measures should be established to ensure the highest standards are maintained to prevent construction vehicles from carrying mud and debris onto the carriageway;
- Should there be evidence of this following the commencement of construction, suitable measures would be implemented within the Site to ensure deleterious materials are not transferred onto the highway;
- Road cleaning would take place if required to remove any deleterious materials that are carried from the Site;
- Normal Site working hours would be limited to between 07:00 and 19:00 (Monday to Sunday), though component delivery and turbine erection may take place outside these hours. Noise generating activities will be restricted at weekends. Working hours for construction works within 500 m of residential properties are prohibited by the CEMP, specifically 13:00-19:00 on Saturday and all-day Sunday;

- Provide construction updates on the project webSite and or a newsletter / social media to be distributed to residents within an agreed distance of the Site; and
- All drivers would be required to attend a detailed induction prior to undertaking any works on the Proposed Development Site.

10.10.3 Advance warning signs would be installed on the approaches to the affected road network. Information signage could be installed to help improve driver information and allow other road users to consider alternative routes or times for their journey (where such options exist).

10.10.4 The location and numbers of signs would be agreed post consent and would form part of the wider traffic management proposals for the Proposed Development.

10.10.5 Post-consent, the Applicant would establish a Community Liaison Forum, in collaboration with A&BC and local Community Councils. The forum would allow the community to be kept up to date with project progress and allow communication on the provision of transport-related mitigation and publicise the timings of turbine component deliveries. The Community Liaison Forum would be maintained until construction is complete and the Proposed Development is operational.

11.10.7 The Applicant would enter into a Section 96 (wear and tear) Agreement or a suitable alternative for the local adopted roads/routes to be used by construction vehicles. A pre-construction works inspection of the roads would be carried out with both parties in attendance with their condition recorded. Following completion of construction of the Proposed Development, a further inspection would be carried by both parties with repairs being agreed to return the roads to their pre-construction condition to be carried out in a timely manner for approval by the A&BC. Notwithstanding, the Applicant would carry out regular monitoring of the carriageway condition during the construction of the Proposed Development. Necessary repair works would be carried out in a timely manner to prevent further deterioration of the carriageway during the works. Priority would be given to any damage which would be dangerous to users of the road affected.

Abnormal Load Transport Management Plan

10.10.6 An ALTMP would be prepared to cater for all movements to and from the Proposed Development Site. This would include:

- Procedures for liaising with the emergency services to ensure that police, fire and ambulance vehicles are not impeded by the loads. This is normally undertaken by informing the emergency services of delivery times and dates and agreeing communication protocols and lay over areas to allow overtaking.
- A diary of proposed delivery movements to liaise with the communities to avoid key dates such as popular local events etc.
- A protocol for working with local businesses to ensure the construction traffic does not interfere with deliveries or normal business traffic.

10.10.7 Proposals to establish a Community Liaison Group to ensure the smooth management of the project / public interface with the Applicant, the construction contractors, the local community, and if appropriate, the police forming the committee. This committee would form a means of communicating and updating on forthcoming activities and dealing with any potential issues arising.

10.10.8 A police escort would be required to facilitate the delivery of the abnormal loads. The police escort would be further supplemented by a civilian pilot car to assist with the escort duty. It is proposed that an advance escort would warn oncoming vehicles ahead of the convoy, with one escort staying with the convoy at all times. The escorts and convoy would remain in radio contact at all times where possible.

10.10.9 The abnormal loads convoys would be no more than three abnormal load vehicles long, or as advised by the police, to permit safe transit along the delivery route and to allow limited overtaking opportunities for following traffic where it is safe to do so.

10.10.10 The times in which the convoys would travel would need to be agreed with Police Scotland who have sole discretion on when loads can be moved.

10.11 Summary of Effects

10.11.1 **Table 10.29** provides a summary comparing the significance of the effects during the construction period before and after the proposed mitigation.

Table 10.29: Summary of Pre/Post Mitigation Traffic and Transport

Potential Impact	Link	Pre-mitigation		Mitigation	Post-Mitigation Residual Effects	
		Effect	Significance		Effect	Significance
Severance of Communities	Glen Lonan Road	Moderate adverse	Significant	Traffic Management plan (TMP) for the movement of abnormal loads. Trial Run for abnormal loads prior to commencement of construction. Road condition survey (including assessment of existing structures as appropriate) prior to the commencement of construction and a similar assessment following completion of the works.	Negligible	Not Significant
Road Vehicle Driver & Passenger Delay	Glen Lonan Road	Minor adverse	Not Significant		Negligible	Not Significant
Non-Motorised User Delay	Glen Lonan Road	Moderate adverse	Significant		Negligible	Not Significant
Non-Motorised Amenity	Glen Lonan Road	Moderate adverse	Significant		Negligible	Not Significant
Fear & Intimidation	Glen Lonan Road	Negligible	Not Significant		Negligible	Not Significant

Potential Impact	Link	Pre-mitigation		Mitigation	Post-Mitigation Residual Effects	
		Effect	Significance		Effect	Significance
Road Safety	Glen Lonan Road	Negligible	Not Significant	Provision of information to local residents and users of amenities, to involve the community in the safe operation of the CTMP and to alleviate stress and anxiety. Good construction practices including wheel wash and careful loading.	Negligible	Not Significant
Hazardous/Large Loads	-	Major	Significant		Negligible	Not Significant

Residual Effects

10.11.2 Following implementation of the CTMP and ALTMP (the Plans) as mitigation measures, the following paragraphs assess the likely residual effects of increased traffic levels within the Study Area during construction of the Proposed Development.

10.11.3 The Plans will ensure that the volume of trips is minimised as much as possible and will include measures such as the recycling/reuse of materials on-Site where possible (e.g. excess aggregate) (see **Technical Appendix 2.1: Beinn Ghlas Outline Circular Decommissioning Strategy**). The Plans will ensure that there is signage along the construction routes to make residents and road users aware of the additional traffic and to provide the opportunity to plan accordingly.

10.11.4 The Plans will ensure that construction HGVs do not travel during peak periods or at the start/end of the school day and that they adhere to a lowered speed limit. Each of these measures will contribute to minimising the level of effect experienced by residents and road users along the routes within the Study Area.

10.11.5 It should be recognised that all effects associated with increased construction traffic will be temporary in nature and that this assessment has considered the reasonable worst-case possible impact at each location.

10.12 References

- Argyll and Bute Council (2024), 'Argyll and Bute Local Development Plan 2';
- Highlands and Island Transport Partnership (2024), 'HITRANS Regional Transport Strategy' Draft Regional Transport Strategy;
- Institute of Environmental Management and Assessment (IEMA) (2023), 'Guidelines for the Environmental Assessment of Traffic and Transport';
- Scottish Government (2023), 'National Planning Framework 4 (NPF4)';

- Standards for Highways (2015), ‘Volume 15 Economic Assessment of Road Schemes in Scotland, Section 1 The Nesa Manual’, Design Manual for Roads and Bridges (DMRB);
- Standards for Highways (2020), ‘LA104, Environmental assessment and monitoring’, Design Manual for Roads and Bridges (DMRB);
- Transport Scotland (2012) Transport Assessment Guidance;
- Transport Scotland (2020), ‘Scotland’s National Transport Strategy’; and
- Transport Scotland (2021), ‘Strategic Transport Projects Review 2’.