



Holm Hill Substation

Environmental Appraisal

Chapter 7: Schedule of Mitigation

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7 SCHEDULE OF MITIGATION

7.1 Introduction

7.1.1 **Chapters 3 to 6** examine the potential adverse impacts associated with the construction and operation of the Holm Hill Substation (hereby referred to as the 'Proposed Development'). They also outline additional mitigation measures, where applicable, to minimise effects on the receiving environment. This Chapter summarises the mitigation measures and good practice environmental management commitments outlined in **Chapters 3 to 6**. These measures are intended to avoid, reduce, or offset the potential adverse effects of the Proposed Development on the receiving environment. These mitigation measures are listed in **Table 7.1** and are a commitment of The Applicant.

7.1.2 Embedded mitigation measures, including 'Design Mitigation' and general 'Construction Good Practice,' have been integrated into the design and construction methods of the Proposed Development. These measures have therefore been assessed as part of the overall development proposals.

7.1.3 These measures are detailed in the submitted Outline Construction Environmental Management Plan (CEMP) and would be further developed in the Detailed CEMP, which the Principal Contractor would prepare following consent for the Proposed Development. The Principal Contractor, supported by a suitably qualified Environmental Clerk of Works (ECoW) and other environmental professionals as required (e.g., the Planning Monitoring Officer), would manage implementation of the Detailed CEMP on-site.

7.1.4 A Framework Construction Traffic Management Plan (FCTMP) has been prepared to support the planning application. It outlines the planned approach and principles for managing construction activities related to the Proposed Development. **Appendix 7.1: FCTMP** provides details of the traffic management measures required for transporting abnormal loads and general construction traffic, associated with the Proposed Development.

7.1.5 The following mitigation codes are used in this section:

- ECO – **Chapter 3: Ecology and Ornithology**;
- CH – **Chapter 4: Cultural Heritage & Archaeology** ;
- HYD – **Chapter 5: Hydrology, Hydrogeology, Geology and Soils**;
- LV – **Chapter 6: Landscape and Visual**; and
- GE – General.

Table 7.1 Schedule of Environmental Mitigation

Ref	Description	Timing
Chapter 3 - Ecology and Ornithology		
ECO1	INNS - The Code of Practice on Non-Native Species (INNS) ¹ sets out guidance on how developments should act responsibly within the law to help ensure that INNS do not cause harm to the environment. The Code of Practice on Non-Native Species must be adhered to. If INNS are identified within The Site prior to construction, the Code of Practice on Non-Native Species must be strictly adhered to. This should be carried out via a specialist INNS Contractor.	Pre - construction / During construction
ECO2	National Vegetation Classification (NVC) M15 habitat - Planting in this habitat to have an open structure to retain the current understorey habitat. This is a precaution due to uncertainty over peat depths. No tree planting to occur in this area.	During construction
ECO3	Artificial lighting would not directly illuminate watercourses, natural linear features and adjacent habitat within the Proposed Development except when required during the operational phase in line with guidance ² , to avoid discouraging otters and bats and other foraging wildlife from using the Proposed Development.	During construction /
ECO4	Otter - An ECoW would be present at all times on-site during the construction period and would ensure that any newly constructed holts or resting places are identified and a suitable standoff is established in which no construction activities can occur. Where the relevant standoff distance would not be achievable, otters have the potential to be disturbed or displaced, potentially reducing their population in the area. Otters have the potential to be injured or killed while commuting across construction areas as a result of collisions with vehicles, however the implementation of measures such as Site vehicle speed restrictions and the provision of a toolbox talk to ensure all Site operatives are aware of the potential presence of otter.	During construction

¹ Scottish Government (2012). Non-native species: code of practice. Available online at: <https://www.gov.scot/publications/non-native-species-code-practice/>

² Institution of Lighting Professionals (ILP) (2018). Bats and artificial lighting in the UK. Bats and the Built Environment series, Guidance Note 08/18

Ref	Description	Timing
ECO5	<p>Badger - An ECoW would be present at all times during the construction period and would ensure that, in the unlikely event any newly established badger setts or dens are identified and a suitable standoff distance is applied from construction activities until any further mitigation measures can be developed and employed.</p> <p>Mitigation measures within the Pollution Prevention Plan would prevent contamination of soil and water, reducing habitat loss and degradation for badger foraging and commuting routes.</p> <p>There is limited potential for badger to be injured or killed while commuting across construction areas as a result of collisions with vehicles. This risk would be reduced through the implementation of Site speed limits, as detailed within the CEMP.</p>	Pre - Construction / During construction
ECO6	<p>Pine marten and red squirrel - Mitigation measures within the Pollution Prevention Plan would prevent contamination of soil and water, reducing habitat loss and degradation for red squirrel foraging and commuting routes.</p> <p>An ECoW would be present at all times during the construction period and would ensure that, in the unlikely event any newly established dreys or dens are identified and a suitable standoff distance is applied from construction activities until any further mitigation measures can be developed and employed.</p> <p>Red squirrels and pine martens have the potential to be injured or killed while commuting across construction areas as a result of collisions with vehicles. The likelihood of killing and injury would be reduced through measures such as pre-construction surveys, vehicle speed restrictions and making construction personnel aware of the species potentially present, as required by the Outline CEMP.</p>	Pre - Construction / During construction

Ref	Description	Timing
EC07	Bats - Mitigation measures within the Pollution Prevention Plan would prevent contamination of soil and water, reducing habitat loss and degradation for bat foraging and commuting routes.	During construction
EC10	Fish - The Principal Contractor must adhere to the mitigation measures outlined in the CEMP, including strict protocols for waste management and pollution prevention, in accordance with Scottish Environmental Protection Agency (SEPA) guidance ³ .	During construction
EC11	Reptiles and Amphibians - Monitoring by the ECoW would ensure that any reptiles or amphibians encountered within the Proposed Development area are safely removed and relocated to suitable habitat.	During construction
EC12	Breeding Bird Assemblage - Mitigation measures within the Pollution Prevention Plan would prevent contamination of soil and water, reducing habitat loss and degradation for breeding bird foraging and commuting routes. Embedded mitigation would include nest checks undertaken by the ECoW ahead of works and protection zones for active nests.	During construction
EC13	Protected Species - Pre-construction surveys and monitoring undertaken by an ECoW; Sensitive working methods and avoidance of sensitive areas (such as resting sites) or supervision of works near such sites; Application for the relevant Protected Species Development Licence from NatureScot if impacts on certain protected species cannot be avoided. Works would then proceed under the conditions of the licence issued.	Pre - Construction / During construction
Chapter 4 - Cultural Heritage & Archaeology		
CH1	A watching brief would be undertaken in relation to any ground disturbance work associated with the construction of the Proposed Development, targeted at areas of high archaeological potential.	During construction
CH2	To mitigate the potential physical impacts to any hitherto unknown sub-surface archaeological remains, it is considered that a watching brief should be implemented on any ground breaking works, with a Written Scheme of Investigation (WSI) created to	Pre - construction

³ SEPA (2019). Aquaculture. Available at: <https://www.sepa.org.uk/regulations/water/aquaculture/>

Ref	Description	Timing
	highlight specific areas, in agreement with Dumfries and Galloway Council Archaeology Service. The WSI shall detail the precise methodology of any archaeological work to be undertaken and any subsequent phases of assessment. This document shall also be the tool against which performance, fitness for purpose and standards can be measured.	
CH3	All recording and recovery of archaeological resources within the development Site should then be undertaken to the satisfaction of the Planning Authority in agreement with the Dumfries and Galloway Archaeology Service.	During construction
Chapter 5 - Hydrology, Hydrogeology, Geology and Soils		
HYD1	Two watercourse crossings are required to facilitate access to the Site, one permanent and one temporary. The watercourse is not included on OS 1:50,000 scale mapping. The crossings would require new structures, installed appropriately to local conditions to withstand 0.5% Annual Exceedance Probability (AEP) plus an uplift for climate change ⁴ . At this stage, it is envisaged that the crossings would be designed as circular culverts and would be compliant with SEPA Guidance and best practice. The culverts would be embedded below the existing stream bed and appropriately sized in accordance with SEPA Environmental Authorisations (Scotland) Regulations (EASR) ⁵	During construction
HYD2	Soil & Peat - Soil and peat must be excavated, stored and reinstated in accordance with Appendix 5.1: Soil and Peat Management Plan (SPMP). Soil types must be appropriately segregated and located 30 m away from watercourses, where possible. Any excavated turves must be stored vegetation side up and be watered to ensure they do not dry out. The final SPMP must be refined post-consent and implemented. There are inherent design principles to be adopted as good practice measures. These are as follows: avoidance of removal of slope support;	Pre - construction / During construction

⁴ SEPA. 2025. Land Use Planning System SEPA Guidance - Climate change allowances for flood risk assessment in land use planning. [online]. Available at: https://www.sepa.org.uk/media/jjwpxuso/climate-change-allowances-guidance_v6.pdf

⁵ Scottish Government (2025). The Environmental Authorisations (Scotland) Amendment Regulations 2025. Available at: <https://www.legislation.gov.uk/2025/9780111061473/contents>

Ref	Description	Timing
	<p>avoidance of heavy loading on slopes;</p> <p>good drainage practice to ensure flows not concentrated onto slopes or into excavations;</p> <p>restricting earthmoving activities during and immediately after intense and prolonged rainfall events; and</p> <p>creating and managing of geotechnical risk register or similar management system throughout the detailed design and construction phases.</p>	
HYD3	<p>Private Water Supplies - Mitigation to be implemented in accordance with Appendix 5.2: Private Water Supply Risk Assessment (PWSRA). It is the Principal Contractor responsibility to assess the work being undertaken and consider the associated hydrological risks as required throughout the works. It is the Contractor's responsibility to ensure appropriate mitigation is in place in advance of any works and that they are monitored and documented. Undertaken appropriate monitoring as determined by the PWSRA.</p>	During construction
HYD4	<p>Groundwater Dependant Terrestrial Ecosystems (GWDTE) - GWDTE communities within the Proposed Development are considered of low importance, however in order to maintain surface water flow pathways cross drainage would be used in wet areas such as flushes as part of the design where possible in accordance with good practice.</p>	During construction
HYD5	<p>Pollution, erosion and sedimentation - Application of a 10 m buffer zone from watercourses, except where access is required. Secure oil and chemical storage in over-ground bunded areas, limited to the minimum volume required to serve immediate needs with specified delivery and refuelling areas. Emergency spill kits retained on-site at sensitive locations. Cessation of work and development of measures to contain and/or remove pollutants should an incident be identified. Silt traps would be employed and maintained in appropriate locations. Interception ditches would be constructed upslope of excavations to minimise surface runoff ingress in advance of excavation activities. Excavation and earthworks would be suspended during and immediately following periods of heavy rainfall in order to minimise sediment generation and soil damage.</p>	During construction
HYD6	<p>Excavations and dewatering - Strategies to deal with both groundwater and surface water due to heavy rain shall be put in place. Sufficient equipment (e.g. pumps) and mitigation, as detailed on permits to pump and pollution prevention plans, must be on site before excavation work is undertaken. Any strategy should also deal with where</p>	Pre - construction / During construction

Ref	Description	Timing
	<p>water would be pumped to. Water considered to be contaminated with silt or oils cannot be pumped straight into the environment without primary and potentially secondary treatment. Abstraction/ de-watering of excavations must be in excess of 10 m from a watercourse (if highly sensitive or prone to flooding, this distance may need to increase). The de-watering exercise must be through a silt protection capture layer, such as a siltsock, siltbuster, sump/ silt fencing – grassy area with landowner permission to pump. It is the contractors' responsibility to assess that the volume discharged is in line with SEPA guidance GBR 15 and Abstraction Licence parameters are adhered to. The 10 metres distance mentioned is the bare minimum, the expectation is that this would increase based on risk assessment and site specific factors. It must be highlighted that buffer distances should take account of topography, vegetation cover and sensitivity of the receiving watercourse. The final design of the Proposed Development would incorporate suitable groundwater control in accordance with Construction Industry Research and Information Association C750 (2016)⁶ to manage groundwater ingress. The discharge of this groundwater shall be incorporated into the permanent sustainable drainage design.</p>	
HYD7	<p>Concrete and Concrete Washout - Washing out of concrete trucks, crane skips and other equipment must be avoided wherever possible. Washing out of any concrete mixer & associated chute, tools or equipment must be carried out in a designated area away from drains and watercourses. Truck washout must be off-site as preference. If required on-site this must be chute only (not including the drum) and limited to dry brushing where possible. Washing out only permitted into an impermeable container/area which must be covered when not in use. Uncured wash waters and cured material to be disposed of in line with WM3.</p>	Pre - construction / During construction
HYD8	<p>Surface Water - A Surface Water Management Plan shall be prepared post-consent and be part of the final CEMP. Surface water drains and the foul water systems are to be clearly identified on The Site prior to any works being carried out. Installation of cut of ditches, hydro dams, sumps, silt fencing to manage flow pathways and control silt run off at all times during construction, this includes monitoring the effectiveness of the prevention measures and adapting to changes in flow rate and disturbance. Installation</p>	Pre - construction / During construction / Post Construction

⁶ Construction Industry Research and Information Association (2016). Groundwater control: design and practice (second edition) C750. Available at:

https://www.ciria.org/CIRIA/CIRIA/Item_Detail.aspx?iProductcode=C750&Category=BOOK

Ref	Description	Timing
	<p>of SuDS . Consult SEPA EASR Practical Guide at all times when working near a watercourse as authorisations may be required. It is the contractors' responsibility to consult with SEPA and apply for authorisation where required. General Binding Rules (GBR 10, 16, 9) must be consulted as a minimum for all Sites near a watercourse.</p> <p>The Principal Contractor shall produce a pollution prevention and/or surface water management plan and identify likely sources of pollution within The Site, particularly those considered to be 'high risk', such as:</p> <ul style="list-style-type: none"> Areas of exposed soils during construction; Dewatering of excavation to SuDS treatment area; Temporary soil storage areas; Fuel storage and refuelling activities at Site compound; and Concrete washout area. 	
HYD9	Surface water drainage patterns - Application of sustainable drainage techniques to increase peak lag time and implementation of cross-drains at appropriate intervals and frequent discharge points to reduce scour potential. Minimising the size and duration of in-channel works. Appropriate design of crossing structures to ensure sufficient capacity to convey 0.5% AEP plus climate change design flood event storm flows.	Pre - construction
HYD10	Re-fuelling operations and Control of Substances Hazardous to Health (COSHH) Storage - Refuelling off-site must be considered to prevent refuelling during works and possible spillage into nearby habitat and water courses. This must be detailed within the Pollution Prevention Plan. Machines must be refuelled minimum of 30 metres away from water courses. Ensure fuel and oil storage tanks are bunded, secured and on impermeable surfaces. All funnels, buckets, containers, brushes and other associated equipment should also be kept in a bunded area when not in use. Fuel storage tanks must be locked when not in use to prevent unauthorised access and to reduce the risk of vandalism. Place a plant nappy under all static plant and mobile plant during fuelling. Spill kits shall be present with the number on site relevant to the works and risks.	During construction
HYD11	The Proposed Development would require a Construction Runoff Permit, to be considered at preconstruction phase, which would provide details on CAR licence and SuDS requirements. The Permit would be approved and issued by SEPA.	Pre - construction

Ref	Description	Timing
HYD12	As part of the Proposed Development, new licensed activities would include an abstraction and a septic tank with assumed soakaway discharge to groundwater. The detailed design of the septic tank would ensure any water discharge is in line with SEPA requirements.	Pre - construction
HYD13	The design, of the Proposed Development includes one permanent watercourse crossing structure as well as a temporary one required for the duration of construction. As stated earlier in this Chapter, the watercourse is not being shown on a 1:50,000 scale map; therefore, this crossing is subject to General Binding Rules (GBR) under the EASR regulations ⁵ , and shall be designed to be suitably sized for a 0.5% AEP plus an appropriate climate change uplift. Additional factors relating to the protection of aquatic ecology and geomorphology would also be considered as part of the final design.	Pre - construction / During construction
HYD14	Effects on downstream flooding have been mitigated through design of comprehensive drainage and attenuation systems to minimise and mitigate increases to downstream flood risk in line with CIRIA guidance ⁷ . The drainage system has been designed to function without any flooding of local surface water for storm return periods up to and including 1 in 30 year event and without any flood water leaving the Proposed Development for storm return periods up to and including 0.5% AEP, plus an allowance for climate change.	Pre - construction / During construction
HYD15	<p>The siting of the Proposed Development avoids the disturbance of sensitive peat and peatland habitats in accordance with the National Policy Framework (NPF)4 Mitigation Hierarchy set out in Policy 5, and this has been confirmed through a site-specific peat depth and condition assessment, which confirms the Proposed Development is dominated by peaty soils and non-peat soil types. Nearby areas of peat and peatland located upgradient of the Proposed Development would be safeguarded through mitigation to avoid accidental disturbance presented in the SPMP.</p> <p>Whilst potential impacts on peat have been avoided, impacts on peaty soils (which share some of the ecosystem services of peat) arising from the construction of the Proposed Development shall be minimised through a combination of design measures</p>	Pre - construction / During construction

⁷ CIRIA (2018) Report C753, The Sustainable Drainage Systems (SuDS) Manual [online] Available at: <https://www.ciria.org/ItemDetail?iProductCode=C753F&Category=FREEPUBS>

Ref	Description	Timing
	as well as the implementation of good practice. All contractors would be made aware of the sensitivity of soils, peat and wetland habitats, and would be required to work within the narrowest practical construction corridor when working in or near areas of peat.	
HYD16	There are inherent design principles to be adopted as good practice measures, which would be summarised in the CEMP. The Principal Contractor would be responsible for identifying and implementing any required ground stability measures in relation to peat slides as part of the detailed design.	Pre - construction / During construction
HYD16	Further consultation with Scottish Water (SW) is required prior to construction to verify that there are no SW assets which require further consideration. Should any such assets be identified, specific mitigation measures would be developed and agreed with SW.	Pre - construction
HYD17	Further pre-construction surveys are required to identify any authorised abstractions which are not included in the data WSP received during consultation that could be at a potential risk from the Proposed Development. If applicable, measures to mitigate for temporary interruption of water supply, or permanent alternative supply, are to be agreed prior to works commencing.	Pre - construction
HYD18	A Private Water Supply Method Statement (PWSMS) would be prepared to establish a scheme of monitoring of PWS within the vicinity of the Proposed Development and would support the detailed design and Detailed CEMP.	Pre - construction
HYD19	Following the completion of detailed design, Appendix 5.1: SPMP must be updated as part of preparing a Stage 2 PMP in accordance with good practice guidance and implemented during construction.	Pre - construction
Chapter 6 - Landscape and Visual		
LV1	The Proposed Development was determined in consideration of environmental, technical, and economic factors following consultation. The location of the Proposed Development has sought to reduce potential visual effects by positioning it at the lower western slope of Holm Hill.	Pre - construction
LV2	In order to reduce potential visual effects of the Proposed Development, an area of planting is proposed at the lower levels of Holm Hill, in-between the A713 and the Proposed Development. The planting comprises large swathes of native woodland species with trees scattered throughout. This planting style creates a varied ground layer that in turn, forms a strong visual barrier. The 'understorey' shrub planting	During construction / Post - construction

Ref	Description	Timing
	includes species such as Holly, Hazel and Wild Privet, and the interspersing trees include species such as Alder, Birch and Wild Cherry	



Holm Hill Substation

Environmental Appraisal

Appendix 7.1: Construction Traffic Management Plan

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LIST OF ABBREVIATIONS

CTMP	Framework Construction Traffic Management Plan
OHL	Overhead Line
kV	kilovolt
HGV	Heavy Goods Vehicle
LGV	Light Goods Vehicle
D&GC	Dumfries and Galloway Council
NRSWA	New Roads and Street Works Act
PRoW	Public Right of Way
PIA	Personal Injury Accident

1 INTRODUCTION

1.1 BACKGROUND TO THE PROPOSED DEVELOPMENT

- 1.1.1 WSP UK Limited (WSP) has been commissioned by SP Transmission plc (SPT), 'The Applicant', to prepare a framework Construction Traffic Management Plan (CTMP) for the likely activities associated with the construction of the proposed Holm Hill Substation (hereafter referred to as the 'Proposed Development') off the A713 between Dalmellington and Carsphairn in Dumfries and Galloway Council.
- 1.1.2 The Proposed Development comprises a 132 kilovolts (kV) Gas Insulated Substation (GIS) providing a connection point to the transmission network. Two 132 kV Wind Farm connections would connect to the Proposed Development: the Lorg Wind Farm connection, which includes Euchanhead and Shepherd's Rig teed to the line, and the Quantans Hill Wind Farm connection, which includes Wether Hill and Cornharrow connected to the collector at Quantans Hill. The Applicant is required to provide a single point of connection for these Wind Farms to the electricity transmission network.
- 1.1.3 As well as electrical areas, ancillary development works proposed include a new access road and junction on the A713.
- 1.1.4 The purpose of the framework CTMP is to outline how the interaction between existing road and path users and construction traffic is managed during the programme of works and to ensure that all relevant stakeholders are consulted and fully informed of the proposed works.

1.2 PURPOSE OF THIS FRAMEWORK CTMP

- 1.2.1 This framework CTMP has been prepared to support the planning application to Dumfries and Galloway Council and describes the planned approach to and principles for managing the construction activities in relation to the Proposed Development. Any necessary improvement works on the existing road network are identified. Traffic management measures required for the transport of any abnormal loads and general construction traffic are detailed.
- 1.2.2 The primary aims of the framework CTMP are to:
 - Reduce the impact of the construction works on communities in the surrounding areas.
 - Minimise the level of traffic generated by the construction works.
 - Provide effective management of the traffic generated during the construction works.
 - Work with affected communities and their representatives to address any issues as they arise.
 - Work collaboratively with other developers to minimise cumulative impacts of developments in the area.
- 1.2.3 This framework CTMP is intended to be a live document, and the measures proposed would be developed and expanded on as the Proposed Development progresses up to the construction process. The framework CTMP would be further developed by both The Applicant and the Principal Contractor, in conjunction with Dumfries and Galloway Council, Transport Scotland, local Community Councils and other appropriate stakeholders.
- 1.2.4 It is considered that the framework CTMP can therefore form the basis of the full CTMP, which, when submitted to Dumfries and Galloway Council, could assist in discharging any relevant Planning Conditions attached to a future consent.

Legislative Framework for Accommodation Works on the Road Network

- 1.2.5 All works proposed in the full CTMP would be undertaken in line with the New Roads and Street Works Act 1991, 2008 Revision (NRSWA)¹ and as amended by the Transport Scotland Act 2005², which sets out the procedures and responsibilities which would apply to the coordination of any accommodation works on the road network. Prior to commencing any works on the public road network, including carriageways, footways and verges, The Applicant would obtain the consent of Dumfries and Galloway Council under Section 56 or Section 61 of the Roads (Scotland) Act 1984³.
- 1.2.6 This report has been prepared solely in connection with the development described in this report. No responsibility is accepted to any third party for all or parts of this report.
- 1.2.7 This report is copyright © WSP UK Limited. All rights reserved.

1.3 CONSULTATION

- 1.3.1 Dumfries and Galloway Council were consulted in April 2019 (Reference: 19/0311/ENQ / ECU00001789) as part of a scoping exercise for the 'Proposed 132 kV Grid Connection to Lorg and Longburn Wind Farms'⁴ in advance of the preparation of this framework, CTMP and the following requirements were identified in relation to the Proposed Development:
 - The full CTMP should include a programme of all delivery types/numbers by month, details of all proposed mitigation measures, agreed access route and details of measures that would be implemented to ensure that no stacking of delivery vehicles occur on any part of the public road network and is to be agreed in writing with the Police and the Roads Authority prior to any works commencing on-site.
 - Traffic should take access and egress via an 'agreed' route; however, there is likely to be some increase in traffic using other minor roads. There is also the possibility of other unrelated projects being constructed in the vicinity concurrently with this project. Therefore, it would be appropriate that the full CTMP acknowledge that co-ordination phasing may be required to mitigate against the cumulative traffic impact.
 - It is also noted that due to the narrow roads near Moniavie, east of the project, that construction access to the Site should not be taken from the east.

1.4 REPORT STRUCTURE

- 1.4.1 The report structure is as follows:
 - Chapter 2: Provides a review of the Site location, the Study Area, proposed construction traffic routing and pedestrian and cycle facilities in the vicinity of the Site;
 - Chapter 3: Details the proposed construction works, proposed access points to The Site and the construction compounds, including laydown areas; the size and type of vehicles in connection with the construction works, and the expected traffic generation;
 - Chapter 4: Details the proposed operational procedures for the Proposed Development;
 - Chapter 5: Provides a personal injury audit of the Study Area for the Proposed Development;

¹ UK Government (1991 as amended 2008). New Roads and Street Works Act 1991, 2008 Revision (NRSWA). Available at: <https://www.legislation.gov.uk/ukpga/1991/22/contents>

² Scottish Government (2005). Transport Scotland Act 2005. Available at: <https://www.legislation.gov.uk/asp/2005/12/contents>

³ Scottish Government (1984). Roads (Scotland) Act 1984. Available at: <https://www.legislation.gov.uk/ukpga/1984/54/contents>

⁴ Since this consultation exercise, the 132 kV Grid Connection for the Lorg and Longburn Wind Farms have been split out into separate projects. Any reference to Lorg refers to the 132 kV Grid Connection for Lorg Wind Farm, termed the Lorg OHL. The comments from Dumfries and Galloway Council were taken on board for each element scoped.

- Chapter 6: Details the procedures for road condition and structural surveys to be undertaken; and
- Chapter 7: Outlines the road maintenance measures for construction traffic debris on the public road network.

2 SITE AREA CONTEXT

2.1 SITE LOCATION

2.1.1 The Site for the Proposed Development is on the north side of the A713, located approximately 12 km south-east of the town of Dalmellington and approximately 3.5 km north-west of the village of Carsphairn.

2.1.2 The Site location is shown in **Plate 2.1** and **Plate 2.2**.

2.1.3 The Site is immediately adjacent to the existing electricity transmission line, which it would connect to, and which is the subject of a separate planning application. The predominant land use in and surrounding The Site is open moorland and rough grazing, with areas of plantation forestry / woodland.

2.2 STUDY AREA DESCRIPTION AND ROUTEING

2.2.1 The Study Area comprises the public road network that would be used during the construction and operation of the Proposed Development. It has not been defined in terms of a distance basis, rather the public road, namely the A713, in the vicinity and connecting towards onward strategic routes or passing via nearby settlements. **Plate 2.3** shows the extent of this Study Area.

2.2.2 The A713 connects Ayr with Castle Douglas and provides connections to the A77 to the south, and A75 to the north, which both form part of the trunk road network. The road is a two lane single carriageway which is subject to the national speed limit outwith the settlements through which it passes.

These Figures are provided at a larger scale in **Annex A: Figures**

Plate 2.1 Holm Hill Substation – Site Location (overview)

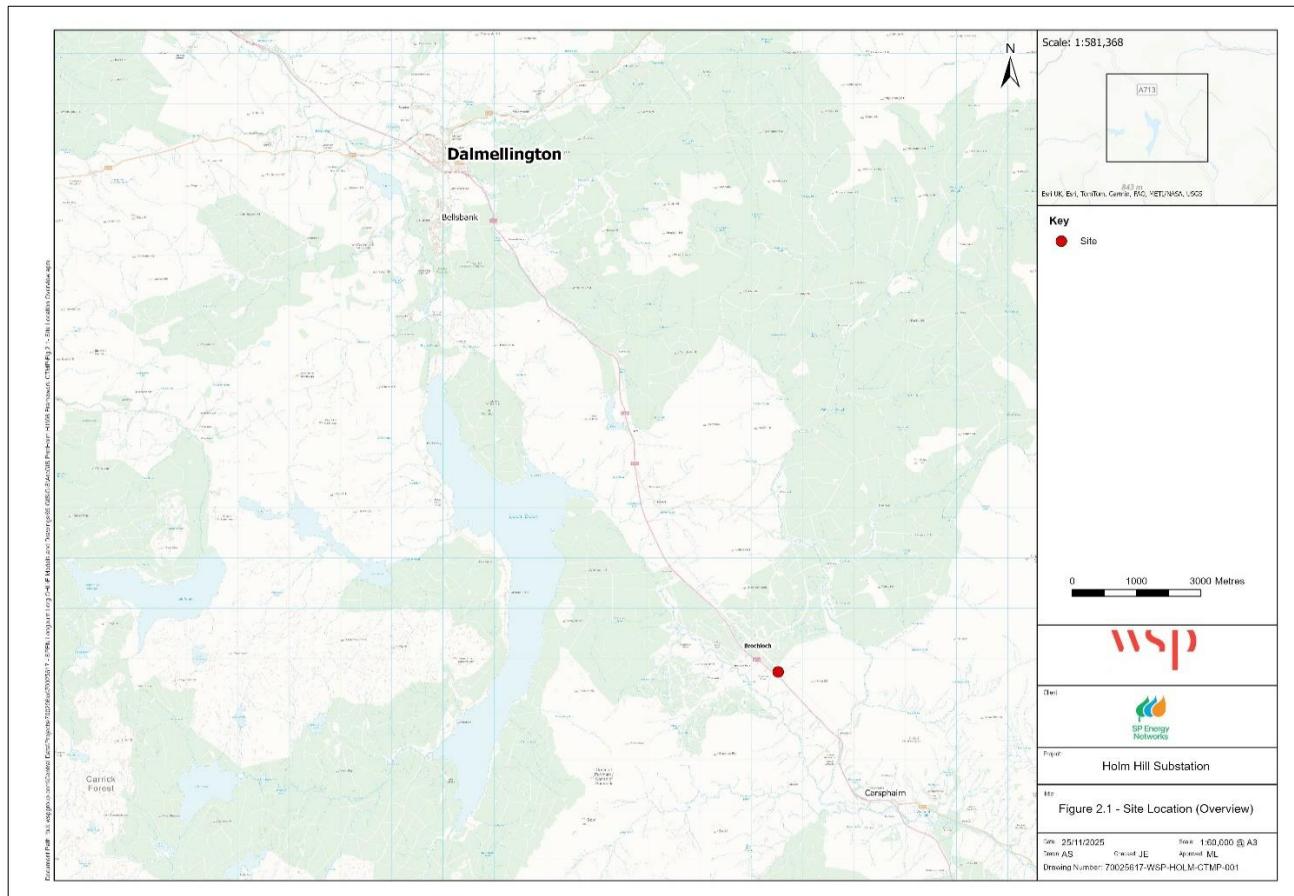


Plate 2.2 Holm Hill Substation – Site Location

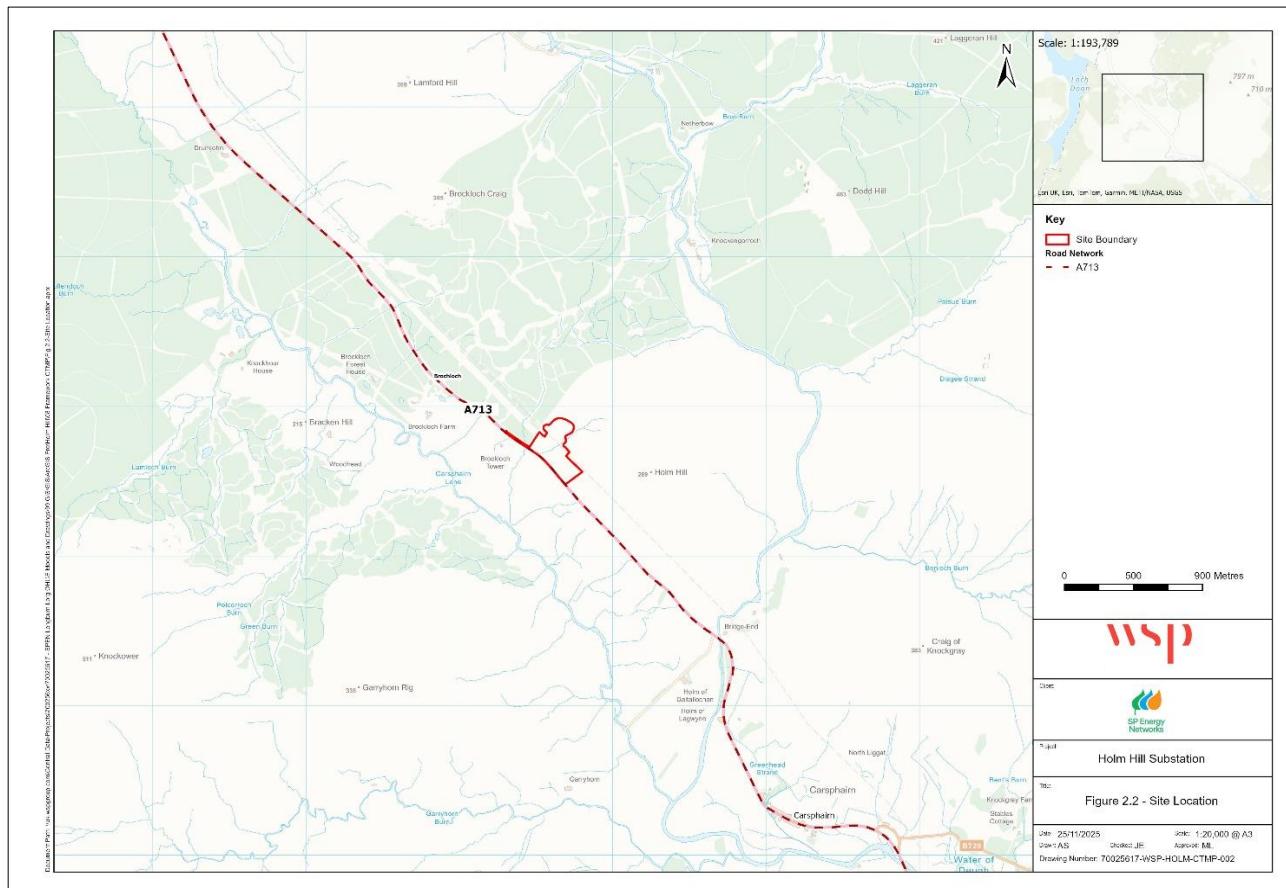
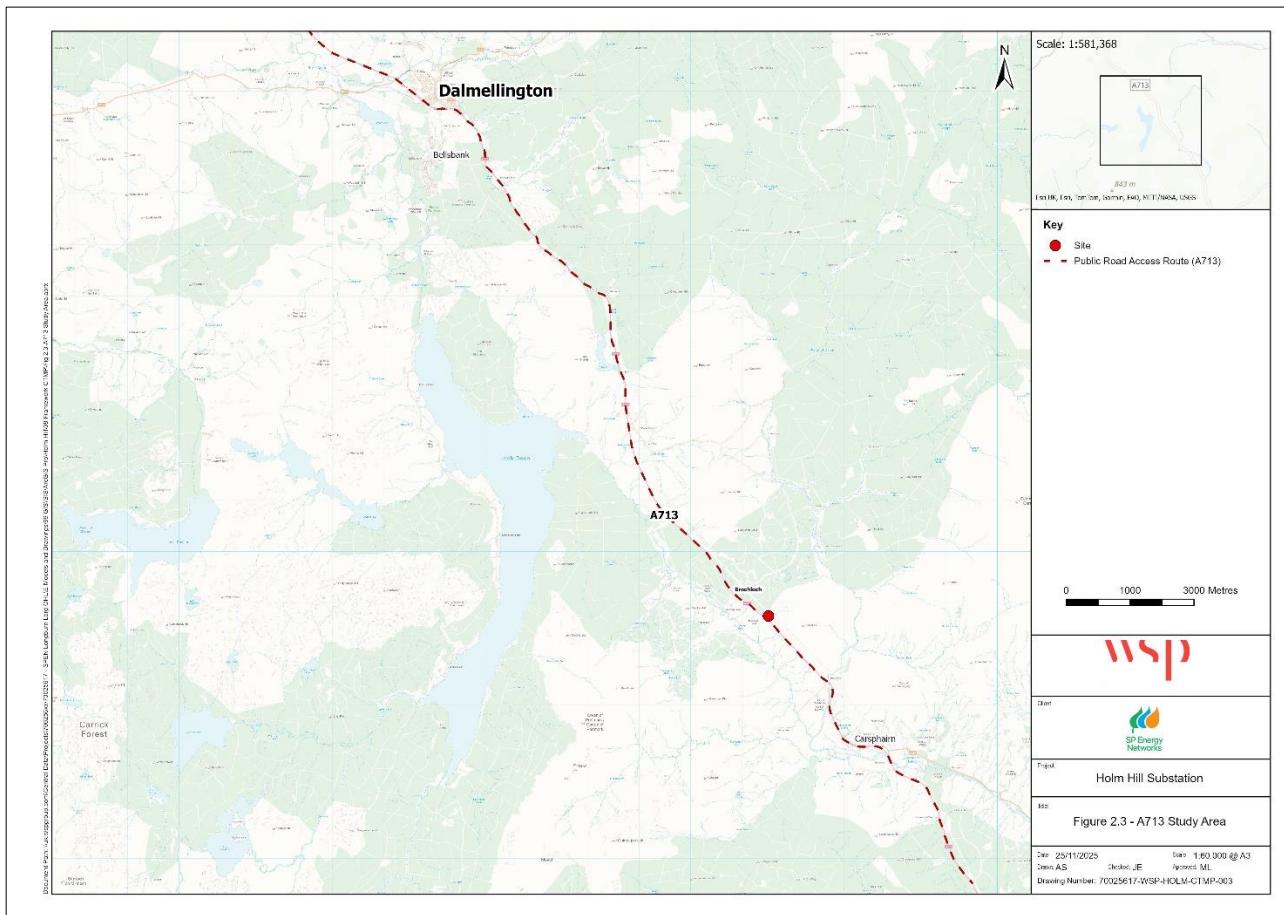


Plate 2.3 Holm Hill Substation – A713 Study Area



Agreed Route Map for Timber Transport Forum Classification

2.2.3 The Agreed Route Map for Timber Transport Forum⁵ has been developed by timber transport groups at Local Authority level, and it categorises the roads leading 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'.

2.2.4 'Agreed Routes' are categorised as routes used for timber haulage without restriction as regulated by the Road Traffic Act 1988. A 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.

2.2.5 The A713 in the Study Area is an 'Agreed Route' based on the Timber Transport Forum.

2.2.6 In contrast, the B741 east-west route between Dalmellington and New Cumnock, connecting to the A76 trunk road, is a 'Consultation Route'.

⁵ Timber Transport Forum (2025). Agreed Route Map for Timber Transport Forum. Available at: <https://timberttf.maps.arcgis.com/apps/webappviewer/index.html?id=4a23d4910e604b71872956441113c83c>.

2.3 OUTDOOR ACCESS FACILITIES

Pedestrian and Cyclist Facilities

- 2.3.1 There are no footways provided adjacent to the A713 for the majority of its length or within the vicinity of the Site.
- 2.3.2 There are also no formal cycle facilities provided in the vicinity of The Site or in the vicinity of the A713, which forms the proposed construction access route.

Public Rights of Way (PRoW)

- 2.3.3 A review of Dumfries and Galloway Council's Core Paths Map⁶ indicates that there are no core paths located in the vicinity of the Proposed Development.

⁶ Dumfries and Galloway Council (2025). Core paths Map. Available at: <https://www.dumfriesandgalloway.gov.uk/leisure-sport-culture/parks-outdoor-spaces/core-paths>

3 CONSTRUCTION TRAFFIC

3.1 INTRODUCTION

3.1.1 This chapter outlines the likely types of vehicles that would access The Site area during the construction period, including both general construction traffic and abnormal loads associated with the delivery of the control building components.

3.2 OVERVIEW

3.2.1 The following construction activities are proposed:

- Formation of a new access junction on the A713.
- Establishment of a temporary construction compound and set up, including installation of temporary welfare and storage facilities, construction of safe pedestrian access, secure working area and lighting.
- Implementation of plans to manage traffic with appropriate safety, signage, monitoring and maintenance.
- Movement and use of static and mobile plant / construction vehicles, including excavators.
- Excavation of the existing topsoil, temporary storage, placement and disposal of Site excavated and imported materials to form a suitable substation platform.
- Installation of drainage.
- Installation of substation, including construction of new control building.
- Installation of substation perimeter fence.
- Construction of substation switchyard area.
- Site restoration, including reseeding of embankments, landscape planting and removal of temporary construction compound.

3.3 ACCESS

3.3.1 Access to The Site area would be taken directly from the A713 via a bellmouth access designed in accordance with Dumfries and Galloway Council's requirements. The proposed junction layout and associated visibility splay are shown in Drawing Number CT2978-2-00GG-DR-SPTEC-0100, which is included in **Annex B: A713 Junction Visibility splay**.

3.3.2 The access proposals would seek to minimise disturbance to local communities by using public roads more suitable for accommodating typical construction type vehicles. The types of vehicles to be used in the construction of the Proposed Development and their likely use are as follows:

- Heavy Goods Vehicles (HGVs) transporting construction materials, plant and equipment to / from Site;
- abnormal loads (e.g. for the control building components);
- Light Goods Vehicles (LGVs) delivering to / from Site; and
- staff arriving and departing The Site in cars and vans.

3.4 GENERAL CONSTRUCTION TRAFFIC

3.4.1 Components and equipment that do not classify as abnormal loads would be transported on regular HGVs or under their own power and are as follows:

- cranes;
- low loaders carrying smaller components and associated crane equipment;

- stone lorries;
- concrete lorries;
- flatbed materials and equipment delivery lorries;
- miscellaneous deliveries in non HGV vehicles; and
- staff transport.

3.5 MATERIAL USE

3.5.1 The construction process would aim to minimise the amount of import and export of material where practicable. Although material import is likely to be required, this would be kept to a minimum. Wherever practicable, any imported resources required to construct the Proposed Development would be locally sourced.

3.5.2 Potential measures to further reduce material imports include reusing any waste arising from the construction into design; for example, topsoil would be used in restoring The Site.

3.5.3 A Site Waste Management Plan (SWMP) would be used to control waste generated in line with relevant waste legislation and good practice measures, thereby limiting waste arising from the Proposed Development during the construction stage. The SWMP would be completed and implemented by the Principal Contractor.

3.6 ESTIMATED DELIVERY VOLUMES

3.6.1 **Table 3.1** provides the estimated HGV traffic levels expected to be generated during the construction of the Proposed Development.

Table 3.1 Holm Hill Substation – Estimated HGV Movements

Contract	Operation	Description	Movement (to/from Site)	Approx. Duration (months)	Approx. HGV/Months
Enabling works	Welfare compound creation	General plant deliveries	1	1	1
		Peat removal (kept onsite)	0	1	0
		Hardstanding remedials, paths etc	12	1	24
		Cabins/stores deliveries	9	0	34
Site Access	Northern Platform - Temp access road	Excavation offsite	7	1	13
		Fill incl. surfacing	33	1	67
	SE Platform - Perm access road	Excavation	36	1	48
Earthworks		Fill	45	1	60
	SE Platform - Construction	Fill	29	1	39
	NW Platform - TW platform	Plant delivery / collection	5	1	11
		Peat removal	966	1	1,288
		Cement for stabilisation	67	3	22
		Water for stabilisation	217	3	72
		Stone fill	63	1	63
	NW Platform - Piling	Plant delivery / collection	3	1	5
		Pile deliveries	81	4	23

Contract	Operation	Description	Movement (to/from Site)	Approx. Duration (months)	Approx. HGV/Months
	NW Platform - Precast build	Plant delivery / collection	3	1	5
		Pilecap deliveries	68	4	19
		Beam deliveries	51	4	14
		Slab deliveries	203	4	58
	NW Platform - Upfill (first 300 mm)	Plant delivery / collection	5	1	11
		Membrane deliveries	1	0	4
		Stone deliveries	193	2	129
	Fencing install (NW & SE platforms)	Material deliveries	4	0	16
Main Civils	Compound upfill (rem. 600 mm)	Plant delivery / collection	18	1	36
		Stone deliveries	580	6	101
	Foundations incl. Tx bunds	Formwork delivery / collection	8	1	16
		Concrete deliveries	100	5	19
	Ducts/troughs/drainage	PC MH, trough deliveries	25	4	7
		Pipes / ducts / ancillary deliveries	14	5	3
	Welfare compound removal	Cabins / stores collection	15	0	60
		Peat reinstatement (onsite)	0	1	0
BoP	BBs incl. clamps	Deliveries	9	2	6
	Structures	Deliveries	18	2	10
	Plant	SA	3	0	11
		CVT	1	0	5
		DISC ES	1	0	5
		CB	2	0	8
		PI	3	0	11
		CT	1	0	3
		ESx3	1	0	5
		PANTx3	2	0	8
	Ancillaries (MK, control boxes, panels)	Deliveries	1	0	5
	NW Platform - Upfill (first 300 mm)	Plant delivery	5	1	11
Construction Total			2,910	58	2,359

3.6.2 Each delivery load to The Site generates two vehicle movements, the journey to The Site and the return journey.

3.6.3 There would be additional vehicle movements associated with the construction of the Proposed Development to those included in **Table 3.1**, which would include miscellaneous deliveries in non HGV vehicles and staff transport. It is not possible at this time to estimate the number of movements in relation to these types of movements, however these are not predicted to be of a level to cause any significant impact on the operation of the existing road network. Furthermore, and as with the other construction trips, any impact would be temporary in nature and managed accordingly.

3.7 HGV ROUTEING

3.7.1 Construction vehicles accessing the Proposed Development from the north would be required to avoid Dalmellington town centre and continue on the A713 Bellsbank Road / Carsphairn Road.

3.7.2 It is proposed to source materials such as concrete and aggregates from local suppliers where practicable to reduce the distance required to travel to The Site. The access routes, as detailed in **Plate 2.3** of this Framework CTMP, would be limited as far as practicable to main local roads and the trunk road network.

3.7.3 There may be a requirement to use some local roads for the transport of locally sourced materials, depending on the final sourcing of materials arrangements. The framework CTMP can be updated to incorporate any measures required to mitigate against the impact of the construction vehicles if deemed necessary. It is, however expected that, if the materials are sourced from a local supplier, the access to and from the location would be suitable to accommodate the predicted vehicle types.

3.7.4 All fine aggregates transported to The Site would be covered to minimise the potential for contamination of the surrounding area. Any other specific restrictions or requirements on the routeing of loads or method of transport from local suppliers can be secured via the full CTMP in agreement with Dumfries and Galloway Council.

3.8 ABNORMAL LOADS

3.8.1 Abnormal loads are categorised as vehicles where the weight exceeds 44,000 kilograms (kgs) and / or the width exceeds 2.9 m and / or the length exceeds 18.65 m. Based on these parameters, the control building components associated with the construction of the Proposed Development would fall into the category of abnormal loads.

3.8.2 At the time of writing, the Port of Entry (POE) is yet to be defined, however it is expected that these would be delivered from Ayr or another suitable POE. It is expected that the control building components would be transported using a typical low loader / flatbed trailer and travel in a convoy of up to a maximum of four abnormal loads (if using the same route to The Site).

3.8.3 Prior to the movement of any abnormal loads to The Site, a trial run would be undertaken on the proposed access route. A temporary frame to simulate the proposed loads would be used during the trial run to confirm the suitability of the route and required mitigation works. The parameters of the trial run would be agreed in advance with the Ayrshire Roads Alliance, Dumfries and Galloway Council, Police Scotland, Transport Scotland and the appointed haulage contractor.

3.8.4 Configuration of the convoy would be confirmed prior to the movement of any loads and directed by the Police escort in attendance. The appointed haulage contractor would provide escort vehicles at the front and rear of the convoy and at any other specific locations deemed necessary following the trial run.

4 OPERATIONAL PROCEDURES

4.1 GENERAL

- 4.1.1 It is proposed that no HGVs, excluding abnormal loads, shall visit The Site overnight between the hours of 20:00 and 07:00, Monday to Saturday; and no HGVs shall visit The Site at any time on Sundays or Public Holidays.
- 4.1.2 Construction would only take place between the hours of 07:00 and 19:00 on Monday to Saturday, and no construction shall take place on Sundays or Public Holidays unless otherwise agreed in writing by Dumfries and Galloway Council.
- 4.1.3 The following sections set out the measures which it is proposed to implement to minimise the impact of construction traffic on the operation of the local road network.

4.2 TIMING RESTRICTIONS

- 4.2.1 In the interests of road safety and reducing possible nuisance, and if deemed necessary by Dumfries and Galloway Council, HGV traffic could be subject to timing restrictions, whereby vehicles would not be able to access, or depart from The Site during specific times. For example, it could be proposed to restrict HGV construction trips around the start and end of the school day or other predictable local peak traffic and activity periods. It is considered that any restrictions on the timing of movements could be secured via an appropriate Planning Condition.
- 4.2.2 All parties involved in making deliveries to The Site would be instructed on these restrictions, and, for contractors making regular deliveries, they would form part of their contractual obligations. This would be reinforced within the Principal Contractor's Site inductions and regular toolbox talks.

4.3 ROUTE ENFORCEMENT

- 4.3.1 The routes and time restrictions identified in the full CTMP would be strictly enforced. The Principal Contractor and all subcontracting companies involved in the construction of the Proposed Development would be required to ensure they follow the correct routes. The routes would be clearly defined in all contracts and clearly signposted for all drivers to see. This would be reinforced by inclusion in 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 would also be reinforced via these means.
- 4.3.2 Any residents or road users in the vicinity of The Site who believe that contractors or delivery drivers are not complying with the details of the full CTMP would be encouraged to take a note of the vehicle registration and vehicle type, the location and time of the incident and report this to the nominated point of contact (which would be communicated via newsletters and online).
- 4.3.3 The Principal Contractor would maintain a log of all HGVs entering and leaving the construction Site. Logs can be used to inform ongoing liaison during contract between Dumfries and Galloway Council, if required.
- 4.3.4 Further, all vehicle registrations and times would be recorded once they enter The Site and, based on the information received, any contractor not adhering to the relevant route guidance would be reminded of the designated routes and restrictions in the first instance, and disciplined if required.
- 4.3.5 On site monitoring, spot checks and additional route signage would assist in ensuring the route is adhered to.

4.4 CONTRACTOR SPEED LIMITS

- 4.4.1 It is proposed to impose a reduced speed limit for all construction traffic of 20 mph on sections of the proposed access route deemed sensitive to the effects of construction traffic. As such, it is proposed to implement reduced speed limits at the following locations, with signs located at appropriate locations advising construction traffic of the reduced speed limit:
 - A713 Bellsbank Road / Carsphairn Road in Dalmellington; and

- A713 along The Site frontage.

4.4.2 The reduced speed limits proposed would only be applicable to those vehicles associated with the construction of the Proposed Development.

4.4.3 **Plate 4.1** and **Plate 4.2** show the indicative locations where it is proposed to implement reduced speed limits. The design of signs and exact locations of the reduced speed limits would be agreed with Dumfries and Galloway Council.

4.4.4 These Figures are provided at a larger scale in **Annex A: Figures**.

4.5 TEMPORARY ROAD SIGNING

4.5.1 Temporary road signing would be implemented along the proposed access route, informing drivers about ongoing construction activities, in addition to routing works traffic to and from the Proposed Development. The location of the temporary signing advising Site staff of the routes can be seen on **Plate 4.3** and **Plate 4.4**. This would be in addition to Site signage that would be installed in the vicinity of The Site access junction by the Principal Contractor. Note this plan is indicative only at this stage, with the exact locations agreed with Dumfries and Galloway Council.

4.5.2 These Figures are provided at a larger scale in **Annex A: Figures**.

4.6 TRAVEL PLAN

4.6.1 The Principal Contractor would develop and implement a site-specific Travel Plan, which would seek to reduce the effects of construction staff travelling to The Site on the local road network, in particular where they would be required to pass through local settlements, for example, Dalmellington. All on-site construction staff using private vehicles to access The Site would be required to park their vehicles in the designated construction Site car park only. No parking would be permitted on the public road network in the vicinity of the Proposed Development.

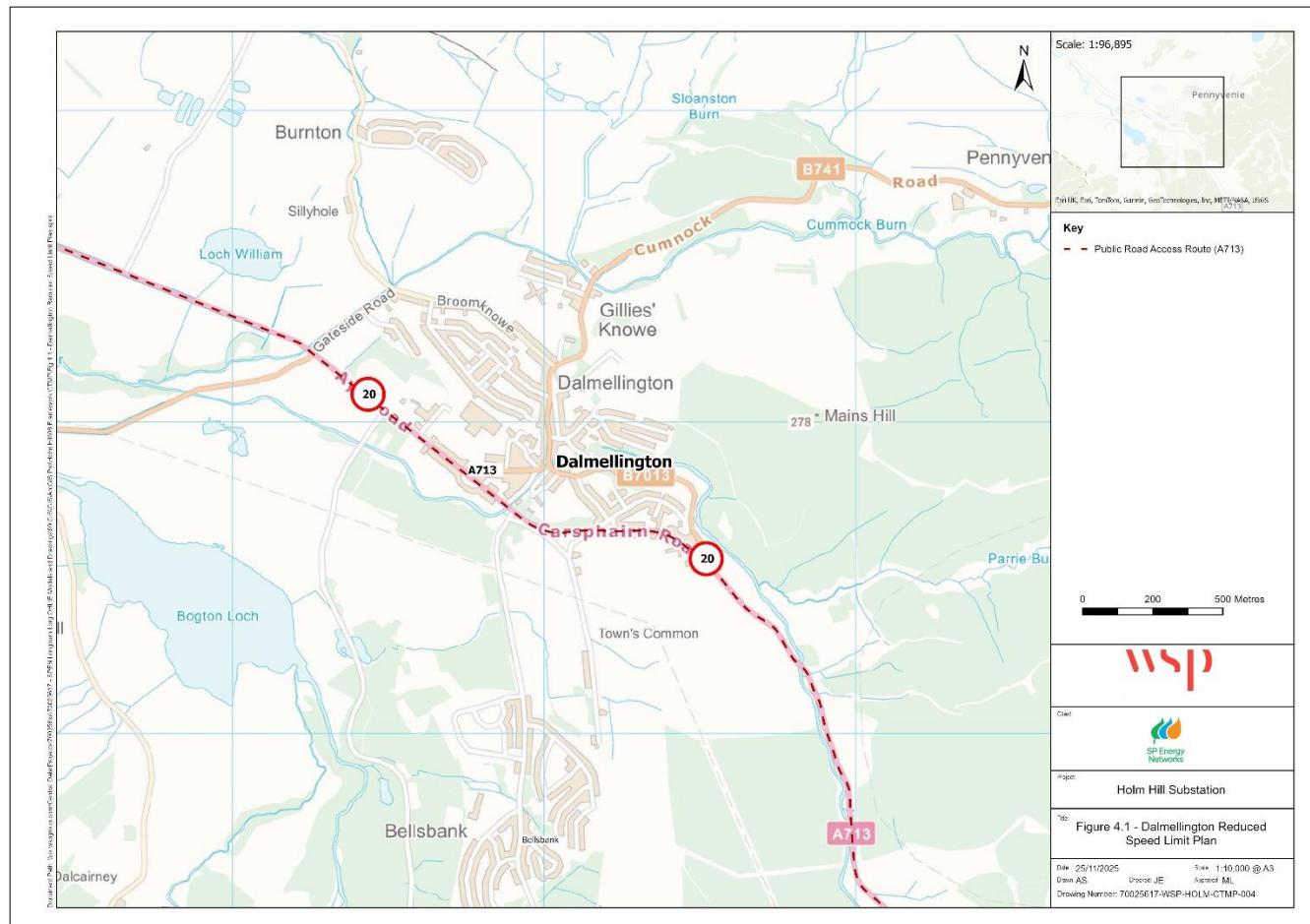
Plate 4.1 Holm Hill Substation – Dalmellington Reduced Speed Limit Plan


Plate 4.2 Holm Hill Substation – Site Access Reduced Speed Limit Plan

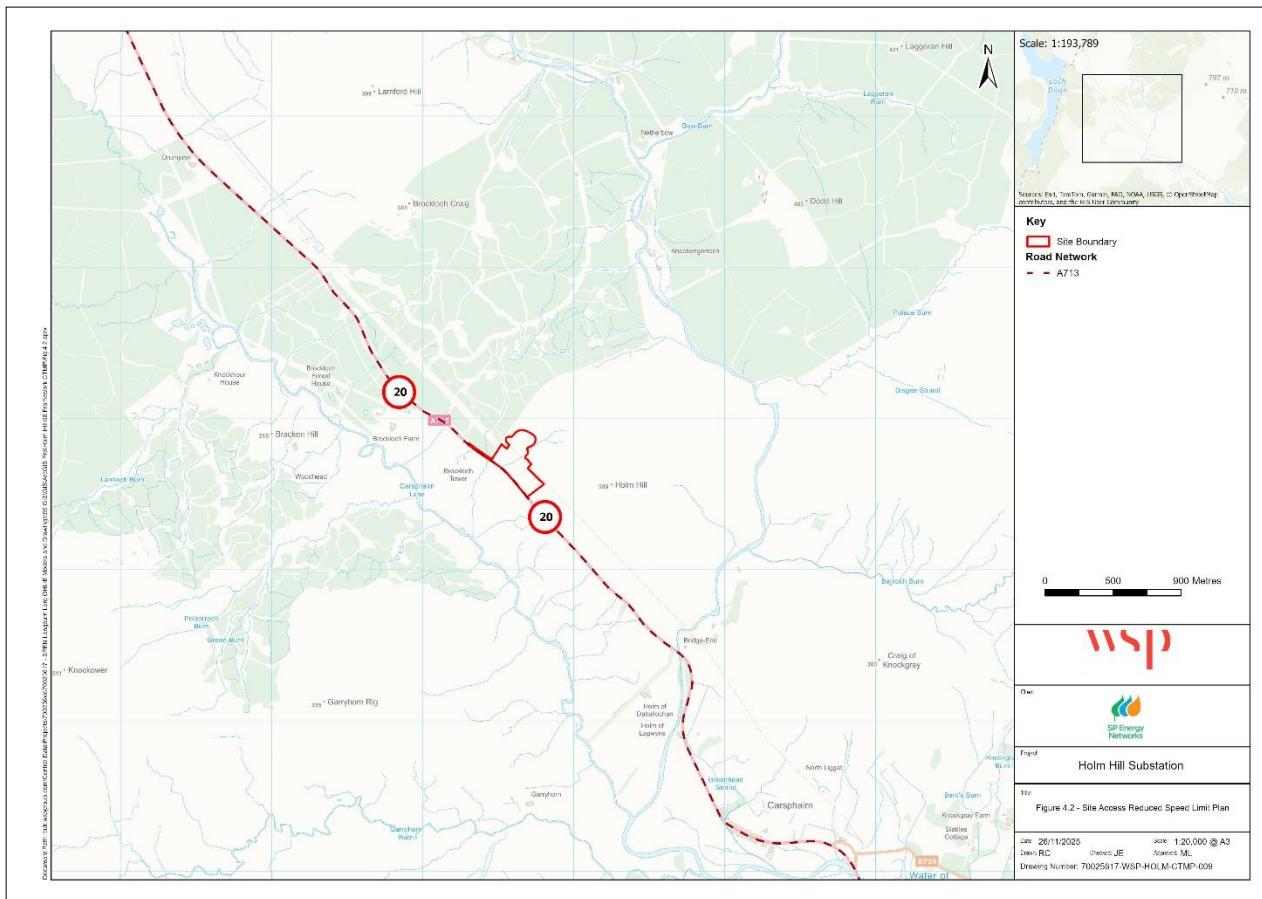


Plate 4.3 Holm Hill Substation – Dalmellington Temporary Road Signing Plan

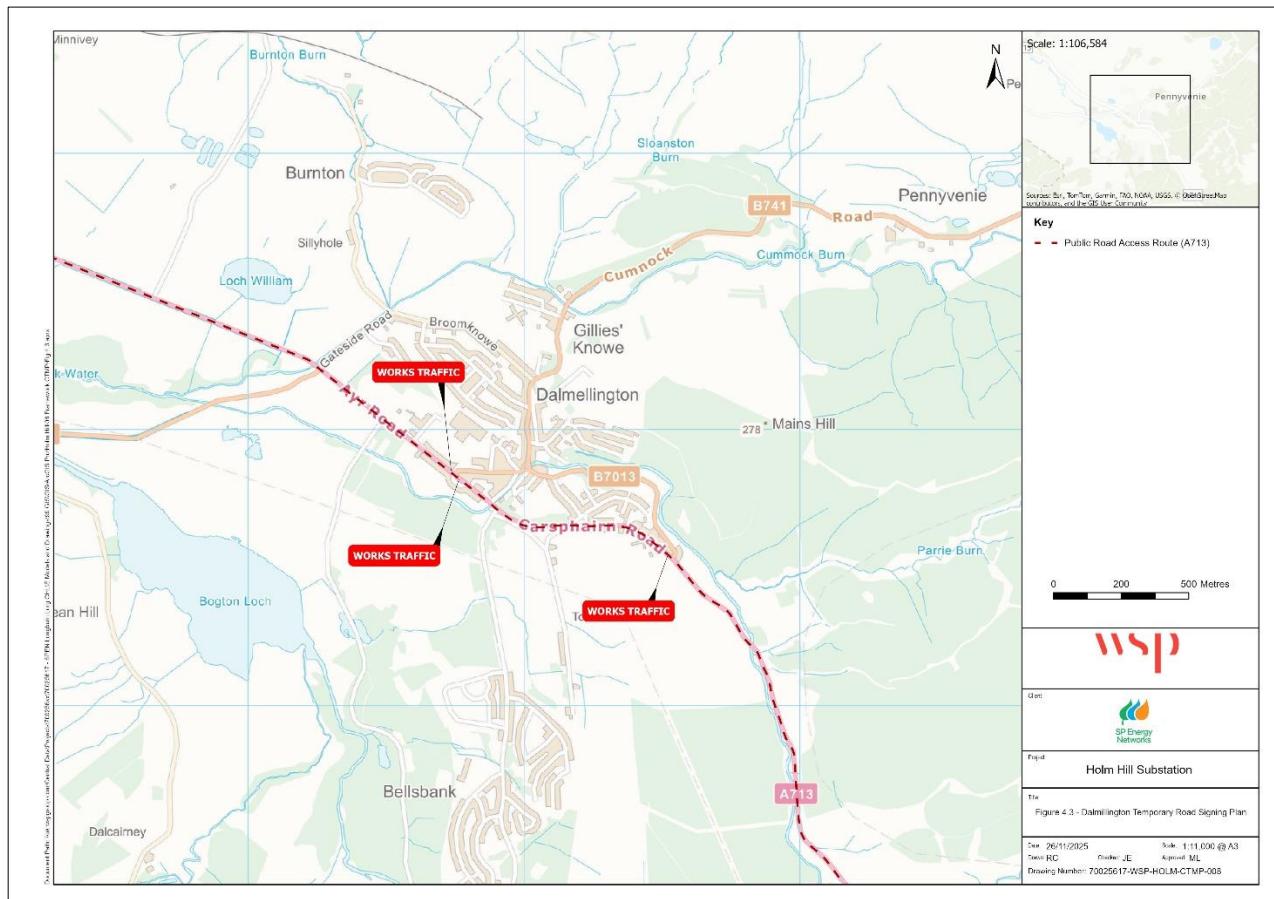
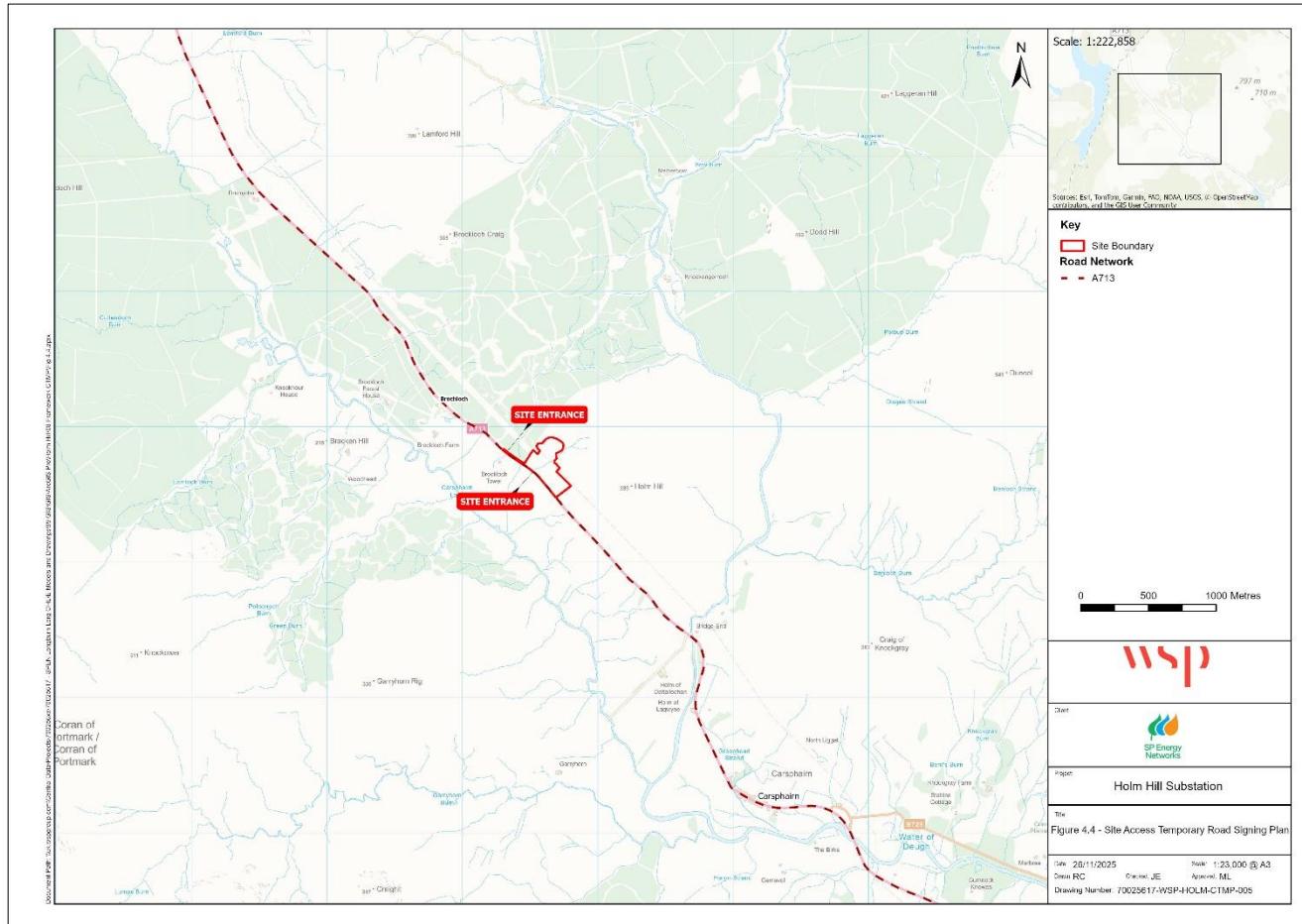


Plate 4.4 Holm Hill Substation – Site Access Temporary Road Signing Plan



4.7 ROAD CLOSURES AND TRAFFIC MANAGEMENT PLAN MEASURES

4.7.1 The Principal Contractor would, where practicable, avoid any road closures or diversions as a result of the construction works for the Proposed Development. All reasonable measures, including appropriate design and installation of traffic management schemes would be employed, to reduce the likelihood of traffic diverting onto alternative routes, to mitigate any potential impacts on the local communities and to keep delays on the road network to a reasonable minimum. Any specific traffic management measures proposed would be subject to agreement with Dumfries and Galloway Council. All temporary works and traffic management measures would be employed for the minimum time period required; no measures would be left in place unnecessarily.

4.7.2 Although not currently planned, should any road need to be closed temporarily to facilitate any construction works, the contractor would comply with the requirements of Dumfries and Galloway Council for the affected roads; any roads authority through which it is intended to divert traffic during the temporary road closure; and the Police. The contractor would demonstrate to these authorities that the construction work cannot be carried out safely without the road closure.

4.7.3 The Principal Contractor would consult with Dumfries and Galloway Council regarding the traffic management measures proposed and would undertake Road Safety Audits in accordance with the Design Manual for Roads and Bridges for complex or major traffic management schemes. Regular meetings would be held with Dumfries and Galloway Council during the construction period, as and when required.

4.7.4 The Principal Contractor would consult with the following organisations regarding traffic management and control measures, which would be implemented if required, to accommodate abnormal load traffic or unusually high traffic demands:

- relevant roads authorities and Transport Scotland;

- the organisers of major events in adjacent Local Authorities; and
- other relevant organisations, for example Community Councils.

4.7.5 When implementing any proposed Traffic Management Plan measures, the contractor would comply with the provisions of the Traffic Signs Manual Chapter 8: Traffic Safety Measures and Signs for Road Works and Temporary Situations⁷. Traffic signs would comply with the Traffic Signs Regulations and General Directions 2002, as amended⁸.

4.8 ABNORMAL LOAD DELIVERIES

ABNORMAL LOAD DELIVERY PLAN

4.8.1 There would be four control building components required in relation to the construction of the Proposed Development. At the time of writing, the POE is unknown, however it is expected that these would be delivered from Ayr. Based on this, there could be a requirement for two abnormal load movements to deliver these components.

4.8.2 The control building components would be delivered to Site in sufficient time to meet the agreed assembly / installation programme and in accordance with the requirements of Police Scotland, Ayrshire Roads Alliance, Dumfries and Galloway Council and Transport Scotland. A detailed delivery plan would be prepared prior to the actual delivery, and sufficient notice would be given to all relevant parties / stakeholders.

4.8.3 The construction Site layout would be designed to allow the offloading of the control building components at the appropriate location prior to assembly / installation.

4.8.4 The detailed delivery plan would include Risk Assessments and Method Statements and will include contingency plans resulting from vehicle breakdowns or accidents on the proposed access route(s).

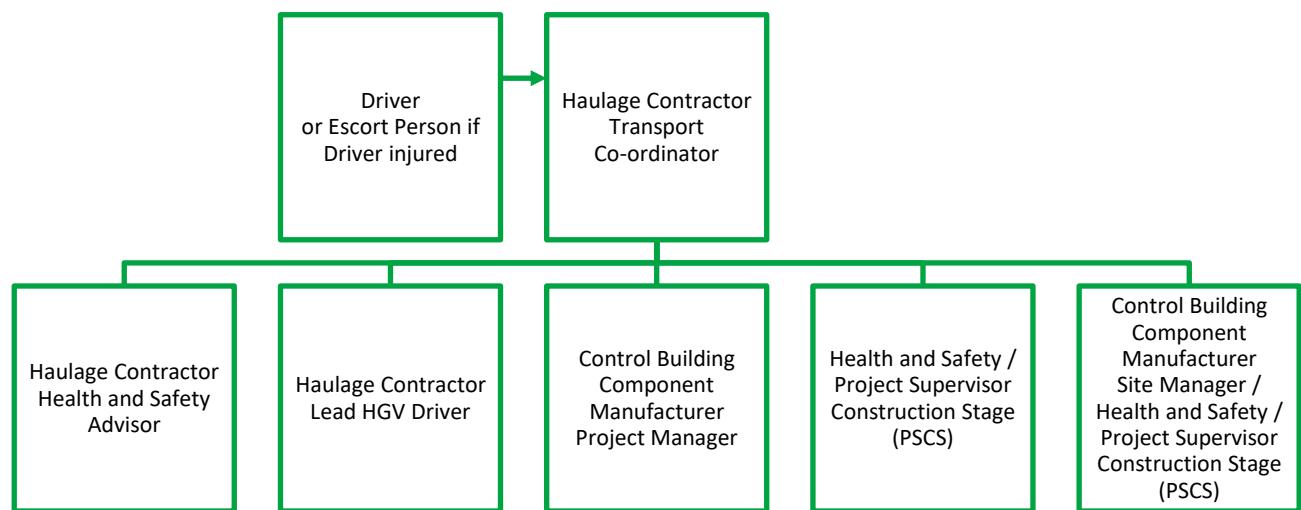
4.8.5 The procedures put in place in the event of an emergency or major unscheduled stoppage, including breakdown, traffic accident / shedding of load, injury to project staff or public, or severe adverse weather would include, but not be limited to, the following:

- the vehicle/s would be removed from the road as far as possible or cleared to the edge of the carriageway to allow free traffic movement or access of emergency vehicles;
- emergency beacons would be activated on all affected vehicles;
- reflective emergency triangles would be placed at least 45 m (150 feet) behind the affected vehicle/s on the same side of the road to provide advanced warning for approaching traffic;
- all incidents would be reported within 30 minutes of occurrence. The incident reporting hierarchy shown in **Plate 4.5** would be followed, and emergency services contacted as necessary; and
- once vehicles have been moved to the most suitable location/s, affected vehicles would remain stationary until the incident has been resolved and the 'all clear' from either the Police or the Site Manager has been received.

⁷ The Stationery Office (2009). Traffic Signs Manual Chapter 8: Traffic Safety Measures and Signs for Road Works and Temporary Situations. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/203670/traffic-signs-manual-chapter-08-part-02.pdf

⁸ UK Government (2002). The Traffic Signs Regulations and General Directions 2002. Available at: <https://www.legislation.gov.uk/uksi/2002/3113/contents/made>

Figure 4.5 Holm Hill Substation – Incident Reporting Hierarchy



ABNORMAL LOAD CONVOY SIZE AND TIMING

4.8.6 Abnormal load deliveries would only take place during the hours agreed with Police Scotland and Dumfries and Galloway Council. Deliveries shall be timed to avoid, where possible, the morning and afternoon peak periods and the start and end of the school day.

4.8.7 Abnormal Load convoys shall comprise no more than two abnormal load vehicles and shall be escorted by haulier escort vehicles and the Police if required.

ABNORMAL LOAD ESCORT PROCEDURES

4.8.8 Abnormal loads would be escorted in accordance with Code of Practice: Lighting and Marking for Abnormal Load Self Escorting Vehicles Incorporating Operating Guidance. The escorting would be undertaken by the appointed haulage contractor with the assistance of Police Scotland.

4.8.9 All abnormal load convoys would include a minimum of two escort vehicles. The first escort has a dual function, to give oncoming drivers advance warning and also to assess the route ahead of the lorry and trailer. The second escort takes up the rear and contains the steersman who is in radio contact with the driver advising him if he needs to activate the trailer steering controls in his cab. This second escort would also advise the lorry driver if there is any traffic attempting to overtake.

4.8.10 There are parts of the route where the escort vehicles would be required to advise traffic to temporarily stop (with the assistance of Police Scotland), to allow for the safe passage of loads. This would be required at locations where the carriageway narrows and at locations where there are significant changes in the horizontal alignment of the carriageway. The procedure for this is as follows:

- The first escort vehicle would ensure, with Police assistance where required, that live traffic is stopped before the convoy is permitted to continue through the potential hazard. The convoy may not proceed without verbal confirmation from the lead escort vehicle. Where Police assistance is required, the Transport Coordinator / Lead Driver would co-ordinate this with the Police prior to the movement of any loads.
- Should any rogue live traffic start to move, the lead escort vehicle would immediately order the convoy to stop. The second escort vehicle would then deal with the rogue live traffic, ensuring safe passage past the convoy, before the convoy can proceed, subject to confirmation from the lead escort.

ROAD CLEARANCE SCHEME

4.8.11 Clear roads would be required to allow the transport of the abnormal loads along narrow sections of the proposed access route. At delivery times, road parking in settlements along the route may be restricted to allow for this and shall be achieved through communication with the local residents, businesses and Dumfries and Galloway Council. If required, The Applicant would produce leaflets which would be provided in advance to residents along the route, indicating the areas which should be kept clear of parked vehicles and the times and durations for which this is required.

4.9 NOTIFICATION TO ROADS AUTHORITIES AND STAKEHOLDERS

Transport Scotland

4.9.1 Transport Scotland co-ordinates the movement of abnormal loads throughout Scotland's trunk and non-trunk road network. The primary function of Transport Scotland's Abnormal Routing Section is to investigate the suitability of proposed wide, high and heavy load movements in Scotland that require VR1 or Special Order authorisation under Section 44 of the Road Traffic Act⁹.

4.9.2 Before recommending that any such authorisation is given, Transport Scotland's Abnormal Routing Section must be satisfied that the movement can be justified and consultation with other relevant stakeholders has been undertaken.

Local Authorities

4.9.3 For the sections of the route that fall under the remit of Local Authorities, the appointed haulage contractor would notify them of all abnormal load movements.

Police Scotland

4.9.4 Police Scotland through whose jurisdiction the route is anticipated to pass, would be notified. This would be confirmed once the POE is known.

Emergency Services

4.9.5 In addition to the Police, Fire and Ambulance services would be given written notice of control building component deliveries. Further daily notifications would be given in advance of the vehicles leaving the POE if required.

Local Residents

4.9.6 Throughout the construction period, the Principal Contractor would maintain an open dialogue with local residents and other interested parties. The Applicant has a dedicated Community Liaison Team as a key point of contact between local communities and the business. The team would routinely be in contact with relevant Community Councils in the area in advance of and during works.

LIAISON REGARDING PLANNED ENGINEERING AND ROAD WORKS

4.9.7 The Applicant would work with Transport Scotland and Dumfries and Galloway Council, to identify any planned engineering / road works on the proposed routes that may conflict with the proposed delivery schedule or any required enabling works.

⁹ UK Government (1988). Road Traffic Act 1988. Available at: <https://www.legislation.gov.uk/ukpga/1988/52/contents>

LIAISON WITH LOCAL SCHOOLS

4.9.8 The Applicant would work with Dumfries and Galloway Council to identify school drop off and pick up locations and times to be avoided, in Dalzellington around Doon Academy, for example. As detailed earlier in this framework CTMP, general construction and abnormal load deliveries, where practicable, would be scheduled to avoid these times.

LIAISON WITH COMMUNITY EVENT ORGANISERS

4.9.9 The Applicant would work with Dumfries and Galloway Council and local stakeholders to identify any potential conflicts with local community events or business events. Construction and abnormal load deliveries, where practicable, would be scheduled to avoid these times.

4.10 TRANSPORTATION PROTOCOL

4.10.1 All Contractors must adhere to the agreed full CTMP. Prior to leaving The Site or a local supplier (for example, a quarry), all vehicles must:

- be securely sheeted whether loaded or empty;
- have proceeded through a suitable operational wheel or body wash facility (depending on the time of year, this can be a standard wheel wash or if used during winter months a waterless system);
- record origin, destination and route of the vehicle;
- not leave in convoy; and
- ensure all vehicle identifications, including registration plates on the vehicle are clearly visible.

4.10.2 On route to and from their destinations all vehicles must:

- use only approved haulage routes as specified by the full CTMP;
- strictly observe speed limits, particularly in built up areas;
- be driven in a safe and courteous manner with due care and consideration for other road users both vehicular and pedestrian;
- all drivers should be aware and alert whilst driving through towns and villages particularly at the start and end of the school day;
- strictly adhere to the hours of operation detailed by the full CTMP; and
- on arrival at the Site, vehicles shall not wait on the public road, causing an obstruction.

4.10.3 All Operators must maintain a management system whereby the following records are kept and are available to Dumfries and Galloway Council:

- that vehicles have been sheeted prior to leaving The Site;
- that vehicles have been washed prior to leaving The Site;
- the number of vehicles leaving The Site and their destination;
- all complaints received regarding transport and what, if any action taken; and
- all instances where protocol has been breached and action taken.

4.10.4 If an operator requires to use an alternative route as a result of circumstances outside their control, the operator shall contact Dumfries and Galloway Council as soon as practicable in order to agree temporary re-routing. Where Dumfries and Galloway Council are aware of any circumstances which may require temporary re-routing, for example, emergency roadworks, they would contact the operator to agree such changes. This should be undertaken in a timely manner to avoid any potential disruption to the construction programme.

4.11 MANAGEMENT PLAN MONITORING

4.11.1 Following the implementation of the full CTMP and its associated measures, it is proposed that certain monitoring requirements are placed on the Principal Contractor. These are primarily to ensure the effectiveness of the measures implemented and to assess whether any changes are required during the construction of the Proposed Development.

4.11.2 The monitoring requirements are suggested to be as follows:

- The Principal Contractor would monitor traffic management schemes to maintain their effectiveness and condition and to provide for the safety of traffic, the public and construction staff during traffic management works and temporary traffic control measures. The Principal Contractor would provide information regarding any delays to traffic due to construction works to Dumfries and Galloway Council if required.
- The Principal Contractor would monitor traffic levels on roads where reasonably required by the Police or the relevant roads authority.
- The Principal Contractor would monitor Site accesses and public roads adjacent to access points to enable measures to keep accesses and roads clean to be implemented as required.
- The Principal Contractor would undertake monitoring as may be necessary, including monitoring the effectiveness of mitigation measures.

5 PERSONAL INJURY ACCIDENT REVIEW

5.1 INTRODUCTION

- 5.1.1 A Personal Injury Accident (PIA) review has been undertaken to examine the existing accident characteristics of the proposed access route on the local road network, for the Study Area as defined in **Plate 2.3** of this Framework CTMP and its immediate local connections.
- 5.1.2 In line with industry practice, only those accidents involving personal injury (including fatalities), with relevant accident information collected by Police Scotland are included within this assessment / review.
- 5.1.3 Transport Assessment guidance requires a review of the PIAs on the road network in the vicinity of any development to be undertaken for the most recent three year period, or five year period if The Site has been identified as being in a high accident area. Although this is not considered to be the case in this instance, the more comprehensive five year review of all data for 2018 – 2022 has been undertaken. PIA data was obtained from WSP's in house GIS database of personal injury accidents and compared against the online personal injury accident website CrashMap¹⁰.

5.2 PIA REVIEW

- 5.2.1 The total number of recorded PIAs on the Study Area was as follows:
 - A713 – 19 PIAs.
 - B729 (south-east of Carsphairn) – one PIA.
- 5.2.2 The locations of these PIAs can be seen in **Plate 5.1** and **Plate 5.2**, while **Annex C: PIA Summary** provides a detailed summary of all 20 of the PIAs recorded. The PIA locations are labelled with a numerical 'Figure ID' 1–20 which corresponds to the first column in **Annex C: PIA Summary**.
- 5.2.3 These Figures are provided at a larger scale in **Annex A: Figures**.
- 5.2.4 Two fatal PIAs (ID's 5 and 11) have been recorded in the Study Area in the five year period, 2018 – 2022, both north of The Site on the A713. One (ID 5), between Dalmellington and Patna in July 2021, involved four cars and led to two fatalities. It was concluded in the police report that aggressive driving and driving in excess of the speed limit contributed to this accident, through loss of control. The second (ID 11), south of Dalmellington in April 2019, involved the rider of a motorcycle appearing to lose control before striking a fence. It was concluded in the police report that although the road bend may have contributed to the accident that the motorcyclist was travelling too fast for the road conditions, and that as a result of failing to look properly the driver lost control.
- 5.2.5 The road conditions at the time of the PIA nearest to The Site area (ID 16) in which the highest casualty severity was serious injury, approximately 900 m south of the proposed access, may have contributed to what appears to be a loss of control accident involving a single vehicle during daylight, in dry, fine weather.

5.3 PIA SUMMARY

- 5.3.1 Based on the information available, it is considered that there are no specific road safety issues in the Study Area that currently require to be addressed or would be exacerbated by the construction of the Proposed Development. It is considered that measures proposed in the framework CTMP will address any potential safety concerns relating to vehicles associated with the construction of the Proposed Development.
- 5.3.2 Should Dumfries and Galloway Council have any specific concerns relating to road safety in the vicinity of the Proposed Development, The Applicant and their project team & partners would be happy to engage on this matter further -post consent, with any specific measures secured by an appropriate Planning Condition.

¹⁰ Agilysis (2025). Available at: <https://www.crashmap.co.uk/>.

Plate 5.1 Holm Hill Substation – Northern Study Area PIA Locations

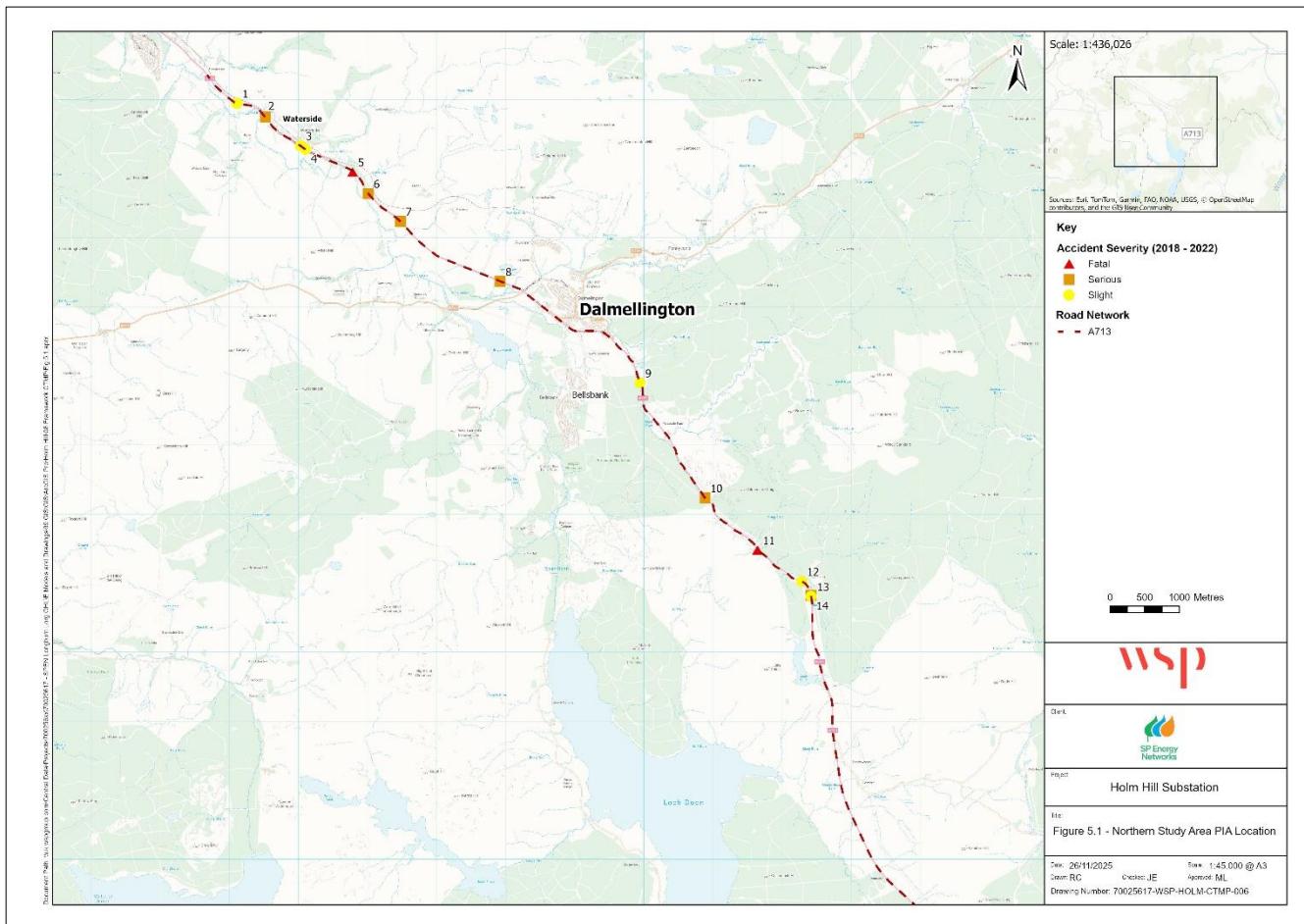
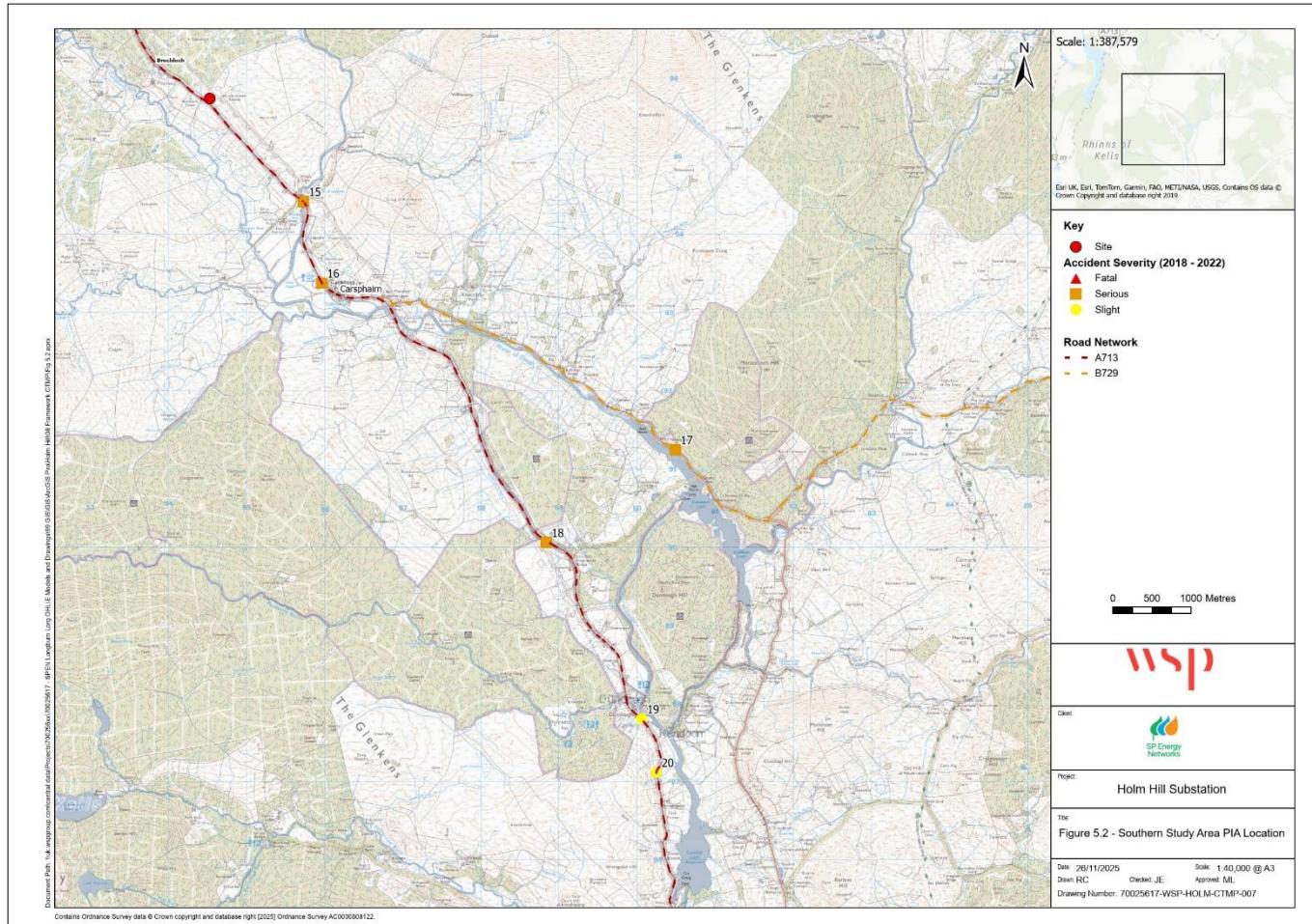


Plate 5.2 Holm Hill Substation – Southern Study Area PIA Locations



6 ROAD CONDITION AND STRUCTURAL SURVEYS

ROAD CONDITION SURVEYS

- 6.1.1 The Applicant is committed to maintaining a minimum level of service of local roads so that local road users are not unnecessarily adversely affected by the construction of the Proposed Development. To this end, they would work closely with Dumfries and Galloway Council to undertake condition surveys and inspections at the following stages of the project:
- 6.1.2 Prior to the commencement of construction works. A copy of the road condition survey shall be provided to Dumfries and Galloway Council within 21 days of the carrying out of the survey.
- 6.1.3 At regular intervals during the life of the construction programme to enable running repairs.
- 6.1.4 Following the completion of the construction works. A copy of the road condition survey shall be provided to Dumfries and Galloway Council within 21 days of the carrying out of the survey.
- 6.1.5 In addition, it is proposed to undertake monthly visual inspections of the proposed access routes to ensure that running repairs can be undertaken as necessary. Should any damage be noted by members of the public or Site staff between monthly inspections these should be notified to the Community Liaison Officer or Site Manager to allow repairs to be undertaken. All repairs would be undertaken by approved contractors. The extent of the surveys would be agreed with Dumfries and Galloway Council post consent and secured by way of an appropriately worded Planning Condition.
- 6.1.6 It is proposed to undertake the above works as part of a Section 96 agreement.

6.2 STRUCTURAL SURVEYS

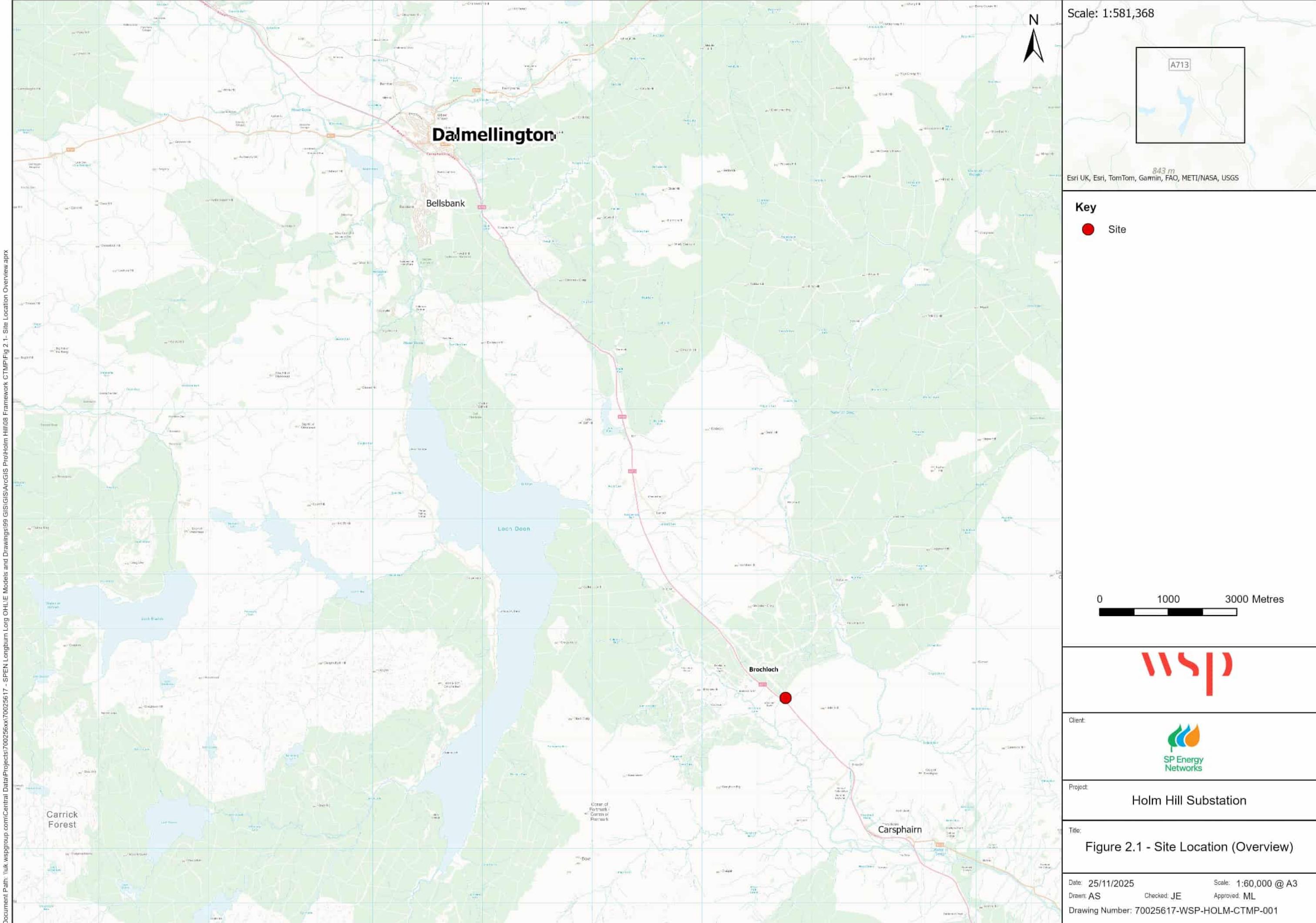
- 6.2.1 As part of the condition survey, an assessment of all structures on the proposed access routes, including bridges, culverts and retaining walls, would be undertaken to the satisfaction of Dumfries and Galloway Council. The assessment would identify any necessary remedial works required to accommodate both general construction traffic and abnormal load movements. Following confirmation of the control building components manufacturer, The Applicant would provide detailed axle load configurations to Dumfries and Galloway Council prior to a BD 2/12 Inspection and Assessment being undertaken based on the following:
- 6.2.2 All walls retaining more than 1.5 m of retained height of fill supporting the carriageway that are viewed by Dumfries and Galloway Council as being unable to support the abnormal loads. (The Applicant would need to identify the locations of these walls and inspect them.)
- 6.2.3 All bridges and culverts over 2 m span (or 0.9 m span if corrugated steel pipe) that are viewed by Dumfries and Galloway Council as being unable to support the abnormal loads.
- 6.2.4 An Environmental Clerk of Works would be employed on site, whose remit would also include works undertaken on the proposed access routes. This would include ensuring drainage and pollution control measures are effectively implemented and monitored throughout the construction period.

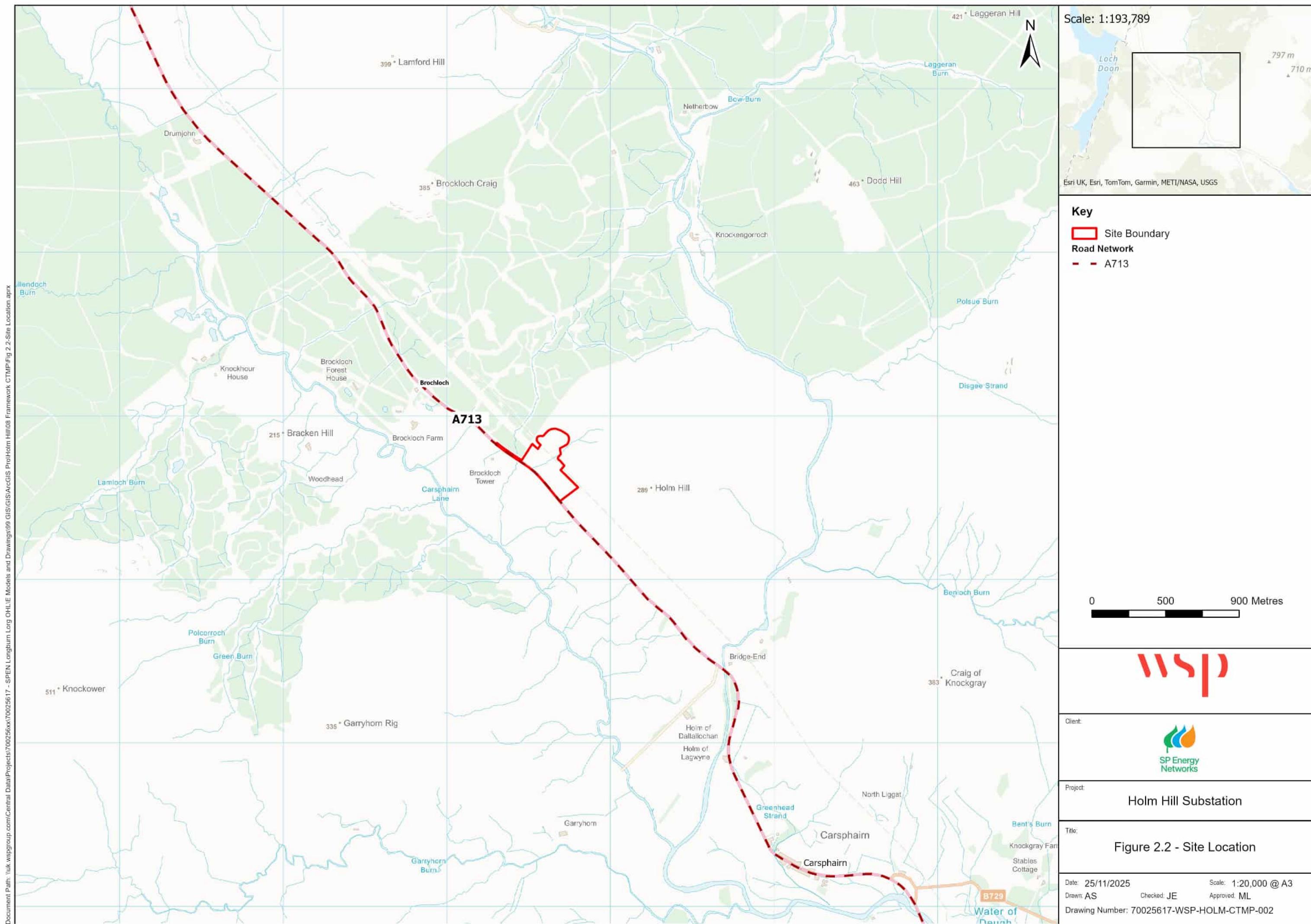
7 ROAD MAINTENANCE

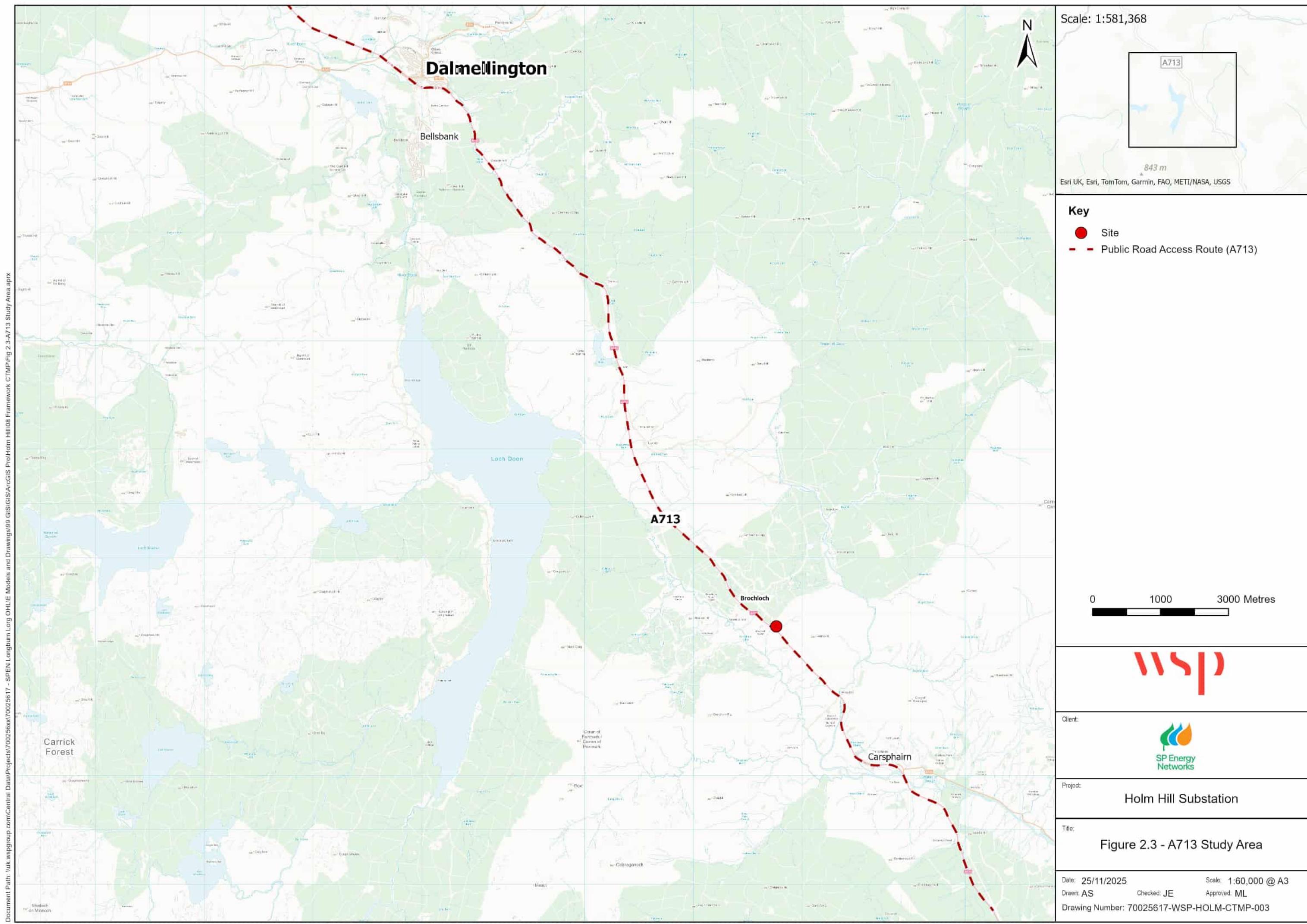
7.1 ON SITE WHEEL WASHING FACILITIES

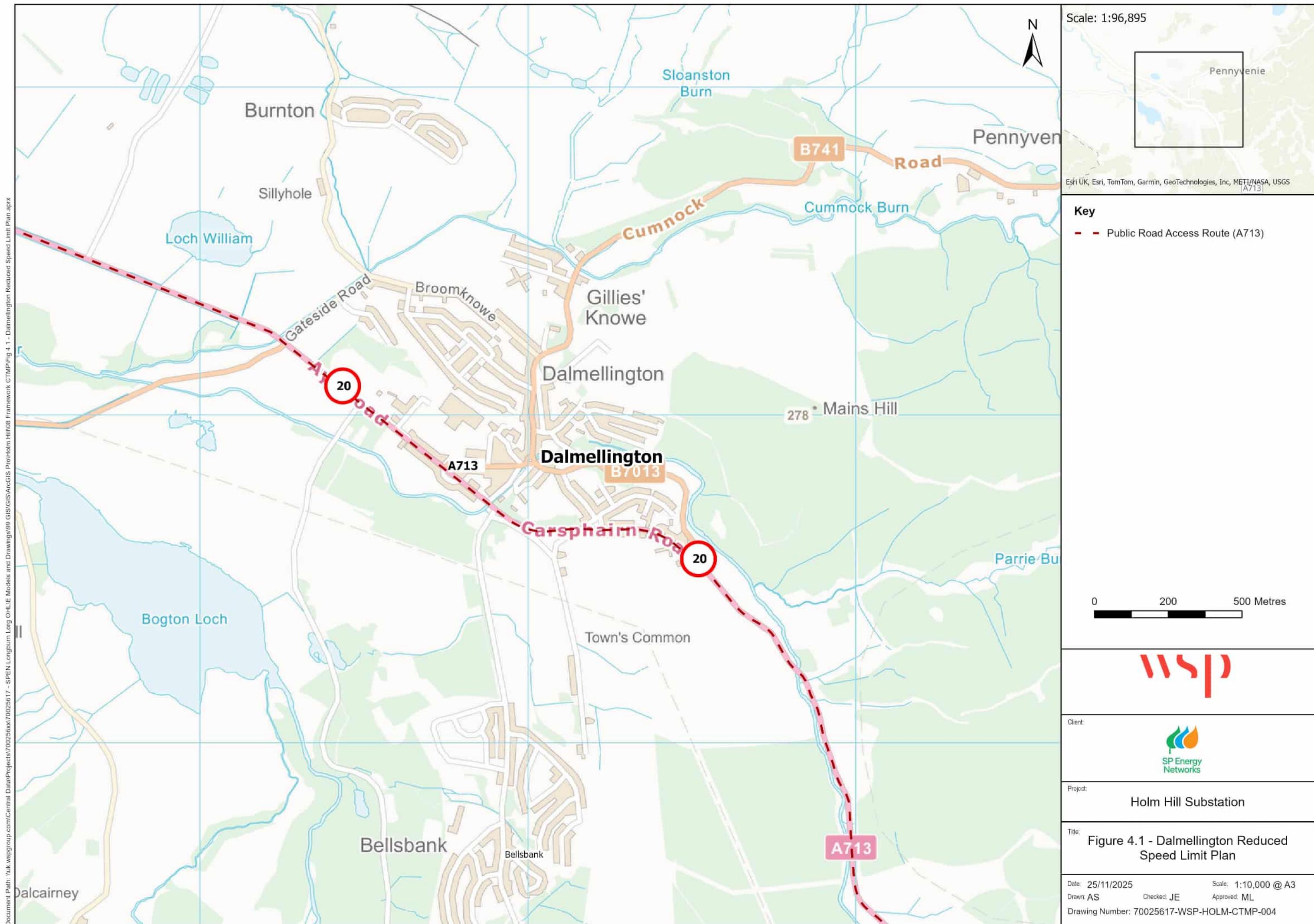
- 7.1.1 Construction vehicles that are required to enter the public road would be required to make use of on site wheel washing facilities. These would be set up at an appropriate location inside The Site to remove any mud or debris liable to be tracked onto the public road.
- 7.1.2 The type of wheel wash facilities would be agreed with Dumfries and Galloway Council prior to installation. WSP is aware from experience, some highway authorities consider it inappropriate to apply a wet wheel wash, as these can cause vehicles to deposit water and some mud onto the road surface in the vicinity of The Site access, which could cause additional hazards for road users in cold weather when there is an increased risk of freezing.
- 7.1.3 It is proposed that regular inspections would be undertaken, and a road sweeper employed as necessary, to remove any mud or debris that has been transferred onto the roads from any activities in the vicinity of the proposed Site access junction with the A713.
- 7.1.4 It is also proposed to undertake regular inspections of existing drainage channels, gullies and drains in the vicinity of the proposed Site access junction to maintain existing drainage function and avoid any pooling of water.

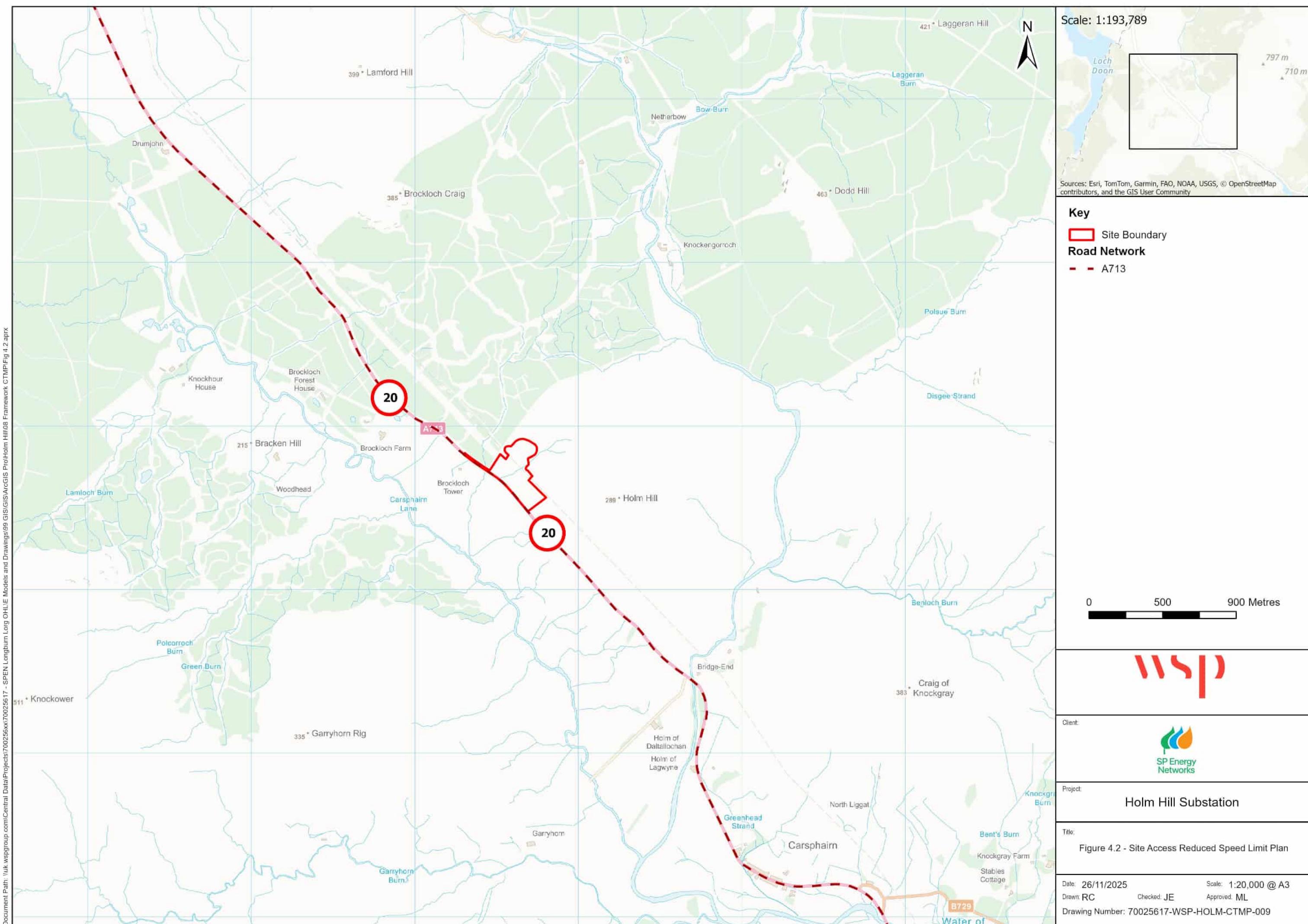
ANNEX A: FIGURES

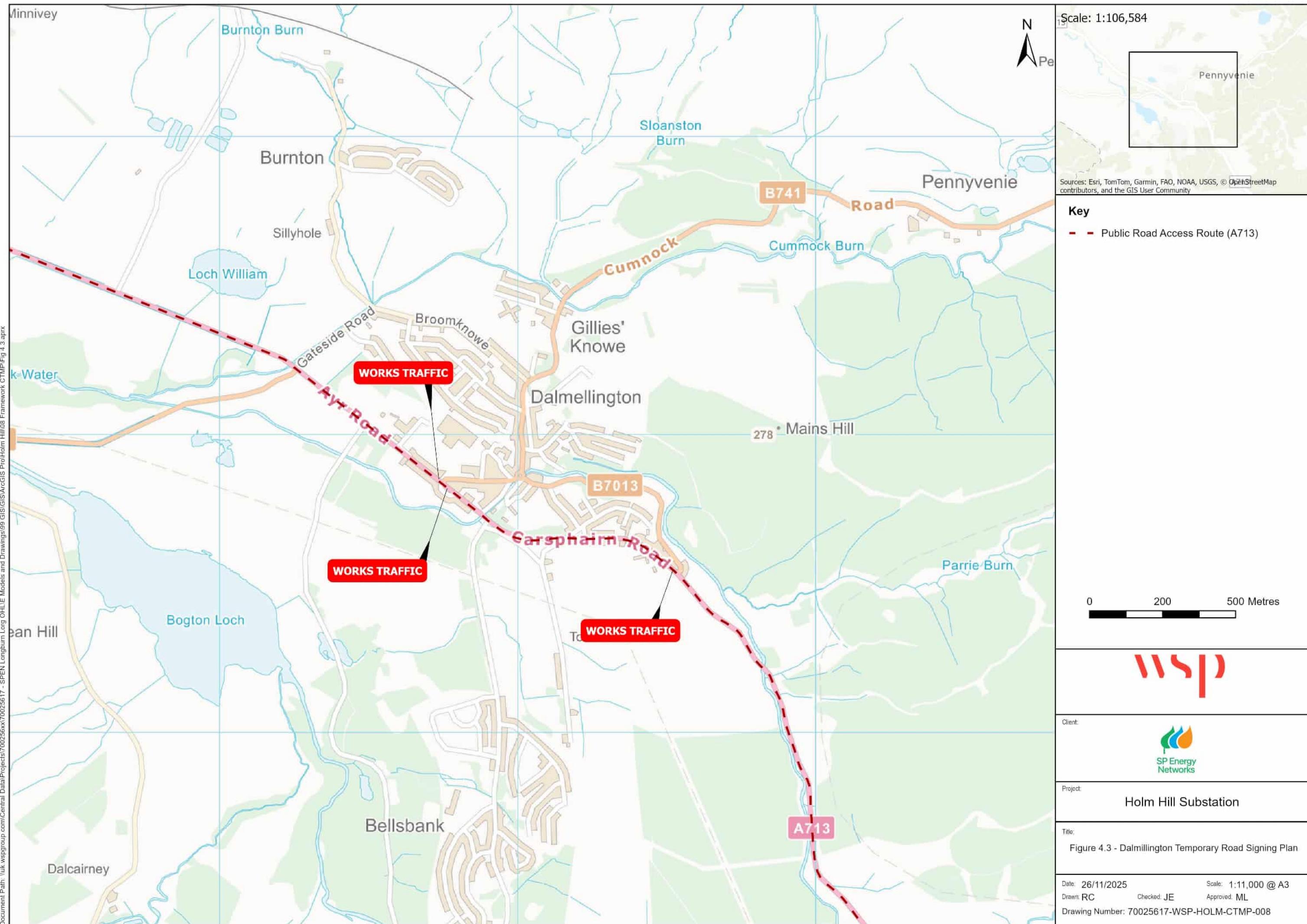


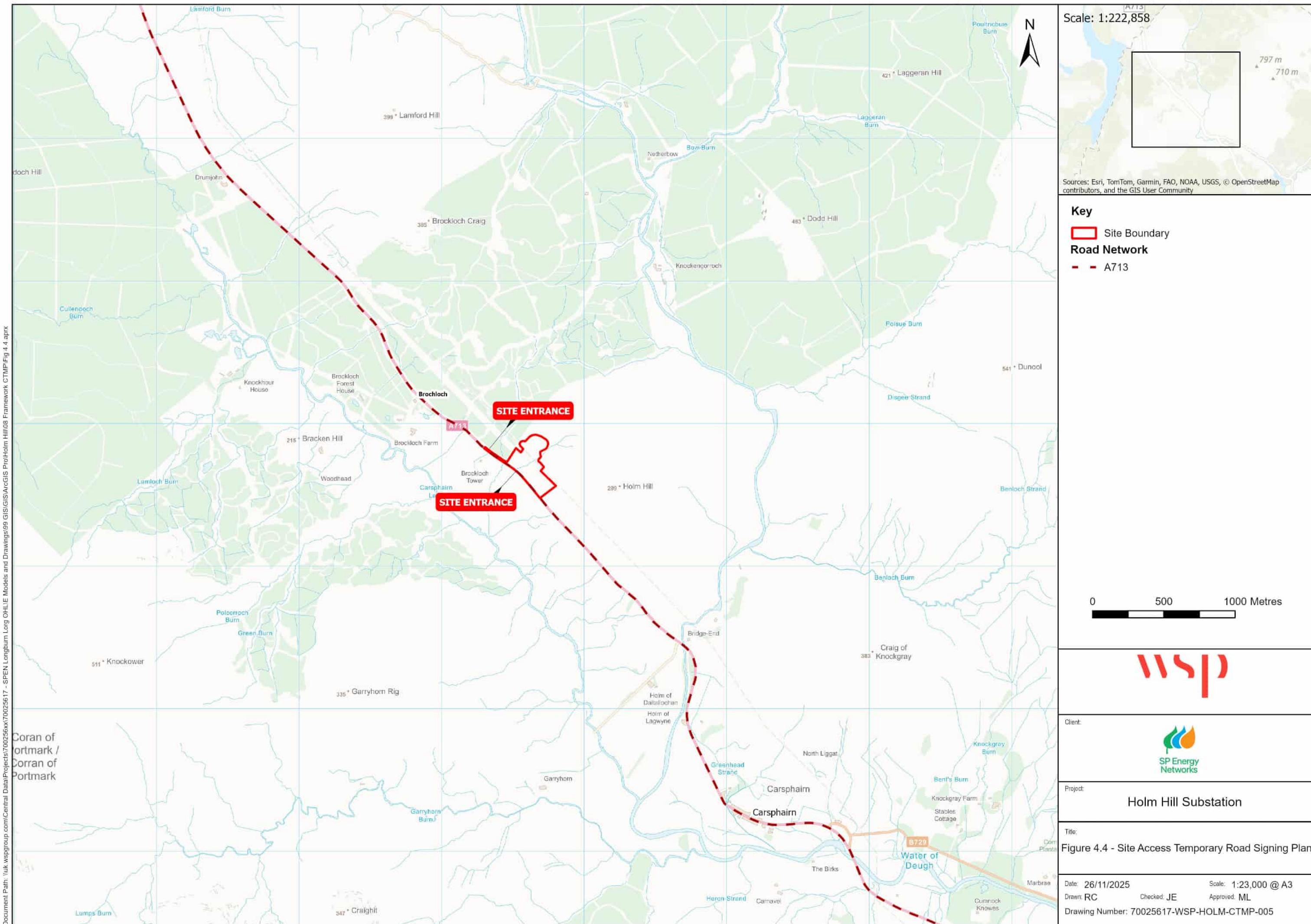


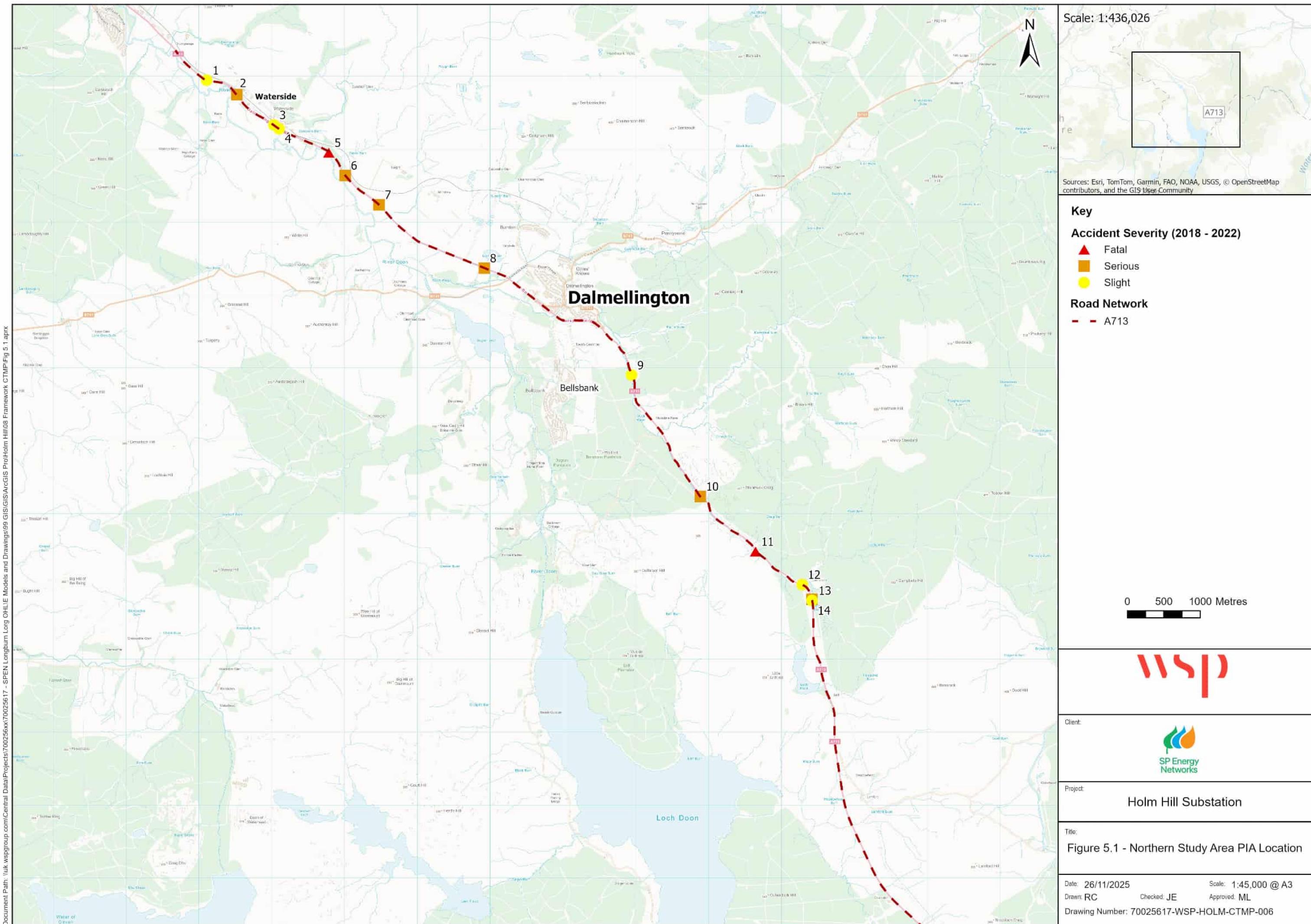


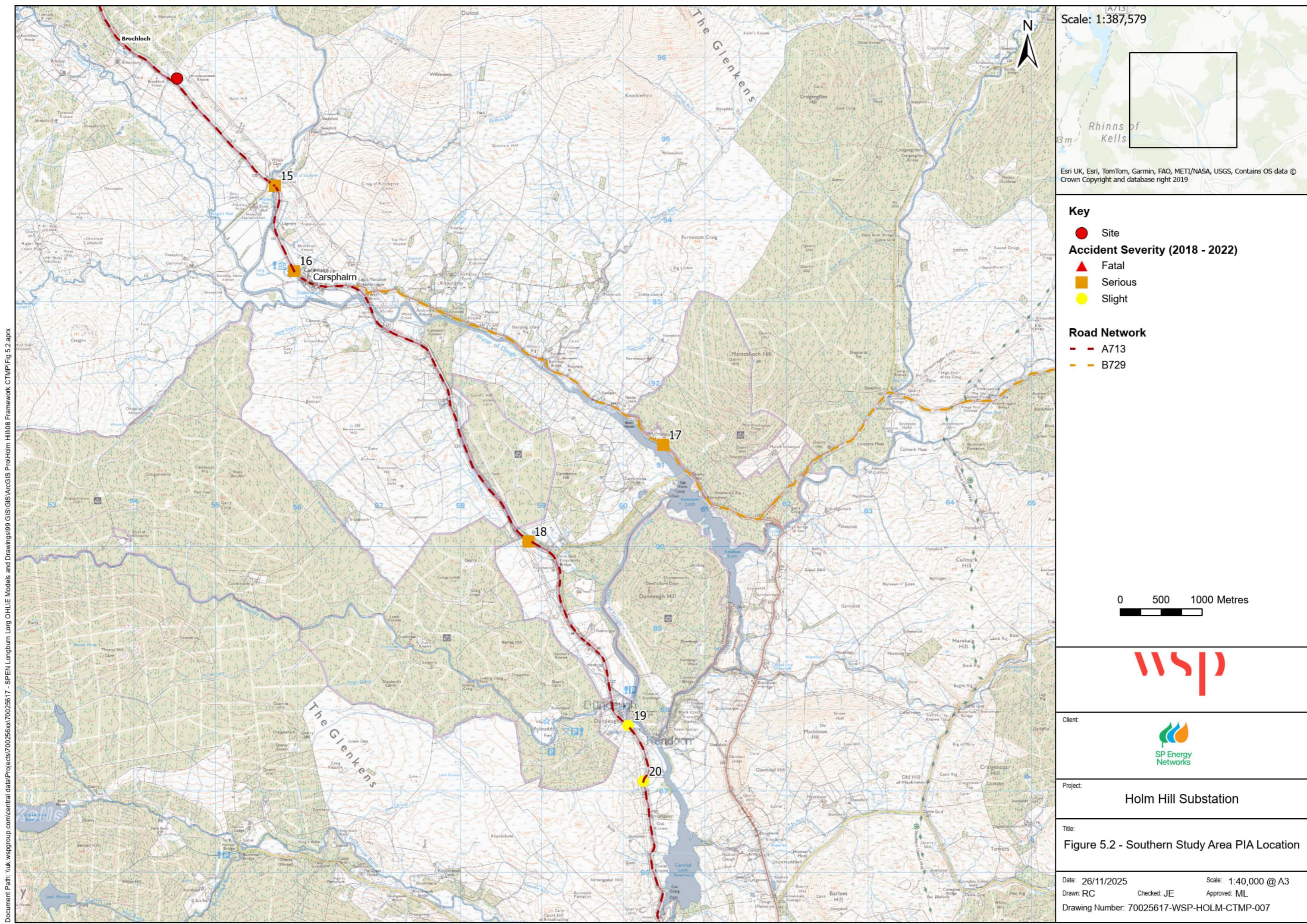




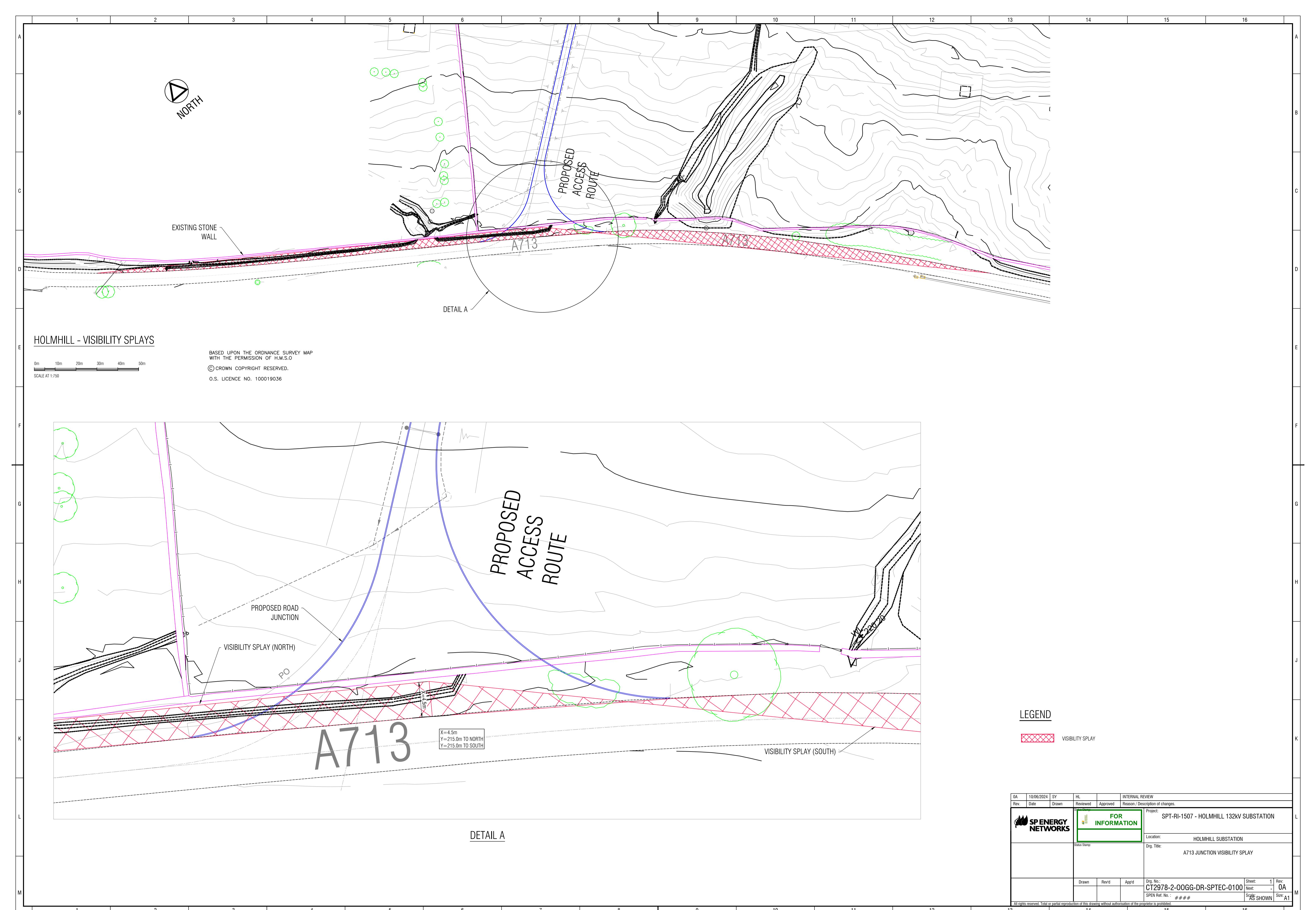








ANNEX B: A713 JUNCTION VISIBILITY SPLAY



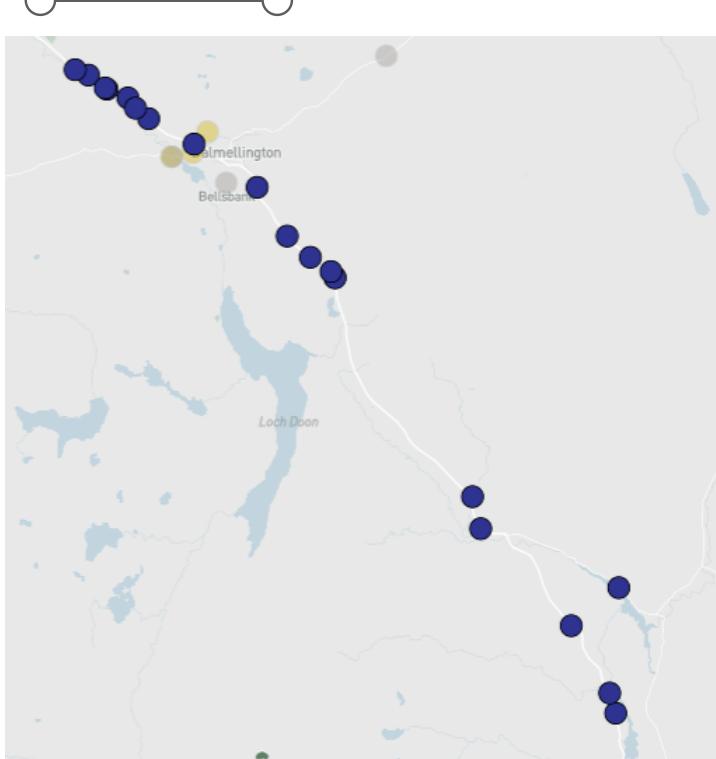
ANNEX C: PIA SUMMARY

Personal Injury Accident - Holm Hill Substation

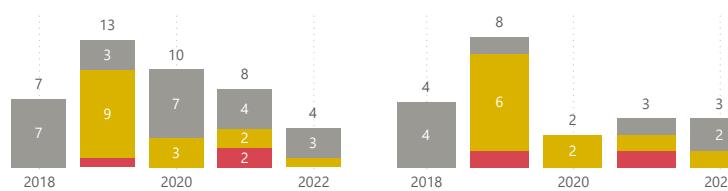
Figure ID	Severity	Accident ID	Vehicle Reference	Day of Collision	Month of Collision	Collision Year	Hour of Collision	Grouped Vehicle Type	Vehicle Manoeuvre	Vehicle Direction From	Vehicle Direction to	Weather Conditions	Light Conditions	Road Surface Conditions	Pedestrian Crossing Physical Facilities
1	Slight	2018097UC70101	1	5	January	2018	9	Car	Going ahead right-hand bend	East	West	Fine no high winds	Daylight	Frost or ice	No physical crossing facilities within 50 metres
2	Serious	20220991157175	1	23	March	2022	23	Car	Going ahead right-hand bend	North West	South East	Fine no high winds	Darkness - no lighting	Dry	No physical crossing facilities within 50 metres
3	Slight	20210991014362	1	14	January	2021	0	Car	Going ahead right-hand bend	South East	West	Raining no high winds	Darkness - no lighting	Wet or damp	No physical crossing facilities within 50 metres
4	Slight	20220991140460	1	5	February	2022	15	Car	Going ahead right-hand bend	South East	North West	Raining + high winds	Daylight	Wet or damp	No physical crossing facilities within 50 metres
5	Fatal	20210991069154	1	22	July	2021	16	Car	Going ahead right-hand bend	North West	South East	Fine no high winds	Daylight	Dry	No physical crossing facilities within 50 metres
5	Fatal	20210991069154	2	22	July	2021	16	Car	Going ahead left-hand bend	South East	North West	Fine no high winds	Daylight	Dry	No physical crossing facilities within 50 metres
5	Fatal	20210991069154	3	22	July	2021	16	Car	Going ahead left-hand bend	South East	North West	Fine no high winds	Daylight	Dry	No physical crossing facilities within 50 metres
5	Fatal	20210991069154	4	22	July	2021	16	Car	Going ahead other	North West	South East	Fine no high winds	Daylight	Dry	No physical crossing facilities within 50 metres
6	Serious	20200990962113	1	5	July	2020	12	Car	Overtaking moving vehicle - offside	North West	South East	Raining no high winds	Daylight	Wet or damp	No physical crossing facilities within 50 metres
6	Serious	20200990962113	2	5	July	2020	12	Car	Waiting to go - held up	North	South East	Raining no high winds	Daylight	Wet or damp	No physical crossing facilities within 50 metres
6	Serious	20200990962113	3	5	July	2020	12	Minibus, bus or coach	Going ahead other	South East	North West	Raining no high winds	Daylight	Wet or damp	No physical crossing facilities within 50 metres
7	Serious	20190970904235	1	22	November	2019	22	Car	Overtaking moving vehicle - offside	South East	North West	Fine no high winds	Darkness - no lighting	Wet or damp	No physical crossing facilities within 50 metres
7	Serious	20190970904235	2	22	November	2019	22	Car	Going ahead other	North West	South East	Fine no high winds	Darkness - no lighting	Wet or damp	No physical crossing facilities within 50 metres
7	Serious	20190970904235	3	22	November	2019	22	Minibus, bus or coach	Going ahead left-hand bend	South East	North West	Fine no high winds	Darkness - no lighting	Wet or damp	No physical crossing facilities within 50 metres
8	Serious	20190970906334	1	5	December	2019	18	Car	Going ahead other	South East	West	Raining + high winds	Darkness - no lighting	Wet or damp	No physical crossing facilities within 50 metres
9	Slight	20190970862898	1	29	July	2019	13	Car	Going ahead left-hand bend	South East	East	Other	Daylight	Wet or damp	No physical crossing facilities within 50 metres
10	Serious	20210991055317	1	13	June	2021	18	Powered 2 wheeler	Going ahead right-hand bend	South East	North	Raining no high winds	Daylight	Wet or damp	No physical crossing facilities within 50 metres
11	Fatal	2019097UC70304	1	17	April	2019	17	Powered 2 wheeler	Going ahead right-hand bend	South East	North East	Fine no high winds	Daylight	Dry	No physical crossing facilities within 50 metres
12	Slight	2018097UC70708	1	18	August	2018	18	Car	Going ahead other	South East	North	Raining no high winds	Daylight	Wet or damp	No physical crossing facilities within 50 metres
13	Serious	2019097UC40205	1	13	May	2019	16	Powered 2 wheeler	Overtaking - nearside	South East	North	Fine no high winds	Daylight	Dry	No physical crossing facilities within 50 metres
13	Serious	2019097UC40205	2	13	May	2019	16	Car	Going ahead other	North	South East	Fine no high winds	Daylight	Dry	No physical crossing facilities within 50 metres
14	Slight	20220991184481	1	4	June	2022	23	Car	Going ahead other	North	South East	Fine no high winds	Darkness - no lighting	Dry	No physical crossing facilities within 50 metres
15	Serious	20190982104719	1	21	June	2019	16	Powered 2 wheeler	Slowing or stopping	South East	North West	Fine no high winds	Daylight	Dry	No physical crossing facilities within 50 metres
16	Serious	20190980889396	1	18	October	2019	9	Car	Turning right	South West	South East	Fine no high winds	Daylight	Wet or damp	No physical crossing facilities within 50 metres
16	Serious	20190980889396	2	18	October	2019	9	Car	Going ahead right-hand bend	South East	North	Fine no high winds	Daylight	Wet or damp	No physical crossing facilities within 50 metres
17	Serious	20200990960707	1	28	June	2020	14	Goods vehicle	Going ahead left-hand bend	South East	West	Raining no high winds	Daylight	Wet or damp	No physical crossing facilities within 50 metres
17	Serious	20200990960707	2	28	June	2020	14	Car	Going ahead right-hand bend	North West	South East	Raining no high winds	Daylight	Wet or damp	No physical crossing facilities within 50 metres
18	Serious	20190980881603	1	25	September	2019	14	Car	Overtaking moving vehicle - offside	South East	North West	Fine no high winds	Daylight	Wet or damp	No physical crossing facilities within 50 metres
18	Serious	20190980881603	2	25	September	2019	14	Car	Going ahead left-hand bend	North West	South East	Fine no high winds	Daylight	Wet or damp	No physical crossing facilities within 50 metres
18	Serious	20190980881603	3	25	September	2019	14	Car	Going ahead right-hand bend	South East	North West	Fine no high winds	Daylight	Wet or damp	No physical crossing facilities within 50 metres
18	Serious	20190980881603	4	25	September	2019	14	Car	Going ahead right-hand bend	South East	North West	Fine no high winds	Daylight	Wet or damp	No physical crossing facilities within 50 metres
19	Slight	20180982106618	1	29	June	2018	13	Car	Going ahead other	South East	North	Fine no high winds	Daylight	Dry	No physical crossing facilities within 50 metres
20	Slight	20180982111418	1	1	December	2018	6	Car	Going ahead right-hand bend	South East	North	Raining no high winds	Darkness - no lighting	Wet or damp	No physical crossing facilities within 50 metres

Time covered

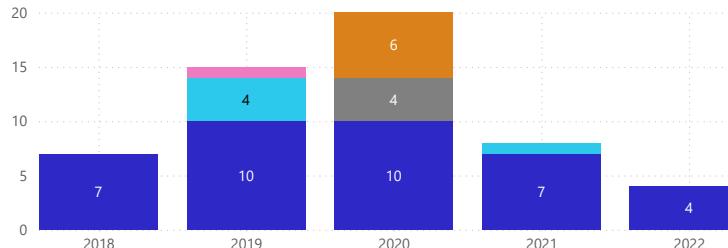
1/1/2018 12/31/2022



Casualties by year



Casualty mode of travel



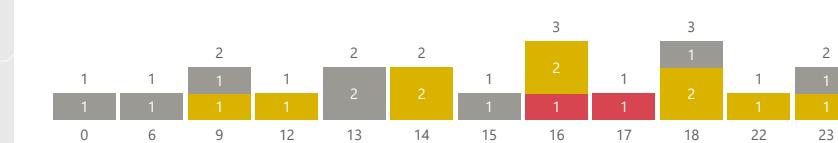
Casualty mode of travel (rows) by vehicle in same collision (columns)

Grouped casualty type	Car	Goods vehicle	Minibus, bus ...	No other veh...	Other veh...	Pedal Cycle	Powered 2 whe...	Taxi/Private hire	Unknown / M...	Total
Agricultural vehicle occupant	0	0	0	0	0	0	0	0	0	0
Car occupant	1	2	0	13	0	0	1	0	14	31
Cyclist	0	0	0	0	0	0	0	0	0	0
Goods vehicle occupant	2	0	0	0	0	0	0	0	0	2
Horse rider	0	0	0	0	0	0	0	0	0	0
Minibus, bus or coach occupant	0	0	0	0	0	0	0	0	4	4
Mobility scooter rider	0	0	0	0	0	0	0	0	0	0
Motorcyclist	1	0	0	3	0	0	0	0	0	4
Other vehicle occupant	0	0	0	0	0	0	0	0	0	0
Total	5	2	0	16	0	0	0	1	0	42

Driver Journey Purpose

Not known	8	6	15
Other	3	7	10
Commuting to/fro...	2	4	
Journey as part of ...	4	4	
(Blank)			
Data missing or o...			

Hour



Contributory Factor

Contributory Factor	Collisions
Loss of control	4
Travelling too fast for conditions	3
Driver/Rider failed to look properly	2
Exceeding speed limit	2
Slippery road (due to weather)	2
Aggressive driving	1
Driver/Rider careless, reckless or in a hurry	1
Driver/Rider failed to judge other person's path or speed	1
Driver/Rider impaired by alcohol	1
Fatigue	1
Pedestrian impaired by alcohol	1
Pedestrian impaired by drugs (illicit or medicinal)	1
Pedestrian wearing dark clothing at night	1
Poor turn or manoeuvre	1
Road layout (eg. bend, winding road, hill crest)	1
Swerved	1
Animal or object in carriageway	0
Buildings, road signs, street furniture	0
Crossing road masked by stationary or parked vehicle	0
Cyclist entering road from pavement	0
Dangerous action in carriageway (eg. playing)	0
Dazzling headlights	0
Dazzling sun	0
Defective brakes	0
Defective lights or indicators	0
Total	20

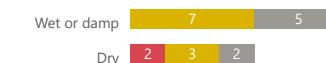
Vehicle Manoeuvre

Going ahead right-hand bend	2	6	4	12
Going ahead other	1	4	3	8
Going ahead left-hand bend	2	3	1	6
Overtaking moving vehicle - of...	3	3		
Overtaking - nearside	1	1		
Slowing or stopping	1	1		

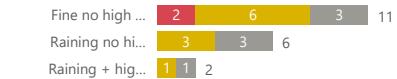
Light Conditions



Road Surface Condition



Weather



Light Conditions

Light conditions (grouped by day)



Weather

Weather conditions (grouped by day)

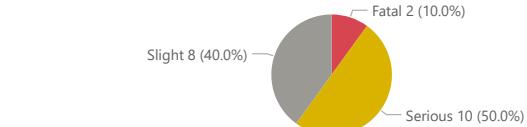


Road Surface Condition

Road surface condition (grouped by day)



Severity of collisions

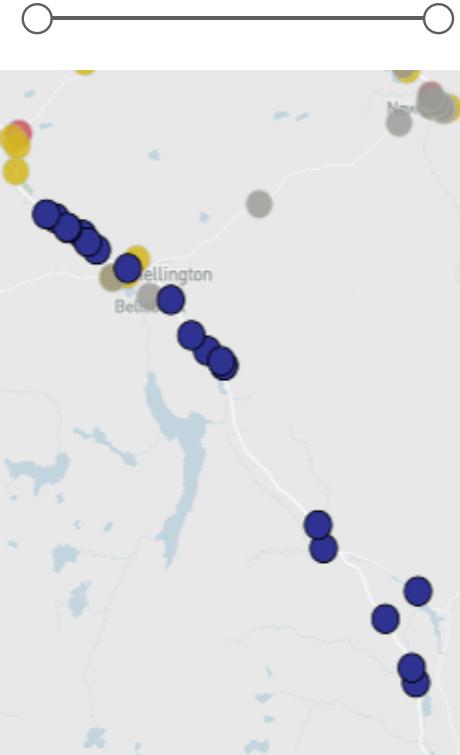




Personal Injury Accident - Holm Hill Substation

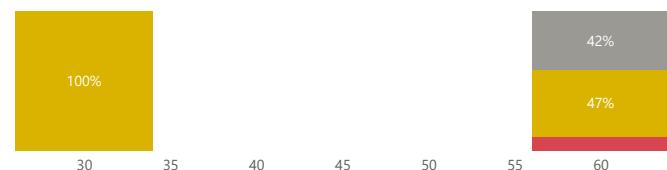
Time covered

1/1/2018 12/31/2022

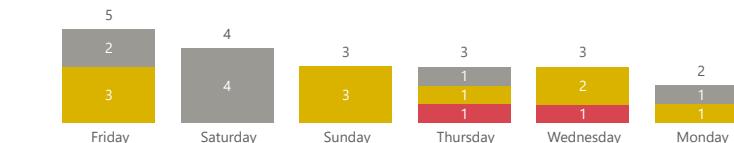


Speed limit

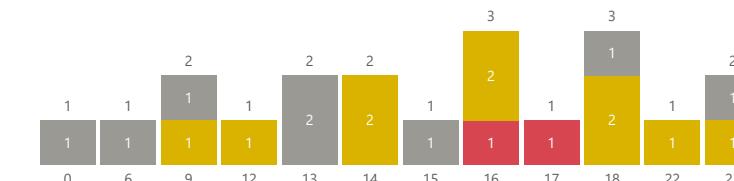
casualty severity ● Fatal ● Serious ● Slight



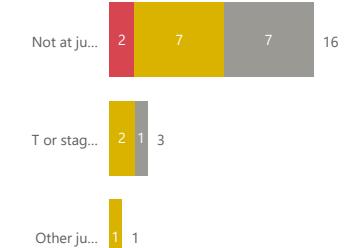
Day of the week



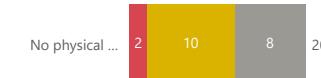
Hour



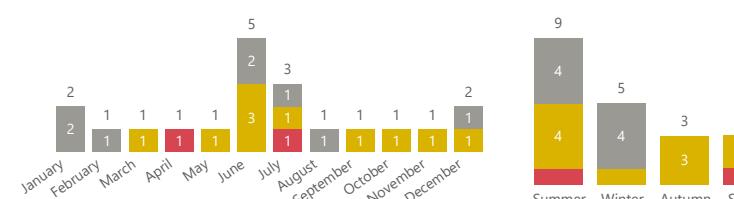
Junction Detail



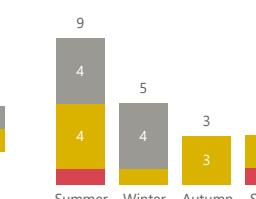
Pedestrian Crossing Facilities



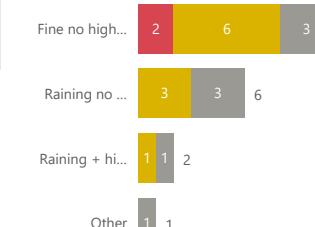
Month



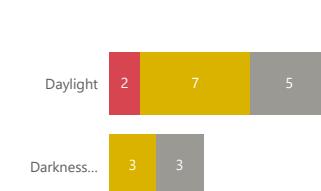
Season



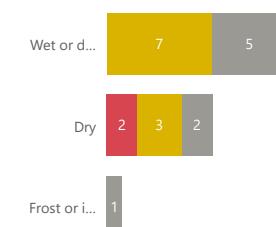
Weather



Light Conditions



Road Surface Condition

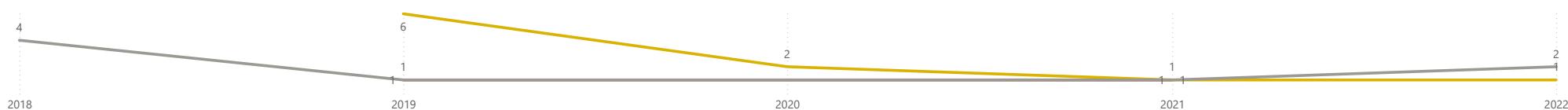
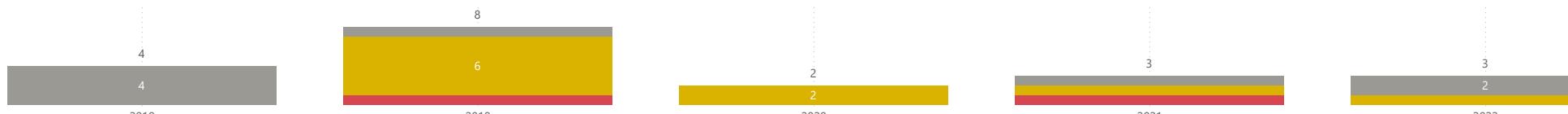


Light Conditions

light_condition ● Darkness ● Daylight



Collisions by quarter





Personal Injury Accident - Holm Hill Substation

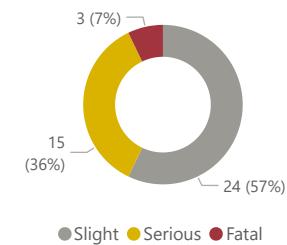


Collisions	Casualties	Vehicles
20	42	33

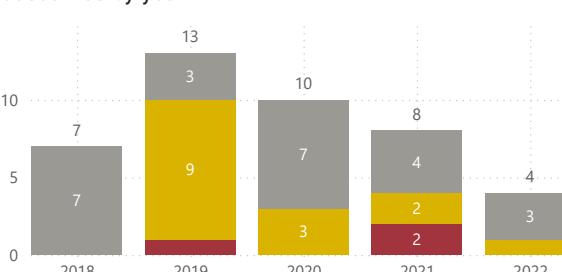
Period covered

1/1/2018
12/31/2022

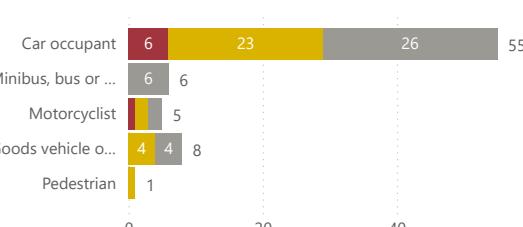
Casualty Severity



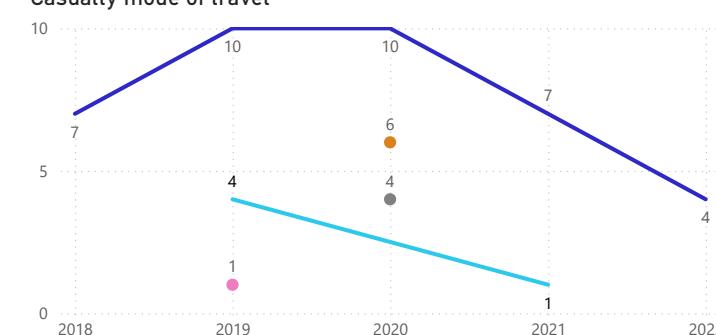
Casualties by year



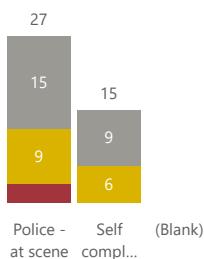
Casualty mode of travel



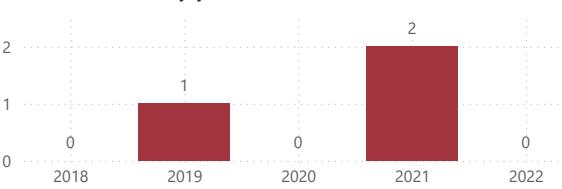
Casualty mode of travel



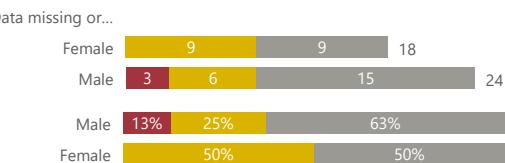
Casualties by collision reporting method



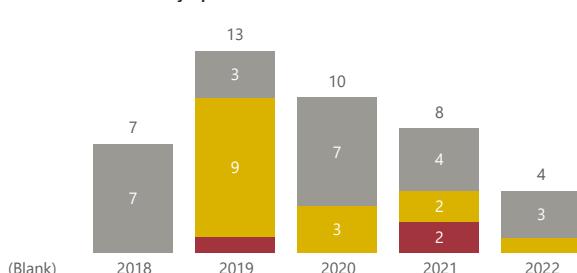
Fatal casualties by year



Casualty Gender



Casualties over time by quarter



Casualty Age

