APPENDIX 11.1 - TRANSPORT ASSESSMENT

Pell Frischmann

Strathy Wood Wind Farm Grid Connection

Transport Assessment

November 2024

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1 Introduction

1.1 Purpose of the Transport Assessment

Pell Frischmann (PF) has been commissioned by ASH design+assessment, on behalf of Scottish & Southern Electricity Networks Transmission (SSEN) (the Applicant), to undertake a Transport Assessment (TA) for the Proposed Development, which comprises of a new 132 kV overhead line (OHL) and associated ancillary development to connect the consented Strathy Wood Wind Farm to the electricity transmission network at Connagill 275/132 kV substation via a 'T' onto the existing Strathy North 132kV trident 'H' wood pole OHL.

The TA identifies the key transport and access issues associated with the Proposed Development and the likely traffic impacts in the study area. The TA identifies where mitigation works may be required to accommodate the predicted traffic impacts associated with the construction of the Proposed Development, to be developed during detailed design.

1.2 TA Structure

Following this introduction, the TA is structured as follows:

- Chapter Two describes the Site background and Proposed Development;
- Chapter Three reviews the relevant transport and planning policies;
- Chapter Four sets out the methodology used within this assessment;
- Chapter Five describes the baseline transport conditions;
- Chapter Six describes the trip generation and distribution of traffic in the study area;
- Chapter Seven summarises the traffic impact assessment;
- Chapter Eight considers mitigation proposals for development related traffic within the study network; and
- Chapter Nine summarises the findings of the TA and outlines the key conclusions.

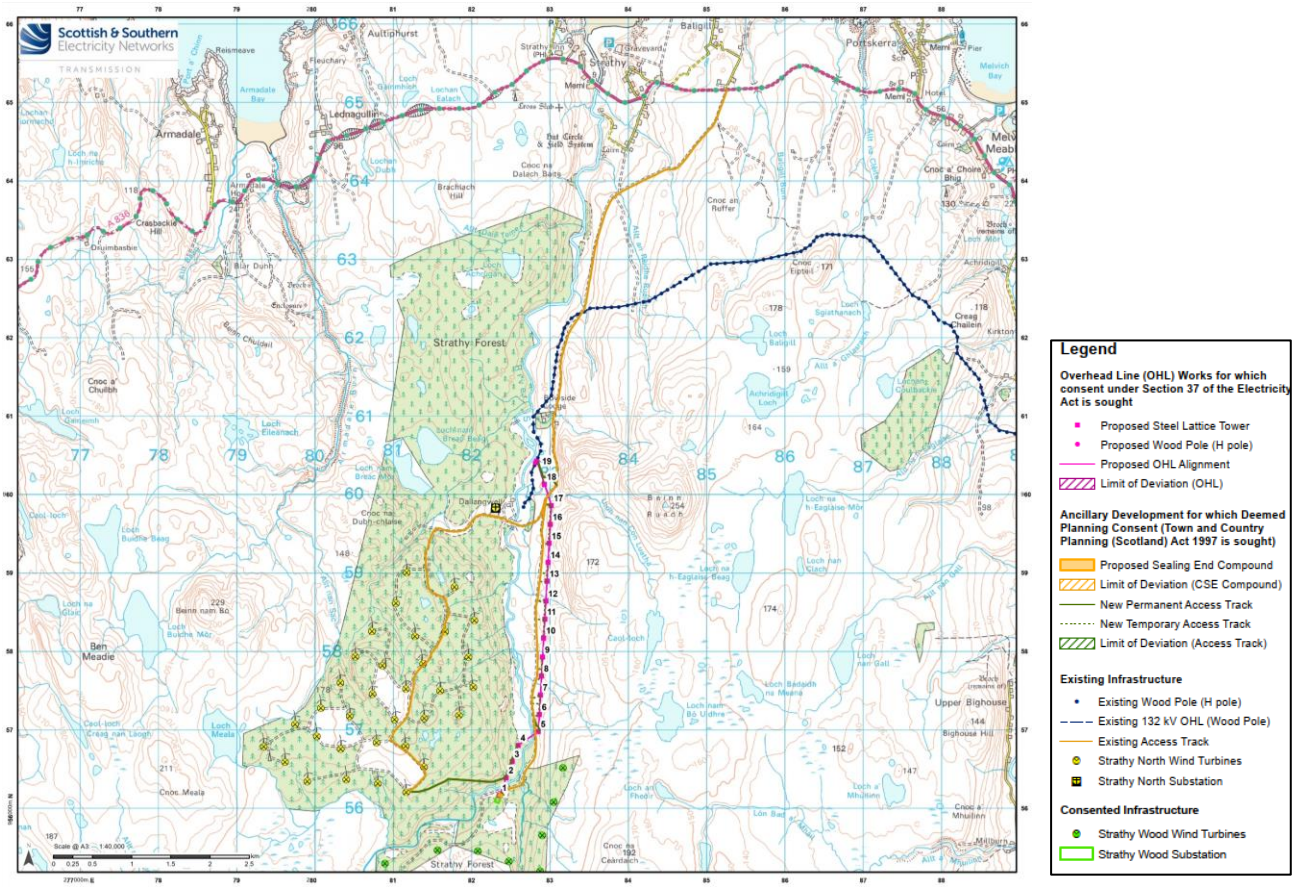
2 Site Background

2.1 Site Location

The Proposed Development is required to enable the connection between the consented Strathy Wood Wind Farm to the electricity transmission network at Connagill substation via a 'T' onto the existing Strathy North 132 kV trident 'H' wood pole OHL. The Proposed Development is approximately 4.5 kilometres (km) in length.

The location of the Proposed Development is shown in **Figure 1** below.

Figure 1 Site Location



2.2 Proposed Development

The Proposed Development would comprise of approximately 4.5 km of 132 kV double circuit OHL supported by steel lattice towers and would head in a northerly direction where it would 'T' onto the existing Strathy North trident 'H' wood pole 132 kV OHL circuit. Two trident 'H' wood poles would be constructed to complete the connection between the new double circuit 132 kV OHL supported by steel lattice towers and the existing Strathy North trident 'H' wood pole 132 kV OHL. The ancillary development would include the installation of a cable sealing end compound plus temporary and permanent access tracks.

The Proposed Development would not have a fixed operational life. As explained in later sections, it is considered that the traffic impacts associated with the construction phase of the Proposed Development represents an assessment of the worst case scenario, as the operational phase of a transmission line generates insignificant traffic flows, associated with general maintenance works.

3 Transport Policy Review

3.1 Introduction

This part of the TA provides an overview of the relevant national and local transport planning policy and guidance.

3.2 National Policy and Guidance

3.2.1 National Planning Framework 4 (2023)

The National Planning Framework 4 (NPF4) is a long-term plan for Scotland that sets out where development and infrastructure is needed in the country. NPF4 sets out the Government's plan looking forward to 2045 that will guide spatial development, set out national planning policies, designate national developments and highlight regional spatial priorities. It is part of the development plan, and so influences planning decisions across Scotland.

NPF4 puts the climate and nature crises at the heart of the Scottish planning system and was adopted in February 2023.

With regards to traffic and transport and the Proposed Development, Policy 11: Energy within the NPF4 notes that:

"a) Development proposals for all forms of renewable, low-carbon and zero emissions technologies will be supported. These include:

ii. enabling works, such as grid transmission and distribution infrastructure;

iii. energy storage, such as battery storage and pumped storage hydro;

e) In addition, project design and mitigation will demonstrate how the following impacts are addressed:

iii. public access, including impact on long distance walking and cycling routes and scenic routes;

vi. impacts on road traffic and on adjacent trunk roads, including during construction;

xi. proposals for the decommissioning of developments, including ancillary infrastructure, and site restoration;

xiii. cumulative impacts."

3.2.2 Planning Advice Note (PAN) 75

Planning Advice Note (PAN) 75: Planning for Transport provides advice on the requirements for Transport Assessments. The document notes that:

"… transport assessment to be produced for significant travel generating developments. Transport Assessment is a tool that enables delivery of policy aiming to integrate transport and land use planning."

"All planning applications that involve the generation of person trips should provide information which covers the transport implications of the development. The level of detail will be proportionate to the complexity and scale of the impact of the proposal...For smaller developments the information on transport implications will enable local authorities to monitor potential cumulative impact and for larger developments it will form part of a scoping exercise for a full transport assessment. Development applications will therefore be assessed by relevant parties at levels of detail corresponding to their potential impact."

3.2.3 Transport Assessment Guidance (2012)

Transport Scotland's (TS) Transport Assessment Guidance was published in 2012. It aims to assist in the preparation of TA for development proposals in Scotland such that the likely transport effects can be identified and dealt with as early as possible in the planning process. The document sets out requirements according to the scale of development being proposed.

The document notes that a TA will be required where a development is likely to have significant transport effects but that the specific scope and contents of a TA will vary for developments, depending on location, scale and type of development.

3.3 Local Policy and Guidance

3.3.1 Highland-wide Local Development Plan (2012)

The Highland-wide Local Development Plan (HwLDP) was adopted by The Highland Council (THC) in April 2012 and is the established development plan policy for the Highlands. It sets out a settlement strategy and spatial framework as to how THC foresees development occurring in a twenty-year period.

The HwLDP does not contain any specific policy guidance for the Proposed Development. However, Policy 56 is relevant with regards to general transport policy. The relevant transport elements from this policy are:

"Development proposals that involve travel generation must include sufficient information with the application to enable the Council to consider any likely on- and off- Site transport implications of the development and should:

- *incorporate appropriate mitigation on Site and/or off Site, provided through developer contributions where necessary, which might include improvements and enhancements to the walking/cycling network and public transport services, road improvements and new roads; and*
- *incorporate an appropriate level of parking provision, having regard to the travel modes and services which will be available and key travel desire lines and to the maximum parking standards laid out in Scottish Planning Policy or those set by the Council.*

When development proposals are under consideration, the Council's Local Development Strategy will be treated as a material consideration.

The Council will seek the implementation and monitoring of Green Travel Plans in support of significant travel generating developments."

3.3.2 Caithness and Sutherland Local Development Plan (2018)

The Caithness and Sutherland Local Development Plan (CaSPlan) was adopted by THC in August 2018 and aims to guide development and investment in Caithness and Sutherland.

Of relevance to this development is paragraph 69, bullet point 3 that states:

"Key growth sectors, like the renewables industry, may put increased pressure on the road network. In some cases renewable energy projects may result in repairs and upgrades but it is essential that the Council ensures that there is no net degradation to infrastructure from these projects."

3.3.3 Guidance on the Preparation of Transport Assessments (2014)

THC has prepared guidance on how TA should be prepared for development sites within the Highlands. The guidance was published by THC in November 2014.

This TA has been prepared having noted the guidelines and it provides the required assessment in accordance with the guidelines.

3.3.4 Roads and Transport Guidelines for New Developments (2013)

This THC document outlines the guidance and standards for the provision of infrastructure within the Council area, which includes the design and construction of all new roads associated with development proposals.

THC's Roads and Transport Guidelines for New Developments document provides guidance in relation to transport implications of onshore wind farm developments. Whilst the development proposals are not for the development of a wind farm, elements of the policy are applicable, namely:

"…a developer should be aware that the Council will require a Transportation Assessment (TA) to be submitted that must consider the existing road network, transportation constraints and potentially sensitive routes or communities.

A wind farm vehicular Site access must provide appropriate visibility splays and suitable surface water drainage. Within the Site, the wind turbines are likely to be located some distance from the nearest public road, requiring internal access tracks to be constructed. As the access tracks need to accommodate abnormal loads, they have to be of a suitable width. These tracks are normally constructed from hard-core material and the developer will usually be encouraged/allowed to use material obtained from borrow pits within the Site area, to reduce construction traffic. On-Site concrete batching should also be considered, as this can also result in a reduction of associated vehicles on the local road network.

A suitable turning area must be constructed within the Site, to accommodate abnormal load delivery vehicles, construction vehicles and future maintenance vehicles. During the construction period, a wheel-wash system shall be provided."

3.4 Conclusion

The above summaries of policy statements are considered the most relevant to this TA.

4 Study Methodology

4.1 Introduction

The two key phases of the life of the Proposed Development are as follows:

- The Construction Phase; and
- The Operational Phase.

4.2 Project Phases – Transport Overview

Of the aforementioned phases, the construction phase is considered to have the greatest impacts in terms of transport. Construction plant, bulk materials and construction materials would be transported to Site, and these movements may potentially cause a significant increase in traffic on the network within the study area. It should be noted however that the construction effects are temporary and transitory in nature.

The operational phase is restricted to trips associated with the occasional maintenance of the Proposed Development which would generate significantly lower volumes of traffic, and which are not considered to be in excess of daily traffic variation levels on the road network. Therefore, no separate assessment for the operational phase is considered to be required.

4.3 Scoping Discussions

The Applicant submitted a request for a Scoping Opinion to the Scottish Ministers which included a section considering traffic and transport. A full review of the relevant Scoping Opinion and other consultation responses received is provided in **Chapter 4 – Scope and Consultation** within Volume 1 of the EIA Report.

5 Baseline Conditions

5.1 Study Area

Access to the Proposed Development would be taken from the existing Strathy North Wind Farm access junction off the A836, approximately 1 km east of Strathy, leading south along an existing access track. The junction off the A836 and the existing track were upgraded ahead of construction of the Strathy North Wind Farm, as far as the Strathy North substation.

The upgrade of the track is currently being extended for use during the construction of the consented Strathy Wood and Strathy South wind farms. No further works would be required to the existing track to enable access for the Proposed Development.

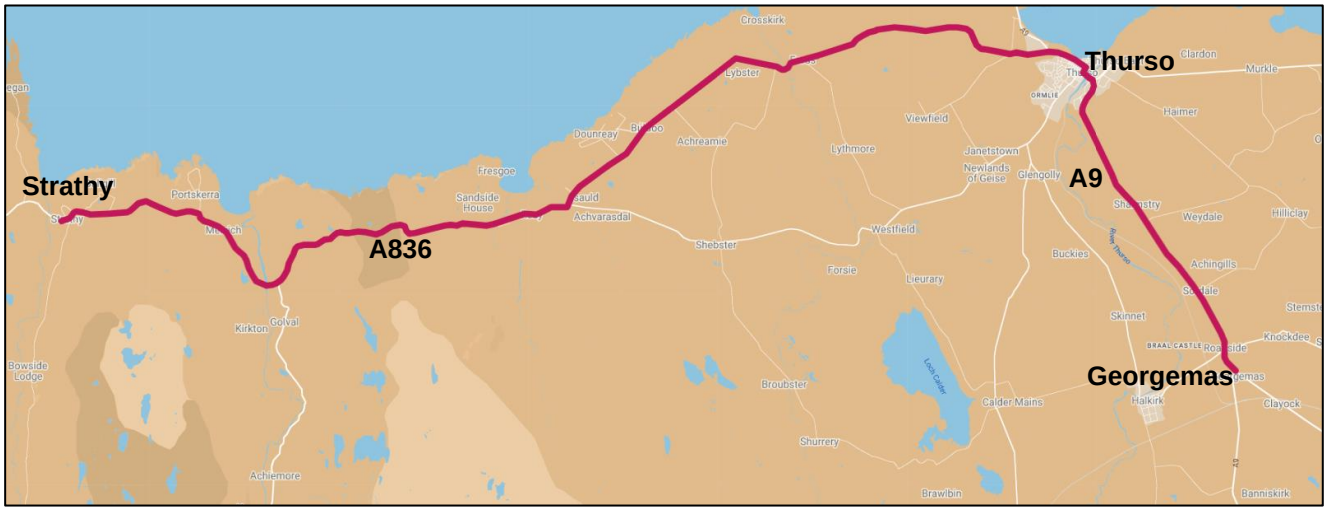
Previous experience of projects located along the A836 suggests that THC would resist the use of the north - south access links of the A897 (Melvich – Helmsdale) and A836 between Lairg and Tongue (located to the west of the Proposed Development. As such, it is assumed that delivery of all materials and components for use at the Proposed Development, would be delivered from the east, via the A9 and A836 from Thurso.

The proposed study area is therefore as follows:

- The A9 between Georgemas and Scrabster; and
- The A836 between Thurso and Strathy.

The extent of the study area is defined by the red lines in **Figure 2**.

Figure 2 Study Area

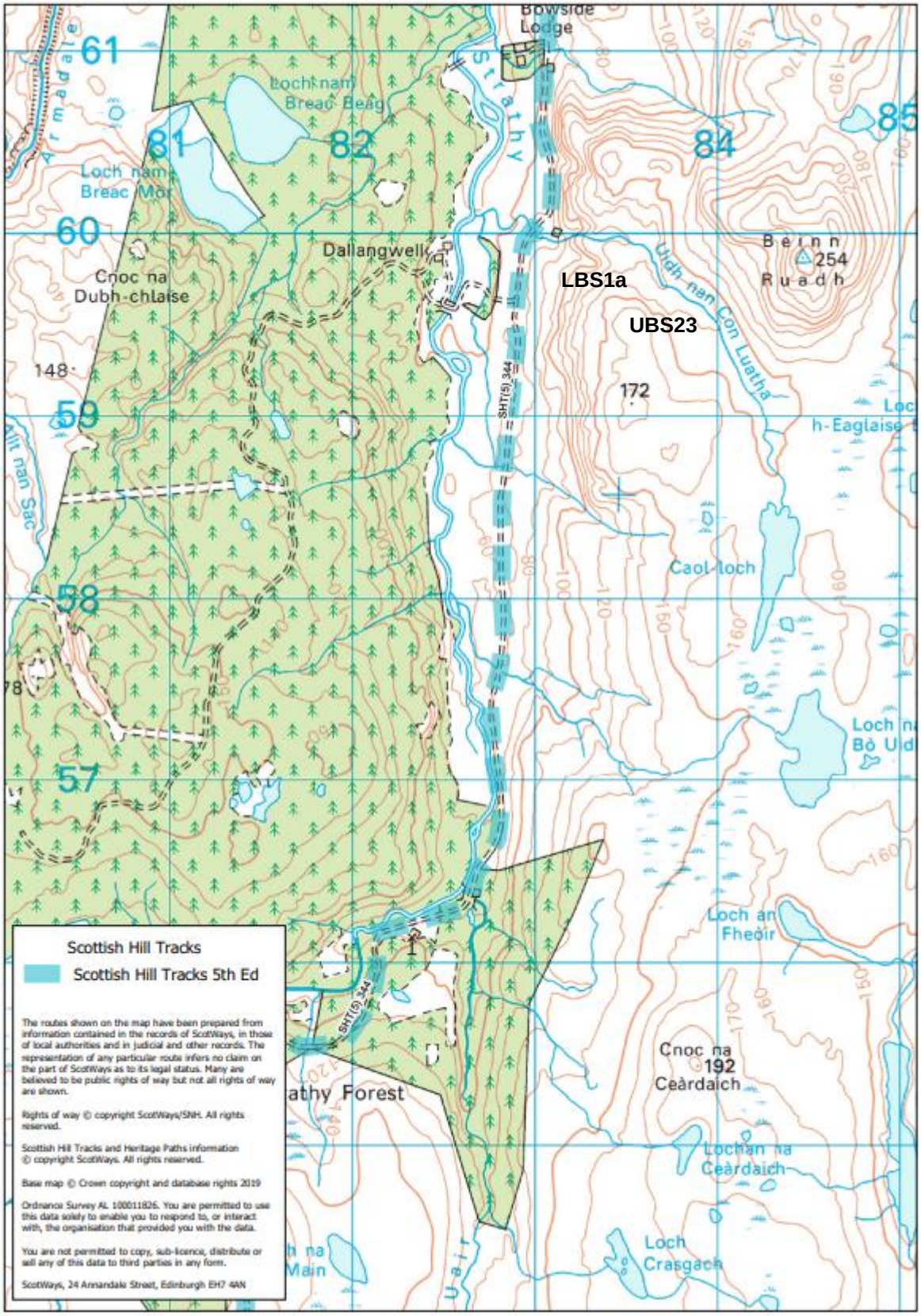


5.2 Pedestrian and Cyclist Networks

A review of Core Paths directly affected by the Proposed Development has been undertaken. There are no Core Paths located near the Proposed Development. The main existing access track to be utilised by the Proposed Development, passing alongside and through Strathy Forest, is featured within the guidebook 'Scottish Hill Tracks'. This is a joint publication between the Scottish Rights of Way and Access Society and The Scottish Mountaineering Trust. The track forms part of Scottish Hill Track 344: Strath Halladale, which travels between Trantlebeg and Strathy. The section of this hill track that runs in proximity to the Proposed Development is illustrated on **Figure 3**.

A review of the Sustrans cycle network plan of the United Kingdom indicates that the A836 is part of National Cycle Route 1 (NCR1) between Lairg and Thurso. There is however no dedicated cycle infrastructure on the road, other than directional signage.

Figure 3 Scottish Hill Track 344



5.3 Road Access

A9

The A9 is the main trunk road in the area and connects Polmont (in Falkirk) to Scrabster. The road is operated on behalf of Transport Scotland by BEAR Scotland. Within the study area, the road is subject to a 60 miles per hour (mph) speed limit in the main and is typically varies between 7 metres (m) and 8 m in width.

A836

The A836 is a two-way single carriageway road which is a district distributor road that provides connections between Tain and Thurso by way of Lairg and Tongue. The road is maintained by THC and is generally of a good standard and typically varies between 6 m and 7 m in width, with a speed limit of 60 mph, with 30 mph restrictions within settlements.

The section between Scrabster and the site access junction is in good relative condition, as observed during the time of a site visit. There are sections to the west of the study area where sections of the road surfacing would benefit from re-dressing and areas of minor edge cracking. There are no posted weight limits on the road.

The A9 and A836 within the study area forms part of the North Coast 500 (NC500) tourist route. This 830 km (516 mile) route is now a popular tourist sightseeing route around the northwest Highlands and Sutherland and has been responsible for an increase in traffic visiting the study area.

A detailed road condition survey of the A836 would be undertaken prior to construction works commencing at the site. This would accurately review the condition of the road and note any recent deterioration. A detailed condition review at the pre-determination phase is not considered to be feasible as with construction being planned for 2025, there are a number of variables that could significantly alter the road condition, including planned resurfacing works, the effects of other developments and their associated traffic and damage caused by significant weather events.

5.4 Existing Traffic Conditions

Traffic data used in the assessment has been sourced from the following sources:

- TS database; and
- Department for Transport (DfT) Traffic Statistics database.

The individual count sites used were:

1. A9 north of Georgemas Junction – Transport Scotland Database Count Site (Ref ATC01163);
2. A9 Thurso – DfT Database Count Site (Ref 40800);
3. A836 near Forss – DfT Database Count Site (Ref 10934); and
4. A836 near Strathy – DfT Database Count Site (Ref 40935).

The locations of the count points are shown in **Figure 4**. The traffic data was factored using National Road Traffic Forecasts (NRTF) low growth factors to create the 2024 traffic flows.

The traffic count data allowed the traffic flows to be split into vehicle classes and the data has been summarised into cars / light goods vehicles (LGVs) and Heavy Goods Vehicles (HGVs) (i.e. all goods vehicles >3.5 tonnes gross maximum weight).

A summary of the 24-hour average daily traffic for each of the count sites is presented in **Table 1**.

Figure 4 Traffic Count Location Points

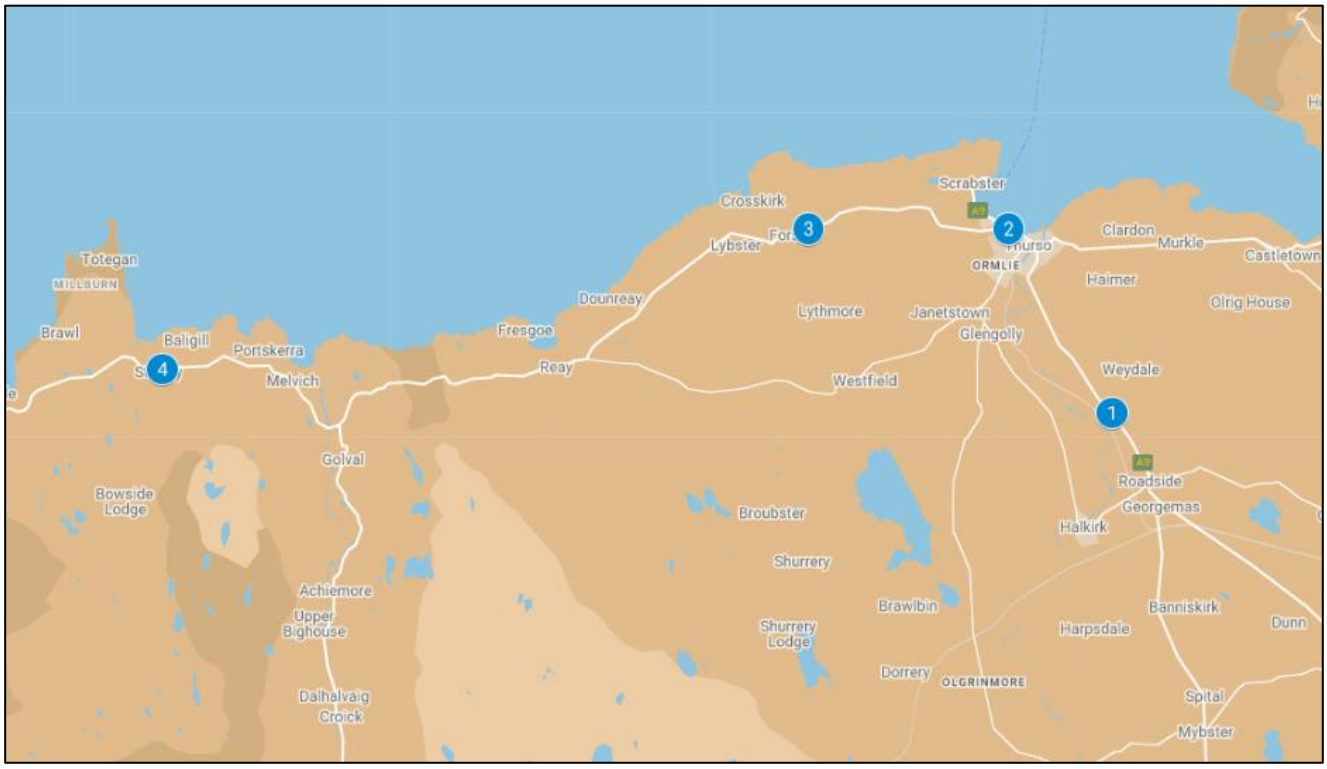


Table 1 24-hour Average Daily Traffic Data (2024)

Site Ref. No.	Survey Location	Cars & LGV	HGV	Total
1	A9 north of Georgemas	3077	436	3512
2	A9 Thurso	2908	136	3044
3	A836 Forss	2286	31	2318
4	A836 Strathy	623	20	643

5.5 Accident Review

Road traffic accident data for the five-year period commencing 01 January 2018 through to the 31 December 2022 was obtained from the online resource Crashmap[1] which uses data collected by the police about road traffic crashes occurring on British roads.

The statistics are categorised into three categories, namely “slight” for damage only incidents, “serious” for injury accidents and “fatal” for accidents that result in a death. These are summarised in **Table 2** for the A836 between Georgemas and Strathy.

Table 2 Accident Summary

Survey Location	Slight	Serious	Fatal	HGV Incidents
A836 Between Thurso and Strathy	6	1	2	1 fatal accident at Forss with a motorcycle
A9 in Thurso	1	0	0	1 slight accident at the Castlegreen Road / A9 junction
A9 between Thurso and Georgemas	6	1	0	1 slight accident near Sordale in winter months

[1] CrashMap: www.crashmap.co.uk

No accidents have been recorded at the proposed site access junction.

Between Thurso and Strathy, motorcyclists were involved in two fatal accidents and two “slight” accidents. Young drivers were involved in two “slight” accidents.

Based on the information available, it has been established that there are no specific road safety issues within the immediate vicinity of the Proposed Development that currently require addressing or would be exacerbated by the construction of the Proposed Development.

5.6 Future Baseline

Construction of the project is expected to commence in 2025, if consent is granted, and is anticipated to take twelve months, depending on weather conditions and ecological considerations.

To assess the likely effects during the construction and typical operational phase, base year flows were forecast by applying a NRTF low growth factor to the 2025 flows in **Table 1**. The NRTF low growth factor for 2024 to 2025 is 1.005. The resulting flows are displayed in **Table 3**.

Table 3 24-hour Average Daily Traffic Data (2025)

Site Ref. No.	Survey Location	Cars & LGV	HGV	Total
1	A9 north of Georgemas Junction	3095	438	3533
2	A9 Thurso	2926	136	3062
3	A836 near Forss	2300	31	2331
4	A836 near Strathy	627	20	647

Please note minor variances due to rounding may occur.

It has been assumed for the purposes of this assessment that both Strathy Wood and Strathy South wind farms as consented developments for which this grid connection is required, will be constructed at the same time as the Proposed Development. Their peak construction traffic has been included in the baseline 2025 traffic flows. The Base + Committed Development traffic flows are summarised in **Table 4**. These flows will be used in the Construction Peak Traffic Impact Assessment.

Table 4 24-hour Average Daily Traffic Data (2025) Base + Committed Development

Site Ref. No.	Survey Location	Cars & LGV	HGV	Total
1	A9 north of Georgemas Junction	3205	469	3674
2	A9 Thurso	3036	167	3203
3	A836 near Forss	2410	62	2472
4	A836 near Strathy	737	51	788

Please note minor variances due to rounding may occur.

The operational phase traffic associated with Spaceport Sutherland has been obtained from the Transport Assessment for that project. A typical launch event would result in 400 car and LGV movements and 4 HGV movements per day.

As these events are expected to occur on one day per month, it is not considered appropriate to include them as fully committed traffic as the high levels of traffic on launch days would mask the true impact of the construction phase associated with the Proposed Development.

The use of NRTF growth assumptions has provided a basis for general local development growth within the study area. The use of NRTF covers other committed development traffic flows within the study area.

6 Construction Trip Generation and Distribution

6.1 Trip Derivation

During the construction period, the following traffic would require access to the to the Proposed Development and Associated Development sites:

- Staff transport, in either cars or staff minibuses; and
- Construction equipment and materials, deliveries of machinery and supplies such as concrete and crushed rock.

The traffic generation have been estimated from the 12 month construction programme provided by the Applicant. Using first principles, material estimates have been converted to two-way traffic flows for each stage of the construction process. The resulting construction traffic delivery profile is illustrated in **Table 5**. All movements, excluding staff movements and commissioning, will be made by HGV traffic.

Table 5 Construction Traffic Programme

Element	1	2	3	4	5	6	7	8	9	10	11	12
Site Set Up	100											100
Compound	220											220
Timber Extraction	14											
Access Works	586	586	586	586					290	290	290	
Foundations			174	174	174	174	174					
Cranes			4							4		
Structures				26	26	26	26	26	26			
Line Installation						5	5	5	5	5	5	
General Deliveries	44	44	44	44	44	44	44	44	44	44	44	44
Commissioning											88	88
Staff Movements	616	682	836	1012	1188	1386	1496	1386	1188	1012	836	682
Total Monthly Car & LGV	616	682	836	1012	1188	1386	1496	1386	1188	1012	924	770
Total Monthly HGV	964	630	807	829	244	249	249	75	365	343	339	364
Total Monthly Movements	1580	1312	1643	1841	1432	1635	1745	1461	1553	1355	1263	1134
Total Daily Car & LGV	28	31	38	46	54	63	68	63	54	46	42	35
Total Daily HGV	44	29	37	38	11	11	11	3	17	16	15	17
Total Daily Movements	72	60	75	84	65	74	79	66	71	62	57	52

The peak of construction traffic would occur in Month 4.

6.2 Peak Traffic Flows

The peak traffic flows indicate 46 Car / LGV and 38 HGV two way movements are predicted per day.

The distribution of the Proposed Development traffic on the network would vary depending on the types of loads being transported. The assumptions for the distribution of construction traffic during the peak months are as follows:

- All construction traffic enters and exits the Proposed Development via the existing access junction located to the east of Strathy. Vehicles will then reach the Proposed Development via the existing access tracks;
- All HGV traffic will access the site from the east, with all trips originating on the A9 corridor to the south of Thurso, passing through the town and then onto the A836; and
- Staff working at the Site will be predominantly based in and around Thurso. 10% of staff will be accommodated between Thurso and the Proposed Development and it is expected that 30% may be based to the south of Thurso.

Construction traffic has been assigned to the study area network. The resulting traffic flows are summarised in **Table 6**.

Table 6 Peak Construction Traffic Flows

		Proposed Development Traffic		
Site Ref. No.	**Survey Location**	**Car & LGV**	**HGV**	**Total**
1	A9 north of Georgemas Junction	14	38	52
2	A9 Thurso	42	38	80
3	A836 near Forss	42	38	80
4	A836 near Strathy	46	38	84

Please note minor variances due to rounding may occur.

7 Construction Traffic Impact Assessment

The peak month traffic data for the Proposed Development was combined with the future year (2025) traffic data to allow a comparison between the baseline results to be made. The increase in traffic volumes is illustrated in percentage increases for each class of vehicle. This is illustrated in **Table 7**.

Table 7 2025 Base + Proposed Development Traffic Volumes and Impact

Survey Location	Cars & LGV	HGV	Total	Cars & LGV	HGV	Total
A9 north of Georgemas Junction	3219	507	3726	0.4%	8.0%	1.4%
A9 Thurso	3078	205	3283	1.4%	22.5%	2.5%
A836 near Forss	2452	100	2552	1.7%	60.5%	3.2%
A836 near Strathy	783	89	872	6.2%	73.6%	10.6%

Please note minor variances due to rounding may occur.

The total traffic movements are not predicted to increase by more than 10.6% on the whole study area network. This is similar to the average daily variance in traffic flows (+ / -10%) that naturally occurs. The construction phase is transitory in nature and the peak of construction activities is short-lived.

A review of existing road capacity has been undertaken using “The NESA Manual”, formerly part of the Design Manual for Roads and Bridges. The theoretical road capacity has been estimated for each of the road links for a 12-hour period that makes up the study area. The results are summarised in **Table 8**.

Table 8 2025 Daily Traffic Capacity Review

Site Ref. No.	Survey Location	2025 Baseline Traffic Flows	2025 Base + Proposed Development Traffic Flows	Theoretical Road Capacity (12hour)	Spare Road Capacity (%)
1	A9 north of Georgemas Junction	3205	3219	36000	91.1%
2	A9 Thurso	3036	3078	36000	91.5%
3	A836 near Forss	2410	2452	19200	87.2%
4	A836 near Strathy	737	783	19200	95.9%

The results indicate there are no road capacity issues with the combined committed developments and ample spare capacity exists within the trunk and local road network to accommodate construction phase traffic of the Proposed Development.

Whilst no capacity issues are predicted, there are mitigation measures that can be used to reduce the impact of the construction traffic on other road users and nearby residents. These are outlined in the following chapter of this report.

8 Framework Traffic Mitigation Measures

8.1 Construction Phase

The following measures would be implemented through a Construction Traffic Management Plan (CTMP) during the construction phase; the CTMP would be agreed with THC prior to construction works commencing:

- Where possible the detailed design process would minimise the volume of material to be imported to Site to help reduce HGV numbers;
- Explore whether onsite borrowpits could be used to reduce or eliminate they need for external sources of aggregate, thus reducing the traffic accessing the site;
- A Site worker transport and travel arrangement plan will be developed, including transport modes to and from the work site (including pick up and drop off times);
- 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;
- Wheel cleaning facilities may be established at the A836 junction, depending on the views of THC;
- Normal Site working hours would be limited to between the following hours:
    - March to September – 07:00 to 19.00 – 7 days a week
    - October to February - 07.30 to 17.00 (or within daylight hours)
- Appropriate traffic management measures would be put in place on the A836 to avoid conflict with general traffic, subject to the agreement of THC. Typical measures would include HGV turning and warning signs;
- Provide construction updates on the project website and or a newsletter to be distributed to residents within an agreed distance of the Site;
- Adoption of a voluntary speed limit of 20 mph for all construction vehicles travelling through local villages and towns;
- Adoption of a maximum speed limit of 15 mph for all construction vehicles travelling on the access track south of the A836;
- All drivers would be required to attend an induction to include:
    - A tool box talk safety briefing;
    - The need for appropriate care and speed control;
    - A briefing on driver speed reduction agreements (to slow Site traffic at sensitive locations through the villages); and
    - Identification of the required access routes and the controls to ensure no departure from these routes.

THC may require an agreement to cover the cost of abnormal wear and tear on the A836 from Thurso to the site access junction with the A836. Video footage of the pre-construction phase condition of the construction vehicles route would be recorded to provide a baseline of the state of the road prior to any construction work commencing. This baseline would inform any change in the road condition during the construction stage of the Proposed Development. Any necessary repairs would be coordinated with the Roads Authority. Any damage caused by traffic associated with the Proposed Development, during the construction period that would be hazardous to public traffic, would be repaired immediately.

Any damage to road infrastructure caused directly by construction traffic would be made good, and street furniture that is removed on a temporary basis would be fully reinstated.

There would be a regular road edge review and any debris and mud would be removed from the public carriageway to keep the road clean and safe during the initial months of construction activity, until the construction junction and immediate access track works are complete.

It is not anticipated that abnormal load components would be required to be delivered to the Site. Access for an erection crane would be required, however there are no physical restrictions for these loads on either the northern or southern access routes.

8.2 Public Information

The Applicant would ensure information was distributed through its communication team via the project website, local newsletters and social media.

8.3 Outdoor Access Management Plan

Consideration would be given to pedestrians and cyclists alike due to potential interactions between construction traffic and users of the access track south of the A836 (Scottish Hill Track 344). These measures would be formulated into an Outdoor Access Management Plan (see **Appendix 11.2**).

The Principal Contractor would ensure that speed limits are always adhered to by their drivers and associated subcontractors. Advisory speed limit signage would also be installed on approaches to areas where core path users may interact with construction traffic.

Signage would be installed on the Site exit that makes drivers aware of local speed limits and reminding drivers of the potential presence of pedestrians and cyclists in the area. This would also be emphasised in weekly toolbox talks.

On similar projects, The British Horse Society has made recommendations on the interactions between HGV traffic and horses. Horses are normally nervous of large vehicles, particularly when they do not often meet them. Horses are flighty animals and will run away in panic if really frightened. Riders will do all they can to prevent this but, should it happen, it could cause a serious accident for other road users, as well as for the horse and rider.

The main factors causing fear in horses in this situation are:

- Something approaching them, which is unfamiliar and intimidating;
- A large moving object, especially if it is noisy;
- Lack of space between the horse and the vehicle;
- The sound of air brakes; and
- Anxiety on the part of the rider.

The British Horse Society recommends the following actions that will be included in the Site training for all HGV staff:

- On seeing riders approaching, drivers must slow down and stop, minimising the sound of air brakes, if possible;
- If the horse still shows signs of nervousness while approaching the vehicle, the engine should be shut down (if it is safe to do so);
- The vehicle should not move off until the riders are well clear of the back of the HGV;
- If drivers are wishing to overtake riders, please approach slowly or even stop in order to give riders time to find a gateway or lay by where they can take refuge and create sufficient space between the horse and the vehicle. Because of the position of their eyes, horses are very aware of things coming up behind them; and
- All drivers delivering to the Site must be patient. Riders will be doing their best to reassure their horses while often feeling a high degree of anxiety themselves.

8.4 Operational Phase

Whilst operational phase impacts have been scoped out of the assessment given the low levels of traffic that are forecast, best practice measures would be put in place. This would include ensuring site entrance roads are well maintained and monitored during the operational life of the Proposed Development. Regular maintenance would also be undertaken to keep the Site access track drainage systems fully operation and to ensure there are no run-off issues onto the public road network.

9 Summary & Conclusions

Pell Frischmann (PF) has been commissioned by ASH design+assessment, on behalf of Scottish & Southern Electricity Networks Transmission (SSEN Transmission) to undertake a Transport Assessment for the Proposed Development, which comprises of a new 132 kV OHL and associated ancillary development to connect the consented Strathy Wood Wind Farm to the electricity transmission network at Connagill substation via the existing Strathy North 132kV trident 'H' wood pole OHL.

An assessment of average daily development trips is considered an appropriate method of assessing the impacts of the Proposed Development on the study area roads. The construction traffic would result in a temporary increase in traffic flows on the road network surrounding the Proposed Development.

A series of mitigation measures and management plans have been proposed to help mitigate and offset the impacts of both the construction and operational phase traffic flows.

No link capacity issues are expected on any of the roads assessed due to the additional movements associated with the Proposed Development. The effects of construction traffic are temporary in nature and are transitory.