10 Traffic and Transport

10.1 Introduction

10.1.1 This chapter considers traffic and transport impacts and potential significant environmental effects resulting from the construction of the Proposed Development in accordance with the Institute of Environmental Management and Assessment (IEMA) Guidelines for Environmental Assessment of Traffic and Movement July 2023[1] and the scope agreed with Transport Scotland (TS). An assessment of operational and decommissioning impacts and effects has been scoped out, as agreed with TS.

10.1.2 The specific objectives of the Traffic and Transport chapter are to:

- identify the study area, and describe the current baseline context, road characteristics and traffic flows;
- describe the assessment methodology and significance criteria used to inform the assessment;
- describe the potential environmental effects;
- describe any mitigation measures proposed to address any likely significant effects;
- assess the residual effects following the implementation of any mitigation measures; and
- identify any cumulative effects.

10.1.3 This assessment has been carried out by Fraser Stewart, Kyle McKinnon and Carolyn Rollo, all of Meinhardt (UK) Ltd. Details of professional qualifications and experience are provided in Chapter 1.

10.1.4 This chapter is supported by:

- **Technical Appendix 10.1 Abnormal Loads Route Assessment**.

10.1.5 **Figure 2.7 Site Entrance**, **Figure 10.1 Traffic and Transport Study Area** and **Figure 10.2 Traffic Count Locations** should be read in conjunction with this chapter.

[1] Davis, S., Hoare, D., Howard, R., Ross, A. (2023). Institute of Environmental Management and Assessment (IEMA) Guidelines: Environmental Assessment of Road Traffic and Movement. IEMA.

10.2 Legislation, Policy and Guidance

10.2.1 The following policy and guidance has informed this chapter:

- National Planning Framework 4 (NPF4);
- TS: Transport Assessment Guidance (TAG);
- Argyll and Bute Local Development Plan 2;
- Design Manual for Roads and Bridges (DMRB); and
- IEMA Guidelines: Environmental Assessment of Traffic and Movement.

10.3 Consultation

10.3.1 **Table 10.1** presents comments received in the Scoping Opinion relating to traffic and transport. A response is provided to illustrate how consultee comments have been addressed as part of this chapter.

Table 10.1: Scoping Comments and Response

Consultee	Scoping Comment	Response to Consultee	Further EIA Consultation
TS	*Transport Scotland would request that the thresholds as indicated within these Guidelines [IEMA Guidelines: Environmental Assessment of Traffic and Movement July 2023] be used as a screening process for the assessment. These specify that road links should be taken forward for further assessment where the following two rules are breached:* *Rule 1: Include road links where traffic flows will increase by more than 30% (or the number of heavy goods vehicles will increase by more than 30%).* *Rule 2: Include road links of high sensitivity where traffic flows have increased by 10% or more.* *The SR [Scoping Report] indicates that base traffic data will be obtained from the Department for*	It can be confirmed that the methodology adopted in this assessment is the same as suggested by comments received from TS.	N/A

Consultee	Scoping Comment	Response to Consultee	Further EIA Consultation
	Transport (DfT) website. Transport Scotland would add that an alternative source of traffic data is Traffic Scotland's National Traffic Data System. It should also be noted that base traffic should be factored to the peak construction year using National Road Traffic Forecasts (NRTF) Low Growth Factors"[2].		
Argyll and Bute Council	No Comments Received	N/A	N/A

10.4 Methodology

General

10.4.1 The methodology detailed in the Chartered Institution of Highways and Transportation's (IHT) 'Guidelines for Traffic Impact Assessments' (IHT, 1994)[3], recommends that the environmental impact of the traffic generated by a proposed development should be assessed taking cognisance of the Institute of Environmental Assessment (IEA), now Institute of Environmental Management and Assessment (IEMA) with an updated Guidance document titled 'Environmental Assessment of Traffic and Movement'[4] published in July 2023. This forms the basis for the assessment included in this chapter, hereafter referred to as IEMA Guidelines.

[2] Scoping Opinion Response from Transport Scotland. Dated 18/03/2024.
[3] Brooks, A. et al. (1993). Guidelines for the Environmental Assessment of Road Traffic. Institute of Environmental Assessment.
[4] Davis, S., Hoare, D., Howard, R., Ross, A. (2023). Institute of Environmental Management and Assessment (IEMA) Guidelines: Environmental Assessment of Road Traffic and Movement. IEMA.

10.4.2 The IEMA Guidelines do not apply specifically to temporary traffic movements associated with construction, however, have been adopted for the purposes of this assessment. The assessment methods employed in this chapter conform with those set out in the IMEA Guidelines and therefore focus on:

- potential impacts on local roads and the users of those roads; and
- potential impacts on land uses and environmental resources fronting those roads, including the relevant occupiers and users.

10.4.3 The IEMA Guidelines state that the perceptible impact of changes in traffic flow on the environment is less sensitive than changes in traffic flow at junctions on the surrounding network. The Guidelines suggest that the following criteria are adopted to assess whether public road links are to be the subject of environmental assessment:

- "*Rule 1 – Include highway links where traffic flows will increase by more than 30% (or the number of heavy goods vehicles will increase by more than 30%)*"; and
- "*Rule 2 – include highway links of high sensitivity where traffic flows have increased by 10% or more*".

10.4.4 The IEMA Guidelines state that projected changes in traffic of less than 10% over the course of a day creates no discernible environmental impact, given that daily variations in background traffic flow may fluctuate by this amount, and that a 30% change in traffic flow represents a reasonable threshold for including a public road link within the assessment. Although construction traffic movements are temporary in duration, an increase in traffic could adversely affect the users of road links, and the land uses that front them, including the relevant occupiers and users. Consequently, the receptors that have been assessed are the public road links which would be used by Proposed Development construction traffic.

Scope of Assessment

10.4.5 As defined by the IEMA Guidelines the scope of the assessment is therefore concerned with public road links which Proposed Development construction traffic is anticipated to use to access and egress the site. These road links are summarised as follows, with the study area, as agreed with TS, described in more detail in the following paragraphs and shown in **Figure 10.1**:

- abnormal loads are expected to travel from Campbeltown Harbour northwards along the A83 trunk road (T), please refer to Technical **Appendix 10.1**;
- other construction traffic (non-abnormal loads) would arrive to the site from the A83 (T), however may come from either a northerly or southerly direction; and
- all traffic entering the site would use the proposed site entrance shown in **Figure 2.7**. Abnormal loads would be required to utilise proposed turning area to the west of the A83.

10.4.6 In accordance with IEMA Guidelines, the following environmental effects related to traffic and transport are to be considered on public road links where a full assessment of effects is warranted e.g. where the anticipated change in traffic flow exceeds Rule 1 or 2 thresholds:

- severance;
- driver delay;
- pedestrian delay and amenity;
- fear and intimidation;
- road safety; and
- dust and dirt.

10.4.7 IEMA Guidelines identify a list of potential sensitive receptors which should be accounted for in the process of any assessment. This list includes:

- people at home;
- people at work;
- sensitive and/or vulnerable groups;
- locations with concentrations of vulnerable users (hospitals, places of worship, schools);
- retail areas;
- recreational areas;
- tourist attractions;
- collision clusters; and
- junctions and highway links at or over capacity.

Baseline Characterisation

Desk Study / Field Survey

10.4.8 A desk-based study and field survey (undertaken on 9th June 2023) has been undertaken which focuses on the public road network in the vicinity of the site.

Study Area

10.4.9 The study area for the assessment of traffic and transport effects has been identified considering the assessment thresholds set within the IEMA Guidelines.

10.4.10 There are two potential access routes to site for general construction vehicles. These include the A83 (T) south of the site to Campbeltown, the A83 truck road (T) north of the site through Lochgilphead and east towards Tarbet. From Lochgilphead, the A816 branches off the A83 (T) travelling north to Kintraw, and could also be utilised by general construction traffic.

10.4.11 Abnormal loads vehicles accessing the site will travel from Campbeltown Harbour along the A83 (T) and use an area at Machrihanish Airbase for temporary storage, before continuing to travel north along the A83 (T) towards the site access where they would use the proposed turning area to assist with the right turn manoeuvre required to enter the site.

10.4.12 The traffic and transport study area is defined as:

- A83 (T) between Campbeltown and Lochgilphead: This section of the A83 (T) is single carriageway with one lane in each direction. Land use along this stretch of road is primarily agricultural land and commercial forestry, with a number of residential properties. Sensitive receptors along this road include Muasdale Surgery and Rhunahaorine Primary School. Between Campbeltown and the site, the A83 (T) would be required to accommodate abnormal loads and general construction traffic, with no abnormal loads expected to approach the site from the north;
- A83 (T) east of Lochgilphead to Tarbet: This section of the A83 (T) is single carriageway with one lane in each direction. Land use along this stretch of road includes commercial forestry and agricultural land, with a number of residential properties. Sensitive receptors along this road include the Lochgilphead Free Church of Scotland and Lochgilphead Joint Campus school. This section of the A83 (T) would be required to accommodate general construction traffic only; and
- A816 between its junction with the A83 (T) at Lochgilphead north to Kintraw: This section of the A816 is single carriageway with one lane in each direction. Land use along this stretch of road includes commercial forestry and agricultural land, with a number of residential properties. This section of the A816 would be required to accommodate general construction traffic only.

10.4.13 The study area is shown in **Figure 10.1**.

Sensitivity Criteria

10.4.14 The assessment methodology in this chapter is based on that set out in Chapter 4 of this EIA Report, however is adjusted to take account of the specific guidance and standards for assessments relating to traffic and transport.

10.4.15 Receptors are locations or land uses categorised by their degree of sensitivity (or Environmental Value) with guidance provided in the DMRB, LA 104 Revision 1 (DMRB, 2020)[5].

[5] DMRB. (2020). LA 104 – Environmental Assessment and Monitoring. Highways England.

10.4.16 **Table 10.2** provides the guidance used in this assessment to quantify the sensitivity of the receptors to the effect of the predicted traffic associated with the construction of the Proposed Development.

Table 10.2: Sensitivity of Receptors

Sensitivity	Receptor Description
Very High	Nationally or internationally important site with special sensitivity to increase in road traffic.
High	Regionally important site with special sensitivity to increases in road traffic.
Medium	Residential (with frontage onto road under consideration), educational, healthcare, leisure, public open space or town centre / local centre land use.
Low	Employment or out of town retail land use, such as retail park.
Negligible	No adjacent settlements.

10.4.17 On the basis of the criteria set out in **Table 10.2**, and the list of potential sensitive user groups listed within the IEMA Guidelines, the A83 (T) and A816 are considered to have sensitivity levels corresponding to a Medium level of sensitivity, with a number of sensitive receptors along each road.

Magnitude of Impact

10.4.18 In terms of magnitude of impact (or magnitude of change), the IEMA Guidelines point to changes (increases) in traffic in excess of 30%, 60% and 90% as being representative of 'Low', 'Medium' and 'High' impacts respectively. The categories shown in **Table 10.3** reflect IEMA Guidelines and have been used in this assessment to quantify the magnitude of impact of the predicted traffic associated with the Proposed Development.

Table 10.3: Magnitude of Change/Impact

Magnitude	Description
High	Considerable deterioration/improvement in local conditions or circumstances (>90% increase in traffic)
Medium	Readily apparent change in conditions or circumstances (60 – 90% increase in traffic)
Low	Perceptible change in conditions or circumstances (30 – 60% increase in traffic)
Negligible	Very small change in conditions or circumstances (<30% increase in traffic)

10.4.19 Where existing traffic levels are exceptionally low (for example, on unclassified roads), any increase in traffic flow is likely to result in a predicted increase in traffic levels which exceeds these thresholds. Where this situation presents itself, it is important to consider any increase both in terms of its relative increase in respect of existing traffic flows, as well as the overall total flow in respect to the available capacity of the section of road being considered.

10.4.20 The number of abnormal load deliveries anticipated for the Proposed Development is low in terms of traffic volumes, when compared to the baseline traffic flows on the delivery route (see **Table 10.11**). However, the movement of abnormal loads on the road network can sometimes result in other road users being held at junctions since the largest vehicles may be slow moving or require the use of the full carriageway at sections along the route. It is also acknowledged that abnormal load movements can have the potential to impact upon pedestrians and other vulnerable road users due to their size. The identification of the magnitude of impact as a result of the movement of abnormal loads on the delivery route is assigned on a qualitative basis, using professional judgment rather than numerical thresholds.

Significance Criteria

10.4.21 The significance of each effect is considered against the criteria within the IEMA Guidelines where possible, and also DMRB LA 104 Revision 1 (DMRB, 2020). The IEMA Guidelines state that *"for many effects there are no simple rules or formulae which define the thresholds of significance and there is, therefore, a need for interpretation and judgement on the part of the assessor, backed-up by data or quantified information wherever possible. Such judgements will include the assessment of the numbers of people experiencing a change in environmental impact as well as the assessment of the damage to various natural resources."*

10.4.22 The assessment of the significance of the effect of traffic changes along the identified study routes as a result of the construction of the Proposed Development should have regard to both the magnitude of the traffic increase (change / impact) and the receptor's environmental value (sensitivity). The level of significance can be determined from the matrix in **Table 10.4** (based upon the guidance given in DMRB LA104 Revision 1 (DMRB, 2020)).

10.4.23 Any combination of magnitude of change and sensitivity of receptor which results in a significance of Moderate or greater is considered to be Significant and require mitigation to resolve. Any combination which results in a significance of Minor or lower is considered to be Not Significant, and does not require any mitigation.

Table 10.4: Approach to Significance of Effects

Magnitude of Change / Impact	Sensitivity of Receptor				
	Very High	High	Medium	Low	Negligible
High	Major	Major	Moderate	Moderate	Minor
Medium	Major	Moderate	Moderate	Minor	Negligible
Low	Moderate	Moderate	Minor	Negligible	Negligible
Negligible	Minor	Minor	Negligible	Negligible	Negligible

10.5 Baseline

Current Baseline

General

10.5.1 The study area includes the public road links which would be used by construction traffic to access and egress the site and the following sensitive receptors:

A83 (T)

10.5.2 The A83 (T) forms part of the strategic trunk road network running from Campbeltown at the southern end of the Kintyre peninsula to Tarbet on the western shore of Loch Lomond, passing through Kennacraig, Tarbert, Lochgilphead and Inveraray.

10.5.3 The A83 (T) is a single carriageway road with an approximate width of 7.3m, The A83 (T) is of a good condition and geometric standard in the vicinity of the site access. The speed limit of the road varies depending on the location, between National Speed Limit (60mph) and 30mph through settlements. No formal cycleways or footways are provided however, footways of approximately 2m width and street lighting are provided within settlements such as Tarbert and Lochgilphead.

10.5.4 The Caledonia Way cycle route travels along short sections of the A83 (T) with no formal infrastructure provided. No formal crossing infrastructure for pedestrians or cyclists exists out with the town/village centres of Campbeltown, Tarbert and Lochgilphead, although there is limited requirement to cross the A83 (T) in rural environments. Crossing facilities in the town/village centres are provided in the form of dropped kerbs and tactile paving,

10.5.5 For a 'Rural-good single 7.3m' road which this section of A83 (T) would be considered as, DMRB states the approximate two-way capacity of such a link as 28,800 vehicles in a 12-hour period.

10.5.6 There are a number of bus stops along the A83 (T) which are served by the following bus routes:

- Citylink – 926 travelling between Campbeltown and Glasgow; and
- West Coast Motors – 23, 421, 422, 423, 425 and 448. These routes provide local services operating from Campbeltown, Ardrishaig, Lochgilphead, Crinan and Oban.

10.5.7 All construction related traffic (abnormal loads, construction HGVs and staff vehicles) would utilise sections of the A83 (T) to reach the site access (north and south of the site), however abnormal loads would approach from the south only (from Campbeltown Harbour) and utilise the proposed turning area, shown in **Figure 2.7**, to access the site.

10.5.8 Key sensitive receptors along the A83 (T) include:

- Glenbarr Primary School;
- Muasdale Surgery;
- Rhunahaorine Primary School;
- Tarbert Parish Church;
- Ardrishaig Parish Church;
- Lochgilphead Free Church of Scotland; and
- Lochgilphead Joint Campus School.

A816

10.5.9 The A816 is a single carriageway road of good condition and geometric standard, travelling in a generally north to south direction between Lochgilphead and Oban. The road passes through a number of small settlements but is generally rural in nature and has no properties with direct frontage within the study area.

10.5.10 For a 'Rural-good single 7.3' road which this section of A816 would be considered as, DMRB states the approximate two-way capacity of such a link as 28,800 vehicles in a 12-hour period.

10.5.11 The Caledonia Way cycle route travels along short sections of the A816, however, no formal infrastructure for cyclists is provided.

10.5.12 There are a number of bus stops along the A816 which are served by the following bus routes:

- West Coast Motors – 23, 421, 422, 423, 425 and 448. These routes provide local services operating from Campbeltown, Ardrishaig, Lochgilphead, Crinan and Oban.

10.5.13 It is envisaged that a proportion of construction traffic (construction vehicles) will utilise the A816 as part of their journey to reach the site access.

Traffic Counts

10.5.14 Baseline traffic flow data for the A83 (T), and A816 was obtained from the Department for Transport's (DfT) online database which includes data for both trunk and local authority-maintained roads.

10.5.15 **Table 10.5** indicates the baseline two-way Average Annual Daily Traffic Flows (AADT) along routes within the study area, and the percentage of traffic which is classified as Heavy Goods Vehicles (HGVs).

10.5.16 Baseline traffic counts are shown in **Table 10.5**. Traffic count locations are shown in **Figure 10.2**.

Table 10.5: Baseline Traffic Counts

Counter No. / Location	DfT ID	2022 Baseline AADT	2022 Baseline HGV	% HGV
1. A83 (T) South of Inveraray	10765	2,937	282	10%
2. A83 (T) at Minard	40768	2,650	272	10%
3. A83 (T) at Lochgilphead	20772	6,079	215	4%
4. A816 North of B840	792	1,408	90	6%
5. A816 South of Kilmartin	30797	1,948	153	8%
6. A816 North of Lochgilphead	80392	4,342	281	6%
7. A83 (T) South of B8024	80363	2,867	274	10%
8. A83 (T) South of Tarbert	10844	2,399	243	10%
9. A83 (T) North of Campbeltown	91292	2,619	131	5%

Source: DfT Website[6]

Road Safety

10.5.17 The Crashmap website[7] has been utilised to determine the number of accidents that have occurred in the previous five years (2018–2022) within the study area. The results of this investigation are indicated by **Table 10.6** with additional commentary provided on serious and fatal accidents if applicable. Accidents have been attributed to the nearest counter location with a section of road assigned to each counter.

[6] https://roadtraffic.dft.gov.uk/
[7] https://www.crashmap.co.uk/

Table 10.6: Road Accident Statistics

Counter No. / Location	Road Length	Slight	Serious	Fatal	Comment
1. A83 (T) South of Inveraray	10km	3	-	-	No serious accidents occurred on this section of road.
2. A83 (T) at Minard	18km	6	2	2	The two fatal accidents occurred in 2018 and 2020, near Middle Kames approximately 10km east of Lochgilphead. Serious accidents were dispersed along this section of the route with no hotspots identified.
3. A83 (T) at Lochgilphead	14km	6	4	-	No fatal accidents occurred on this section of road. Two serious accidents occurred at/near the A83 (T) / Kilmory Castle roundabout.
4. A816 North of B840	4km	-	3	1	A fatal accident occurred in 2021 approximately 1.5km north of the A816 / B840 junction. Serious accidents were dispersed along this section of the route with no hotspots identified.
5. A816 South of Kilmartin	6km	1	2	-	No fatal accidents occurred on this section of road. Serious accidents were dispersed along this section of the route with no hotspots identified.
6. A816 North of Lochgilphead	7km	6	2	-	No fatal accidents occurred on this section of road. One serious and four slight accidents occurred at/near the A816 / B841 junction.
7. A83 (T) South of B8024	12km	8	4	-	No fatal accidents occurred on this section of road. Serious accidents were dispersed along this section of the route with no hotspots identified.
8. A83 (T) South of Tarbert	35km	12	8	1	A fatal accident occurred in 2021, north of Tarbert.

Counter No. / Location	Road Length	Slight	Serious	Fatal	Comment
					7 of the serious accidents were recorded between Tarbert and Kennacraig, a 8km section of the road.
9. A83 (T) North of Campbeltown	29km	7	6	1	A fatal accident occurred in 2018, at an access track in Muasdale. Serious accidents were dispersed along this section of the route with no hotspots identified.

10.5.18 **Table 10.6** indicates that 49 slight, 31 serious and five fatal accidents occurred within the study area between 2018 and 2022. A review of the data demonstrates that there does not appear to be any accident 'hot spots' within the study area which would warrant special consideration as part of this assessment.

Future Baseline

Traffic Counts

10.5.19 If the Proposed Development was not implemented then it is likely that there would be no significant changes to the traffic and transport situation in the vicinity of the site, other than changes to background traffic. To account for this uplift, as agreed with TS, the National Road Traffic Forecast (NRTF) 'low growth' rate has been applied to the latest available baseline data (shown in **Table 10.5**) at each count location to represent 2028 projected flows which reflect the peak expected construction year.

10.5.20 Estimated 2028 future baseline traffic flows are demonstrated in **Table 10.7**.

Table 10.7: Projected Future Traffic Flows

Counter No. / Location	DfT ID	2028 Projected AADT	2028 Projected HGV	% HGV
1. A83 (T) South of Inveraray	10765	3,028	291	10%
2. A83 (T) at Minard	40768	2,732	280	10%
3. A83 (T) at Lochgilphead	20772	6,267	222	4%
4. A816 North of B840	792	1,452	93	6%
5. A816 South of Kilmartin	30797	2,008	158	8%
6. A816 North of Lochgilphead	80392	4,477	290	6%
7. A83 (T) South of B8024	80363	2,956	282	10%
8. A83 (T) South of Tarbert	10844	2,473	251	10%
9. A83 (T) North of Campbeltown	91292	2,700	135	5%

10.6 Assessment of Potential Effects

Construction Effects

Construction Traffic

10.6.1 The estimated construction programme is 15 months and subject to consent could commence in 2028.

10.6.2 The construction traffic associated with the Proposed Development would comprise of construction staff, HGVs / light goods vehicles (LGVs) carrying construction materials and plant, and abnormal load vehicles carrying the main wind turbine components.

10.6.3 There is expected to be approximately 20 construction staff working on-site at any one time. All staff are anticipated to access the site by private car. It is important to note that the number of personnel on-site would vary during the construction programme. In general, working hours are expected to be between 07:00 to 19:00 on weekdays, and 07:00 – 13:00 on Saturdays and bank holidays. Staff would generally be expected to arrive and depart the site outside the typical peak hours associated with the surrounding road network (typically 08:00 to 09:00, and 17:00 to 18:00).

10.6.4 Turbine delivery, erection and commissioning activities would likely take place outwith these hours depending on weather conditions.

10.6.5 Estimates of traffic generation associated with the construction phase of the Proposed Development have been calculated from first principles and consider the following activities:

- mobilisation;
- construction of site entrance and access tracks;
- crane hardstands;
- wind turbine foundations;
- substation;
- cable installation;
- turbine deliveries;
- turbine erection; and
- operational take-over.

10.6.6 In order to calculate a robust scenario, information was provided by the applicant regarding the materials required and the size of the average loads associated with construction vehicles, excluding staff vehicles. **Table 10.8** includes an estimate of construction vehicles required for each task during the construction period.

Table 10.8: Estimated Number of Goods Vehicle Trips During Construction

Construction Task	Vehicle Type	Approximate No. of Loads
Site Establishment	LGVs, Low Loader and Dump Truck	90
General Site Deliveries	LGVs, Low Loader and Dump Truck	123
Forestry Removal	Articulated Low Loader	400
Imported Stone	Dump Truck	3,080
Reinforcement	Low Loader	20
Foundations	Concrete Wagon	937
Cabling Deliveries	Low Loader	308
Geotextile Separators	Low Loader	113
Delivery of HV Electrical Items	Dump Truck	22
Construction of Sub-station	Various	147
Cranes and Lifting Equipment	Crane Vehicle	26
Erection of Turbines	Abnormal Loads	96
Site Reinstatement	Various	45
Total (One-way trips)		5,211
Total (Two-way trips)		10,422

10.6.7 It is envisaged that construction of the Proposed Development would take approximately 15 months to complete. Using an indicative construction programme provided, the number of HGV deliveries anticipated at the site for each month of the programme is illustrated in **Table 10.9**. To provide a worst case all vehicles, other than staff vehicles are presumed to be HGVs.

Table 10.9: Estimated Number of Goods Vehicle Trips per Month of Construction Programme

Task	Month															Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Site Establishment	45	45														90
General Site Deliveries	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	120
Forestry Removal	100	100	100	100												400
Imported Stone	245	405	405	405	405	405	405	405								3080
Reinforcement					4	3	3	3	3	3						19
Foundations					133	133	133	133	133	133	137					935
Cabling Deliveries										77	77	77	77			308
Geotextile Separators								38	38	38						114
Delivery of HV Electrical Items										7	7	7				21
Construction of Sub-station			16	16	16	16	16	16	16	16	16					144
Cranes and Lifting Equipment								13			13					26
Erection of Turbines								16	16	16	16	16	14			94
Site Reinstatement												45				45
Total (One-way trips)	**398**	**558**	**529**	**529**	**566**	**565**	**565**	**632**	**214**	**298**	**274**	**153**	**99**	**8**	**8**	**5396**
Total (Two-way trips)	**796**	**1116**	**1058**	**1058**	**1132**	**1130**	**1130**	**1265**	**428**	**596**	**548**	**306**	**198**	**16**	**16**	**10792**

10.6.8 The construction site may be operational for 12 hours every weekday (07:00–19:00) and 6 hours on a Saturday (07:00–13:00), which equates to a 5.5 day working week. Construction vehicles, except abnormal loads, would be arriving and departing the site at regular intervals during the envisaged working hours.

10.6.9 **Table 10.9** indicates that Month 8 would be the worst-case month in terms of the number of construction vehicles accessing the site, with 1,265 two-way HGV movements. Assuming on average 4 weeks per month, this equates to 316 two-way HGV movements per week.

10.6.10 Assuming a 5.5 day working week, the daily HGV trip generation for Month 8 of the construction programme would equate to 57 two-way movements or approximately 5 two-way HGV movements per hour over the course of 12 hour working day.

10.6.11 It is important to note that this represents a small number of trips over a temporary construction period, however the significance of the traffic impact will be assessed in the following sections in accordance with the IEMA Guidelines.

10.6.12 In addition to the estimated HGV movements, there is approximately 20 personnel expected to be on-site at any one time. A maximum of 40 two-way vehicle movements per day (non-HGV) has been assumed for the purposes of this assessment, representing a robust scenario with all construction personnel choosing to drive individually to site.

10.6.13 Additional detail on the abnormal loads vehicles that will be accessing the site is provided in the Abnormal Loads Route Appraisal (ALRA) document (**Technical Appendix 10.1**).

Impact of Construction Traffic

10.6.14 In order to assess the impact of construction traffic, it is necessary to determine the distribution of generated trips. As the origin of personnel and construction materials has not yet been identified, the following assumptions have been made for the purposes of the assessment:

- 80% of vehicles route between the site access and Campbeltown along the A83 (T);
- 80% of vehicles route between the site access and Tarbet, through Lochgilphead along the A83 (T); and
- 40% of vehicles route between Lochgilphead and Kintraw, along the A816.

10.6.15 The above assumptions are theoretical only, and represent a robust assessment of each road link as if 80% of construction traffic approached from the north of the site (from Lochgilphead), only 20% of traffic could approach from the south (from Campbeltown) and vice versa.

10.6.16 **Table 10.10** indicates the proportion and number of daily two-way construction vehicles and HGVs specifically that have been distributed across each counter location within the study area during the assessed worst-case month of the construction programme.

Table 10.10: Construction Traffic Distribution

Counter No. / Location	% Distribution	No. of Daily Two-way Vehicle Trips	No. of Daily Two-way HGV Trips
1. A83 (T) South of Inveraray	80%	78	46
2. A83 (T) at Minard	80%	78	46
3. A83 (T) at Lochgilphead	80%	78	46
4. A816 North of B840	40%	39	23
5. A816 South of Kilmartin	40%	39	23
6. A816 North of Lochgilphead	40%	39	23
7. A83 (T) South of B8024	80%	78	46
8. A83 (T) South of Tarbert	80%	78	46
9. A83 (T) North of Campbeltown	80%	78	46

10.6.17 **Table 10.11** details the percentage increases in daily total and HGV only traffic associated with the construction of the Proposed Development across the public roads within the study area, during the worst-case month of the construction programme.

Table 10.11: Construction Traffic Impact on Routes Within Study Area

Counter No. / Location	2028 Projected AADT	2028 Projected HGV	Month 8 Total Traffic	% Increase	Month 8 HGV Traffic	% Increase
1. A83 (T) South of Inveraray	3,028	291	78	3%	46	16%
2. A83 (T) at Minard	2,732	280	78	3%	46	16%
3. A83 (T) at Lochgilphead	6,267	222	78	1%	46	21%
4. A816 North of B840	1,452	93	39	3%	23	25%
5. A816 South of Kilmartin	2,008	158	39	2%	23	15%
6. A816 North of Lochgilphead	4,477	290	39	1%	23	8%
7. A83 (T) South of B8024	2,956	282	78	3%	46	16%
8. A83 (T) South of Tarbert	2,473	251	78	3%	46	18%
9. A83 (T) North of Campbeltown	2,700	135	78	3%	46	34%

10.6.18 As stated previously, IEMA Guidelines Rules 1 and 2 are used as thresholds to determine road links within the study area which require a full assessment of effects in relation to an increase in traffic flows. Due to a number of sensitive receptors along the A83 (T) and A816, all counter locations have been considered to be subject to Rule 2 whereby an increase in total traffic of 10% or greater, or an increase in HGVs of 30% or greater triggers the requirement for a full assessment into the likely environmental effects.

10.6.19 **Table 10.11** indicates that at Counter Locations 1 to 8 the construction traffic generated by the Proposed Development (staff movements and HGVs) would increase total traffic levels by between 1%–3%, and HGV levels by between 8%–25%. Given that both the increases in total traffic and HGV only levels are both below the IEMA Guidelines threshold for roads with sensitive receptors, a full assessment of effects is not required at these locations as the magnitude of traffic impact is negligible.

10.6.20 **Table 10.11** indicates that at Counter Location 9 (A83 (T) North of Campbeltown), total traffic levels would increase by 3%, and HGV levels would increase by 34% during the worst-case month of the construction programme of the Proposed Development. The increase in total traffic would be considered as Negligible, however, the increase in HGV levels at this Counter Location exceeds the 30% traffic increase threshold set by the IEMA Guidelines. This triggers the need for a detailed assessment of effects along this section of the A83 (T).

10.6.21 The environmental effects identified in the IEMA Guidelines for HGVs are addressed in the following section, for the road section of the A83 (T) between the site access and Campbeltown.

Severance

10.6.22 The IEMA Guidelines advise that *"severance is the perceived division that can occur within a community when it becomes separated by major transport infrastructure"*. The IEMA Guidelines recognise that specific measurement or prediction of severance can be extremely difficult, given there is no simple formula to predict the relationship between traffic and severance.

10.6.23 The potential for construction traffic associated with the Proposed Development to cause severance is assessed on a case-by-case basis using professional judgement, whilst paying regards to the local conditions such as sensitivity of nearby land uses, prevalence of vulnerable users, and availability of crossing facilities.

10.6.24 Increased severance can result in the isolation of areas of a settlement or individual properties, caused by the increased difficulty of crossing a heavily trafficked road, or a physical barrier caused by the road itself.

10.6.25 The sensitivity of the majority of the section of the A83 (T) between the site and Campbeltown to changes in HGV levels would be considered as Negligible for severance as there are, for the most part, very few isolated properties along this section of road, with limited existing need to be able to cross the road. Within Campbeltown, the sensitivity would increase to Medium considering the town centre environment with no controlled crossings provided along the road.

10.6.26 With reference to **Table 10.3**, the magnitude of change in HGV traffic at Counter Location 9 on the A83 (T) is considered to be Low, as the increase of HGVs is between 30% and 60%.

10.6.27 When the worst-case Medium sensitivity of receptor along the section of the A83 (T) between the site and Campbeltown is combined with the Low magnitude of effect, in accordance with **Table 10.4**, it can be concluded that there would be a Minor severance effect along this section of road. This is considered **Not Significant** in accordance with EIA Regulations.

Driver Delay

10.6.28 Delays to non-development traffic can occur at several points on the surrounding network including:

- At the site entrance from the A83 (T) where there would be additional turning movements;
- At other key junctions along the road which might be affected by increased traffic; and
- At side roads where the ability to find gaps in the traffic may be reduced.

10.6.29 The IEMA Guidelines suggest that *"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."*. There are no known existing areas of congestion with the study area surrounding the site.

10.6.30 For a 'Rural-good single 7.3m' road which this section of A83 (T) would be considered as, DMRB states the approximate two-way capacity of such a link as 28,800 vehicles in a 12-hour period. As referenced in **Table 10.11**, the AADT at Counter Location 9 is 2,700 vehicles, with an additional 78 two-way construction related vehicles expected per day during the worst-case month of the construction programme. It would therefore be considered that the road link has significant residual capacity.

10.6.31 The sensitivity of the A83 (T) between the site and Campbeltown would be considered to be Low for driver delay, as the majority of the road is rural in nature, and as demonstrated is not close to capacity.

10.6.32 With reference to **Table 10.3**, the magnitude of change in HGV traffic at Counter Location 9 on the A83 (T) is considered to be Low, as the increase of HGVs is between 30% and 60%. It is also noted that this section of A83 (T) is relatively light trafficked with regards to existing HGV levels (135 two-way HGVs per day). Assuming that the Proposed Development would generate an additional 46 two-way HGV movements along this section of road during the worst-case month of the construction programme, this would equate to approximately 4 HGVs per hour.

10.6.33 When the Low sensitivity of receptor along the section of the A83 (T) between the site and Campbeltown is combined with the Low magnitude of effect, in accordance with **Table 10.4**, it can be concluded that there will be a Negligible driver delay effect along this section of road. This is considered **Not Significant** in accordance with EIA Regulations.

Pedestrian Delay and Amenity

10.6.34 Pedestrian delay and severance can be considered as closely related, as in general, higher levels of traffic are likely to lead to greater increases in delay to cross the road. Delays can also depend on general level of pedestrian activity and visibility.

10.6.35 IEMA Guidelines suggest that *"given the range of local factors and conditions that can influence pedestrian delay…it is not considered wise to set down definitive thresholds"*.

10.6.36 Similarly, as discussed in regards to severance, the sensitivity of the majority of the section of the A83 (T) between the site and Campbeltown to changes in HGV levels would be considered as Negligible for pedestrian delay due to the few isolated properties along the road and limited requirement to cross the road. Within Campbeltown however, the sensitivity would increase to Medium considering the town centre environment with no controlled crossings provided along the road.

10.6.37 With reference to **Table 10.3**, the magnitude of change in HGV traffic at Counter Location 9 on the A83 (T) is considered to be Low, as the increase of HGVs is between 30% and 60%.

10.6.38 When the worst-case Medium sensitivity of receptor along the section of the A83 (T) between the site and Campbeltown is combined with the Low magnitude of effect, in accordance with **Table 10.4**, it can be concluded that there will be a Minor pedestrian delay effect along this section of road. This is considered **Not Significant** in accordance with EIA Regulations.

Fear and Intimidation

10.6.39 The IEMA Guidelines suggest that the extent of fear and intimidation from construction vehicles towards members of the public includes:

- total volume of traffic;
- the heavy vehicle composition;
- the speed at which the vehicles are passing; and
- the proximity of traffic to people.

10.6.40 The Guidelines recognise that *"there are no commonly agreed thresholds for estimating these levels of danger"*. The Guidelines therefore suggest that a study (Crompton and Gilbert, 1976) which defines degree of hazard by average traffic flow, daily HGV traffic flow, and average speed in miles per hour. A 'Degree of Hazard' score is then assigned to each attribute. **Table 10.12** illustrates the methodology for this assessment.

Table 10.12: Fear and Intimidation – Degree of Hazard

Degree of Hazard Score	Average Two-way Hourly Flow of All Traffic	Total 18 Hour HGV Traffic Flow	Average Vehicle Speed (mph)
30	>1,800	>3,000	>40
20	1,200-1,800	2,000-3,000	30-40
10	600-1,200	1,000-2,000	20-30
0	<600	<1,000	<20

10.6.41 The total score from each of the three elements is then combined to provide a "level" of fear and intimidation, which is then grouped into the following terms:

- >71 = Extreme;
- 41-70 = Great;
- 21-40 = Moderate; and
- <21 = Small.

10.6.42 In regards to EIA Regulations, the score/term attributed to the section of road before and after the Proposed Development's construction traffic has been considered is then compared. The determination of the magnitude of impact is then indicated by **Table 10.13**.

Table 10.13: Fear and Intimidation – Magnitude of Impact

Magnitude of Impact	Change in step/level from Baseline Conditions
High	Two step change in level
Medium	One step change in level, but with either >400 vehicle hourly increase or >500 HGV daily increase.
Low	One step change in level, but with <400 vehicle hourly increase and <500 HGV daily increase.
Negligible	No step change in level

10.6.43 In regards to this assessment, the section of the A83 (T) between the site and Campbeltown can be summarised as the following:

- Average two-way flow of All Traffic – AADT of the section of road is 2,700 in projected baseline conditions, and increases to 2,762 during the worst-case construction month. The average hourly flow of traffic would therefore remain below 600 vehicles per hour, and would score **0**;
- Total 18 Hour HGV Traffic Flow – The daily HGV flow of the section of road is 135 in baseline conditions, and increases to 181 during the worst-case construction month. This remains below 1,000 HGVs per day, and would score **0**; and
- Average Vehicle Speed – No vehicle speed data is available, but given the speed limit of the majority of this section of the A83 (T) (outside of (Campbeltown) is 60mph, it would be reasonable to assume the average vehicle speed would be above 40mph. Therefore, a score of **30** is assigned.

10.6.44 A score of 30 (moderate degree of hazard) is assigned to this section of road, with no step change in level between baseline conditions and following the addition of construction vehicles generated by the Proposed Development. The magnitude of impact is therefore classified as Negligible.

10.6.45 For the purposes of safety, the receptor sensitivity for fear and intimidation has been considered as High. When combined with the Negligible magnitude of effect, the effect can be classified as minor and **Not Significant** for this section of the A83 (T).

Road Safety

10.6.46 Whilst it is acknowledged that there are varying road characteristics along the section of the A83 (T) between the site and Campbeltown, for the purposes of this calculation it has been assumed that the 29km length of the road that can be attributed to Counter Location 9 is classified as a 'rural good single carriageway' in accordance with criteria set out by DMRB.

10.6.47 Expected accident rates from the DMRB for this standard of road are:

- Rural good single carriageway: 0.190 Personal Injury Accidents (PIAs) per million vehicle kilometres.

10.6.48 A total of 5,211 HGVs would access the site across the 15-month construction programme. As stated in **Table 10.10**, it has been assumed for the purposes of this assessment that 80% of these vehicles would travel along this section of the A83 (T). This equates to 4,169 HGVs, and therefore 8,338 two-way HGV movements along the section of road. Applying the 29km length of the road, this equates to a total 241,831km travelled by these vehicles across the construction programme.

10.6.49 Based on the PIA rate suggested by DMRB, this would suggest a total of 0.05 expected PIA to be generated by the construction vehicles during the construction programme. It is therefore considered that the magnitude of this effect is Negligible.

10.6.50 For the purposes of safety, the receptor sensitivity for road safety is always to be considered as High. When combined with the Negligible magnitude of effect, the effect can be classified as minor and **Not Significant** for this section of the A83 (T).

Dust and Dirt

10.6.51 IEMA Guidelines acknowledge that it is not practical to quantify the level of dust and dirt that can be anticipated from construction traffic. Therefore, a quantitative description of the effect of dust and dirt is not provided here.

10.6.52 It is acknowledged that HGVs would have the potential to collect debris on their tyres when accessing the site, which could then be transferred to the surrounding road network.

10.6.53 For the section of A83 (T) between the site and Campbeltown, the magnitude of impact is considered to be negligible, and the sensitivity of receptor to be low. When combined the effect can be classified as negligible and **Not Significant** for this section of the A83 (T).

10.7 Mitigation

10.7.1 The assessment does not predict any significant effects, and as a result no mitigation is required to address any predicted environmental effects associated with the increased traffic generated during the worst-case month of the construction programme.

Additional Good Practice Measures

10.7.2 While not necessary to address any environmental effects associated with the increased traffic, the applicant intends to implement industry standard 'good practice' measures to reduce traffic and transport effects during construction in the form of a Construction Traffic Management Plan (CTMP). These mitigation measures have been successfully implemented at other wind farms across Scotland.

Construction Traffic Management Plan

10.7.3 The CTMP will identify measures to potentially reduce the number of construction vehicles accessing the site, as well as considering construction programming, routing and identification of an individual with responsibilities for managing traffic and transport impacts and effects.

10.7.4 The CTMP will include the following measures:

- development of a logistics plan highlighting access points, loading bays, welfare and storage on-site;
- approved haul routes to/from the site, and protocols to ensure HGVs adhere to these routes;
- provision of a site induction pack to be given to all workers on-site, containing information of delivery routes, any route restrictions and maximum load capacities;
- temporary construction signage to be erected along identified construction routes;
- a construction traffic speed limit through sensitive areas along haulage routes;
- on-site wheel washing facilities;
- a construction material "lay down" area to allow for a staggered delivery schedule, and avoiding peak and/or unsociable hours; and
- roads to be maintained in a clean and safe condition, with wheel washing facilities made available on-site.

10.7.5 Abnormal loads are generally very large, slow-moving vehicles and the potential for conflict with other road users is greater when undertaking turning manoeuvres, including at the proposed turning area off the A83 (T) at the site entrance, and travelling along narrow sections of road. A convoy escort will be required along the route identified in the Abnormal Load Route Assessment (ALRA) (**Technical Appendix 10.1**) document produced alongside this EIA. Measures relating to the movement of abnormal loads may include:

- advance warning signs on the affected road network;
- an advance escort may be required to warn oncoming vehicles ahead of the abnormal load vehicle;
- abnormal load convoys should normally be no more than three HGVs long, to permit safe transit along the delivery route and to allow limited overtaking opportunities for following traffic if permitted; and
- the times in which deliveries are scheduled should be agreed with Police Scotland and TS, and avoid typical peak periods of traffic on the surrounding road network.

10.8 Assessment of Residual Effects

10.8.1 This section assesses the significance of residual effects following the implementation of 'good practice' measures.

Severance

10.8.2 The assessment identified that the severance effects of the Proposed Development are predicted to be **Not Significant** due to the Low magnitude of the increase in traffic, and Medium sensitivity of the receptor within Campbeltown town centre.

10.8.3 The CTMP will further manage the movement of construction traffic and avoid vehicle movements through sensitive areas during peak periods. The effect would be considered to remain as **Not Significant**.

Driver Delay

10.8.4 The assessment identified that the driver delay effects of the Proposed Development are predicted to be **Not Significant** due to the Low magnitude of the increase in traffic, and Low sensitivity of the receptor of the surrounding road network.

10.8.5 The CTMP will further manage the movement of construction traffic and avoid vehicle movements through sensitive areas during peak periods. The effect would be considered to remain as **Not Significant**.

Pedestrian Delay and Amenity

10.8.6 The assessment identified that the pedestrian delay effects of the Proposed Development are predicted to be **Not Significant** due to the Low magnitude of the increase in traffic, and Medium sensitivity of the receptor within Campbeltown town centre.

10.8.7 The CTMP will further manage the movement of construction traffic and avoid vehicle movements through sensitive areas during peak periods. The effect would be considered to remain as **Not Significant**.

Fear and Intimidation

10.8.8 The assessment identified that the fear and intimidation effects of the Proposed Development are predicted to be **Not Significant** due to the Negligible magnitude of the increase in traffic, and High sensitivity of the receptor of the surrounding road network.

10.8.9 The CTMP will further manage the movement of construction traffic and avoid vehicle movements through sensitive areas during peak periods. The effect would be considered to remain as **Not Significant**.

Road Safety

10.8.10 The assessment identified that the road safety effects of the Proposed Development are predicted to be **Not Significant** due to the Negligible magnitude of the increase in traffic, and High sensitivity of the receptor of the surrounding road network.

10.8.11 The CTMP will further manage the movement of construction traffic and avoid vehicle movements through sensitive areas during peak periods, whilst the delivery of abnormal loads will be subject to an escort to neutralise any potential safety issues regarding these specific deliveries. The effect would be considered to remain as **Not Significant**.

Dust and Dirt

10.8.12 The assessment identified that the dust and dirt effects of the Proposed Development are predicted to be **Not Significant** due to the Negligible magnitude of the increase in traffic, and Low sensitivity of the receptor of the surrounding road network.

10.8.13 The introduction of wheel washing facilities on-site will minimise dust and dirt deposits on the surrounding road network. The effect would be considered to remain as **Not Significant**.

10.9 Assessment of Cumulative Effects

10.9.1 It is understood that there are a number of operational wind farm developments in Kintyre and Mid Argyll, however cumulative traffic impacts associated with these developments are not considered separately as traffic associated with these will be included in the baseline traffic flows.

Consented Developments

10.9.2 For the purposes of this assessment, any nearby identified consented wind farm developments are not included in a cumulative assessment, as it is assumed that the construction of these developments will be underway before the Proposed Development's construction programme begins. These nearby developments are:

- Airigh – 14 wind turbines;
- Clachaig Glen – 14 wind turbines;
- Eascarit – 13 wind turbines;
- High Constellation – 10 wind turbines; and
- Tangy – 16 wind turbines.

In Planning

10.9.3 One nearby wind farm development which is currently in the planning process is Clachaig Glen, brought forward by RWE Renewables UK. The development comprises 12 wind turbines, and would generate a total of 200 two-way general construction vehicle movements per day during the worst case month of its construction programme, as per it's relevant EIA Report[8]. The report also suggests that a total of 140 two-way HGV movements per day would be generated during this period.

10.9.4 The potential cumulative effects of the traffic generated by the construction of the Clachaig Glen development along with the Proposed Development are indicated by **Table 10.14**. The table indicates the worst case traffic effect if both developments were to be constructed over the same period and the peak traffic generating months occurred at the same time. For the purposes of this assessment, it is assumed that the construction vehicles related to the Clachaig Glen development travel along all routes within the study area.

[8] RWE. (2022). Clachaig Glen Wind Farm, Environmental Impact Assessment Report, Chapter 14: Traffic, Transport and Access.

Table 10.14: Cumulative Traffic Effects Assessment – Total Traffic

Counter No. / Location	2028 Projected AADT	Proposed Development Total Traffic	Clachaig Glen Total Traffic	2028 AADT + Cumulative	% Increase
1. A83 (T) South of Inveraray	3,028	78	200	3,306	9%
2. A83 (T) at Minard	2,732	78	200	3,010	10%
3. A83 (T) at Lochgilphead	6,267	78	200	6,545	4%
4. A816 North of B840	1,452	39	200	1,691	16%
5. A816 South of Kilmartin	2,008	39	200	2,247	12%
6. A816 North of Lochgilphead	4,477	39	200	4,716	5%
7. A83 (T) South of B8024	2,956	78	200	3,234	9%
8. A83 (T) South of Tarbert	2,473	78	200	2,751	11%
9. A83 (T) North of Campbeltown	2,700	78	200	2,978	10%

10.9.5 As demonstrated by **Table 10.14**, during the worst case month in regards to both the Clachaig Glen development and Proposed Development, the largest increase in total traffic across the nine counter locations due to construction traffic is 16% at Counter Location 4 on the A816. These increases can be considered as negligible as they do not breach the 30% threshold.

10.9.6 The potential cumulative effects of the HGVs generated by the construction of the Clachaig Glen development along with the Proposed Development are indicated by **Table 10.15**. Similarly as Table 10.14, the table indicates the worst case traffic effect if both developments were to be constructed over the same period and the peak traffic generating months occurred at the same time.

Table 10.15: Cumulative Traffic Effects Assessment - HGVs

Counter No. / Location	2028 Projected HGVs	Proposed Development HGVs	Clachaig Glen HGVs	2028 HGVs + Cumulative	% Increase
1. A83 (T) South of Inveraray	291	46	140	477	64%
2. A83 (T) at Minard	280	46	140	466	66%
3. A83 (T) at Lochgilphead	222	46	140	408	84%
4. A816 North of B840	93	23	140	256	176%
5. A816 South of Kilmartin	158	23	140	321	103%
6. A816 North of Lochgilphead	290	23	140	453	56%
7. A83 (T) South of B8024	282	46	140	468	66%
8. A83 (T) South of Tarbert	251	46	140	437	74%

Counter No. / Location	2028 Projected HGVs	Proposed Development HGVs	Clachaig Glen HGVs	2028 HGVs + Cumulative	% Increase
9. A83 (T) North of Campbeltown	135	46	140	321	138%

10.9.7 As demonstrated by **Table 10.15**, during the worst case month in regards to both the Clachaig Glen development and Proposed Development, the largest increase in HGV traffic across the nine counter locations due to construction traffic is 176% at Counter Location 4 on the A816. These increases can be considered as significant as they breach the 30% threshold.

10.9.8 A full assessment of potential cumulative effects has been undertaken across all count locations in the Clachaig Glen EIA Report, which deemed that a CTMP would be required in order to mitigate against any negative effects. A CTMP is already proposed as part of the 'good practice' measures suggested within this chapter.

10.9.9 It is considered highly unlikely that these traffic movements would coincide due to construction programme co-ordination informed by the CTMP to minimise effects on the surrounding road network.

10.10 Summary

10.10.1 This chapter considers traffic and transport impacts and potential significant environmental effects resulting from the construction of the Proposed Development in accordance with IEMA Guidelines for 'Environmental Assessment of Traffic and Movement July 2023' and the scope agreed with TS.

10.10.2 **Table 10.16** summarises the assessment in respect of residual effects concluding effects are **Not Significant**.

Table 10.16: Summary of Residual Effects

Potential Effect	Significance of Effect	Mitigation	Residual Effect
Severance	Minor – Not Significant	Not required however, CTMP implemented as "good practice"	Minor – Not Significant
Driver Delay	Negligible – Not Significant	Not required however, CTMP implemented as "good practice"	Negligible – Not Significant
Pedestrian Delay and Amenity	Minor – Not Significant	Not required however, CTMP implemented as "good practice"	Minor – Not Significant
Fear and Intimidation	Minor – Not Significant	Not required however, CTMP implemented as "good practice"	Minor – Not Significant
Road Safety	Minor – Not Significant	Not required however, CTMP implemented as "good practice"	Minor – Not Significant
Dust and Dirt	Negligible – Not Significant	Not required however, CTMP implemented as "good practice"	Negligible – Not Significant