

**Beauly to Blackhillock to New Deer to
Peterhead 400 kV Project
Environmental Impact Assessment Report
Volume 5 | Appendices**

**Appendix 13.1 – Highland Council - Transport
Assessment**





Scottish and Southern Electricity Networks
Transmission

BEAULY TO BLACKHILLOCK TO NEW DEER TO PETERHEAD 400 KV OHL PROJECT

Appendix 13.1: Highland Transport Assessment





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Appendix 13.1: Highland Transport Assessment

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EXECUTIVE SUMMARY

INTRODUCTION

WSP UK Limited has been appointed by Scottish and Southern Electricity Networks Transmission (the Applicant) to provide consultancy advice in support of the Proposed Development.

The Highland Council (THC) identified a requirement to prepare a Transport Assessment (TA) to consider the impact of construction traffic on the operation of the local transport network, and this TA has been prepared in support of the S37 application.

ANTICIPATED TRIP GENERATION

The level of vehicle trips anticipated to be generated by construction activities has been derived from an estimate and an initial programme provided the Principal Contractor, with the trips assigned to the local road network on the basis of the anticipated locations of the indicative temporary construction compounds (or Yards) and quarries which will be used to support the Proposed Development's delivery.

Each site access section is anticipated to accommodate a maximum trip generation equating to 7 - 10 two-way cars / vans an hour and 14 two-way HGVs an hour.

The largest vehicles associated with the development are mobile cranes of 150 tonne (t) and 250 t as necessary. Mobile cranes have been assessed as AILs through an Abnormal Load Route Assessment (ALRA) found within **Appendix 13.5: Abnormal Load Route Assessment**. For the purposes of HGV assessments, the longest vehicle type making the most frequent trips to site will be a 16.5 m artic HGV and this has been used to inform this Transport Assessment.

LOCAL ROAD NETWORK

The area is predominantly rural in nature and the transport network reflects this. A proportion of the roads which it is intended to use to support access to the Proposed Overhead Line (OHL) tower installation sites, are agreed timber haulage routes and therefore considered to be appropriate to accommodate the temporary increase in traffic generated by construction activities. None of the roads, which form the proposed access routes, are signed as being unsuitable for HGV use.

STRUCTURES ALONG ROUTES

Transport Scotland / BEAR NW / Amey NE, Network Rail and THC have been consulted to advise on the current structural capacity of the routes proposed.

At the time of writing this report, the above consultees are yet to comment on the structural capacity of their assets. However, as mobile cranes route routinely across the UK for a variety of operators, e.g. construction sites, oil and gas, shipyards, and infrastructure projects, it is considered that the majority of structures should be suitable. It is acknowledged that some locations within the study area are more remote, and therefore there is potential for assets to require further inspection. It is anticipated that as most of the structures are short span that these would they fail further structural assessment, (if any are to require this).

As part of a separate planning application for the Associated Development, Fanellan Substation (Ref: 25/00826/FUL¹) THC have advised that structure no. C1160010 (Black Bridge Kilmorack) requires further assessment before the heavy delivery vehicles can be approved to cross the structure. It is confirmed by THC that for structure no. A08620090 (Lovat Bridge) *“There will be no routing of abnormal loads over Lovat bridge without detailed inspections and assessments being undertaken and the findings accepted by THC Structures Team”*. It is also noted however that although the ESDAL portal states there are no signed restrictions, a previous route feasibility study for the Fanellan Substation project, found that the Beaulay Rail Overbridge (A08620100) and a Culvert at Teawig (A08620090C38) both had a max vehicle axle load of 14.6 t, on previously assessed vehicles. Depending on what mobile crane is used, these structures may require further assessment. However, it is considered that for the majority of construction traffic (HGV and LGV / Car) movements, that these structures pose no constraints to routing.

The Applicant is currently working with THC to understand timescales for completion. Therefore, it is considered that to align with the routing strategy for the Associated Development Fanellan Substation (Ref: 25/00826/FUL) that construction access take a phased routing.

Therefore, assessment of the Proposed Development has been divided into two sections to assess the effects due to phasing of the construction of Black Bridge. The assessment therefore has the following structure:

- Phase 1 - southern route (via A862 - A833 - C1108 - U1604 and C1106 to site), and
- Phase 2 - northern route (via the A862 - A831 and C1106).

The Phase 1 assessment constitutes the ‘before construction of Black Bridge’ scenario and Phase 2 constitutes the ‘after construction of Black Bridge’.

PROPOSED MITIGATION

A detailed review of the proposed access routes has been undertaken, and it is considered that the unclassified road network can accommodate the temporary increase in traffic generated by construction activities, with the main impact anticipated for a period of no more than two months on any of the unclassified road network. Where possible, HGV arrivals and departures will be managed to reduce the potential for two larger vehicles to meet on the unclassified roads which are to be used to support access to the installation sites.

However, there may be a requirement to alter the alignment of short sections of the road network or kerblines at existing junctions to accommodate HGV movements associated with construction activities. While the requirement for these will require to be confirmed by a topographical survey of the potential constrained areas, the potential mitigation is summarised in **Table 1**.

¹ THC Planning Portal (2025). 25/00826/FUL. Available at: <https://wam.highland.gov.uk/wam/applicationDetails.do?activeTab=documents&keyVal=SSPNC9IHHIS00>

Table 1: Proposed Mitigation Measure Summary

Section	Road	Potential Mitigation Measure
1	A862	None - Timber Transport Forum Agreed Route
	A831	None – the road is of a sufficient standard to accommodate construction traffic.
	C1106	Over Black Bridge is it assumed the replacement works will have been completed. Then the C1106 between U1604 and Hughton there are sufficient number of passing places.
	U1604	Manage arrivals and departures to minimise the impact of construction traffic on the operation of the road.
2	A862	None - Timber Transport Forum Agreed Route
	C1100	None – the road is of a sufficient standard to accommodate construction traffic.
	C1102	Manage arrivals and departures to minimise the impact of construction traffic on the operation of the road.
	U1556	Lengthen existing passing places and form additional areas where larger vehicles could pass.
	U2362	Form areas where larger vehicles could pass.
	U1568	Lengthen existing passing places and form additional areas where larger vehicles could pass.
3	A862	None - Timber Transport Forum Agreed Route
	C1114	Lengthen existing passing places and form additional areas where larger vehicles could pass.
	U1560	Form areas where larger vehicles could pass.
4	C1060	Lengthen existing passing places and form additional areas where larger vehicles could pass.
5	A8082	None – the road is of a sufficient standard to accommodate construction traffic.
	B862	None - Timber Transport Forum Agreed Route
	C1064	Lengthen existing passing places and form additional areas where larger vehicles could pass.
	U1096	Lengthen existing passing places and form additional areas where larger vehicles could pass.
6	B851	None - Timber Transport Forum Agreed Route
	B861	Form areas where larger vehicles could pass.
	C1068	None – the road is of a sufficient standard to accommodate construction traffic.
7	B9154	None – the road is of a sufficient standard to accommodate construction traffic.
	B851	Form areas where larger vehicles could pass.
	C1056	Manage arrivals and departures to minimise the impact of construction traffic on the operation of the road.
8	B9090	None - Timber Transport Forum Agreed Route

	C1056	Lengthen existing passing places and form additional areas where larger vehicles could pass.
9	B9090	None - Timber Transport Forum Agreed Route
	C1154	Form areas where larger vehicles could pass.
	U3151	Lengthen existing passing places and form additional areas where larger vehicles could pass.
	U3138	Lengthen existing passing places and form additional areas where larger vehicles could pass.
	U1169	Lengthen existing passing places and form additional areas where larger vehicles could pass.
10	B9090	None - Timber Transport Forum Agreed Route
	C1154	Lengthen existing passing places and form additional areas where larger vehicles could pass.
	C1161	Lengthen existing passing places and form additional areas where larger vehicles could pass.
	U3114	Lengthen existing passing places and form additional areas where larger vehicles could pass.
11	B9090	None - Timber Transport Forum Agreed Route
	B9101	None - Timber Transport Forum Agreed Route
	A939	None - Timber Transport Forum Agreed Route
	C1173	Lengthen existing passing places and form additional areas where larger vehicles could pass
	B9007	None – the road is of a sufficient standard to accommodate construction traffic.

There may also be the requirement to alter the alignment of the road network or kerblines at existing junctions to accommodate HGV movements associated with construction activities. While the requirement for these will require to be confirmed by a topographical survey of the potential constrained areas, the potential mitigation is summarised in **Table 2**.

Table 2: Potential Road Improvements

Section	Road	Location	Potential Mitigation Measure
2	U1568	North and East of bridge over the Moniack Burn	Road Widening
	U2362	East of U1568 / U2362 Junction	Road Widening
	U1568	U1568 / U2362 Junction	Junction Widening
3	C1114	South of level crossing	Road Widening

CONCLUSIONS

It is considered that the Proposed Development will be constructed in a phased manner to support the availability of materials / components and the workforce, with this approach minimising the impact on the local road network.



Potential measures have been identified to manage construction traffic movements, and it is intended that this TA will present an initial set of measures and management strategy which can be used to support future discussion.

The Principal Contractor will subsequently have further detailed dialogue with THC as plans are refined, to ensure that a suitable set of measures are implemented in advance of the commencement of construction activities to mitigate the temporary increase in traffic on the operation of the local road network.

1 INTRODUCTION

1.1 OVERVIEW

- 1.1.1. WSP UK Limited has been appointed by the Applicant to provide consultancy advice in support of the Proposed Development which is described in **Chapter 1: Introduction and Background** of the EIAR **Paragraph 1.1.2**.
- 1.1.2. The Highland Council (THC) identified a requirement to prepare a Transport Assessment to consider the impact of construction traffic on the operation of the local transport network and this TA has been prepared in support of the application set out in **Chapter 1: Introduction and Background, Paragraph 1.1.2** of the EIAR.

1.2 PURPOSE OF THE TRANSPORT ASSESSMENT

- 1.2.1. This TA aims to address the key transport and access issues associated with the Proposed Development. This report identifies the anticipated key access routes and potential measures to accommodate the predicted temporary increase in traffic due to the construction of the Proposed Development.
- 1.2.2. This TA sets out the proposed scope of the future Transport Assessment and the objectives of this report are to:
- identify the relevant policy, legislation and guidance that will be reviewed in the formal submission of the TA;
 - determine the potential origin of construction traffic;
 - identify the level of trips generated by construction activities;
 - review the existing transport network;
 - identify the most suitable roads for vehicular traffic, including Heavy Goods Vehicles (HGVs);
 - review the potential impact of construction traffic on the operation of the local transport network; and
 - identify potential measures to mitigate the potential impact.

SCOPING DISCUSSIONS

- 1.2.3. In August 2024, THC provided transportation comments in relation to the Environmental Impact Assessment (EIA) Scoping Opinion Consultation Request for the project.
- 1.2.4. Consultation responses which are relevant to this Appendix, such as those provided by THC's Roads Officer (HCRO) in response to the EIA Scoping Request, are included in **Table 1.1**, with the full scoping response included within **Volume 5, Appendix 6.2: Scoping Opinion**. These requirements have been taken into consideration when preparing this report.

Table 1.1: Consultation Responses of Relevance to this Transport Assessment

Body / Organisation	Type of Consultation and Date	Response Outlining a Requirement to Discuss	How Response has been Considered
The Highland Council - Roads Officer (HCRO)	EIAR Scoping Request - August 2024	Transport Assessment: - It is noted that the Institute of Environmental Management and Assessment (IEMA) Guidelines <i>“approach does not cover the requirement to assess the existing local public road networks condition and capability to physically and safely accommodate the predicted traffic impacts, whilst remaining safe for other road users. This will be for all construction traffic, not just any abnormal loads (AILs).”</i> - An additional Transport Assessment (TA) will be required to do that assessment and clarify what physical road improvements and traffic management measures will be required.” “the additional TA required in support of any application will need to justify the adequacy of any temporary or permanent points of construction and ongoing operational access proposed from the local public road network. This will include: - justifying the adequacy of visibility splays, which may require traffic speed data for those sections of public road impacted. - The layout and construction form of all accesses will also need to be clarified and their suitability justified. - We would also expect any submission to justify why each individual new permanent accesses needs to be retained and if so, in what form.	The IEMA Guidelines will be followed to inform assessment of the environmental effects which will be submitted as part of the Environmental Impact Assessment Report (EIAR). This TA report constitutes analysis of the impact of construction traffic on the operation of the local transport network in relation to network condition and road safety. Assessment and identification of indicative physical road improvements and traffic management measures are outlined in Chapter 7 of this Appendix. It is anticipated that there will AILs supporting the construction of the Proposed Development, and that thee largest of these will be Mobile Cranes, these movements are assessed separately within Appendix 13.5: Abnormal Loads Route Assessment of the EIAR. Details of the indicative form and location of the proposed upgrades, and temporary and permanent junctions is discussed in Chapter 3 of this Appendix, and further detail will be included within the Construction Traffic Management Plan (CTMP) which is being prepared by the Principal Contractor.
		Road Improvements: <i>“the submitted scoping report only makes reference to traffic management measures. Depending on which local public roads will be impacted and the nature and scale of such impacts, it is probable that physical improvements to some roads may be required.”</i>	Assessment and identification of indicative physical road improvements and traffic management measures are outlined in Chapter 7 of this Appendix.

Body / Organisation	Type of Consultation and Date	Response Outlining a Requirement to Discuss	How Response has been Considered
		Annual Average Daily Flows: <i>"Given that the construction working hours for this development are proposed to be between 07:00 and 19:00, Annual Average Daily Flows (AADF) information should not be used for comparison purposes. 12-hour average flows should be used for the period 07:00 - 19:00. Using AADF will simply lessen the scale of change that the development will be generating during the working day"</i>	It is currently anticipated that construction traffic movement hours will be: - Monday to Sunday: 07:00 - 19:00 during British Summer Time (BST); and, - Monday to Sunday: 07:00 - 18:00 during Greenwich Mean Time (GMT). Therefore, the baseline traffic flows have had factors (derived from DfT's TRA0308) applied to convert the 24-hour AADF to comparable 11-hour flows. Where surveys have been undertaken, the 11-hour window has been extracted for assessment, therefore ensuring robustness.
		Construction Traffic Calculations: "When calculating the predicted quantum and profile of construction traffic likely to be generated by the proposed development, this should include the likely traffic generated by the felling and removal of any trees along the route. - It should also include the likely traffic required to create the proposed compound areas and the movement of the workforce to and from the development."	Timber Extraction traffic movements are discussed in Chapter 6 of this Appendix. Workforce movements are also considered in Chapter 6 of this Appendix.
		Importing Materials to Site: "we would expect the TA and EIA work to have reviewed the worst case scenario of all materials needing to be imported to site. Also, the predicted profile of traffic movements needs to reflect that the material from temporary access tracks, plus permanent tracks being reduced in scale after the main works are complete, will need to be exported from site." "We note the reference that "Materials required for the construction of any new stone access tracks are likely to be obtained from on-site borrow-pits, or imported from local quarries". If suitable GI work has not been undertaken to identify	Trip Generation and Distribution is discussed in Chapter 6 of this Appendix. It is assumed that all materials will be imported to site.

Body / Organisation	Type of Consultation and Date	Response Outlining a Requirement to Discuss	How Response has been Considered
		<i>sources of such gravel material along the route and the separate permissions required for such borrow pits have not been secured, we would expect the TA and EIA work to have reviewed the worst case scenario of all materials needing to be imported to site."</i>	
The Highland Council - Public Access Officer (HPAO)	EIA Scoping Request - August 2024	Outdoor Access: ■ <i>"The potential impact on and mitigation for public access should be assessed incorporating core paths, public rights of way, long distance routes, other paths, and wider access rights across the site. While the Scoping Report and an eventual EIA may include impacts on elements of outdoor access assessed under other headings, THC's Access Officer considers that all the impacts on outdoor access should be brought together here in a comprehensive assessment of the proposals visual and physical impacts on outdoor access during the preparatory, construction, operational and post-operational phases."</i> ■ <i>"Please be aware that formal processes may be required for diversions of Long Distance Routes (the Great Glen Way and Great Glen Canoe Trail), core paths and recorded public rights of way. Policies 77 and 78 of the Highland wide Local Development Plan will apply as will the access related elements of NPF4."</i>	Chapter 4 of this Appendix identifies the existing outdoor access network in relation to the Study Area and site in relation to Traffic and Transport. Chapter 7 of this Appendix addresses this impact and proposes indicative mitigation measures to address the impact on outdoor access where necessary.
Scottish Canals	EIAR Scoping Request - August 2024	Waterborne Canal Traffic: <i>"We request that waterborne canal traffic is considered within section 12 of the report, in order to maintain safe navigation along the full length of the Caledonian Canal."</i>	The Canal and the Great Glen Canoe Trail are noted in the Chapter 4 of this Appendix which identifies the Proposed OHL Alignment in relation to this navigable waterway. Chapter 7 of this Appendix addresses this impact and proposes indicative mitigation measures to address impact on outdoor access.

Body / Organisation	Type of Consultation and Date	Response Outlining a Requirement to Discuss	How Response has been Considered
Kirkhill & Bunchrew Community Council	EIAR Scoping Request - August 2024	No comments at this time regarding Transport: <i>“further comment will be made when the scoping opinion and statutory consultee comments are Available”.</i>	Noted.

2 TRANSPORT POLICY REVIEW

2.1.1. This Chapter of the Appendix will discuss the relevant transport policy in relation to the Proposed Development and **Table 2.1** outlines the policy that will be complied with within the Transport Assessment.

Table 2.1: Policy Identified for Review

Type of Document	National	Local
Policy	National Planning Framework 4 (2024) ²	HITRANS Regional Transport Strategy (2018 & Draft 2024) ³
		Highland Local Transport Strategy (2025 - 2035 Draft) ⁴
		Highland-wide Local Development Plan (2012) ⁵
Standards	National Roads Development Guide (2014) ⁶	
	Designing Streets: A Policy Statement for Scotland (2010) ⁷	
Guidance	Planning Advice Note (PAN) 75 (2005) ⁸	
	Transport Assessment Guidance (2012) ⁹	
	Environmental Impact Assessment Handbook (2018) ¹⁰	

2 The Scottish Government, (2023). National Planning Framework 4. Available at:

<https://www.gov.scot/binaries/content/documents/govscot/publications/strategy-plan/2023/02/national-planning-framework-4/documents/national-planning-framework-4-revised-draft/national-planning-framework-4-revised-draft/govscot%3Adocument/national-planning-framework-4.pdf>

3 HITRANS, (2024). HITRANS Regional Transport Strategy. Available at: <https://storymaps.arcgis.com/stories/644012c58f61412687ae683e4cb072d8>

4 Highland Council (2025) Highland Local Transport Strategy 2025–2035: Draft Themes and Policies. Available at:

https://www.highland.gov.uk/download/downloads/id/29476/highland_lts_-_draft_themes_and_policies.pdf

5 Highland Council (2012) Highland-wide Local Development Plan. Inverness: Highland Council. Available at:

https://www.highland.gov.uk/download/downloads/id/1505/highland-wide_local_development_plan.pdf

6 Scottish Collaboration of Transportation Specialists (2014). National Roads Development Guide. Available at:

https://www.scotsnet.org.uk/__data/assets/pdf_file/0035/45998/National-Roads-Development-Guide.pdf

7 The Scottish Government, (2010). Designing Streets: A Policy Statement for Scotland. Available at: <https://www.gov.scot/publications/designing-streets-policy-statement-scotland/>

8 The Scottish Government, (2005). Planning Advice Note: Pan 75 - Planning For Transport. Available at: <https://www.gov.scot/publications/planning-advice-note-pan-75-planning-transport/>

9 Transport Scotland, (2012). Transport Assessment Guidance. Available at: https://www.transport.gov.scot/media/4589/planning_reform_-_dpmtag_-_development_management_dpmtag_ref_17_-_transport_assessment_guidance_final_-_june_2012.pdf

10 Nature Scot (2018). Environmental Impact Assessment Handbook. Available at:

<https://web.archive.org/web/20220901050635/https://www.nature.scot/sites/default/files/2018-05/Publication%202018%20-%20Environmental%20Impact%20Assessment%20Handbook%20V5.pdf>

3 PROPOSED DEVELOPMENT

3.1 INTRODUCTION

- 3.1.1. The Proposed Development is described in full in **Chapter 3: Project Description** of the EIAR.
- 3.1.2. Given the vast area the Proposed Development covers, and the number of roads anticipated to be used by construction traffic in order to reach access points to the Proposed Development. This TA departs from the formal description of the Proposed Development outlined in **Chapter 3: Project Description** of the EIAR, in order to make this Transport Assessment digestible. This Chapter of the Appendix outlines the Proposed Development in terms of Traffic and Transport.

3.2 SITE CONTEXT

- 3.2.1. As previously mentioned, there are a number of roads anticipated to be used to access the Proposed Development. In order to geographically assess, this assessment has split the Proposed OHL Alignment into hypothetical 'sections' between defined locations.
- 3.2.2. While these 'sections' are defined as geographical segments of the Proposed OHL Alignment between locations, they are also intended to serve as a catch-all term to refer to the road links used by construction traffic. Therefore, together the sections in each local authority boundary form the overall Study Area for construction traffic.
- 3.2.3. The sections of the Proposed OHL Alignment that are relevant to this report, within Highland Council area, are outlined within **Table 3.1**.

Table 3.1: Highland Proposed OHL Alignment Sections

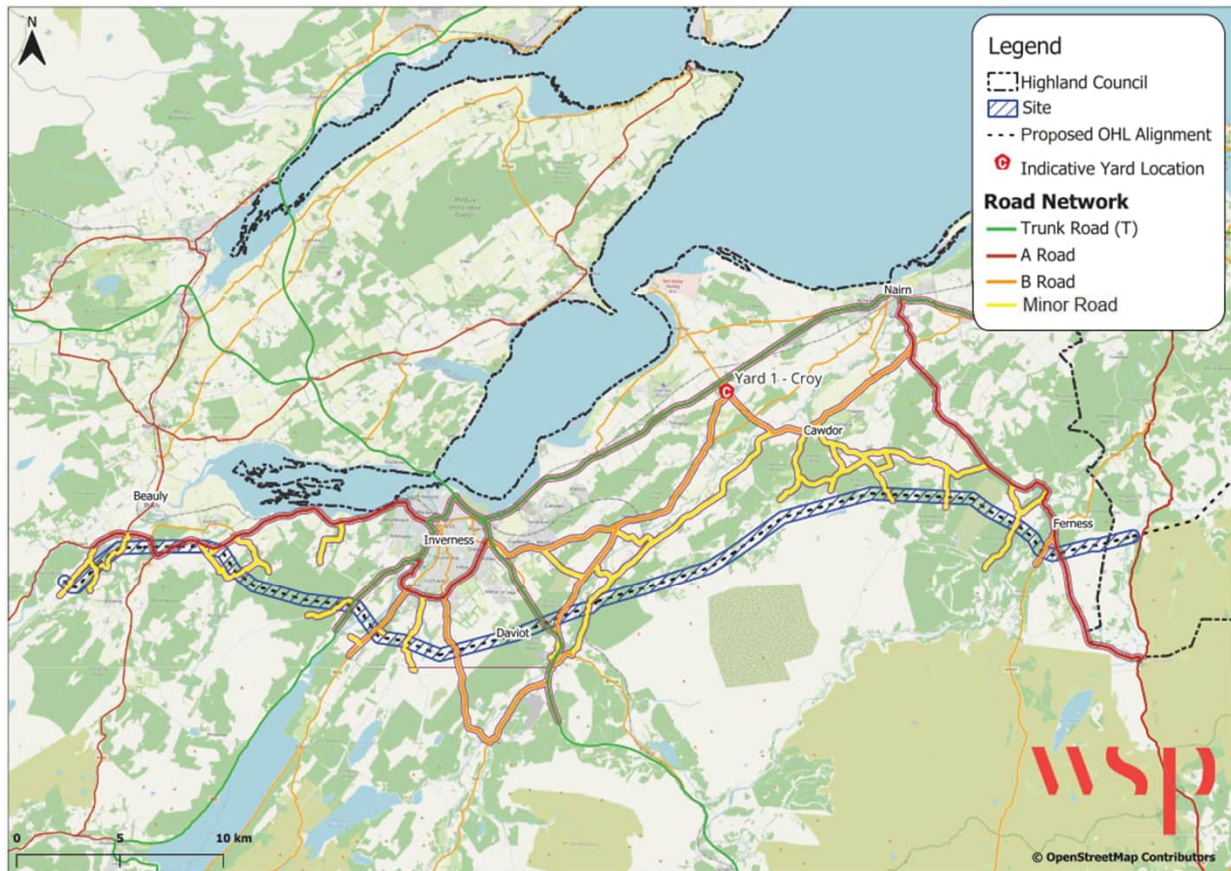
Proposed OHL Alignment Highland Section Number	Location	Study Area
1	Fanellan to River Beauly	Section 1 Study Area comprises the construction traffic routing on the roads used to reach the towers between Fanellan and River Beauly.
2	River Beauly to Cnoc na Moine	Section 2 Study Area comprises the construction traffic routing on the roads used to reach the towers between River Beauly and Cnoc na Moine.
3	Cnoc na Moine	Section 3 Study Area comprises the construction traffic routing on the roads used to reach the towers across Cnoc na Moine.
4	Cnoc na Moine to River Ness	Section 4 Study Area comprises the construction traffic routing on the roads used to reach the towers between Cnoc na Moine and River Ness.
5	River Ness to Knocknagael	Section 5 Study Area comprises the construction traffic routing on the roads used to reach the towers between River Ness and Knocknagael.
6	Knocknagael to the Daviot Wood	Section 6 Study Area comprises the construction traffic routing on the roads used to reach the towers between Knocknagael and Daviot Wood.

Proposed OHL Alignment Highland Section Number	Location	Study Area
7	Daviot Wood to The Highland Main Line	Section 7 Study Area comprises the construction traffic routing on the roads used to reach the towers between Daviot Wood and The Highland Main Line.
8	The Highland Main Line to Dalcharn	Section 8 Study Area comprises the construction traffic routing on the roads used to reach the towers between The Highland Main Line and Dalcharn.
9	Dalcharn to Acheneim Wood	Section 9 Study Area comprises the construction traffic routing on the roads used to reach the towers between Dalcharn and Acheneim Wood.
10	Acheneim Wood to Muckle Burn	Section 10 Study Area comprises the construction traffic routing on the roads used to reach the towers between Acheneim Wood and Muckle Burn.
11	Muckle Burn to Cairn Duhie	Section 11 Study Area comprises the construction traffic routing on the roads used to reach the towers between Muckle Burn and Cairn Duhie.

3.2.4. The Proposed Development alignment through Highland is shown in **Figure 13.1.3.1**, along with the potential location of the Yard at Croy which will support construction activities.

3.2.5. All figures are included in succession at a larger scale in **Annex A**.

Figure 13.1.3.1: Site Context



VEHICLE CLASSIFICATION

- 3.2.6. This report has been prepared using information supplied by the Applicant's Principal Contractor who has estimated the level of trips generated by construction activities.
- 3.2.7. The Principal Contractor confirms that construction activities will be supported by the following key vehicle types:
- Heavy Goods Vehicles (HGVs) transporting construction materials, plant and equipment to / from site;
 - Tipper Trucks (e.g. for transporting aggregates to site);
 - Light Goods Vehicles (LGVs) delivering materials to Site; and
 - Cars and vans transporting staff to and from the Site.
- 3.2.8. The largest vehicles associated with the development are mobile cranes of 150 t and 250 t as necessary. Mobile cranes have been assessed as AILs through an ALRA found within **Appendix 13.5: Abnormal Loads Route Assessment**. For the purposes of HGV assessments, the longest vehicle type making the most frequent trips to site will be a 16.5 m artic HGV and this has been used to inform this TA.

PROPOSED DEVELOPMENT TIMESCALES

3.2.9. It is anticipated that the construction of the Proposed Development would commence in 2026, with estimated energisation in Quarter 4 of 2030. The length of the main construction work is expected to take four years to 2030, with construction traffic likely to peak in 2026. Dismantling of existing OHLs would follow and is anticipated to be completed by Quarter 2 of 2032. The main tasks that are included in the key project stages are as follows:

- site mobilisation;
- forestry felling;
- access track construction;
- tower installation works;
- OHL installation works;
- OHL outage connection works;
- tower demolition / dismantling; and
- site reinstatements.

3.2.10. It is anticipated that the Proposed Development will be constructed in a phased manner working from west to east along the Proposed OHL Alignment.

CONSTRUCTION WORKING HOURS

- 3.2.11. Construction activities would in general be undertaken during daytime periods. Working hours are currently anticipated between 07.00 to 19.00 Monday to Sunday during British Summer Time (BST) and 07:00 to 18:00 during Greenwich Mean Time (GMT).
- 3.2.12. To ensure a robust assessment, the construction impact analysis has been based on the peak daily traffic flows of site deliveries over a 11-hour period, within the assumed GMT working hours. In doing so, simulating the most intensive movements required to construct the Proposed Development in the shorter time period within the construction window. Therefore, the condensing of movements provides a worst-case assessment scenario.

- 3.2.13. Any other out of hours working would be agreed in advance with THC. With regard to weekend working, this would be planned to minimise construction traffic, and areas of work would be restricted to those locations which would have the least impact on the local communities and general public.

3.3 PROPOSED YARD LOCATION

- 3.3.1. As shown in **Figure 13.1.3.1**, there is one potential Yard to be provided in the Highland area, with this located at Croy. This gated site will provide storage for materials and welfare facilities for workers. It has been determined by the Principal Contractor that construction materials would be delivered to the Yard prior to transport to Site.
- 3.3.2. It is acknowledged that construction activities would also be supported by aggregate deliveries which are generated throughout the construction programme, and these movements will not originate from the Yard. It is not currently known what quarries and suppliers would be used, and it has therefore been assumed that aggregates would be transported from the nearest quarry via the trunk road network (TRN) to the Site (the A9, A96 and the A82), via the most direct route.

3.4 POTENTIAL ACCESS ROUTES

- 3.4.1. This Chapter of the Appendix aims to outline the potential access routes that could be used to support the delivery of materials from the Yard, with this forming the Study Area (outlined in **Chapter 3.1** of the Appendix) for the purpose of this assessment. This appraisal looks to make use of the classified road network and avoid settlements as far as possible.
- 3.4.2. Access to the tower installation sites is to be achieved through the upgrading of existing access tracks or installing new permanent stone access tracks.
- 3.4.3. For the purpose of this TA, (as explained in **Chapter 3.1 of the Appendix**) the Highland Proposed OHL Alignment has been divided into eleven geographically defined sections (Sections 1-11), (as stated in **Table 3.1**). These sections have been defined taking cognisance of the intention to provide a Yard at Croy. **Table 3.2** summarises the assumed routes which construction traffic will use when accessing the installation sites from the Yard.

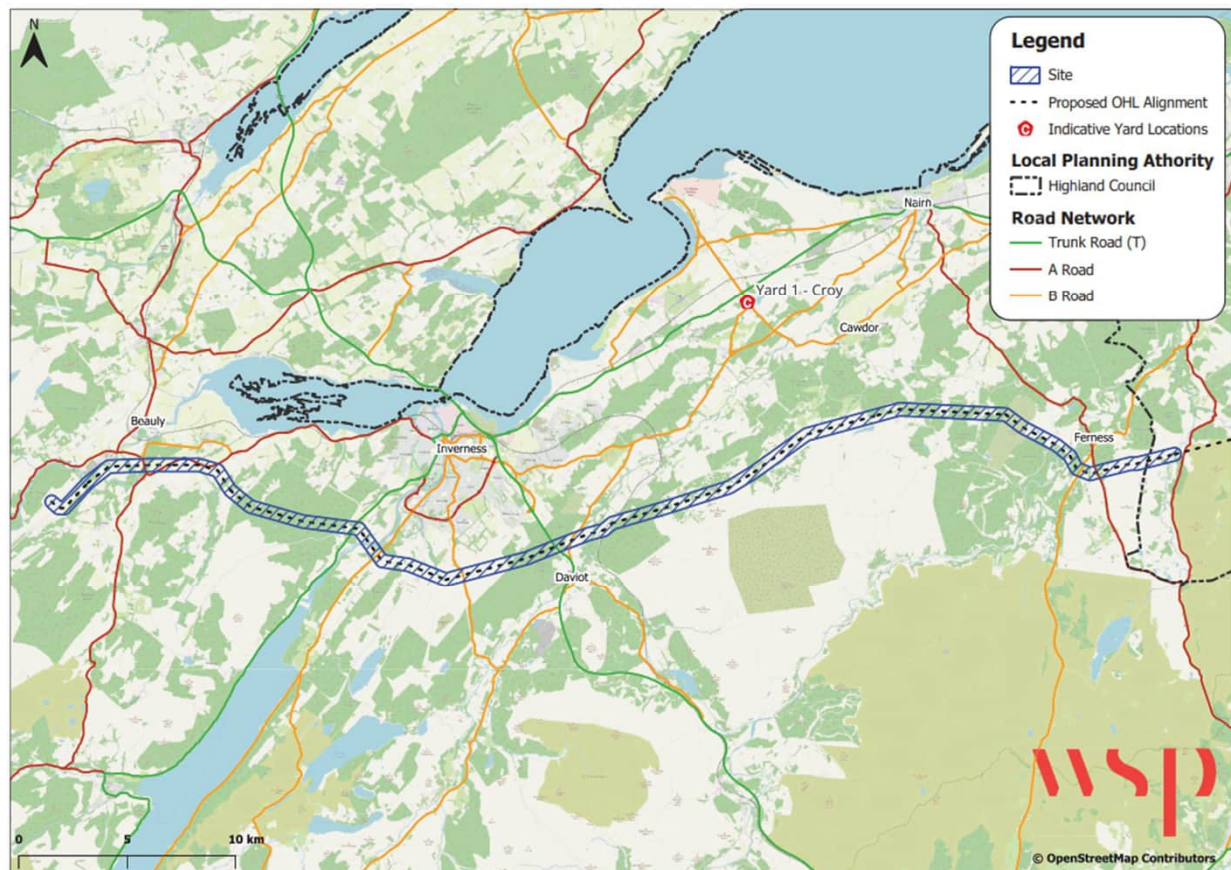
Table 3.2: Study Area Sections 12-19 Access Point Determination

Proposed Development Sections (Location)	Access Points for this Section	Yard Serving these Access Points	Roads Utilised from the TRN
1 (Fanellan to River Beauly)	Access Points (AP 1 - 4.1)	Croy Yard	A862, A831, C1106, U1604, a private road
2 (River Beauly to Cnoc na Moine)	Access Points (AP 5 - 15)	Croy Yard	A862, C1100, C1102, U1556, U2362, U1568
3 (Cnoc na Moine)	Access Points (AP 16)	Croy Yard	A862, C1114, U1560
4 (Cnoc na Moine to River Ness)	Access Points (AP 17 - 21)	Croy Yard	C1060
5 (River Ness to Knocknagael)	Access Points (AP 22 - 26)	Croy Yard	A8082, B862, C1064, U1096

6 (Knocknagael to Daviot Wood)	Access Points (AP 27 - 30)	Croy Yard	B851, B861, C1068
7(Daviot Wood to Highland Main Line)	Access Points (AP 31 - 35)	Croy Yard	B9154, B851, C1056
8 (Highland Main Line to Dalcharn)	Access Points (AP 36 - 37)	Croy Yard	B9090, C1056
9 (Dalcharn to Acheneim)	Access Points (AP 38 - 39)	Croy Yard	B9090, C1154, U3151, U3138, U1169
10 (Acheneim to Muckle Burn)	Access Points (AP 40 - 45)	Croy Yard	B9090, C1154, C1161, U3114
11 (Muckle Burn to Cairn Duhie)	Access Points (AP 46 - 50)	Elgin Yard	B9090, B9101, A939, C1173, B9007

3.4.4. The identified access routes are shown in **Figure 13.1.3.2**.

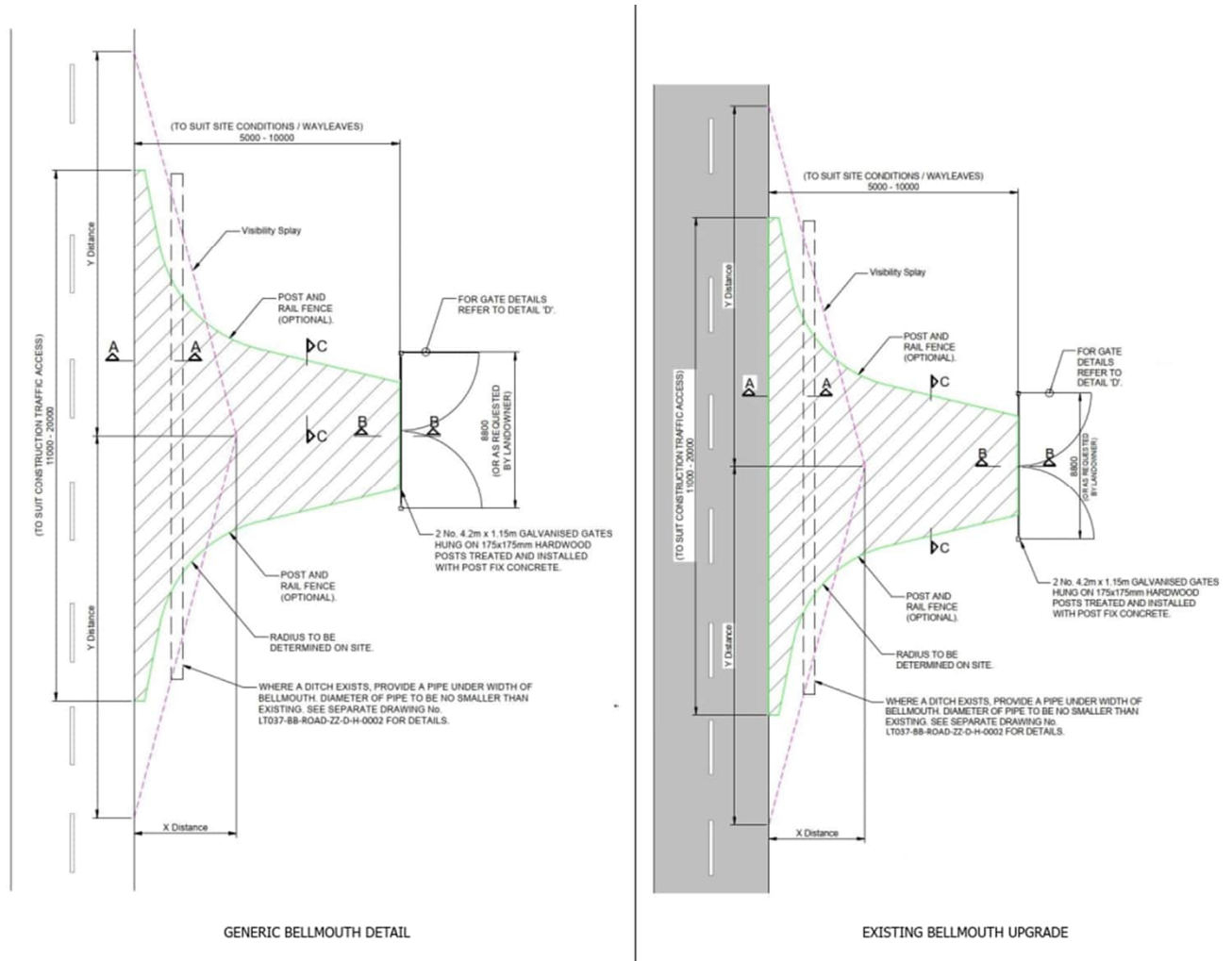
Figure 13.1.3.2: Proposed OHL Alignment Sections 1-11 Study Area



3.5 ACCESS JUNCTIONS

- 3.5.1. All the tower installation sites will be accessed via existing or new junctions to be formed on the adopted road network and the indicative form of these proposed junctions are shown in **Figure 13.1.3.3** with full detail presented in EIAR Report **Figure 3.7**.

Figure 13.1.3.3: Indicative Form of the Proposed Bellmouth Access Junctions



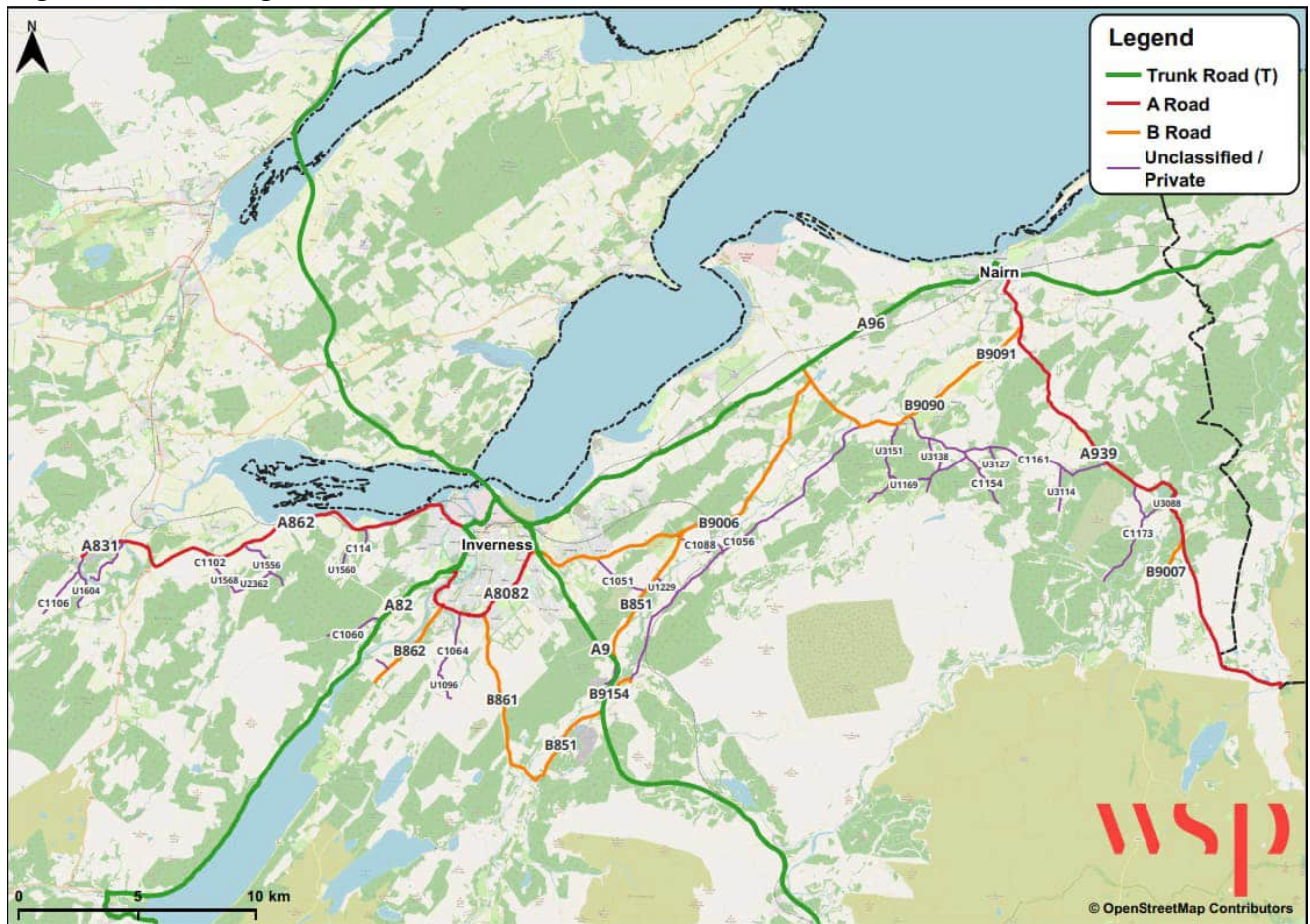
- 3.5.2. A total of 81 access points have been identified where construction traffic will access the site from the adopted local road network. A further 6 access points have been identified on the trunk road network. The formation of these junctions may be supported by the installation of temporary speed limits to support the provision of an appropriate level of visibility at each access location, using site-relevant instruments for the duration of the construction works, including Traffic Regulation Orders and Temporary Traffic Regulation Orders.

4 BASELINE CONDITIONS

4.1 INTRODUCTION

- 4.1.1. This Chapter of the Appendix discusses the local road network to be used throughout the duration of the construction of the Proposed Development. **Figure 13.1.4.1** shows the Proposed OHL Alignment along with the access routes it is assumed that construction traffic will utilise. The majority of the road network is rural in nature and its standard reflects this.

Figure 13.1.4.1: Highland Road Network



4.2 TRUNK ROAD NETWORK

A9 (T)

- 4.2.1. The A9 forms part of Scotland's trunk road network, connecting Stirling with Thurso, via Inverness. The A9 is made up of single and dual carriageway sections and is generally subject to the national speed limit.

A82 (T)

- 4.2.2. The A82 (T) is a two-way single carriageway which forms part of the trunk road network and provides a connection between Glasgow and Inverness via Fort William. The A82 (T) is generally subject to the national speed limit, which reduces when passing through urban areas.

A96 (T)

- 4.2.3. The A96 (T) is a two-way single carriageway which forms part of the trunk road network and provides the main road connection between Aberdeen and Inverness. The A96 (T) is generally subject to the national speed limit, which reduces to 30 miles per hour (mph) when passing through urban areas.

LOCAL ROAD NETWORK

A8082

- 4.2.4. The A8082, also known as the Inverness Southern Distributor Road, is a two-way single carriageway road which provides a connection between the A82 and the A9 (T). The A8082 is generally subject to a 40 mph speed limit.

A831

- 4.2.5. The A831 is a two-way single carriageway road which and provides a connection between the A82 in Drumnadrochit and the A862. The A831 is generally subject to the national speed limit.

A833

- 4.2.6. The A833 forms a junction with the A862 at Phoinneas towards Milton via the C1108 as a two-lane single carriageway approximately 6 to 6.5 m in width and subject to the national speed limit. Land use is generally rural agricultural in nature with few residential properties along its length. The road features low stone walls adjacent to the carriageway.
- 4.2.7. Within the Study Area, the A833 surface condition is generally consistent with a tarmac surface, with central and edge of carriageway road markings. There is one structure throughout and no known weight restrictions. The junction of the A833 with the A862 has a small radius but provides good visibility for traffic from the A862 onto the A862. The junction of the A833 with the C1108 provides a wide turning radius for traffic to and from the north of the A833.

A862

- 4.2.8. The A862 is a single carriageway road which provides a connection between Inverness and Dingwall. The A862 is generally subject to the national speed limit, which reduces when passing through villages.

A939

- 4.2.9. The A939 is a two-way single carriageway road providing a connection between the A96 (T) in Nairn to the A95 (T) in Grantown-on-Spey. The A939 is generally subject to the national speed limit which reduces when passing through urban areas.

B851

- 4.2.10. The B851 provides a connection between the B9006 and the B862, via the A9 (T). The B851 to the north-east of the A9 (T) is a single-track road of approximately 4 m in width that is supported by passing places. This section of the B851 is has a signed weight restriction of 17 t except for access. The section of the B851 to the east of the A9 (T) is a single two-way carriageway road subject to the national speed limit.

B861

- 4.2.11. The B861 is a two-way single carriageway road providing a connection from the A82 (T) in Inverness to the B851. To the south of Inverness, the B861 is a single carriageway road of approximately 4.5 m in width that is not supported by passing places. This section of the B861 is subject to the national speed limit.

B862

- 4.2.12. The B9862 is a single two-way carriageway road that provides a connection between the B865 in Inverness and the A82 (T). The B862 is subject to the national speed limit, that reduces when passing through urban areas.

B9006

- 4.2.13. The B9006 is a single two-way carriageway road that provides a connection between the B865 in Inverness and Fort George. The B9006 crosses both the A9 (T) and the A96 (T) and is subject to the national speed limit that reduces when passing through urban areas.

B9007

- 4.2.14. The B9007 is a single carriageway road which provides a connection between the A940 near Logie and the A938, via the A939. The B9007 is subject to the national speed limit, which reduces when travelling through urban areas.

B9090

- 4.2.15. The B9090 is a single two-way carriageway road that provides a connection between the B9006 and the A96 (T) in Nairn. The B9090 is mainly subject to the national speed limit which reduces when passing through urban areas.

B9091

- 4.2.16. The B9091 is a single two-way carriageway road that provides a connection between the Croy and the B9090 in Nairn. The B9091 is mainly subject to the national speed limit which reduces when passing through urban areas.

B9101

- 4.2.17. The B9101 is a two-way single carriageway road that provides a connection between the A96 (T) and the B9090 via the A939. The B9101 is subject to a 50 mph speed limit within the vicinity of the Proposed Development.

B9154

- 4.2.18. The B9154 is a two-way single carriageway road that connects into the A9 (T) at both its northern and southern end. The B9154 is subject to the national speed limit.

C1108

- 4.2.19. The C1108 runs through Kiltarlity from the A833 at Brodie's Corner, located approximately 2.5 km east of the Proposed Site Access. The road is a two-lane single carriageway, varying between approximately 4.5 and 6.5 m in width and is subject to a 30 mph speed limit from Allarburn Drive to Post Office Brae where the speed limit increases to 60 mph. Between these locations there are residential houses either side of the carriageway and beyond is agricultural land. At Kiltarlity Hall

there is a zebra crossing which connects the northern side of the carriageway to a track that leads to Tomnacross Primary School, approximately 600 m south of the C1108.

- 4.2.20. The surface of the C1108 is mixed with tarmac on Allerburn that requires upgrading and from Kiltarlity Hall to Bruiach Burn Bridge, there appears to be a recently upgraded Asphalt surface, and thereafter the road is tarmac. There are no central road markings although the carriageway appears to support two-way movements.

C1051

- 4.2.21. The C1051 is a single-track road which is approximately 3 m in width, providing a connection between the B9006 and the B851. The C1051 is supported by passing places and subject to the national speed limit. There is a signed weight restriction of 17T on the C1051.

C1056

- 4.2.22. The C1056 is a single-track road which is approximately 3 m in width, which connects to the B9154 and the B9090. The C1056 is subject to the national speed limit and supported by passing places. The road is currently signed as unsuitable for HGVs.

C1060

- 4.2.23. The C1060 is a single-track road which is approximately 3 m in width and provides a connection between the A82 (T) and the C1072. The C1060 is subject to the national speed limit and is supported by passing places.

C1064

- 4.2.24. The C1064 provides a connection between the B8082 and B862. Within Inverness, the C1064 is a two-way single carriageway road subject to a 30 mph speed limit. Upon leaving Inverness, the road narrows to a single-track road of approximately 3 m in width. This section of the road is subject to the national speed limit and is supported by passing places.

C1068

- 4.2.25. The C1068 is a two-way single carriageway between the A9 (T) and Daviot Quarry. To the south of the quarry the road narrows to a single-track road approximately 3 m that is supported by passing places. The C1068 is subject to the national speed limit.

C1088

- 4.2.26. The C1088 is a single-track road which is approximately 3 m in width, which connects the B9006 with the C1056. The C1088 is subject to the national speed limit and is supported by passing places. There are signed weight restriction of 17T on the road due to a weak bridge over the River Nairn.

C1100

- 4.2.27. The C1100 is a single-track road of approximately 3 m in width that runs southeast from the A862 and is subject to the national speed limit and is supported by passing places.

C1102

- 4.2.28. The C1102 is a single-track road of approximately 4 m in width, providing a connection between the A862 and the C1072. The C1102 is subject to the national speed limit and is not currently supported by passing places.

C1106

- 4.2.29. The C1106 provides a connection between the A831 and the C1108. Between the A831 and the U1604 the C1106 is a two-way single carriageway road, which reduces to a single-track road of approximately 3 m supported by passing places after this point. The C1106 is subject to the national speed limit.

C1114

- 4.2.30. The C1114 is a single-track road of approximately 3 m in width that runs south from the A862. The C1114 is subject to the national speed limit and is not currently supported by passing places.

C1154

- 4.2.31. The C1154 is approximately 5 m in width between the B9090 and the C1161, reducing to approximately 3 m in width for a short section in the vicinity of Ordbreck and to the south of Mains of Clunas, with the reduction in width supported by passing places.
- 4.2.32. The C1154 is subject to the national speed limit.

C1161

- 4.2.33. The C1161 is a single-track road of approximately 3 m in width, providing a connection between the A939 and the C1154. The C1161 is subject to the national speed limit and is supported by passing places.

C1173

- 4.2.34. The C1173 is a single-track road of approximately 3 m in width, connecting from the A939 and the C1154. The C1173 is subject to the national speed and is supported by passing places.

U1604

- 4.2.35. The U1604 runs between the C1108 at Culburnie Burn to the C1106 at Hill View. The road is approximately 4.5 m in width, subject to a 60 mph speed limit, and either side of the carriageway there is mostly agricultural land use with few holiday cottages.
- 4.2.36. The surface of the U1604 is generally consistent with tarmac single carriageway throughout, and with passing places at periodic intervals. There are no central road markings although the carriageway appears to support two-way movements with use of the passing places.

U1096

- 4.2.37. The U1096 is a single carriageway road which provides a connection between the C1064 and the C1068. The U1096 is subject to the national speed limit and is supported by passing places.

U1169

- 4.2.38. The U1169 is a single-track road of approximately 3 m in width, providing a connection between Cantry and the C1154. The U1169 is subject to the national speed and is supported by passing places.

U1229

- 4.2.39. The U1299 is a single-track road of approximately 3 m in width, providing a connection between the B851 and the C1056. The U1229 is subject to the national speed and is supported by passing places. There is a signed weight restriction of 17T on the U1229.

U1233

- 4.2.40. The U1233 is a single-track road of approximately 3 m in width, providing a connection between the C1088 and the C1056. The U1233 is subject to the national speed limit and is supported by passing places. There is a signed weight restriction of 17T on the road due to a weak bridge over the River Nairn.

U1556

- 4.2.41. The U1556 is a single-track road of approximately 3 m in width, that runs south from the A862. The U1556 is subject to the national speed and is supported by passing places.

U1560

- 4.2.42. The U1560 is a single-track road of approximately 3 m in width, that runs south from the C114. The U1560 is subject to the national speed limit and is supported by passing places.

U1568

- 4.2.43. The U1568 is a single-track road of approximately 3 m in width, providing a connection between the C1102 and the U2362. The U1568 is subject to the national speed limit and is supported by passing places.

U1604

- 4.2.44. The U1604 is a single-track road of approximately 4 m in width, providing a connection from the C1106 and the C1108. The U1604 is subject to the national speed and is not currently supported by passing places.

U2362

- 4.2.45. The U2362 is a single-track road of approximately 3 m in width, providing a connection between the U1556 and the U1568. The U2362 is subject to the national speed and is supported by passing places.

U3088

- 4.2.46. The U3088 is a single-track road of approximately 3 m in width, providing a connection between the A939 and the C1173. The U3088 is subject to the national speed and is not currently supported by passing places.

U3114

- 4.2.47. The U3114 is a single-track road of approximately 3 m in width, providing a connection between the C1161 and C1154. The U3114 is subject to the national speed and is supported by passing places.

U3127

- 4.2.48. The U3127 is a single-track road of approximately 3 m in width, providing a connection between the C1161 and C1154. The U3127 is subject to the national speed and is not currently supported by passing places.

U3138

- 4.2.49. The U3138 single-track road of approximately 3 m in width, providing a connection between the C1154 and the U1169. The U3138 is subject to the national speed and is not currently supported by passing places.

U3151

- 4.2.50. The U3151 is a single-track road of approximately 3 m in width, providing a connection between the A9090 and the U1169. The U3151 is subject to the national speed and is supported by passing places.

4.3 PEDESTRIAN, CORE PATH AND CYCLIST FACILITIES

Pedestrian Facilities

- 4.3.1. The Proposed OHL Alignment passes through an area which is predominantly rural in nature, with limited pedestrian facilities provided outwith urban areas.
- 4.3.2. There are pedestrian facilities provided by way of footways adjacent to carriageways on several sections of the access routes, predominantly within the vicinity of Inverness and Nairn. The city of Inverness and town of Nairn are served by comprehensive pedestrian networks supported by controlled pedestrian crossings.
- 4.3.3. Pedestrian facilities are also present in the villages of Croy, Inchmore, Newlands of Culloden, Wester Balblair, and Daviot, which support local pedestrian access.

Core Paths

- 4.3.4. A review of the Core Paths within Highland indicates that a number of Core Paths are located within the vicinity of the proposed access routes, and these are detailed in **Figure 13.1.4.2** to **Figure 13.1.4.5**.
- 4.3.5. The Great Glen Canoe Trail which runs from Corpach (Fort William) to Clachnaharry (Inverness) along the Caledonian Canal, also passes through the Proposed OHL installation sites between Access Points 20 - 23 at Scanipport.

Figure 13.1.4.2: Highland Core Path and Cyclist Network Overview

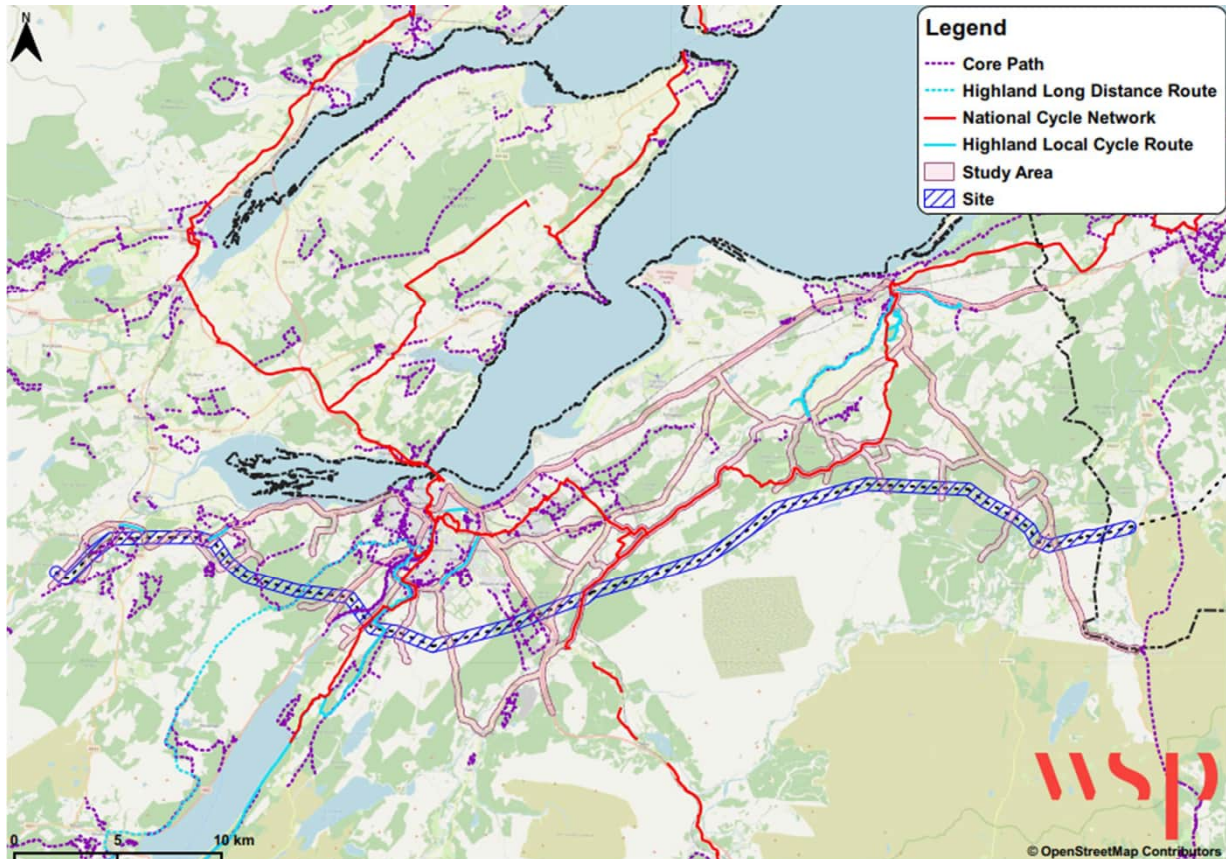


Figure 13.1.4.3: Highland Core Path and Cyclist Network (Beauly - Inverness)

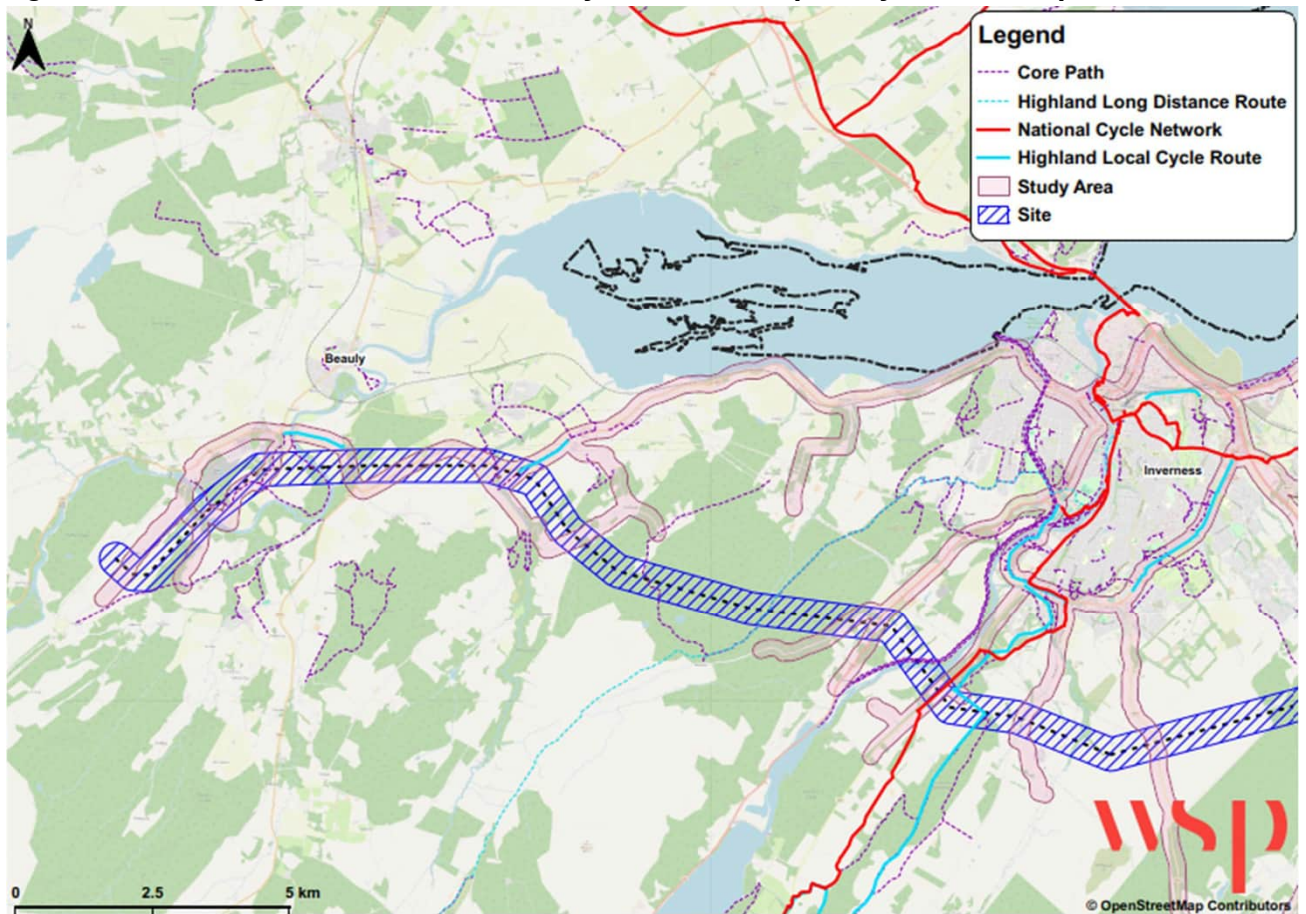


Figure 13.1.4.4: Highland Core Path and Cyclist Network (Inverness - Croy)

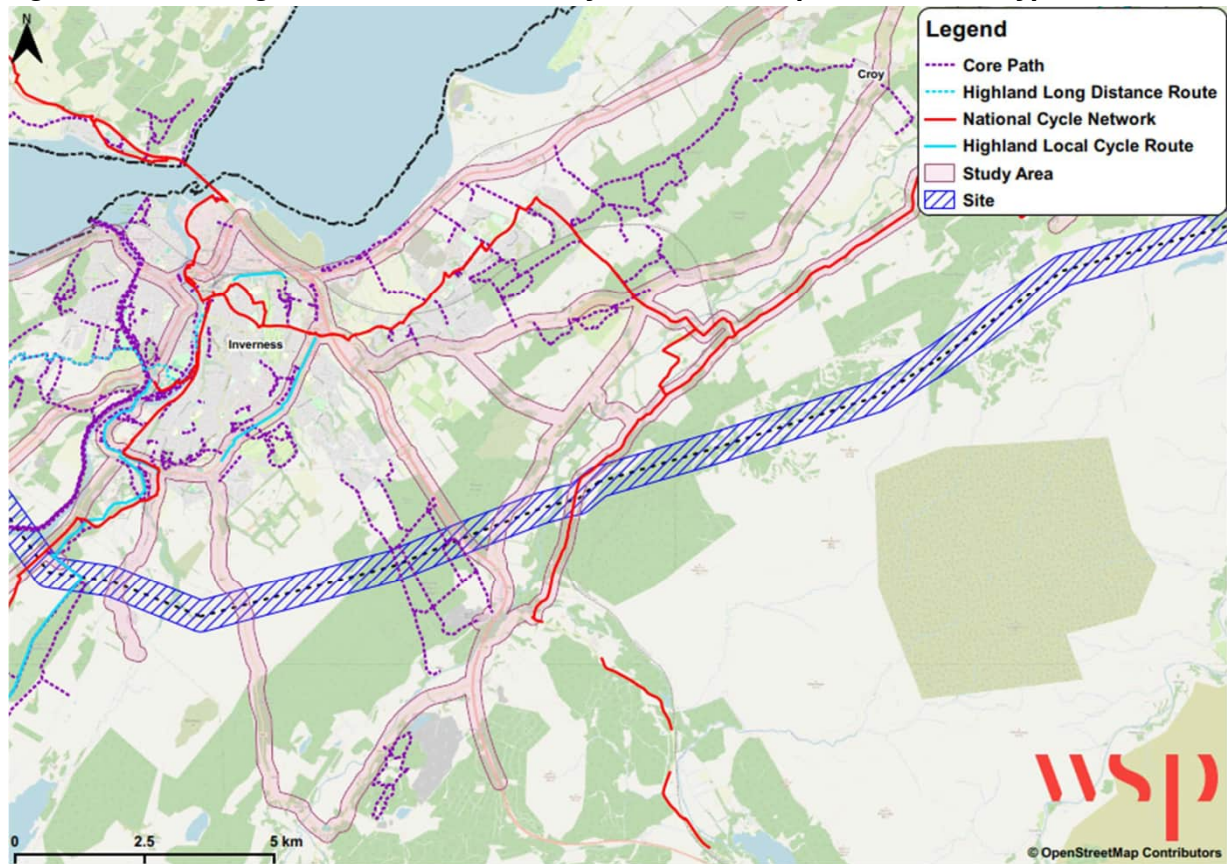
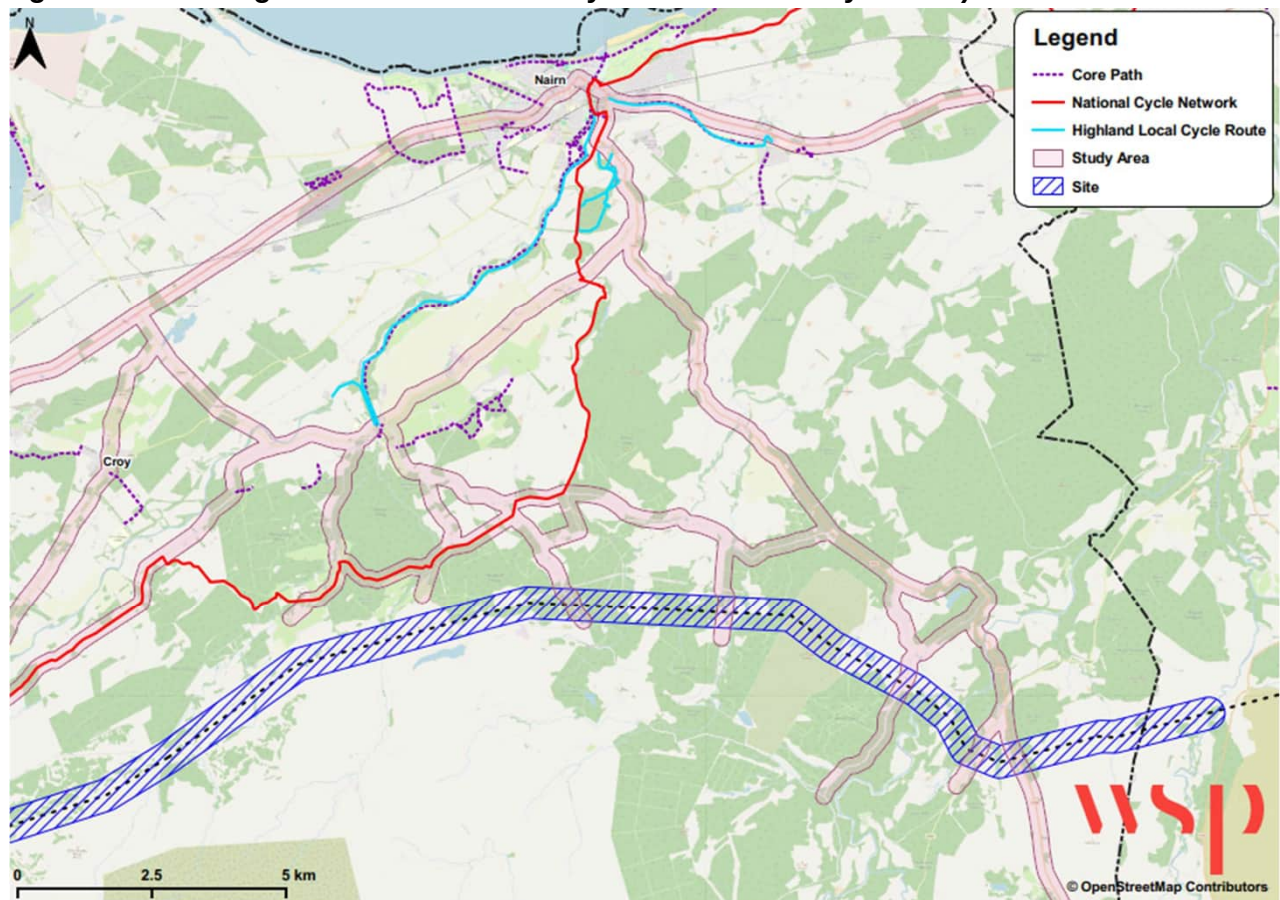


Figure 13.1.4.5: Highland Core Path and Cyclist Network Croy - Nairn)



Cycle Facilities

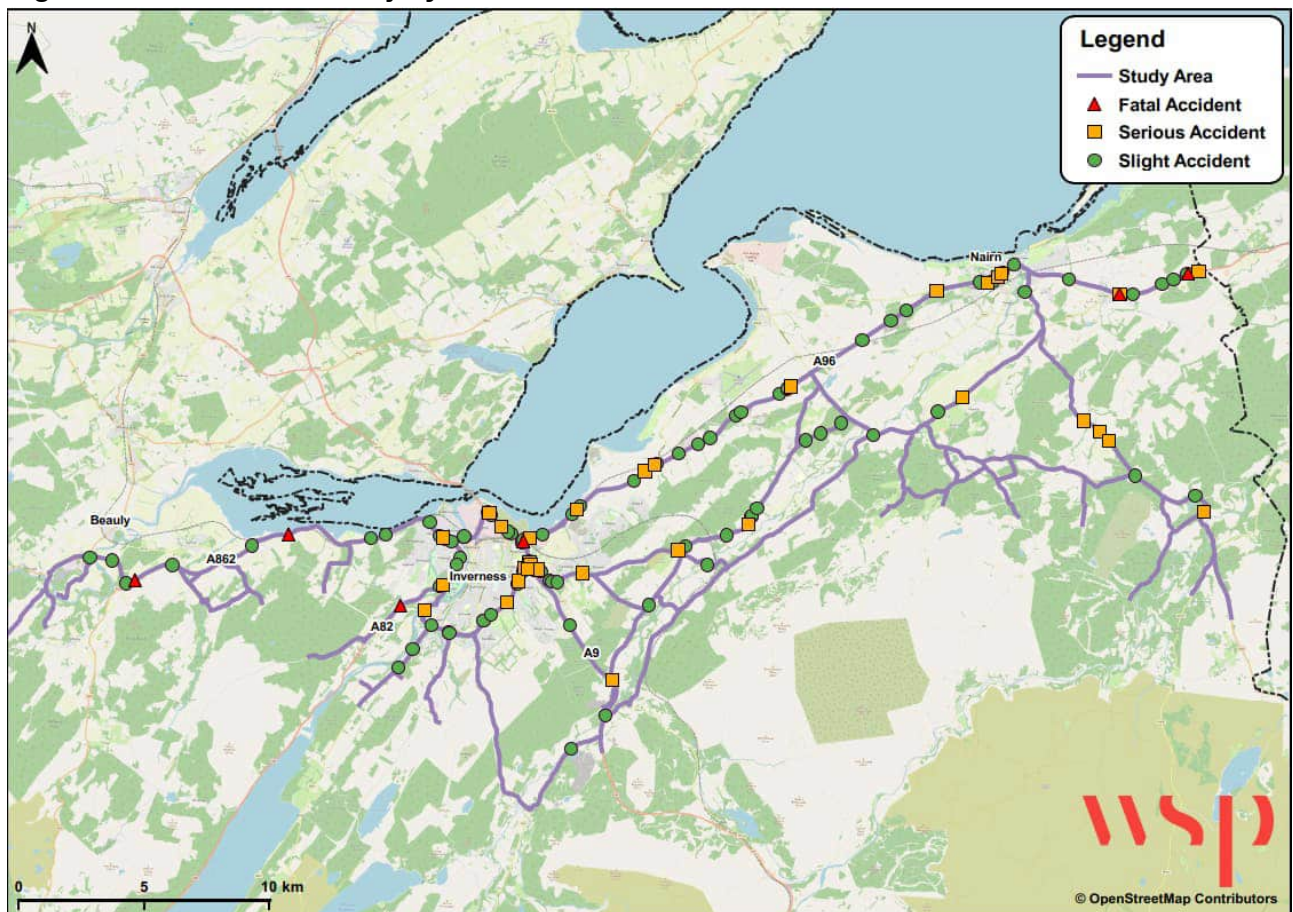
- 4.3.6. Inverness has a comprehensive cycle network with facilities being provided both on and off road. Nairn has a number of local cycling facilities within the town predominantly located away from the primary road network.
- 4.3.7. Local cycle facilities are also provided within the areas of Wester Balblair, Inchmore, Culloden, and Cawdor, with these predominantly located remote from the primary road network. Local cycle routes consisting of shared-use and recreational facilities can be found in the following locations:
 - adjacent to the A862, in sections between Wester Balblair and the Inchmore;
 - adjacent to the B862 between Scaniport and Inverness;
 - a mountain bike trail through Drumashie Plantation to Inverness via Scaniport;
 - wide shared-use footways either side of the A8082 (Inverness link road) for the majority of the route; and
 - adjacent to the carriageway Forres Road between Tom Semple Road and Aldearn.
- 4.3.8. Other long-distance trails that are part of the core path and cycle network include the Great Glen Way that comprises a combination of on-road and traffic free sections running from An Aird (Fort William) to Inverness Castle passing between Cnoc na Moine and Craig Leach through which the Proposed Development will be accessed via Access Points 16-19.
- 4.3.9. A review of Sustrans' National Cycle Network (NCN) map indicates that NCN Route 1 passes through Nairn and Inverness, with the route supported by both on-road and traffic free cycle

facilities. NCN Route 78 runs from Inverness to Dores while NCN Route 7 runs from Culloden to Carrbridge. NCN 78 and 7 are located in the vicinity of the Proposed Development at Access Points 22-23.

4.4 PERSONAL INJURY ACCIDENT REVIEW

- 4.4.1. Injury accident data for the most recently available five-year period, covering 2018 to 2022, was obtained for the Study Area links. The locations and severity of the accidents reported in the Study Area are shown in **Figure 13.1.4.6** and are summarised below.

Figure 13.1.4.6: Personal Injury Accident Data 2018-2022



- 4.4.2. A total of 132 accidents were recorded on roads within the Study Area, of which 94 were recorded as slight, 32 were recorded as serious and six were recorded as fatalities.

Two of the fatal accidents were recorded on the A96 (T) to the east of Nairn, with both being as a result of driver error. Two fatalities were also recorded on the A862, with one of the accidents occurring to the east of the A833. The accident was likely due to rider error and resulted in a fatal injury to a cyclist. The second fatal accident on the A862 involved one vehicle and was the result of careless driving. The fatal accident that occurred on the A82 (T) to the southeast of Inverness involved a motorcycle and an HGV and was likely as a result of rider error. A fatality was also recorded on the A9 (T) at the Raigmore Interchange. Contributory factors for the accident were given as driver failing to signal properly, pedestrian misjudging the speed of the vehicle and the existing road layout.

- 4.4.3. Eleven accidents involving pedestrians were recorded across the Study Area, with all of them occurring within Inverness. One of the accidents resulting in a fatality occurred on the Raigmore Interchange and is described above. Four serious accidents involving pedestrians were recorded, with one occurring on the A9 (T), one on the A82 (T), one on the A862 and one on the B9006. There were a further six accidents resulting in slight injuries recorded, with three occurring on the A82 (T), two on the A8082, and one on the A862.
- 4.4.4. Sixteen accidents involving cyclists were recorded in the Study Area. One which resulted in a fatality was recorded on the A862 and is described above. Three serious accidents involving cyclists were recorded across the area, one on the A82 (T), one on the A8082 at Inshes Roundabout and one on the B9006. Twelve slight accidents involving cyclists were also recorded, with three reported on the A8082, two on the A82 (T), two on the A862, one on the A831, one at the Raigmore Interchange, one on the B851, one on the B9091 to the east of Croy, and one on the unclassified C1088.
- 4.4.5. Fourteen accidents involving motorcyclists were recorded across the Study Area. One which resulted in a fatality was recorded on the A82 (T) to the southeast of Inverness and is described above. Five of the accidents resulted in serious injuries, with three occurring on the A939 between Nairn and Ferness, one on the A96 (T) near Culloden and one on the A8082 in Inshes. There were a further eight accidents resulting in slight injuries recorded, with three occurring on the A96 (T) between Inverness and Nairn, two on the A862 between Inverness and Bunchrew, two on the B9006, and one on the A8082 at its junction with the A9 (T).
- 4.4.6. A total of twenty accidents involved HGVs, of which fourteen were recorded as slight, five serious and one fatal. The majority of these accidents were caused by driver / rider / pedestrian error, rather than an issue with the road network.
- 4.4.7. The accident data review confirms that that only one accident was recorded on the unclassified road network which is to be used to support access to the tower installation sites over the five-year assessment period, and no accident cluster sites were observed within 200 m of the proposed construction access points.
- 4.4.8. **Table 4.1** identifies the accident rates associated with each of the local roads with the highest number of accidents, comparing these rates with the national averages as identified by the DfT for the road type.

Table 4.1: Personal Injury Accident Summary (2018-2022)

PIA Study Area	Road Type	Slight	Serious	Fatal	Total	PIA Rate (per Million Veh Km)	National Average (per Million Veh Km)*	Above or Below National Average
A831 between the C1106 and the A862	Urban A road	1	0	0	1	0.14	0.43	Below
A862 between the A831 and Scorguie Rd, Inverness	Rural A road	7	0	2	9	0.06	0.12	Below
A862 between Scorguie Rd, Inverness and the A82	Urban A road	3	1	0	4	0.09	0.43	Below
A82 Dochgarroch to Inverness	Rural A road	2	1	1	4	0.07	0.12	Below
A8082 between the A9 and the Slackbuie Distributor Road	Urban A road	5	1	0	6	0.043	0.43	Below
A8082 between the A82 and the Slackbuie Distributor Road	Urban A road	4	4	0	8	0.11	0.43	Below
B862 (southwest of Inverness) between Scaniport and Cullaird	Rural other road	3	0	0	3	0.20	0.20	Below
B9006 between the A9 and the B851	Urban other road	4	2	0	6	0.07	0.4	Below

PIA Study Area	Road Type	Slight	Serious	Fatal	Total	PIA Rate (per Million Veh Km)	National Average (per Million Veh Km)*	Above or Below National Average
C1068 (south of Inverness) southwest of the A9 junction at Daviot/Dundavie	Rural other road	0	0	0	0	0.00	0.20	Below
B851 (Southeast of Inverness) north of the junction with the A9 at Mains of Daviot	Rural other road	3	2	0	5	0.12	0.20	Below
C1056 (from B9154 at Craggie to U1233 at Dalroy), at Mains of Daltulich	Rural other road	0	0	0	0	0.00	0.20	Below
B9006 between Croy and Culloden	Urban other road	7	2	0	9	0.25	0.4	Below
B9090 between the B9091 and A939	Rural other road	2	1	0	3	0.06	0.2	Below
A939 between the B9101 and south of Ferness	Rural A road	2	4	0	6	0.19	0.12	Below

*The DfT reported road casualties for Great Britain 2021 as presented in RAS03021: national accident rate per million vehicle kms by road classification.

- 4.4.9. As shown in **Table 4.1**, of the local roads that experienced the highest number of accidents, the majority of the road network is shown to have annual accident rates that are below the respective national average for each of the road's characteristics. This suggests that there are no existing safety concerns on the majority of the network.
- 4.4.10. The majority of reported accidents have been attributed to driver / pedestrian / rider error, and further analysis of the accident data confirms that there are no specific safety concerns on the local road network which will support access to the tower installation sites from the trunk road network.
- 4.4.11. The accident data review has therefore confirmed that there are no specific safety concerns within the Study Area.

4.5 EXISTING TRAFFIC FLOWS

- 4.5.1. To establish baseline traffic flows, Automatic Traffic Counters (ATCs) were installed in April and May 2024 at the following locations:
- ATC 1: C1106 between Fanellan and the U1604;
 - ATC 2: C1106 between Fanellan and the C1108;
 - ATC 3: U1604 between the C1106 and the C1108;
 - ATC 4: C1106 between the U1604 and the A831;
 - ATC 5: A831 between the C1106 and the A862;
 - ATC 6: B862 (southwest of Inverness) between Scaniport and Cullaird;
 - ATC 7: C1068 (south of Inverness) southwest of the A9 junction at Daviot/Dundavie;
 - ATC 8: B851 (southeast of Inverness) north of the junction with the A9 at Mains of Daviot;
 - ATC 9: C1056 (from B9154 at Craggie to U1233 at Dalroy), at Mains of Daltulich;
 - ATC 10: B9006 (southeast of Croy) at Cantray; and
 - ATC 11: A939 (South of Nairn) at Achamore.
- 4.5.2. To supplement the ATC surveys, traffic survey data has been obtained from the following Transport Scotland (TS) and Department for Transport (DfT) traffic count sites for the remaining road network contained within the Study Area:
- DfT Traffic Count ID - 80331, Manual Count 2022: A862 between B9164 and Scorguie Rd, Inverness;
 - DfT Traffic Count ID - 80330, Manual Count 2018: A862 between the A82 and King Brude Road roundabout;
 - TS Traffic Count ID - 01040, Manual Count 2022: A82 Drumnadrochit to Inverness;
 - DfT Traffic Count ID - 90026, Manual Count 2018: A8082 between B861 and the Slackbuie Distributor Road;
 - TS Traffic Count ID - 09611, Live Count 2024: A8082 between the A9 and the Slackbuie Distributor Road;
 - TS Traffic Count ID - 09602, Live Count 2024: B9006 between the A9 and the B851;
 - TS Traffic Count ID - 00146, Live Count 2024: B9006 Fort George Rd, at Loch Flemington, North of the B9006 / B9090 junction; and
 - TS Traffic Count ID - 00136, Live Count 2024: B9090 Cawdor - Nairn Road, east of Brackla Distillery.

4.5.3. The most recent count data available on the DfT website has been used and extrapolated to 2024 where necessary to align with the ATC data. A summary of the 2024 two-way flows on the road links contained in the Study Area is provided in **Table 4.2**, with the locations of the traffic count sites shown in **Figure 13.1.4.7**.

Figure 13.1.4.7: Traffic Count Site Locations

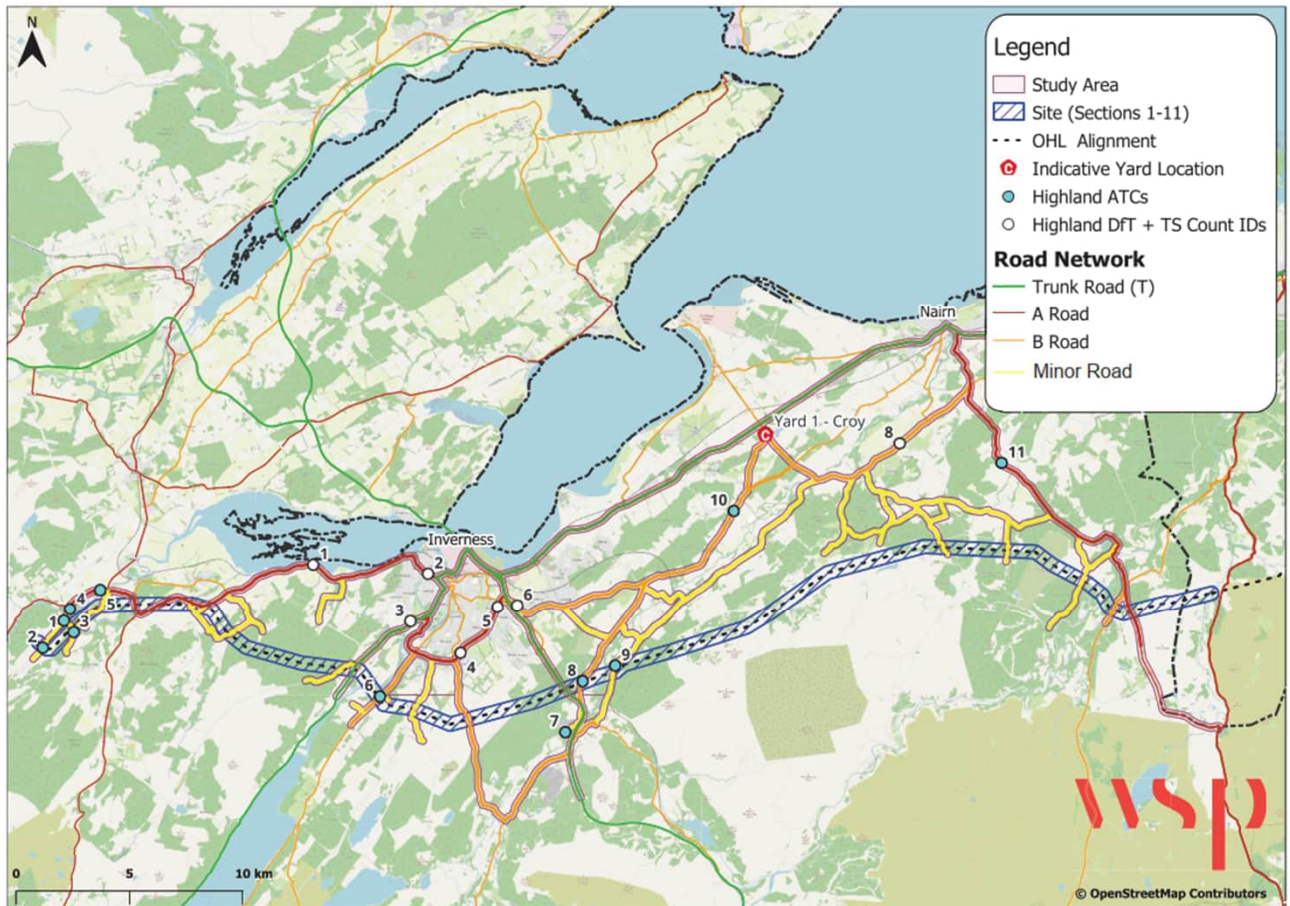


Table 4.2: 2024 Annual Average Daily Two-Way Traffic Flows (24-hour)

Section	Road Link (of Section) from the TRN	Manual / Automatic Survey Year	Survey Location	Survey Year Two-Way Flows		HGV Proportion (%)
				HGV	Total	
1	C1106 between Fanellan and the U1604	2024	ATC 1	1	239	1%
	C1106 between Fanellan and the C1108	2024	ATC 2	0	173	0%
	U1604 between the C1106 and the C1108	2024	ATC 3	8	299	3%
	C1106 between the U1604 and the A831	2024	ATC 4	7	643	1%
	A831 between the C1106 and the A862	2024	ATC 5	26	2239	1%

Section	Road Link (of Section) from the TRN	Manual / Automatic Survey Year	Survey Location	Survey Year Two-Way Flows		HGV Proportion (%)
				HGV	Total	
2	A862 between B9164 and Scorguie Rd, Inverness	2022	80331	78	5287	1%
3	A862 between the A82 and King Brude Road roundabout	2018	80330	479	18274	3%
4	A82 Drumnadrochit to Inverness	2022	01040	3831	7899	49%
5	A8082 between the A9 and the Slackbuie Distributor Road	2024	09611	453	16191	3%
	A8082 between B861 and the Slackbuie Distributor Road	2018	90026	163	15270	1%
	B862 (southwest of Inverness) between Scaniport and Cullaird	2024	ATC 6	15	2378	1%
6	C1068 (south of Inverness) southwest of the A9 junction at Daviot/Dundavie	2024	ATC 7	6	232	3%
7	B851 (Southeast of Inverness) north of the junction with the A9 at Mains of Daviot	2024	ATC 8	11	704	2%
	C1056 (from B9154 at Craggie to U1233 at Dalroy), at Mains of Daltulich	2024	ATC 9	3	130	2%
8	B9006 (southeast of Croy) at Cantray	2024	ATC 10	16	3075	1%
9	B9006 Fort George Rd, at Loch Flemington, North of the B9006 / B9090 junction	2024	00146	239	1612	15%
10	B9006 Fort George Rd, at Loch Flemington, North of the B9006 / B9090 junction	2024	00146	239	1612	15%
11	B9090 Cawdor to Nairn Road, east of Brackla Distillery	2024	00136	370	2699	14%
	A939 (South of Nairn) at Achamore	2024	ATC 11	12	1039	1%

- 4.5.4. To provide a robust assessment, and to align with the current information provided by the Principal Contractor, it is assumed that site deliveries will take place over an 11-hour day (between 07:00 and 18:00). Conversion factors have been derived from DfT Road Traffic Statistics - Table TRA0308: 'Traffic distribution on all roads by time of day and day of the week, for selected vehicle types in Great Britain' for the latest data available, 2023¹¹, to convert the DfT and ATC AADT flows to 11-hour flows.
- 4.5.5. The following factors have been derived for cars, light vehicles and HGVs. For the ATC survey data, 11-hour flows have been derived from survey outputs:

¹¹ Department for Transport, (2024). Road Traffic Estimates (TRA). Available at: <https://www.gov.uk/government/statistical-data-sets/road-trafficstatistics-tra>

- Cars - 0.745;
- Light Vehicles - 0.773;
- HGVs - 0.712; and
- All Vehicles - 0.743.

4.5.6. **Table 4.3** shows the resulting 11-hour flows following application of the derived factors.

Table 4.3: 2024 Annual Average Daily Two-Way Traffic Flows (11-hour)

Section	Road Link (of Section) from the TRN	Manual / Automatic Survey Year	Survey Location	Survey Year Two-Way Flows		HGV Proportion (%)
				HGV	Total	
1	C1106 between Fanellan and the U1604	2024	ATC 1	1	194	1%
	C1106 between Fanellan and the C1108	2024	ATC 2	0	129	0%
	U1604 between the C1106 and the C1108	2024	ATC 3	7	239	3%
	C1106 between the U1604 and the A831	2024	ATC 4	7	521	1%
	A831 between the C1106 and the A862	2024	ATC 5	23	1822	1%
2	A862 between B9164 and Scorguie Rd, Inverness	2022	80331	55	3931	1%
3	A862 between the A82 and King Brude Road roundabout	2018	80330	341	13586	3%
4	A82 Drumnadrochit to Inverness	2022	01040	2729	5873	46%
5	A8082 between the A9 and the Slackbuie Distributor Road	2024	09611	323	12038	3%
	A8082 between B861 and the Slackbuie Distributor Road	2018	90026	116	11353	1%
	B862 (southwest of Inverness) between Scaniport and Cullaird	2024	ATC 6	13	1876	1%
6	C1068 (south of Inverness) southwest of the A9 junction at Daviot/Dundavie	2024	ATC 7	4	184	2%
7	B851 (southeast of Inverness) north of the junction with the A9 at Mains of Daviot	2024	ATC 8	10	585	2%
	C1056 (from B9154 at Craggie to U1233 at Dalroy), at Mains of Daltulich	2024	ATC 9	2	99	2%
8	B9006 (southeast of Croy) at Cantray	2024	ATC 10	15	2550	1%
9	B9006 Fort George Rd, at Loch Flemington, North of the B9006 / B9090 junction	2024	00146	170	1199	14%

Section	Road Link (of Section) from the TRN	Manual / Automatic Survey Year	Survey Location	Survey Year Two-Way Flows		HGV Proportion (%)
				HGV	Total	
10	B9006 Fort George Rd, at Loch Flemington, North of the B9006 / B9090 junction	2024	00146	170	1199	14%
11	B9090 Cawdor to Nairn Road, east of Brackla Distillery	2024	00136	263	2007	13%
	A939 (South of Nairn) at Achamore	2024	ATC 11	11	873	1%

4.6 FUTURE TRAFFIC FLOWS

- 4.6.1. Construction of the Proposed Development within Highland could commence during 2026 if consent is granted. In order to provide a robust assessment, the future baseline year has been adjusted to cover the peak period of construction movements. The Principal Contractor currently anticipates that the busiest construction period will take place during 2026, and the assessment has therefore been undertaken for a 2026 future baseline to coincide with the peak period.
- 4.6.2. To assess the likely effects during the construction phase, 2026 base year traffic flows were determined by applying a National Road Traffic Forecast 1997 (NRTF97) low growth factor (1.0106) to the 2024 traffic flows. The resulting 2026 Base traffic flows are presented in **Table 4.4**.

Table 4.4: 2026 Annual Average Daily Two-Way Traffic Flows (11-hour)

Section	Road Link (of Section) from the TRN	Manual / Automatic Survey Year	Survey Location	Survey Year Two-Way Flows		HGV Proportion (%)
				HGV	Total	
1	C1106 between Fanellan and the U1604	2024	ATC 1	1	196	1%
	C1106 between Fanellan and the C1108	2024	ATC 2	0	131	0%
	U1604 between the C1106 and the C1108	2024	ATC 3	7	242	3%
	C1106 between the U1604 and the A831	2024	ATC 4	7	526	1%
	A831 between the C1106 and the A862	2024	ATC 5	23	1841	1%
2	A862 between B9164 and Scorguie Rd, Inverness	2022	80331	56	3972	1%
3	A862 between the A82 and King Brude Road roundabout	2018	80330	345	13731	3%
4	A82 Drumnadrochit to Inverness	2022	01040	2758	5935	46%
5	A8082 between the A9 and the Slackbuie Distributor Road	2024	09611	326	12166	3%
	A8082 between B861 and the Slackbuie Distributor Road	2018	90026	118	11474	1%
	B862 (southwest of Inverness) between Scaniport and Cullaird	2024	ATC 6	13	1896	1%
6	C1068 (south of Inverness) southwest of the A9 junction at Daviot/Dundavie	2024	ATC 7	4	186	2%
7	B851 (Southeast of Inverness) north of the junction with the A9 at Mains of Daviot	2024	ATC 8	10	591	2%
	C1056 (from B9154 at Craggie to U1233 at Dalroy), at Mains of Daltulich	2024	ATC 9	2	100	2%
8	B9006 (southeast of Croy) at Cantray	2024	ATC 10	15	2577	1%
9	B9006 Fort George Rd, at Loch Flemington, North of the B9006 / B9090 junction	2024	00146	172	1211	14%

10	B9006 Fort George Rd, at Loch Flemington, North of the B9006 / B9090 junction	2024	00146	172	1211	14%
11	B9090 Cawdor to Nairn Road, east of Brackla Distillery	2024	00136	266	2028	13%
	A939 (South of Nairn) at Achamore	2024	ATC 11	11	882	1%

5 ACCESS ROUTE REVIEW

5.1 ACCESS ROUTE REVIEW

- 5.1.1. This Chapter of the Appendix summarises the results of a review of the potential routes from the trunk road network which can be used to access the Proposed OHL tower installation sites prior to identifying what is considered to be the most appropriate construction traffic access route.

CONSTRUCTION TRAFFIC ORIGINS

- 5.1.2. As previously highlighted, a Yard will be established at Croy to support construction activities, with these being used to support the delivery of plant and materials to the installation sites.
- 5.1.3. It is acknowledged that construction activities would also be supported by aggregate deliveries which are generated throughout the construction programme, and these movements will not originate from the Yard. It is not currently known what quarries and suppliers would be used, and it has therefore been assumed for the purpose of this assessment, that aggregates would be transported from the nearest quarry via the trunk road network prior to accessing the installations sites via the most direct route.

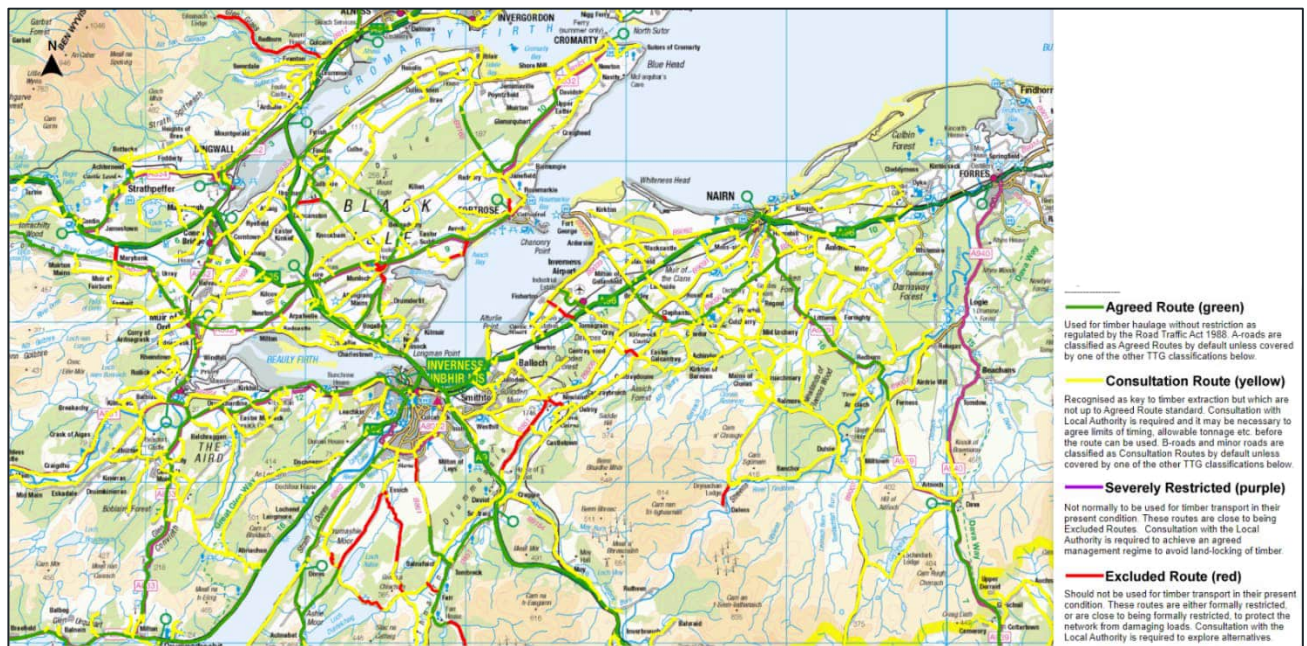
AGREED ROUTE MAP FOR TIMBER TRANSPORT FORUM CLASSIFICATION

- 5.1.4. The Agreed Route Map for Timber Transport Forum¹² has been developed by timber transport groups at local authority level, and it categorises roads supporting access to forest areas in terms of their capacity to sustain the likely level of timber haulage vehicles. The routes are categorised into four groups, namely; 'Agreed Routes', 'Consultation Routes', 'Severely Restricted Routes' and 'Excluded Routes'.
- 5.1.5. 'Agreed Routes' are categorised as routes used for timber haulage without restriction as regulated by the Road Traffic Act 1988. 'A' classification roads are classified as 'Agreed Routes' by default unless covered by one of the other road classifications. Those routes classed as 'Consultation Routes' are categorised as a route which is key to timber extraction, but which are not up to 'Agreed Route' standard. The Timber Transport Forum confirms that consultation with the local authority is required, and it may be necessary to agree limits of timing, allowable tonnage, etc., before 'Consultation Routes' can be used.

¹² Timber Transport Forum, (2024). Agreed Route Map for Timber Transport Forum. Available at: <https://timbertf.maps.arcgis.com/apps/webappviewer/index.html?id=4a23d4910e604b71872956441113c83c>

5.1.6. An extract from the Agreed Route Map for the Highland area is shown in **Figure 13.1.5.1**.

Figure 13.1.5.1: Timber Transport Forum - Agreed Routes



5.1.7. Due consideration has been given to the agreed routes when identifying a preferred routing arrangement to support access to the tower installation sites, and our detailed appraisal of the form of the local road network has therefore focussed on roads which are not 'Agreed Routes'.

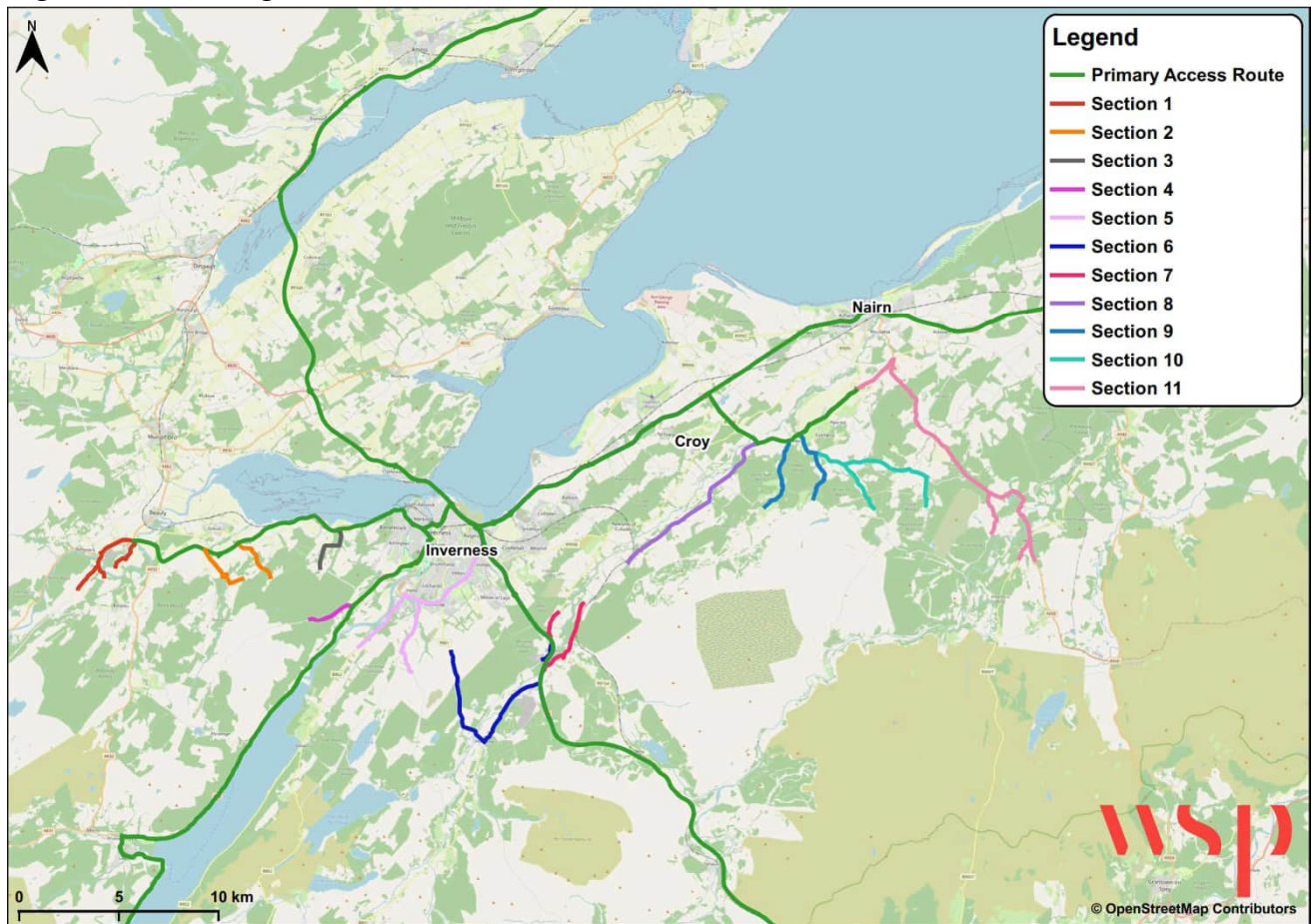
5.2 IDENTIFICATION AND APPRAISAL OF POTENTIAL ACCESS ROUTE OPTIONS

5.2.1. The proposed access routes from the Yard to the access points have been informed by a desktop review. While all route options to site present constraints, the selected access routes are considered to be the most suitable of the available access options for construction vehicles. Any constraints on the proposed construction access routes have been highlighted, with a swept-path analysis undertaken (SPA) using AutoTrack, to ensure the route is able to accommodate HGVs and to assess the level of mitigation that is required. The summary of the analysis and any proposed mitigation for each of the routes is contained in **Chapter 7 of this Appendix**.

5.2.2. The delivery of the eleven sections of the Proposed OHL Alignment within Highland will all be supported by the Croy Yard. Below is a summary of the proposed construction access routes from the Yard to each of the sections and the access points found at each of the sections.

- 5.2.3. **Figure 13.1.5.2** shows an overview of the routes that construction vehicles will be using to access each of the sections.

Figure 13.1.5.2: Highland Access Routes



PLANNED ASSESSMENT OF STRUCTURES

- 5.2.4. Transport Scotland / BEAR NW / Amey NE, Network Rail and THC have been consulted to advise on the current structural capacity of the routes proposed.
- 5.2.5. At the time of writing this report, the above consultees are yet to comment on the structural capacity of their assets. However, as mobile cranes route routinely across the UK for a variety of operators, e.g. construction sites, oil and gas, shipyards, and infrastructure projects, it is considered that the majority of structures should be suitable. It is acknowledged that some locations within the study area are more remote, and therefore there is potential for assets to require further inspection. It is anticipated that as most of the structures are short span that these would be suitable for alternative engineering solutions, should they fail further structural assessment, (if any are to require this).
- 5.2.6. As part of a separate planning application for the Associated Development, Fanellan Substation (Ref: 25/00826/FUL¹³) THC have advised that structure no. C1160010 (Black Bridge Kilmorack) requires further assessment before the heavy delivery vehicles can be approved to cross the structure. It is confirmed by THC that for structure no. A08620090 (Lovat Bridge) "There will be no

¹³ THC Planning Portal, (2025). 25/00826/FUL . Available at: <https://wam.highland.gov.uk/wam/applicationDetails.do?activeTab=documents&keyVal=SSPNC9IHHIS00>

routing of abnormal loads over Lovat bridge without detailed inspections and assessments being undertaken and the findings accepted by THC Structures Team". It is also noted however that although the ESDAL portal states there are no signed restrictions, a previous route feasibility study for the Fanellan Substation project, found that the Beaully Rail Overbridge (A08620100) and a Culvert at Teawig (A08620090C38) both had a max vehicle axle load of 14.6 t, on previously assessed vehicles. Depending on what mobile crane is used, these structures may require further assessment. However, it is considered that for the majority of construction traffic (HGV and LGV / Car) movements, that these structures pose no constraints to routing.

Black Bridge Assessment

- 5.2.7. In November 2023, analysis of Black Bridge was undertaken to determine the capacity of the Bridge. The study found that the bridge had previously been assessed in 1992 which found the bridge to have a capacity of 7.5 t, and the subsequently in 2003, 2015, 2015, and in 2019 further assessments were undertaken on the condition of the bridge. The 2023 report assessed various vehicle types and concluded that the central spans of the bridge (2 & 3) fail once loaded with Special Vehicle (SV) Loads. The report recommends repair and strengthening works or replacement of the bridge, stating that *"if sufficient repairs are carried out ...the structure will have a load rating of 18t"*. THC have provided comment on Black Bridge (Structure Number C1160010), and it has been determined that any new structure should be constructed such to be able to accommodate the 30-axle GFT.

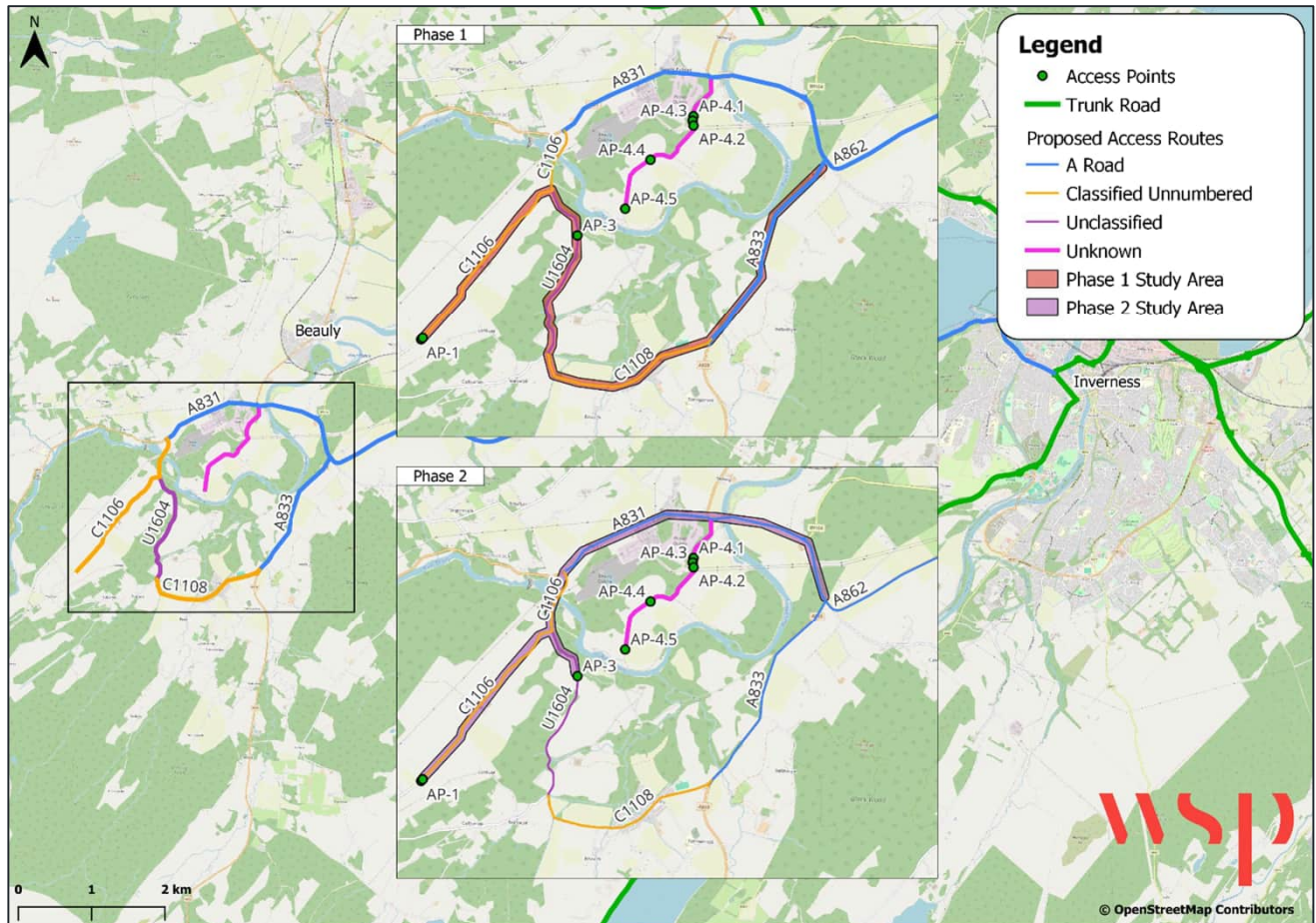
Phased Approach to Construction Traffic Access Routes

- 5.2.8. Several access points will require that construction traffic accessed using the C1106 (Fanellan Road) and the U1604. It is noted that the most suitable and preferred route to access the site uses the Black Bridge over the River Beaully close to the A831. Currently, as previously stated, the Black Bridge has limited structural capacity, and replacement is required to facilitate the heavy loads needed to travel to site.
- 5.2.9. The Applicant is currently working with THC to understand timescales for completion.
- 5.2.10. Therefore, assessment of the Proposed Development has been divided into two sections to assess the effects due to phasing of the construction of Black Bridge. The assessment therefore has the following structure:
- Phase 1: southern route (via A862 - A833 - C1108 - U1604 and C1106 to site), and
 - Phase 2: northern route (via the A862 - A831 and C1106).
- 5.2.11. The Phase 1 assessment constitutes the 'before construction of Black Bridge' scenario, and Phase 2 constitutes the 'after construction of Black Bridge' scenario.
- 5.2.12. This routing strategy concerns Section 1 of the proposed access routes which is discussed in the next section.

Section 1 - Proposed Access Routes

- 5.2.13. Section 1 of the Proposed OHL Alignment is located to the west of Inverness and includes the towers that are located between Fanellan and the River Beauly. There are eight access points within this section and the proposed routes to each of the access points are shown in **Figure 13.1.5.3**.

Figure 13.1.5.3: Section 1 Access Point Route Options



- 5.2.14. As shown by **Figure 13.1.5.3**, and as explained in previous sections, it is proposed to take a phased approach to construction traffic routeing for all construction vehicles accessing Section 1 of the Proposed OHL Alignment. This access route overview includes both the preferred route (Phase 2) and the alternative route.
- 5.2.15. Traffic will utilise the A82 (T) before leaving the trunk road network to the west of Inverness to join the A862. The A862 is a two-way single carriageway road which is subject to the national speed limit, that reduces when passing through urban areas. The A862 is designated as an 'Agreed Route' by the Timber Transport Forum and is therefore considered to be suitable for use by HGVs. Vehicles will then take the following routes to access their associated access points:
- Preferred Routing AP1–AP3: As per the preferred routing strategy for construction vehicles (Phase 2) for AP1-3, it is anticipated that traffic will leave the A862 at its junction with the A831 (a consultation route), before continuing west on the A831. The A831 is a two-way single carriageway road that is subject to the national speed limit. Vehicles will then turn left onto the C1106, which is a two-way single carriageway between the A831 and its junction with the U1604.

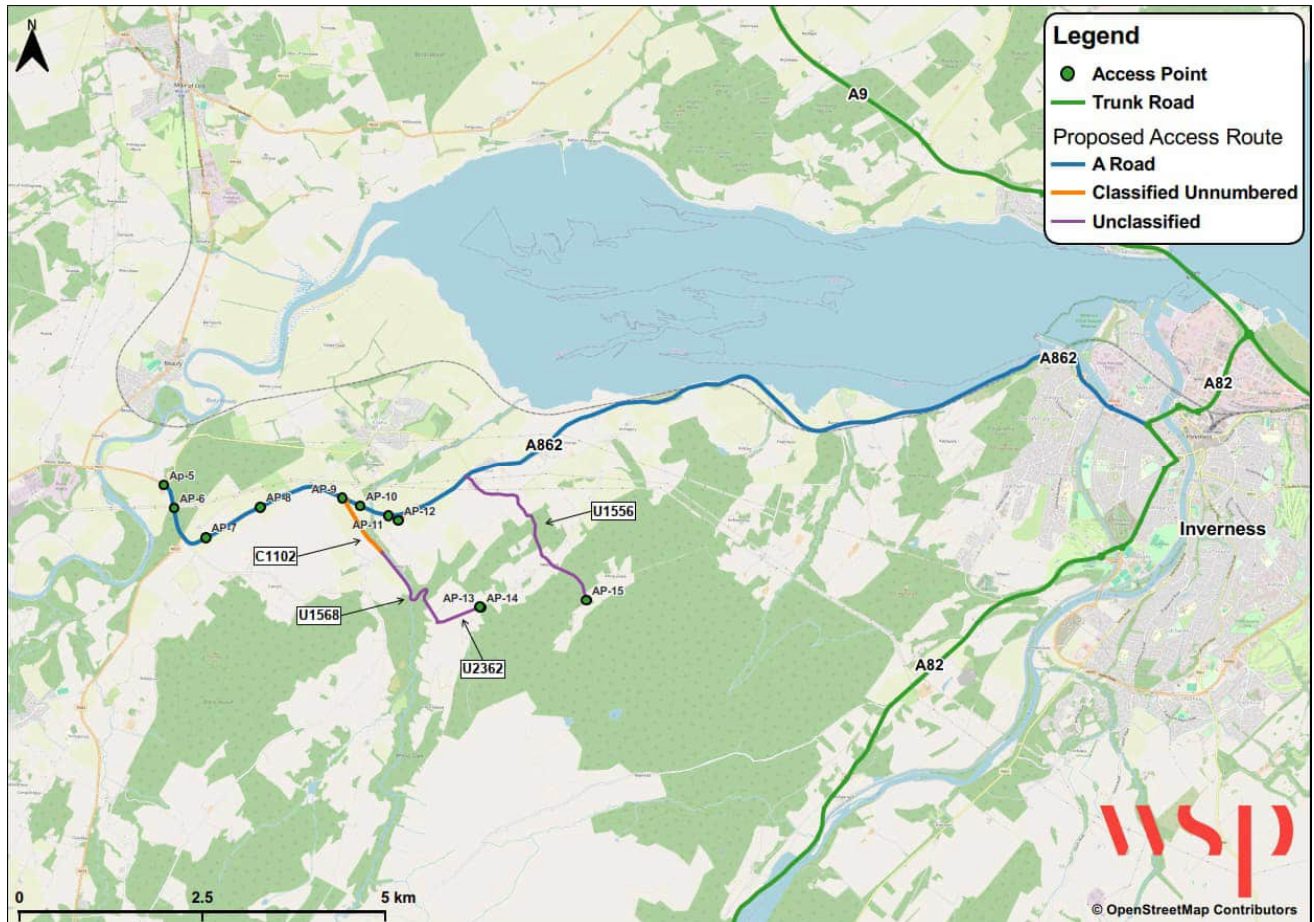
Vehicles serving AP1 and AP2 will turn right to continue on the C1106 to reach their access points. Between the junction and the access points, the C1106 is a single-track road of approximately 3 m in width that is supported by passing places. Vehicles serving AP3 will continue straight ahead at the junction onto the U1604 and continue to head south to reach the access point. The U1604 is approximately 5 m in width between the C1106 and the single access point which would be served by the road. No signed restrictions on usage are in place on this route, although it is known that Black Bridge currently has structural constraints.

- **Alternative routeing AP1-3:** As per the alternative routing strategy (Phase 1) for construction vehicles accessing AP1-3, it is anticipated that traffic will leave the A862 at its junction with the A833, before continuing southwest on the A833 (which is an agreed route) to the C1108. The C1108 is a two-way single carriageway road, varying between approximately 4.5 and 6.5 m in width, and that is subject to the national speed limit in rural areas and 30 mph within Kiltarlity. Vehicles will then turn right onto the U1604 from the C1108, which is a two-way single carriageway, approximately 4.5 m in width, with passing places throughout its length between the C1108 and the C1106. Vehicles accessing AP3 will access working areas from the U1604 at a gate in a field, and AP1 and AP2 will turn left to continue on the C1106 to reach their access points. Between the junction and the access points, the C1106 is a single-track road of approximately 3 m in width that is supported by passing places. No signed restrictions on usage are in place on this route although throughout the 'southern route' there are several structures.
- **AP4.1 - AP4.5:** Construction vehicles will turn left off the A862, leaving the adopted road network and utilising a private road to reach their access points.

Section 2 - Proposed Access Routes

- 5.2.16. Section 2 of the Proposed OHL Alignment is located to the west of Inverness and includes the towers that are located between the River Beauly and Altnecardich. There are ten access points within this section and the proposed routes to the access points are shown in **Figure 13.1.5.4**.

Figure 13.1.5.4: Section 2 Access Point Route Options



- 5.2.17. As shown by **Figure 13.1.5.4**, it is proposed that all construction vehicles accessing Section 2 of the Proposed OHL Alignment will utilise the A82 (T) before leaving the trunk road network to the west of Inverness to join the A862. Vehicles will then take the following routes to access their associated access points:

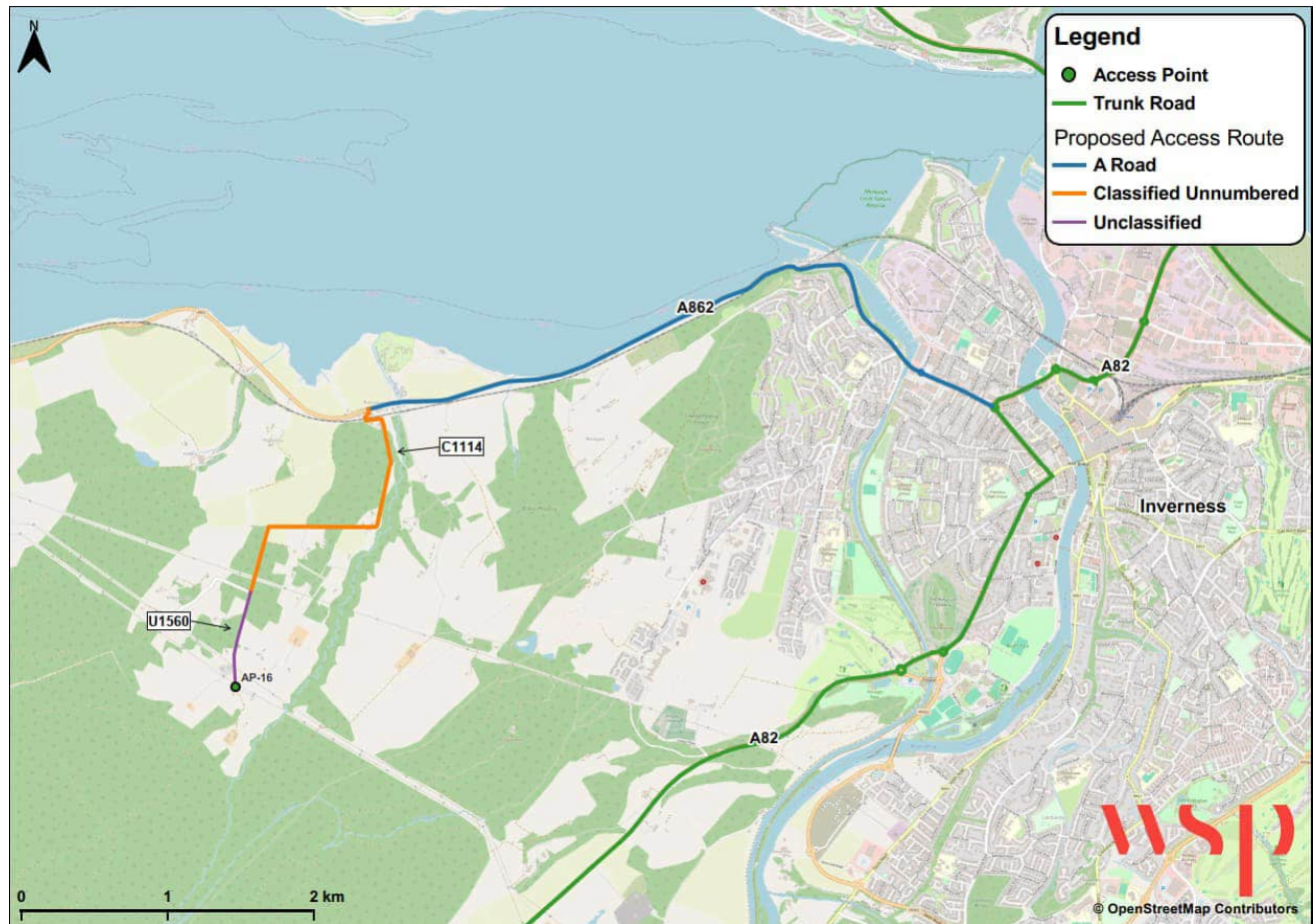
- **AP5-AP11:** These will be accessed directly from the A862, with construction vehicles leaving the adopted road network via a new or upgraded bellmouth junction.
- **AP12:** Construction vehicles will leave the A862 at its junction with the C1100, to travel a south. The C1100 is a single-track road supported by passing places.
- **AP13 and AP14:** Construction vehicles will leave the A862 at its junction with the C1102, to travel southwest on the unclassified road. The C1102 is a single carriageway approximately 4 m in width that is not supported by passing places. To the south of Moniack Bridge, the road narrows to 3 m with passing places provided. Vehicles will continue south onto the U1568 before turning left onto the U2362 to head east to reach the access points. Both the U1568 and the U2362 are single track roads approximately 3 m in width that are supported by passing places.

- **AP15:** Construction vehicles will leave the A862 at its junction with the U1556, to travel south on the unclassified road to reach the access point. The U1556 is a single-track road supported by passing places.

Section 3 - Proposed Access Route

- 5.2.18. Section 3 of the Proposed OHL Alignment is located to the west of Inverness and includes the towers that are located between Altnecardich and Cnoc na Moine. There is one access point within this section, with the route to the access point shown in **Figure 13.1.5.5**.

Figure 13.1.5.5: Section 3 Access Point Route Options



- 5.2.19. As shown by **Figure 13.1.5.5**, it is proposed that construction vehicles accessing Section 3 of the Proposed OHL Alignment will utilise the A82 (T) before leaving the trunk road network to the west of Inverness to join the A862.
- 5.2.20. Construction vehicles will then turn left on to the C1114 and U1560 to head south. The C1114 and U1560 are single-track roads of approximately 3 m in width that are supported by passing places.

Section 4 - Proposed Access Routes

- 5.2.21. Section 4 of the Proposed OHL Alignment is located to the southwest of Inverness and includes the towers that are located between Cnoc na Moine and the River Ness. There is a total of five access points within this section. The proposed routes to each of the access points is shown in **Figure 13.1.5.6**.

Figure 13.1.5.6: Section 4 Access Point Route Options

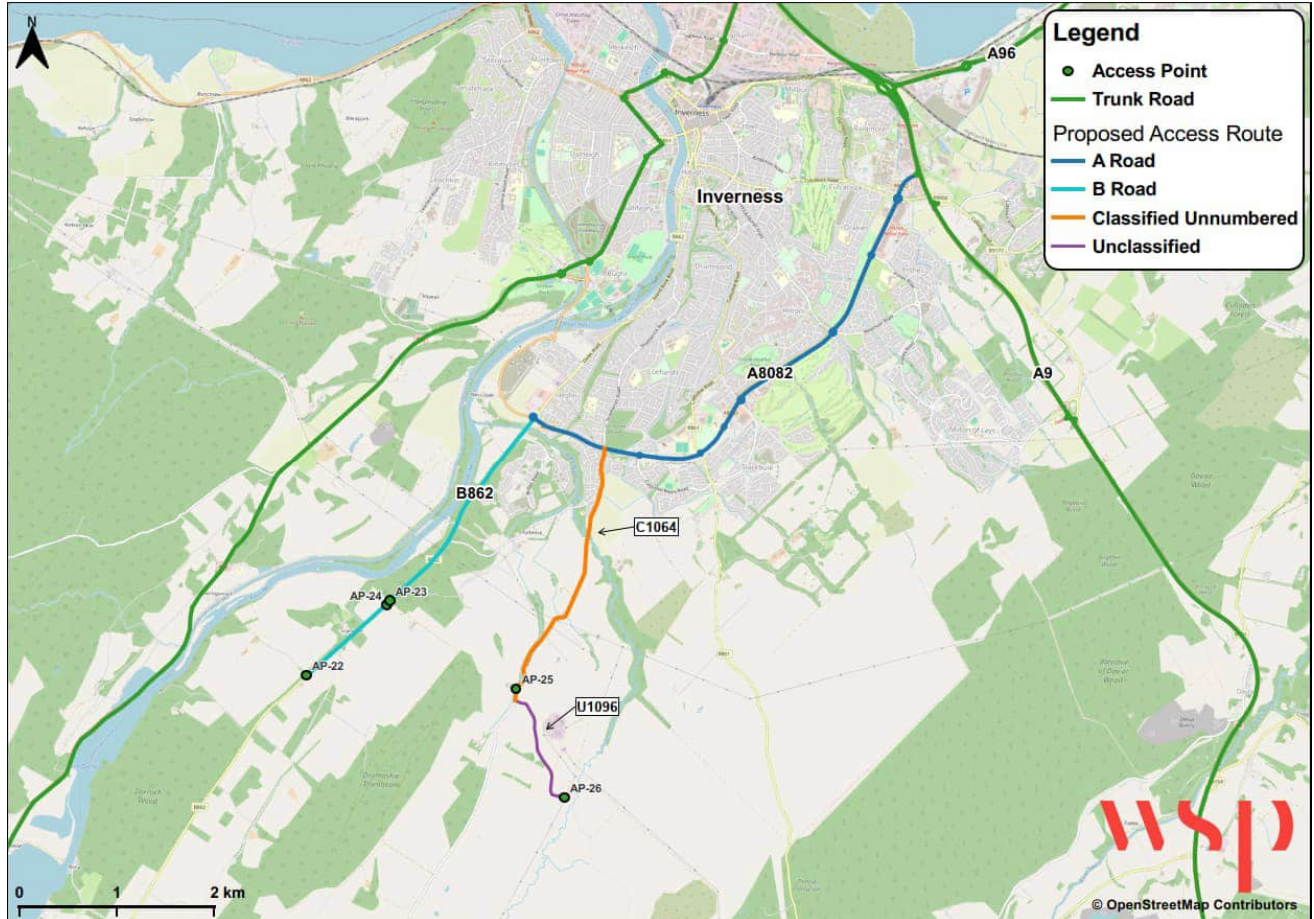


- 5.2.22. As shown by **Figure 13.1.5.6**, it is proposed that construction vehicles accessing Section 3 of the Proposed OHL Alignment will utilise the A82 (T) to reach Section 4. Vehicles will then take the following routes to access their associated access points:
- **AP17-AP19:** Vehicles will exit the A82 (T) at its junction with the C1060 and travel southwest on the unclassified road to reach the access points. The C1060 is a single-track road approximately 3 m in width that is supported by passing places.
 - **AP20 and AP21:** These will be accessed directly from the A82 (T), with vehicles exiting the adopted road network via new or upgraded bellmouth junctions.

Section 5 - Proposed Access Routes

5.2.23. Section 5 of the Proposed OHL Alignment is located to the south of Inverness and includes the towers that are located between the River Ness and Knocknagael. There are a total of five access points within this section. The proposed routes from the trunk road network to each of the access points is shown in **Figure 13.1.5.7**.

Figure 13.1.5.7: Section 5 Access Point Route Options



5.2.24. As shown by **Figure 13.1.5.7**, it is proposed that construction vehicles accessing Section 5 of the Proposed OHL Alignment will utilise the A9 (T) before leaving the trunk road network to the east of Inverness to join the A8082. Vehicles will then take the following routes to access their associated access points:

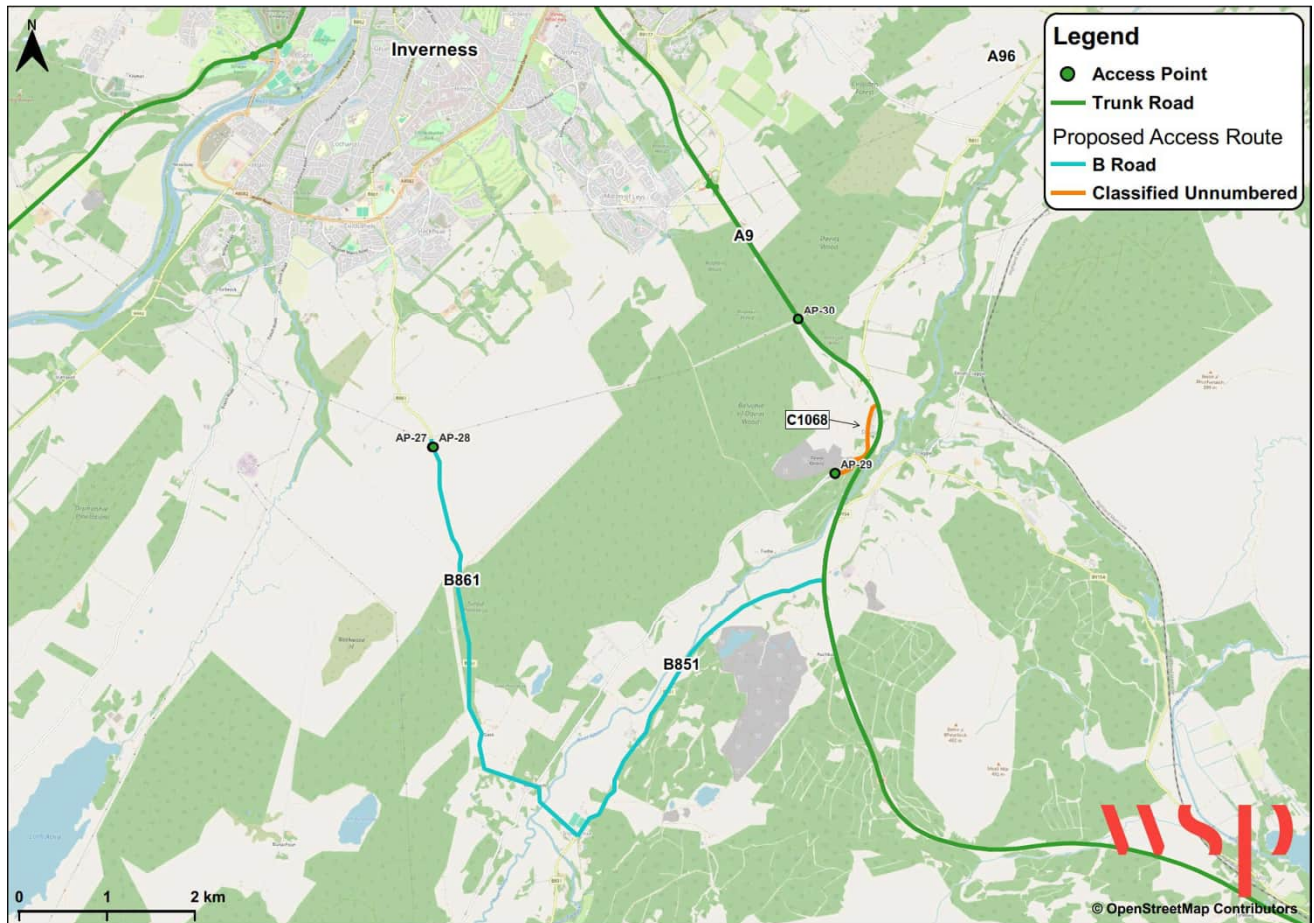
- **AP22- AP24:** Construction vehicles will leave the A8082 at Holm Roundabout, and head south on the B862. The B862 is a two-way single carriageway and is designated as an 'Agreed Route' by the Timber Transport Forum and therefore is considered to be suitable for HGVs. The installation sites will be accessed directly from the B862 via new or upgraded bellmouth junctions.
- **AP25 and AP26:** Construction vehicles will leave the A8082 at Essich Roundabout, and head south on the C1064. Within Inverness the C1064 is a two-way single carriageway road subject to a 30 mph speed limit. Upon leaving Inverness, the C1064 narrows and becomes a single-track road approximately 3 m in width that is supported by passing places. AP25 is located on the C1064. Vehicles accessing AP26 will continue south on the C1064, before turning left onto the

U1096 to reach the access point. The U1096 is a single-track road approximately 3 m in width that is supported by passing places.

Section 6 - Proposed Access Routes

- 5.2.25. Section 6 of the Proposed OHL Alignment is located to the southeast of Inverness and includes the towers that are located between Knocknagael and the A9. There is a total of four access points within this section. The proposed routes to each of the access points is shown in **Figure 13.1.5.8**.

Figure 13.1.5.8: Section 6 Access Point Route Options



- 5.2.26. As illustrated by **Figure 13.1.5.8**, it is proposed that construction vehicles accessing Section 6 of the Proposed OHL Alignment will utilise the A9 (T) before leaving the trunk road network to the southeast of Inverness to take the following routes:

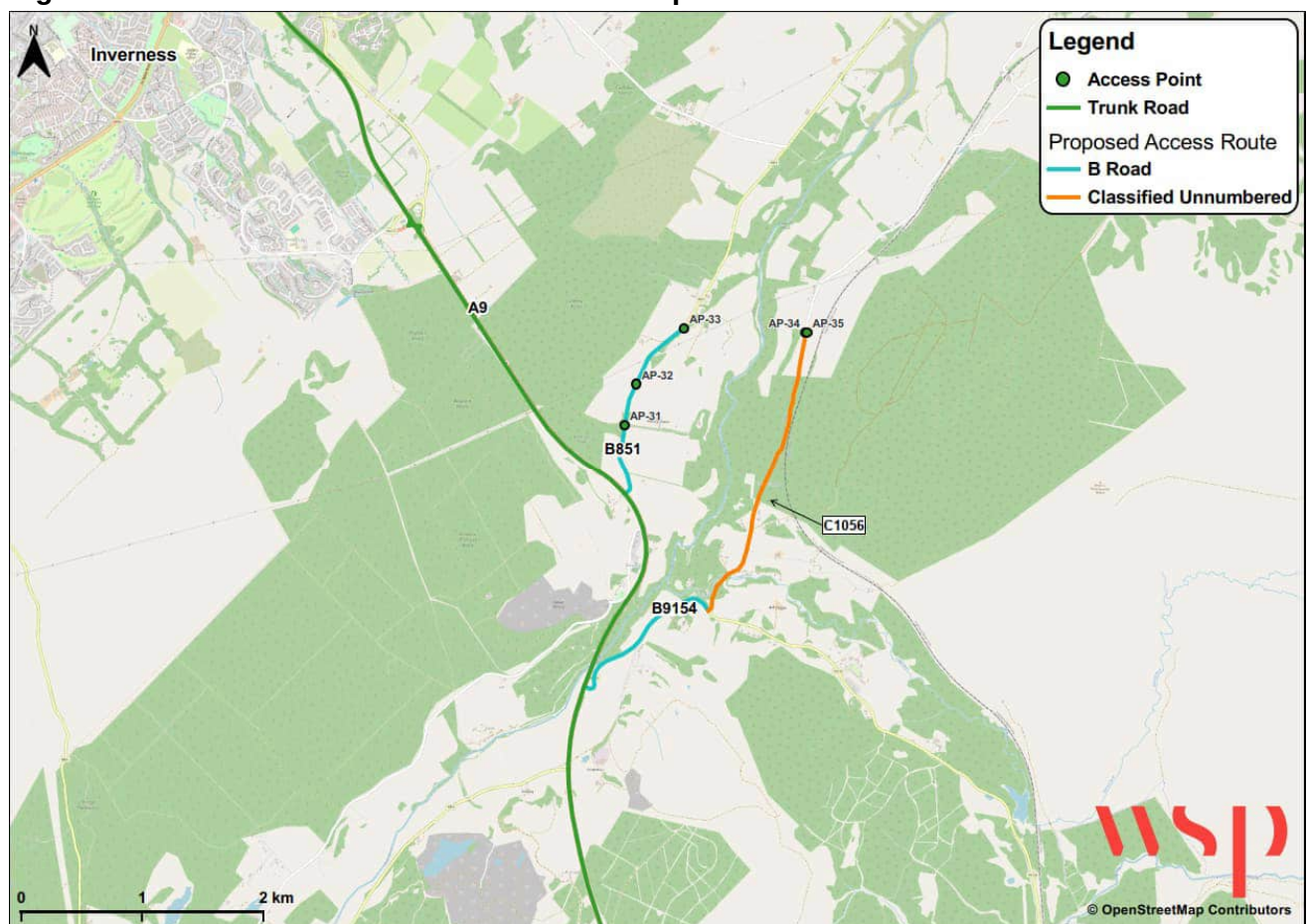
- **AP27 and AP28:** Construction traffic will leave the A9 (T) at its junction with the B851 to head southwest on the B851 to Inverarnie. The B851 is a combination of two-way single carriageway and single-track road supported by passing places. Within Inverarnie, vehicles will turn right onto the B861 to head north to the access points. Between Inverarnie and the access points, the B861 is a single carriageway road of approximately 5 m in width. The entirety of the B851 and the majority of the B861 that forms the access route is designated as an 'Agreed Route' by the Timber Transport Forum and is therefore considered to be suitable for use by HGVs.

- **AP29:** Construction vehicles will leave the A9 (T) at its junction with the C1068, to head southwest on the C1068. Between its junction with the A9 (T) and Daviot Quarry, the C1068 is a two-way single carriageway road. Vehicles will continue on the C1068 to the south of the quarry to reach the access points. To the south of the quarry, the C1068 becomes a single-track road approximately 3 m in width that is supported by passing places.
- **AP30:** This will be accessed directly from the A9 (T), with vehicles exiting the adopted road network via new or upgraded bellmouth junctions.

Section 7 - Proposed Access Routes

- 5.2.27. Section 7 of the Proposed OHL Alignment is located to the southeast of Inverness and includes the towers that are located from the A9 to Cregan Glas. There is a total of five access points within this section. The proposed routes to each of the access points is shown in **Figure 13.1.5.9**.

Figure 13.1.5.9: Section 7 Access Point Route Options



- 5.2.28. As shown by **Figure 13.1.5.9**, it is proposed that construction vehicles accessing Section 7 of the Proposed OHL Alignment will utilise the A96 A9 (T) before leaving the trunk road network to the southeast of Inverness. Vehicles will then take the following routes to access their associated access points:
- **AP31-AP33:** Construction traffic will leave the A9 (T) at its junction with the B851, to head north-east on the B851 to reach the access points. Between the A9 (T) and the access points, the B851 is a single track road approximately 4 m in width that is supported by passing places. The Timber

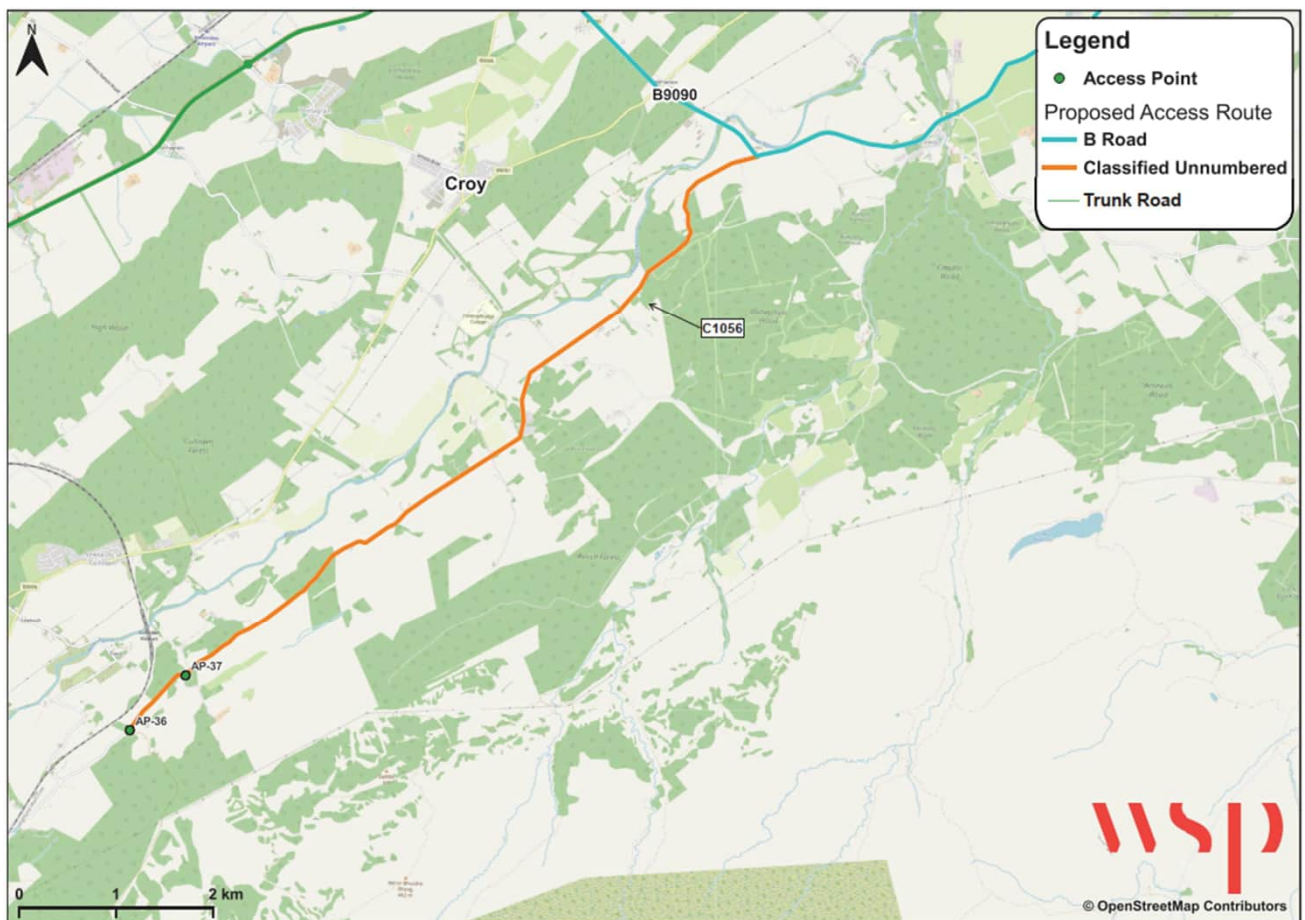
Transport Forum recognise a proportion of the B851 as being key to timber extraction, but that the road should not be used between Mains of Daviot and its junction with the B9006.

- **AP34 and AP35:** Construction traffic will leave the A9 (T) at its junction with the B9154, to head east on the B9154, a two-way single carriageway road. Vehicles will then turn left onto the C1056 and head north-east on the unclassified road to reach their access points. The C1056 is a single-track road approximately 3 m in width that is supported by passing places. While the unclassified road is identified as a key route by the Timber Transport Forum, it is signed as being unsuitable for HGV use.

Section 8 - Proposed Access Route

- 5.2.29. Section 8 of the Proposed OHL Alignment is located southwest of Croy and includes the towers that are located between Cregan Glas and Dalcharn. There are two access points within this section. The proposed routes to each of the access points is shown in **Figure 13.1.5.10**.

Figure 13.1.5.10: Section 8 Access Point Route Options



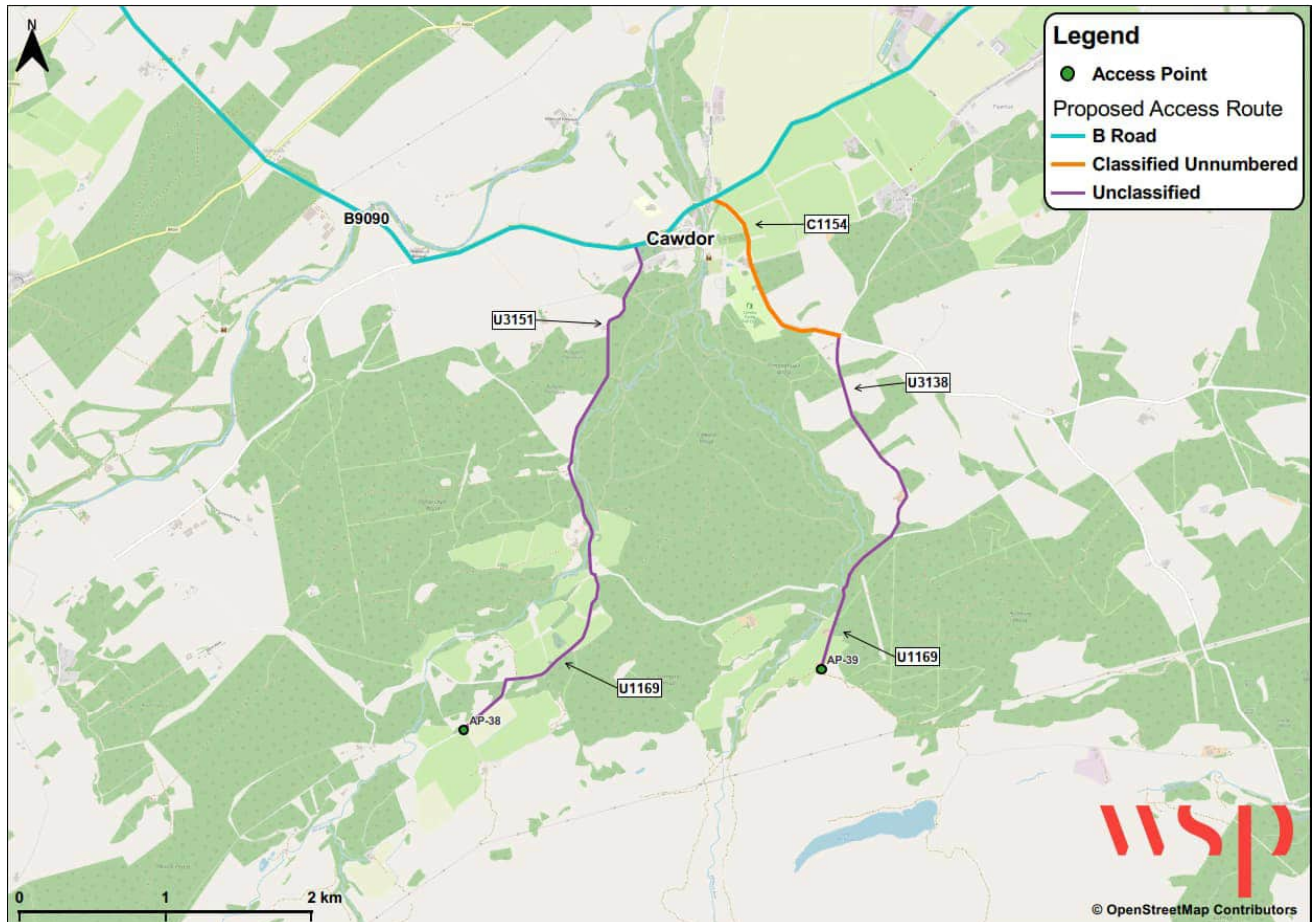
- 5.2.30. As shown by **Figure 13.1.5.10**, the proposed route for construction traffic accessing Section 8 of the Proposed OHL Alignment will see vehicles head south on the B9090. The B9090 is a two-way single carriageway road that is designated as an 'Agreed Route' by the Timber Transport Forum and is therefore considered to be suitable for use by HGVs.
- 5.2.31. Vehicles will then turn right onto the C1056 and head southwest to reach access points AP36 and AP37. The C1056 is a single track road approximately 3 m in width that is supported by passing

places. While the unclassified road is identified as a key route by the Timber Transport Forum, it is signed as being unsuitable for HGV use.

Section 9 - Proposed Access Routes

- 5.2.32. Section 9 of the Proposed OHL Alignment is located south of Cawdor and includes the towers that are located between Dalcharn and Achneim Wood. There are two access points within this section. The proposed routes to each of the access points is shown in **Figure 13.1.5.11**.

Figure 13.1.5.11: Section 9 Access Point Route Options



- 5.2.33. As shown by **Figure 13.1.5.11**, the proposed route for construction vehicles accessing Section 8 of the Proposed OHL Alignment will see vehicles head south on the B9090. Vehicles will then take the following routes to access their associated access points:
- **AP38:** Construction vehicles will leave the B9090 at its junction with the U3151 to head south on the unclassified road. The U3151 is a single-track road approximately 3 m in width that is supported by passing places. Vehicles will then turn right onto the U1169 and head south to reach the access point. The U1169 is also a single-track road approximately 3 m in width that is supported by passing places.
 - **AP39:** Construction vehicles will leave the B9090 at its junction with the C1154 to head south on the unclassified road. The C1154 is a single carriageway road approximately 5 m in width between the B9090 and its junction with the U3138. Vehicles will turn right to head south on the U3138, a single-track road approximately 3 m in width that is supported by passing places, before

turning left onto the U1169 to reach the access point. The U1169 is also a single-track road approximately 3 m in width that is supported by passing places.

Section 10 - Proposed Access Routes

- 5.2.34. Section 10 of the Proposed OHL Alignment is located southeast of Cawdor and includes the towers that are located between Acheneim Wood and Muckle Burn. There are six access points within this section. The proposed routes to each of the access points is shown in **Figure 13.1.5.12**.

Figure 13.1.5.12: Section 10 Access Point Route Options



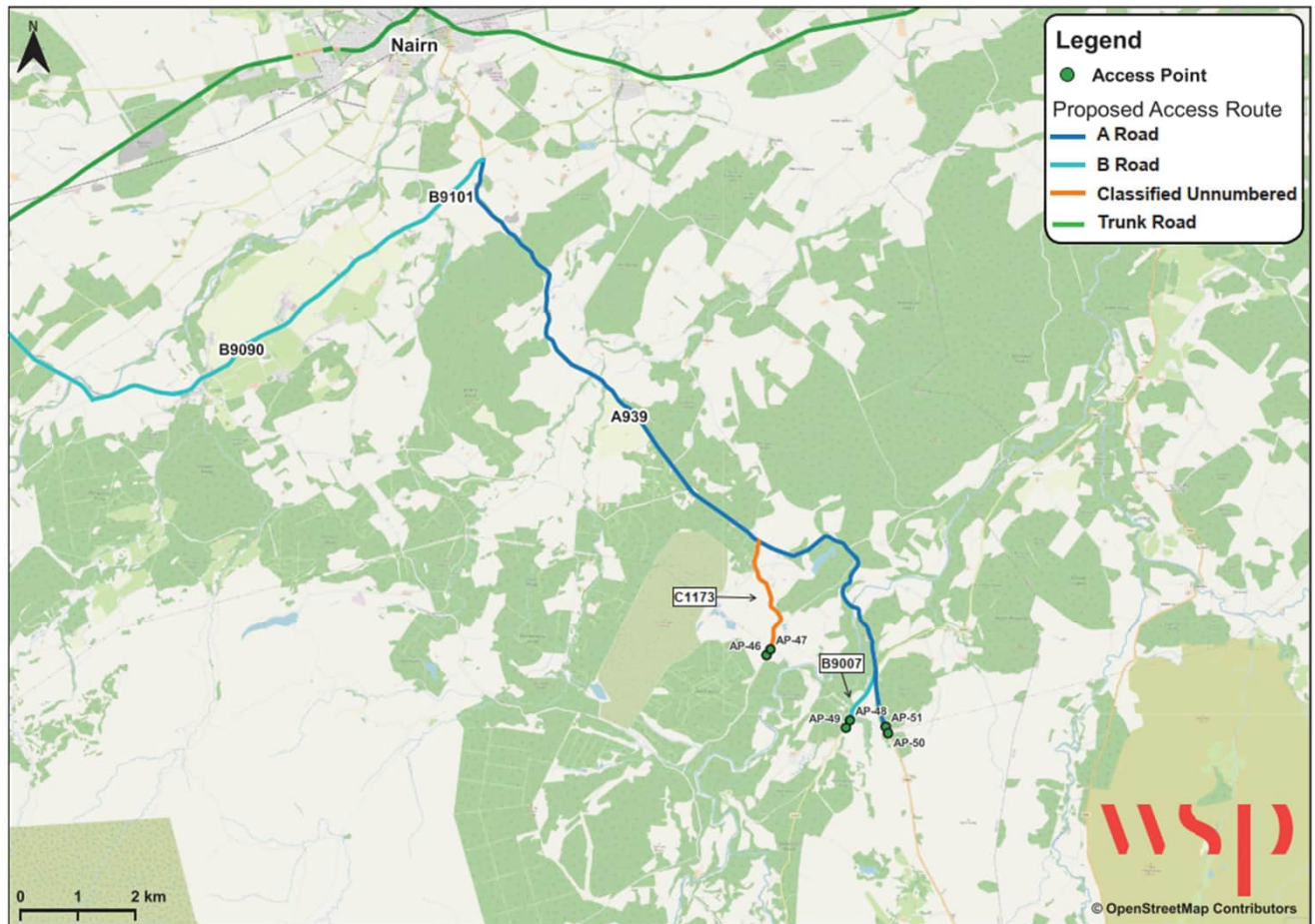
- 5.2.35. As shown by **Figure 13.1.5.12**, the proposed route for construction vehicles accessing Section 8 of the Proposed OHL Alignment will see vehicles head south on the B9090. Vehicles will then take the following routes to access their associated access points:
- **AP40-43:** Construction vehicles will leave the B9090 at its junction with the C1154 to head south on the unclassified road to reach their access points. The C1154 is approximately 5 m in width between the B9090 and the C1161, reducing to approximately 3 m in width for a short section in the vicinity of Ordbreck and to the south of Mains of Clunas, with the reduction in width supported by passing places.
 - **AP44-45:** Construction vehicles will leave the B9090 at its junction with the C1154 to head south on the unclassified road. The C1154 is a single carriageway road approximately 5 m in width between the B9090 and its junction with the C1161. Vehicles will then turn left and head east on the C1161, a single-track road approximately 3 m in width that is supported by passing places,

before turning right onto the U3114 to reach the access point. The U3114 is also a single-track road approximately 3 m in width that is supported by passing places.

Section 11 - Proposed Access Routes

- 5.2.36. Section 11 of the Proposed OHL Alignment is located southeast of Nairn and includes the towers that are located between Muckle Burn and Cairn Duhie. There are six access points within this section. The proposed routes to each of the access points is shown in **Figure 13.1.5.13**.

Figure 13.1.5.13: Section 11 Access Point Route Options



- 5.2.37. As shown by **Figure 13.1.5.13**, the proposed route for construction vehicles accessing Section 11 of the Proposed OHL Alignment will see vehicles head south on the B9090 through Cawdor, before continuing north-east on the B9090 towards Nairn. Vehicles will continue north-east onto the B9101 before turning right to head south on the A939. The B9090, the B9101 and the A939 are all two-way single carriageway roads that are designated as an 'Agreed Route' by the Timber Transport Forum and are therefore considered to be suitable for use by HGVs. Vehicles will then take the following routes to access their associated access points:

- **AP46 and AP47:** Construction vehicles will leave the A939 at its junction with the C1173 to head south on the unclassified road to reach their access points. The C1173 is a single-track road approximately 3 m in width that is supported by passing places.

- **AP48 and AP49:** Construction vehicles will leave the A939 in Ferness to head southwest on the B9007 to reach their access points. The section of the B9007 between the A939 and the access points is a single carriageway road of approximately 5 m in width.
- **AP50 and AP51:** These access points will be accessed directly from the A939, with construction vehicles leaving the adopted road network via a new or upgraded bellmouth junction.

5.3 DESKTOP ACCESS ROUTE REVIEW SUMMARY

5.3.1. The above review has informed an initial route options appraisal to identify the most suitable routes from the Yard to each of the access points. **Table 5.1** provides a summary of the Proposed OHL Alignment sections and associated access points served by each route section.

Table 5.1: Route Identification

Proposed OHL Alignment Section (Location)	Access Points for this Section	Yard Serving these Access Points	Roads Utilised from the TRN
1 (Fanellan - River Beauly)	Access Points (AP 1 - AP4.5)	Croy Yard	A862, A831, C1106, U1604
2 (River Beauly - Altnacardich)	Access Points (AP5 - AP15)	Croy Yard	A862, C1100, C1102, U1568, U1556, U2362
3 (Altnacardich - Cnoc na Moine)	Access Points (AP16)	Croy Yard	A862, C1114, U1560
4 (Cnoc na Moine - River Ness)	Access Points (AP17 - AP21)	Croy Yard	C1060
5 (River Ness - Knocknagael)	Access Points (AP22 - AP26)	Croy Yard	A8082, B862, C1064, U1096
6 (Knocknagael - A9 (T))	Access Points (AP27 - AP30)	Croy Yard	B851 (SW), B861, C1068
7 (A9(T) - Creagan Glas)	Access Points (AP31 - AP35)	Croy Yard	B851 (NE), B9154, C1056
8 (Creagan Glas - Dalcharn)	Access Points (AP36 - AP37)	Croy Yard	B9090, C1056
9 (Dalcharn - Acheneim Wood)	Access Points (AP38 - AP39)	Croy Yard	B9090, C1154, U3151, U1169, U3138
10 (Acheneim Wood - Muckle Burn)	Access Points (AP40 - AP45)	Croy Yard	B9090, C1154, C1161, U3114
11 (Muckle Burn - Cairn Duhie)	Access Points (AP46 - AP51)	Croy Yard	A939, B9090, B9101, B9007, C1173

6 TRIP GENERATION AND DISTRIBUTION

6.1 INTRODUCTION

6.1.1. This Chapter of the Appendix identifies the potential level of trips generated by construction activities prior to assigning the trips to the anticipated routes that traffic will use to access the tower installation sites.

6.2 CONSTRUCTION PHASE

6.2.1. As stated in **Chapter 3 of this Appendix**, it is anticipated that the construction of the Proposed Development would commence in 2026, with estimated energisation in Quarter 4 of 2030. The length of the main construction work is expected to take four years to 2030, with construction traffic likely to peak in 2026. Dismantling of existing OHLs would follow and is anticipated to be completed by Quarter 2 of 2032. The key project stages anticipated to include the following:

- site mobilisation;
- forestry felling;
- access track construction;
- tower installation works
- OHL installation works;
- OHL outage connection works;
- tower demolition / dismantling; and
- site reinstatements.

6.2.2. As stated in **Chapter 3 of this Appendix**, to ensure robustness, the construction impact analysis has been based on the peak daily traffic flows of site deliveries over a 11-hour period, to reflect the GMT working hours (07:00-18:00). In doing so, simulating the most intensive movements required to construct the Proposed Development in the shorter time period within the construction window.

6.3 TRIP GENERATION

6.3.1. The level of trips generated by each section of the Proposed OHL Alignment's installation and for the movement of the project workforce have been derived from an estimate provided by the Principal Contractor, with it anticipated that the greatest number of traffic movements will be generated in 2026. This assessment has therefore focussed on this period to provide a robust estimate of the impact of construction activities.

6.3.2. **Table 6.1** provides an indication of the average level of trips generated by each tower's installation.

Table 6.1: Predicted Total Traffic Generation Associated with each Tower

Per Tower	LCV Pick-Ups and Welfare Vans	Sprinter Pickup - Tipper	Beavertail Wagon	4x4 MAN	Low Loader	Concrete Wagon	Crane	Tractors	Telehandler
1	320	84	54	32	6	24	2	8	2

6.3.3. The Principal Contractor has identified an indicative programme to support the installation of the Proposed OHL Alignment towers, this can be found in **Table 3.5 of Chapter 3: Project Description** of the EIAR. This has been used in conjunction with the trip generation estimate identified in **Table**

6.1. to determine the average level of trips generated on a daily basis by each section of the Proposed OHL Alignment and by association, each access point.

- 6.3.4. As each access point supports access to a different number of towers, the level of trips which each accommodates, varies. To simplify the assessment, the highest number of trips anticipated to be generated on each section have been used to provide a robust estimate of the impact of construction traffic on the operation of the local road network. **Table 6.2** summarises the number of daily trips which each access will accommodate, with **Table 6.3** identifying the anticipated maximum level of daily trips which it is estimated that each section will accommodate.

Table 6.2: Predicted Total Daily Traffic Generation Associated with each Access Point

Section	Access Point	Car / LGV Two-Way Trip Generation	HGV Two-Way Trip Generation
1	AP1	76	18
	AP2	75	18
	AP3	75	18
	AP4.1	76	18
	AP4.2	76	18
	AP4.3	76	18
	AP4.4	76	18
	AP4.5	76	18
2	AP5	76	18
	AP6	76	18
	AP7	76	18
	AP8	76	18
	AP9	76	18
	AP10	76	18
	AP11	76	18
	AP12	75	18
3	AP13	76	18
	AP14	75	18
	AP15	75	18
4	AP16	75	18
5	AP17	75	18
	AP18	76	18
	AP19	76	18
	AP20	76	18
	AP21	75	18
6	AP22	76	18
	AP23	76	18

Section	Access Point	Car / LGV Two-Way Trip Generation	HGV Two-Way Trip Generation
	AP24	75	18
	AP25	75	18
	AP26	75	18
	AP27	75	18
	AP28	75	18
7	AP29	75	18
	AP30	76	18
	AP31	76	18
	AP32	76	18
	AP33	75	18
8	AP34	76	18
	AP35	76	18
	AP36	75	18
	AP37	75	18
9	AP38	75	17
	AP39	79	18
	AP40	75	18
	AP41	76	18
	AP42	106	26
	AP43	106	26
10	AP44	80	19
	AP45	106	26
	AP46	78	18
	AP47	88	21
11	AP48	81	19
	AP49	106	26
	AP50	88	21
	AP51	79	18

Table 6.3: Predicted Total Daily Traffic Generation Associated with each Section

Section	Daily Cars / Vans	Daily HGVs	Hourly Cars / Vans	Hourly HGVs
1	76	18	7	2
2	76	18	7	2
3	76	18	7	2
4	75	18	7	2
5	76	18	7	2
6	76	18	7	2
7	76	18	7	2
8	76	18	7	2
9	106	26	10	2
10	106	26	10	2
11	106	26	10	2

AGGREGATE TRIP GENERATION

- 6.3.5. The level of trips identified in **Table 6.3** makes no allowance for the formation of access tracks or compounds (Yards) to support construction activities.
- 6.3.6. The Principal Contractor has advised that they are likely to use six HGVs to transport aggregate material to and from the installation sites, with the vehicles travelling between the nearest quarry and the installation sites throughout the working day. It has therefore been assumed that these trips will equate to 12 two-way trips an hour and this assumption has been used to support the impact assessment. **Table 6.4** summarises the assumed quarry which will be used to support the delivery of each section of the Proposed Development.

Table 6.4: Quarries Assumed for each of the Sections

Section	Assumed Quarry
1	Assumed to route the most direct route from Beaully Quarry
2	Assumed to route the most direct route from Beaully Quarry
3	Assumed to route the most direct route from Beaully Quarry
4	Assumed to route the most direct route from Tarmac Dunain Mains Quarry
5	Assumed to route the most direct route from Tarmac Dunain Mains Quarry
6	Assumed to route the most direct route from Tarmac Dunain Mains Quarry
7	Assumed to route the most direct route from Daviot Quarry
8	Assumed to route the most direct route from Daviot Quarry
9	Assumed to route the most direct route from Tarmac Park Quarry
10	Assumed to route the most direct route from Tarmac Park Quarry
11	Assumed to route the most direct route from Tarmac Park Quarry

Timber Extraction

- 6.3.7. It is expected that the greatest number of trips will be associated with the formation of access tracks and compounds and that a significantly reduced number of trips will be associated with timber extraction activities which will be undertaken using existing forestry tracks in advance of the formation of access tracks to support tower installation activities. This TA has therefore focussed on assessing the impact of construction traffic generated by the formation of access tracks and tower installation activities.

6.4 DAILY TRIP GENERATION PER ACCESS POINT

- 6.4.1. **Table 6.5** summarises the maximum level of daily trips anticipated to be generated by the construction of each section of the Proposed OHL Alignment taking cognisance of the trips generated by tower installation and track formation activities, but assuming that no materials can be won or disposed of via borrow pits to provide a robust estimate of the level of traffic generated by construction activities. The table also summarises the average number of vehicles generated on an hourly basis on the assumption that construction traffic will be accessing the site for an 11-hour period.

Table 6.5: Trip Generation per Section

Section	Daily Cars / Vans	Daily HGVs	Hourly Cars / Vans	Hourly HGVs	Days	Movements per Period
1	76	150	7	14	20	4526
2	76	150	7	14	35	7920
3	76	150	7	14	34	7665
4	75	150	7	14	20	4503
5	76	150	7	14	35	7920
6	76	150	7	14	48	10862
7	76	150	7	14	35	7920
8	76	150	7	14	83	18782
9	106	158	10	14	104	27456
10	106	158	10	14	60	15840
11	106	158	10	14	39	10296

- 6.4.2. The above generation has been used to review the impact of construction traffic on the local road network, with the results of the assessment presented in **Chapter 7 of this Appendix**.

7 DEVELOPMENT IMPACT ASSESSMENT

7.1 INTRODUCTION

7.1.1. This Chapter of the Appendix summarises the impact of construction traffic on the local road network which will be used to support the delivery of each Proposed OHL Alignment section. It identifies the estimated increase in traffic along each road link on the access route and reviews this in relation to the potential constraints on the route, prior to identifying potential measures to mitigate the impact.

7.2 CONSTRUCTION TRAFFIC IMPACT ASSESSMENT

7.2.1. **Table 7.1** quantifies the impact which construction traffic is forecast to have on the operation of each of the links on each of the eight sections of the local road network supporting access to the installation sites.

Table 7.1: Construction Traffic Impact Assessment Summary

Section	Location	Daily Two-Way Movements				Hourly Two-Way Movements	
		Existing Traffic		Proposed Development		Proposed Development	
		Cars / Vans	HGVs	Cars / Vans	HGVs	Cars / Vans	HGVs
1	C1106 between Fanellan and the U1604	196	1	76	150	7	14
	C1106 between Fanellan and the C1108	131	0	76	150	7	14
	U1604 between the C1106 and the C1108	242	7	76	150	7	14
	C1106 between the U1604 and the A831	526	7	76	150	7	14
	A831 between the C1106 and the A862	1841	23	76	150	7	14
2	A862 between B9164 and Scorguie Rd, Inverness	3972	56	76	150	7	14
3	A862 between the A82 and King Brude Road roundabout	13731	345	76	150	7	14
4	A82 Drumadrochit to Inverness	5935	2758	75	150	7	14
5	A8082 between the A9 and the Slackbuie Distributor Road	12166	326	76	150	7	14
	A8082 between B861 and the Slackbuie Distributor Road	11474	118	76	150	7	14
	B862 (southwest of Inverness) between Scaniport and Cullaird	1896	13	76	150	7	14
6	C1068 (south of Inverness) southwest of the A9 junction at Daviot/Dundavie	186	4	76	150	7	14

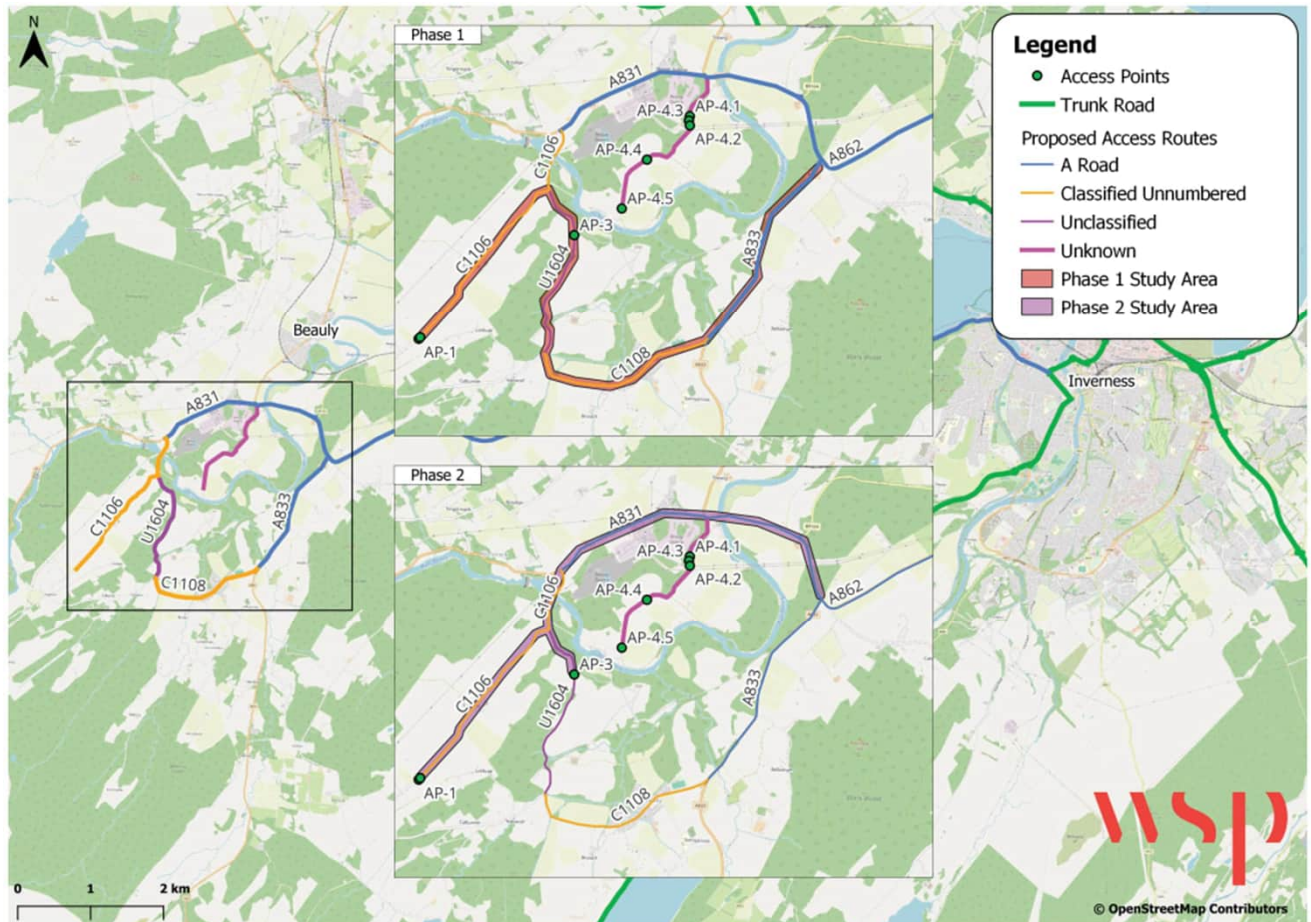
Section	Location	Daily Two-Way Movements				Hourly Two-Way Movements	
		Existing Traffic		Proposed Development		Proposed Development	
		Cars / Vans	HGVs	Cars / Vans	HGVs	Cars / Vans	HGVs
7	B851 (Southeast of Inverness) north of the junction with the A9 at Mains of Daviot	591	10	76	150	7	14
	C1056 (from B9154 at Craggie to U1233 at Dalroy), at Mains of Daltulich	100	2	76	150	7	14
8	B9006 (southeast of Croy) at Cantray	2577	15	76	150	7	14
9	B9006 Croy - Gollanfield - Fort George Rd, at Loch Flemington, N of the junction of B9006 & B9090	1211	172	106	158	10	14
10	B9006 Croy - Gollanfield - Fort George Rd, at Loch Flemington, N of the junction of B9006 & B9090	1211	172	106	158	10	14
11	B9090 Cawdor - Nairn Road, east of Brackla Distillery	2028	266	106	158	10	14
	A939 (South of Nairn) at Achamore	882	11	106	158	10	14

7.2.2. As can be seen from the above summary, construction activities are generally forecast to generate between 21 and 24 two-way traffic flows per hour, with the majority of these movements (12) generated by HGVs transporting aggregates to the construction sites. Where possible these movements will be managed to spread arrivals and departures to/from the quarry throughout each hour, and it is therefore expected that construction activities will generate an increase of one two-way HGV movement every 4 minutes.

SECTION 1

7.2.3. **Figure 13.1.7.1** shows the routes that construction traffic would use to access the tower installation sites associated with Section 1 of the Proposed Development.

Figure 13.1.7.1: Section 1 Access Routes



Pinch Point Analysis

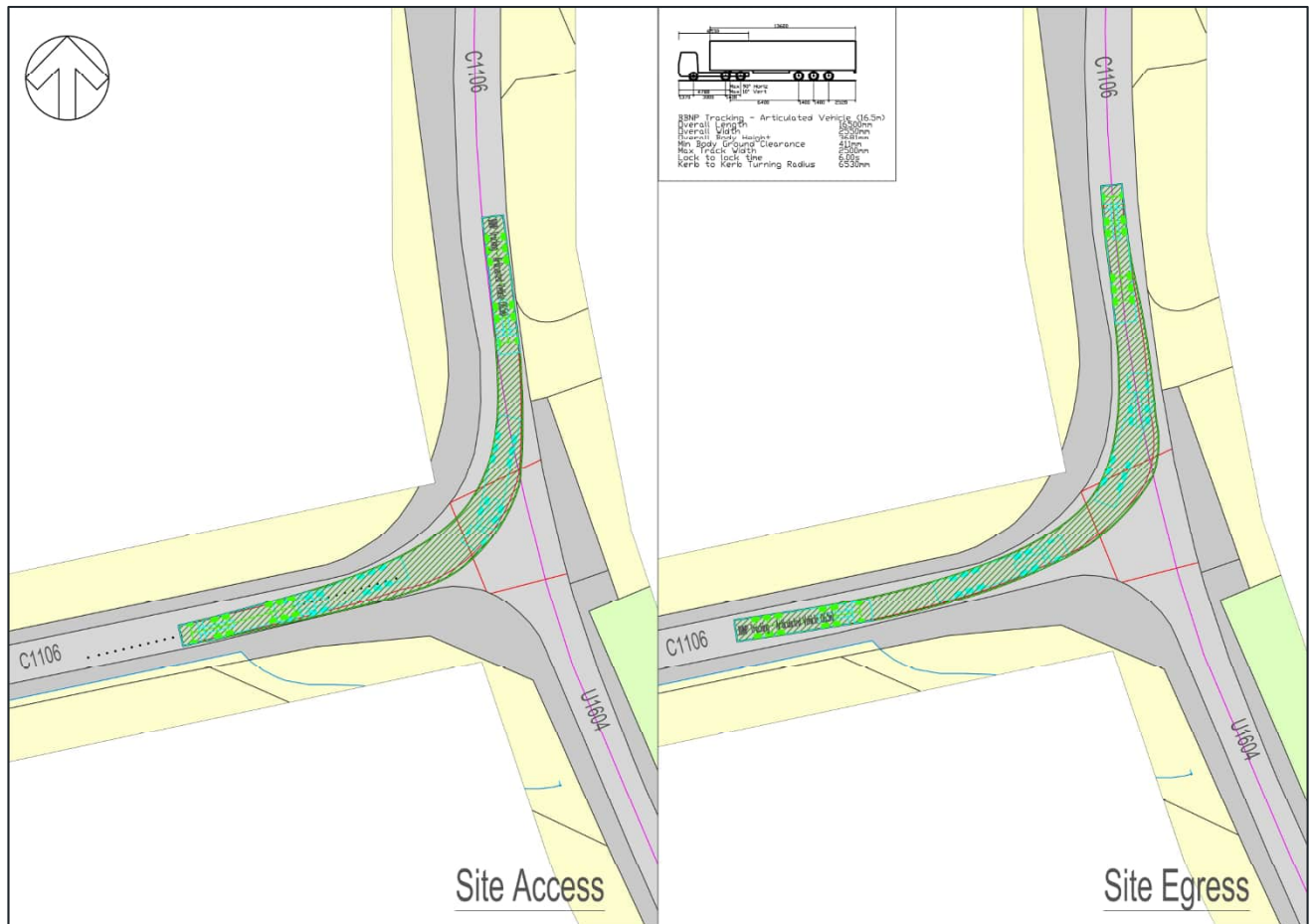
- 7.2.4. A review of the potential access route has identified potential constraints at the A831 / C1106 and C1106 / U1604 junctions. Swept Path Analysis using OS mapping was undertaken at these locations to assess whether the construction vehicles can be accommodated using the existing road and junction layouts. The SPA was undertaken using AutoTrack and the result of the assessment is shown in **Figure 13.1.7.2** and **Figure 13.1.7.3**.

Figure 13.1.7.2: Potential Constraint at A831 / C1106 Junction



- 7.2.5. As shown by **Figure 13.1.7.2**, the analysis suggests that the A831 / C1106 junction will be able to accommodate HGV movements.

Figure 13.1.7.3: Potential Constraint at C1106 / U1604 Junction

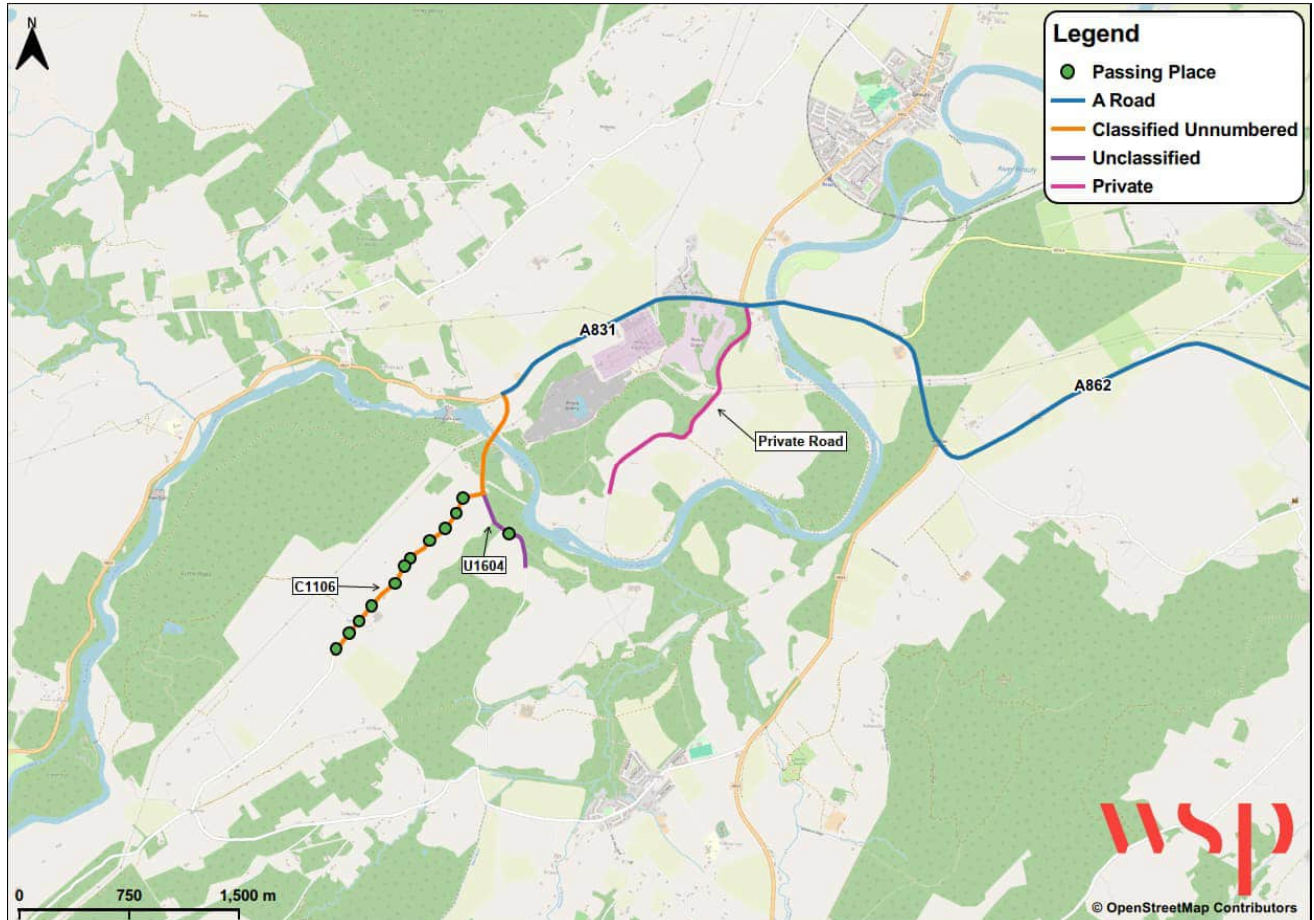


- 7.2.6. As shown by **Figure 13.1.7.3**, the analysis suggests that the C1106 / U1604 junction will be able to accommodate HGV movements.

Passing Place Provision

- 7.2.7. **Figure 13.1.7.4** shows the indicative locations the current passing place provision on the sections of the C1106 and that U1604 that form the access routes for Section 1 of the Proposed OHL Alignment.

Figure 13.1.7.4: Section 1 - Passing Places



- 7.2.8. The C1106 is approximately 5 m in width between the A831 and its junction with the U1604, where the road reduces to approximately 3 m in width. Construction vehicles will use approximately 1500 m of the single-track section of the C1106 for access. As shown in **Figure 13.1.7.4**, there are 11 formal passing places on the C1106 between the C1106 / U1604 junction and the two access points served by the road.
- 7.2.9. The U1604 is approximately 5 m in width between its junction with the C1106 and the access point which is served by the road. Construction vehicles will use approximately 600 m of the U1604 for access. As shown in **Figure 13.1.7.4**, there is currently one formal passing place on the U1604 between the C1106 and the single access point served by the road.
- 7.2.10. A number of access points will be accessed from the private road which connects with the A862 in the vicinity of its junction with the A831 and supports access to Groam of Annat.

Proposed Mitigation

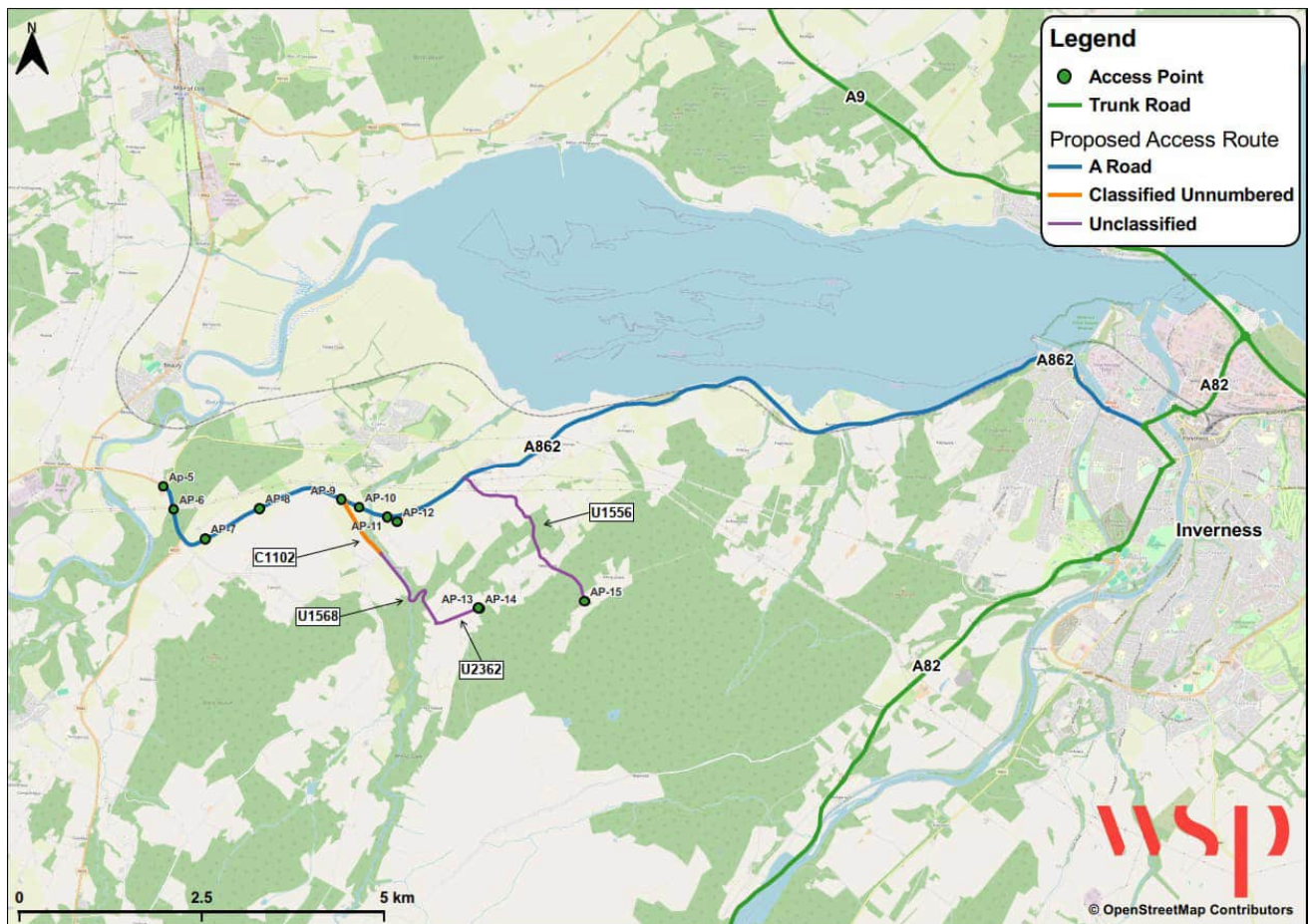
- 7.2.11. As previously highlighted, the C1106 is approximately 5 m in width between the A831 and the U1604. While the road narrows to the west of its junction with the U1604, the unclassified road is

supported by passing places provided at regular intervals. The U1604 is approximately 5 m in width between the C1106 and the single access point which is to be served by the road. It is therefore considered that there is no requirement to introduce any mitigation measures on either road to support the temporary increase in traffic over a 1 - 2 month period generated by construction of this section of the Proposed Development.

SECTION 2

7.2.12. **Figure 13.1.7.5** shows the routes that construction traffic would use to access the tower installation sites associated with Section 2 of the Proposed Development.

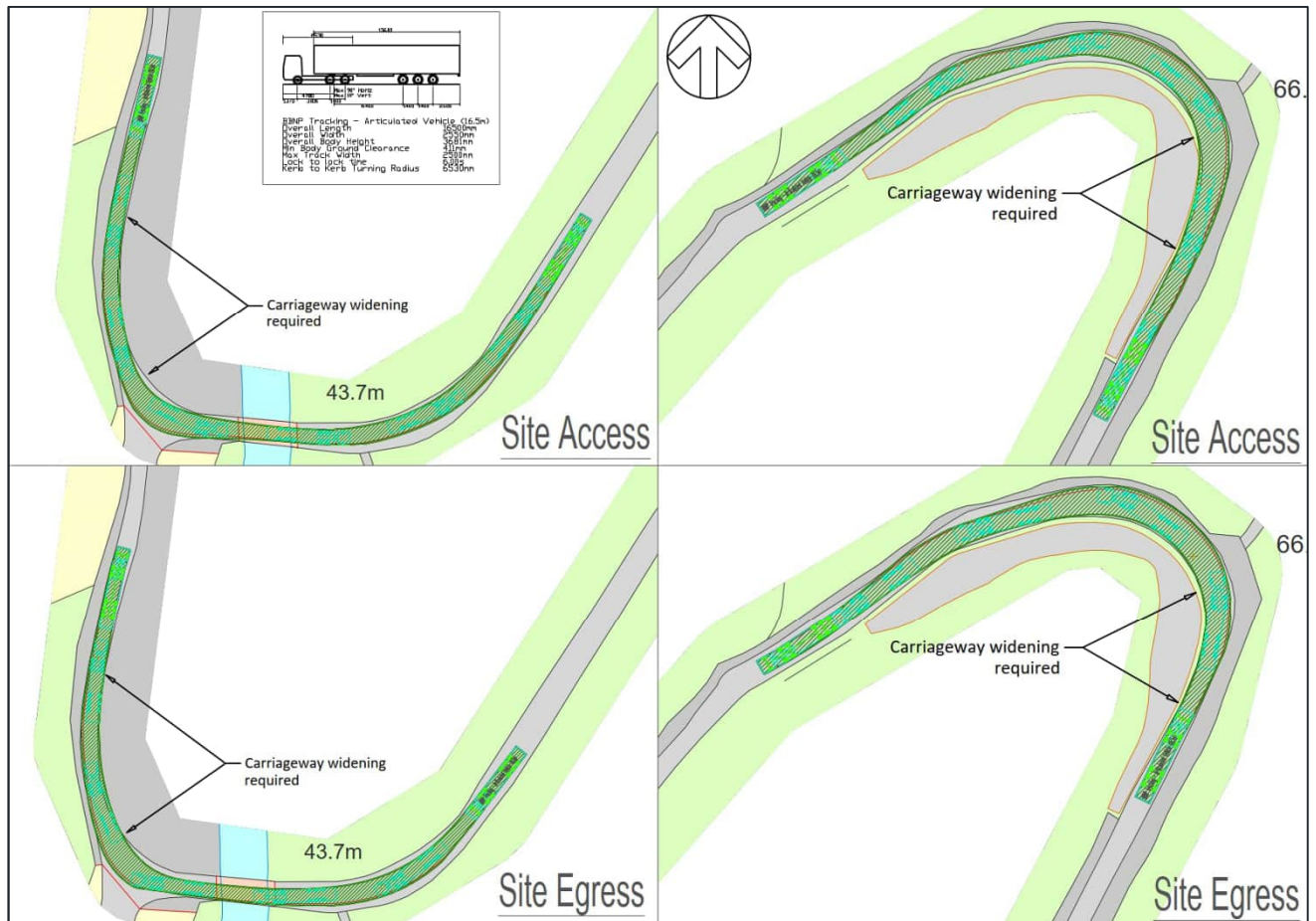
Figure 13.1.7.5: Section 2 Access Routes



Pinch Point Analysis

- 7.2.13. A review of the potential access route has identified potential constraints on the U1568 in the vicinity of the bridge crossing Moniack Burn, the U1568 / U2362 junction and the U1556 / A862 junction. The potential constraints were reviewed using AutoTrack and the result of the assessment is shown in **Figure 13.1.7.6** to **Figure 13.1.7.8**.

Figure 13.1.7.6: Potential Constraint on the U1568



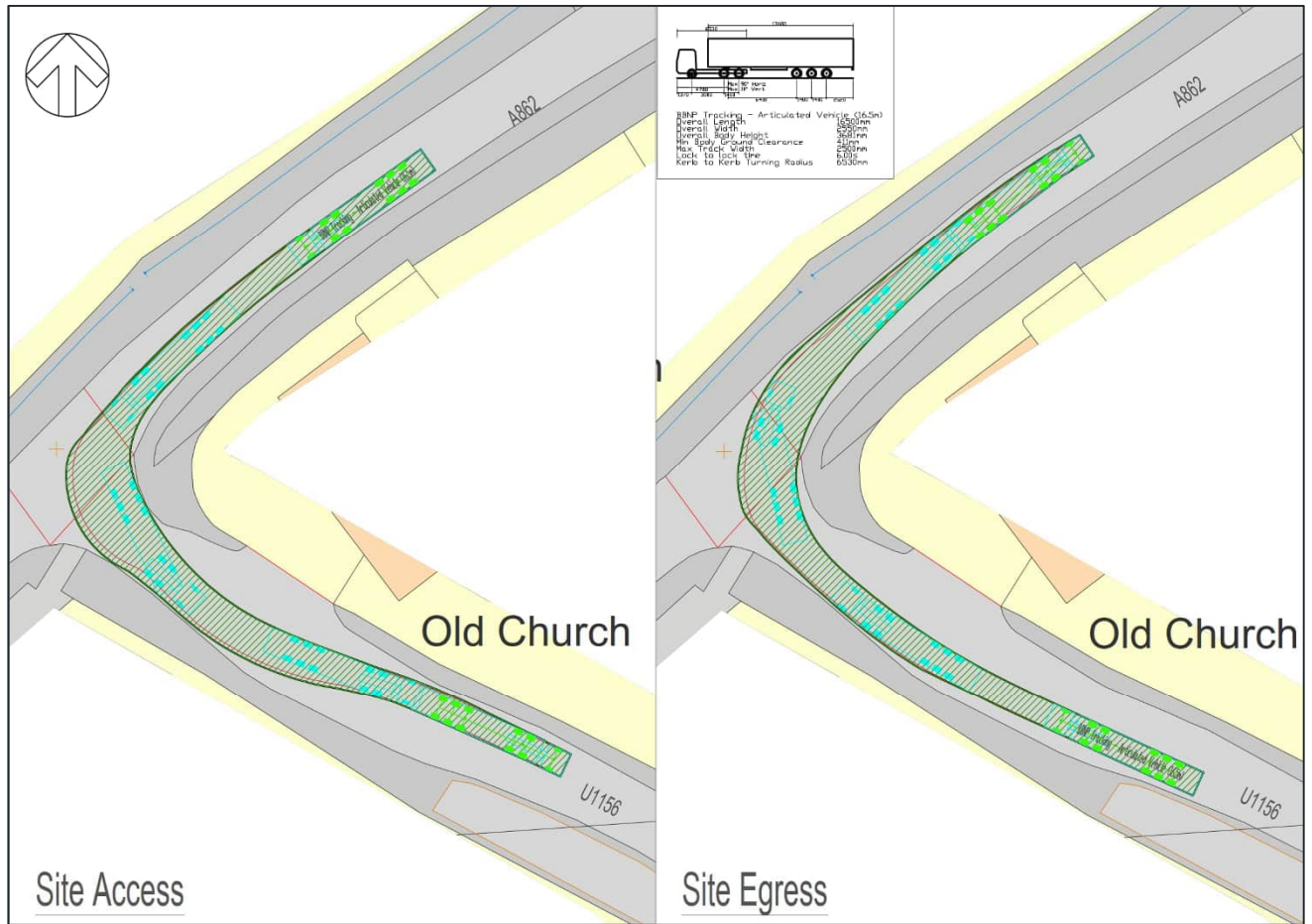
- 7.2.14. As shown by **Figure 13.1.7.6**, the analysis suggests that a minimal amount of widening will be required on the east side of the road to the northwest of the bridge crossing Moniack Burn and to the south side of the road to the east of the bridge to accommodate HGV movements, although the need for this will require to be confirmed by a topographical survey. The works appear to be able to be accommodated within the adopted road boundary without a requirement for third party land.

Figure 13.1.7.7: Potential Constraint at U1568 / U2362 and on the U2362 Junction



- 7.2.15. The analysis presented in **Figure 13.1.7.7** confirms that works will be required at the junction and on the south side of the U2362 to accommodate HGV movements, although the need for this will require to be confirmed by a topographical survey. The works appear to be able to be accommodated within the adopted road boundary without a requirement for third party land.

Figure 13.1.7.8: Potential Constraint at A862 / U1556 Junction

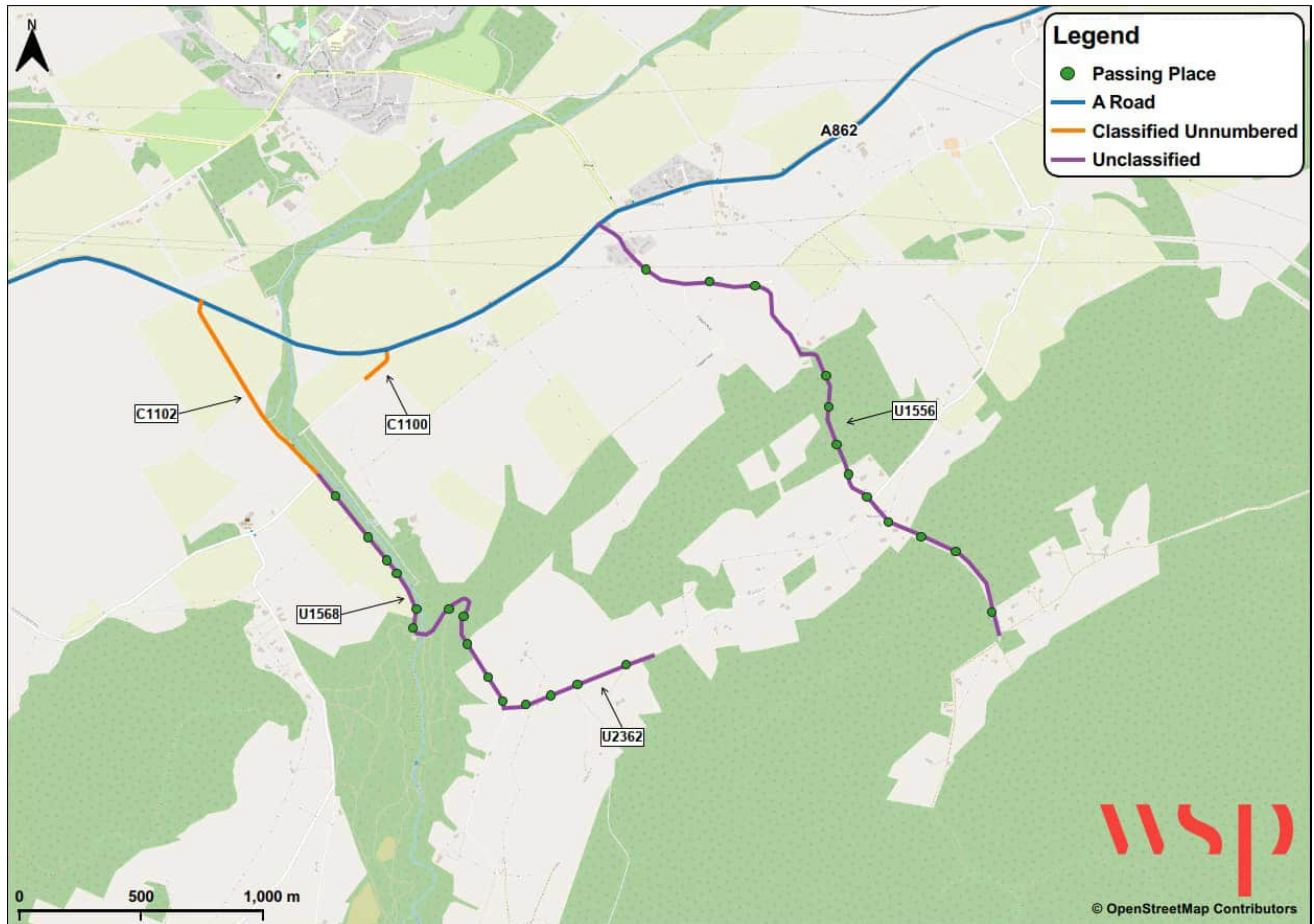


- 7.2.16. As shown by **Figure 13.1.7.8**, the analysis suggests that the junction will be able to accommodate HGV movements without a requirement to alter the junction.

Passing Place Provision

- 7.2.17. **Figure 13.1.7.9** shows the indicative locations the current passing place provision on the unclassified roads that form the access routes for Section 2 of the Proposed OHL Alignment.

Figure 13.1.7.9: Section 2 - Passing Places



- 7.2.18. The C1102 is predominantly a single carriageway road approximately 5 m in width. The road narrows to approximately 4 m with no passing places for approximately 150 m between the bridge over the Moniack Burn and the U1568.
- 7.2.19. The U1568 is a single-track road approximately 3 m in width. Construction vehicles will use approximately 1200 m of the U1568 for access. As shown by **Figure 13.1.7.9**, there are currently 11 passing places on the U1568 between the C1102 and the U2362.
- 7.2.20. The U2362 is a single-track road approximately 3 m in width. Construction vehicles will use approximately 650 m of the U2362 for access. As shown by **Figure 13.1.7.9**, there are currently 4 passing places on the U2362 between the U1568 and the two access points which are to be served by the road.
- 7.2.21. The U1556 is a single-track road approximately 3 m in width. Construction vehicles will use approximately 2600 m of the U1556 for access. As shown by **Figure 13.1.7.9**, there are currently 12 passing places on the U1556 between the A862 and the single access point which is to be served by the road.

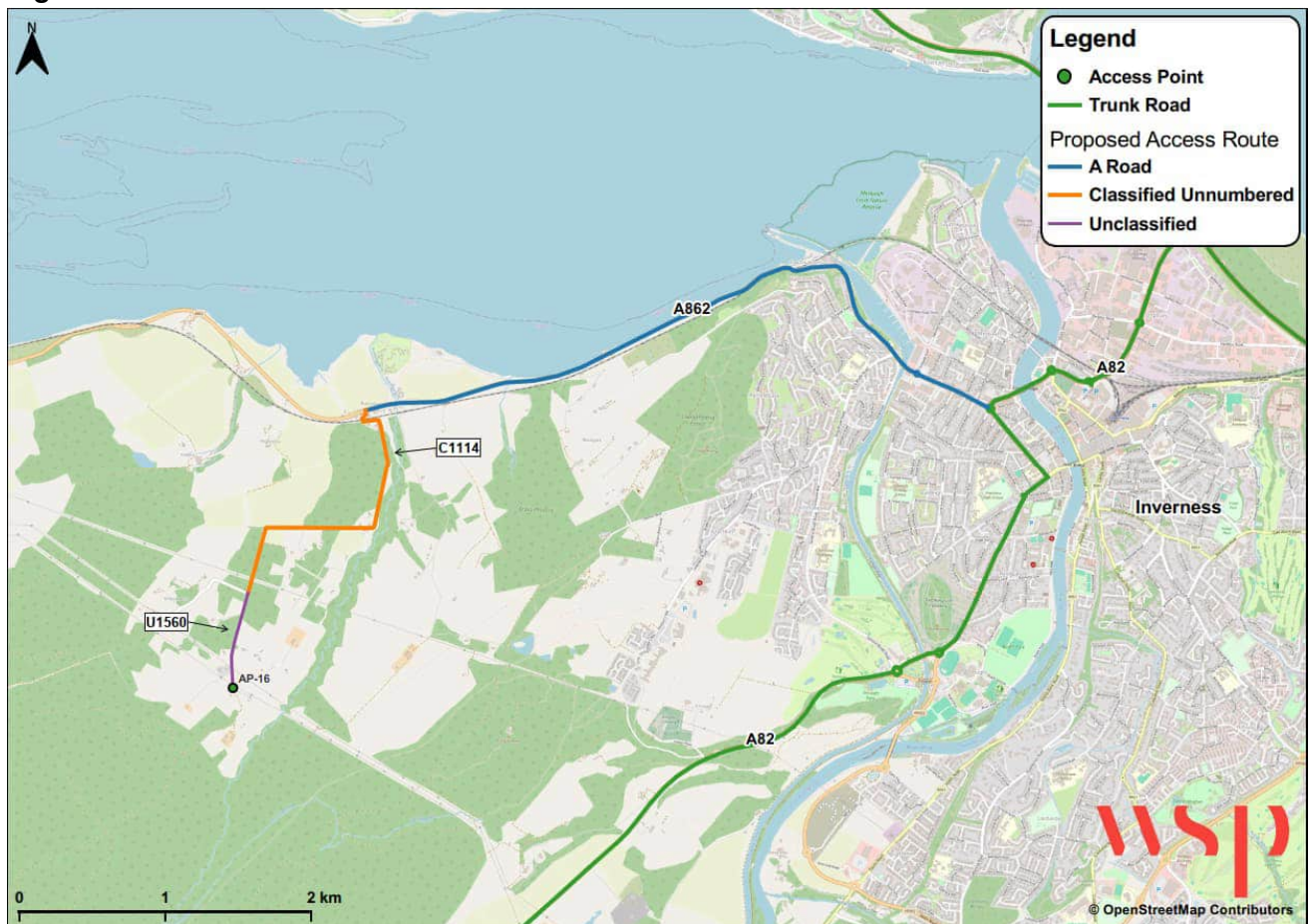
Proposed Mitigation

- 7.2.22. There is a requirement to introduce localised widening on the U1568 and the U2362 as well as at the U1568 / U2362 junction to accommodate HGVs accessing this section of the Proposed OHL Alignment.
- 7.2.23. As previously highlighted, the C1102, U1568, U2362 and U1556 are single-track roads which are supported by passing places at regular intervals. It is anticipated that the unclassified road network which will support access to the tower installation sites, is lightly trafficked given that it supports access to a limited number of properties and farms. It is likely that both access routes will be used by construction traffic for a maximum of two months.
- 7.2.24. As previously highlighted, the majority of HGV movements will be tippers transporting materials to and from the installation sites and HGV movements will be programmed to minimise the potential for two vehicles to meet on the unclassified road network which supports access to this section of the Proposed Development. It is therefore considered that there is no requirement to introduce any additional mitigation measures on any of the roads to support the temporary increase in traffic generated by construction activities.

SECTION 3

- 7.2.25. **Figure 13.1.7.10** shows the route that construction traffic would use to access the tower installation sites associated with Section 3 of the Proposed Development.

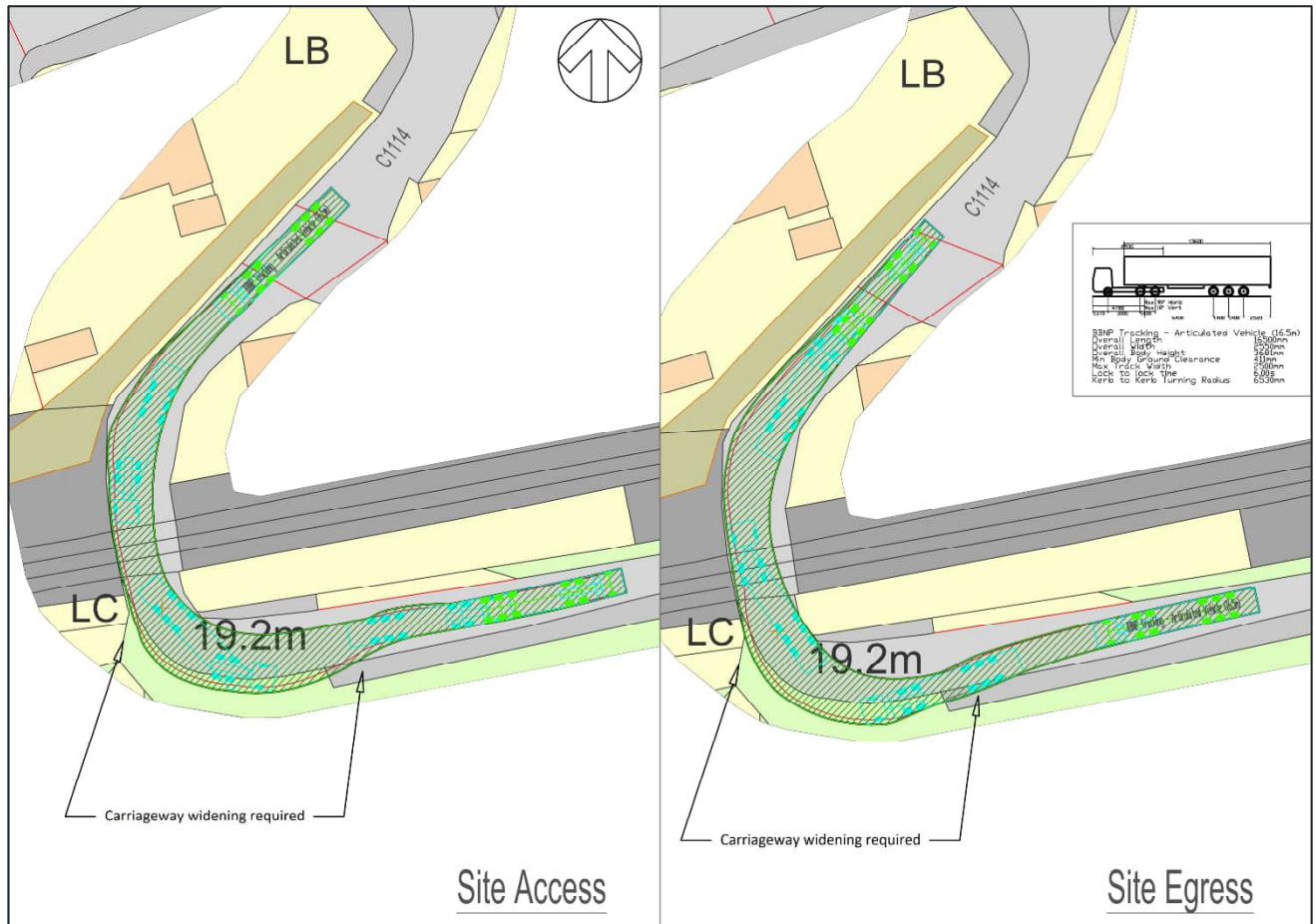
Figure 13.1.7.10: Section 3 Access Route



Pinch Point Analysis

- 7.2.26. A review of the potential access route has identified a potential constraint on the C1114 at the level crossing. The potential constraint was reviewed using AutoTrack and the result of the assessment is shown in **Figure 13.1.7.11**.

Figure 13.1.7.11: Potential Constraint at C1114 Level Crossing

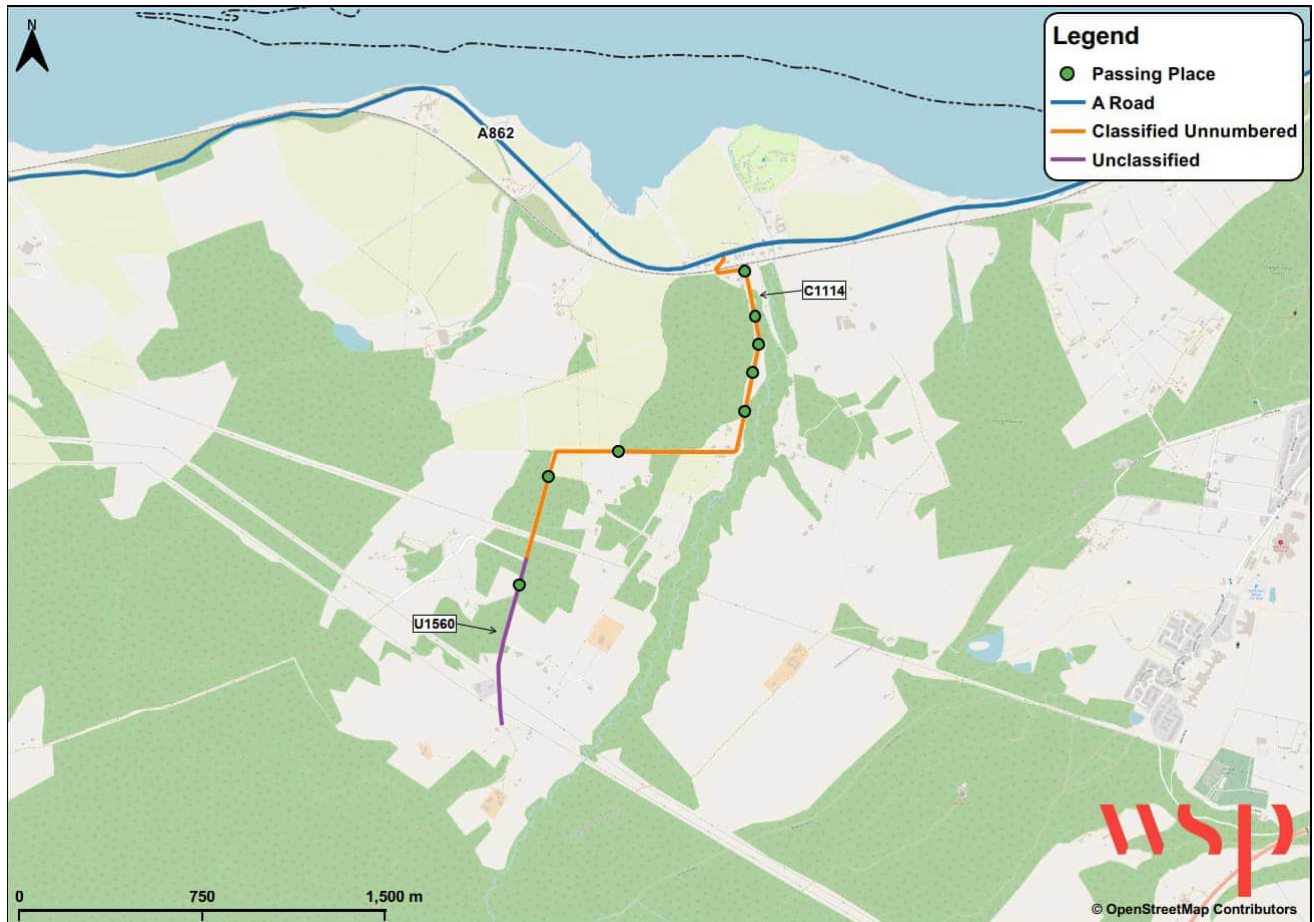


- 7.2.27. As shown by **Figure 13.1.7.11**, the analysis suggests that there will be a requirement to widen the carriageway of the C1114 immediately to the south of the level crossing to accommodate its use by HGVs, although the need for this will require to be confirmed by a topographical survey. The works appear to be able to be accommodated within the adopted road boundary without a requirement for third party land.

Passing Place Provision

- 7.2.28. **Figure 13.1.7.12** shows the indicative locations the current passing place provision on the unclassified roads that form the access routes for Section 3 of the Proposed OHL Alignment.

Figure 13.1.7.12: Section 3 - Passing Places



- 7.2.29. The C1114 is a single-track road approximately 3 m in width. Construction vehicles will use approximately 2000 m of the C1114 for access. As shown by **Figure 13.1.7.12**, there are currently seven passing places on the C1114 between the A862 and the U1560.
- 7.2.30. The U1560 is a single-track road approximately 3 m in width. Construction vehicles will use approximately 650 m of the U1560 for access. As shown by **Figure 13.1.7.12**, there is currently one passing places on the U1560 between the C1114 and the single access point which will be served by the road.

Proposed Mitigation

- 7.2.31. There is a requirement to widen the C1114 immediately to the south of the level crossing to accommodate HGVs accessing this section of the Proposed OHL Alignment.
- 7.2.32. As previously highlighted, the C1114 and U1560 are single-track roads which are supported by passing places. It is anticipated that the unclassified roads are lightly trafficked given that they support access to a limited number of properties, and it is likely that the access route will be used by construction traffic for a maximum of two months. HGV movements will be programmed to minimise the potential for two vehicles to meet on the access route and it is therefore considered that there is

no requirement to introduce any additional mitigation measures on either of the roads to support the temporary increase in traffic generated by construction activities.

SECTION 4

- 7.2.33. **Figure 13.1.7.13** shows the route that construction traffic would use to access the tower installation sites associated with Section 4 of the Proposed Development.

Figure 13.1.7.13: Section 4 Access Route



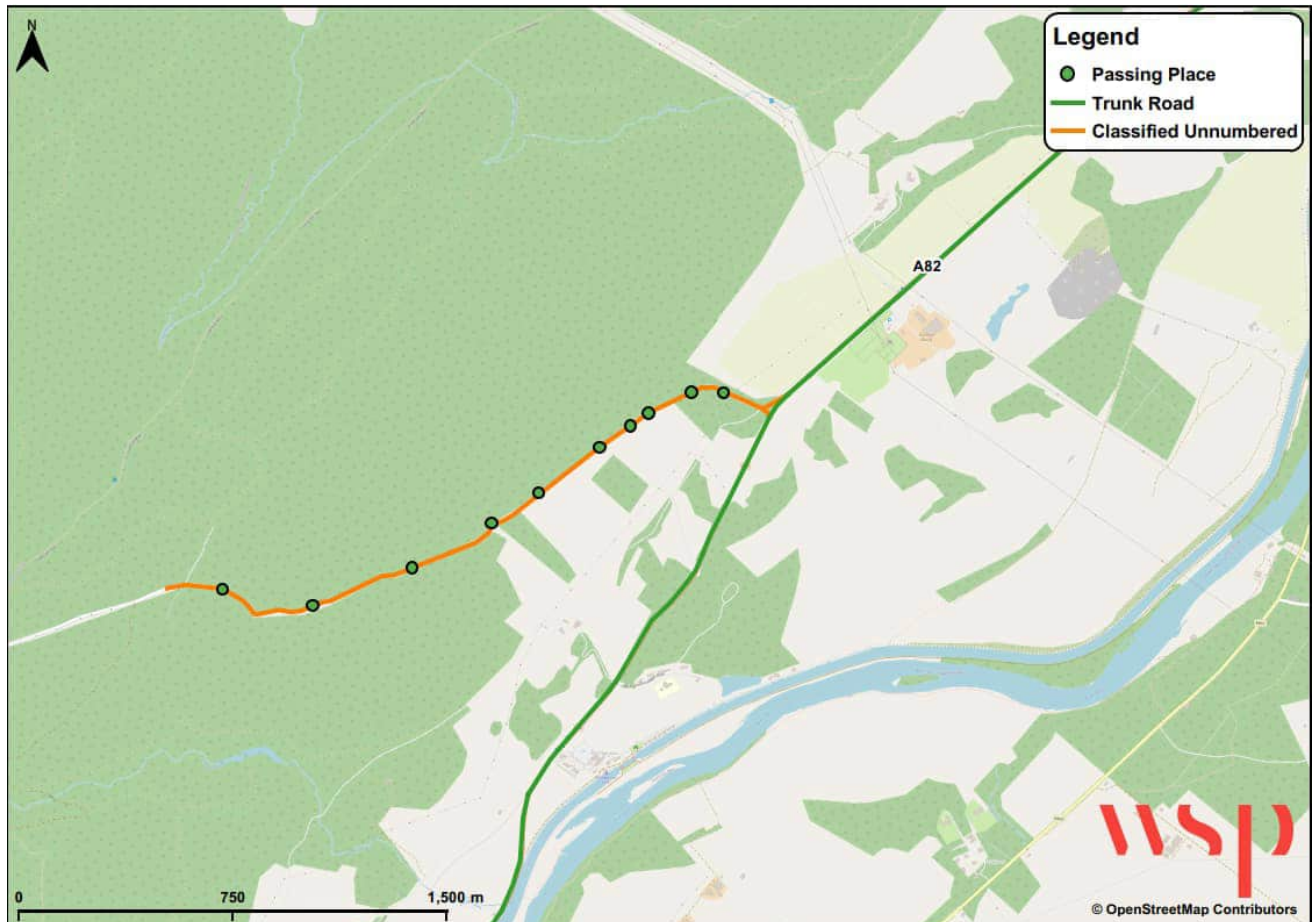
Pinch Point Analysis

- 7.2.34. The desktop review of the C1060 has not identified any potential constraints to prevent its use by HGVs supporting construction activities.

Passing Place Provision

- 7.2.35. **Figure 13.1.7.14** shows the indicative locations the current passing place provision on the unclassified roads that form the access routes for Section 4 of the Proposed OHL Alignment.

Figure 13.1.7.14: Section 4 - Passing Places



- 7.2.36. The C1060 is a single-track road approximately 3 m in width. Construction vehicles will use approximately 2300 m of the C1060 for access. As shown by **Figure 13.1.7.14**, there are currently ten passing places on the C1060 between the A82 (T) and the westernmost access point which is to be served by the road.

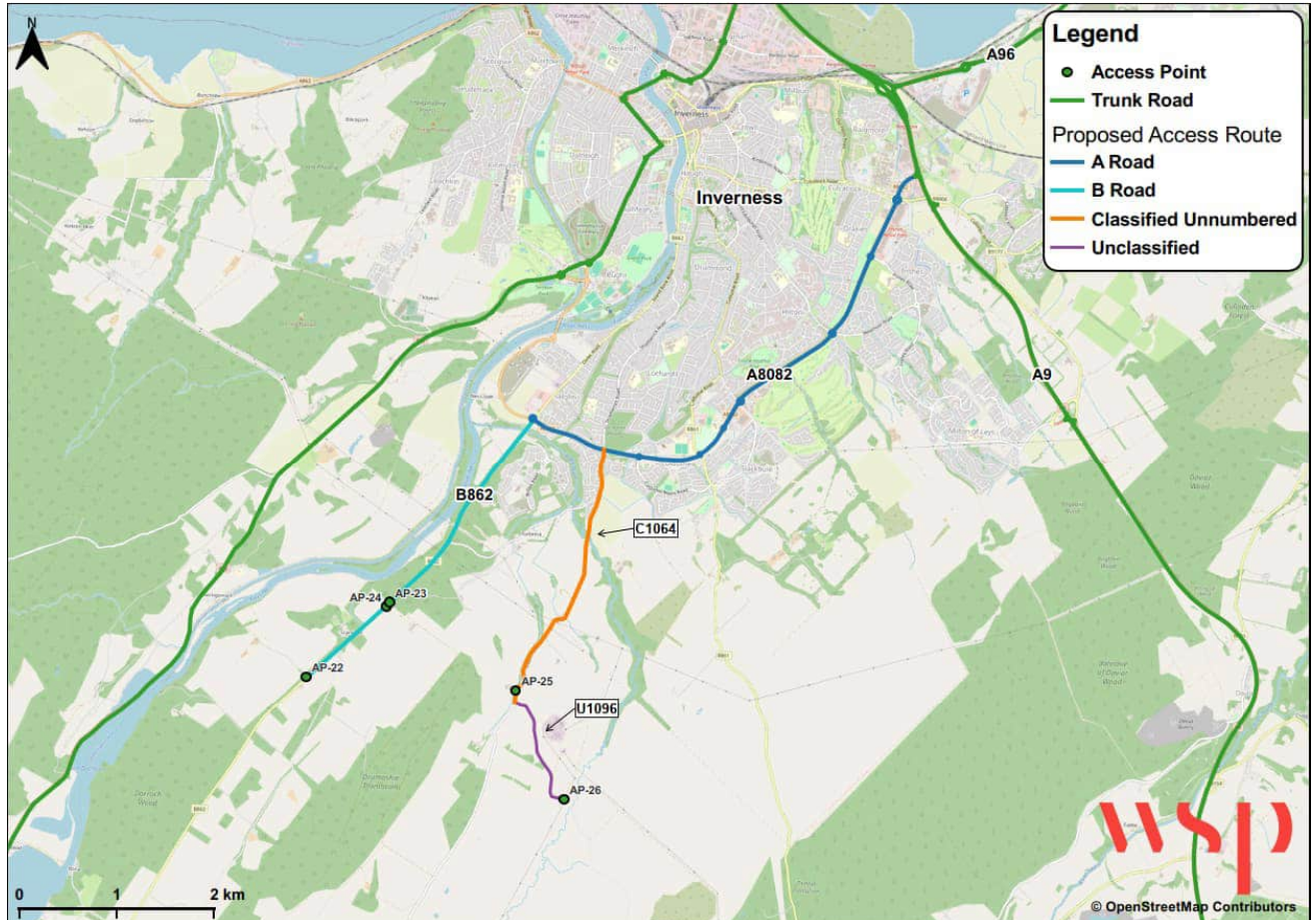
Proposed Mitigation

- 7.2.37. While the C1060 provides a through route for traffic, it serves a minimal number of residential properties and is therefore expected to be lightly trafficked. The road is supported by passing places at regular intervals and appears to have supported timber extraction activities in recent years. It is likely that the road will be used by construction traffic for a maximum of two months and HGV movements will be programmed to minimise the potential for two vehicles to meet on the unclassified road. It is therefore considered that there is no requirement to introduce any mitigation measures on the C1060 to support the temporary increase in traffic generated by construction activities.

SECTION 5

7.2.38. **Figure 13.1.7.15** shows the routes that construction traffic would use to access the tower installation sites associated with Section 5 of the Proposed Development.

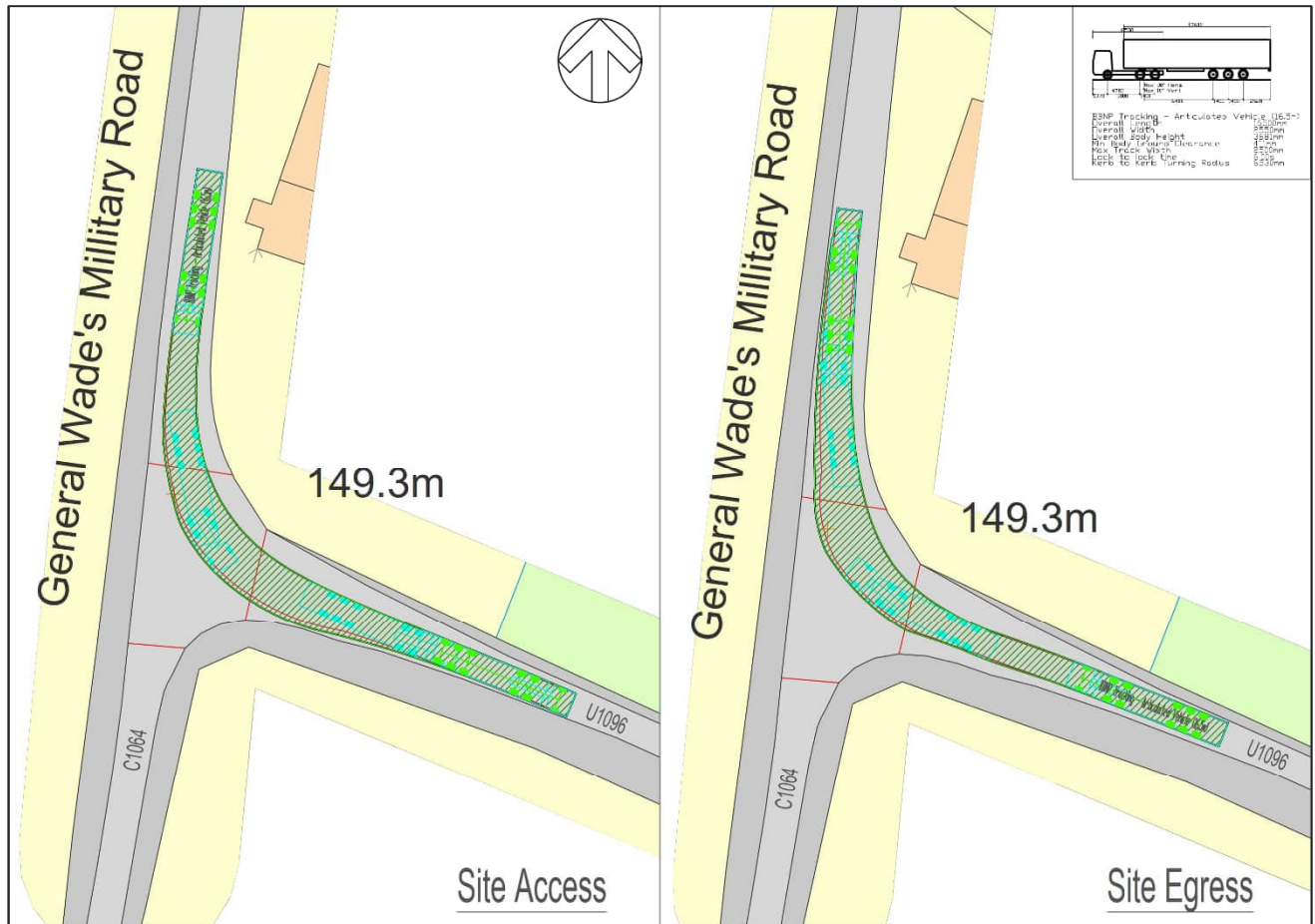
Figure 13.1.7.15: Section 5 Access Routes



Pinch Point Analysis

- 7.2.39. A potential constraint was highlighted at the C1064 / U1096 junction through which HGVs would pass when accessing the tower installation sites associated with Section 5. The potential constraint was reviewed using AutoTrack and the result of the assessment is shown in **Figure 13.1.7.16**.

Figure 13.1.7.16: Potential Constraint at C1064 / U1096 Junction

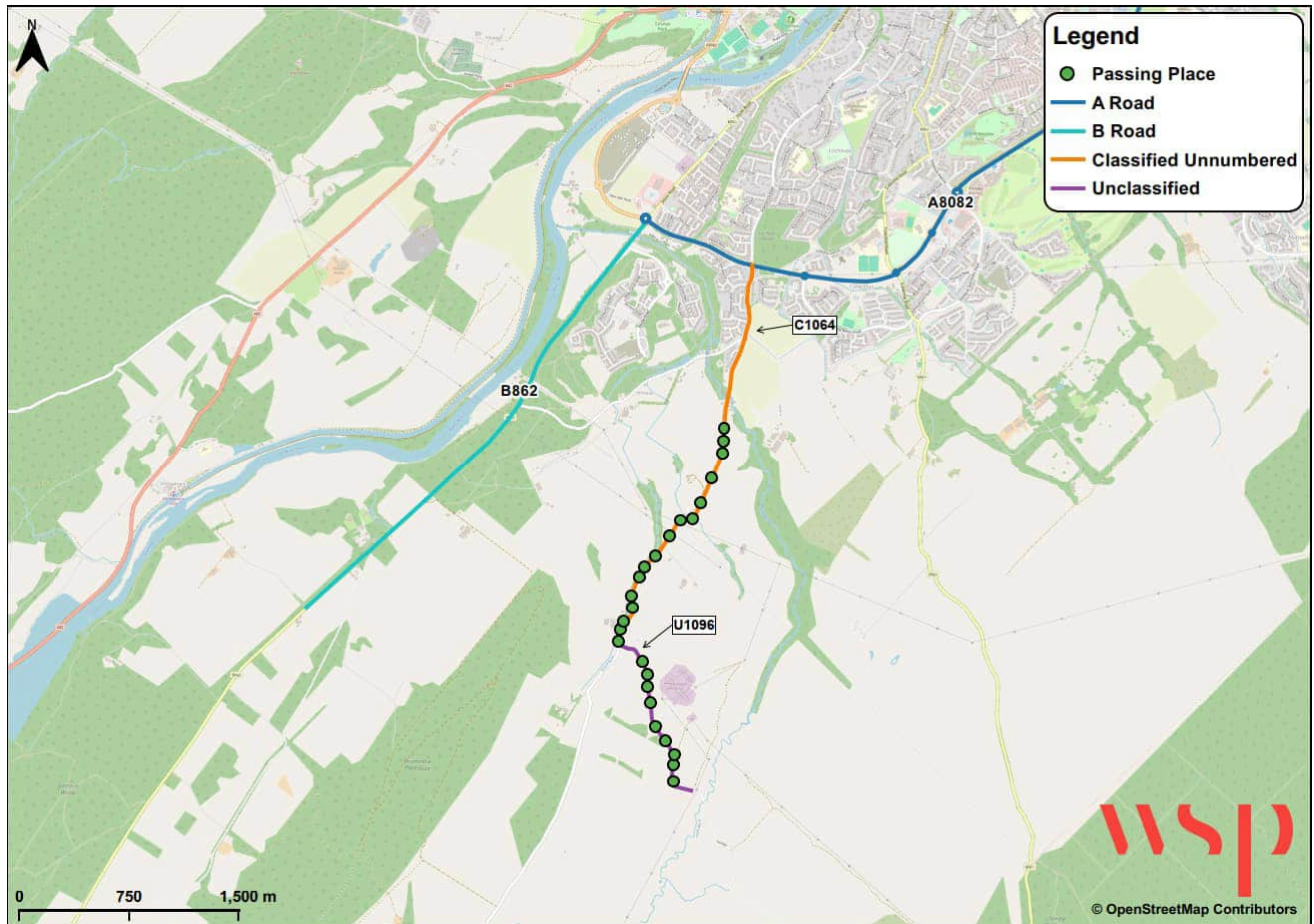


- 7.2.40. As shown by **Figure 13.1.7.16**, the analysis suggests that the junction will be able to accommodate HGV movements.

Passing Place Provision

- 7.2.41. **Figure 13.1.7.17** shows the indicative locations the current passing place provision on the unclassified roads that form the access routes for Section 16 of the Proposed OHL Alignment.

Figure 13.1.7.17: Section 5 - Passing Places



- 7.2.42. The B862 which will support access to three of the access points, is approximately 6 m in width and identified by the Timber Transport Forum as an Agreed Route. It is therefore considered to be suitable to accommodate the temporary increase in traffic generated by the Proposed Development's construction.
- 7.2.43. The C1064 is approximately 5 m in width within Inverness, reducing to approximately 3 m in width to the south of the city. Construction vehicles will use approximately 1800 m of the C1064 for access. As shown by **Figure 13.1.7.17**, there are currently 16 passing places on the single-track section of the C1064.
- 7.2.44. The U1096 is a single-track road approximately 3 m in width which is identified to be an Excluded Route by the Timber Transport Forum. It is, however, unclear why this restriction has been identified, and the road will have previously accommodated construction traffic associated with the substation which is located immediately to the east of the road. Construction vehicles will use approximately 1200 m of the U1096 to access the single access point which would be served by this road. As can be seen by **Figure 13.1.7.17**, there are currently nine passing places on the U1096 between the C1064 and the single access point.

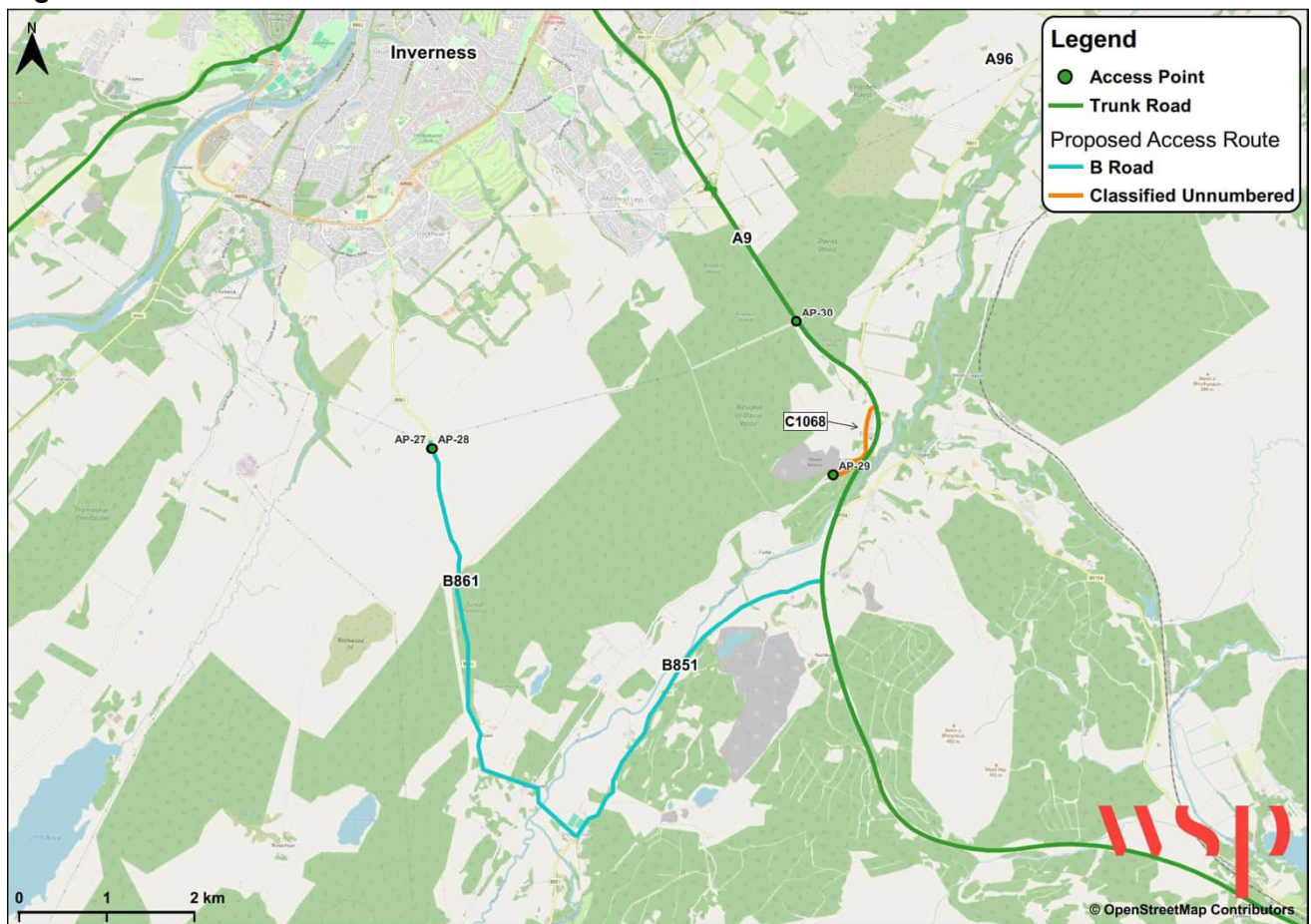
Proposed Mitigation

- 7.2.45. While both roads provide a through route for traffic, they serve a minimal number of residential properties and are therefore expected to be lightly trafficked. Both roads are also supported by passing places at regular intervals. It is likely that the roads will be used by construction traffic for a maximum of two months, and it is therefore considered that there is no requirement to introduce any mitigation measures on the C1064 or the U1096 to support the temporary increase in traffic generated by construction activities.

SECTION 6

- 7.2.46. **Figure 13.1.7.18** shows the routes that construction traffic would use to access the tower installation sites associated with Section 6 of the Proposed Development.

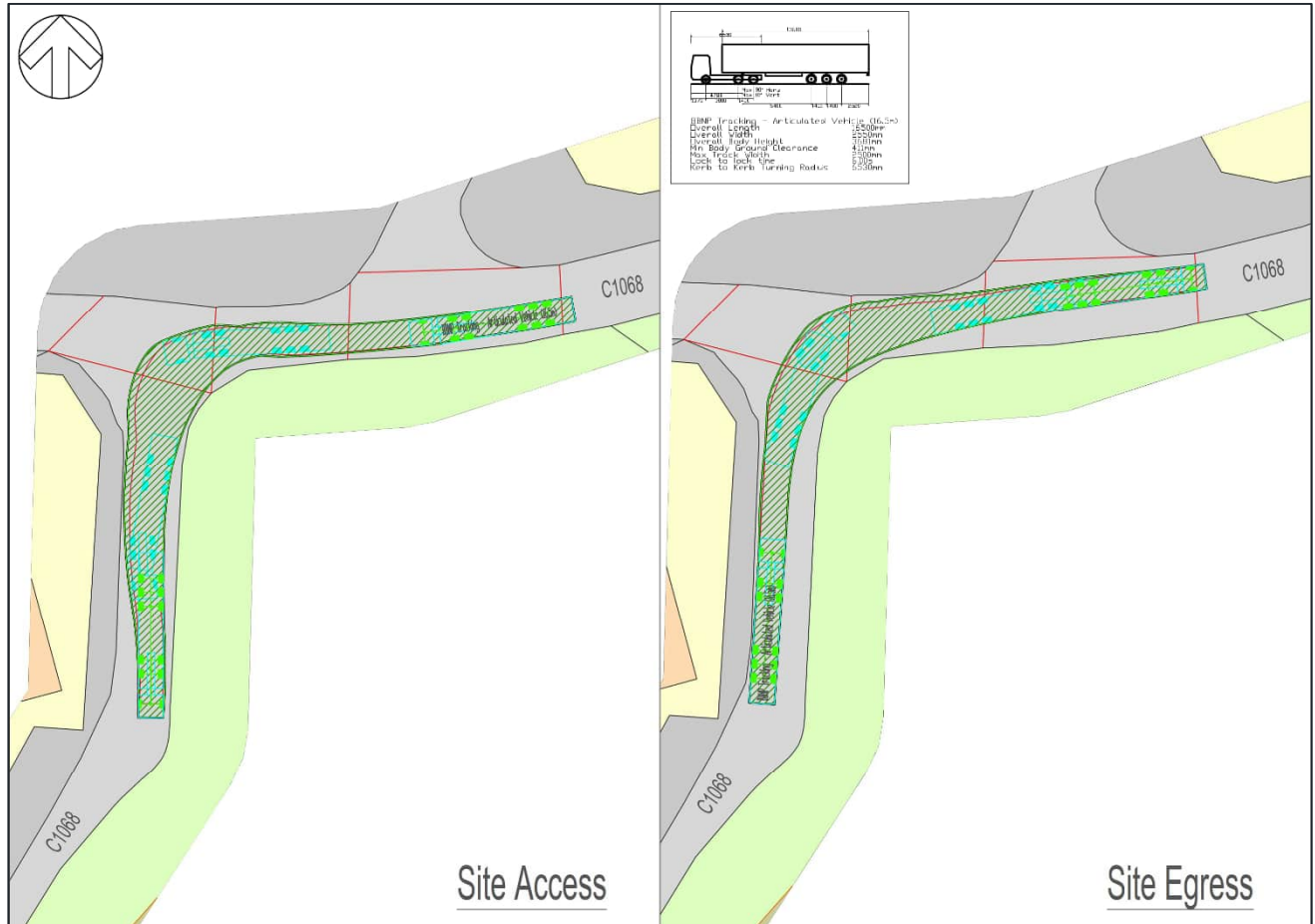
Figure 13.1.7.18: Section 6 Access Routes



Pinch Point Analysis

- 7.2.47. A potential constraint was highlighted on the left turn on the C1068 junction through which HGVs would pass when accessing the tower installation sites associated with Section 17. The potential constraint was reviewed using AutoTrack and the result of the assessment is shown in **Figure 13.1.7.19**.

Figure 13.1.7.19: Potential Constraint at the C1068 Junction

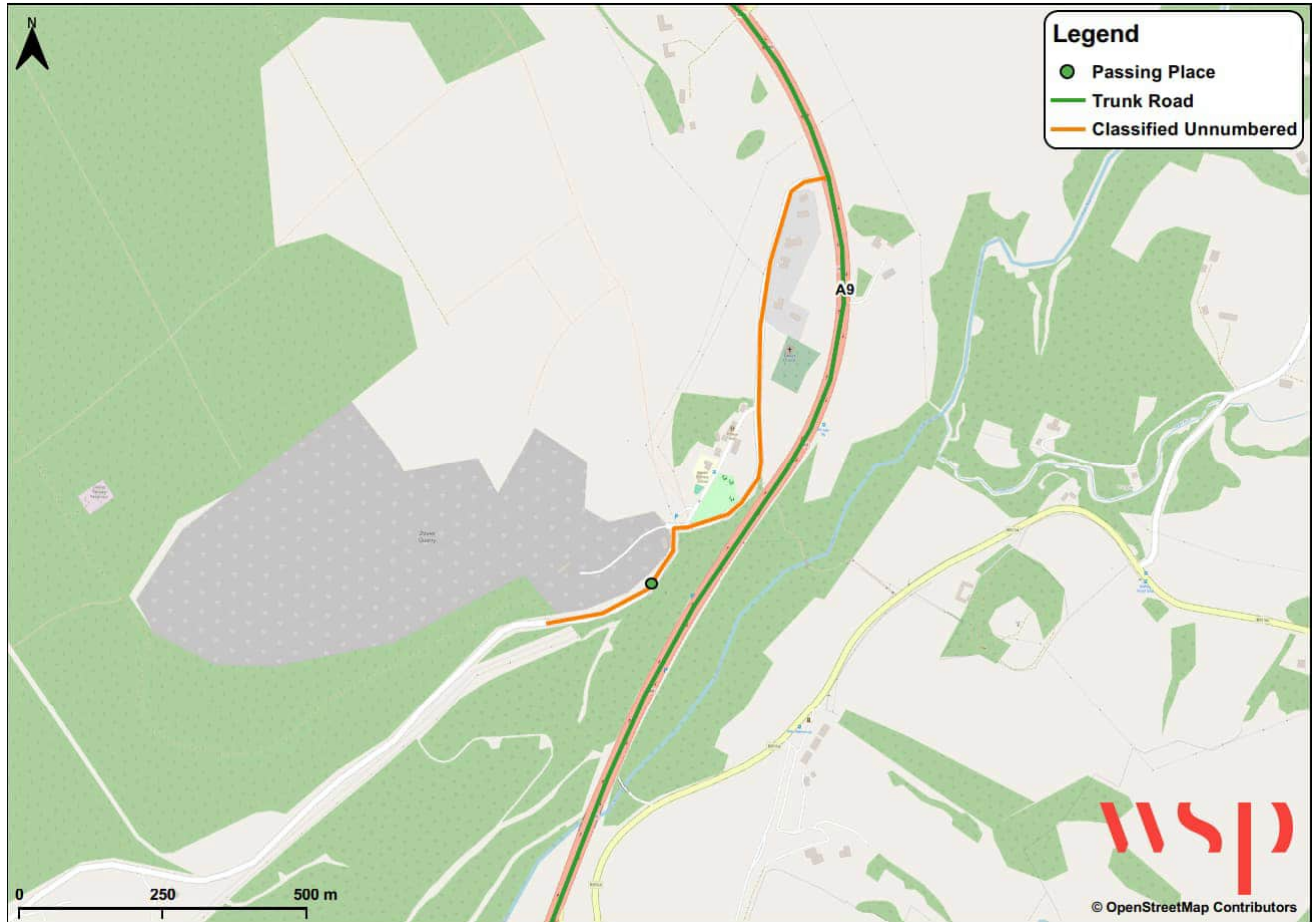


- 7.2.48. As shown by **Figure 13.1.7.19**, the analysis suggests that the junction will be able to accommodate HGV movements.

Passing Place Provision

- 7.2.49. **Figure 13.1.7.20** shows the indicative locations the current passing place provision on the unclassified roads that form the access routes for Section 17 of the Proposed OHL Alignment.

Figure 13.1.7.20: Section 6 - Passing Places



- 7.2.50. The B851 and B861 which will support access to two of the access points, are identified by the Timber Transport Forum as Agreed Routes. They are therefore considered to be suitable to accommodate the temporary increase in traffic generated by the Proposed Development's construction.
- 7.2.51. The C1068 is approximately 6 m in width between the A9 (T) and Dun Davie Quarry, reducing to approximately 4 m in width to the south of the quarry access. Approximately 350 m of the C1068 will be used for access. As shown by **Figure 13.1.7.20**, there is one passing place on the single-track section of the road used by vehicles accessing the single access point to be served by the road.

Proposed Mitigation

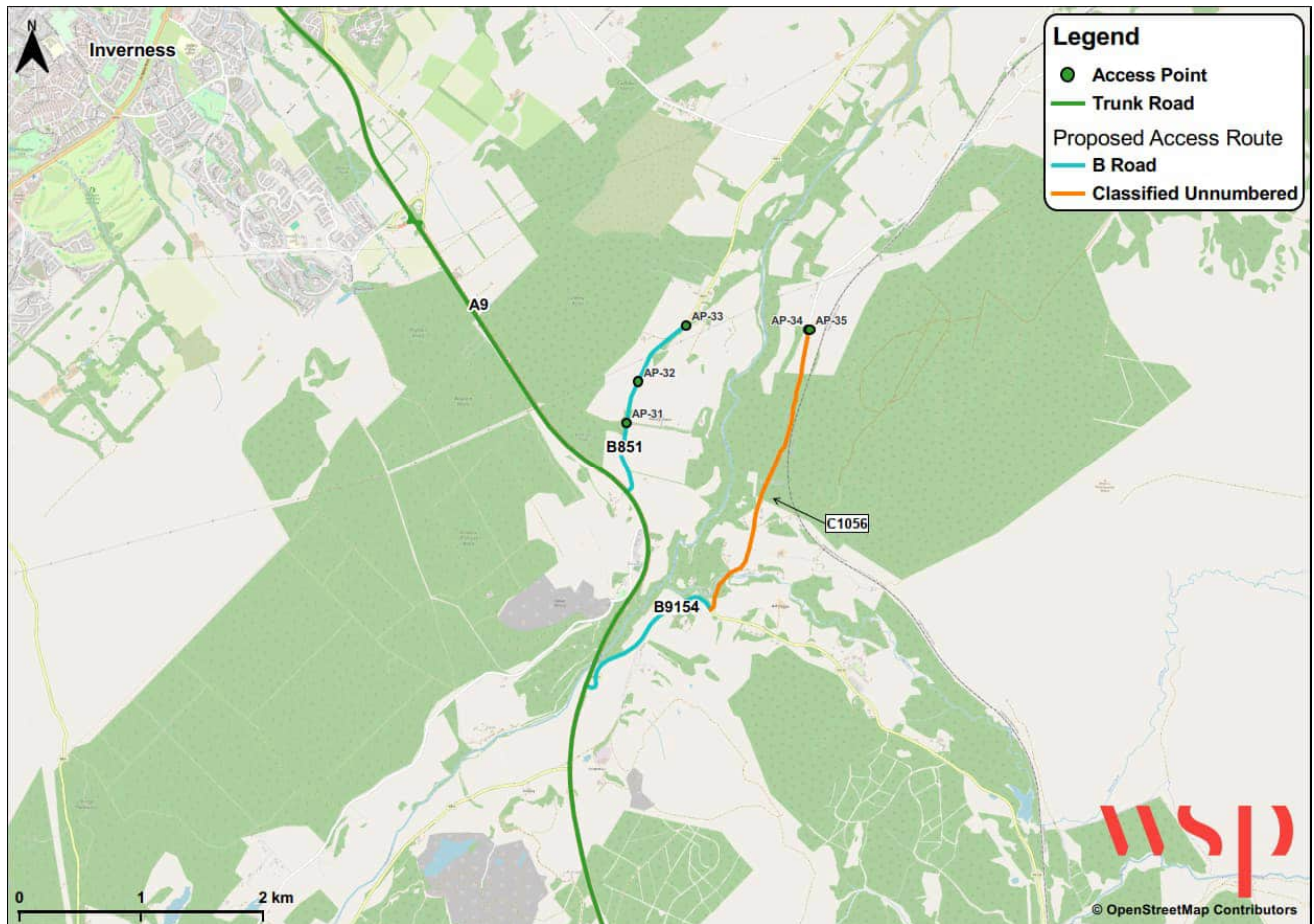
- 7.2.52. The B851 and B861 are both agreed timber extraction routes and are therefore considered to be suitable to support construction traffic.
- 7.2.53. The majority of the access route which uses the unclassified road network, is of a good standard as it supports access to the Dun Davie Quarry, and construction traffic will only require to use a 350 m section of the C1068 which is of restricted width. It is unlikely that two HGVs will meet on the short section of the unclassified road which is approximately 4 m in width and it is therefore considered

that there is no requirement to introduce any mitigation measures on the C1068 to support the temporary increase in traffic generated by construction activities.

SECTION 7

7.2.54. **Figure 13.1.7.21** shows the routes that construction traffic would use to access the tower installation sites associated with Section 7 of the Proposed Development.

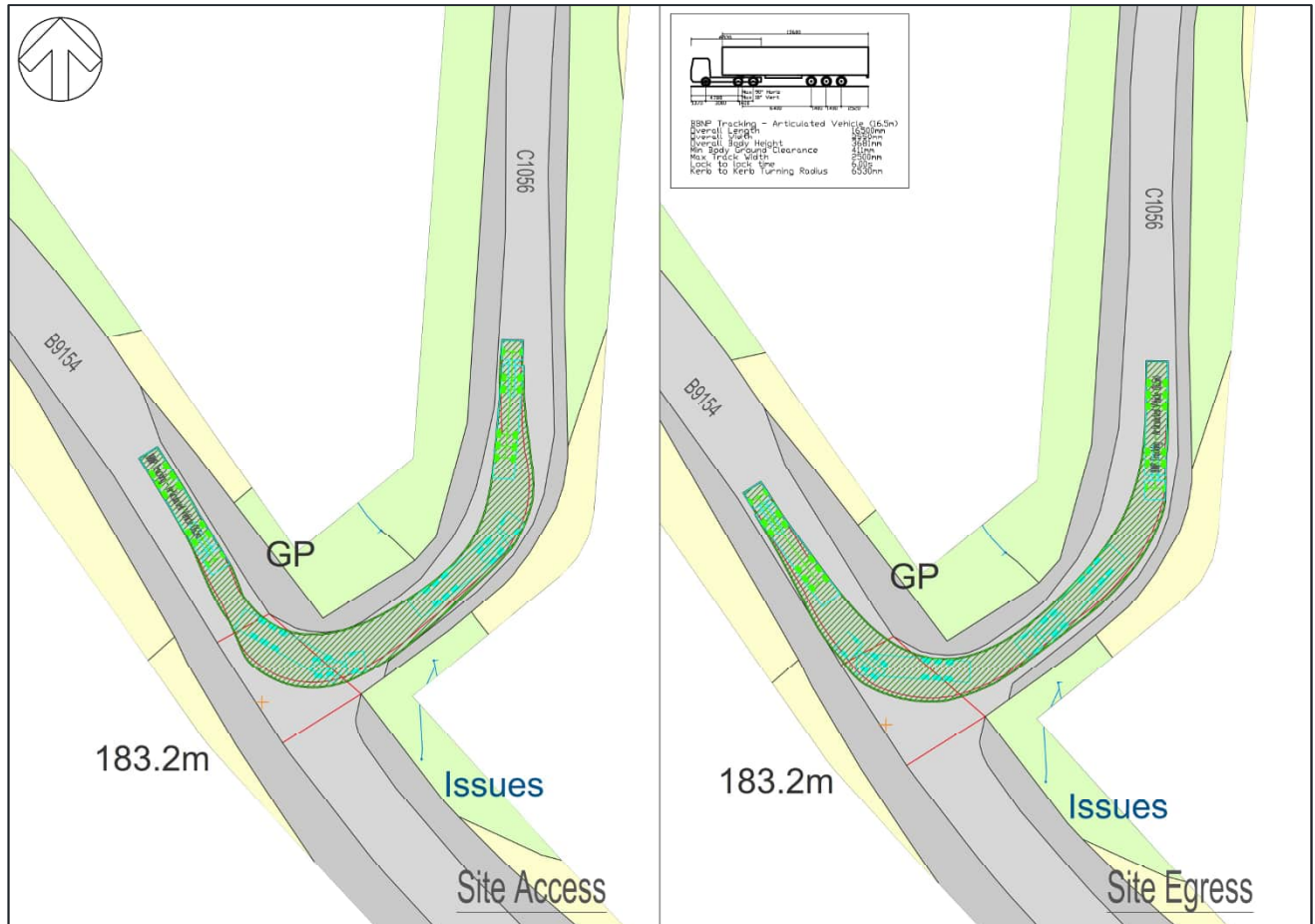
Figure 13.1.7.21: Section 7 Access Routes



Pinch Point Analysis

- 7.2.55. A potential constraint was identified at B9154 / C1056 junction. The potential constraint was reviewed using AutoTrack and the result of the assessment is shown in **Figure 13.1.7.22**.

Figure 13.1.7.22: Potential Constraint at B9104 / U14E Junction

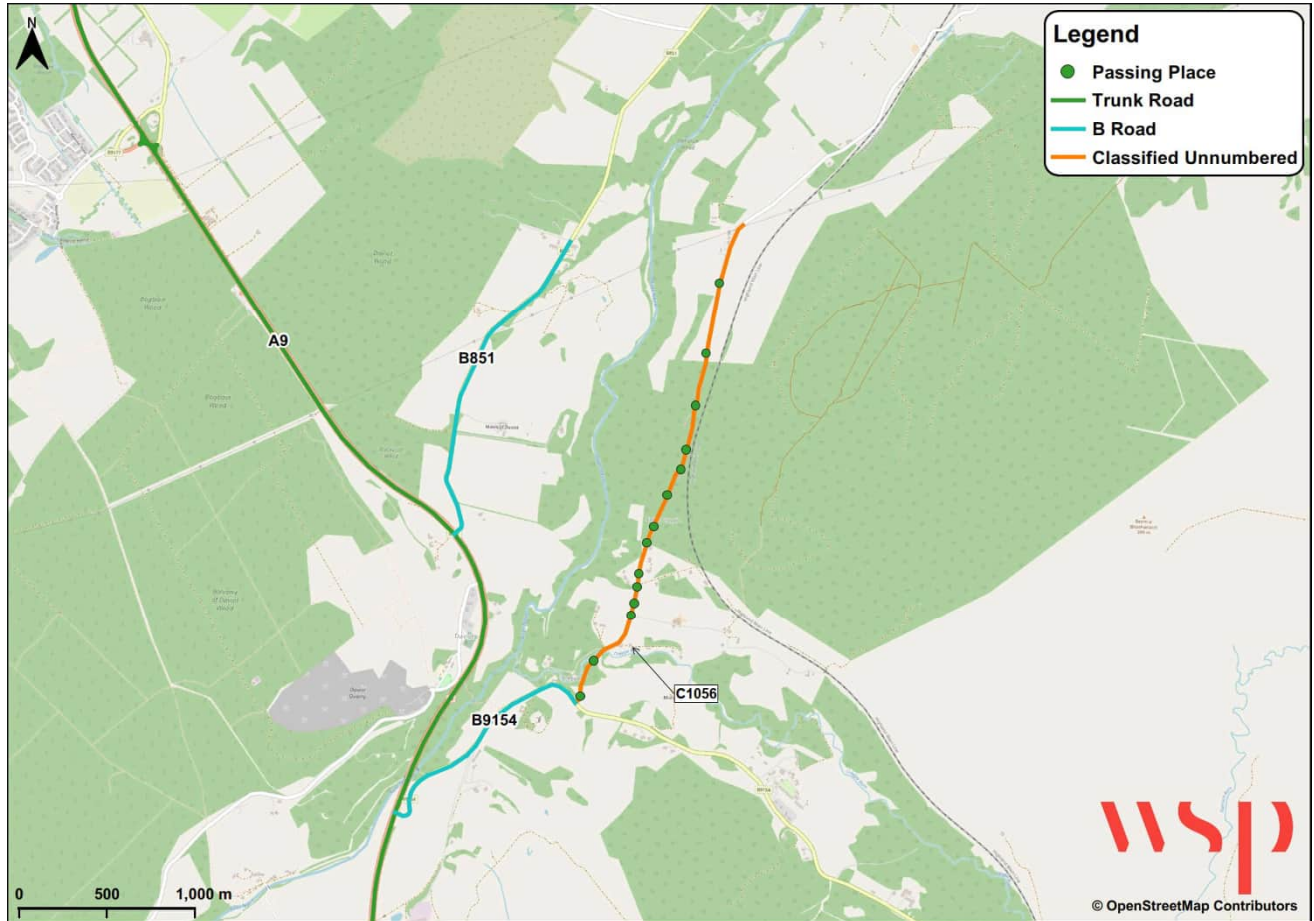


- 7.2.56. As shown by **Figure 13.1.7.22**, the analysis suggests that the junction will be able to accommodate HGV movements without a requirement to alter the junction.

Passing Place Provision

- 7.2.57. The B851 is approximately 5 m in width, with the B9154 approximately 7 m in width on the section of the roads which will support construction access. **Figure 13.1.7.23** shows the indicative locations the current passing place provision on the section of the C1056 that form the access route for Section 7 of the Proposed OHL Alignment.

Figure 13.1.7.23: Section 7 - Passing Places



- 7.2.58. The majority of the B851 is identified to be an Excluded Route by the Timber Transport Forum, although there are no identifiable restrictions on the 1km section of the road which will be used by construction traffic.
- 7.2.59. The C1056 is a single-track road approximately 3 m in width. Construction vehicles will use approximately 2400 m of the C1056 for access. As can be seen by **Figure 13.1.7.23**, there are currently 14 passing places on the U1056 between the B9154 and the two access points which would be served by this road.

Proposed Mitigation

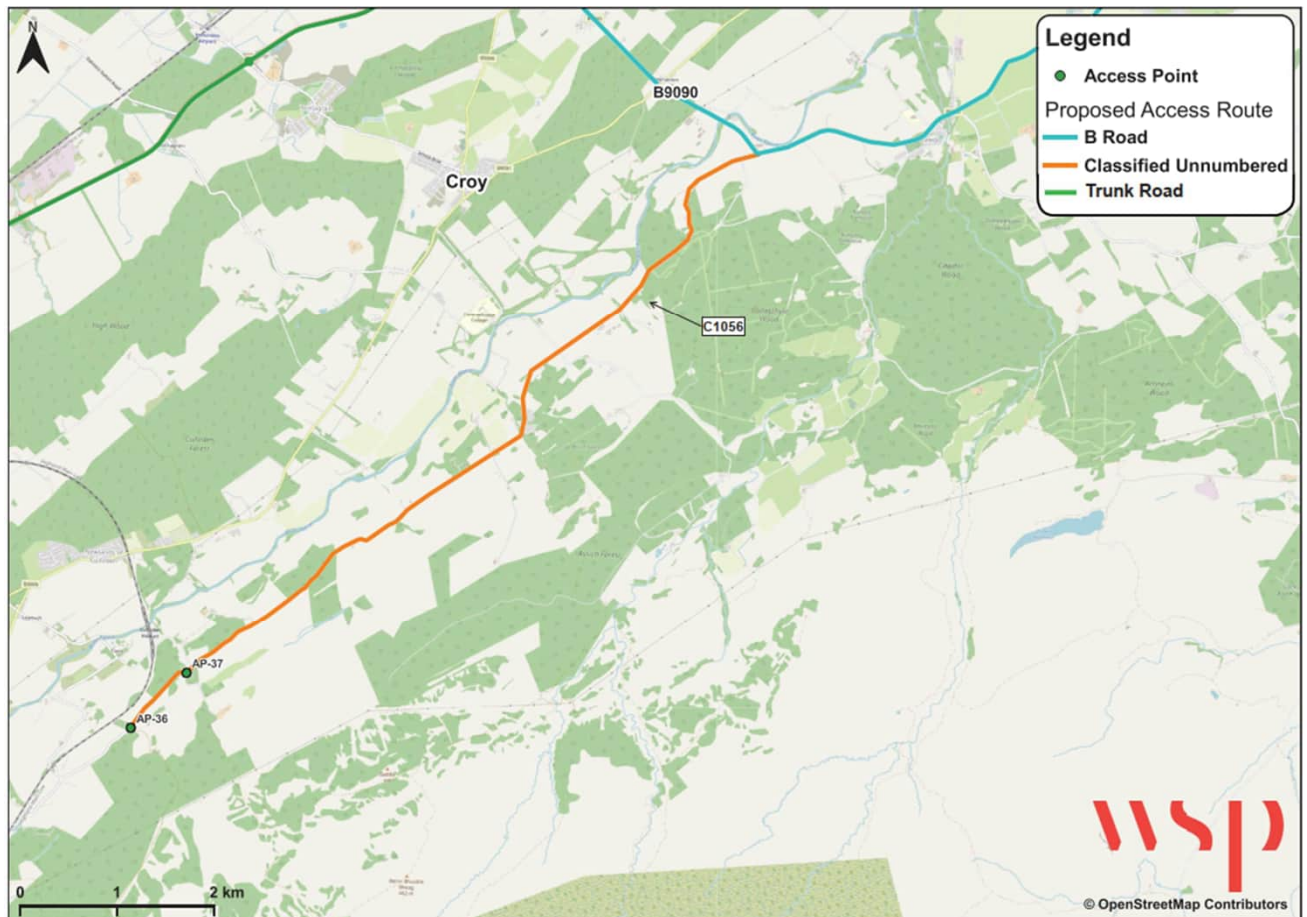
- 7.2.60. The B851 and B9154 are both of a width which supports two-way operation.
- 7.2.61. As previously highlighted, the C1056 is a single-track road supported by passing places at regular intervals. As shown in **Table 7.1**, traffic survey data confirms that the road is lightly trafficked, and it is anticipated that the road will be used by construction traffic a maximum of two months. It is

therefore considered that there is no requirement to introduce any mitigation measures on the C1056 to support the temporary increase in traffic generated by construction activities.

SECTION 8

- 7.2.62. **Figure 13.1.7.24** shows the route that construction traffic would use to access the tower installation sites associated with Section 8 of the Proposed Development.

Figure 13.1.7.24: Section 8 Access Route



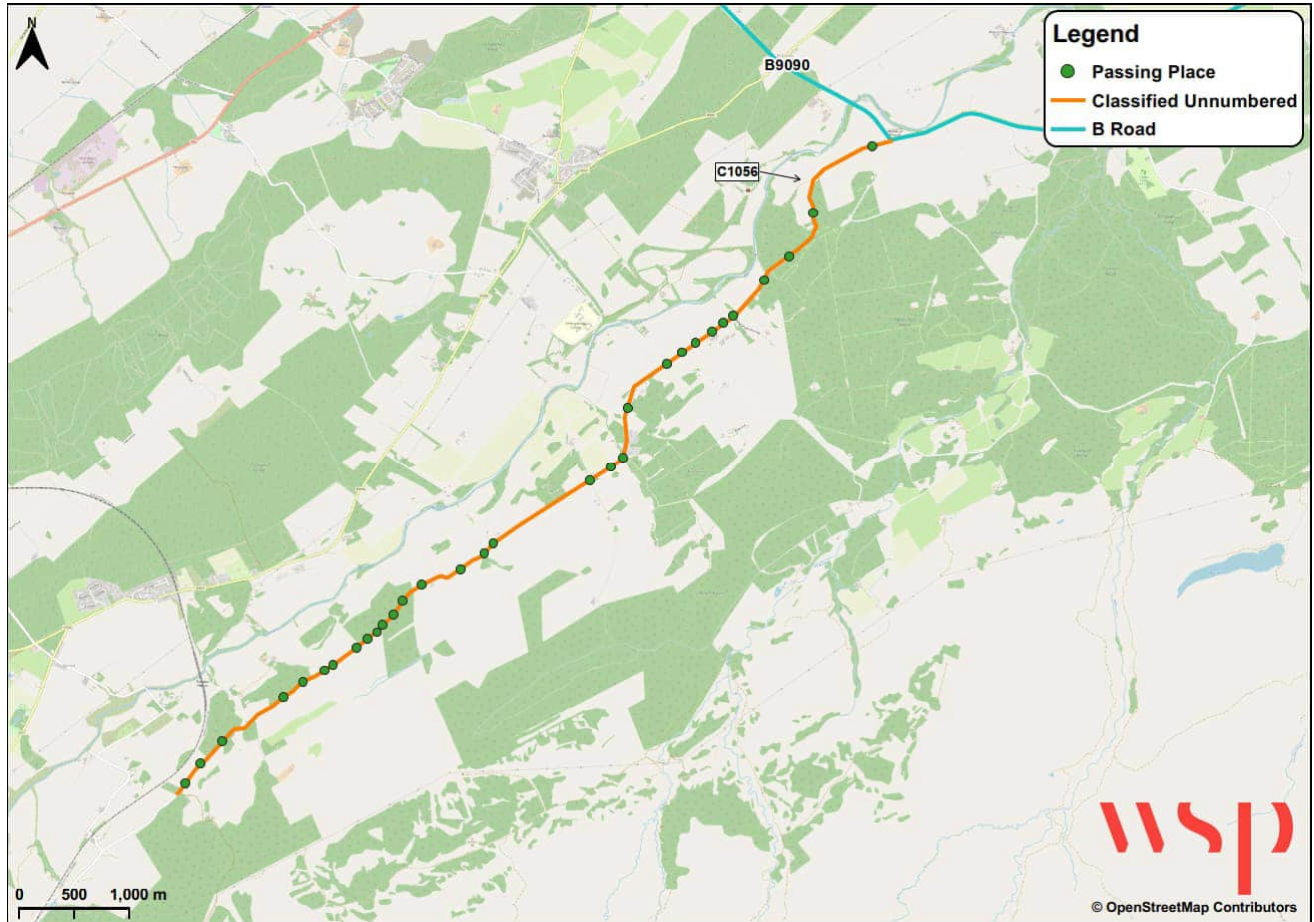
Pinch Point Analysis

- 7.2.63. The desktop review of the C1056 has not identified any potential constraints to prevent its use by HGVs supporting construction activities.

Passing Place Provision

- 7.2.64. **Figure 13.1.7.25** shows the indicative locations the current passing place provision on the unclassified roads that form the access routes for Section 8 of the Proposed OHL Alignment.

Figure 13.1.7.25: Section 8 - Passing Places



- 7.2.65. The C1056 is a single-track road approximately 3 m in width. Construction vehicles will use approximately 9000 m of the C1056 for access. As can be seen by **Figure 13.1.7.25**, there are currently 31 passing places on the U1056 between the B9154 and the two access points which the road will serve.

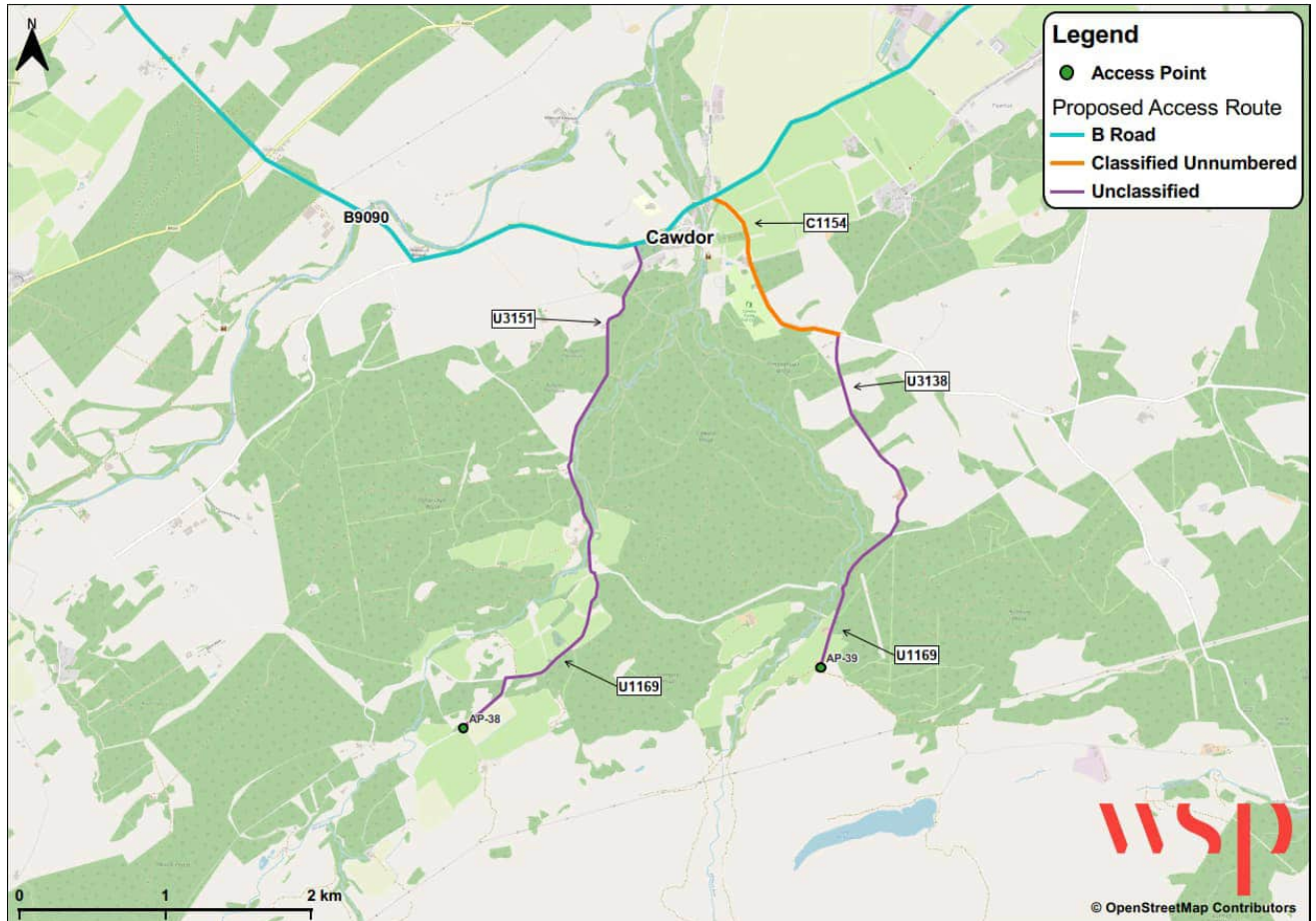
Proposed Mitigation

- 7.2.66. While the C1056 provides a through route for traffic, the traffic survey data which is summarised in **Table 7.1**, confirms that the road is lightly trafficked. The road is also supported by passing places at regular intervals. It is likely that the road will be used by construction traffic for a maximum of two months and is therefore considered that there is no requirement to introduce any mitigation measures on the C1056 to support the temporary increase in traffic generated by construction activities.

SECTION 9

7.2.67. **Figure 13.1.7.24** shows the routes that construction traffic would use to access the tower installation sites associated with Section 9 of the Proposed Development.

Figure 13.1.7.26: Section 9 Access Routes



Pinch Point Analysis

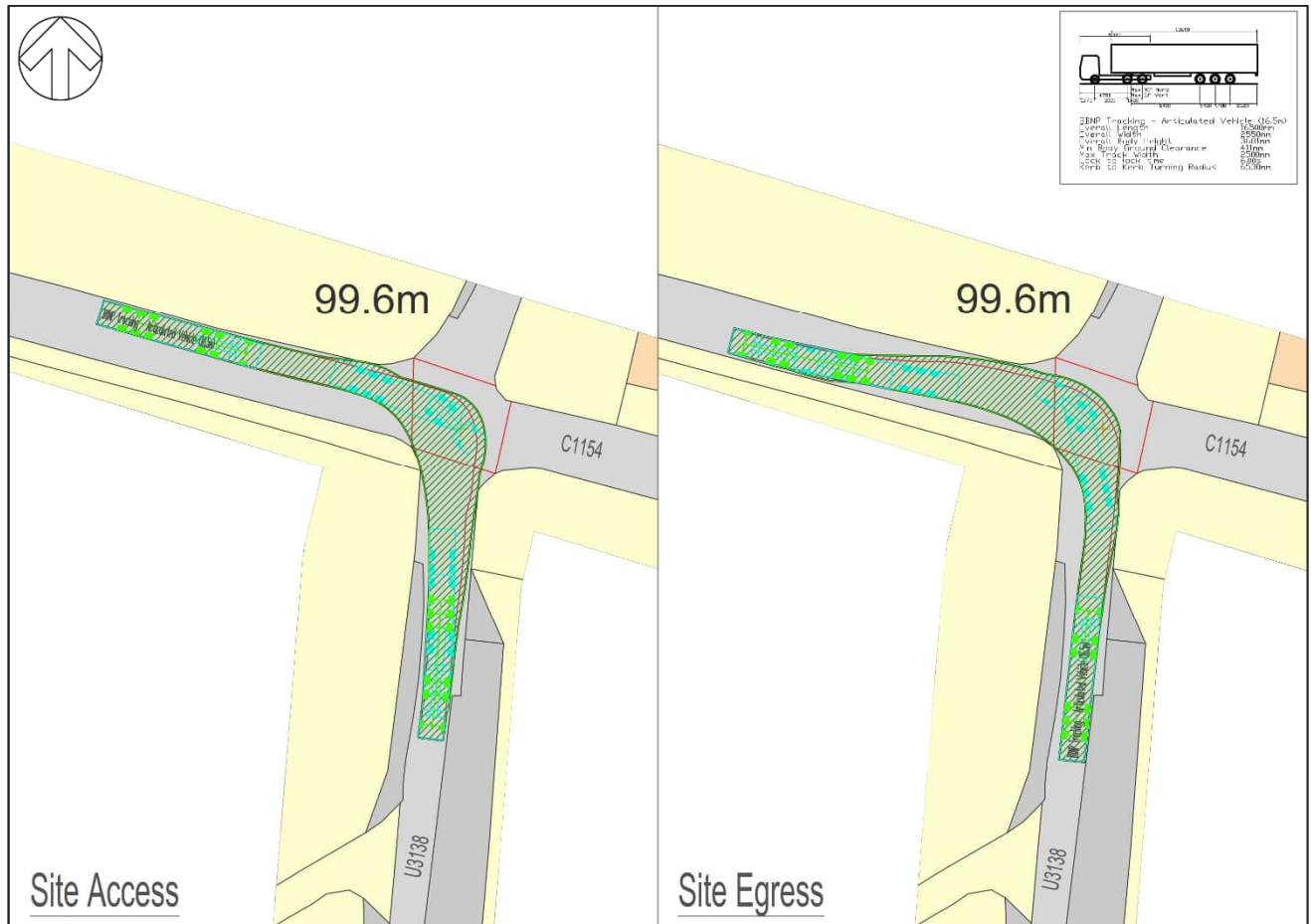
- 7.2.68. The B9090 is identified by the Timber Transport Forum as an Agreed Route and is therefore considered to be suitable to accommodate the temporary increase in traffic generated by the Proposed Development's construction.
- 7.2.69. Two potential constraints were highlighted at the B9090 / U3151 and C1154 / U3138 junctions. The potential constraints were reviewed using AutoTrack and the result of the assessment is shown in **Figure 13.1.7.27** and **Figure 13.1.7.28**.

Figure 13.1.7.27: Potential Constraint at B9090 / U3151 Junction



- 7.2.70. As shown by **Figure 13.1.7.27**, the analysis suggests that the junction will be able to accommodate HGV movements.

Figure 13.1.7.28: Potential Constraint at C1154 / U3138 Junction

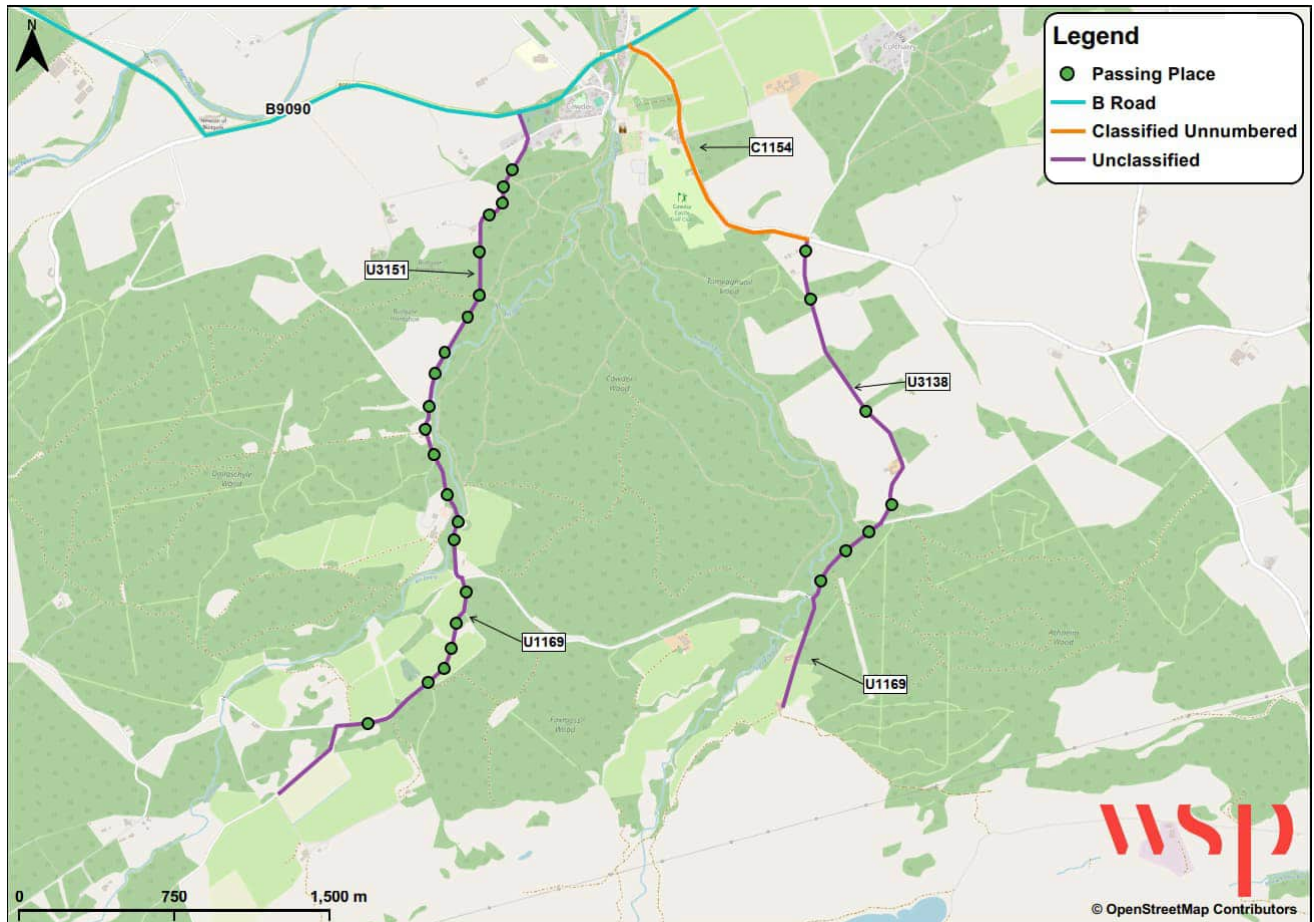


7.2.71. As shown by **Figure 13.1.7.28**, the analysis suggests that the junction will be able to accommodate HGV movements.

Passing Place Provision

- 7.2.72. **Figure 13.1.7.29** shows the indicative locations the current passing place provision on the sections of the unclassified roads that form the access routes for Section 9 of the Proposed OHL Alignment.

Figure 13.1.7.29: Section 9 - Passing Places



- 7.2.73. The C1154 is approximately 5 m in width between the B9090 and the U3138.
- 7.2.74. The U3151 is a single-track road approximately 3 m in width. Construction vehicles will use approximately 2400 m of the U1604 for access. As shown in **Figure 13.1.7.29**, there is currently 15 passing places on the U3151 between the B9090 and the U1169.
- 7.2.75. The section of the U1169 that will be used to access AP38 is a single-track road approximately 3 m in width. Construction vehicles will use approximately 1000 m of the U1169 for access. As shown by **Figure 13.1.7.29**, there are currently six passing places on the U1169 between the U3151 and the single access point which the road will serve.
- 7.2.76. The U3138 is a single-track road approximately 3 m in width. Construction vehicles will use approximately 2000 m of the U1604 for access. As shown in **Figure 13.1.7.29**, there are currently seven passing places on the U3138 between the C1154 and the U1169.
- 7.2.77. The U1169 is also a single-track road approximately 3 m in width that is not currently supported by passing places. Construction vehicles will use approximately 400 m of the U1169 to reach the single access point which the road will serve.

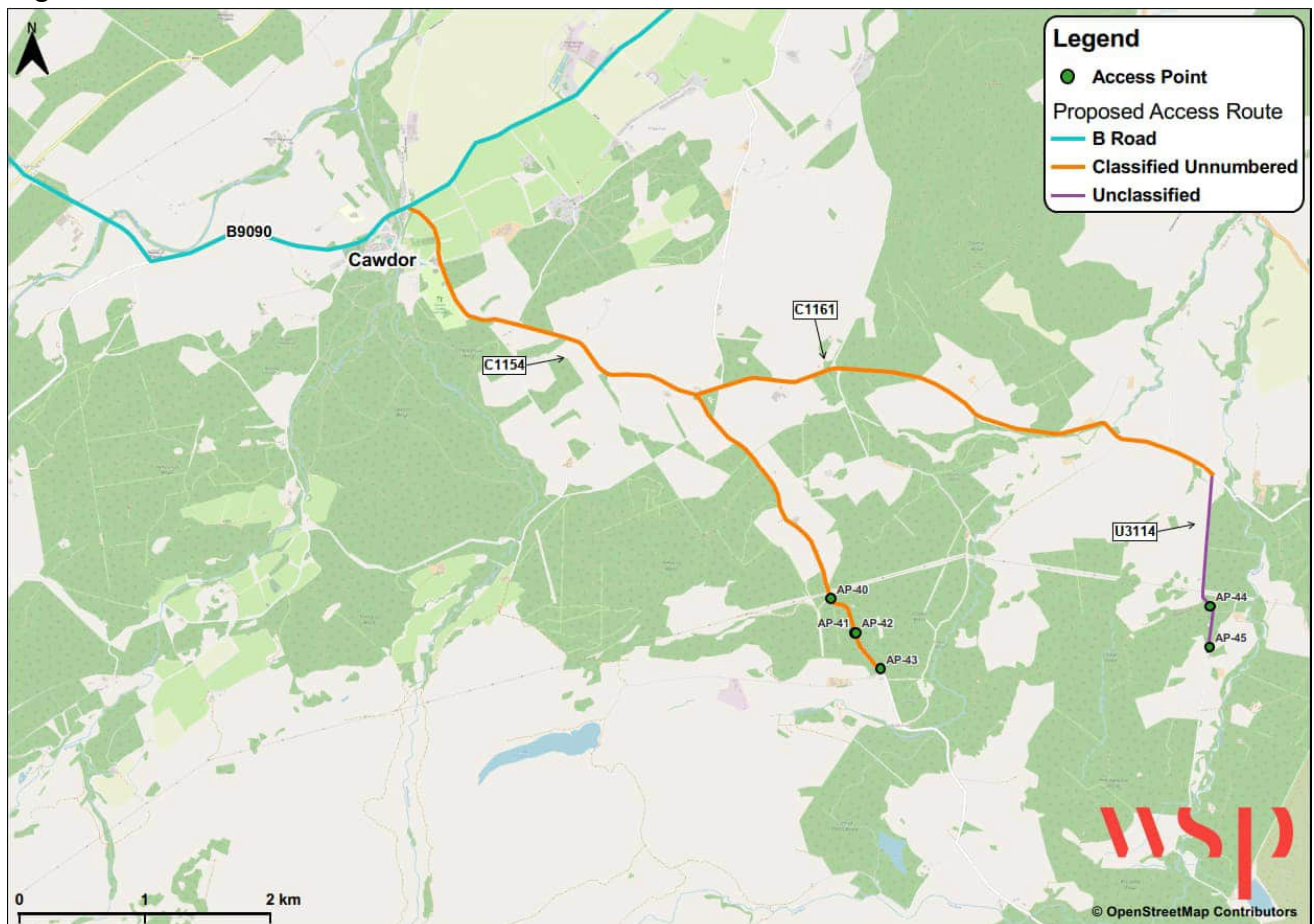
Proposed Mitigation

- 7.2.78. As previously highlighted, the U3151, U1169, U3138 are single-track roads which are supported by passing places at regular intervals. While the U1169 is not supported by passing places, construction traffic will only use a short section of the road. It is anticipated that the unclassified road network which will support access to the tower installation sites, is lightly trafficked given that it supports access to a limited number of properties. It is likely that both access routes will be used by construction traffic for a maximum of two months, and it is therefore considered that there is no requirement to introduce any mitigation measures on any of the roads to support the temporary increase in traffic generated by construction activities.

SECTION 10

- 7.2.79. **Figure 13.1.7.30** shows the routes that construction traffic would use to access the tower installation sites associated with Section 10 of the Proposed Development.

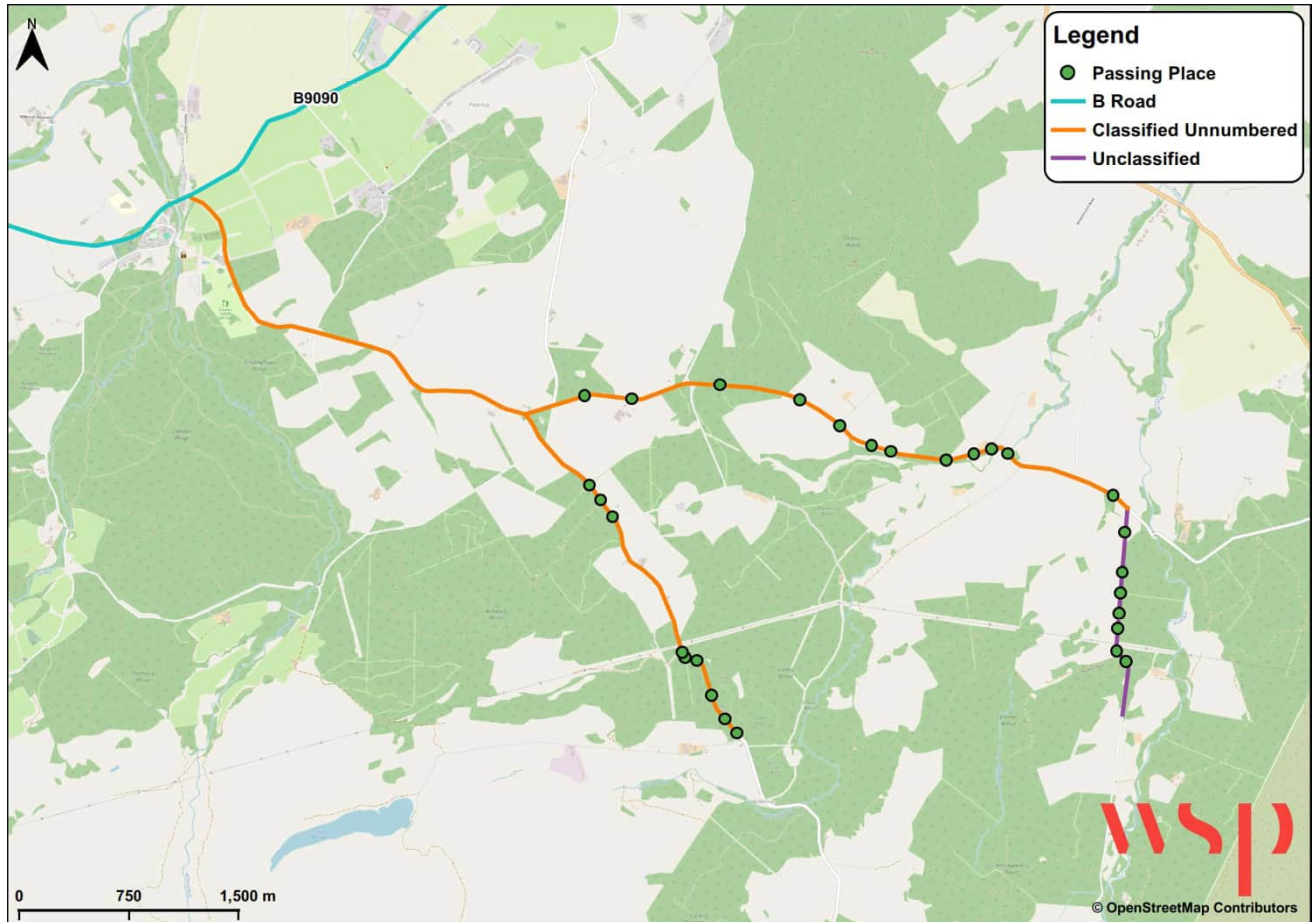
Figure 13.1.7.30: Section 10 Access Routes



Passing Place Provision

- 7.2.82. **Figure 13.1.7.32** shows the indicative locations the current passing place provision on the sections of the unclassified roads that form the access routes for Section 10 of the Proposed OHL Alignment.

Figure 13.1.7.32: Section 10 - Passing Places



- 7.2.83. The C1154 is approximately 5 m in width between the B9090 and the C1161, reducing to approximately 3 m in width for a short section in the vicinity of Ordbreck and to the south of Mains of Clunas, with the reduction in width supported by passing places. Vehicles will use 2600 m of this section of the C1154 for access. As shown by **Figure 13.1.7.32**, there are nine passing places on the C1154 between the C1161 and the southernmost of the three access points which will be served by the road.
- 7.2.84. The C1161 is a single-track road approximately 3 m in width. Construction vehicles will use approximately 4300 m of the C1161 for access. As shown in **Figure 13.1.7.32**, there are currently 12 formal passing places on the C1161 between the C1154 and the U3114.
- 7.2.85. The U3114 is a single-track road approximately 3 m in width. Construction vehicles will use approximately 1400 m of the U3114 for access. As shown in **Figure 13.1.7.32**, there is currently seven formal passing places on the U3114 between the C1161 and the southernmost of the two access points which will be served by the road.

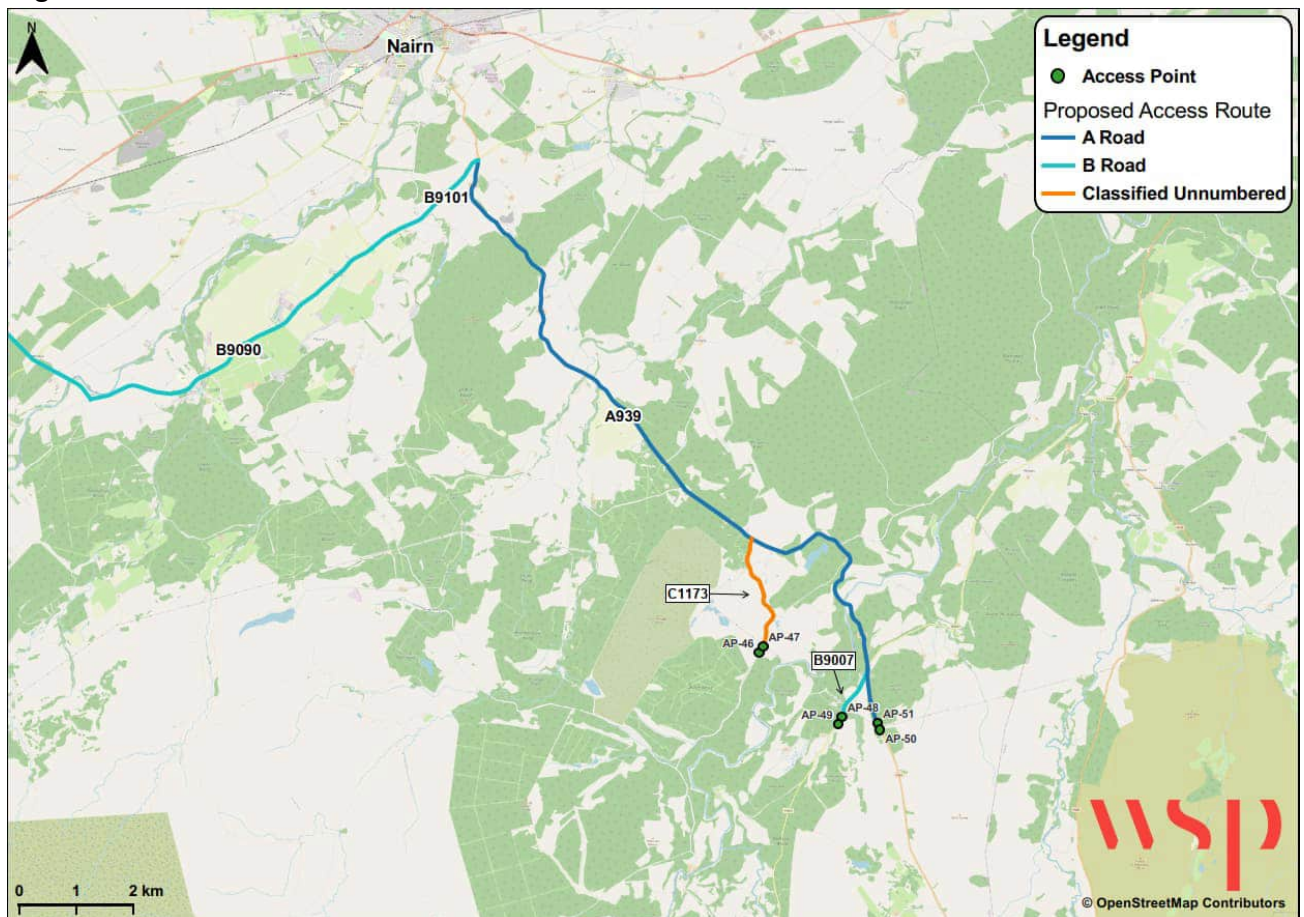
Proposed Mitigation

- 7.2.86. As previously highlighted, the C1154 varies in width along its length, with a proportion of the road 5 m in width and the narrower sections supported by passing places at regular intervals. The C1161 and U3114 are both single-track roads supported by passing places. It is anticipated that the unclassified road network which will support access to the tower installation sites, is lightly trafficked given that it supports access to a limited number of properties. It is likely that both access routes will be used by construction traffic for a maximum of two months. It is therefore considered that there is no requirement to introduce any mitigation measures on any of the roads to support the temporary increase in traffic generated by construction activities.

SECTION 11

- 7.2.87. **Figure 13.1.7.33** shows the routes that construction traffic would use to access the tower installation sites associated with Section 11 of the Proposed Development.

Figure 13.1.7.33: Section 11 Access Routes



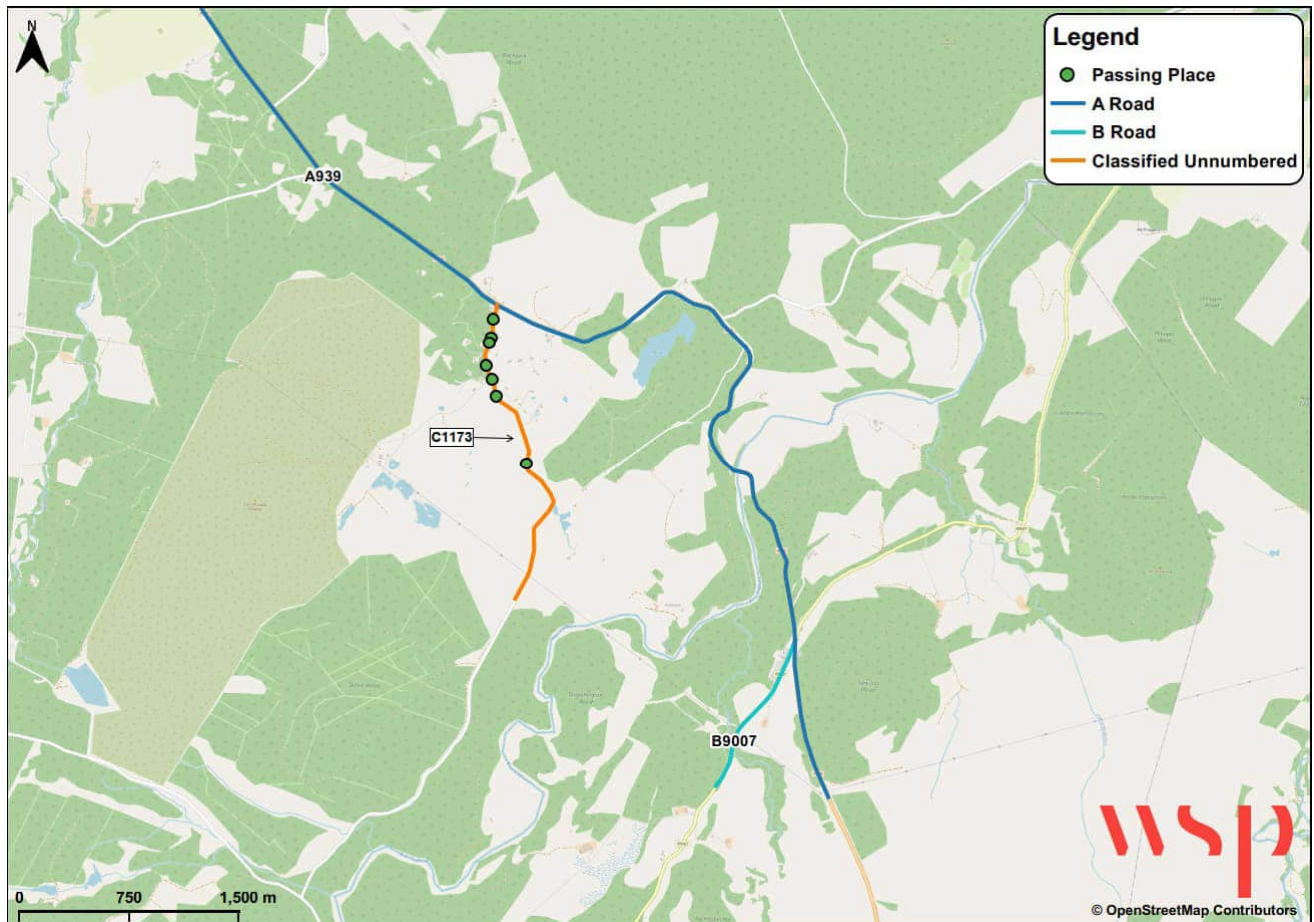
Pinch Point Analysis

- 7.2.88. The desktop review of the C1173 has not identified any potential constraints to prevent its use by HGVs supporting construction activities.

Passing Place Provision

- 7.2.89. **Figure 13.1.7.34** shows the indicative locations the current passing place provision on the section of the C1173 that forms the access routes for Section 11 of the Proposed OHL Alignment.

Figure 13.1.7.34: Section 11 - Passing Places



- 7.2.90. Two access points will be accessed directly from the A939. The B9007 which is approximately 5 m in width, will also serve two access points.
- 7.2.91. The C1173 is a single-track road approximately 3 m in width. Construction vehicles will use approximately 2200 m of the C1173 for access. As shown in **Figure 13.1.7.34**, there is currently seven formal passing places on the C1173 between the A939 and the two access points which the road will serve.

Proposed Mitigation

- 7.2.92. As previously highlighted, the B9007 is approximately 5 m in width and therefore supports two-way operation.
- 7.2.93. The C1173 is a single-track road which is supported by passing places and it is anticipated that it is lightly trafficked given that it supports access to a limited number of properties. It is likely that the road will be used by construction traffic for a maximum of two months and HGV movements will be programmed to minimise the potential for two vehicles to meet on the C1173 which supports access to this section of the Proposed Development. It is therefore considered that there is no requirement

to introduce any mitigation measures on either of the roads to support the temporary increase in traffic generated by construction activities.

7.3 PROPOSED MITIGATION SUMMARY

7.3.1. **Table 7.2** summarises the results of the impact assessment in terms of the potential measures it is proposed to implement on each road to mitigate the impact of the temporary increase in traffic generated by construction activities.

Table 7.2: Potential Mitigation Measure Summary

Section	Road	Potential Mitigation Measure
1	A862	None - Timber Transport Forum Agreed Route
	A831	None – the road is of a sufficient standard to accommodate construction traffic.
	C1106	Over Black Bridge is it assumed the replacement works will have been completed. Then the C1106 between U1604 and Hughton there are sufficient number of passing places.
	U1604	Manage arrivals and departures to minimise the impact of construction traffic on the operation of the road.
2	A862	None - Timber Transport Forum Agreed Route
	C1100	None – the road is of a sufficient standard to accommodate construction traffic.
	C1102	Manage arrivals and departures to minimise the impact of construction traffic on the operation of the road.
	U1556	Lengthen existing passing places and form additional areas where larger vehicles could pass.
	U2362	Form areas where larger vehicles could pass.
	U1568	Lengthen existing passing places and form additional areas where larger vehicles could pass.
3	A862	None - Timber Transport Forum Agreed Route
	C1114	Lengthen existing passing places and form additional areas where larger vehicles could pass.
	U1560	Form areas where larger vehicles could pass.
4	C1060	Lengthen existing passing places and form additional areas where larger vehicles could pass.
5	A8082	None – the road is of a sufficient standard to accommodate construction traffic.
	B862	None - Timber Transport Forum Agreed Route
	C1064	Lengthen existing passing places and form additional areas where larger vehicles could pass.
	U1096	Lengthen existing passing places and form additional areas where larger vehicles could pass.
6	B851	None - Timber Transport Forum Agreed Route
	B861	Form areas where larger vehicles could pass.
	C1068	None – the road is of a sufficient standard to accommodate construction traffic.
7	B9154	None – the road is of a sufficient standard to accommodate construction traffic.

	B851	Form areas where larger vehicles could pass.
	C1056	Manage arrivals and departures to minimise the impact of construction traffic on the operation of the road.
8	B9090	None - Timber Transport Forum Agreed Route
	C1056	Lengthen existing passing places and form additional areas where larger vehicles could pass.
9	B9090	None - Timber Transport Forum Agreed Route
	C1154	Form areas where larger vehicles could pass.
	U3151	Lengthen existing passing places and form additional areas where larger vehicles could pass.
	U3138	Lengthen existing passing places and form additional areas where larger vehicles could pass.
	U1169	Lengthen existing passing places and form additional areas where larger vehicles could pass.
10	B9090	None - Timber Transport Forum Agreed Route
	C1154	Lengthen existing passing places and form additional areas where larger vehicles could pass.
	C1161	Lengthen existing passing places and form additional areas where larger vehicles could pass.
	U3114	Lengthen existing passing places and form additional areas where larger vehicles could pass.
11	B9090	None - Timber Transport Forum Agreed Route
	B9101	None - Timber Transport Forum Agreed Route
	A939	None - Timber Transport Forum Agreed Route
	C1173	Lengthen existing passing places and form additional areas where larger vehicles could pass
	B9007	None – the road is of a sufficient standard to accommodate construction traffic.

- 7.3.96. It is considered that the unclassified road network can accommodate the temporary increase in traffic generated by construction activities, with the main impact anticipated for a period of no more than two months on any of the unclassified road network. Where possible, HGV arrivals and departures will be managed to reduce the potential for two larger vehicles to meet on the unclassified roads which are to be used to support access to the installation sites.
- 7.3.97. There may also be the requirement to alter the alignment of the road network or kerblines at existing junctions to accommodate HGV movements associated with construction activities. While the requirement for these will require to be confirmed by a topographical survey of the potential constrained areas, the potential mitigation is summarised in **Table 7.3**.

Table 7.3: Potential Road Improvements

Section	Road	Location	Potential Mitigation Measure
2	U1568	North and East of bridge over the Moniack Burn	Road Widening
	U2362	East of U1568 / U2362 Junction	Road Widening
	U1568	U1568 / U2362 Junction	Junction Widening
3	C1114	South of level crossing	Road Widening

7.4 ADDITIONAL MITIGATION MEASURES

7.4.1. In addition to the road improvements identified within **Table 7.2** and **Table 7.3**, **Table 7.4** summarises general measures which could be promoted as part of the implementation of the detailed CTMP to mitigate the impact of construction traffic on the operation of the local transport network.

Table 7.4: General Mitigation Measures

Mitigation Measure	Proposed Commitment Measure
Route Signage	Temporary signage will be erected on the roads in the vicinity of the proposed Site accesses, and at other locations as considered necessary, to warn drivers of construction activities and the potential to encounter construction vehicles. The exact nature and location of the signage would be agreed with Highland Council prior to the commencement of construction activities at each Site.
Contractor Speed Limits	It is proposed to impose a reduced speed limit for all construction traffic on sections of the proposed access route deemed sensitive to the effects of construction traffic. As such, it is proposed to implement signage located at appropriate locations advising construction traffic of the reduced speed limit:
Route Enforcement	The routes and time restrictions identified in the CTMP will be strictly enforced. The Principal Contractor and all subcontracting companies involved in the construction of the Proposed Development, will be required to ensure they follow the correct routes. The routes will be clearly defined in all contracts and clearly signposted for all drivers to see. This will be reinforced by inclusion within the Principal Contractor's site induction and regular toolbox talks for site operatives. The requirement to stay on the road surface, and avoid tracking off onto verges, will also be reinforced via these means.
Management of Core Path Users	Appropriate signage will be installed where access routes follow the alignment of a Core Path to minimise the potential for conflict between users of the path and construction traffic.
Banksman	- Qualified personnel (banksman) with appropriate street works licences will be in place at key access points to assist deliveries entering or vehicles exiting the working areas where required. - In addition to the above, banksman may also be required to perform traffic management duties to minimise potential conflict with other road users.
Information Pack and Communications	- Driver information packs will be provided to all contractors which will form part of the contractual agreement between contractors and the principal constructor. The information pack is likely to include details of the following CTMP requirements: - Purpose and safety rules.

Mitigation Measure	Proposed Commitment Measure
	▪ Construction routes. ▪ Pre-booking sheet and TMP site contacts. ▪ Vehicle compliance guidance. ▪ Driver training help. ▪ PPE requirements. ▪ Driver Flashcards. ▪ Finalised information packs and communication details will be shared with Highland Council prior to the commencement of works.
Travel Plan	▪ The Principal Contractor will develop and implement a Travel Plan, which will seek to reduce the effects of construction staff travelling to the sites on the local road network, in particular where they would be required to pass through local settlements. All on site construction staff using private vehicles to access each site will be required to park their vehicles in designated construction site car parks. No parking will be permitted on the public road network in the vicinity of the Proposed Development.

8 SUMMARY AND CONCLUSIONS

8.1 SUMMARY

- 8.1.1. WSP UK Limited has been appointed by the Applicant to provide consultancy advice in support of the Proposed Development which is described in **Chapter 1: Introduction and Background** of the EIAR **paragraph 1.1.2**.
- 8.1.2. The Highland Council (THC) identified a requirement to prepare a Transport Assessment to consider the impact of construction traffic on the operation of the local transport network, and this TA has been prepared in support of the application set out in **Chapter 1, paragraph 1.1.2** of the EIAR.
- 8.1.3. The level of vehicle trips anticipated to be generated by construction activities has been derived from an estimate and an initial programme provided the Principal Contractor, with the trips assigned to the local road network on the basis of the anticipated location of the indicative temporary construction compounds (Yards) and quarries which will be used to support the Proposed Development's delivery.
- 8.1.4. The largest vehicles associated with the development are mobile cranes of 150 t and 250 t as necessary. Mobile cranes have been assessed as AILs through an ALRA found within **Appendix 13.5: Abnormal Load Route Assessment**. For the purposes of HGV assessments, the longest vehicle type making the most frequent trips to site will be a 16.5 m artic HGV and this has been used to inform the TAs located within **Appendix 13.1: Highland Council - Transport Assessment, Appendix, 13.2: Moray Council - Transport Assessment and 13.3: Aberdeenshire Council - Transport Assessment**.
- 8.1.5. The area is predominantly rural in nature, and the transport network reflects this. A proportion of the roads which it is intended to use to support access to the Proposed OHL tower installation sites, are agreed timber haulage routes and therefore considered to be appropriate to accommodate the temporary increase in traffic generated by construction activities.
- 8.1.6. A detailed review of the proposed access routes has been undertaken, with the concept of measures identified to mitigate the impact of construction traffic on each of the unclassified roads which form the access routes.

8.2 CONCLUSION

- 8.2.1. This report is intended to stand as a snap-shot in time, and the indicative measures proposed will be developed and expanded as the project progresses up to the construction process. The mitigation measures will be further developed by the Principal Contractor, in conjunction with THC and Transport Scotland (TS) and other appropriate stakeholders.
- 8.2.2. Potential measures have been identified to manage construction traffic movements, and it is intended that this TA be submitted in support of the S37 application in 2025.
- 8.2.3. It is considered that these mitigation measures can form the basis of the PRIs necessary which when submitted to THC may assist in discharging any relevant Planning Conditions attached to the consent. The Principal Contractor will subsequently have further detailed dialogue with THC as plans are refined, to ensure that a suitable set of measures are implemented in advance of the commencement of construction activities to mitigate the temporary increase in traffic on the operation of the local road network.

Annex A

FIGURES

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